



INTEGRATION PACK FOR BMC Helix ITSM

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 **Kelverion_Integration_Pack_for_BMC_Helix_ITSM_4.3**

For System Center 2022 and later, you must use the 64-bit version of the integration pack, which has the name **Kelverion_IP_BMC_Helix_ITSM_x64_4.3**

User Guide

Version 4.3

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Kelverion Integration Pack for BMC Helix ITSM

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Installation and Configuration

The Integration Pack for BMC Helix ITSM is an add-on for System Center Orchestrator that enables you to integrate with BMC Helix ITSM and Remedy ITSM.

System Requirements

The Integration Pack for BMC Helix ITSM requires the following software to be installed and configured prior to implementing the integration. For more information about installing and configuring System Center Orchestrator and BMC Helix ITSM refer to the respective product documentation.

Kelverion_Integration_Pack_for_BMC_Helix_ITSM (32-bit)

- Microsoft System Center Orchestrator 2016, 2019
- Microsoft .NET Framework 4.7.2

Kelverion_IP_BMC_Helix_ITSM_x64 (64-bit)

- Microsoft System Center Orchestrator 2022
- Microsoft .NET Framework 4.7.2

This integration is compatible with

- BMC Helix ITSM Online
- BMC Remedy ITSM 20.02

Important: The **Kelverion Integration Pack for BMC Helix ITSM** supports direct, in-place upgrading of Orchestrator instances where the **Kelverion Integration Pack for BMC Remedy AR System** is deployed. All your Remedy activities and global configurations will be updated and rebranded, however, you will have to update your global configurations so that they point to the correct BMC Remedy/Helix ITSM REST API server.

The Kelverion Integration Pack for BMC Helix ITSM **does not** support direct importation of Orchestrator export files that reference the Kelverion Integration Pack for BMC Remedy AR System. This is because the process of importing these runbooks may override the global configuration rebranding that was performed with the Kelverion Integration Pack for BMC Helix ITSM was deployed using the Orchestrator Deployment Manager. To help customers overcome this issue, the Integration Pack for BMC Helix ITSM is deployed with a PowerShell script (Update-RemedyExport.ps1) that can be used to update Orchestrator export files **before** importing them into your Integration Pack for BMC Helix ITSM Orchestrator instances.

```
.\Update-RemedyExport.ps1 -InputPath <File to Update> -OutputPath <Updated File>
```

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_BMC_Helix_ITSM**
- For System Center 2022 and later, you must use the 64-bit version of the integration pack, which has the name **Kelverion_IP_BMC_Helix_ITSM_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 Orchestrator 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 that 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.
11. For more information about how to install integration packs, see the [How to Install an Integration Pack](https://technet.microsoft.com/en-us/library/hh420346.aspx) (https://technet.microsoft.com/en-us/library/hh420346.aspx).

Upgrading from Kolverion Integration Pack for Remedy AR System

The Integration Pack for BMC Helix ITSM is a new integration pack from Kolverion; however, it does support migrating from runbooks that use the older Kolverion Integration Pack for Remedy AR System. This migration is handled automatically, but there are a few post deployment tasks that you must carry out before your runbooks will work.

After registering and deploying the integration pack you will notice that your KA BMC Remedy AR System global configurations have been renamed to **KA BMC Helix ITSM**. Each one of these configurations must be updated for them to be used by the activities in the new integration pack.

To upgrade your global connections:

1. Start Orchestrator Runbook Designer.
2. On the **Options** menu, select **KA BMC Helix ITSM**.
3. Select the first configuration and click **Edit**.
4. In the **Helix ITSM Server** box, enter the URL of the ITSM web server (ex. https://myserver.onbmc.com:443). Contact you ITSM administrator for the correct URL.
5. In the **Username** and **Password** boxes, enter your ITSM credentials.
6. Optionally, set **Use Legacy REST API** to **True** is you are using a version of Remedy AR System that does not support Remedy/Helix ITSM REST API version 1.0.
7. Make additional changes as appropriate for your environment.
8. Click **OK**.
9. Repeat from each additional configuration.
10. Click **Finish**.

Importing Remedy AR System Runbooks

It is also necessary to upgrade your configurations after importing runbooks containing Keverion Integration Pack for Remedy AR System activities.

To upgrade your imported global connections:

1. Start Orchestrator Runbook Designer.
2. On the **Options** menu, select **KA BMC Helix ITSM**.
3. Select the **first Remedy AR System** configuration and click **Edit**.
4. Click the ellipsis (...) button next to the **Type** box and select **BMC Helix ITSM**.
5. In the **Helix ITSM Server** box, enter the URL of the ITSM web server (ex. https://myserver.onbmc.com:443). Contact your ITSM administrator for the correct URL.
6. In the **Username** and **Password** boxes, enter your ITSM credentials.
7. Optionally, set **Use Legacy REST API** to **True** if you are using a version of Remedy AR System that does not support Remedy/Helix ITSM REST API version 1.0.
8. Make additional changes as appropriate for your environment.
9. Click **OK**.
10. Repeat from each additional configuration.
11. Click **Finish**.

Licensing the Integration Pack

After you register and deploy the integration pack you must provide a valid Keverion license before running any runbooks that contain activities from the integration pack

To deploy the integration pack license file to System Center Orchestrator 2019 or earlier:

1. Copy the .KAL license file to %PROGRAMFILES(X86)%\Keverion Automation\Licenses
2. Repeat for each Orchestrator Runbook Server and Runbook Designer host system.

To deploy the integration pack license file to System Center Orchestrator 2022 or later:

1. Copy the .KAL license file to %PROGRAMFILES%\Keverion Automation\Licenses
2. Repeat for each Orchestrator Runbook Server and Runbook Designer host system.

Important: If you are upgrading an existing deployment of the Keverion Integration Pack for BMC Remedy AR System, you must contact your sales contact or info@kelverion.com to obtain a new license.

Configuring the Kolverion Integration Pack for BMC Helix ITSM Connections

A configuration establishes a reusable link between System Center Orchestrator and a BMC Helix ITSM server. You can create as many connections as you require specifying links to multiple Helix ITSM servers. You can also create multiple connections to the same server to allow for differences in security permissions for different user accounts.

To set up a BMC Helix ITSM configuration:

1. In the Client, click the **Options** menu, and select **KA BMC Helix ITSM**.
2. On the **Configurations** tab, click **Add** to begin the connection setup. The **Add Configuration** dialog box appears.
3. Click the ellipsis (...) button next to the **Type** box and select **BMC Helix ITSM**.
4. In the **Name** box, enter a name for the connection.
5. In the **Helix ITSM Server** box, enter the URL of the BMC Helix ITSM web server. For example, <https://mycompany.onbmc.com:443>
6. In the **Username** and **Password** boxes, type the credentials that Orchestrator will use to connect to the BMC Helix ITSM.
7. Optionally, in the **Authentication** box, type the authentication text used to connect to connect to the server
8. Optionally, set **Use Legacy REST API** to **True** if you are using a version of Remedy AR System that does not support Remedy/Helix ITSM REST API version 1.0.
9. Optionally, in the **Access Token Lifetime** box, type a token lifetime amount in minutes. The default is **60** minutes.
10. Optionally, in the **Proxy Server**, **Proxy Server Username**, and **Proxy Server Password** enter URL and credentials for your proxy server. For example: <https://myproxy:443>
11. Optionally, in the **Show Display-Only Fields** box, select **True** for **False** to control whether to show display-only fields in the Create and Update Request activities. Including certain display-only fields is necessary when creating and/or updating requests for some Helix ITSM forms.
12. Optionally, in the **Use Field Labels by Default** box, to specify whether to display field properties, filters and published data using field names or labels. You can override this option when configuring individual activities.
13. Optional, in the **Default Limit** box, specify the default maximum number of entries to retrieve when using the **Get Requests** and **Advanced Search** activities. This default can be overridden when configuring instances of these activities.

14. Click **OK** to close the configuration dialog box, and then click **Finish**.

BMC Helix ITSM Activities

This integration pack adds the KA BMC Helix ITSM category to the **Activities** pane in the Runbook Designer. This category contains the following activities:

- Advanced Search
- Create Request
- Delete Request
- Get Request
- Monitor Requests
- Update Request
- Upload Attachment
- Download Attachment

Common Configuration Instructions for All Activities

The following configuration instructions apply to all activities in this integration pack. Links to this section are included in the configuration instructions for each activity.

Activity Properties

Each activity has a set of required or optional properties that define the configuration of that activity. This includes how it connects to other activity or how the activity performs its actions. You can view or modify activity properties in the Orchestrator Client.

To configure the properties for an activity:

1. Double-click the activity. Alternatively, you can right-click the activity, and then click **Properties**.
2. To save your configuration entries, click **Finish**.

In the activity properties dialog box, several tabs along the left side provide access to general and specific settings for the activity. Although the number of available tabs for activity properties differs from activity to activity, all activities will have a **General** tab, a **Properties** tab and/or **Filters** tab, and a **Run Behavior** tab. Some activities may have additional tabs.

General Tab

This tab contains the **Name** and **Description** properties for the activity. By default, the **Name** of the activity is the same as its activity type, and the **Description** is blank. You can modify these properties to create more descriptive names or provide detailed descriptions of the actions of the activity.

Properties/Filters Tab

These tabs contain properties that are specific to the activity.

All activities in this integration pack have the **Configuration Name** property at the top of the **Properties** tab.

To configure the Configuration Name property:

- Click the ellipsis (...) button next to the **Name** field, and then select the applicable connection name. Connections displayed in the list have been previously configured as described in [Configuring the Kelverion Integration Pack for BMC Helix ITSM Connections](#).

Filter Behavior

The Monitor and Get activities use filters to determine the values that will invoke a runbook or retrieve activities. Property values of potential candidates are compared to the values of the filters to determine if they meet the criteria. When matching against values, you select one of the available methods of comparison. An option is provided to either match or not match the filter using each method. For example, the "Does not" version of a method causes alerts that do not match the filter to trigger the runbook.

- **Equals:** the field of the record exactly matches the text or number specified in the filter.
- **Does not equal:** the field of the record does not exactly match the text or number specified in the filter.
- **Is less than:** the field of the record is less than the number specified in the filter.
- **Is less than or equal to:** the field of the record is less than or equal to the number specified in the filter.
- **Is greater than:** the field of the record is greater than the number specified in the filter.
- **Is greater than or equal to:** the field of the record is greater than or equal to the number specified in the filter.
- **Contains:** the field of the record contains the exact text specified in the filter. Unlike the Equals behavior, there can be other text surrounding the matching text.
- **Does not contain:** the field of the record does not contain the exact text specified in the filter. Unlike the Equals behavior, there can be other text surrounding the matching text.
- **Starts with:** the field of the record starts with the exact text specified in the filter. Unlike the Equals behavior, there can be other text following the matching text.
- **Ends with:** the field of the record ends with the exact text specified in the filter. Unlike the Equals behavior, there can be other text preceding the matching text.

Run Behavior Tab

This tab contains the properties that determine how the activity handles multi-value published data and what notifications will be sent if the activity fails or runs for an excessive period.

Multi-Value Published Data Behavior

The Get activities retrieve information from another activity or outside source and can return one or more values in the published data. For example, when you use the Get Collection Member activity, the data output from that activity might be a list of computers that belong to the specified collection.

By default, the data from the Get activity will be passed on as multiple individual outputs. This invokes the next activity as many times as there are items in the output. Alternatively, you can provide a single output for the activity by enabling the **Flatten** option. When you enable this option, you also choose a formatting option:

- **Separate with line breaks.** Each item is on a new line. This format is useful for creating human-readable text files for the output.

- **Separate with _**. Each item is separated by one or more characters of your choice.
- **Use CSV format**. All items are in CSV (comma-separated value) format. This format is useful for importing data into spreadsheets or other applications.

The activity will produce a new set of data every time it runs. The **Flatten** feature does not flatten data across multiple instances of the same activity.

Event Notifications

Some activities are expected to take a limited amount of time to complete. If they do not complete within that time they may be stalled or there may be another issue preventing them from completing. You can define the number of seconds to wait for completion of the action. After this period a platform event will be sent and the issue will be reported. You can also choose whether to generate a platform event if the activity returns a failure.

To be notified when the activity takes longer than a specified time to run or fails to run:

1. In the **Event Notifications** box, enter the **number of seconds** of run time before a notification is generated.
2. Select **Report if activity fails to run** to generate run failure notifications.

For more information about Orchestrator events, see the “Event Notifications” topics in the [Runbook Properties](https://technet.microsoft.com/en-us/library/hh489610.aspx#EventNotifications) ([https://technet.microsoft.com/en-us/library/hh489610.aspx#Event Notifications](https://technet.microsoft.com/en-us/library/hh489610.aspx#EventNotifications)).

Published Data

Published data is the foundation of a working runbook. It is the data produced because of the actions of an activity. This data is published to an internal data bus that is unique for each runbook. Subsequent activities in the runbook can subscribe to this data and use it in their configuration. Link conditions also use this information to add decision-making capabilities to runbooks.

An activity can subscribe only to data from the activities that are linked before it in the runbook. You can use published data to automatically populate the property values needed by activities.

To use published data:

1. Right-click the property value box, click **Subscribe**, and then click **Published Data**.
2. Click the **Activity** drop-down box and select the activity from which you want to obtain the data.
3. To view additional data elements common to all activities, select **Show Common Published Data**.
4. Click the published data element that you want to use, and then click **OK**.

For a list of the data elements published by each activity, see the Published Data tables in the activity topic. For information about the common published data items, see the [Published Data](http://technet.microsoft.com/en-us/library/hh403821.aspx) (<http://technet.microsoft.com/en-us/library/hh403821.aspx>).

Advanced Search Activity

The **Advanced Search** activity is used in a runbook to search a BMC Helix ITSM form for request entries using advanced search criteria.

Required Properties

You must configure the following properties.

Helix ITSM Form	The name of the Helix ITSM form to integrate with
Search Criteria	The advanced search criteria used to determine which requests to retrieve
Use Field Labels	Indicates whether to use field labels or field names for the Order By property and published data.

Optional Properties

You can use the following properties control the results.

Ascending Order	Indicates whether to sort the results in ascending order. The default is descending order.
Fields	Comma separated list of field names to include in the results. By default, the results will include all supported fields.
Limit	The number (non-negative integer) of request entries to limit the results by. Used for pagination. Note: for legacy runbooks, this property is called Maximum Requests .
Offset	The number (non-negative integer) of request entries to offset the results by. Used for paginating. Note: for legacy runbooks, this property is called Starting At .
Order By	The name of the field used to order the results. By default, the results are ordered by Request ID .

Published Data

The activity publishes the following activity specific data items. This activity will provide additional published data items to reflect the supported fields in the **Helix ITSM Form** that was selected.

Helix ITSM Form	The name of the Helix ITSM form to integrate with
Request Count	The number of requests that were retrieved.
Search Criteria	The advanced search criteria used to determine which requests to retrieve

Remarks

If you do not specify a value for the optional **Limit** property, the activity will limit the number of results to the **Default Limit** property in the configuration that was selected.

Advanced Search Query Syntax

Fields

Enclose field labels, names, or IDs in single quotation marks. For example, 'Short Description'.

If a field label or name contains a single quotation mark (such as an apostrophe), add another single quotation mark next to it. For example, if the field is named Submitter's Phone Number, enter it as 'Submitter's Phone Number'.

If you need to search on a field that does not have a label, see your administrator for the field ID. Use this ID instead of the name enclosed in single quotation marks.

Status history fields

Status history fields must have all the following information enclosed within single quotation marks:

- The name or ID of the status history field (followed by a period).
- The name or index of the status value you want to match (followed by a period).
- The keyword USER (for the user who changed the request to that status) or TIME (for the time last changed to that status). For example, 'Status History.Fixed.TIME' < "07/01/99"

Currency fields

For currency fields, you must have *one* of the following enclosed within single quotation marks:

- The name or ID of the currency field. For example, 'Currency Field' = \$NULL\$
- The name of the currency field, followed by a period, followed by a specific portion of the currency field's value, such as the date or a functional currency value. For example, 'Currency Field.VALUE' < 5000

Keywords

You can use keywords anywhere that you can enter character values. For information about keywords, refer to the Helix ITSM documentation.

You can use the \$NULL\$ keyword to search for requests that have *no* value in a field. For example, to search for requests that have not been assigned (requests with no value in the Assigned to field), enter 'Assigned to' = \$NULL\$.

Values

Enclose nonnumeric values (including time, selection, and currency values) in double quotation marks (for example, "07/01/01" for July 1, 2001).

Selection field values

Selection field values can be specified as text values in quotation marks or numeric values or indexes *not* in quotation marks. For example, if you have a Status field with the option buttons labeled Open, Fixed, and Verified, you can enter either "Open" or 0 to specify the value of Open, because Open is the first selection value in the selection field.

Currency field values

For currency fields, use the Currency Codes submenu to choose an available currency code. When you choose a currency code, the double quotation marks are automatically entered (such as "USD"). Add the currency value within the double quotation marks (for example, "100 USD"). If you do not specify a currency code, the primary allowable currency type is assumed.

Relational Operators

Relational operators are useful especially in non-text fields (such as date and time fields) when you want to search for a value within a numerical range.

()	Use parentheses to control the order in which the expression is carried out. Operations found within parentheses are executed together as a unit.
AND	Logical AND of the result of two conditions. The result is true only if both conditions are true. For example, 'Status'="New" AND 'Assigned to'="David" finds all new requests assigned to David. You can use two ampersands (&&) instead of the word AND.
OR	Logical OR of the result of two conditions. The result is true if either condition is true. For example, 'Status'="New" OR 'Assigned to'="David" finds all new requests (regardless of who they are assigned to) and all requests assigned to David (no matter what their status). You can use two vertical lines () instead of the word OR.
NOT	Negates the condition that follows. If the condition is false, the result is true. For example, NOT 'Status'="New" finds all requests that are not new.
LIKE	You can use an exclamation point (!) instead of the word NOT. Performs a pattern search. For example, 'Submitter' LIKE "Bob%ton" finds all requests with a submitter name that begins with the letters Bob and ends with the letters ton —such as Bob Compton and Bobby Fenton. The LIKE operator is useful only with character and diary fields. Use square brackets and the LIKE operator for flat-file and Sybase databases. Square brackets and the LIKE operator do not work with Oracle or Informix databases.
+	<ul style="list-style-type: none">• Adds two numerical values (integer, real values, or decimal).• Adds an integer interval to a date/time value.• Adds two-character strings. <p>For example, 'Create date' > \$DATE\$ + (8*60*60) finds all requests that were created after 8:00 a.m. today.</p>
-	<ul style="list-style-type: none">• Subtracts two numerical values (integer, real values, or decimal)• Subtracts two date/time values. Subtracts an integer value from a date/time value. <p>For example, 'Create date' > \$TIMESTAMP\$ - (7*24*60*60) finds all requests that were created within the past week.</p>
*	Multiplies two numeric values. For example, 'Quantity' * 'Price' > 50 finds all requests where the contents of the Quantity field multiplied by the contents of the Price field is over 50.
/	Divides two numeric values. For example, 'Total Expenses' / 'Total Income' = 2 finds all requests where the total amount spent for expenses is twice the total amount of income.

%	Modulo of two integer values (the remainder of a division of the values). Because a percent sign is also a valid wildcard symbol, the context determines how it is interpreted. When used as part of a search statement, it is interpreted as a wildcard symbol; when used in the expression where an operator is expected, it is interpreted as modulo.
<	Matches contents that are less than the value. For example, 'Create date' < (\$TIMESTAMP\$ - 24*60*60) finds all requests created more than 24 hours ago. ([24*60*60] or 86400, is the number of seconds in 24 hours.)
>	Matches contents that are greater than the value. For example, 'Create date' > "09/24/01 00:00:00" finds all requests with Create dates that are newer than midnight September 24, 2001.
!=	Matches contents that are not equal to the value. For example, 'Status' != "Closed" finds all requests that are not closed.
<=	Matches contents that are less than or equal to the value. For example, 'Salary' <= 30000 finds all requests where the contents of the Salary field are less than or equal to 30000.
>=	Matches contents that are less than or equal to the value. For example, 'Salary' <= 30000 finds all requests where the contents of the Salary field are less than or equal to 30000.

Operator precedence

When you use multiple operators to construct qualification criteria, they are executed in the following order of precedence: () !, NOT, _ (unary minus) *, /, % +, - < <=, >, >+, =, != && (AND) || (OR)

If the qualification contains multiple operators of the same precedence value, they are executed in the order that they occur (from left to right). For example, in the expression A + (B*C), the multiplication takes first precedence because it occurs within parentheses, which are of a higher precedence than addition.

Using wildcard symbols in qualifications

When you specify search criteria to find requests, you can use wildcard symbols as shown in the following table to indicate one or more characters:

Wildcards

Wildcard	Action
%	Use to match any string of 0 or more characters. For example: J%son matches Jackson, Johnson, Jason, and Json.
_	Use to match any single character. For example: B_b matches Bab, Bob, and Bub.
-	Use to indicate a range. Always use within square brackets ([]).
[^]	Use to match any single character not within a specified range or set. For example, [^a-f] matches all characters except the range a through f, and [^abcf] matches all characters except a, b, c, or f.

In qualifications, wildcard symbols are interpreted as wildcards only when used with the LIKE operator; otherwise, they are interpreted as explicit characters. You must use the percent symbol (%) when you want to include leading or trailing characters in your search. For example, if you want

to find all requests submitted by Jill Bobbington, Bobby Fenton, and Bob Comptonson, enter the following text in the advanced search bar:

```
'Submitter' LIKE "%Bob%ton%"
```

Note: Square brackets and the symbols associated with them do not work with Oracle or Informix databases.

Create Request Activity

The **Create Request** activity is used in a Runbook to create new request in a BMC Helix ITSM form.

Required Properties

You must configure the following properties. The activity will provide additional required properties will be included to reflect the supported required properties in the **Helix ITSM Form** that was selected.

Helix ITSM Form	The name of the Helix ITSM form to integrate with.
Use Field Labels	Indicates whether to use field labels or names when displaying properties used to initialize the new entry.

Optional Properties

The activity will provide additional operational properties to reflect the supported optional fields in the **Helix ITSM Form** that was selected.

Published Data

The activity publishes the following activity specific data items.

Helix ITSM Form	The name of the Helix ITSM form to integrate with.	String
Request ID	If the Helix ITSM form that you selected is a regular form, the activity will output the Request ID of the new entry. For other forms, notably join forms, the activity will output an empty string.	String

Delete Request Activity

The **Delete Request** activity is used in a Runbook to delete a request from a BMC Helix ITSM form.

Required Properties

You must configure the following properties.

Helix ITSM Form	The name of the Helix ITSM form to integrate with
Request ID	The unique ID of the request to delete

Published Data

The activity publishes the following activity specific data items.

Helix ITSM Form	The name of the Helix ITSM form to integrate with
Request ID	The unique ID of the request that was deleted

Download Attachment Activity

The **Download Attachment** activity is used in a Runbook to download an attachment request entry in a BMC Helix ITSM form.

Required Properties

You must configure the following properties.

Helix ITSM Form	The name of the Helix ITSM form to integrate with.
Request ID	The unique ID of the request to be updated
Download Folder	The folder location to download the attachment
Helix ITSM Field	The Helix ITSM attachment field
If File Exists	Options that determine the behavior of saving the downloaded file
Use Field Labels	Indicates whether to use field labels or field names for the Order By property, filters and published data.

Published Data

The activity publishes the following activity specific data items.

Helix ITSM Form	The name of the Helix ITSM form to integrate with.
Request ID	The unique ID of the request that was updated.
Download Folder	The folder location to download the attachment
Helix ITSM Field	The Helix ITSM attachment field
File Path	Path to the downloaded file

Get Request Activity

The **Get Request** activity is used in a Runbook to retrieve requests from a BMC Helix ITSM form using filter criteria that you specify.

Required Properties

You must configure the following properties.

Helix ITSM Form	The name of the Helix ITSM form to integrate with.
Use Field Labels	Indicates whether to use field labels or field names for the Order By property, filters and published data.

Optional Properties

You can use the following properties control the results.

Ascending Order	Indicates whether to sort the results in ascending order. The default is descending order.
Fields	Comma separated list of field names to include in the results. By default, the results will include all supported fields.
Limit	The number (non-negative integer) of request entries to limit the results by. Used for pagination. Note: for legacy runbooks, this property is called Maximum Requests .
Offset	The number (non-negative integer) of request entries to offset the results by. Used for paginating. Note: for legacy runbooks, this property is called Starting At .
Order By	The name of the field used to order the results. By default, the results are ordered by Request ID .

Filters

The activity provides filters based on the **Helix ITSM Form** that was selected. The activity will only retrieve entries that satisfy the filter criteria that you defined.

Published Data

The activity publishes the following activity specific data items. This activity will provide additional published data items to reflect the supported fields in the **Helix ITSM Form** that was selected.

Helix ITSM Form	The name of the Helix ITSM form to integrate with.
Request Count	The number of requests that were retrieved

Remarks

If you do not specify a value for the optional **Limit** property, the activity will limit the number of results to the **Default Limit** property in the configuration that was selected.

When filtering using decimal and real fields, the Equals and Does not equal operations may produce unexpected results, especially when filtering values with high precision.

Monitor Requests Activity

The **Monitor Requests** activity is used in a Runbook to monitor a BMC Helix ITSM form for new and/or modified request entries using filter criteria that you specify.

Required Properties

You must configure the following properties.

Helix ITSM Form	The name of the Helix ITSM form to integrate with.
Monitor New Requests	Indicates whether to monitor the form for new requests
Monitor Updated Requests	Indicates whether to monitor the form for updated requests
Monitor Interval (seconds)	Indicates the number of seconds to wait between successive polls of the Helix ITSM server.
Use Field Labels	Indicates whether to use field labels or field names for filters and published data.

Filters

The activity provides filters based on the **Helix ITSM Form** that was selected. The activity will only trigger on entries that satisfy the filter criteria that you defined.

Published Data

The activity publishes the following activity specific data items. This activity will provide additional published data items to reflect the supported fields in the **Helix ITSM Form** that was selected.

Helix ITSM Form	The name of the Helix ITSM form to integrate with.
Request Count	The number of requests that triggered the monitor

Remarks

When filtering using decimal and real fields, the Equals and Does not equal operations may produce unexpected results, especially when filtering values with high precision.

Update Request Activity

The **Update Request** activity is used in a Runbook to update one or more fields in an existing request in a BMC Helix ITSM form.

Required Properties

You must configure the following properties.

Helix ITSM Form	The name of the Helix ITSM form to integrate with.
Request ID	The unique ID of the request to be updated
Use Field Labels	Indicates whether to use field labels or names when displaying properties used to update the entry.

Published Data

The activity publishes the following activity specific data items.

Helix ITSM Form	The name of the Helix ITSM form to integrate with.
Request ID	The unique ID of the request that was updated.

Upload Attachment Activity

The **Upload Attachment** activity is used in a Runbook to upload an attachment to request entry in a BMC Helix ITSM form.

Required Properties

You must configure the following properties.

Helix ITSM Form	The name of the Helix ITSM form to integrate with.
Request ID	The unique ID of the request to be updated
File Path	The file to upload
Helix ITSM Field	The Helix ITSM attachment field
Use Field Labels	Indicates whether to use field labels or field names for the Order By property, filters and published data.

Published Data

The activity publishes the following activity specific data items.

Content-Type	The file's MIME type
File Path	The file to upload
Helix ITSM Field	The Helix ITSM attachment field
Helix ITSM Form	The name of the Helix ITSM form to integrate with.
Request ID	The unique ID of the request that was updated.