

Jama Connect Interchange User Guide

Self-hosted 2.0.x

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Overview

Jama Connect Interchange™ is the Jama Connect dedicated integration platform, which syncs data between Jama Connect and other best-of-breed tools.

Jama Connect Interchange is deeply integrated with Jama Connect configurations and workflows, providing you with a smart and seamless sync.

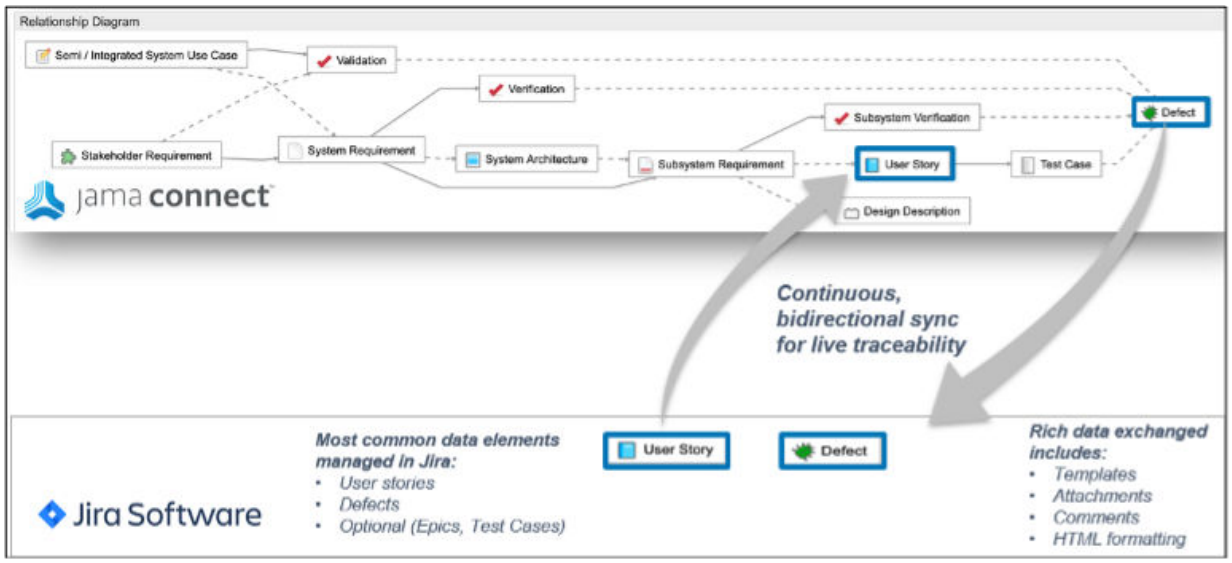
Jama Connect Interchange supports cloud-based and self-hosted instances of Jama Connect.

The available Interchange modules are:

- Jama Connect to Jira (Jira Cloud and Jira Data Center) [5]
- Jama Connect to Excel Functions [5]
- Jama Connect to ReqIF [6]
- Jama Connect to Datatap [6]
- Jama Connect to Model Context Protocol (MCP) [94]
- Jama Connect Webhooks [104]

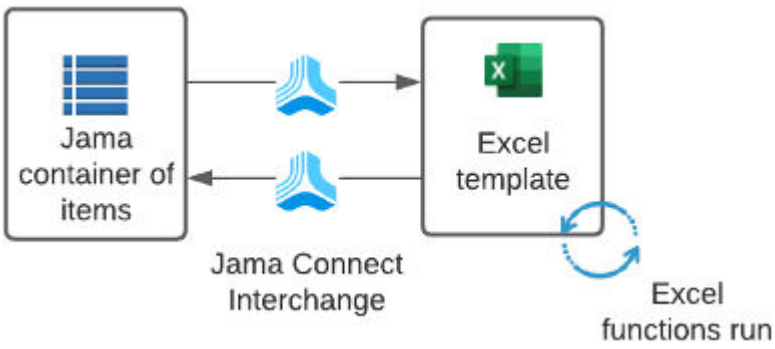
Jama Connect to Jira

This module allows you to automatically link Jama Connect items to Jira issues. All standard and custom Jama Connect item types and Jira issue types are supported.



Jama Connect to Excel Functions

This module brings the power of Microsoft Excel Functions into Jama Connect. When a user enters data in Jama Connect, the entered values are sent to an Excel template where a function or calculation is run. The resulting value is sent back to Jama Connect and automatically entered in another read-only field, as specified in the configuration.



Note
The Excel Functions module uses an Excel SDK (Apache POI 5.2.3) to run functions in memory. The SDK doesn't currently support functions that reference Excel macros or Excel tables. For details on supported functions, see the Apache POI website.

Jama Connect to ReqIF

This module allows you to exchange requirements with other parties using Requirements Interchange Format (ReqIF) and ReqIFZ files. With this functionality you can import and export data between Jama Connect and a ReqIF or ReqIFZ file.

The integration supports both one-time import/export as well as a back-and-forth exchange.

Jama Connect to Datatap

Jama Connect Datatap is a secure data export service for Jama Connect Cloud. It exports your Jama Connect data in a structured format to a dedicated SFTP location for downstream reporting, analytics, and data retention needs.

Datatap is designed for teams that need regular access to large sets of Jama Connect data outside the application. Instead of making frequent high-volume API calls, Datatap delivers scheduled file-based exports that are compatible with business intelligence and reporting tools such as Power BI or Tableau.

For more information, see Configuring Datatap [93].

Jama Connect MCP™

With Jama Connect Model Context Protocol (MCP), you can connect Jama Connect to approved MCP-compatible clients, such as Integrated Development Environment (IDE) or Command-Line Interface (CLI) tools, to securely retrieve information and execute supported actions through controlled tool calls.

For more information, see Jama Connect MCP™ [94].

Jama Connect Webhooks

Jama Connect Webhooks sends event notifications from Jama Connect to a customer-hosted webhook endpoint. Admins configure subscriptions in Jama Connect Interchange by adding an endpoint URL and selecting the events their application should receive.

The delivery flow includes three components:

- **Jama Connect Interchange** manages webhook configuration, endpoint URLs, and subscriptions.

- **Jama Connect** generates events based on activity in the instance.
- **Jama Connect Webhooks Service** verifies the endpoint and delivers subscribed events.

Your application must host a publicly reachable HTTPS endpoint that accepts POST requests with JSON request bodies. After verification, the service sends subscribed events to the endpoint, where your application can validate and process them.

For more information, see Jama Connect Webhooks [104].

Supported versions

Jama Connect Interchange supports the following software versions.

Product	Version
Jama Connect	Cloud — Current version. Self-hosted — Jama Connect Interchange supports the same versions that are supported by Jama Connect. For details, see Supported software.
Jira Cloud	Current version.
Jira Data Center	10.3, 11.3, and later. All Jira integration features are tested on the latest Long Term Support release.
Microsoft Excel	Currently supported versions of Microsoft Excel. Both .xls and .xlsx file types are supported.
ReqIF	Formally supports files from the these tools for import: • Jama Connect • IBM® DOORS • IBM® DOORS Next • PTC Codebeamer® • Simulink® • Polarion®
Datatap	The current version of Jama Connect Cloud. Datatap was formally released to production with Jama Connect 9.31. If you are running a Customer Validated Cloud version of Jama Connect 9.28, you can only use the beta version of Datatap.

Configuring integrations (Jira and Excel Functions only)

Jama Connect Interchange includes an intuitive web interface that the Jama Connect organization admin uses to set up one or more integrations.

Integrations are made up of connectors and the linking between connectors.

Connector — A *connector* defines one half of an integration. Jama Connect Interchange supports multiple connectors that can be used to build multiple integrations.

Integrations — An *integration* links two connectors.

Connectors

A *connector* defines one half of an integration. Jama Connect Interchange supports multiple connectors that can be used to build multiple integrations.

For example, a Jama Software customer might have multiple Jama Connect instances (Production, Trial, Sandbox) as well as multiple Jira instances. Each instance is represented with a connector.

Jama Connect Interchange allows an admin to create connectors for each of those systems and use them in multiple integrations.

The process consists of these tasks according to your integration.

Jira

- Link to your Jama Connect instance (Jira) [12]
- Link to your Jira instance [13]

Excel Functions

- Link to your Jama Connect instance (Excel Functions) [46]
- Create and link your Excel template [47]

Connected Service

- Jama Connect Interchange connector [109]

Connector ownership and visibility

All connectors are marked as **Global** (visible to all users) or are owned by a specific user (visible only to the owner and admins).

Admin users can:

- View all connectors
- Edit all connectors
- Assign connector ownership to any user or set to Global.

Non-admin users:

- Can see only their own connectors and global connectors
- Can edit only their own connectors
- Can't see connectors owned by other users
- Can't assign ownership

Permissions summary table

The following table displays the permissions and actions allowed for admins and non-admin users.

Action	Admin	Non-admin
View all connectors	✅	❌
View global connectors	✅	✅
View own connectors	✅	✅
Create connector for another user	✅	❌
Edit ownership	✅	❌
Delete others' connectors	✅	❌
Edit own connectors	✅	✅
Edit others' connectors	✅	❌

Integrations

An *integration* links two connectors.

For example:

- One Jama Connect connector to one Jira connector
- One Jama Connect connector to one Excel template

For each integration, the admin defines rules to specify when new items are created and how data flows between those items.

Data can flow in both directions between connectors or it can be limited to flow in only one direction.

Once items are linked in both systems, the admin can control the flow of the individual fields mapped between the two items.

Additional rules can be applied to each field mapping, providing further logic and transformation capabilities. Also, special rules are enforced for fields that are marked as read-only or are required to streamline the setup process.

The process consists of tasks for your integration:

- Integrating Jama Connect with Jira [12]
- Integrating Jama Connect with Excel Functions [46]

Access

- Admins can access all integrations.
- Non-admin users can access only integrations whose connectors are marked as global or are owned by other non-admin users.

- If an integration has one connector that the non-admin user can access (a global connector for a Connect instance) and one connector that the non-admin user can't access (for example, a Jira Cloud connector owned by someone else), the non-admin user can't access that integration.

Integrating Jama Connect with Jira

This section explains how to connect Jama Connect and Jira through Jama Connect Interchange. It covers linking both systems, creating and testing single-project integrations or multi-project Jira Cloud integrations, and configuring field mappings and syncing. You'll also find guidance on upgraded integrations, full sync, best practices, and advanced use cases.

Link to your Jama Connect instance (Jira)

For the process of setting up a Jama Connect connector, you identify the user account that Jama Connect Interchange uses to authenticate with Jama Connect.

After the integration is set up and information is flowing between Jama Connect and Jira, any updates made to items in Jama Connect by the integration service appear to come from this account.



Note

If you plan to use the same Jama Connect instance to configure multiple integrations, you need to create only one connector for that instance. You can use the same connector with multiple integrations.

Requirements

- A running Jama Connect instance.
- A Jama Connect user account to be used by the integration service to authenticate with Jama Connect.
  - You can use an existing Jama Connect user's account or create a dedicated service account. Your subscription to Jama Connect Interchange includes one free named license for this service account.
  - A Jama Connect admin can create a new account in Jama Connect by going to **ADMIN > Users > Add**.
  - The user account must have administrative privileges, a Named Creator license type, and the ability to read and write to the set of items you are integrating with.

Link to your Jama Connect instance

1. In the Jama Connect Interchange header bar, select **Connectors**.
2. On the Connectors page that opens, select **Add Connector**.
3. On the Add New Connector page, complete these fields:
   - **Application** — Select **Jama Connect**.
   - **Name** — Type a descriptive name for the connector.
   - **URL** — Enter your Jama Connect URL.
   - **Verify SSL** — Leave this option selected unless Support instructed you to deselect it.
   - **Authentication Type** — Select **Basic** or **oAuth**, whichever your environment uses. If your Jama Connect instance uses SAML authentication, select **oAuth**.

     Basic authentication:
     - **Username** — Enter the username for the Jama Connect user.
     - **Password** — Enter the password for the Jama Connect user.

     oAuth authentication:
     - **Client ID** —Enter the Client ID associated with this user account. To generate the Client ID, see Set API credentials.

- **Client Secret** —Enter the Client Secret associated with this user account. To generate the Client Secret, see Set API credentials.

4. (Admins only) To assign ownership to this connector, select **Owner**, then select **Global** (the connector is visible to all users and can be edited only by admins) or a specific user (the connector can be edited by and is visible to only that user and admins).

> **Note**
> Only an admin can assign connector ownership. When a non-admin user creates a connector, ownership defaults to that user. When an admin creates a connector and doesn't assign ownership, ownership defaults to that admin.

5. To edit an existing connector:
   a. Select the edit icon next to the connector you want to modify.
   b. Change the fields you need.

> **Important**
> If you change the connector's owner, a warning lets you know the potential impact. If you change the username, owner, or URL, a validation warning appears.

6. Select **Submit**.

Link to your Jira instance

In the process of setting up a Jira connector, you identify the Jira user account that Jama Connect Interchange uses to authenticate with Jira.

After the integration is set up and information is flowing between Jama Connect and Jira, any updates made to items in Jira by the integration service appear to come from this account.

Requirements

- A running Jira instance.
- A Jira user account to be used by the integration service.
- The account must have access to read and write to issues in Jira. You can use an existing Jira user's account or create a dedicated service account.
- *Jira Cloud only* — Generate an API token for the user account (refer to Atlassian Support documentation).
- *Jira Data Center only* — For Personal Access Token authentication, generate a personal access token for the user account (refer to Atlassian Support documentation).

To link to your Jira Cloud instance:

1. In the Jama Connect Interchange header bar, select **Connectors**.
2. On the Connectors page that opens, select **Add Connector**.
3. On the Add New Connectors page, complete these fields:
   - **Application** — Select **Jira Cloud**.
   - **Name** — Type a descriptive name for the connector.
   - **URL** — Enter your Jira instance URL.
   - **Verify SSL** — Leave this option selected unless Support instructed you to deselect it.
   - **Authentication Type** — Select **Basic**.
     - **Email** — Enter the email address for the Jira Cloud user account.
     - **API Key** —Enter the API token for the Jira Cloud user account.

4. (Admins only) To assign ownership to this connector, select **Owner**, then select **Global** (the connector is visible to all users and can be edited only by admins) or a specific user (the connector can be edited by and is visible to only that user and admins).

> **Note**
> Only an admin can assign connector ownership. When a non-admin user creates a connector, ownership defaults to that user. When an admin creates a connector and doesn't assign ownership, ownership defaults to that admin. Admins can create connectors for themselves, for a specific user, and globally for all users.

5. To edit an existing connector:
   a. Select the edit icon next to the connector you want to modify.
   b. Change the fields you need.

> **Important**
> If you change the connector's owner, a warning message lets you know the potential impact. If you change the username, owner, or URL, a validation warning appears.

6. Select **Submit**.

To link to your Jira Data Center instance:

1. In the Jama Connect Interchange header bar, select **Connectors**.
2. On the Connectors page that opens, select **Add Connector**.
3. On the Add New Connectors page, complete these fields:
   - **Application** — Select **Jira Data Center**.
   - **Name** — Type a descriptive name for the connector.
   - **URL** — Enter your Jira instance URL.
   - **Verify SSL** — Leave this option selected unless Support instructed you to deselect it.
   - **Authentication Type** — Select **Basic** or **Personal Access Token**.

     Basic authentication:
     - **Username** — Enter the username for the Jira Data Center service account.
     - **Password** — Enter the password for the Jira Data Center service account.

     Personal Access Token authentication:
     - **Personal Access Token** — Enter the Personal Access Token for the Jira Data Center service account.
4. (Admins only) To assign ownership to this connector, select **Owner**, then select **Global** (the connector is visible to all users and can be edited only the admins) or a specific user (the connector can be edited by and is visible to only that user and admins).

> **Note**
> Only an admin can assign connector ownership. When a non-admin user creates a connector, ownership defaults to that user. When an admin creates a connector and doesn't assign ownership, ownership defaults to that admin. Admins can create connectors for themselves, for a specific user, and globally for all users.

5. To edit an existing connector:
   a. Select the edit icon next to the connector you want to modify.
   b. Change the fields you need.

> **Important**
> If you change the connector's owner, a warning message lets you know the potential impact. If you change the username, owner, or URL, a validation warning appears.

6. Select **Submit**.

Create a single-project Jira integration

A "single-project" integration establishes rules for syncing items between one Jama Connect project and one Jira project.

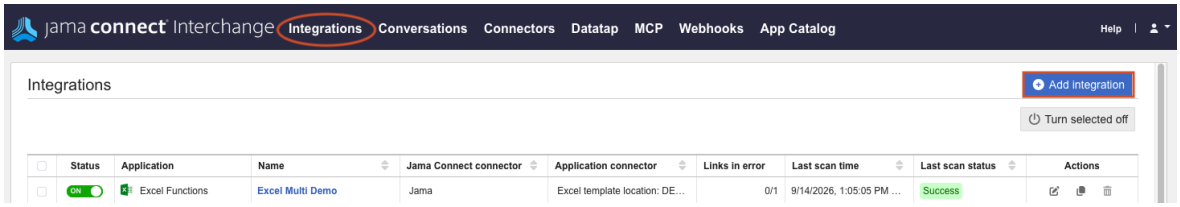
This process of creating an integration consists of these tasks:

> **Note**
> The ability to create a single-project Jira integration applies to all Jira Data Center versions and to Jira Cloud version 1.39 and earlier.

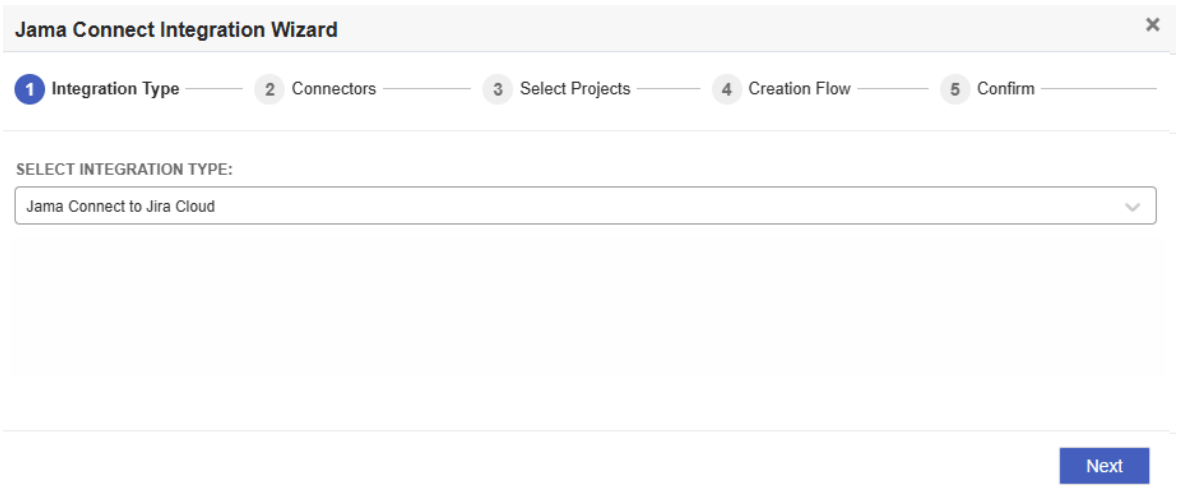
- Configure a Jira integration using the Jama Connect Integration wizard.
- Map Jama Connect fields to Jira fields [18].
- Configure creation rules [21].
- Configure relationship syncing [22].
- Enable the Jira integration [25].
- Test the Jira integration [25].

To configure a single-project Jira integration:

1. In Jama Connect, create a new, empty set or folder in the Explorer Tree.
2. In Jira, create a new, empty project for testing purposes.
3. In the Jama Connect Interchange header bar, select **Integrations**, then select **Add integration** to open the Jama Connect integration wizard.

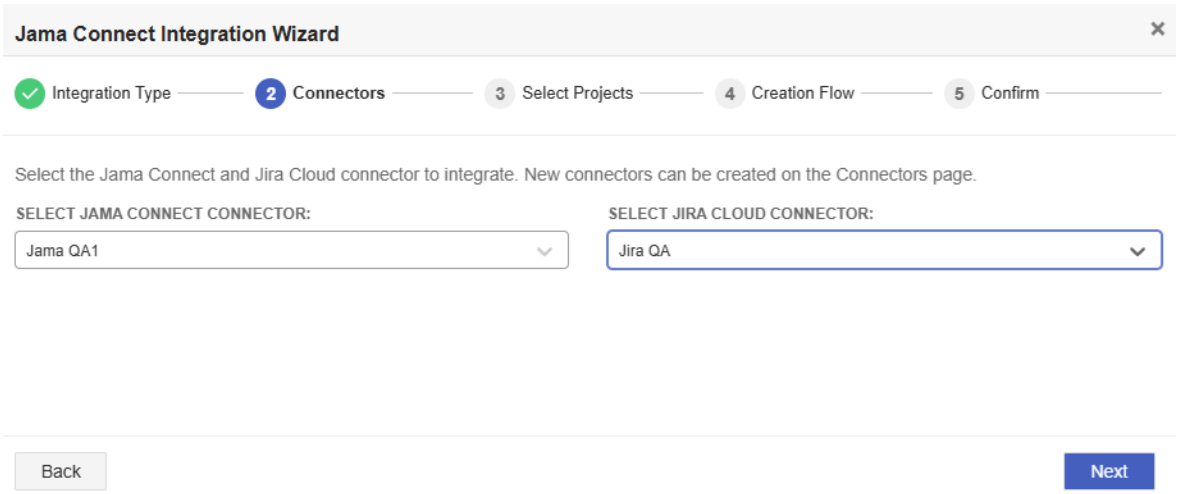


4. Complete each page of the wizard, then select **Next**.
   Integration Type — Select the integration type:



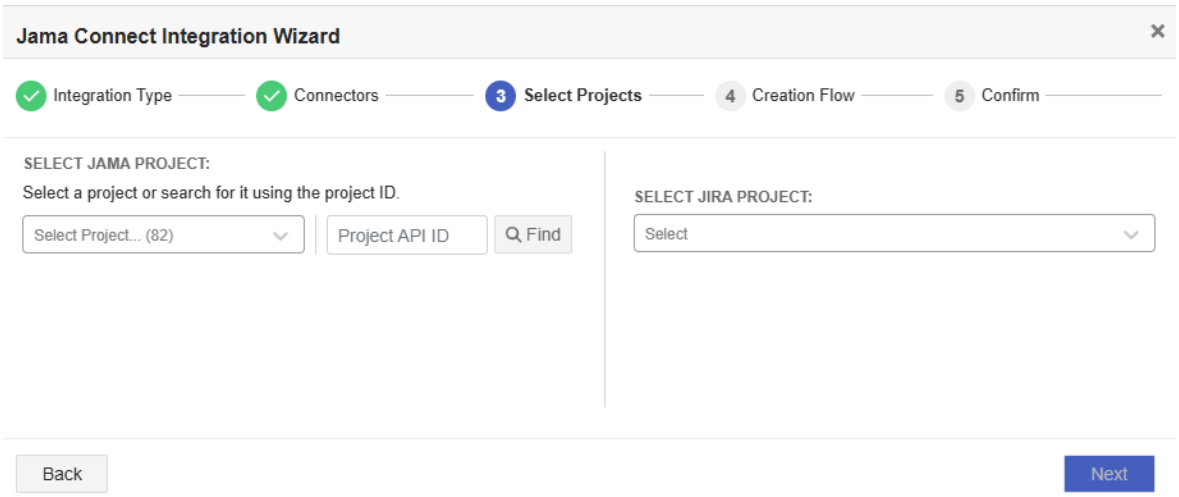
- **Select integration** — From the drop-down list, select **Jama Connect to Jira Cloud** or **Jama Connect to Jira Data Center**.

Connectors — Choose the connectors you want to integrate.



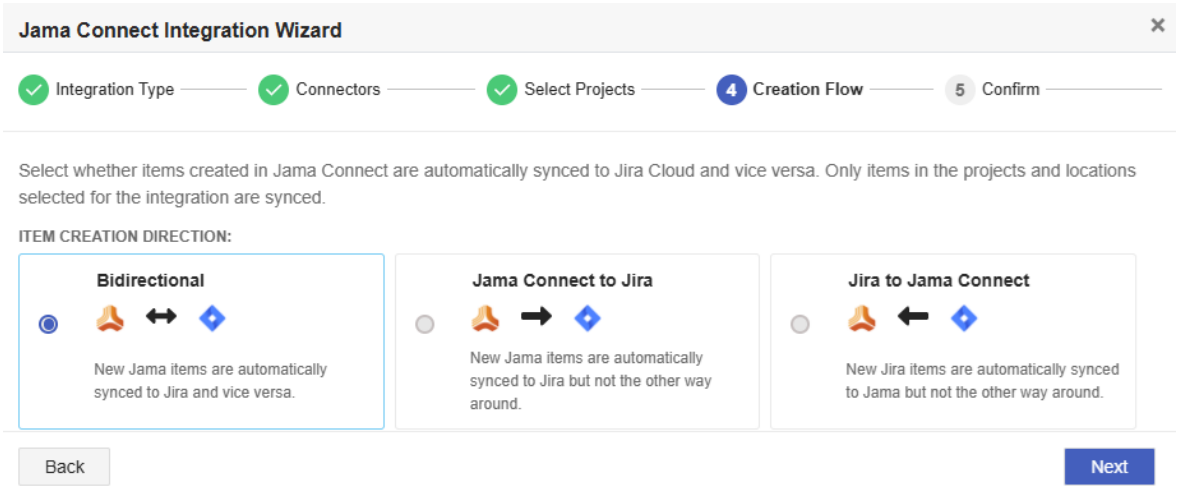
- **Choose Jama Connect for Source Connector** — Select the Jama Connect connector that you want to integrate. This is the same connector you created in Link to your Jama Connect instance (Jira) [12].
- **Choose Jira for Target Connector** — Select the Jira connector that you want to integrate. This is the same connector you created in Link to your Jira instance [13].

Select Projects — Choose a Jama Connect project and Jira project.



- **Jama Connect** — For the Jama Connect connector, search for or browse to the Jama Connect project that you want to integrate.
- **Jira** — For the Jira connector, select the Jira project that you want to integrate.

Item Creation Flow



- **Bidirectional Item Creation** — When an item is created in Jama Connect, a corresponding issue is created in Jira, and vice versa. This keeps both systems in sync with the same number of items. Attachments, Comments, and Comment Replies created in one system are added to the other system.
- **Jama Connect to Jira Creation** — Items created in Jama Connect are automatically added to Jira, but not the other way around. Only Item Attachments, Comments, and Comment Replies created in Jama Connect are created in Jira.
- **Jira to Jama Connect Creation** — Items created in Jira are automatically added to Jama Connect, but not the other way around. Only Item Attachments, Comments, and Comment Replies created in Jira are created in Jama Connect.

Integration Configuration

- **Name your Integration** — Enter a descriptive name for the integration.
- **Frequency** — Select the frequency with which you want the integration to run.
- **Sync Attachments** — Toggle to **Enabled** to sync item attachments.

> **Note**
> Only attachments of less than 25 MB are copied between systems. If an attachment exceeds 25 MB, a placeholder text file is created in the other system to indicate that an attachment exists in the linked item.

- **Sync Comments** — Toggle to **Enabled** to sync item comments.

> **Note**
> Jama Connect Interchange doesn't support edits to Jira comments. If a Jira user edits a comment after posting it, the edited version is not synced to Jama Connect. Only the original comment text exists in Jama Connect.
>
> **Jira Data Center integrations only** — Comments with embedded images are not supported. The comment text syncs as expected, but the image file is synced as a URL only.

5. Select **Submit** to complete the wizard.

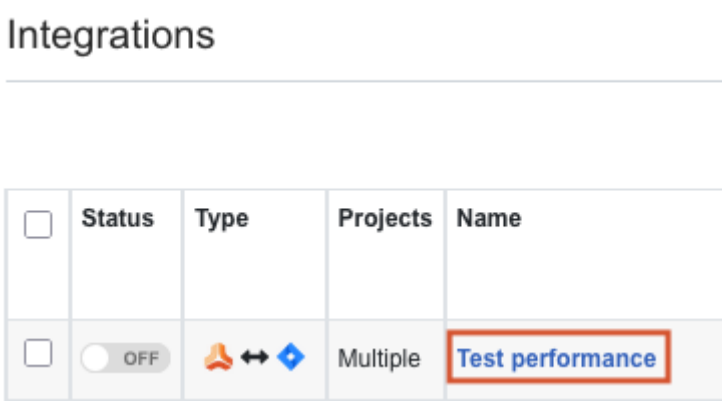
The integration is saved in a disabled state.

Map Jama Connect fields to Jira fields

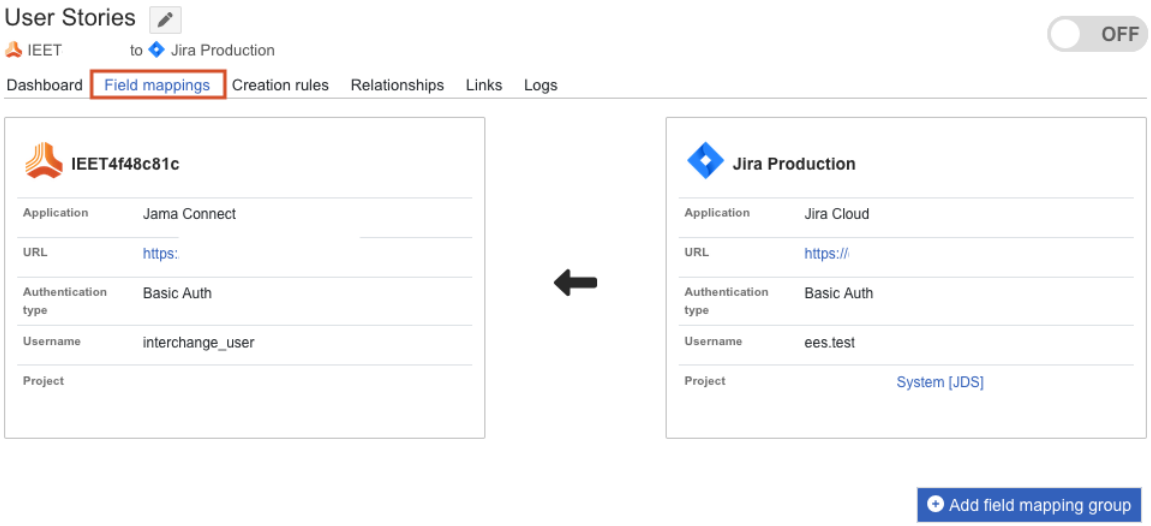
After you create a Jira integration, you must map your Jama Connect fields to the fields in Jira.

To configure field mappings for Jira:

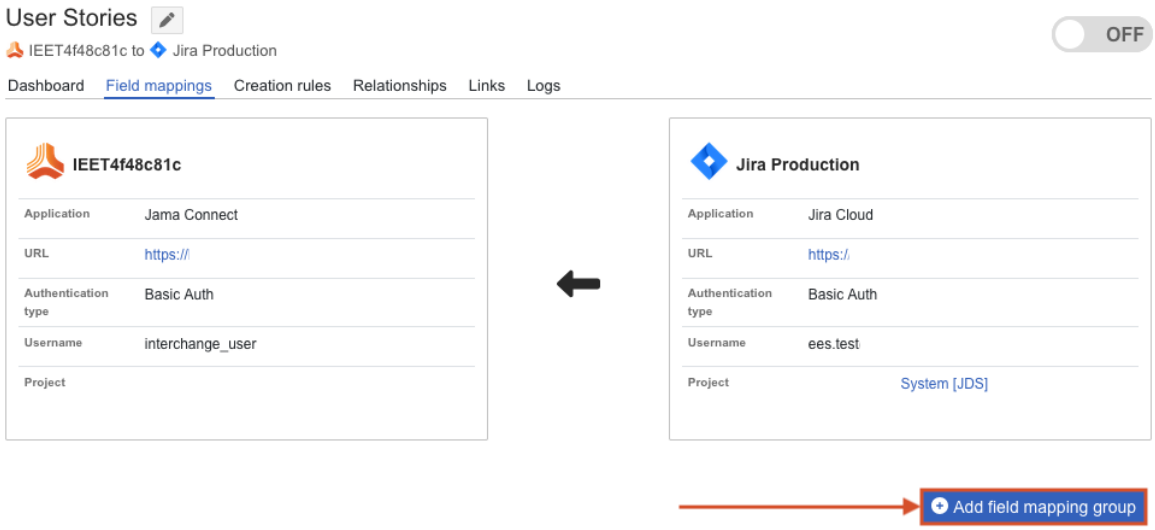
1. On the Integrations page, select the link for the integration you just created.



2. Select the **Field Mappings** tab.

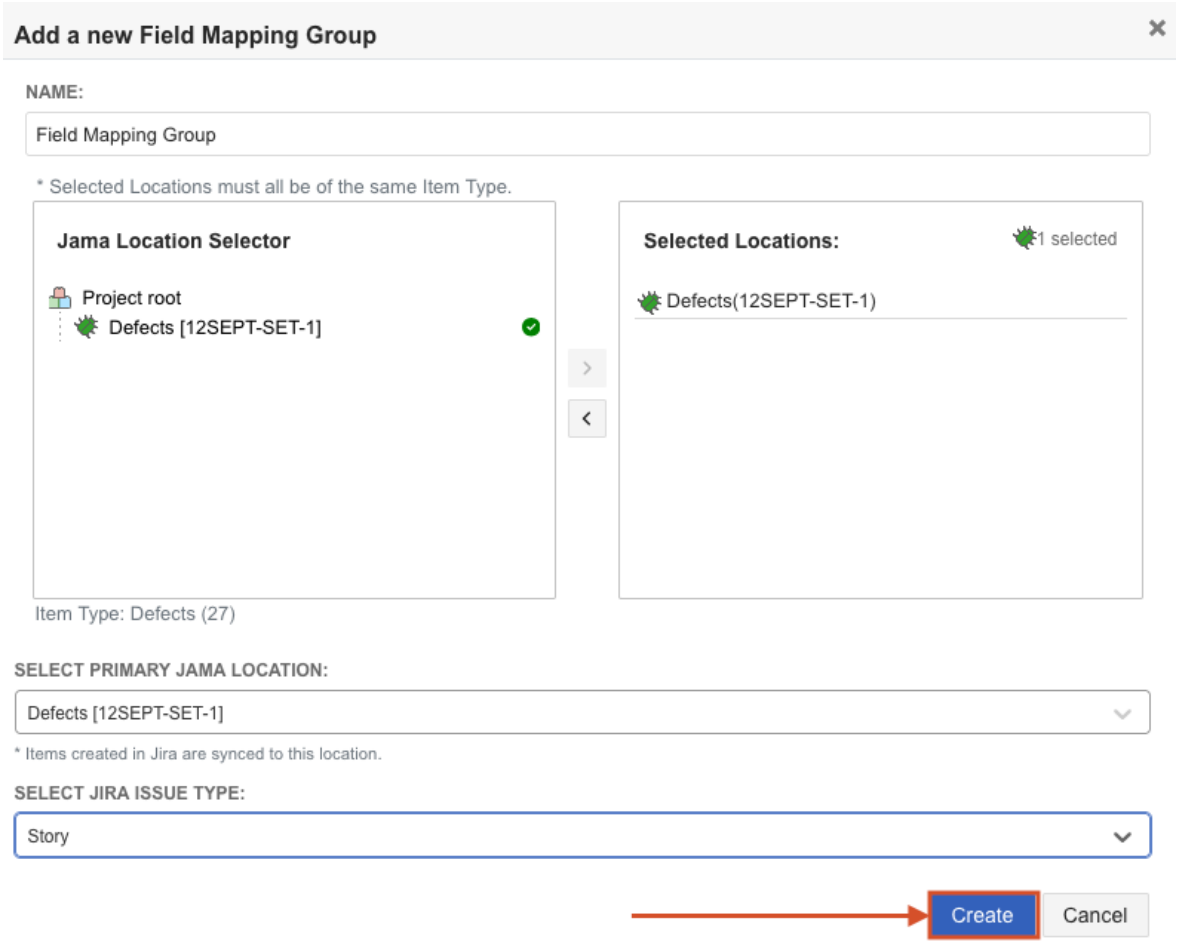


3. For each field mapping group you want to add, select **Add field mappings group**.



> **Important**
> Don't use the same Jama Connect item type or Jira issue type in more than one mapping group within an integration to avoid conflicts or duplicates when items are synced.

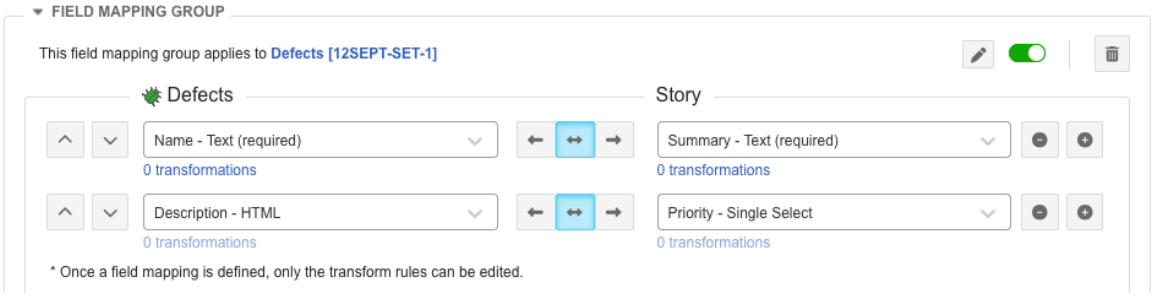
4. In the page that opens, complete the fields, then select **Create**.



- **Name** — Enter a descriptive name for the field mapping group.
- **Jama Location Selector** — Select the Jama Connect sets or folders that you want to sync. All selected sets must use the same item type (for example, User Stories or Defects).
- **Select Jira Issue Type** — Select the Jira issue type to sync with. When items are synced from Jama Connect to Jira, they are created in Jira using this issue type. When issues are synced from Jira to Jama Connect, only issues of this type are selected for sync.

The page closes and the new field mapping group is created.

5. Using the drop-down lists, map the Jama Connect and Jira fields to each other. Begin with a few fields first (for example, **Name** and **Description)**, then test the integration before adding more fields.



> **Important**
> A field appears in the Jira drop-down list only if you configure it to be displayed on both the “Create issue” and “Edit issue” screens for the Jira issue type. This requirement applies only to company-managed Jira projects.
>
> You must map all required fields in the target system. For example, if Jira requires that the Summary field must be filled out to create the item, make sure that you map the Summary field. Required fields are labeled with *(required)* in the field mapping picklist.

6. Select **Save**.

Your Jama Connect fields are now successfully mapped to Jira fields.

Configure creation rules

Use the Creation Rules page to add conditional statements to indicate that items are created in the other system only if specific criteria are met. For example, you can add a rule that a Jama Connect item is only synced to Jira if the priority is set to High.

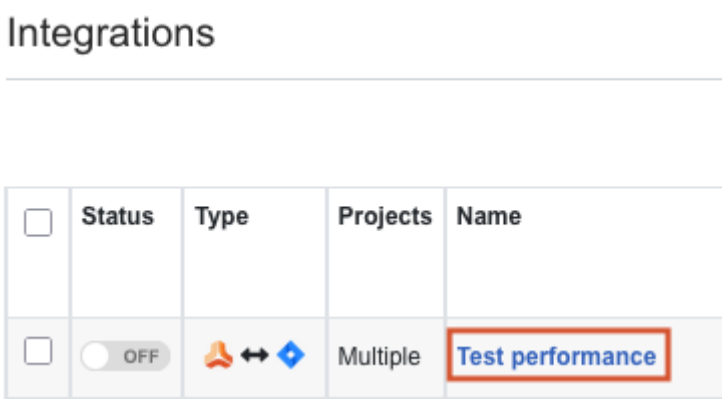
If an integration includes multiple field mapping groups, you can configure separate rules for each group.

Creation rules are supported for these field types: Text, HTML, Flags, and Single Select.

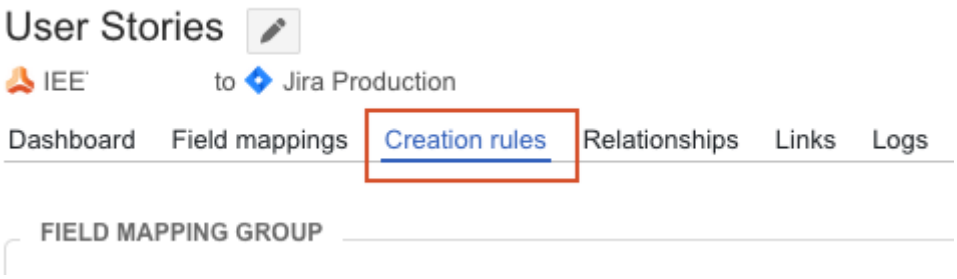
> **Important**
> Creation rules apply only when a link is first created. After that, updates continue to flow between items even if the item no longer meets the creation rule criteria. For example, if a creation rule indicates that a Jira item is created only if the priority of the Jama Connect item is set to High, updates between the two items continue to flow even if the priority is later changed to Medium.

To configure creation rules:

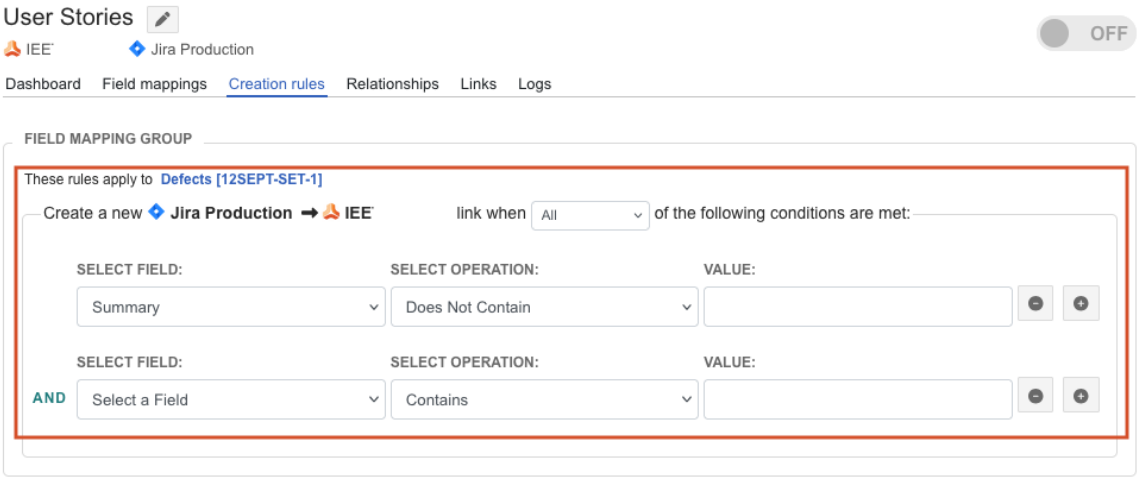
1. On the Integrations page, select the link for the integration you just created.



2. Select the **Creation rules** tab.



3. For each field mapping group, add creation rules for items syncing from Jama Connect to Jira (upper section).
   When an item is created in Jama Connect, a linked item is created in Jira only if these rules are met.



   a. If you add multiple rules, select a condition from the drop-down list:
      - **All** — All listed rules must be met for an item to sync (for example, **Priority** must equal **High** AND **Release** must equal **1.1**).
      - **Any** — Only one rule must be met for an item to sync (for example, **Priority** must equal **High** OR **Release** must equal **1.1**).
   b. When using Jama Connect tags in creation rules:
      - Separate multiple tags with three pipe characters (|||), as in **Tag 1|||Tag 2|||Tag 3**.
      - Select **Equals** to indicate that the item must include only the tags listed.
      - Select **Contains** to indicate that the item might include other tags in addition to the ones listed.
   c. When using Jira labels in creation rules:
      - Separate multiple labels with commas, as in **Label1,Label2,Label3**.
      - Select **Equals** to indicate that the item must include only the labels listed.
      - Select **Contains** to indicate that the item might include other labels in addition to the ones listed.
4. For each field mapping group, add creation rules for items syncing from Jira to Jama Connect (lower section).
   When an item is created in Jira, a corresponding linked item is created in Jama Connect only if the rules are met.
5. Select **Save Creation Rules**.

Your new creation rules are saved.

Configure relationship syncing

In addition to syncing items between Jama Connect and Jira, you can also sync relationships or links between items. For example, if an Epic/Parent link is established between two items in Jira and these

two items are synced to Jama Connect, a corresponding upstream/downstream relationship can be created.

As long as both items in the relationship belong to the same integration dataset, any relationships added or removed in one system can be reflected in the other system.

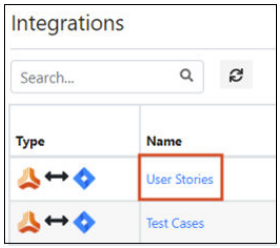
The following types of links in Jira can be reflected as relationships in Jama Connect, and vice versa:

- **Epic/Parent links** — In Jira, Epics can have one or multiple Jira issues (stories, defects, etc.) linked to them as children. If your integration includes both the Epics and their children, these Epic/Parent links can be synced to Jama Connect as upstream/downstream relationships. Conversely, upstream/downstream relationships created in Jama Connect can be synced to Jira as Epic/Parent links.
- **Issue (sibling) links** — In Jira, issues can also be linked as siblings, using the Links section in the Jira issue. You can sync these sibling links to Jama Connect as upstream/downstream relationships, and vice versa.

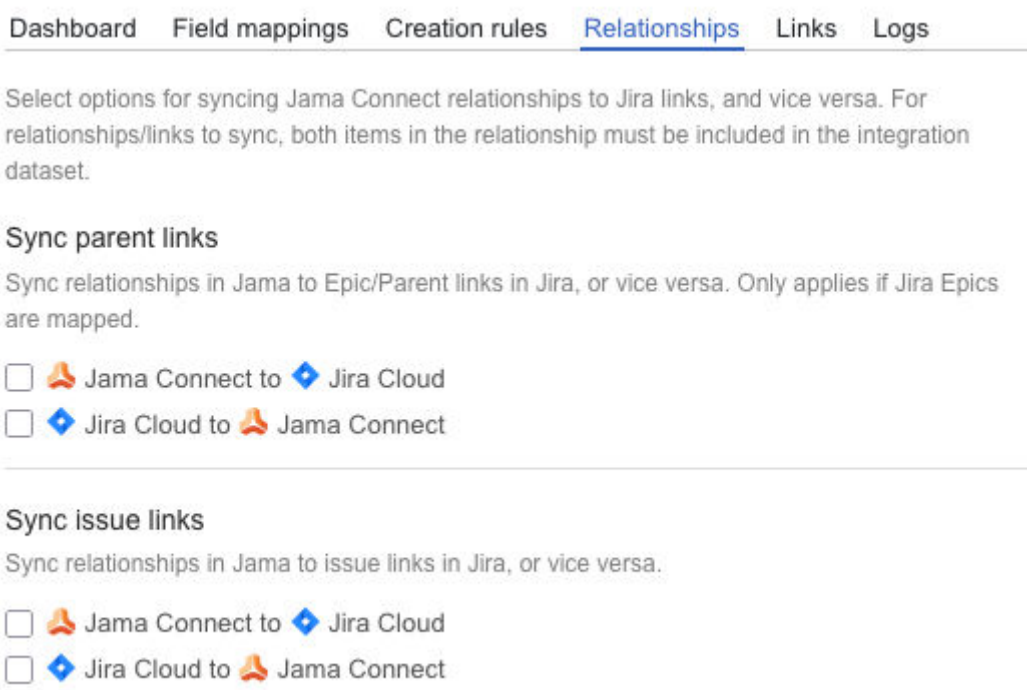


To configure relationship syncing:

1. On the Integrations page, select the link for the integration you are updating.



2. Select the **Relationships** tab.



3. In the **Sync Parent Links** section, choose options to sync relationships in Jama Connect to Epic/Parent links in Jira. This type of relationship sync can occur only if Jira Epics are mapped on the Field Mappings page.
   - **Jama Connect to Jira** — Sync relationships in Jama Connect to Epic/Parent links in Jira.
   - **Jira to Jama Connect** — Sync Epic/Parent links in Jira to relationships in Jama Connect.
4. In the **Sync Issue Links** section, select options to sync relationships in Jama Connect to issue (sibling) links in Jira.
   - **Jama Connect to Jira** — Sync relationships in Jama Connect to issue links in Jira.
   - **Jira Default Link Type** — For relationships syncing from Jama Connect to Jira, select the link type to assign to the link in Jira.
   - **Jira to Jama Connect** — Sync issue links in Jira to relationships in Jama Connect.
5. Select **Save**.

Additional guidelines for relationship syncing

Jama Connect Interchange syncs relationships between Jama Connect and Jira in multiple ways.

For Epic/Parent links

- **Jira to Jama Connect** — When a Jama Connect relationship is created based on an Epic/Parent link in Jira, the corresponding Jama Connect item is automatically marked as “upstream” of the Jama Connect item that corresponds to the Jira child.
  If relationship rules in Jama Connect disallow this, the relationship isn't created and an error message is logged in Jama Connect Interchange. The items themselves continue to sync as normal, but the relationship does not.
- **Jama Connect to Jira** — When a Jira Epic/Parent relationship is created based on a relationship in Jama Connect, the directionality of the Jama Connect relationship has no impact on the Jira link. The Jira Epic automatically becomes the “parent” issue in the Jira link, and the other Jira issue becomes the “child.”
  Jira allows each child issue to have only a single Epic assigned. So, if the child’s corresponding Jama Connect item has multiple Epics related to it in Jama Connect, only the most recently added relationship is synced as the Epic link.

For Sibling links

- **Jira to Jama Connect** — When a Jama Connect relationship is created based on a sibling link in Jira, the Jira *link type* determines which Jama item in the relationship is upstream and which is downstream. For example. Jira links with the link type of "Blocks" are sent to Jama Connect as downstream relationships, while link types of "Is Blocked By" are sent as upstream relationships.
- **Jama Connect to Jira** — When a Jira sibling link is created based on a relationship in Jama Connect, the selection of the Jira Default Link Type field determines which link type is assigned to the sibling link.

Full syncs

When you run a Full Sync in Jama Connect Interchange, relationships are added but not deleted. You must manually remove the relationship in both systems.

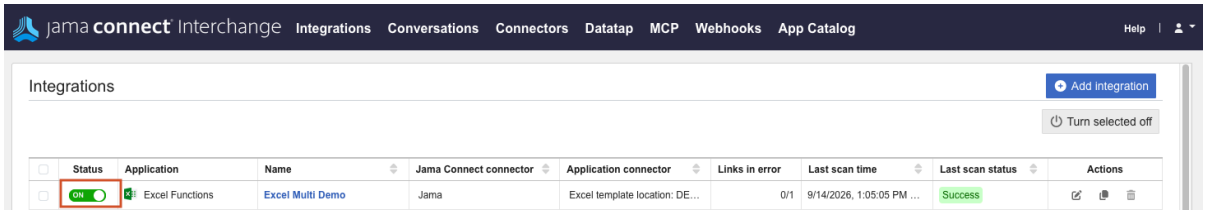
Unsupported scenarios

Syncing both an Epic/Parent link and a sibling link between the same two Jira items is not supported. This action can lead to unexpected behavior when the relationships are synced to Jama Connect.

Enable the Jira integration

After the integration is set up between Jama Connect and Jira and field mappings are defined, enable the integration.

- On the Integrations dashboard, set the ON/OFF toggle to **ON**.



Once an integration is enabled, Jama Connect Interchange begins linking items in the two systems.

Test the Jira integration

Once you link your Jama Connect instance to the Jira instance, then create and enable an integration, verify that the systems are communicating correctly.

To test your Jira integration:

1. **In Jama Connect:**
   a. Go to the Jama Connect set that you configured to sync with Jira, and create a new Jama Connect item.
   b. After 15 seconds, verify that a corresponding issue is created in Jira.
   c. Verify that the new Jira issue includes the same name and description as the Jama Connect item.
   d. In Jama Connect, edit the **Name** and **Description** fields, then, after 15 seconds, verify that the same changes are reflected in the Jira issue.
2. **In Jira:**
   a. Go to the Jira project that you configured to sync with Jama Connect and create a new Jira issue.
   b. After 15 seconds, verify that a corresponding item is created in Jama Connect.
   c. Verify that the new Jama Connect item includes the same name and description as the Jira issue, based on the field mappings you specified on the Field Mappings tab.
   d. In Jira, edit the **Name** and **Description** fields and, after 15 seconds, verify that the same changes are reflected in the Jama Connect instance.

Your Jama Connect instance and Jira instance are communicating.

Create a multi-project Jira Cloud integration

A "multi-project" Jira Cloud integration connects multiple Jama Connect projects with multiple Jira projects.

Field mapping groups pair one Jama item type with one Jira issue type, and routes define the Jama project location, Jira project, creation direction, and optional creation rules for each sync path.

> **Note**
> The ability to create a multi-project Jira integration applies to Jira Cloud version 1.40 and later.

This process of creating a multi-project integration consists of these tasks:

1. Create a Jira Cloud integration using the Jama Connect Interchange integration wizard.
2. Configure field mapping groups [28].
3. Configure routes [30].
4. Configure creation rules [31].
5. Configure relationship syncing [32].
6. Enable the Jira integration [34].
7. Test the Jira integration [34].

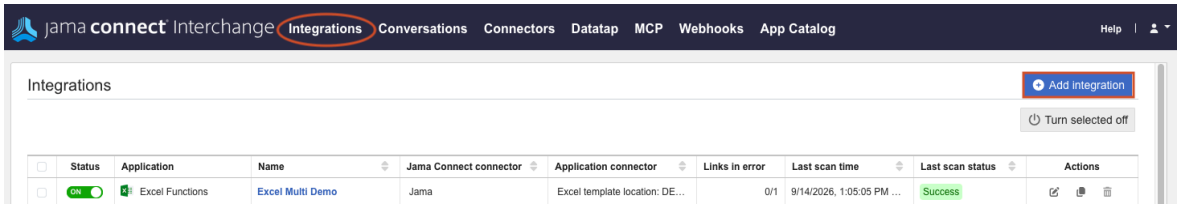
To configure a multi-project Jira Cloud integration:

The integration is saved in a disabled state so you can complete and validate its configuration before synchronization begins.

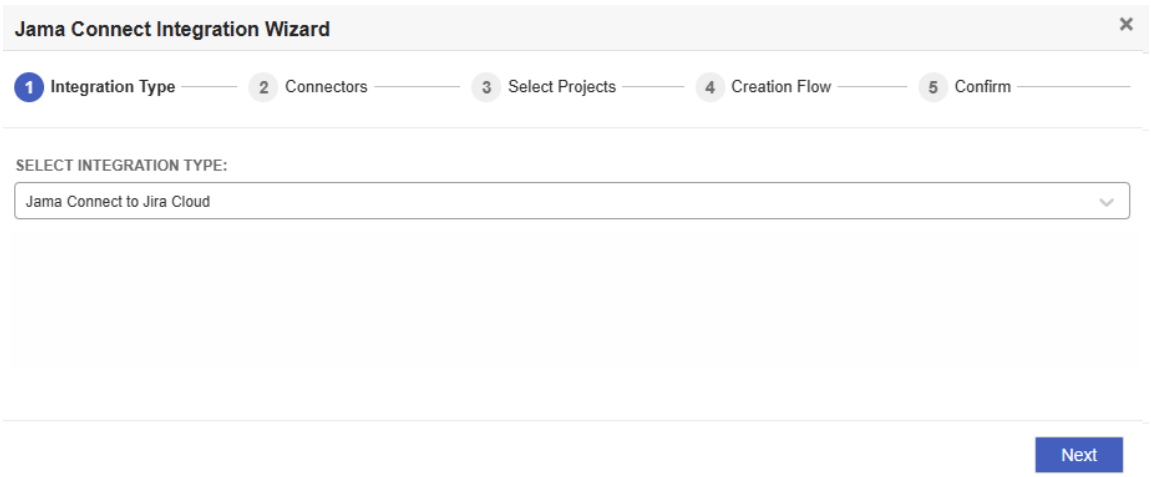
1. In Jama Connect, create empty sets or folders in the projects you plan to synchronize.
2. In Jira, create new, empty project for testing purposes.

> **Note**
> You can select company-managed projects. A team-managed project can be selected only by itself, when supported.

3. In the Jama Connect Interchange header bar, select **Integrations**, then select **Add integration** to open the Jama Connect integration wizard.

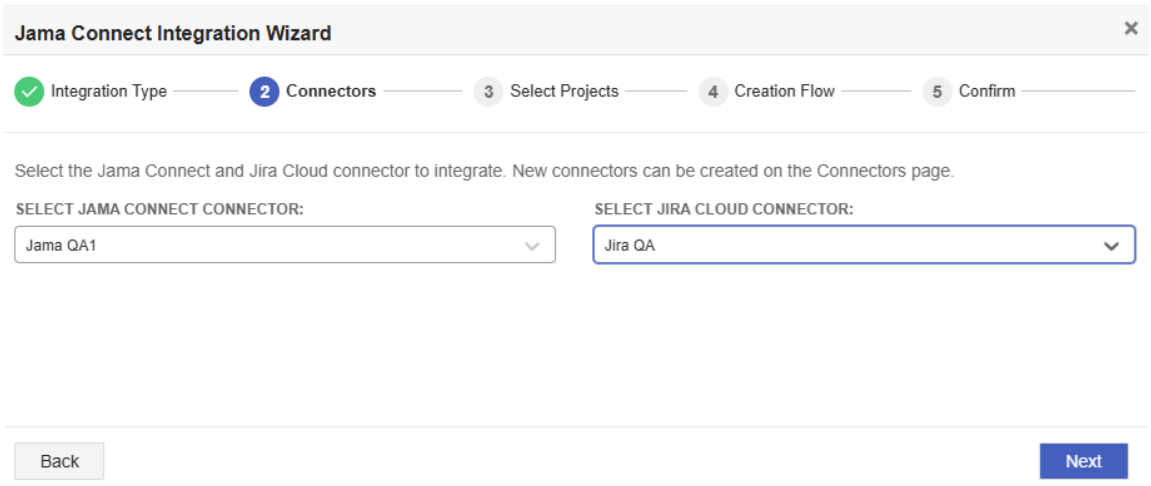


4. Complete each page of the wizard, then select **Next**.
   Integration Type — Select the integration type:
   - **Select integration** — Select **Jama Connect to Jira Cloud**. When multi-to-multi is enabled, Jira Cloud uses the unified multi-project setup. Jira Data Center integrations continue to use the legacy single-project workflow.



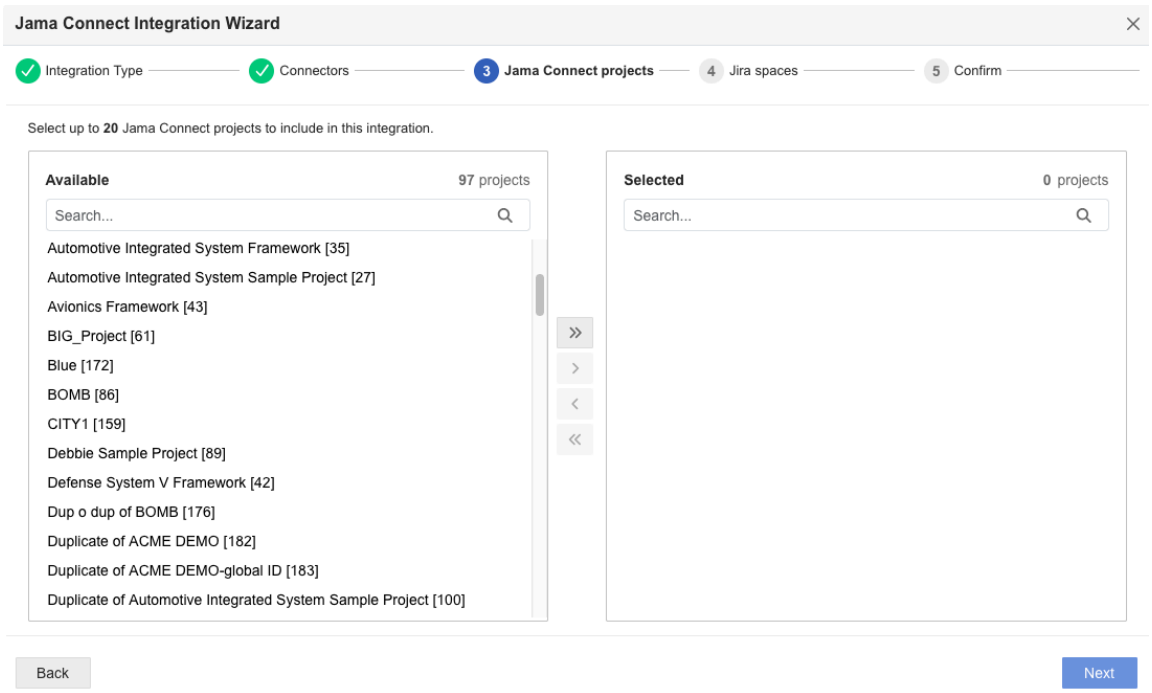
Connectors — Choose the connectors you want to integrate.

- **Choose Jama Connect for Source Connector** — Select the Jama Connect connector that you want to integrate.
- **Choose Jira for Target Connector** — Select the Jira connector that you want to integrate.



Select Projects

- **Jama Connect** — For the Jama Connect connector, search for or select up to 20 Jama Connect projects.
- **Jira** — For the Jira connector, select up to 20 Jira projects. Archived projects are excluded from **Add all**.



Integration Configuration

- **Name your Integration** — Enter a descriptive name for the integration.
- **Frequency** — Select the frequency with which you want the integration to run. Multi-project Jira Cloud integrations require a minimum frequency of one minute; lower values are automatically raised to 60 seconds.
- **Sync Attachments** — Toggle to **Enabled** to sync item attachments.

> **Note**
> Only attachments of less than 25 MB are copied between systems. If an attachment exceeds 25 MB, a placeholder text file is created in the other system to indicate that an attachment exists in the linked item.

- **Sync Comments** — Toggle to **Enabled** to sync item comments.

> **Note**
> Jama Connect Interchange doesn't support edits to Jira comments. If a Jira user edits a comment after posting it, the edited version is not synced to Jama Connect. Only the original comment text exists in Jama Connect.

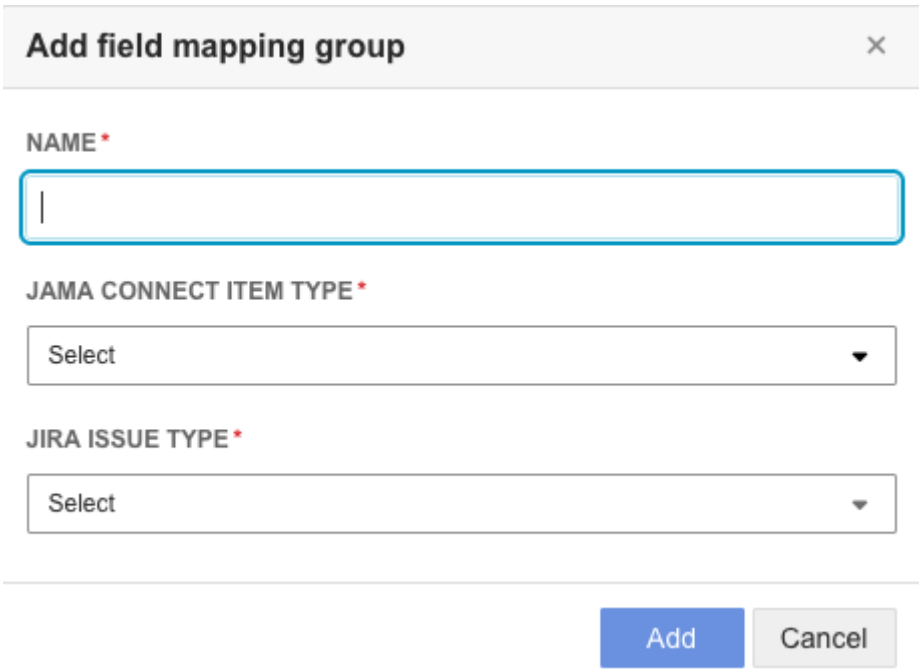
5. Select **Submit** to complete the wizard.

Configure field mapping groups

After you create a Jira integration, add field mapping groups, then configure routes that determine where each mapping applies.

To configure field mappings for Jira:

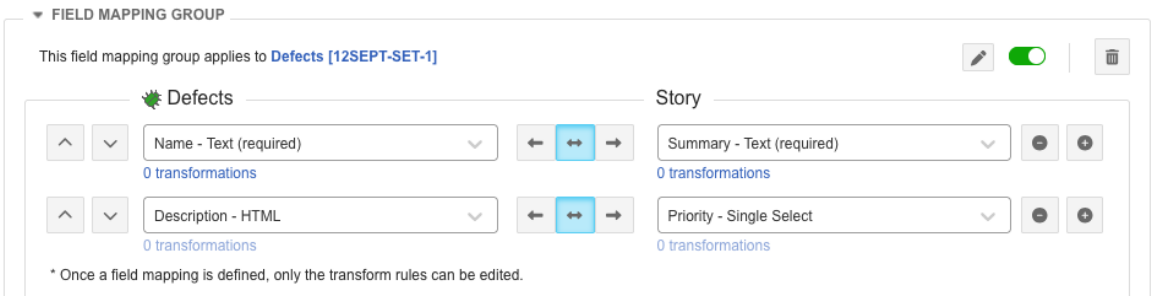
1. On the Integrations page, select the link for the integration you just created.
2. Select the **Field Mappings** tab.
3. For each field mapping group you want to add, select **Add field mappings group**.



> **Important**
> Use a unique Jama Connect item type and Jira issue type pair for each field mapping group. A type can't be assigned to more than one group within an integration.

4. In the page that opens, complete the fields, then select **Create**.
   - **Name** — Enter a descriptive name for the field mapping group.
   - **Jama item type** — Select the Jama Connect item type to pair with the Jira issue type. You can only select item types that are shared by all Jama Connect projects in the integration. Configure Jama Connect projects and locations in routes.
   - **Jira issue type** — Select the Jira issue type to pair with the Jama Connect item type.

   The page closes and the new field mapping group is created.
5. Using the drop-down lists, map the Jama Connect and Jira fields to each other. Begin with a few fields first (for example, **Name** and **Description)**, then test the integration before adding more fields.



> **Important**
> A field appears in the Jira drop-down list only if you configure it to be displayed on both the “Create issue” and “Edit issue” screens for the Jira issue type. This requirement applies only to company-managed Jira projects.
>
> You must map all required fields in the target system. For example, if Jira requires that the Summary field must be filled out to create the item, make sure that you map the Summary field. Required fields are labeled with *(required)* in the field mapping picklist.

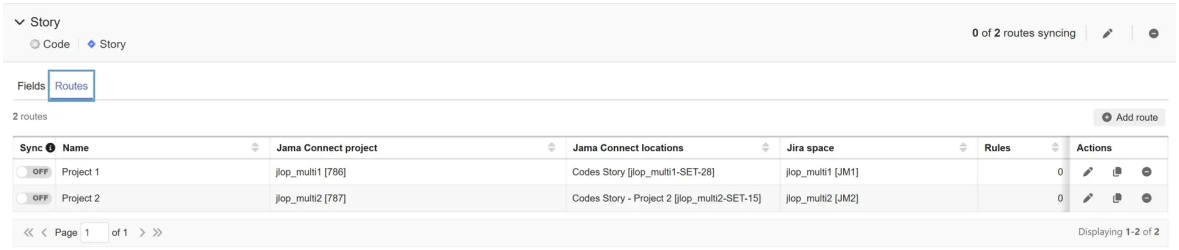
6. Select **Save**.

Configure routes

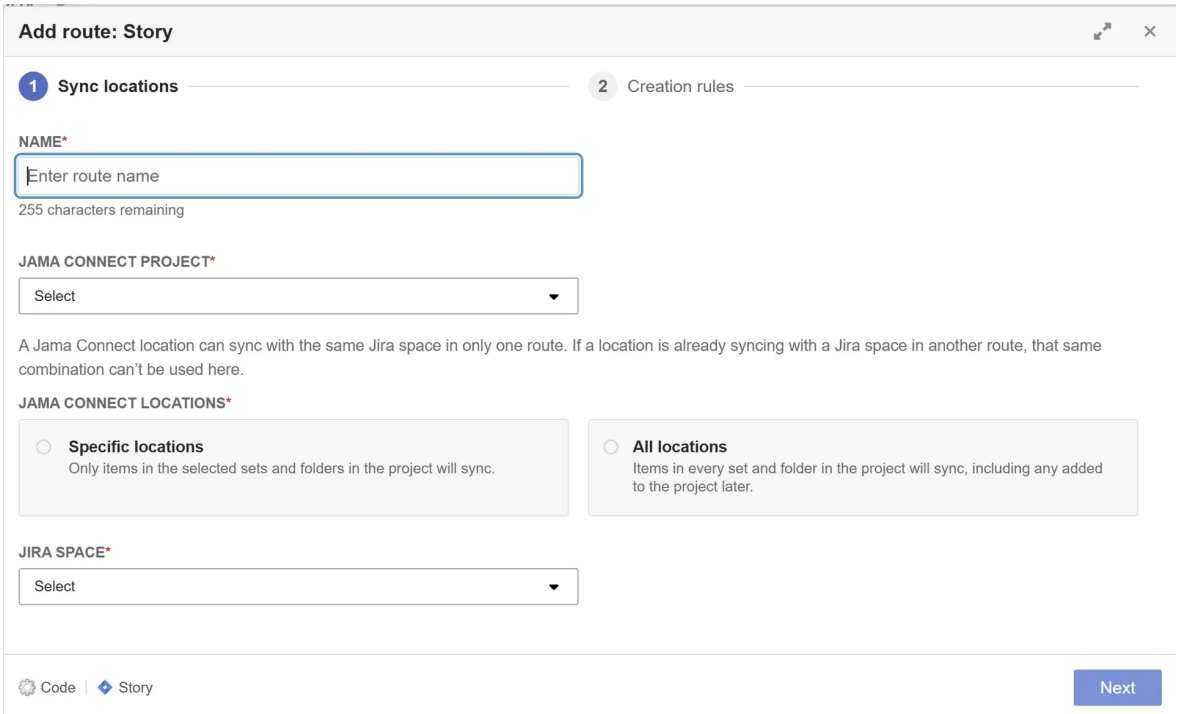
Routes define where a field mapping group applies and how new items are created. Each field mapping group can contain up to 40 routes.

To configure a route and creation rules:

1. On the Integrations page, select the link for the integration you created.
2. Select the **Field Mappings** tab, then select the **Routes** tab for the field mapping group.



3. Select **Add route** and enter a route name, Jama Connect project, location mode, and Jira project.



4. For Specific locations, select the sets or compatible component containers that the route should include. For All locations, the route includes every compatible set or folder in the project, including future locations.

5. Select the Jira Space, then select **Next**.
6. Select the creation direction: **Bidirectional**, **Jama Connect to Jira**, or **Jira to Jama Connect**.
7. Save the route. The route is enabled by default when its configuration is available.

> **Important**
> The same Jama Connect location and Jira project combination cannot appear in more than one route in the same field mapping group. An **All locations** route conflicts with overlapping routes for the same project and Jira project. Don't use multiple routes to duplicate data across systems.

Configure creation rules

Use route creation rules to specify when a new item is created in the other system. Creation rules are configured within a route and apply only when a link is first created.

Each route can have separate rule groups for items created from Jama Connect and items created from Jira. If a directional rule group has no rules, the rule gate passes for items that meet the route scope.

Creation rules support Text, HTML, Single Select, Multi Select, and Boolean fields. The available operators depend on the field type.

> **Important**
> Creation rules apply only when a link is first created. After that, updates continue to flow even if the item no longer meets the rule criteria.

To configure route creation rules:

1. On the Integrations page, select the link for the integration you just created.
2. Edit a route, then select **Next** to open its Creation rules step.
3. Edit a route and configure the Jama Connect-to-Jira rule group when you want to filter items created in Jira.
   When an item is created in Jama Connect, a linked Jira issue is created only if the route scope and applicable rules are satisfied.
   a. If you add multiple rules, select a condition:
      - **All** — Every rule in the directional group must match.
      - **Any** — At least one rule in the directional group must match.
   b. When using Jama Connect tags in creation rules:
      - Separate multiple tags with three pipe characters (|||), as in **Tag 1|||Tag 2|||Tag 3**.
      - Select **Equals** to indicate that the item must include only the tags listed.
      - Select **Contains** to indicate that the item might include other tags in addition to the ones listed.
4. When using Jira labels in creation rules:
   - Separate multiple labels with commas, as in **Label1,Label2,Label3**.
   - Select **Equals** to indicate that the item must include only the labels listed.
   - Select **Contains** to indicate that the item might include other labels in addition to the ones listed.
5. Edit a route and configure the Jira-to-Jama Connect rule group when you want to filter items created in Jama Connect.

When an item is created in Jira, a corresponding Jama Connect item is created only if the route scope and applicable rules are satisfied.

6. Save the route.

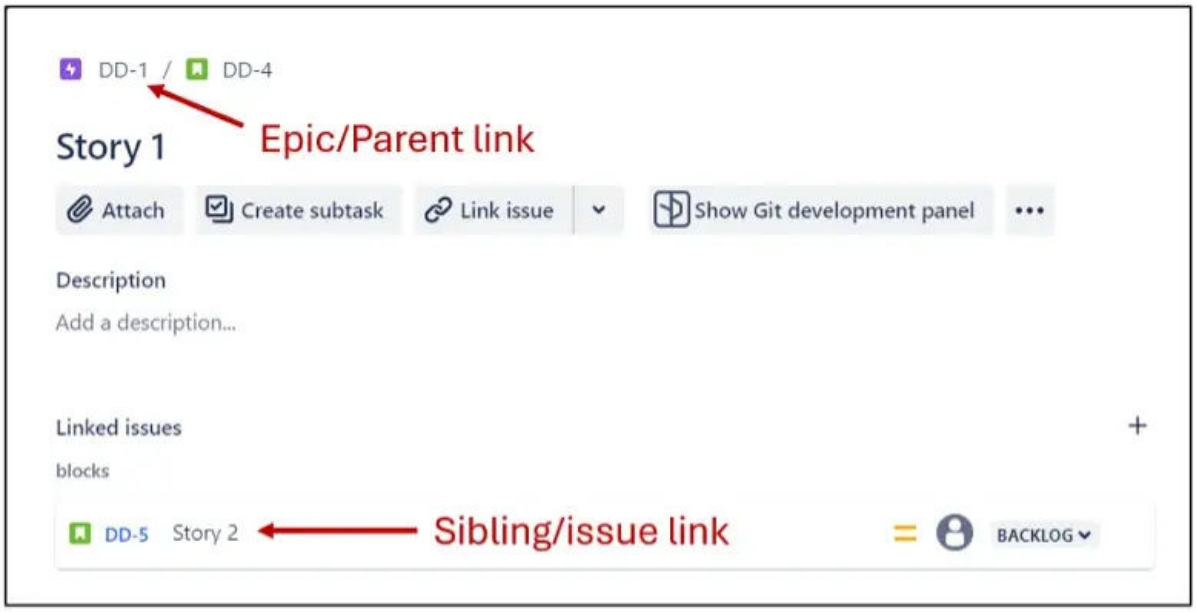
Configure relationship syncing

In addition to syncing items between Jama Connect and Jira, you can also sync relationships or links between items. For example, if an Epic/Parent link is established between two items in Jira and these two items are synced to Jama Connect, a corresponding upstream/downstream relationship can be created.

As long as both items in the relationship belong to the same integration dataset, any relationships added or removed in one system can be reflected in the other system.

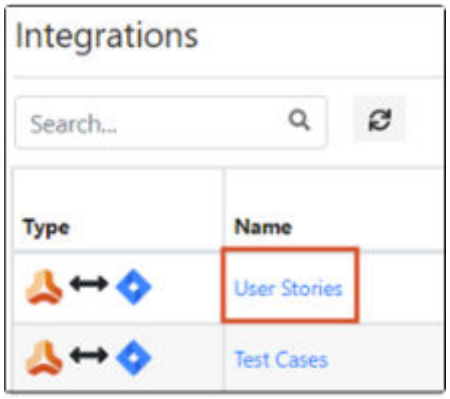
The following types of links in Jira can be reflected as relationships in Jama Connect, and vice versa:

- **Epic/Parent links** — In Jira, Epics can have one or multiple Jira issues (stories, defects, etc.) linked to them as children. If your integration includes both the Epics and their children, these Epic/Parent links can be synced to Jama Connect as upstream/downstream relationships. Conversely, upstream/downstream relationships created in Jama Connect can be synced to Jira as Epic/Parent links.
- **Issue (sibling) links** — In Jira, issues can also be linked as siblings, using the Links section in the Jira issue. You can sync these sibling links to Jama Connect as upstream/downstream relationships, and vice versa.

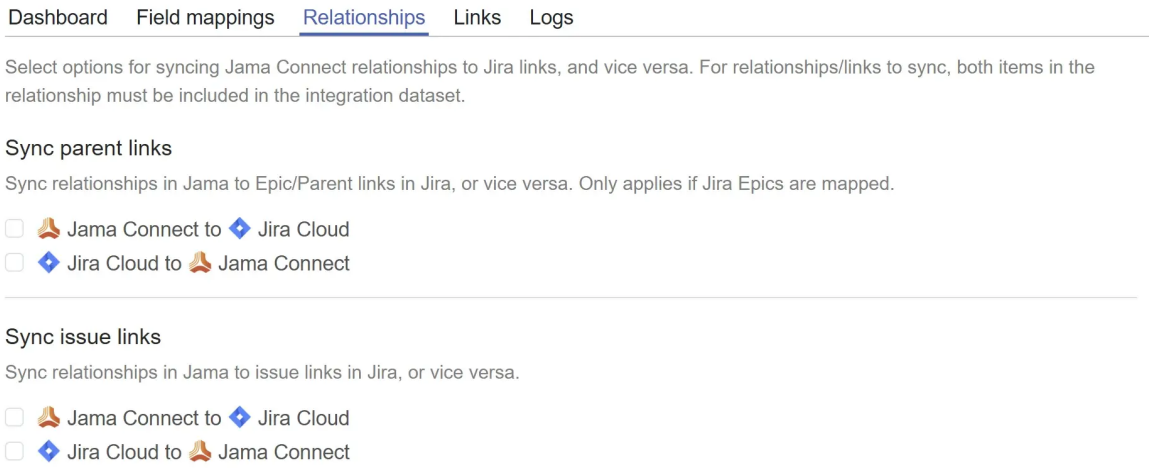


To configure relationship syncing:

1. On the Integrations page, select the link for the integration you are updating.



2. Select the **Relationships** tab.



3. In the **Sync Parent Links** section, choose options to sync relationships in Jama Connect to Epic/Parent links in Jira. This type of relationship sync can occur only if Jira Epics are mapped on the Field Mappings page.
   - **Jama Connect to Jira** — Sync relationships in Jama Connect to Epic/Parent links in Jira.
   - **Jira to Jama Connect** — Sync Epic/Parent links in Jira to relationships in Jama Connect.
4. In the **Sync Issue Links** section, select options to sync relationships in Jama Connect to issue (sibling) links in Jira.
   - **Jama Connect to Jira** — Sync relationships in Jama Connect to issue links in Jira.
   - **Jira Default Link Type** — For relationships syncing from Jama Connect to Jira, select the link type to assign to the link in Jira.
   - **Jira to Jama Connect** — Sync issue links in Jira to relationships in Jama Connect.
5. Select **Save**.

Additional guidelines for relationship syncing

Jama Connect Interchange syncs relationships between Jama Connect and Jira in multiple ways.

For Epic/Parent links

- **Jira to Jama Connect** — When a Jama Connect relationship is created based on an Epic/Parent link in Jira, the corresponding Jama Connect item is automatically marked as “upstream” of the Jama Connect item that corresponds to the Jira child.
  If relationship rules in Jama Connect disallow this, the relationship isn't created and an error message is logged in Jama Connect Interchange. The items themselves continue to sync as normal, but the relationship does not.
- **Jama Connect to Jira** — When a Jira Epic/Parent relationship is created based on a relationship in Jama Connect, the directionality of the Jama Connect relationship has no impact on the Jira link. The Jira Epic automatically becomes the “parent” issue in the Jira link, and the other Jira issue becomes the “child.”
  Jira allows each child issue to have only a single Epic assigned. So, if the child’s corresponding Jama Connect item has multiple Epics related to it in Jama Connect, only the most recently added relationship is synced as the Epic link.

For Sibling links

- **Jira to Jama Connect** — When a Jama Connect relationship is created based on a sibling link in Jira, the Jira link type determines which Jama Connect item is upstream and which is downstream.
- **Jama Connect to Jira** — When a Jira sibling link is created based on a relationship in Jama Connect, the selection of the Jira Default Link Type field determines which link type is assigned to the sibling link.

Full syncs

When you run a Full Sync in Jama Connect Interchange, relationships are added but not deleted. You must manually remove the relationship in both systems.

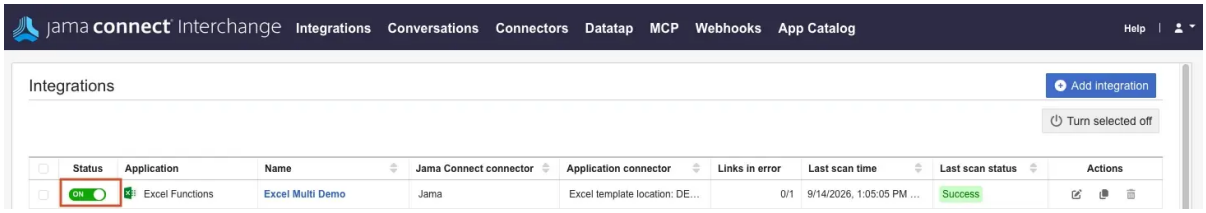
Unsupported scenarios

Syncing both an Epic/Parent link and a sibling link between the same two Jira items is not supported. This action can lead to unexpected behavior when the relationships are synced to Jama Connect.

Enable the Jira integration

Before you enable the integration, resolve any unavailable projects, locations, item types, issue types, fields, or rule fields. Make sure at least one valid route is enabled.

- On the Integrations dashboard, set the ON/OFF toggle to **ON**.



Once an integration is enabled, Jama Connect Interchange begins linking items in the two systems.

Test the Jira integration

After you configure and enable the integration, test communication between Jama Connect and Jira.

To test your Jira integration:

1. **In Jama Connect:**
   a. In one of the configured Jama Connect locations, create a new Jama Connect item.
   b. After 15 seconds, verify that a corresponding issue is created in Jira.
   c. Verify that the new Jira issue includes the same name and description as the Jama Connect item.
   d. In Jama Connect, edit the **Name** and **Description** fields, then, after 15 seconds, verify that the same changes are reflected in the Jira issue.
2. **In Jira:**
   a. In one of the configured Jira project s, create a new Jira issue.
   b. After 15 seconds, verify that a corresponding item is created in Jama Connect.
   c. Verify that the new Jama Connect item includes the same name and description as the Jira issue, based on the field mappings you specified on the Field Mappings tab.
   d. In Jira, edit the **Name** and **Description** fields and, after 15 seconds, verify that the same changes are reflected in the Jama Connect instance.

Manage upgraded Jira Cloud integrations

Eligible Jama Connect Interchange integrations that use Jira Cloud have been upgraded to the multi-project integration model. You can continue using an upgraded integration as configured or expand it by adding additional Jama Connect projects and Jira Cloud spaces.



Note
Jira Cloud integrations were upgraded in version 1.40. Jira Data Center integrations aren't upgraded and continue to use the legacy integration model.

Upgrade changes

For each eligible Jira Cloud integration, the upgrade:

- Preserved the integration's enabled or disabled state
- Preserved its connectors, field mappings, synchronization direction, and existing item links
- Added a route for each existing field mapping group
- Carried forward the configured Jama Connect project, synchronization locations, and Jira Cloud space
- Converted supported creation rules to route-level rules
- Associated existing item links with the appropriate migrated route
- Set the synchronization frequency to at least one minute if the previous value is missing or shorter than one minute
- Converted the integration to the Jira Cloud multi-project model

Existing links continue to synchronize through their migrated routes. To remain eligible for synchronization, an item must stay within the project, location, item type, and Jira Cloud space covered by its route.

Adjust an upgraded integration

An upgraded integration isn't limited to the Jama Connect project and Jira Cloud space in its original configuration.

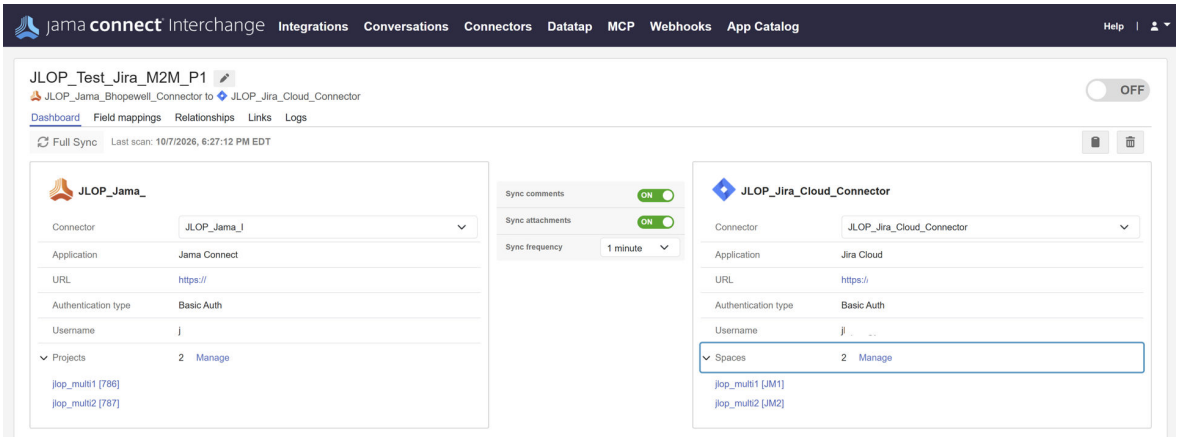
An integration can include up to:

- 20 Jama Connect projects
- 20 Jira Cloud spaces
- 40 routes per field mapping group

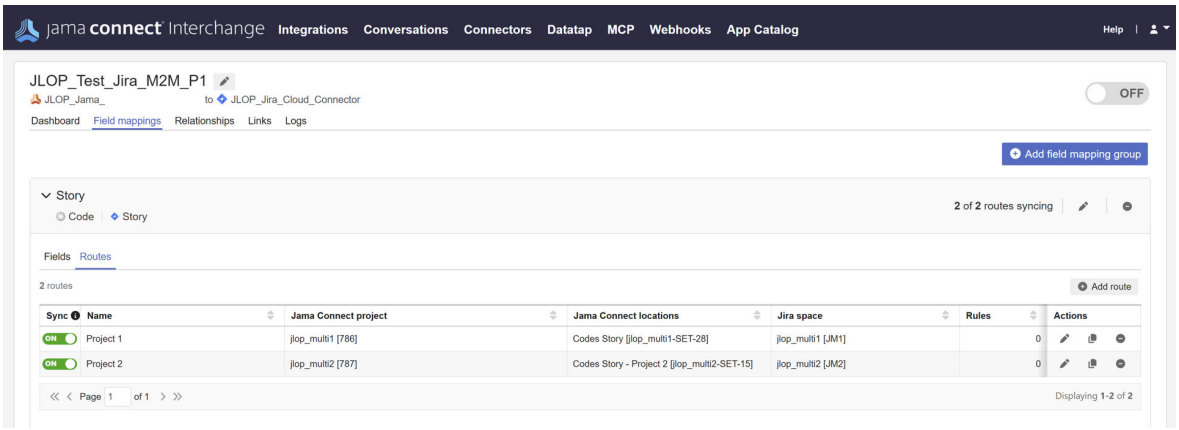
You can't remove projects, locations, or spaces that existing routes reference. Update or remove the dependent routes first.

To add projects and spaces:

1. Disable the integration.
2. Open the integration dashboard.



3. In the Jama Connect panel, next to **Projects**, select **Manage**.
4. Add the required Jama Connect projects.
5. In the Jira Cloud panel, next to **Spaces**, select **Manage**.
6. Add the required Jira Cloud spaces.
7. Save your changes.
8. Open **Field mappings**, then configure routes for the newly added projects and spaces.



9. Review the configuration for unavailable values or route validation errors.
10. Enable the required routes and the integration.

> **Important**
> Adding a project or Jira Cloud space makes it available for route configuration but doesn't begin synchronizing its items. At least one valid, enabled route must connect the Jama Connect project and location to the Jira Cloud space.

Troubleshoot an upgraded integration

You can't enable a migrated route if it contains an unavailable project, location, destination, Jira Cloud space, or rule field that blocks the route.

If you can't enable an upgraded integration:

1. Confirm that at least one field mapping group has a valid, enabled route.
2. Confirm that both connectors can access the configured projects and spaces.
3. Open each route with an error and replace values marked **Unavailable**.
4. Verify that the selected Jama Connect destination accepts the mapped item type.
5. Confirm that another route doesn't use the same Jama Connect location and Jira Cloud space combination.
6. Run a **Full Sync**, then review the logs.

If you move an already-linked item outside its route's configured scope, the link might become inactive. The link can become active again if you move the item back to a matching route.

Configure additional field mappings

After testing the integration between Jama Connect and Jira using the Name and Description fields, add additional field mappings to the Field Mappings page, as needed.

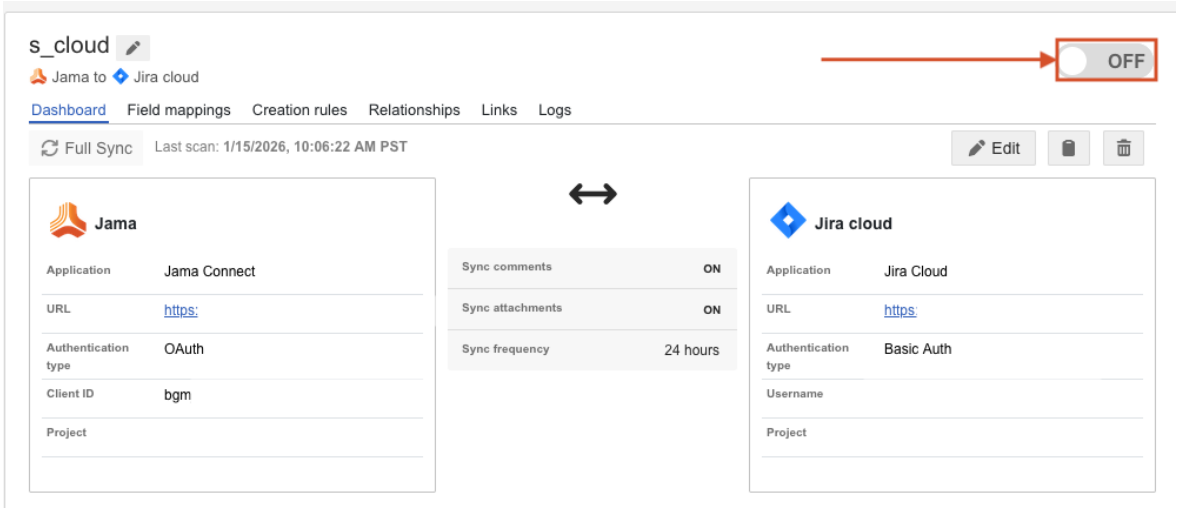
As a minimum, we recommend adding these field mappings:

- Jama Name ↔ Jira Summary
- Jama Description ↔ Jira Description
- Jama URL → Jira custom text field
- Jama custom text field ← Jira URL
- Jama Downstream Related Items → Jira Weblinks
- Jama Upstream Related Items → Jira Weblinks

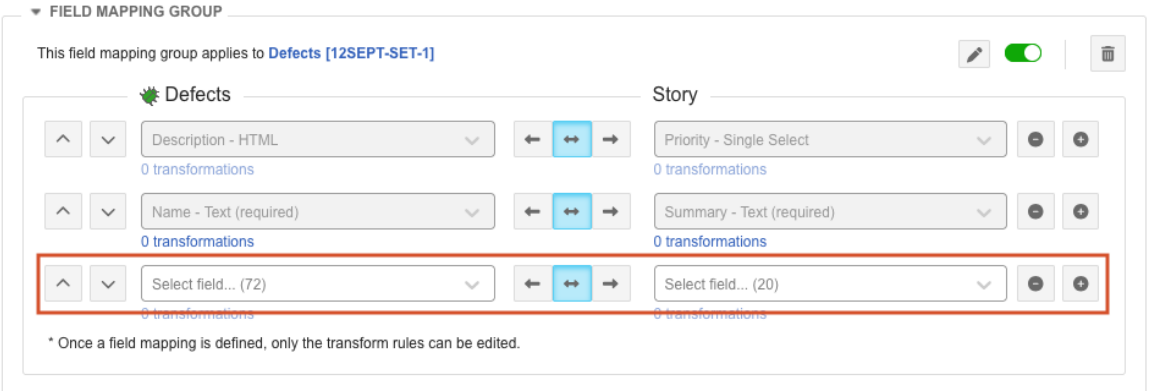
Note
If all data for the newly mapped field is currently stored in one system, set the directionality of that field so that data flows one-way from that source system to the destination system before running the first sync. You can change the directionality back to bidirectional after the first sync.

To configure additional field mappings:

1. Turn off the integration.



2. Select the **Field Mappings** tab and add a row for the new field mapping.



3. Use the drop-down lists to select the fields you want to map.
4. Use the arrows to select the directionality for the field mapping.
5. Select **Save Changes**.
6. Turn the integration back **ON**.
7. Select **Full Sync**.
8. On the first page of the Full Sync wizard, select **Custom sync**.
9. On the second page of the wizard, select only the newly mapped field and its sync direction. For example, if all information for this field is currently stored in Jama Connect, select → so that information flows from Jama Connect to Jira when the custom sync is run.
10. On the final page of the wizard, select **Confirm** to execute the sync.

The newly added field mappings are saved and the sync is run.

For more information about using the Full Sync wizard, see Perform a Full Sync for Jira integrations [38].

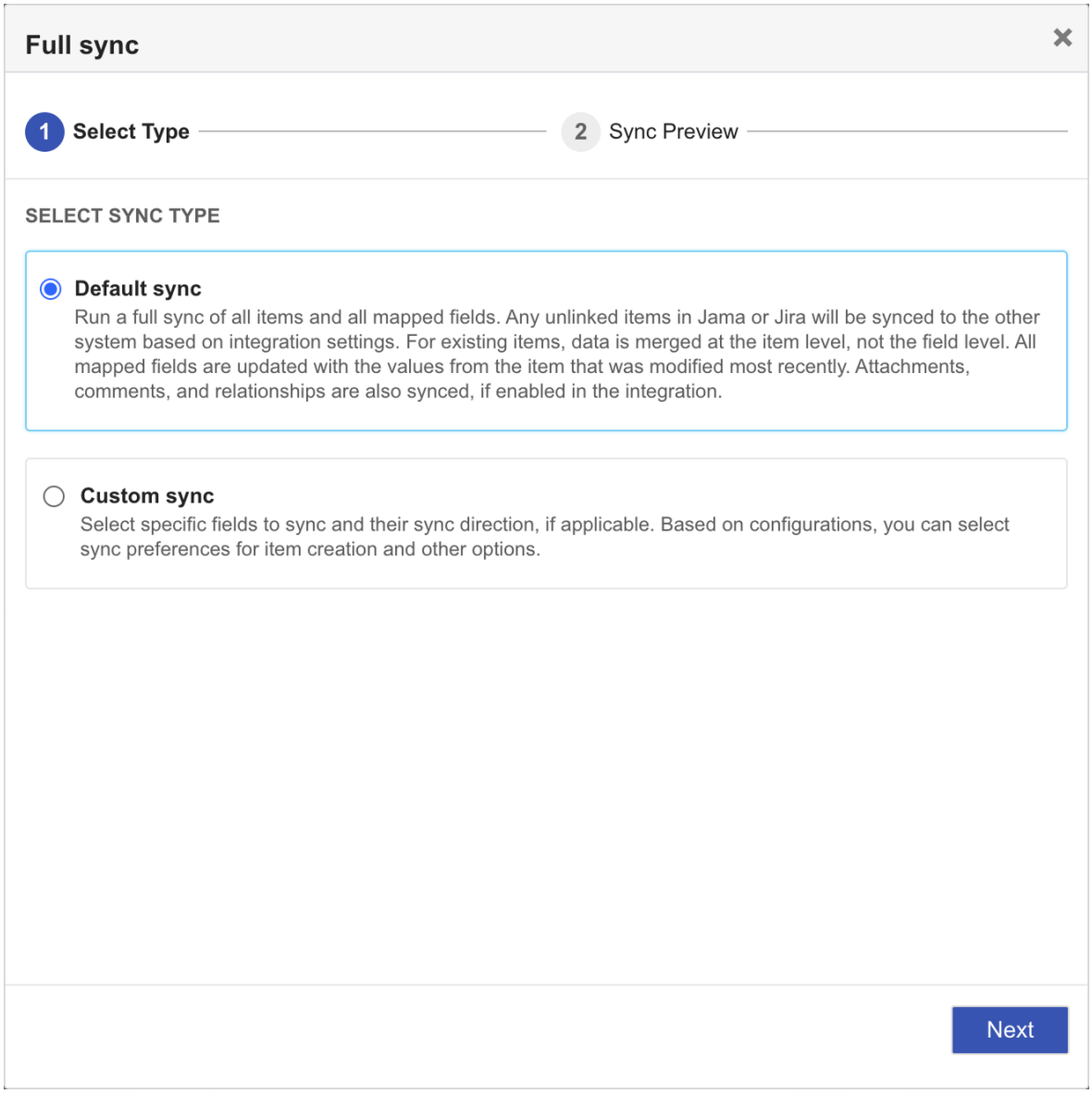
Perform a Full Sync for Jira integrations

To maximize performance and minimize load on Jama Connect and the integrated system, regular syncs include only items that were modified since the last integration run. However, you can sync all items with the Full Sync option.

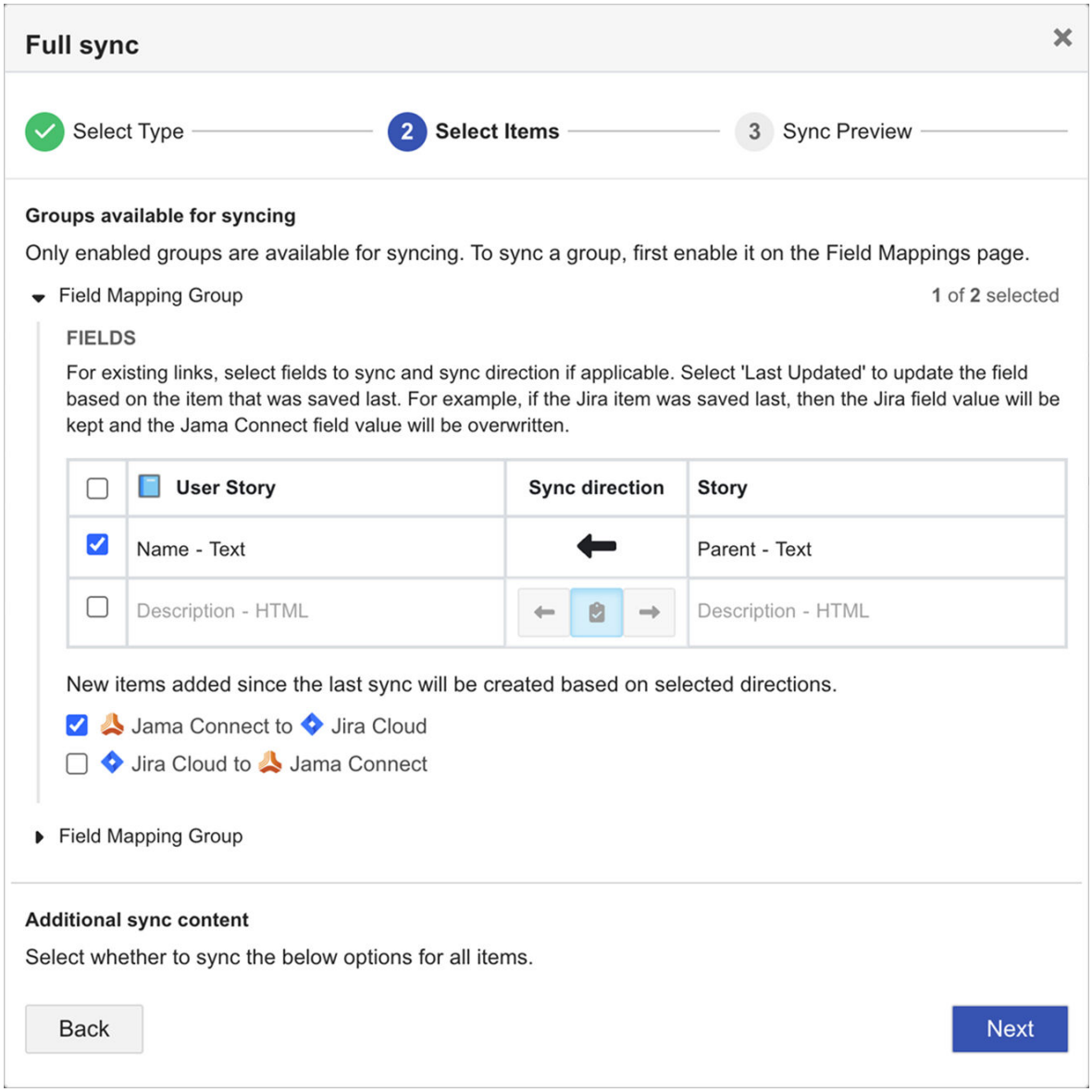
> **Important**
> Only run a Full Sync when advised by Support because it is a performance-intensive operation.

To perform a Full Sync:

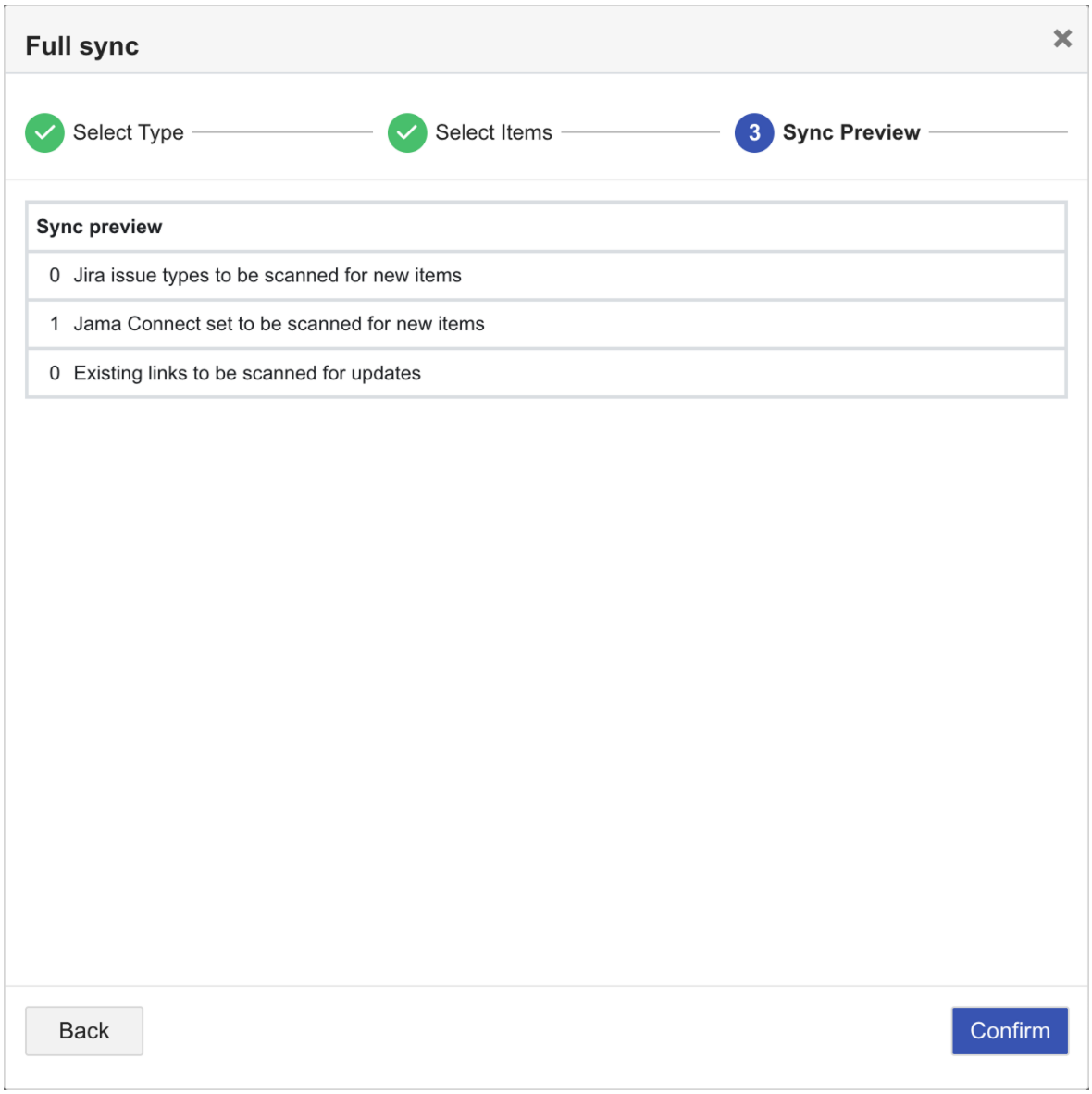
1. On the Integrations page, select the link for the integration.
2. On the Integration dashboard, select **Full sync** to open the "Full sync" wizard.



3. On the Select Type page, choose whether to run a **Default sync** or **Custom sync**, then select **Next**.
   - **Default sync** — Fully synchronize all mapped fields for all items in the integration. For a complete description of the default full sync process, see Delta syncs and full syncs [124].
   - **Custom sync** — Select specific fields and elements to sync, and their sync direction.
4. (Custom sync only) On the Select Items page, choose one or more of the following options, then select **Next**.



   - **Create new items** — Choose whether to sync any new items that were added to Jama Connect and/or Jira since the last sync. Only items that meet the criteria selected for the integration (such as project and set locations, issue types, creation rules) are synced.
   - **Update existing fields** — For items that are already being synced, select one or more mapped fields to sync and the sync direction.
     Only fields mapped on the Field Mapping page are listed. If a field can be synced only one way (for example, because it is marked read–only in one system), its sync direction is locked.
5. On the Sync Preview page, review the information for the sync, and select **Confirm**.



The full sync is run. When the sync finishes processing, a message is posted on the Logs page.

Best practices for Jira integrations

For a smooth Jira integration setup, we recommend that you follow these best practices.

Enable Attachments widget in Jama Connect

For any item type syncing with Jira, enable the Attachments widget in Jama Connect. This ensures that attachments added to items in Jira sync to Jama Connect as intended. To enable the Attachments widget, see Manage item types.

Enable Attachments in Jira Data Center

For Jira Data Center integrations, make sure that attachments are enabled in your Jira Data Center settings. Otherwise, attachments and images don't sync correctly from Jama Connect.

Advanced use cases for Jira integrations

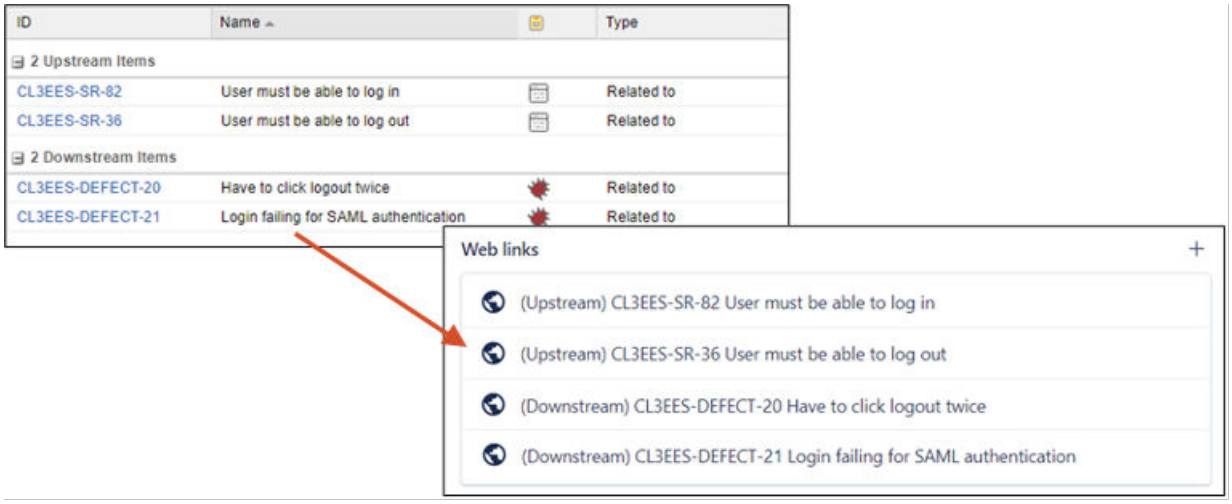
- Viewing related items as web links (Jira only) [41]
- System and generated fields [41]

- HTML fields [42]
- Release and Fix Version fields [43]
- Jira Epic/Parent field [43]
- Pick list fields don't have the same values in both systems [43]
- Non-required field mapped to a required field [43]
- Required fields exist in other systems [44]
- Syncing status fields bidirectionally [45]

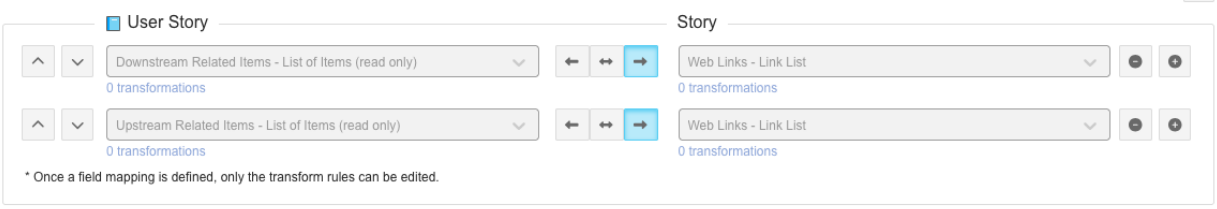
Viewing related items as web links (Jira only)

Jira items can include direct links to the Jama Connect item's upstream and downstream relationships. These links allow users working in Jira to easily access related Jama Connect information (such as the upstream requirement for a user story) directly from Jira.

Related items in Jama Connect are synced to Jira as web links.



To sync relationship links from Jama Connect to Jira, add these rows to the Field Mappings tab for the integration:



Note

Web links in Jira can be added, updated, and removed by the integration. If a relationship is removed from Jama Connect, the corresponding Jira web link is automatically removed when items are synced.

System and generated fields

Using Jama Connect Interchange, you can map a variety of system fields and generated fields.

Jama Connect

Examples of Jama Connect system and generated fields include the following.

Jama Set ID — The Jama Set ID identifies the set or container to which an item belongs. To map the Jama Set ID, open the Field Mappings page and select **Jama Set ID – Text (read only)** in the left drop-down list. Typically, you map this field to a custom text field (type = short text) in Jira. The Jama Set ID can also be mapped for Excel Functions integrations.

Jama URL — The URL for the Jama Connect item can be written to a text field type in the Jira item. A user in Jira can then easily identify and access the linked Jama Connect item.

Version History — The Version History fields list the changes made to a Jama Connect item. This information can be written to a text field in the Jira item. The two types of Version History fields are:

- **Version History (Since last Sync)** — The integration reads any changes made to the item since the last sync.
- **Version History (All)** — The integration reads any changes made to the item since its initial creation.



Note
The Version History fields are available only with the Excel Functions integration.

Constant — Use the Constant field to write a static value from Jama Connect to Jira. For more information on how to use this field, see Required fields exist in other system [44].

Jama Tags — Supports bidirectional syncing to Jira labels, single-select, multi-select, and text fields.

Jira

Examples of Jira system and generated fields include the following.

Jira URL — The URL for the Jira item can be written to a text or URL field type in the Jama Connect item. A user in Jama Connect can then easily identify and access the linked Jira item.

Jira Key — The Jira item's key (ID) can be mapped one-way to a field in the Jama Connect item.

Jira Epic/Parent — The name of the Jira item's Epic or Parent can be mapped one-way to a field in the Jama Connect item. In the Field Mappings picklist, this option is called **Parent – Text**.

Constant — Use the Constant field to write a static value from Jira to Jama Connect. For more information on how to use this field, see Required fields exist in other system [44].

Jira Labels — Supports bidirectional syncing to Jama Connect tags, single-select, multi-select, and text fields.

HTML fields

Integrations for both Jira and Excel Functions support syncing HTML fields. When syncing HTML content, the most common formatting options in Jama Connect and Jira are supported, with a few exceptions.

Also supported is syncing embedded files, such as image files and MathType files, but only for file types PNG, GIF, JPG, BMP.

> **Important**
> File types that aren't listed here, including SVG files, aren't supported and might cause the sync to fail or cause the file to be lost. Make sure that math and chemical diagrams in Jama Connect are configured to use PNG format. To update this setting, see Configure organization detail.

Release field and Fix Version field

The Release field in Jama Connect can be mapped directly to the Fix Version field in Jira, or to another multi-select and text type field.

When mapping to a multi-select field, such as Fix Version, make sure that the picklist values in each system match exactly.

Jira Epic/Parent field

The name of the Epic or Parent in the Jira item can be mapped one-way to a field in the Jama Connect item. In the Field Mappings picklist, this option is called **Parent – Text**.

Pick list fields with different values between systems

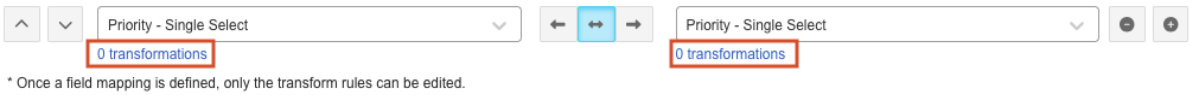
Jama Connect Interchange provides "Single Select to Single Select Rules" that you can use to control how values are mapped when they flow from one system to the other.

Important considerations

- Picklist values can be mapped "Many to One."
  Example: If mapping Priority, you can map both **Critical** and **High** to **P1**.
- Single Select Rules must be mapped in both directions.
  Example: Jama Connect **Critical** and **High** map to Jira **P1**, and Jira **P1** maps to Jama Connect **Critical**.

To access rules:

- Open the **Field Mappings** tab, then select the **Transformations** link for a Single Select to Single Select field mapping:



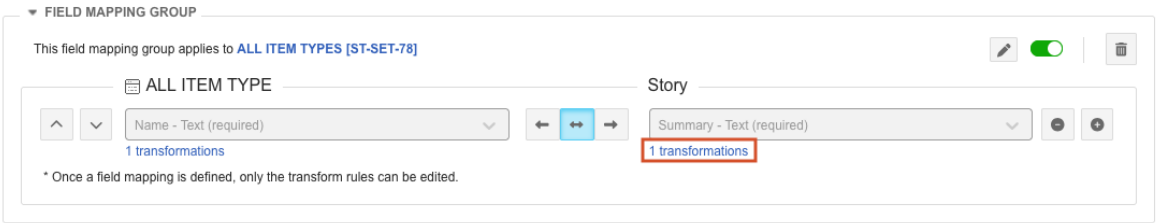
Map a non-required field to a required field

Some integrations might have a field that is required in one system but not in the other. This can lead to failed integrations where the blank value is not valid.

To solve this issue, you can use the **Default Value** option to write a default value to a required field if it is blank.

To map a non-required field to a required field:

1. Open the Field Mappings tab and select the **Transformations** link for the non-required field.



2. In the **Default Value** field, enter the value to be written to the required field if the field in the other system is left blank.



3. Select **Save**.

Map a missing required field

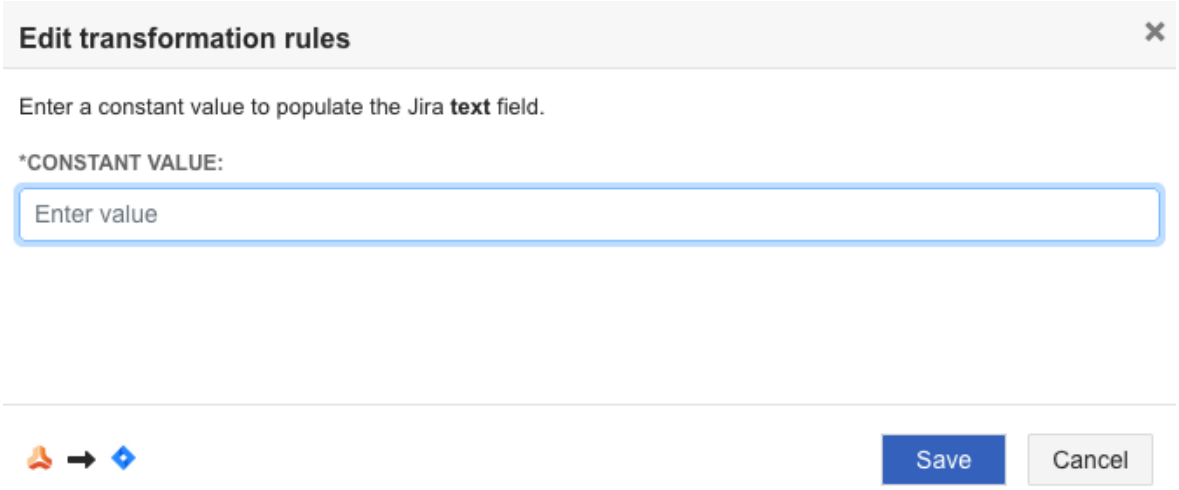
You might have an integration where one system has required fields that aren't present in the other system. For example, Jira might require that a component or team is set, but that information isn't entered in Jama Connect.

To map the missing required field:

1. Use the **Constant Field – Static** option to map a non-existent, read-only field that is set to a hard-coded value, then select the **Transformations** link.



2. In the Constant Value field, enter the static value that you want to assign.



3. Select **Save**.

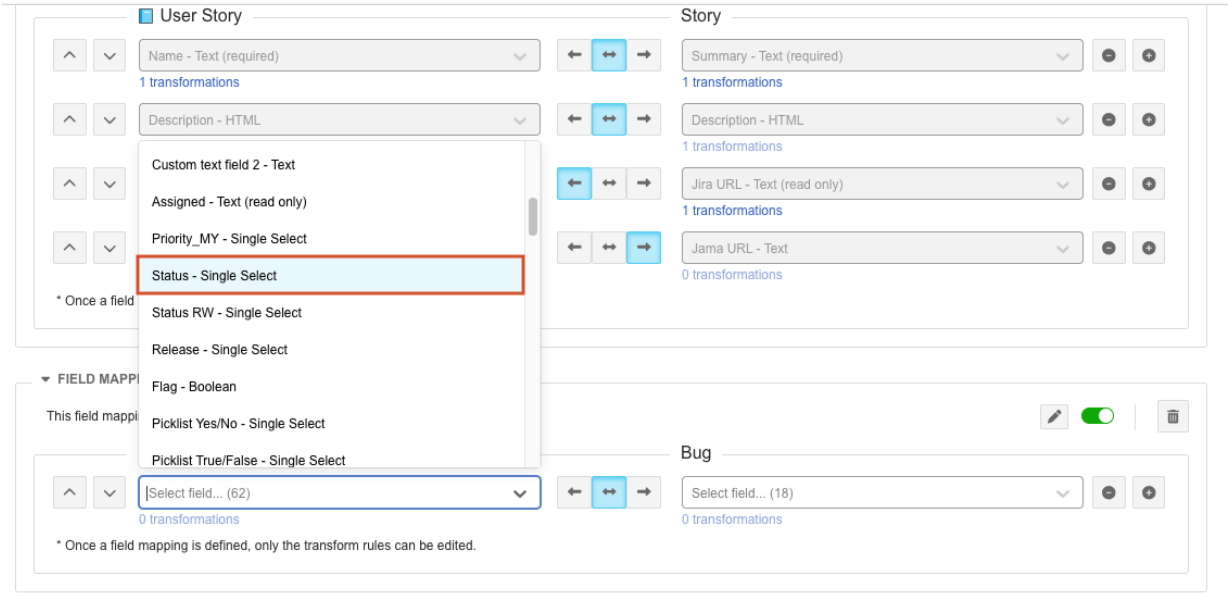
Supported field type combinations

Jama Connect field	Jira field
Constant Field - Static	Multi-select
Constant Field - Static	Single Select
Constant Field - Static	Float
Constant Field - Static	HTML
Constant Field - Static	Text

Syncing Status fields bidirectionally

Bidirectional syncing of Status fields in Jama Connect and Jira is fully supported, even when workflow rules are enabled on those fields.

Status updates now flow freely between Jama Connect and Jira when each system's workflow rules permit the transition. For example, a Jira item is transitioned from **To Do** to **In Progress** only if the Jira workflow rules are configured to allow it.



Integrating Jama Connect with Excel Functions

This section guides you in creating your first Excel Functions integration for Jama Connect.

This process consists of these tasks:

- Link your Jama Connect instance (Excel Functions) [46]
- Create and link your Excel template [47]
- Create a single-project Excel Functions integration [48] or Create a multi-project Excel Functions integration [56]
- Test the Excel Functions integration [56]

Link your Jama Connect instance (Excel Functions)

For the process of setting up a Jama Connect connector, you identify the user account that Jama Connect Interchange uses to authenticate with Jama Connect.



Note

If you plan use the same Jama Connect instance to configure multiple integrations, you need only one connector for that instance. You can use the same connector with multiple integrations.

Requirements

- A running Jama Connect instance.
- Credentials for a Jama Connect user with admin privileges.
- A Jama Connect user account to be used by the integration service to authenticate with Jama Connect.
  - You can use an existing Jama Connect user's account, or you can create a dedicated service account. Your subscription to Jama Connect Interchange includes one free named license for this service account.
  - A Jama Connect admin can create a new account in Jama Connect by going to **Admin > Users > Add**.
  - The user account must have administrative privileges, a Named Creator license type, and the ability to read and write to the set of items you are integrating with.

To link your Jama Connect instance:

1. In the Jama Connect Interchange header bar, select **Connectors**.
2. On the Connectors page that opens, select **Add Connector**.
3. On the Add New Connector page, complete these fields:
   - **Application** — Select **Jama Connect**.
   - **Name** — Type a descriptive name for the connector.
   - **URL** — Enter your Jama Connect URL.
   - **Verify SSL** — Leave this option selected unless Support instructed you to deselect it.
   - **Authentication Type** — Select **Basic** or **oAuth**, whichever your environment uses. If your Jama Connect Instance uses SAML authentication, select oAuth as the authentication type.
     Basic authentication:
     - **Username** — Enter the username for your Jama Connect Interchange service account. For example, **InterchangeServiceAccount**.

- **Password** —Enter the password for the **InterchangeServiceAccount**.

oAuth authentication:

- **Client ID** —Enter the Client ID associated with this user account. To generate the Client ID, see Set API credentials.
- **Client Secret** —Enter the Client Secret associated with this user account. To generate the Client Secret, see Set API credentials.

4. Select **Submit**.

Create and link your Excel template

Before integrating Jama Connect with Excel, you must create the Excel template that stores the functions or calculations that you plan to run.



Tip

To speed up the process of creating the Excel template, select the container of items you want to integrate in Jama Connect, and in List View select **Export > Export Excel** to create an Excel template with the column headers and validation data already populated. You can clear out the rows of individual item data because these aren't used by the integration.

At a minimum, the template must include:

- **Input cell** — One cell reserved for each field being sent from Jama Connect.
- **Output cell** — One cell reserved for the result of the function, which is sent back to Jama Connect.
- **Function** — One function applied to the Output cell, which runs based on the data in the Input cells. See the Microsoft Support site for examples of supported functions.



Note

See the Jama Connect Interchange Sub-Community for sample Excel templates for common scenarios, including risk calculations, related item rollups, field inheritances between items, and text substitution.

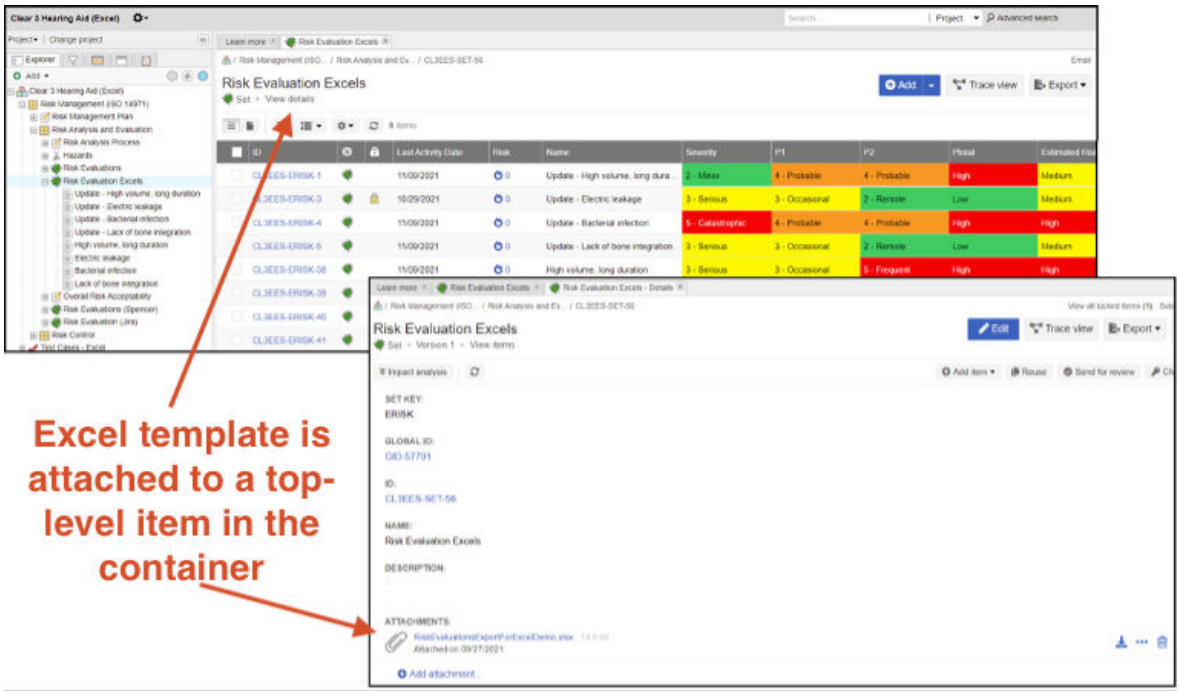
To link the Excel template:

1. In Jama Connect, locate the set or container in the Explorer Tree that contains the items that you plan to integrate with the Excel template.
2. Attach the Excel template to the top-level item in the container.



Tip

You can attach the Excel template to any item in your Jama Connect instance, even if that item is in a different project. However, as a general best practice, attach it to the container item that holds the items you are integrating, so that you can locate it easily.



3. Take note of the item ID of the container where the Excel template is attached. For example, **PROJ-SET-0001**. You must enter this ID later when you configure the Excel Functions integration.

Event-driven synchronization for Excel Functions integrations

Jama Connect Interchange uses webhooks to detect supported changes and process Excel Functions integrations sooner than scheduled polling alone.

How it works

For each configured Jama Connect tenant, Jama Connect Interchange automatically listens for supported item and relationship events. When a change occurs, Jama Connect Interchange captures the event and starts the corresponding update workflow. Durable event handling and automatic retries help keep updates moving.

Requirements and setup

Event-driven synchronization requires Jama Connect Interchange 2.0 or later, Jama Connect 9.40 or later, and a Jama Connect service account and connector for each tenant. For setup instructions, see Setting up a Jama Connect service account and Jama Connect Interchange connector [109].

After you set up the service account and connector, no additional configuration is required. You don't need to configure any webhook settings in Jama Connect Interchange.

Fallback processing

If a tenant doesn't have a Connected Service connector or webhook prerequisites are unavailable, the integration checks for changes according to its **Sync Frequency** setting.

Create a single-project Excel Functions integration

Creating a "single-project" integration, which establishes rules for syncing items between one Jama Connect project and one Excel Functions project. To configure an integration that syncs items for multiple Jama Connect projects, see Create a multi-project Excel Functions integration [56].

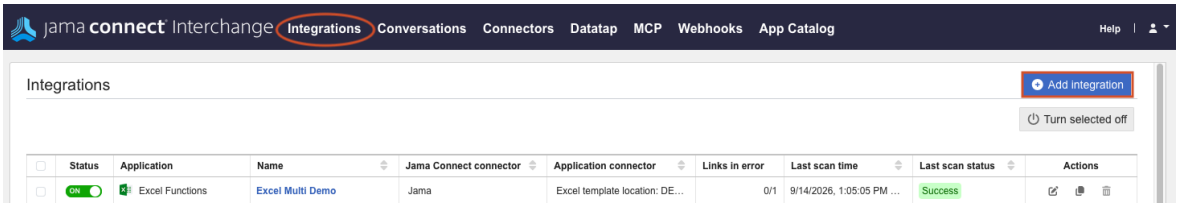
> **Note**
> Before beginning these steps, be sure to configure your Excel template. See Create and link your Excel template [47].

The process of creating an integration consists of these tasks:

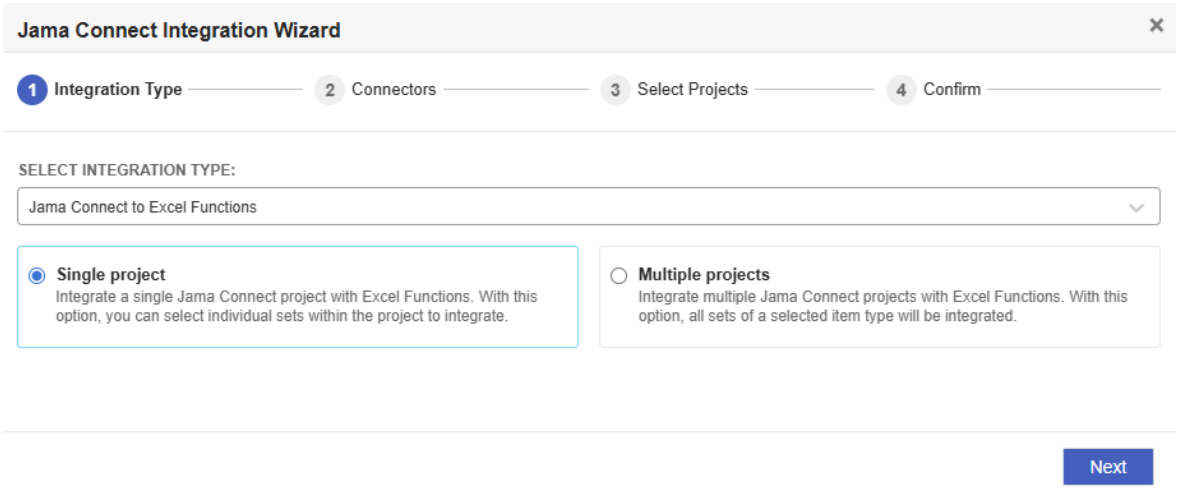
- Configure a "single-project" Excel Functions integration using the Jama Connect Integration wizard.
- Create field mapping groups [51].
- Create an associated mapping group [54].
- Enable the Excel Functions integration [55].
- Test the Excel Functions integration [56].

To configure a single-project Excel Functions integration:

1. In the Jama Connect Interchange header bar, select **Integrations**, then select **Add integration** to open the Jama Connect Integration wizard.



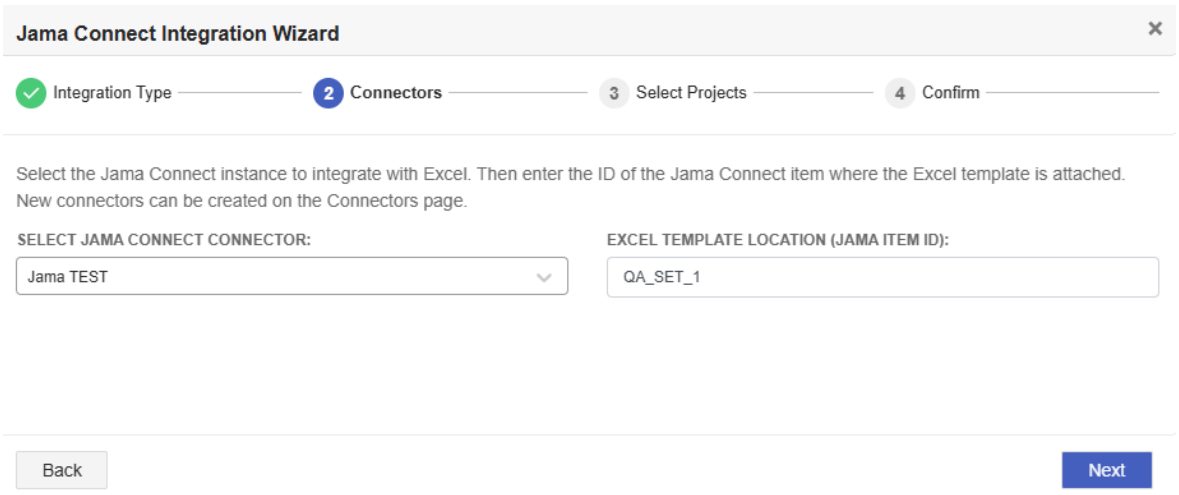
2. Complete each page of the wizard, then select **Next**.
Integration Type — Select the integration type.



- **Select Integration Type** — From the drop-down list, select **Jama Connect to Excel Functions**, then select **Single Project**.

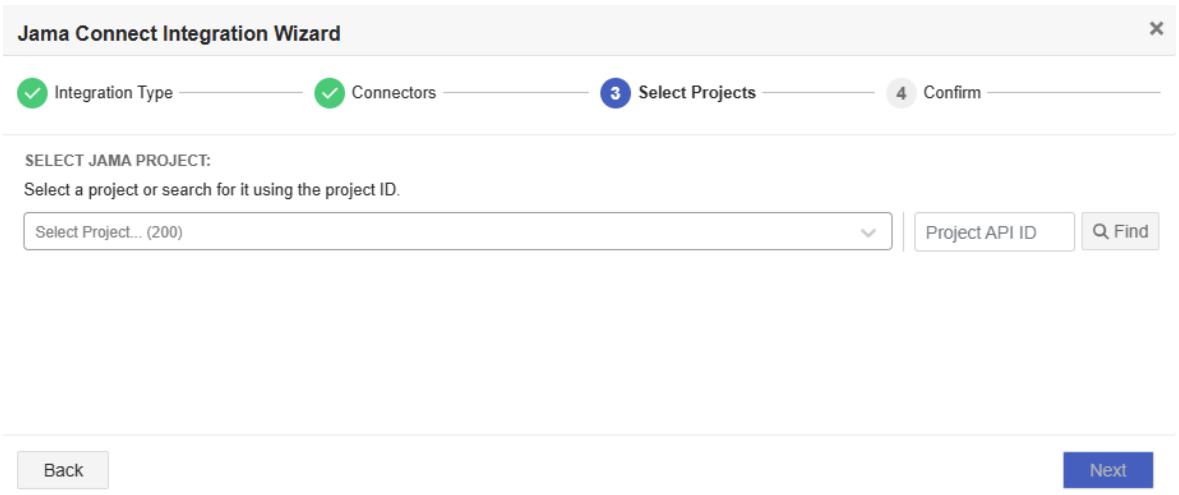
> **Note**
> To configure an integration that syncs items for multiple Jama Connect projects, see Create a multi-project Excel Functions integration [56].

Connectors — Choose the connectors you want to integrate.



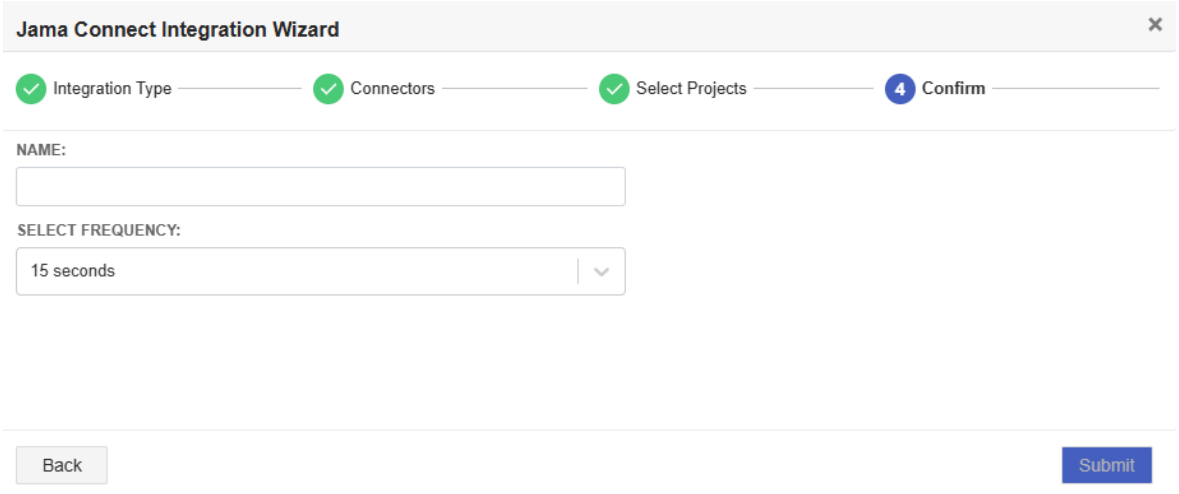
- **Select Jama Connect Connector** — Select the Jama Connect connector that you want to integrate. This is the same connector you created in Link your Jama Connect instance (Excel Functions) [46].
- **Excel Template Location (Jama ID)** — Enter the Jama Connect item project ID where the Excel template is attached. For example, **PROJ-SET-0001**

Select Projects — Choose the Jama Connect project.



- **Select Jama Project** — Choose the project you want to integrate.

Name and configure the integration



- **Name** — Enter a descriptive name for the integration.

- **Frequency** — Select how often you want the integration to run (15 or 30 seconds is recommended).

> **Note**
> After an event-driven integration is enabled and runs, **Sync Frequency** changes to **Event driven** and is no longer used. Jama Connect then notifies Jama Connect Interchange of supported changes through webhooks. For more information, see Event-driven synchronization for Excel Functions integrations [48].

3. Select **Submit** to complete the wizard.

The integration is saved in a disabled state.

Create field mapping groups

After you create an Excel Functions integration, you must map fields in Jama Connect to cells in the Excel template. This mapping is accomplished by creating field mapping groups. You create a separate field mapping group for each Jama Connect item type that you want to integrate with the template.

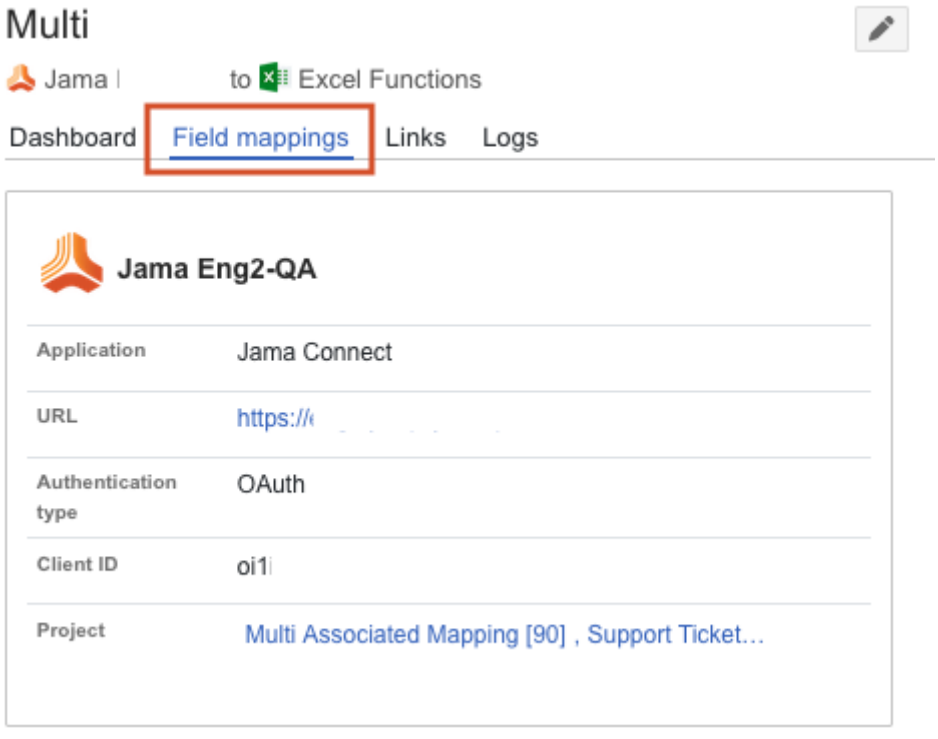
You can map different Jama Connect sets to the same Excel template by creating multiple field mapping groups. Each group must apply to the same Jama Connect project and Excel template.

The two types of field mapping groups are:

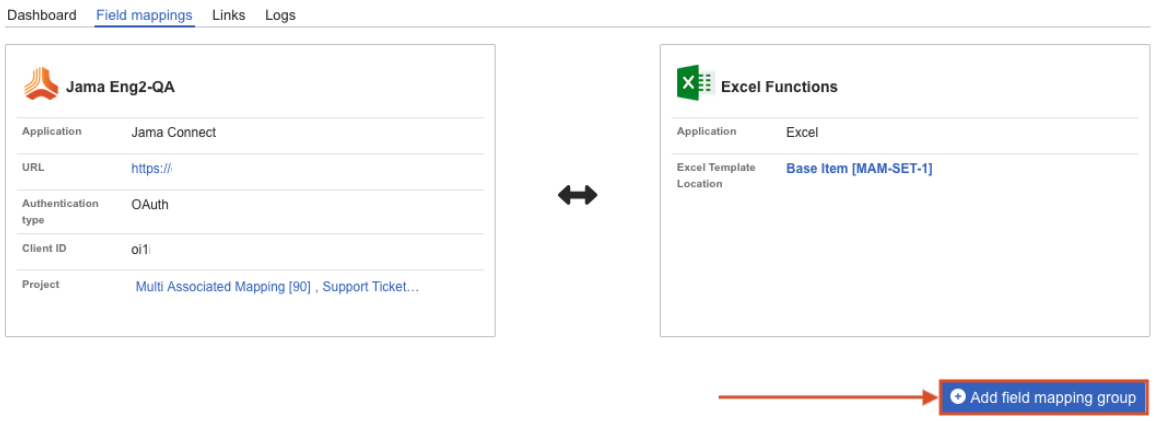
- Items in the Jama Connect Project Explorer Tree
- Test runs and test cases

To create field mapping groups:

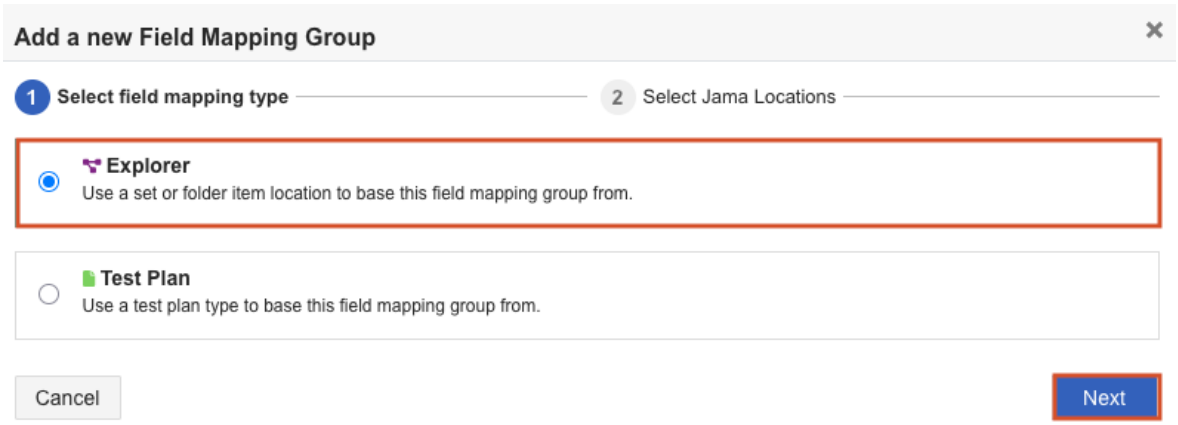
1. On the Integrations page, select the link for the integration you just created.
2. Select the **Field Mappings** tab.



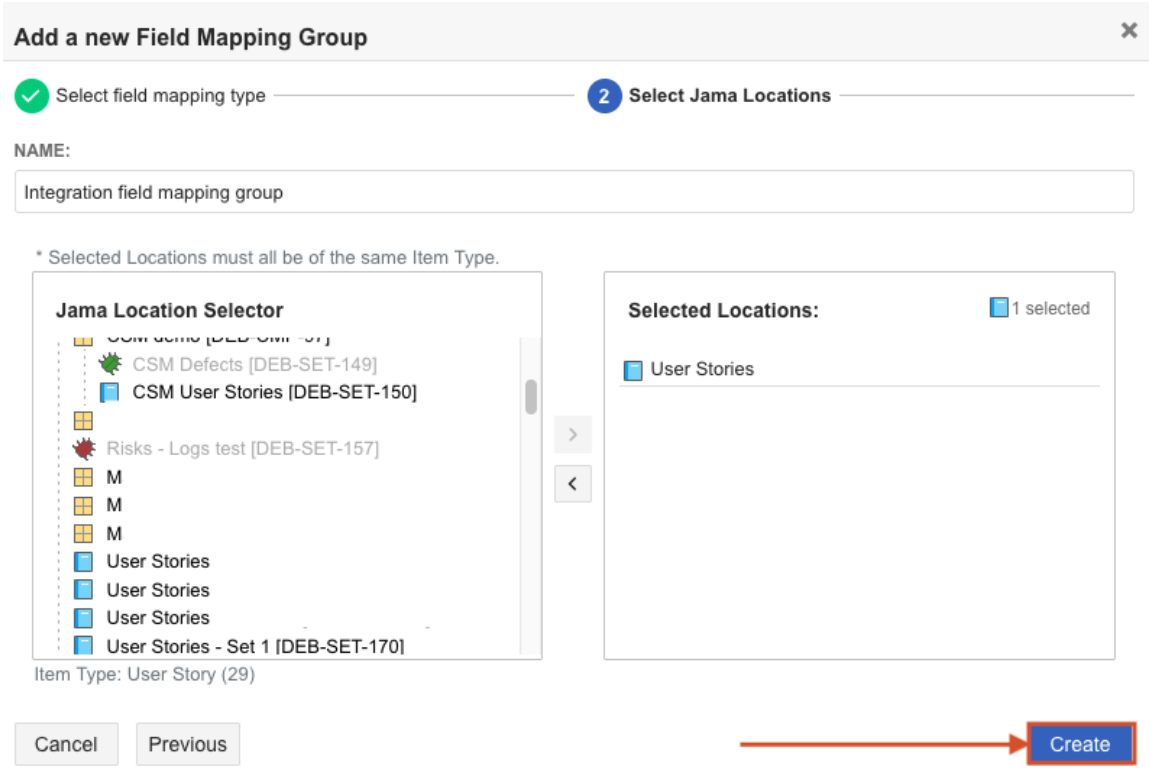
3. For each field mapping group you want to add, select **Add field mapping group**.



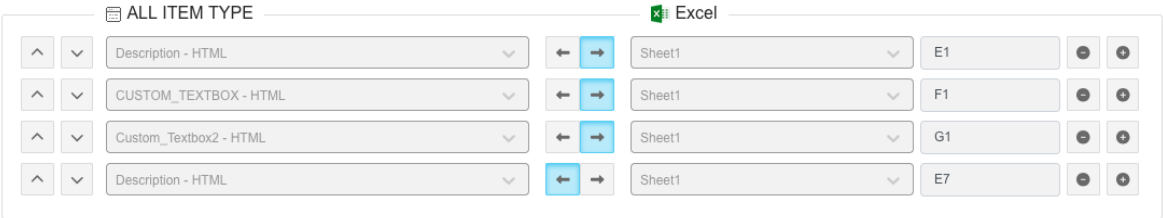
4. On the page that opens, select **Explorer**, then select **Next**.



5. Complete these fields, then select **Create**.
   - **Name** — Enter a descriptive name for the field mapping group.
   - **Jama Location Selector** — Select the Jama Connect sets or folders that you want to sync. All selected sets must use the same item type (for example, User Stories or Defects).

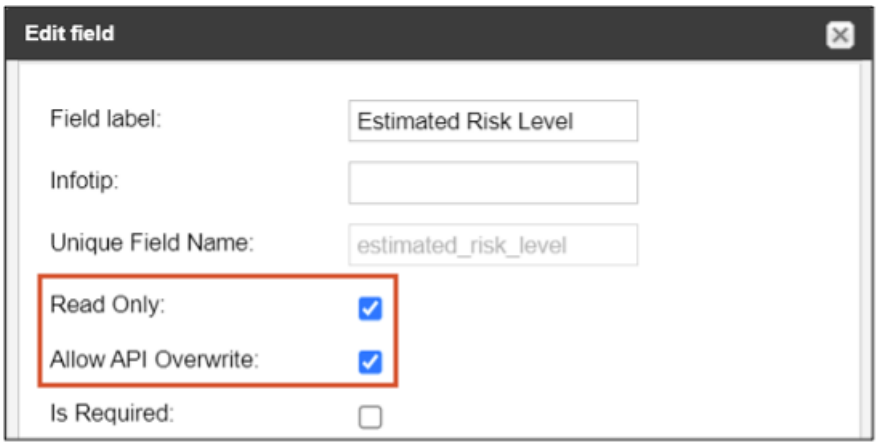


6. Using the drop-down lists, map the fields and cells to one another. Add a separate row for each field/cell combination, as shown in this example.



   Each row contains these fields:
   - **Select Field** — Choose the field in Jama Connect that is being mapped to Excel.
   - **Directionality** — Choose whether data is written from Jama Connect to Excel (→) or from Excel to Jama Connect (←).
   - **Select Sheet** — Choose the sheet in the Excel template where the cell is located.
   - **Input Cell** — Enter the cell location in the Excel template. For example, **G5**.
7. Organize your mappings in this order:
   - Fields written from Jama Connect to Excel (input fields).
   - Fields written from Excel back to Jama Connect after the function runs (output fields).

   Typically, output fields are read-only in Jama Connect to prevent users from updating them manually. If you mark a field as read-only in Jama Connect, you must also select **Allow API Overwrite** in the field settings to allow the integration service to write the updated Excel value to the item.



8. Select **Save Changes**.

Your field mapping groups are saved.

Create an associated mapping group

You can add multiple associated mapping groups to a base mapping group for both single- and multi-project Excel integrations.

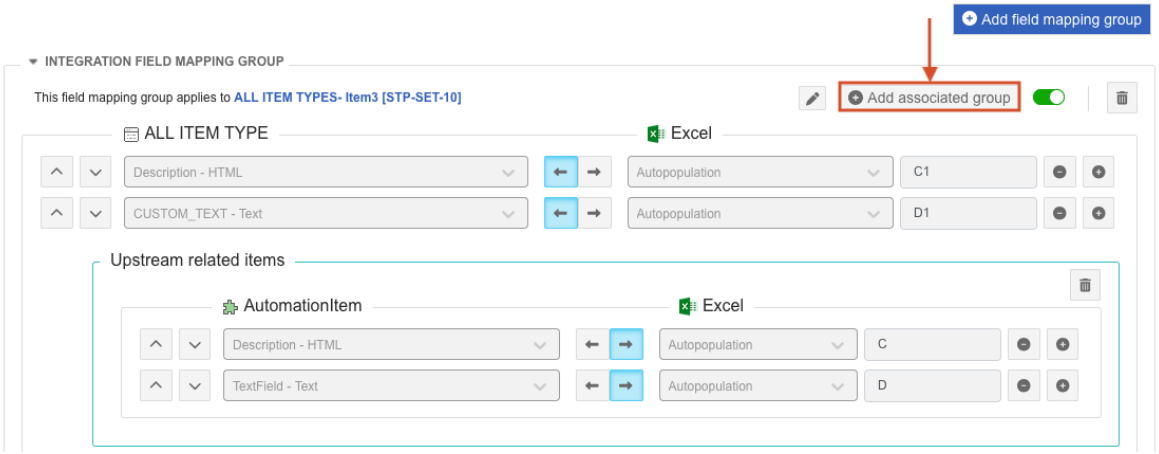
Map relationships and associations if your Excel Functions template includes references to upstream or downstream items, or to the value in an Item of Type field.

Important considerations

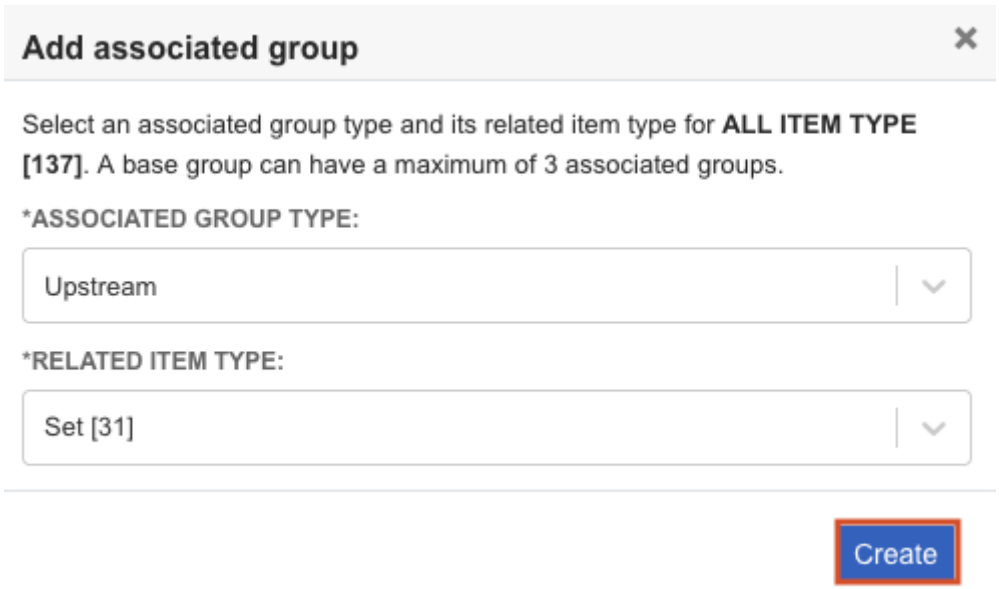
- A base mapping group can't contain multiple associated mapping groups with the same group type (direction) and item type.
- A single base mapping group can have a maximum of three associated mapping groups.

To create an associated mapping group:

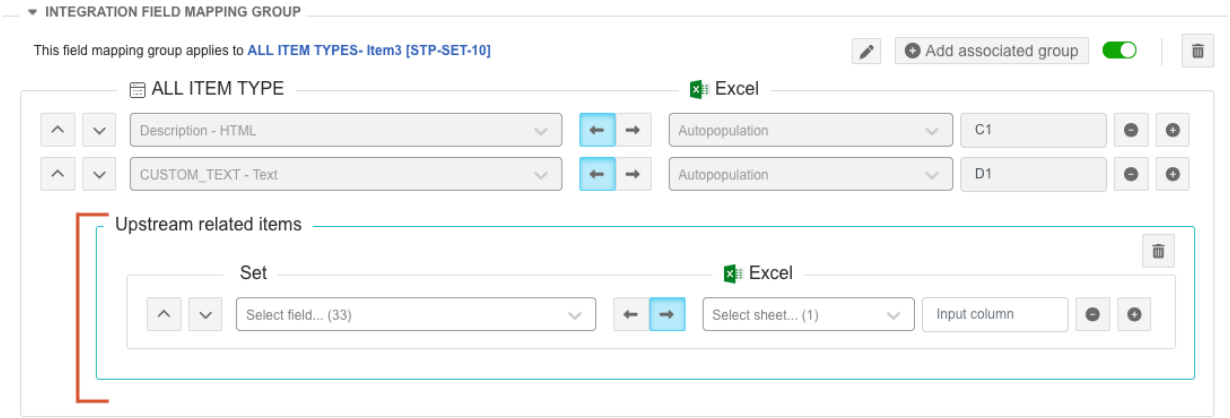
1. Within field mappings of a base group, select **Add associated group**.



2. In the page that opens, select an **Associated group type** and **Related item type**, then select **Create**.



An associated mapping group is added below the field mappings of the base group.

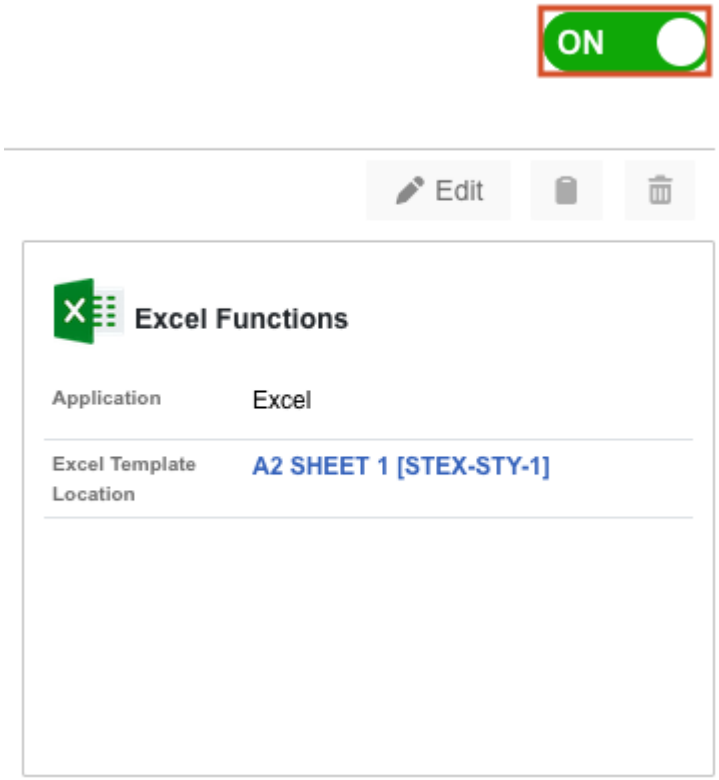


Enable the Excel Functions integration

After the integration between Jama Connect and Excel Functions is set up and field mappings are defined, enable the integration.

To enable your Excel Functions integration:

- On the Integration dashboard, set the ON/OFF toggle to **ON**.



Once an integration is enabled, Jama Connect Interchange begins linking items between Jama Connect and the Excel template.

Test the Excel Functions integration

After you link to your Jama Connect instance and Excel template, then create and enable an integration, verify that the systems are communicating correctly.

To test your Excel Functions integration:

1. In Jama Connect, go to the set of items you are integrating with, and enter data in the mapped Jama Connect to Excel (→) fields.
2. After 15 seconds, verify that the read-only Excel to Jama Connect (←) fields are automatically populated with the function result you expect.
3. In Jama Connect, edit the same Jama Connect to Excel fields, and after 15 seconds verify that the functions are rerun and that the read-only Excel to Jama Connect fields are automatically updated.

Your Jama Connect instance and Excel template are successfully communicating.

Create a multi-project Excel Functions integration

Create a "multi-project" Excel Functions integration, which establishes rules for syncing items from multiple Jama Connect projects with your Excel template. To configure an integration that syncs items from a single Jama Connect project, see Create a single-project Excel Functions integration [48].

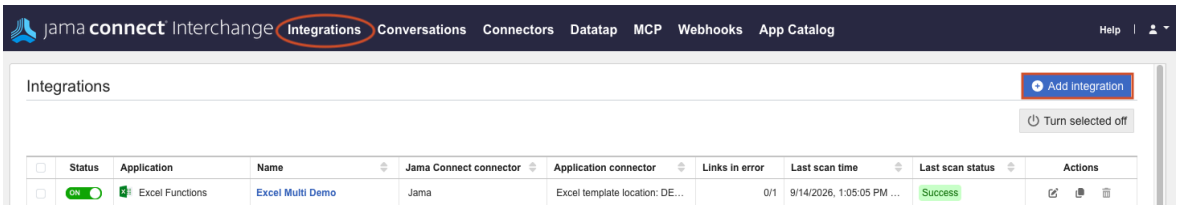
Note
Before beginning these steps, be sure to configure your Excel template [47].

The process of creating an integration consists of these tasks:

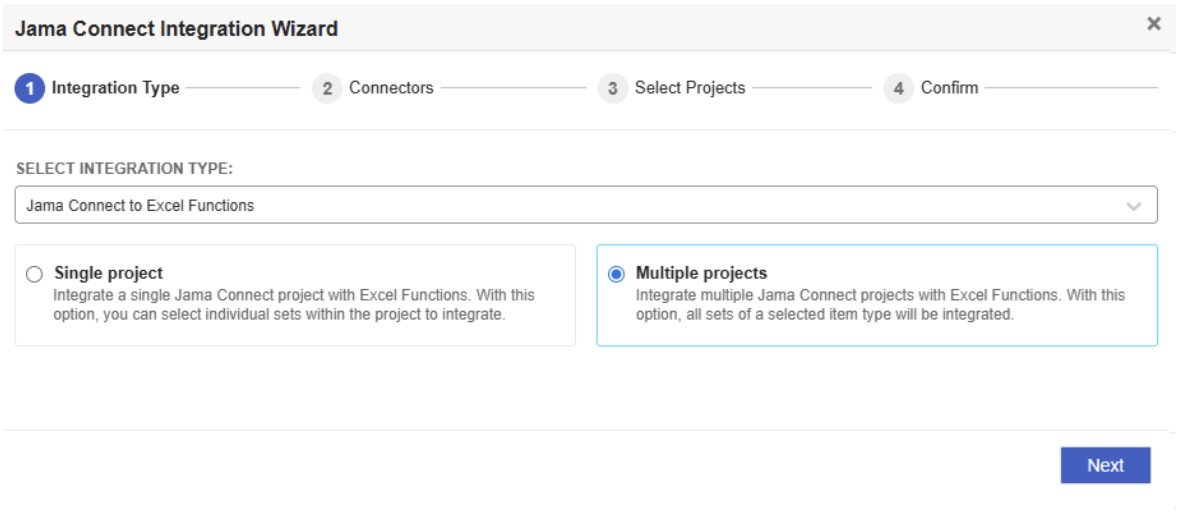
- Configure a "multi-project" Excel Functions integration using the Jama Connect Integration wizard.
- Create field mapping groups [59].
- Create an associated mapping group [62].
- Enable the Excel Functions integration [66].
- Test the Excel Functions integration [67].

To create a multi-project Excel Functions integration:

1. In the Jama Connect Interchange header bar, select **Integrations**, then select **Add integration** to open the Jama Connect Integration Wizard.



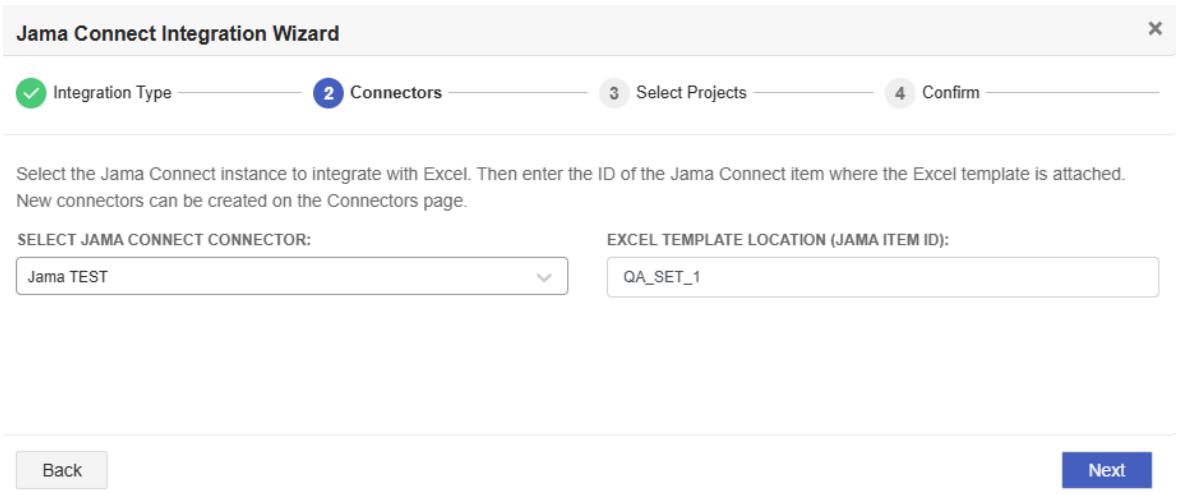
2. Complete each page of the wizard, then select **Next**.
Integration Type — Select the integration type:



- **Select Integration Type** — From the drop-down list, select **Jama Connect to Excel Functions**, then select **Multiple projects**.

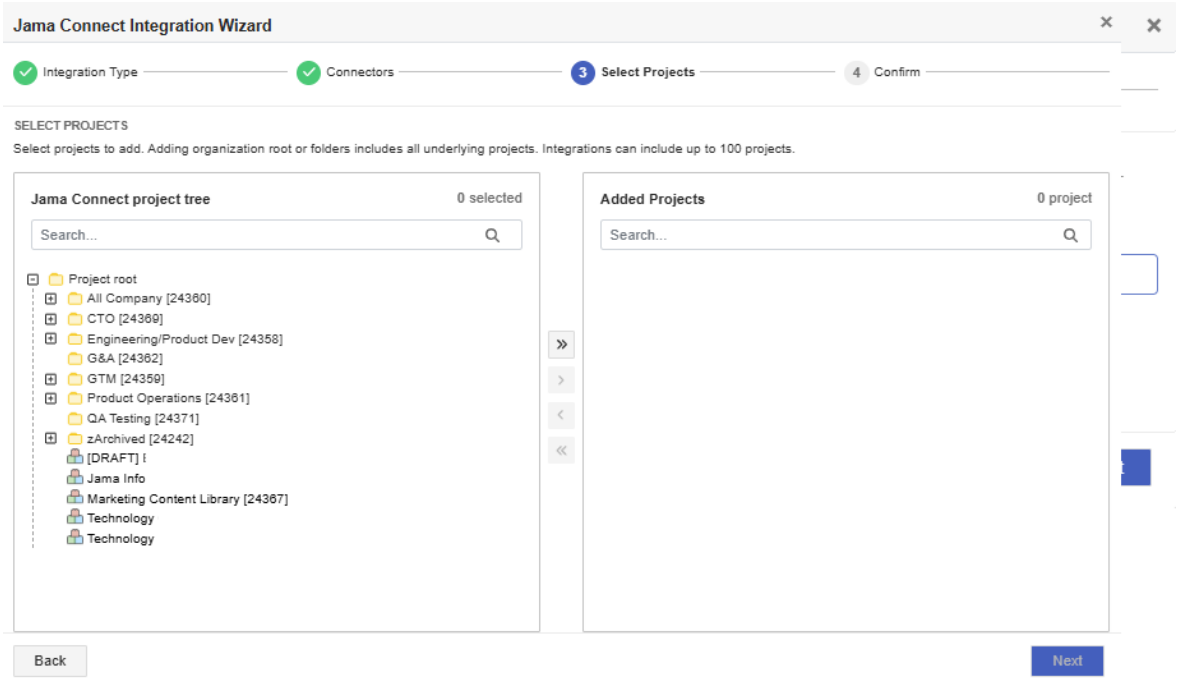
> **Note**
> To configure an integration that syncs items from a single Jama Connect project, see Create a single-project Excel Functions integration [48].

Connectors — Choose the connectors you want to integrate:



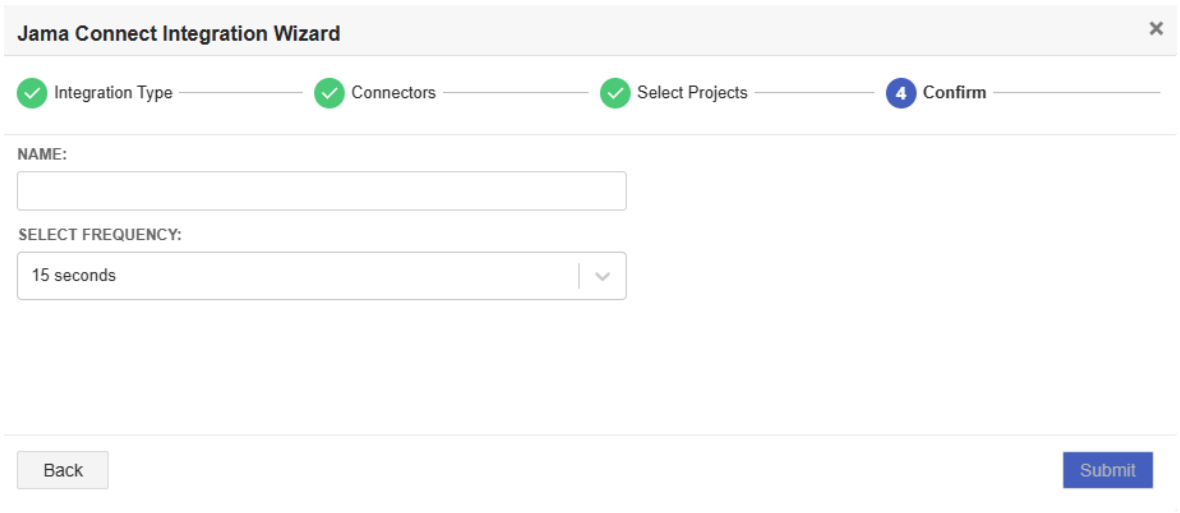
- **Select Jama Connect Connector** — Select the Jama Connect connector that you want to integrate. This is the same connector you created in Link your Jama Connect instance to Excel Functions [46].
- **Excel Template Location (Jama ID)** — Enter the Jama Connect item project ID where the Excel template is attached. For example, **PROJ-SET-0001**.

Select Projects — Choose the Jama Connect project:



- **Select Jama Project** — From the Jama Connect project tree, select the projects you want to integrate, use the arrow to move them to the **Added projects** column, then select **Next**.

Name and configure the integration:



- **Name** — Enter a descriptive name for the integration.
- **Frequency** — Select the frequency with which you want the integration to run (15 or 30 seconds is recommended).

> **Note**
> After an event-driven integration is enabled and runs, **Sync Frequency** changes to **Event driven** and is no longer used. Jama Connect then notifies Jama Connect Interchange of supported changes through webhooks. For more information, see Event-driven synchronization for Excel Functions integrations [48].

3. Select **Submit** to complete the wizard.

The integration is saved in a disabled state.

Create field mapping groups

After you create an Excel Functions integration, you must map fields in Jama Connect to cells in the Excel template. This mapping is accomplished by creating field mapping groups. You create a separate field mapping group for each Jama Connect item type that you want to integrate with the template.

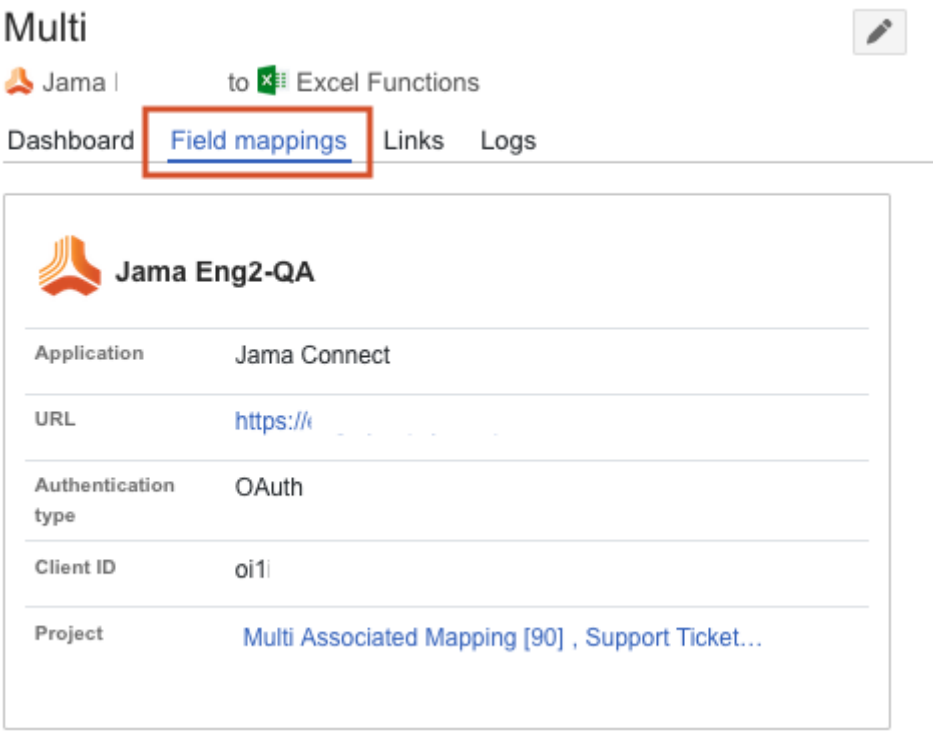
You can map different Jama Connect sets to the same Excel template by creating multiple field mapping groups. Each group must apply to the same Jama Connect project and Excel template.

The two types of field mapping groups are:

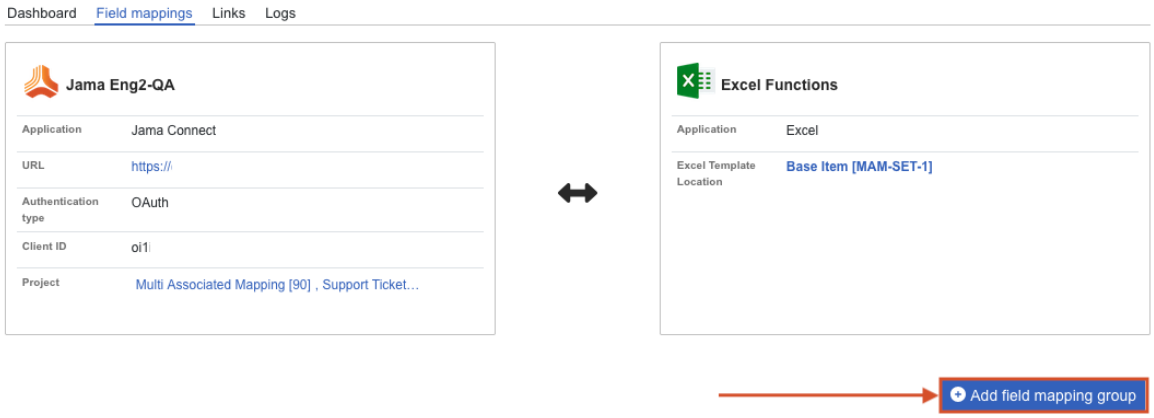
- Items in the Jama Connect Project Explorer Tree
- Test runs and test cases

To create field mapping groups:

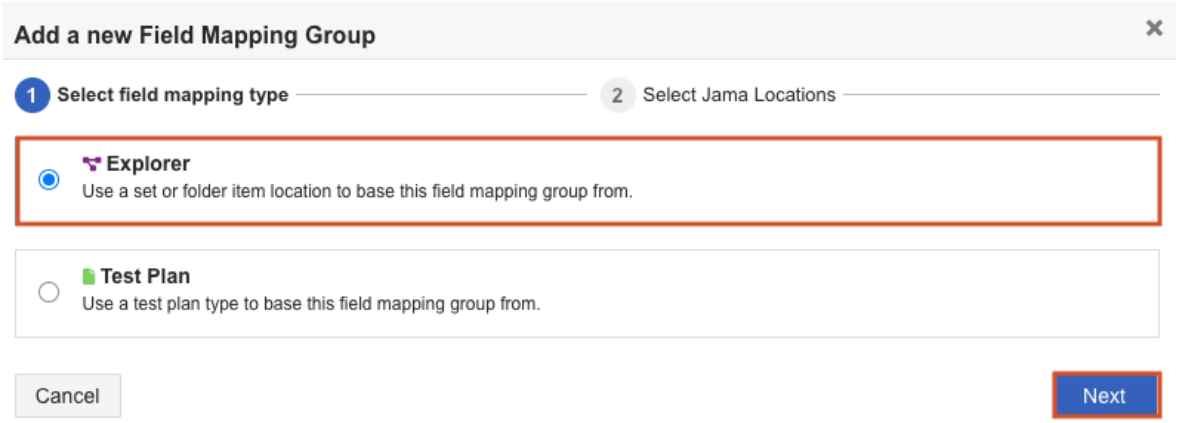
1. On the Integrations page, select the link for the integration you just created.
2. Select the **Field Mappings** tab.



3. For each field mapping group you want to add, select **Add field mapping group**.

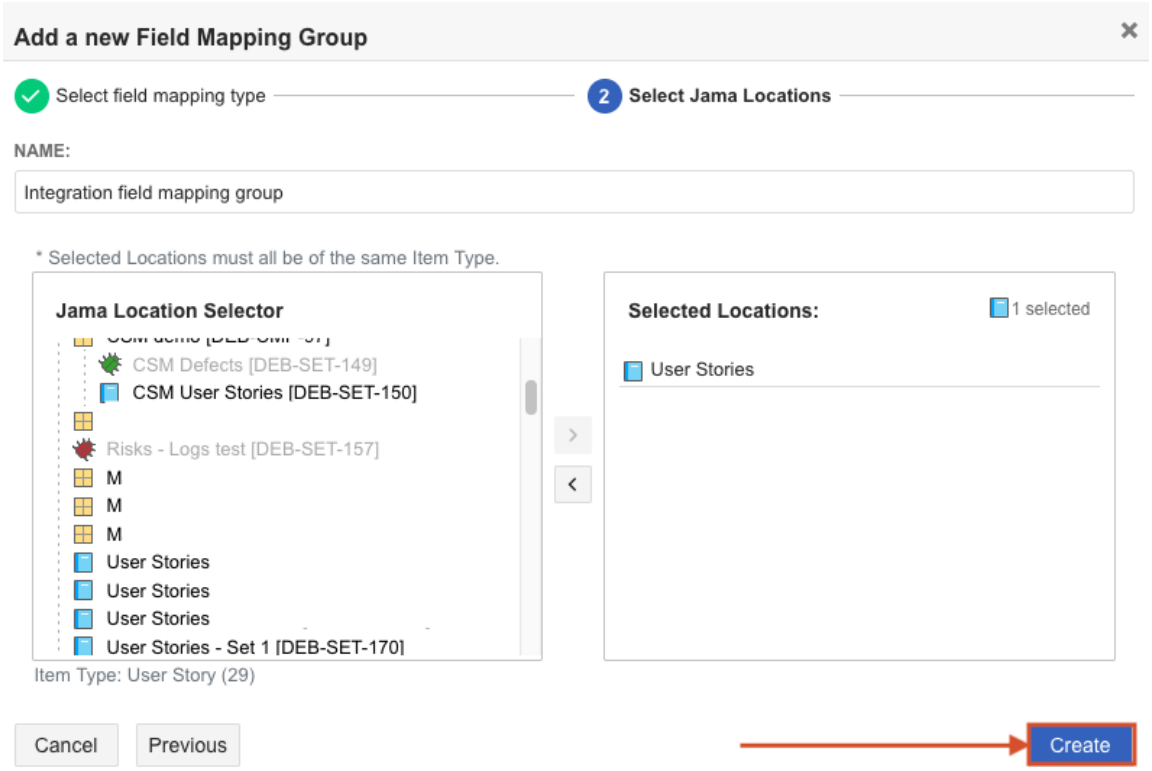


4. On the page that opens, select **Explorer**, then select **Next**.

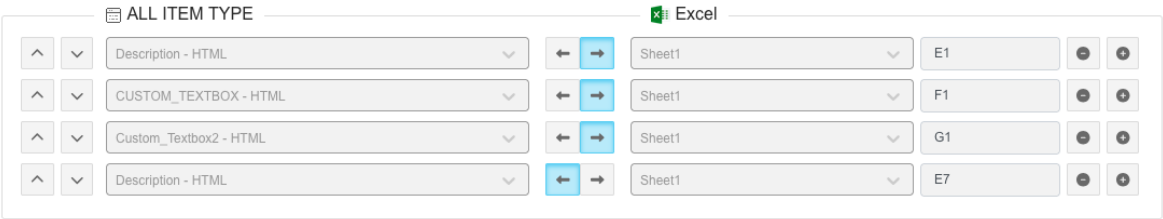


5. Complete these fields, then select **Create**.
   - **Name** — Enter a descriptive name for the field mapping group.

- **Jama Location Selector** — Select the Jama Connect sets or folders that you want to sync. All selected sets must use the same item type (for example, User Stories or Defects).



6. Using the drop-down lists, map the fields and cells to one another. Add a separate row for each field/cell combination, as shown in this example.

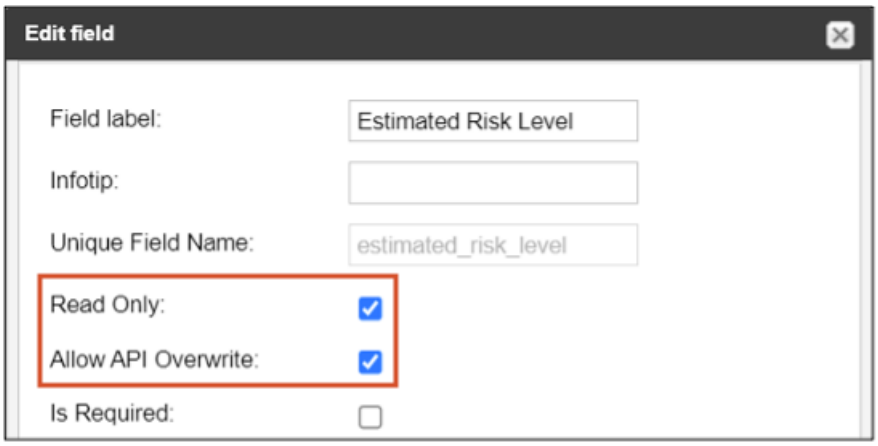


Each row contains these fields:

- **Select Field** — Choose the field in Jama Connect that is being mapped to Excel.
- **Directionality** — Choose whether data is written from Jama Connect to Excel (→) or from Excel to Jama Connect (←).
- **Select Sheet** — Choose the sheet in the Excel template where the cell is located.
- **Input Cell** — Enter the cell location in the Excel template. For example, **G5**.

7. Organize your mappings in this order:
   - Fields written from Jama Connect to Excel (input fields).
   - Fields written from Excel back to Jama Connect after the function runs (output fields).

   Typically, output fields are read-only in Jama Connect to prevent users from updating them manually. If you mark a field as read-only in Jama Connect, you must also select **Allow API Overwrite** in the field settings to allow the integration service to write the updated Excel value to the item.



8. Select **Save Changes**.

Your field mapping groups are saved.

Create an associated mapping group

You can add multiple associated mapping groups to a base mapping group for both single- and multi-project Excel integrations.

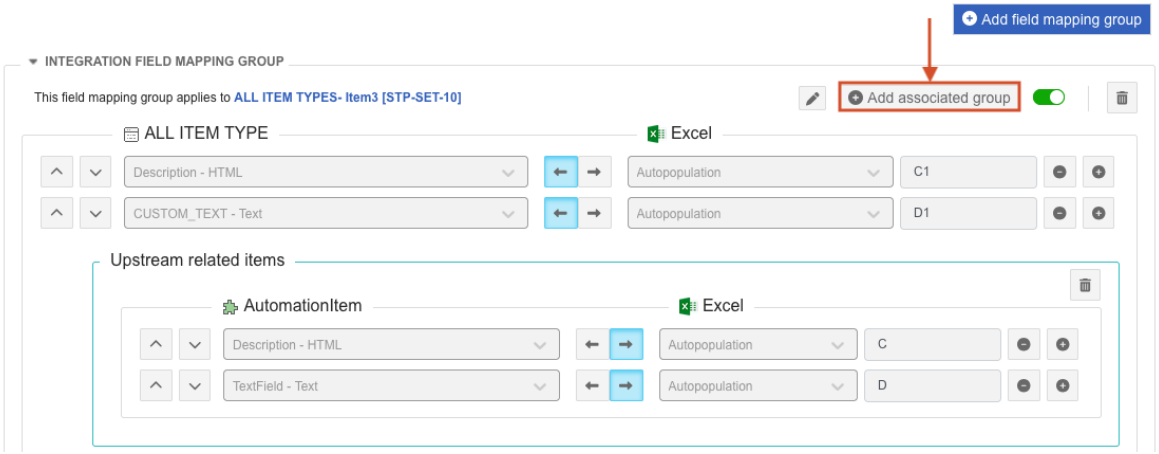
Map relationships and associations if your Excel Functions template includes references to upstream or downstream items, or to the value in an Item of Type field.

Important considerations

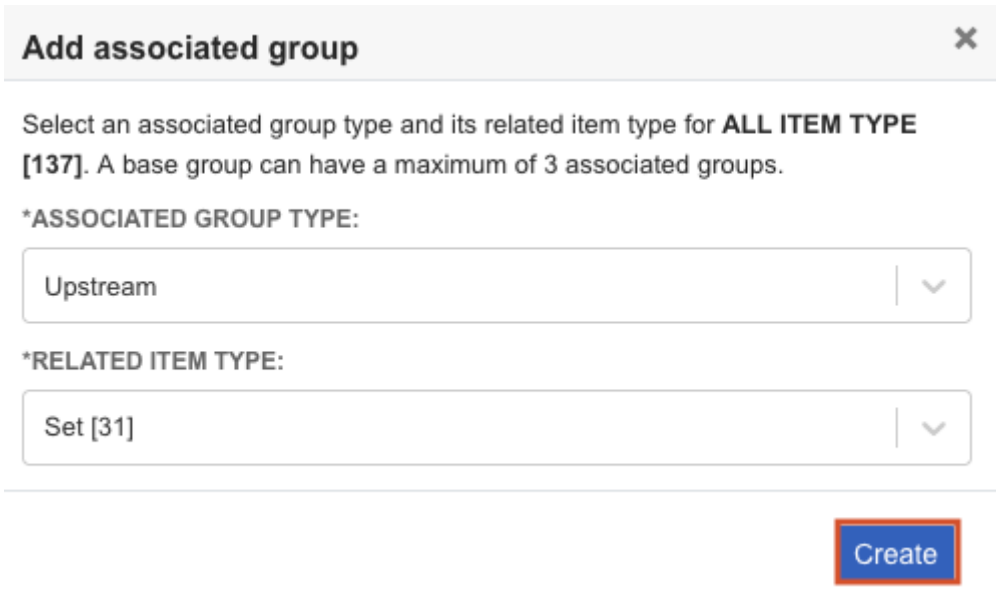
- A base mapping group can't contain multiple associated mapping groups with the same group type (direction) and item type.
- A single base mapping group can have a maximum of three associated mapping groups.

To create an associated mapping group:

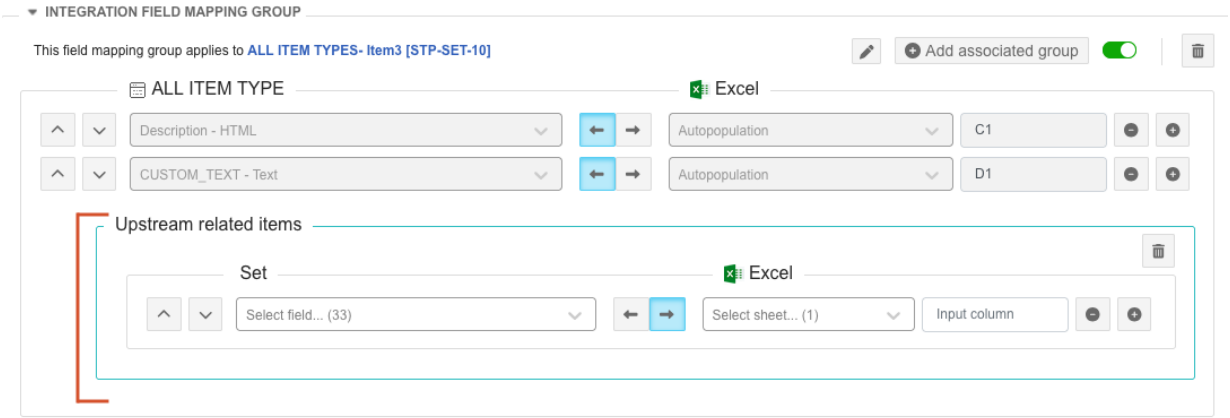
1. Within field mappings of a base group, select **Add associated group**.



2. In the page that opens, select an **Associated group type** and **Related item type**, then select **Create**.



An associated mapping group is added below the field mappings of the base group.

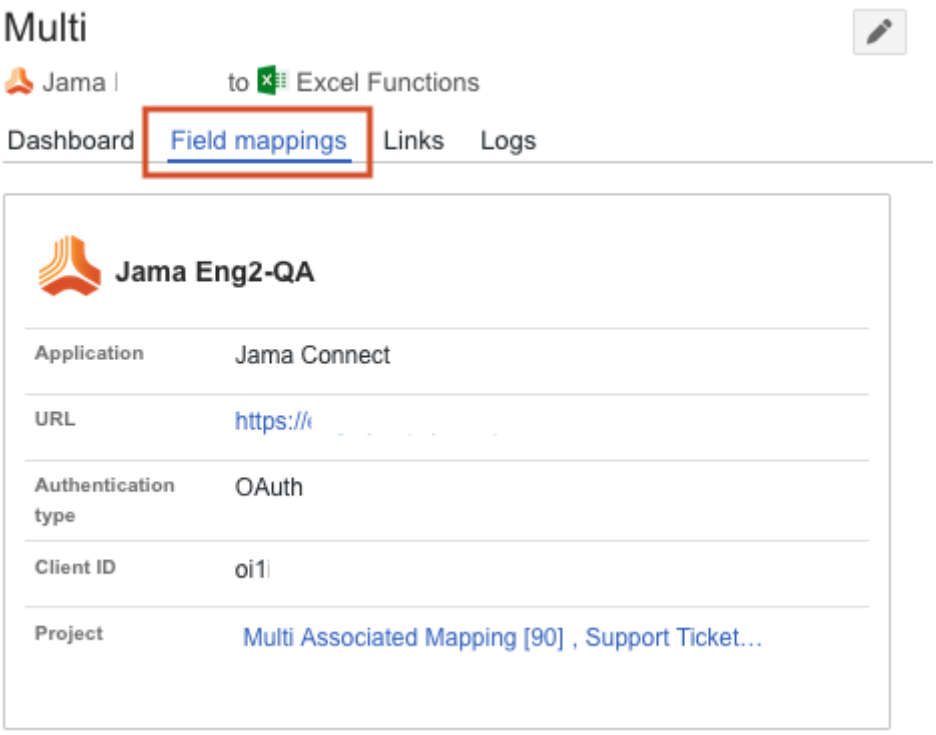


Map test runs and test cases

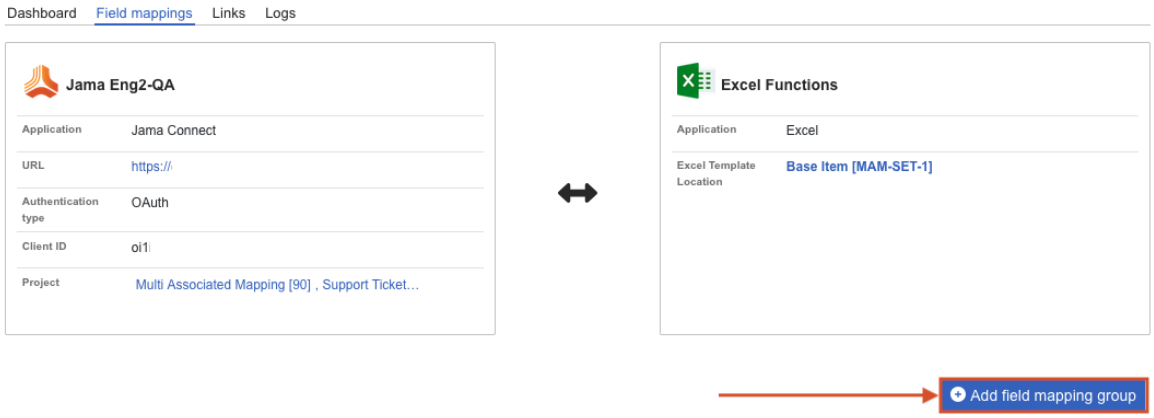
Map your Excel template to test runs and test cases in the selected project.

To map test runs and test cases:

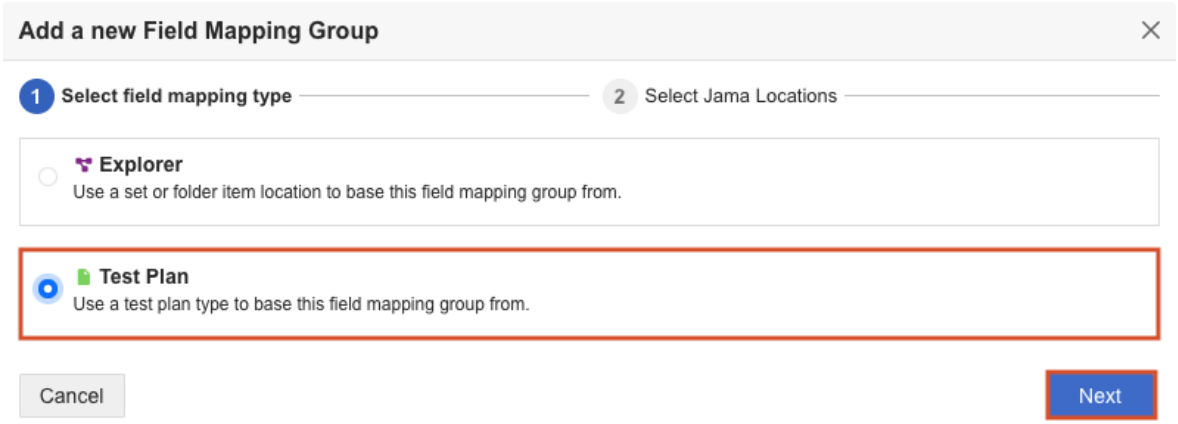
1. On the Integrations page, select the link for the integration you just created.
2. Select the **Field Mappings** tab.



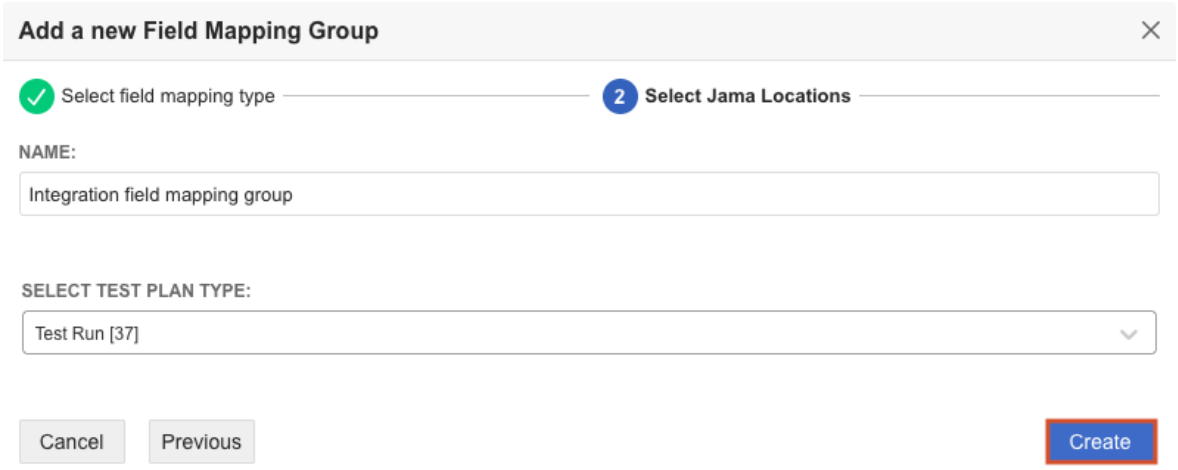
3. Select **Add field mapping group**.



4. On the page that opens, select **Test Plan**, then select **Next**.

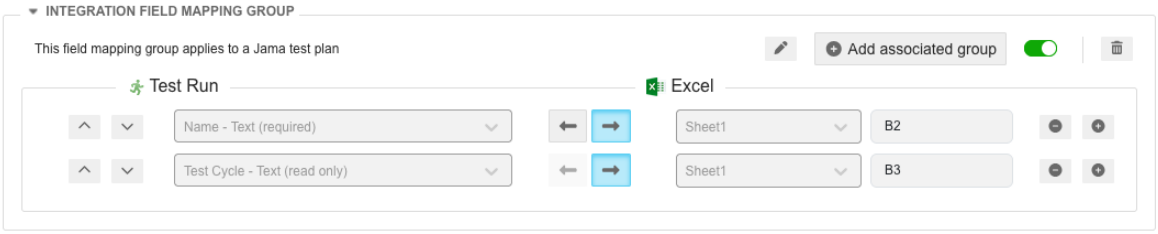


5. In the **Name** field, enter a descriptive name for this field mapping group.
6. In the drop-down list, select the test item type you want to map, then select **Create**.



The field mapping group is created.

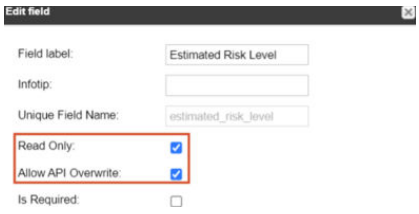
7. Using the drop-down lists, map the fields and cells to one another. Add a separate row for each field/cell combination, as shown in this example.



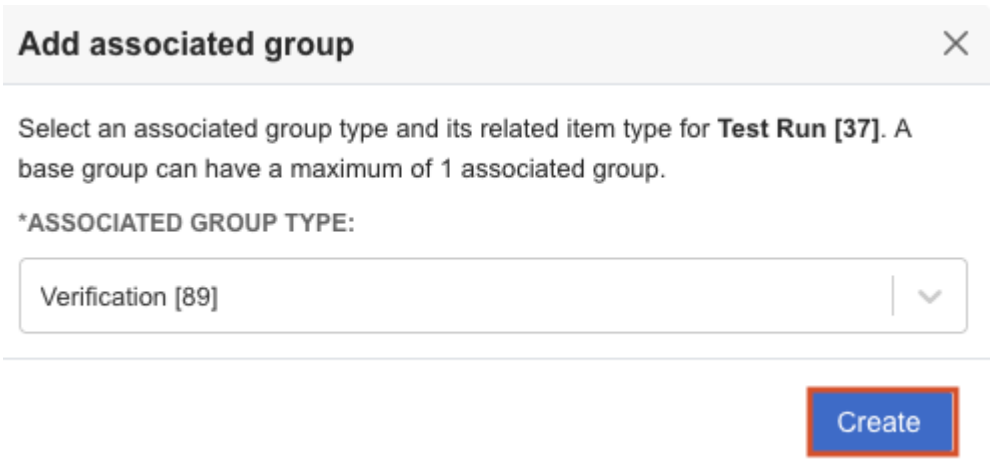
These fields are available in each row:

- **Select Field** — Select the field in Jama Connect that is being mapped to Excel.
- **Directionality** — Select whether data is written from Jama Connect to Excel (→) or from Excel to Jama Connect (←).
- **Select Sheet** — Select the sheet in the Excel template where the cell is located.
- **Input Cell** — Enter the cell location in the Excel template. For example, **G5**.

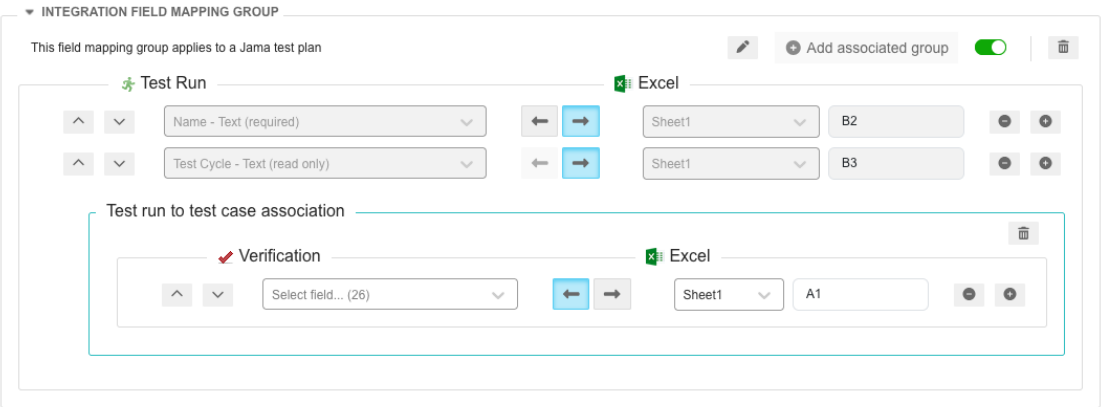
Typically, output fields are read-only in Jama Connect to prevent users from updating them manually. If you mark a field as read-only in Jama Connect, you must also select **Allow API Overwrite** in the field settings to allow the integration service to write the updated Excel value to the item.



8. Select **Save Changes**.
9. Map test cases to your test runs:
   a. Select **Add associated group**, select the test case to map, then select **Create**.



b. Add additional field mapping rows for the test case items.



c. Select **Save**.

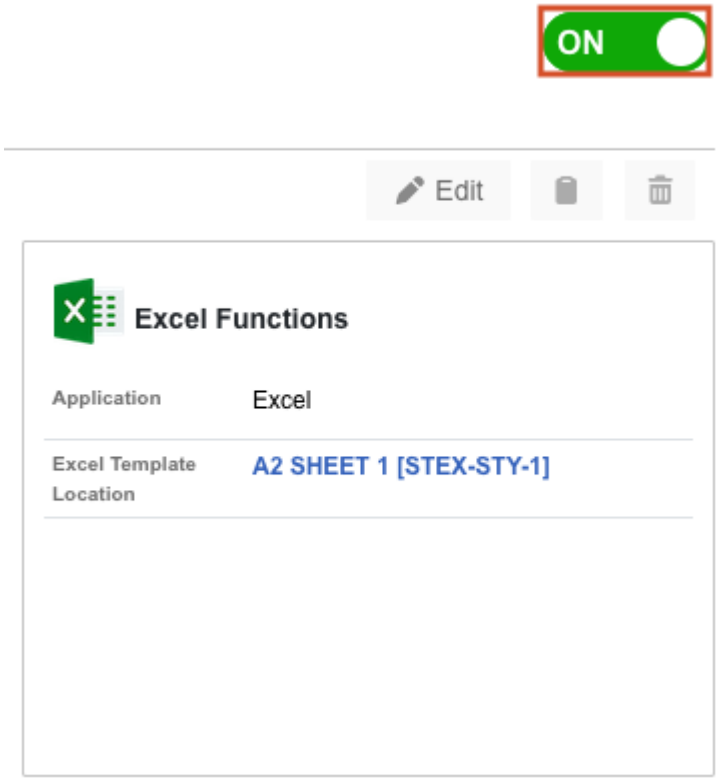
Your Excel template is now mapped to test runs and test cases.

Enable the Excel Functions integration

After the integration between Jama Connect and Excel Functions is set up and field mappings are defined, enable the integration.

To enable your Excel Functions integration:

- On the Integration dashboard, set the ON/OFF toggle to **ON**.



Once an integration is enabled, Jama Connect Interchange begins linking items between Jama Connect and the Excel template.

Test the Excel Functions integration

After you link to your Jama Connect instance and Excel template, then create and enable an integration, verify that the systems are communicating correctly.

To test your Excel Functions integration:

1. In Jama Connect, go to the set of items you are integrating with, and enter data in the mapped Jama Connect to Excel (→) fields.
2. After 15 seconds, verify that the read-only Excel to Jama Connect (←) fields are automatically populated with the function result you expect.
3. In Jama Connect, edit the same Jama Connect to Excel fields, and after 15 seconds verify that the functions are rerun and that the read-only Excel to Jama Connect fields are automatically updated.

Your Jama Connect instance and Excel template are successfully communicating.

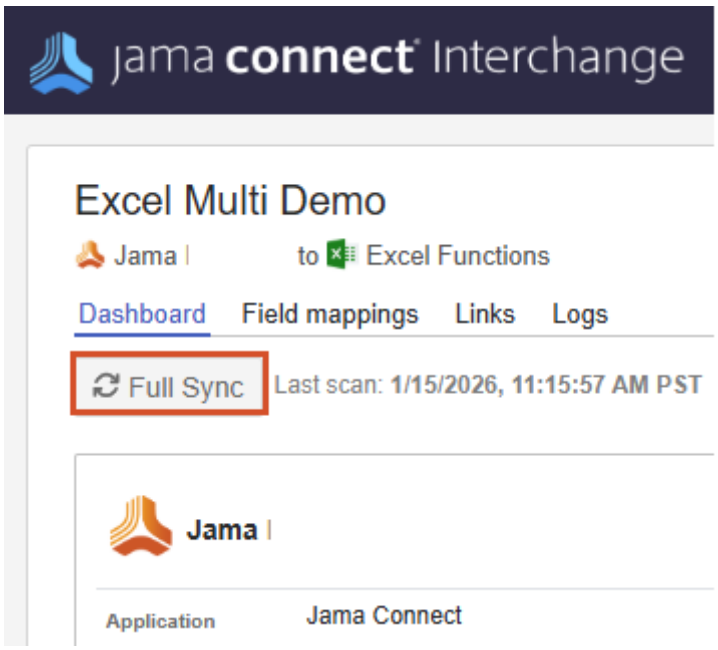
Perform a Full Sync for Excel Functions integrations

To maximize performance and minimize load on Jama Connect and the integrated system, regular syncs include only items that were modified since the last integration run. However, you can sync all items with the Full Sync option.

Important
Only run a Full Sync when advised by Support because it is a performance-intensive operation.

To perform a Full Sync:

1. On the Integrations page, select the link for the integration.
2. On the Integration dashboard, select **Full sync**.



A confirmation message is added to the Logs page when the sync is complete.

Best practices for Excel Functions integrations

For a smooth Excel Functions integration setup, we recommend that you follow these best practices.

Combining integrations where possible

If you are running multiple formulas/integrations for the same project or set of items within a project, don't create a separate standalone integration for each formula. Rather, create a single integration with multiple field mapping groups.

If multiple standalone integrations are updating the same set of items, syncs can get caught in a continuous loop of updates, slowing down the system and unnecessarily creating new versions of items. Combining formulas with the same integration prevents this, because each integration has internal filtering capabilities to prevent extraneous updates.

Using the correct field type for your formula

When mapping Jama Connect fields in an Excel Functions integration, be sure to use the field type that best fits your formula.

Mathematical Functions — Use Jama Connect Integer or Float fields for mathematical functions such as SUM or MAX. Text fields are not supported. For these functions, the input cells in your template must also include non-numeric placeholder values such as "n." Make sure the Excel formula also includes an argument to omit the placeholder value from the calculation. For an example, see the Max Severity Excel template available on the Community website.

Non-Numeric Functions — Use Jama Connect Text or HTML fields. Placeholder values can be included in the Excel template but are not required.

Picklists — Make sure that the value being written to the picklist from Excel exactly matches the picklist display value. See Processing numeric values using picklists [70] for additional guidelines.

- For non-numeric functions involving picklists, placeholder values can be included in the Excel template but are not required.
- For numeric functions involving picklists, the input cells in your template must also include non-zero placeholder values. Make sure the Excel formula also includes an argument to omit the placeholder value from the calculation.

Multi-select Picklists — Using Excel Functions, you can write to and from multi-select picklists. The following field type combinations are supported:

- Multi-select to multi-select
- Multi-select to text
- Text to multi-select

When writing from a text field or from the Excel template to the multi-select field, you can use commas to separate values. Jama Connect Interchange accepts both with leading spaces (as in Low,Medium,High) and without leading spaces (as in Low, Medium, High).

You can also combine the values from two separate multi-select fields into a third. Duplicates are removed automatically. For example:

Input fields	Output field
Field 1: Low, Medium Field 2: Medium, High	Field 3: Low, Medium, High

Here is a simple example of a field mapping configuration to accomplish the above scenario. In the Excel template, use the following formula in cell C1: =TEXTJOIN(",",TRUE,(A2:B2))

Using functions supported by Apache POI

The Excel Functions module uses an Excel SDK (Apache POI 5.2.3) to run functions in memory. The SDK supports an extensive list of functions, but some are still not supported.

Make sure your Excel template includes only functions supported by the Apache POI SDK. For a full list, see Supported Excel Functions [126].

Here is a list of commonly requested functions that are NOT supported, and their recommended substitutes.

Unsupported function	Support function
CONCAT	CONCATENATE
XLOOKUP	LOOKUP, VLOOKUP
IFNA	ISNA
IFS	IF (nest multiple IF statements for the same effect)

Also, the SDK doesn't currently support R1C1 format, or functions that reference Excel macros or Excel tables. For details, see the Apache POI website.

Avoiding use of Excel tables

The Excel SDK doesn't support references to Excel tables or to individual cells inside those tables. If you try to reference an Excel table in your formula, you receive an error message on the Logs page similar to the following: “The column doesn't exist in table [Table Name]”. To address this issue, convert the table to a range, and update your formula to reference that range of cells rather than the table name.

For example, change this formula:

From this...	To this...
`=VLOOKUP(A1,Table1,2,FALSE)`	`=VLOOKUP(A1,A2:E10,2,FALSE)`

Using IFERROR to prevent processing errors

Use the IFERROR function whenever possible to catch errors in your formulas. Jama Connect Interchange generally doesn't process templates containing errors.

Ensuring mapped cells don't include sample data

Only include sample data in your Excel template if you want that data incorporated in calculations and written back to Jama Connect. In most cases, cells are blank except for the formulas applied to them.

In certain scenarios, you might want to include static data in the Excel template to intentionally incorporate into formulas. For example, the Excel template can include a separate sheet with a static library of data that is referenced by the mapped formulas.

Processing numeric values for picklists

When processing picklist values, Interchange reads the Display Value and not the Numeric Value. If you want to run formulas based on the numeric value of a picklist selection, be sure your template includes a way to first map the Display Value to the Numeric Value.

For example, if you are calculating a risk score based on the selection in the following FMEA Severity field, make sure your template includes a lookup table to map the Display Value (Low, Medium, High, Critical) to the Numeric Value (1, 2, 3, 4).

Pick list values for FMEA Severity

Order	Display value	Infotip	Numeric value	Color	Default
1	Low		1		
2	Medium		2		
3	High		3		
4	Critical		4		

This mapping can be accomplished using a VLOOKUP formula or nested IF statements.

Here is a simple example:

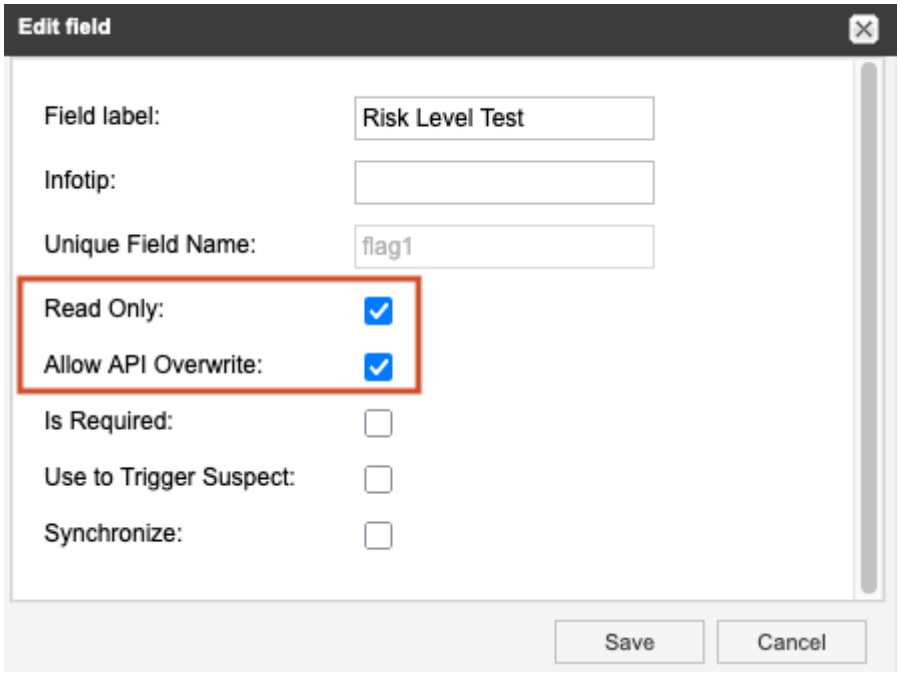
C23 =VLOOKUP(C22,F23:G26,2)

	A	B	C	D	E	F	G
20							
21							
22		JCI Input Field ->	Medium		Reference Table ->	Display Value	Numeric Value
23		Mapped Value ->	2			Low	1
24						Medium	2
25						High	3
26						Critical	4
27							

Marking output fields as "Read Only" and "Allow API Overwrite"

Identify any fields in Jama Connect that are being written to or from Excel (←), then mark those fields as read-only in Jama Connect. This prevents users from updating these fields manually.

If you mark a field as read-only in Jama Connect, you must also select **Allow API Overwrite** in the field settings to allow the integration service to write the updated Excel value to the item.



How fields are processed

All mapped fields are processed at the same time, and not in sequence.

The order in which fields or field mapping groups are listed on the Field Mapping page doesn't impact how calculations are run. If fields must be processed in a certain order, incorporate that order into the formula itself.

How error links are processed

If something is preventing an item in Jama Connect from syncing correctly with Excel Functions, that item is marked with a red "Error" status on the Links page in Jama Connect Interchange. The Message column provides a little more information about the error so that you can address the issue.

Common reasons for errors include:

- The item in Jama Connect is in Locked status.
- The Excel template includes an unsupported function, or the function is in an error state.
- The mapped field in Jama Connect can't support the value that Jama Connect Interchange is attempting to write to it, for example, an invalid picklist value or an invalid data type.

As long as the integration is running (toggled ON), Jama Conenct Interchange constantly retries any error links at the defined integration frequency (5 seconds, 15 seconds, etc). As soon as the cause of the error is resolved (the item is unlocked, the Excel template error is corrected, etc) and Jama Connect Interchange can successfully sync the item, the Error status is removed and the item is changed to a green Success status.

Optimizing sync performance

The total time required to process a sync for a single Jama item can range from 15 seconds to 2 minutes, depending on factors like data volume, workflow/integration complexity, and environmental settings.

To optimize performance, follow these best practices.

- **Field mapping groups** — Configure a maximum of 5-10 field mapping groups per integration.

If an integration contains more than one field mapping group, Jama Connect Interchange processes these groups synchronously to accommodate more complex workflows and dependent logic. As a result, each additional group can add to the overall sync time.

- **Fields within mapping groups** — Configure a maximum of 10-15 fields per field mapping group.
  While the count of fields within a group doesn't directly impact sync times, limiting the total number of fields reduces the risk of error and contributes to overall stability and maintainability.
- **Splitting integrations** — Split asynchronous/non-dependent workflows across different integrations.
  Because Jama Connect Interchange can process multiple integrations simultaneously, split non-dependent or asynchronous workflows into their own integrations. This allows those workflows to run in parallel, reducing overall processing times.
  Exception — If the same Jama Connect item is being processed by multiple workflows, group those workflows under the same integration to prevent looping updates.
- **Integration sync frequency** — Set the Jama Connect Interchange sync frequency on each integration to 30 seconds or more.
  As data volumes grow, increasing this setting from the default 15 seconds to 30-60 seconds can ultimately yield fast syncs because overall API traffic is reduced.
- **Configuring formulas** — Follow best practices for specific formula types, databases, and use cases.
- **Jama Connect native features** — Fully utilize Jama Connect calculated fields, lookup matrices, and trace views before adding Jama Connect Interchange.
  Whenever possible, use Jama Connect native features first to accomplish the workflow you want. To achieve more advanced scenarios, incorporate the Jama Connect Interchange Excel Functions as a supplement. This results in fast syncs and a more seamless experience for users.

Set up a Connected Service connector to enable event-driven syncing

To enable event-driven synchronization, set up a Connected Service connector for each Jama Connect tenant used in an Excel Functions integration. Webhooks then notify the integration of data changes without scheduled checks. For detailed steps, see Setting up a Jama Connect service account and Jama Connect Interchange connector [109].

Common tasks (Jira and Excel Functions)

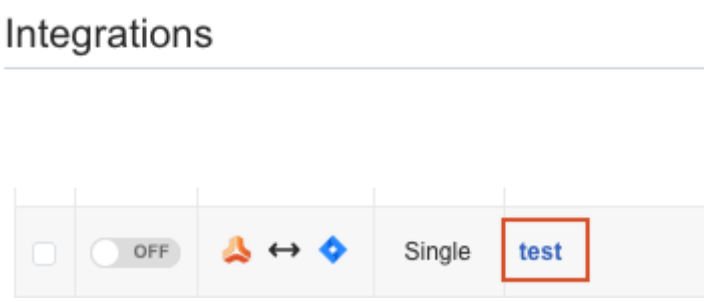
This section covers the procedures that admins perform regularly for Jira and Excel Functions integrations.

- Enable and disable an integration [73]
- Edit an integration [74]
- Copy an integration [75]
- Perform a Full Sync for Excel Functions integrations [67]
- Perform a Full Sync for Jira integrations [38]
- Refresh Connector data [76]

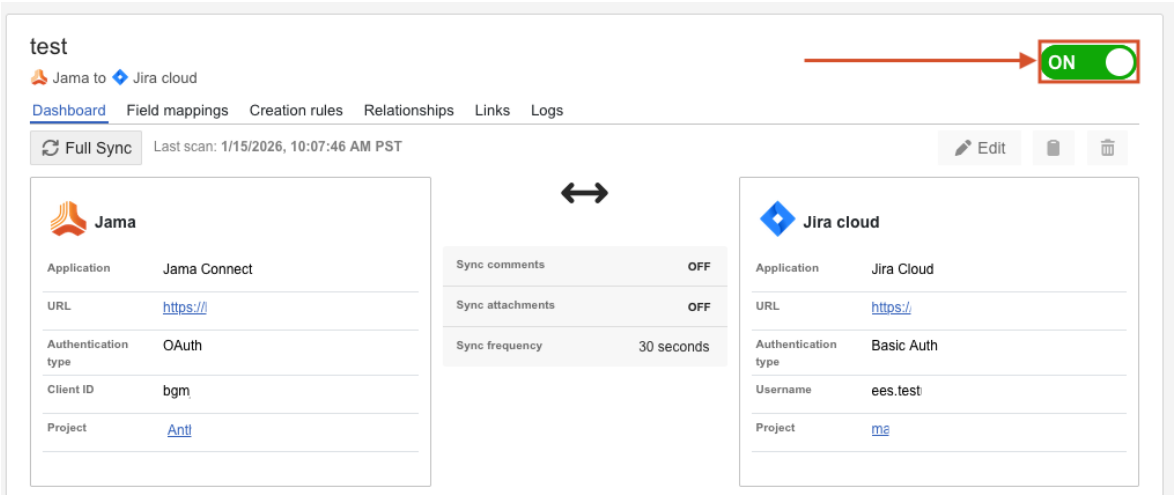
Enable and disable an integration

When an integration is first created, it is in the disabled state, which allows you time to create field mappings and any rules you might want to apply. When you're ready for the integration to start running, you must enable it.

1. On the Integrations page, select the link for the integration you just created.

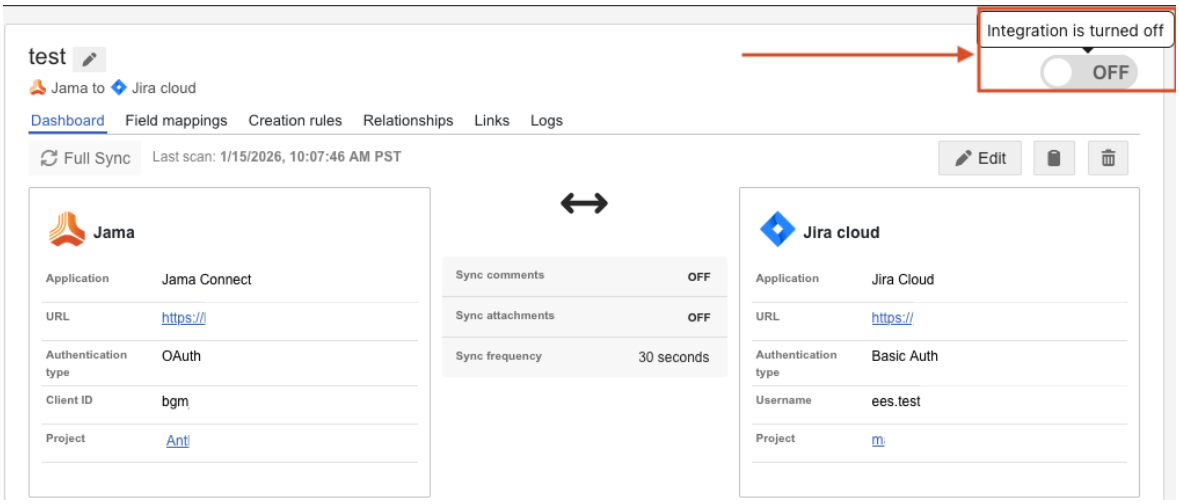


2. In the top right corner of the Integration dashboard, set the Integration Status toggle to **ON**.



After an integration is enabled, Jama Connect Interchange begins linking items in the two systems.

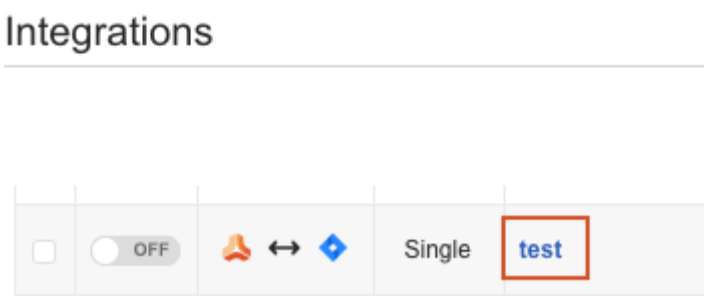
3. (Optional) To disable an integration, set the Integration Status toggle to **OFF**.



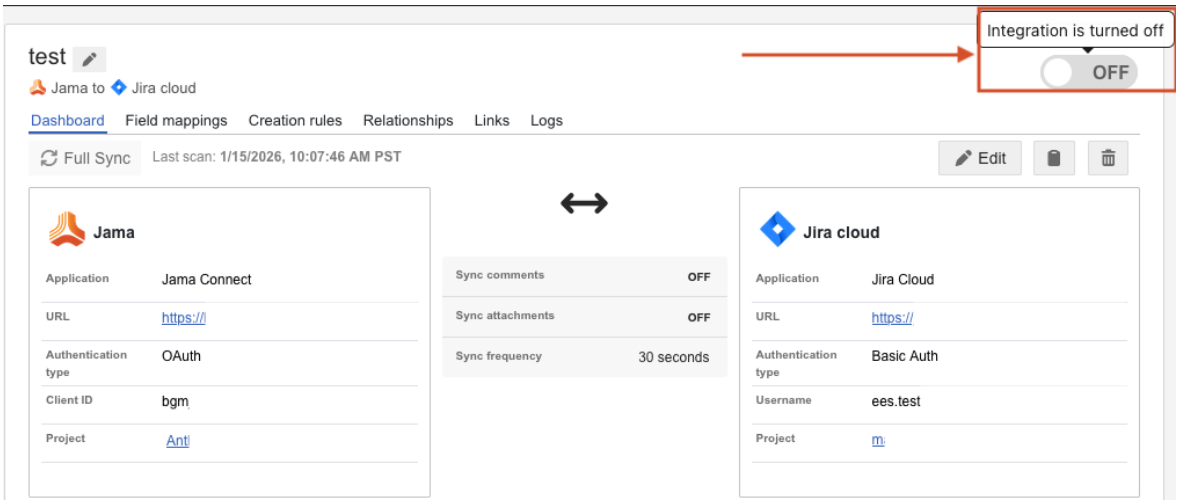
Edit an integration

Many settings and rules configured for an integration can be modified as needed from the integration's dashboard.

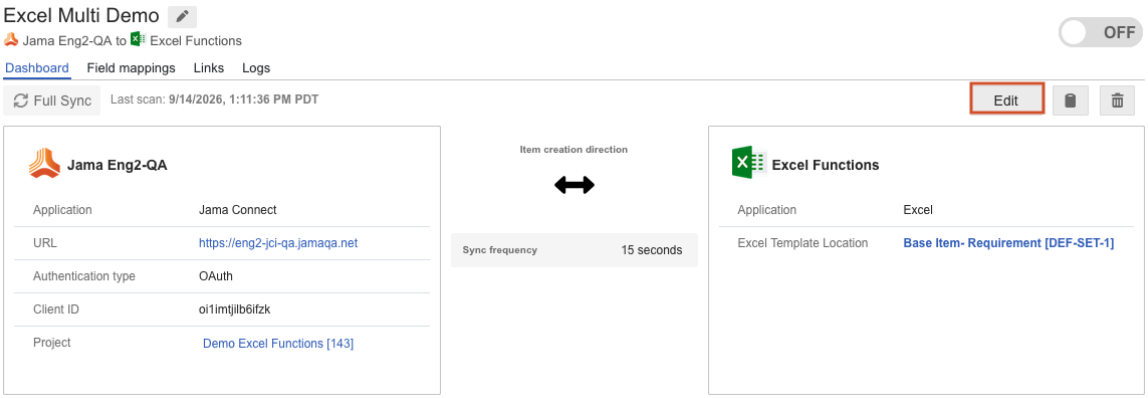
1. On the Integrations page, select the link for the integration you want to change.



2. If the integration is running, toggle the integration **OFF**.



3. On the integration dashboard, select **Edit**.



4. Update the following fields as needed:
   - Jama Connect project
   - Sync frequency
   - **Jira integrations only** — Jira project, Item creation direction, Sync attachments, Sync comments
   - **Excel Functions integrations only** — Excel template location
5. Select **Save**.
6. If you updated the Jama Connect project or Jira project, go to the Field Mappings page and update your selected sets and field mappings as needed. Validation messages are displayed on the screen to highlight the updates you need to make.

> **Important**
> If you edit the Project, selected sets, or Jira issue type for a field mapping group, any existing links on the Links page stop syncing because they are no longer part of the selected dataset for the integration.

7. After making any needed updates, select **Save** on the Field Mappings page.
8. To restart the integration, toggle the integration **ON**.

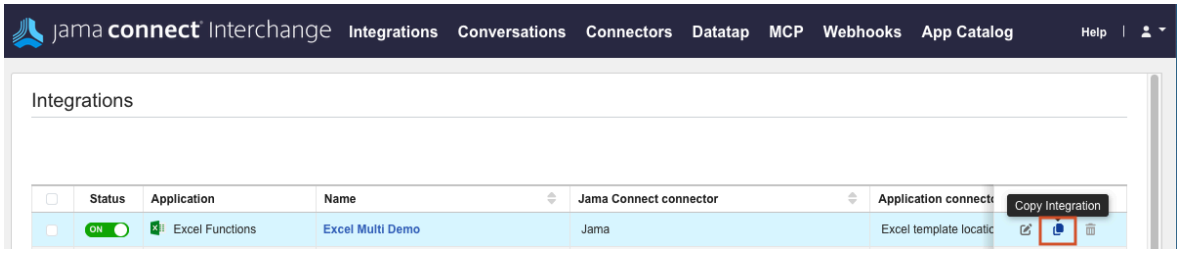
Copy an integration

You can create copies of existing integrations. This feature allows you to quickly set up multiple, similar integrations for different projects or teams.

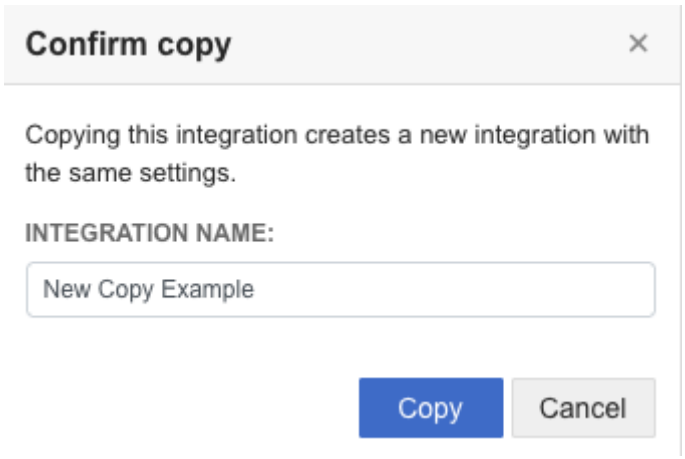
When you create a copy of an integration, the selected sets, links, and log messages from the original integration are not copied over. This prevents multiple integrations from being set up for the same set of items.

To copy an integration:

1. On the Integrations page, select **Copy Integration** for the integration you want to duplicate.



2. Update the Integration Name and select **Copy** to create the new integration.



3. Update the following settings for the integration as needed:
   - On the Dashboard — Edit the selected project, frequency, and other settings as necessary. See Edit an integration [74] for a list of settings that can be updated.
   - On the Field Mappings page —
     - Select **Edit mapping group** to select the Jama Connect sets or folders where the integration applies.
     - Update the individual field mappings as needed.

> **Important**
> When copying integrations, make sure that each new integration points to a different set of Jama Connect items (and Jira items, if applicable). Running multiple integrations against the same sets of items can lead to conflicts.

4. Save any changes, then toggle the integration to **ON** to begin syncing items.

Refresh Connector data

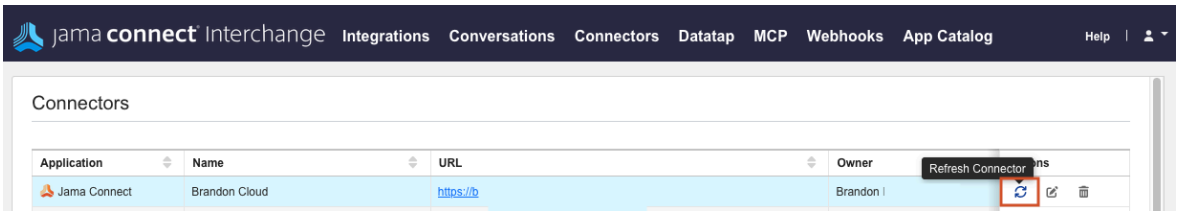
When you create a new connector for Jama Connect or an integrated system, project configurations such as item types, issue types, and field settings are automatically retrieved and cached in Jama Connect Interchange. This cache is periodically refreshed with new data from each system.

If you change the settings in Jama Connect or the integrated system (for example, add a new field to an item type), you can force a cache refresh so that Jama Connect Interchange gets the latest settings the next time it connects to each system.

> **Important**
> You can refresh connectors that you own and, if allowed, global connectors. You can't refresh connectors that are owned by another user.

To refresh Connector data:

1. In the Jama Connect Interchange header bar, select **Connectors**.
2. Locate the connector you want to refresh and, in the Actions column, select the **Refresh Connector** icon.



The connector is refreshed, and new project configuration data is retrieved the next time it connects to each system.

Configuring ReqIF Exchanges

This section guides you in completing ReqIF imports and exports. The following topics are covered.

- Link to your Jama Connect instance (ReqIF) [78]
- Create a new ReqIF conversation [79]
- Import a ReqIF file to Jama Connect [80]
- Export Jama Connect data to a ReqIF file [84]
- Configure round-trip settings for ReqIF import and export [88]
- Importing and exporting ReqIF files using the REST API [85]

Link to your Jama Connect instance (ReqIF)

For the process of setting up a Jama Connect connector, you must identify the user account that Jama Connect Interchange uses to authenticate with Jama Connect.

After the integration is set up and information is flowing between Jama Connect and the integration service, any updates made to items in Jama Connect by the integration service appear to come from this account.



Note
If you plan to configure multiple ReqIF conversations using the same Jama Connect instance, you only need to create one connector for that instance. You can use the same connector with multiple conversations.

Requirements

- A running Jama Connect instance.
- A Jama Connect user account that the integration service uses to authenticate with Jama Connect.
  - You can use an existing Jama Connect user's account or create a dedicated service account. Your subscription to Jama Connect Interchange includes one free named license for this service account.
  - A Jama Connect admin can create a new account in Jama Connect by selecting **Admin > Users > Add**.
- The user account must have read and write privileges, a Named Creator license type, and the ability to read and write to the set of items you are integrating with.

To link your Jama Connect instance:

1. In the Jama Connect Interchange header bar, select **Connectors > Add Connector**.
2. In the Add Connector window, complete these fields:
   - **Application** — Select **Jama Connect**.
   - **Name** — Enter a descriptive name for the connector.
   - **URL** — Enter your Jama Connect URL.
   - **Verify SSL** — Select **Basic** or **oAuth**, whichever your environment uses. If your Jama Connect instance uses SAML authentication, select **oAuth**.
     Basic authentication:
     - **Username** — Enter the username for the Jama Connect user.
     - **Password** — Enter the password for the Jama Connect user.

     oAuth authentication:

- **Client ID** — Enter the Client ID associated with this user account. To generate the Client ID, see Set API credentials.
- **Client Secret** — Enter the Client Secret associated with this user account. To generate the Client Secret, see Set API credentials.

3. (Admins only) To assign ownership to this connector, select **Owner**, then select **Global** (the connector is visible to all users and can be edited only by admins) or a specific user (the connector can be edited by and is visible only to that user and admins).

> **Note**
> Only an admin can assign connector ownership. When a non-admin user creates a connector, ownership defaults to that user. When an admin creates a connector and doesn't assign ownership, ownership defaults to that admin.

4. To edit an existing connector:
   a. Select the edit icon next to the connector you want to modify.
   b. Change the fields you need.

> **Important**
> If you change the connector's owner, a warning message lets you know the potential impact. If you change the username, owner, or URL, a validation warning appears.

5. Select **Save**.

Create a new ReqIF conversation

Each ReqIF conversation represents a ReqIF exchange for a specific dataset in Jama Connect (a collection of components and/or sets and their contained items) with a given exchange partner such as a vendor, supplier, customer, or separate internal team.

A conversation can be used once for a single import/export job, or multiple times for an ongoing back-and-forth exchange of the same set of data with the same exchange partner.

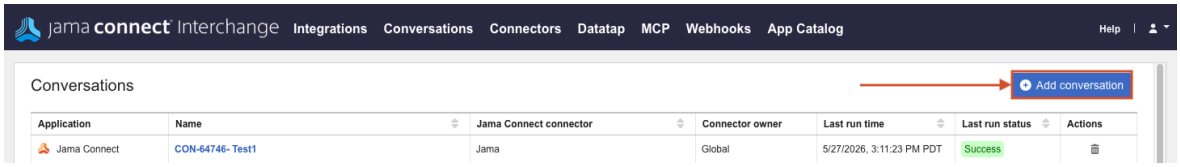
Create a different conversation any time you plan to exchange a different dataset, even if with the same exchange partner.

Access

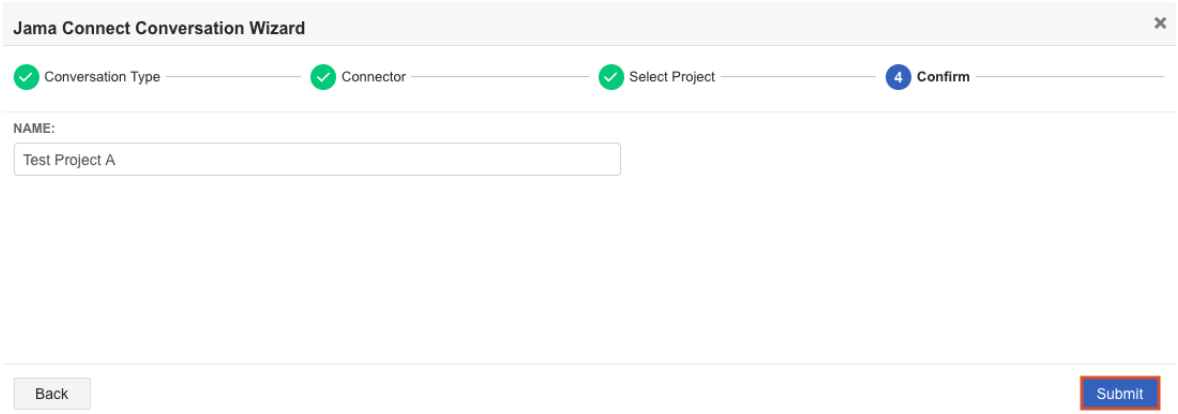
- Admins can access all conversations.
- Non-admin users can access only conversations whose connectors are marked as global or are owned by other non-admin users.
- If a conversation has one connector that the non-admin user can access (a global connector for a Jama Connect instance) and one connector that the non-admin user can't access (for example, a connector owned by someone else), the non-admin user can't access that conversation.

To create a ReqIF conversation:

1. On the Conversations page, select **Add conversation** to open the Jama Connect Conversation wizard.



2. Complete each page of the wizard, then select **Next**.
   a. **Conversation Type** — Select the conversation type according to the tool you are using to exchange data.
      - **Jama Connect to Jama Connect**
      - **Jama Connect to Codebeamer**
      - **Jama Connect to DOORS**
      - **Jama Connect to DOORS Next**
      - **Jama Connect to Polarion**
      - **Jama Connect to Simulink**
      - **Jama Connect to Standards-Compliant ReqIF**
   b. **Connector** — Select the connector that represents the Jama Connect instance where data is being imported/exported. This is the same connector you created in Link to your Jama Connect instance (ReqIF) [78].
   c. **Select Project** — Search for or browse to the Jama Connect project that you want to integrate.
   d. **Confirm** — Enter a descriptive name for the conversation.
3. Select **Submit** to complete the wizard.



The ReqIF conversation for the selected dataset is available.

Import a ReqIF file to Jama Connect

Import items, relationships, and other objects from a ReqIF file to Jama Connect.

ReqIF files from the following tools are formally supported for import:

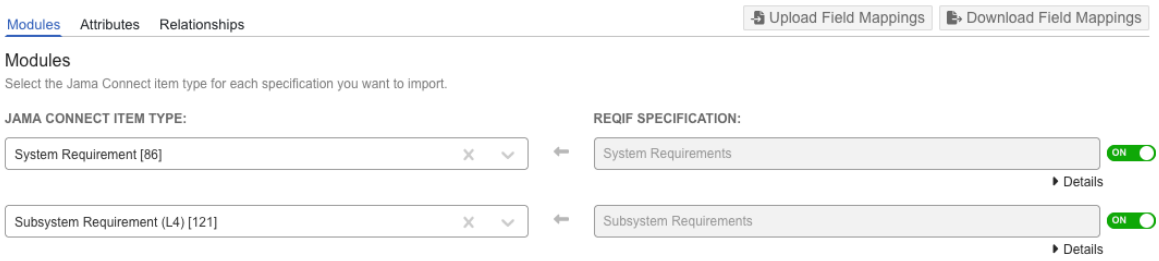
- Jama Connect
- IBM® DOORS
- IBM® DOORS Next
- PTC Codebeamer®
- Simulink®
- Polarion®

To import a ReqIF file:

1. On the **Conversations** page, select an existing conversation to use for the import, or create a new conversation. For more information, see Create a new ReqIF conversation [79].
2. Select the **Import** tab:
   a. In the Upload File section, select **Upload** and choose the .reqIF or .reqIFZ file from your computer for upload.
   b. In the Select Import Location section, choose **Select Location** and select the Jama Connect location where you want to upload the ReqIF file data.

   Data mapping fields are automatically generated on the lower half of the page. This process can take a few minutes to complete, depending on the size and complexity of the ReqIF file.

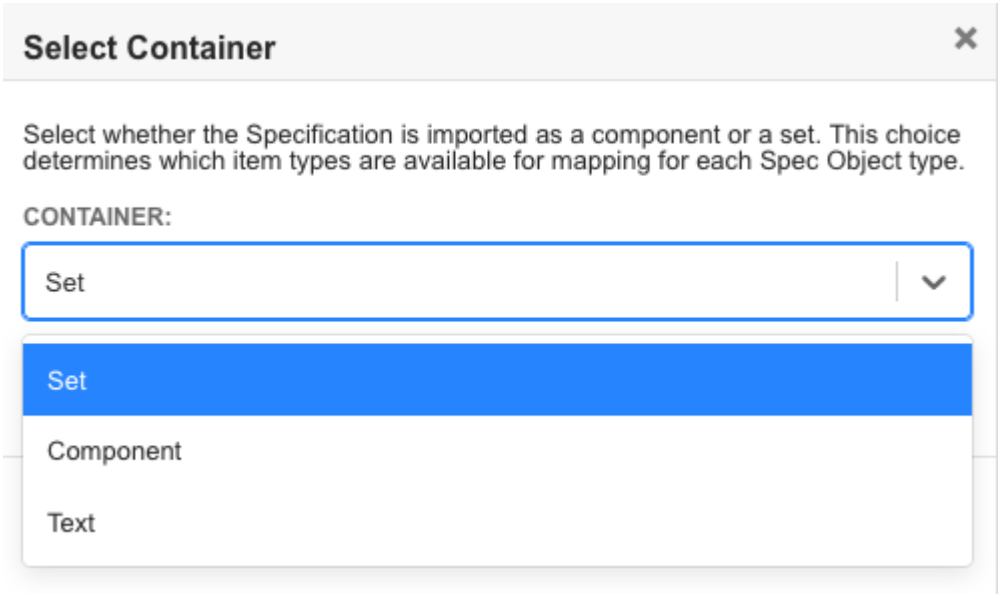
3. On the **Modules** subtab:



   a. In the left drop-down list for each row, select the default Jama Connect item type to assign to the container and items being imported.
      - Each row represents a specification that is present in the file.
      - For ReqIF files exported from Jama Connect, these specifications correspond to sets or components containing one or more items.
      - For ReqIF files exported from DOORS and DOORS Next, these specifications correspond to modules containing one or more objects.
      - When these specifications are imported into Jama Connect, each specification is imported as an individual set or component in the Jama Connect Explorer Tree.
   b. Select **Next**.
4. On the **Fields/Attributes** subtab, map the fields corresponding to the sets and items that will be imported for each specification. If the file contains multiple specifications, use the left navigation menu to access the mapping page for each specification and repeat this step for each specification.
   a. In the Container/Set attributes section, select the **Container** field to open the Select Container page.

> **Important**
> The **Select Container** window only appears if the specification includes mappable attributes.

   b. From the Container drop-down menu, select how you want the specification to be imported.



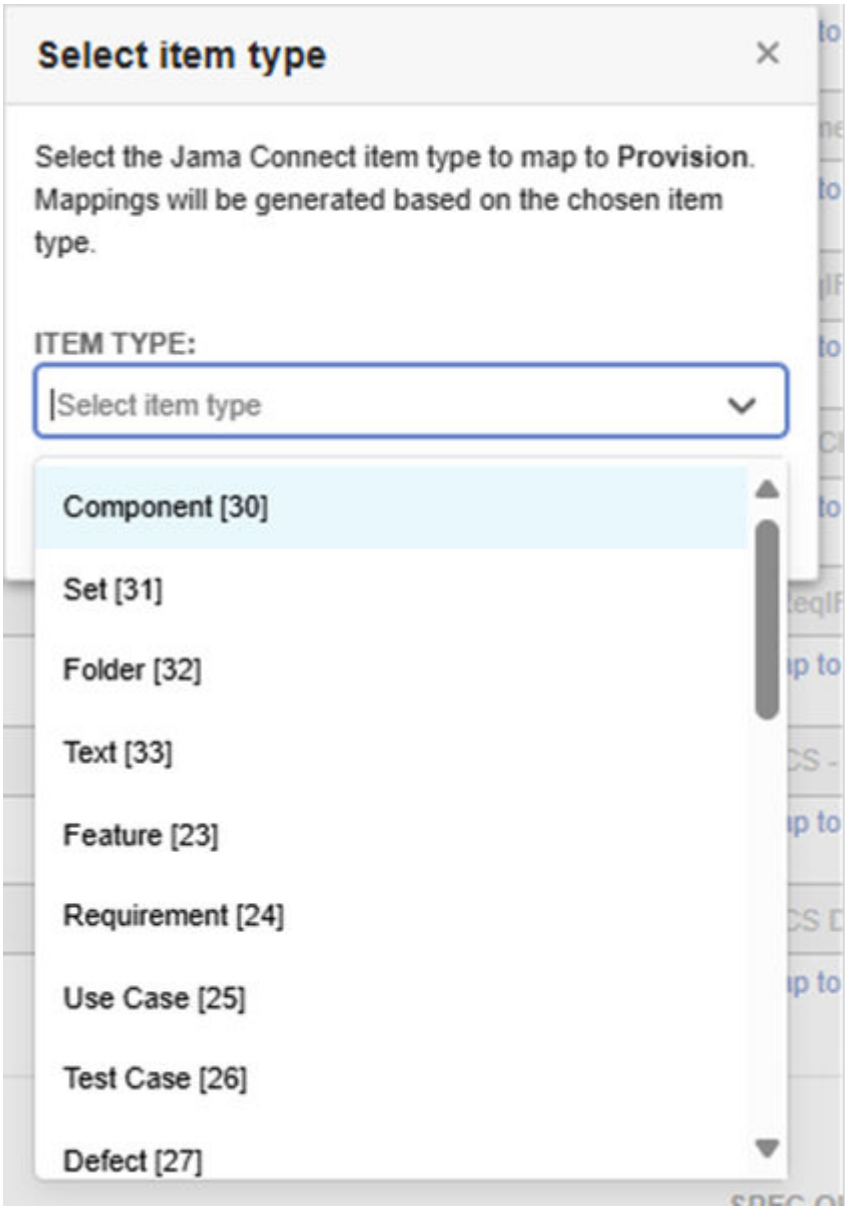
      - **Set** — Select **Set** if the specification can be imported as a single set container with child objects that are folder, text items, and/or individual items (and not sub-components or other sets).

- **Component** — Select **Component** when your specification contains child objects arranged in a multi-level hierarchy that includes sub-components and/or sets.
- **Text**

c. Select **Generate mappings**.

d. In the Container/Set Attributes section, set the ON/OFF toggle to **ON** for each attribute (field value) that you want to populate when creating sets in Jama Connect.
Typically, only a few fields, such as **Name** and **Description**, are required in this section.

e. In the Object Attributes section, map each spec object type within the specification to an item type in Jama Connect, then select **Generate mappings**.



Note
If you selected **Set** in the Container field, your options are limited to the specification type you selected in the **Item Types/Modules** subtab along with Text and Folder.

f. For each mapped spec object type, map the individual fields that you want import to Jama Connect:

- Set the ON/OFF toggle to **ON** for each attribute (field value) that you want to import.
- In the left drop-down list for each row that you enable, select the Jama Connect field to write the values to.

g. Select the **Map to additional field** link to map the same value from the ReqIF file to multiple fields on the Jama Connect item.
If you try to map multiple fields in the ReqIF file to the same Jama Connect field, only one mapping is honored; all others are ignored.

> **Important**
> When you map single-select or multi-select fields, you must also map the corresponding picklist values, which are nested under the field mapping row.
>
> Map all required fields for the Jama Connect item type; otherwise, the items can't be created and error messages are generated in the logs. The left drop-down list indicates which fields are required.

5. Select **Save**.
6. On the **Relationships** subtab:
   a. Set the ON/OFF toggle to **ON** for each spec relation type in the ReqIF file that contains relationships you want to import to Jama Connect.
   b. In the left drop-down list for each row you enabled, select the Jama Connect relationship type to use for these relationships.
      - Make sure that Jama Connect relationship rules are configured to allow the relationship types and relationship directions that you are attempting to import.
      - To reverse the upstream/downstream direction from the default direction listed in the ReqIF file, select **Reverse** for that row. By default, “Source” items in the ReqIF file are imported as “Upstream” items and “Target” items in the ReqIF file are imported as “Downstream” items.
7. Select **Initiate Import** to import the file.
8. Select the **Logs** tab to check the status of the import.

The ReqIF file is imported to Jama Connect.

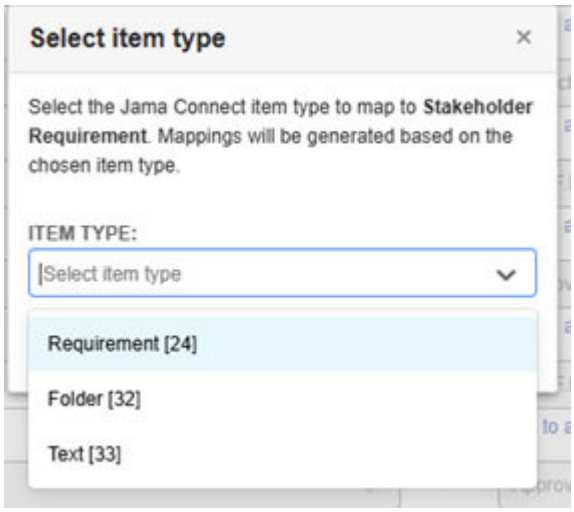
Importing mixed specifications

JCI supports the import of ReqIF files containing mixed specifications, which contain items of more than one spec-object-type, such as requirements, text, and folders. Multiple types of requirements might also be included, such as functional requirements and non-functional requirements.

Specifications are imported to Jama Connect as sets. The Jama Connect Interchange import includes special handling to ensure these mixed specifications can be imported while still complying with the Jama Connect rule that each set can include only items of one item type, plus text items and folders.

When uploading a ReqIF file that contains mixed specifications, Jama Connect Interchange automatically detects the presence of mixed specifications. On the Attributes/Fields subtab, you can map each spec-object-type in the specification separately, to one of the following:

- Primary item type assigned to the specification
- Folder
- Text



After selecting the item type you want, select **Generate mappings** to create the mapping for that item.

Nesting Rules in Jama Connect

When mapping spec-object-types, Jama Connect items, folders, and text items must abide by the following nesting rules. If objects in the ReqIF file are also nested, it is possible to map your import in a way that violates these rules.

- **Items** — Can have child items of the same type (for example, another Requirement).
- **Folders** — Can include other Folders, Requirements, or Text items as children.
- **Text Items** — Only allow child Text items, no nesting of different types.

If your ReqIF file contains nested items that violate these rules (for example, nesting different types under incompatible parents), an error message is displayed during import.

Export Jama Connect data to a ReqIF file

Export items, relationships, and other objects from Jama Connect to a ReqIF file.

You can export the following types of datasets from Jama Connect:

- Container or location-based data sets such as sets, components, or an entire project
- Baselines
- Filters

> **Note**
> Round-trip exchanges are not supported for baseline or filter exports.

To export data to a ReqIF file:

1. On the **Conversations** page, select an existing conversation to use for the export, or create a new conversation. For more information, see Create a new ReqIF conversation [79].
2. In the conversation, select the **Export** tab, then in the Export settings section, select **Edit** to open the Configure Export Settings wizard.
3. Select **Confirm** to verify the location update.
4. On the **Export method** page, select the Jama Connect container, baseline, or filter that contains the sets you want to export.

If you selected **Container**, add or remove sets as needed, then select **Save**.
The sets are selected and the wizard closes. On the Export tab, data mapping fields are automatically generated on the lower half of the page. This process can take a few minutes to complete, depending on the size and complexity of the export.

5. On the **Fields** tab, set the ON/OFF toggle to **OFF** for any field values you don't want to export, then select **Save**.
   If your export contains multiple item types, repeat this step for each item type listed in the left navigation bar.
6. On the **Relationships** tab, set the ON/OFF toggle to **OFF** for any item types you don't want to export, then select **Save**.
7. Select **Initiate Export** to start the export.
8. Select the **Logs** tab to check the status of the export.

A download link to the generated ReqIF or ReqIFz file is displayed in the log when the export is complete.

Select the link to download the ReqIF or ReqIFz file to your computer.



Note
If the exported items contain embedded attachments (including embedded images and links to non-image files), a ReqIFz file is generated and includes both the ReqIF file and the accompanying attachments. To be included in the export, attachments must be embedded directly in an item's HTML field. Files that are linked to the item via the attachments widget aren't included in the export

If the exported items don't contain attachments or embedded images, a ReqIF file is generated.

Importing and exporting ReqIF files using the REST API

The ReqIF REST API lets you import and export ReqIF or ReqIFz files using Jama Connect Interchange. You can upload an import file, start asynchronous processing, monitor the import or export status, and download the completed export file.

Use the REST API to automate repeatable ReqIF exchanges, monitor processing, identify failures, and integrate ReqIF operations with scripts or client applications.

The workflow includes two stages:

- **Import** — Upload a file, start the import, and monitor its status.
- **Export** — Start the export, monitor its status, and download the completed file.

Prepare for ReqIF import and export

Prepare to use the ReqIF REST API with Jama Connect Interchange by setting up the required conversation, import configuration, and mapping.

1. Complete the following setup in Jama Connect Interchange:
   - Create a conversation [79]
   - Configure a valid import location and upload a ReqIF file [86]
   - Create and complete mapping [51]
2. Authenticate the ReqIF REST API request. Each REST API request uses basic auth and requires a Jama Connect Interchange username and password for authentication.

ReqIF REST API endpoints

The {id} in the endpoints below represents the ReqIF conversation integration ID.

Capability	Method and endpoint	Primary purpose
Upload import file	PUT /labs/v1/reqif/{id}/upload-file	Stores the source ReqIF or ReqIFz file for a conversation before the import begins. If a file was uploaded with the same mapping, you can replace it.
Start import	POST /labs/v1/reqif/{id}/import	Starts asynchronous import processing for the uploaded file.
Check import status	GET /labs/v1/reqif/{id}/IMPORT/status	Returns the latest persisted IMPORT process status.
Start export	POST /labs/v1/reqif/{id}/export	Starts asynchronous export processing.
Check export status	GET /labs/v1/reqif/{id}/EXPORT/status	Returns the latest persisted EXPORT process status.
Download export file	GET /labs/v1/reqif/{id}/download-file	Retrieves the generated export file after the export completes.

Import and export ReqIF files

Upload a ReqIF or ReqIFz file, start and monitor the import, generate an export, and download the completed export file.

Parameters

- Replace {id} with the conversation integration ID.
- Replace <jci-username>:<jci-password> with the Jama Connect Interchange username and password.
- Replace jci.example.com with your Jama Connect Interchange host.

To import and export ReqIF files:

1. **Upload the import file** — Use the upload endpoint to associate a ReqIF or ReqIFz file with the target conversation before calling the import start endpoint.
   Endpoint

   ```
   PUT /labs/v1/reqif/{id}/upload-file
   ```

   Sample Request

   ```
   curl -X PUT "https://jci.example.com/labs/v1/reqif/12345/upload-file" \
      -H "Content-Type: application/json" \
      -u "<jci-username>:<jci-password>" \
      -F "file=@/files/requirements.reqif"
   ```

2. **Start the import** — After uploading the file, call the import endpoint to begin asynchronous processing.
   Endpoint

   ```
   POST /labs/v1/reqif/{id}/import
   ```

   Sample Request

   ```
   curl -X POST "https://jci.example.com/labs/v1/reqif/12345/import" \
      -H "Content-Type: application/json" \
      -u "<jci-username>:<jci-password>" \
      -d "{}"
   ```

   Successful Response

   ```
   202 Accepted
   {
      "integrationId": "12345",
      "statusUrl": "/labs/v1/reqif/12345/IMPORT/status"
   }
   ```

3. **Check the integration status**
   Endpoints

- GET /labs/v1/reqif/{id}/IMPORT/status
- GET /labs/v1/reqif/{id}/EXPORT/status

Use the status REST API endpoints to:

- Poll after an accepted import request
- Poll after an accepted export request
- Protect upload and import-start operations from concurrent IMPORT activity
- Confirm when export output is ready to download
- Understand when the process is **Running**, **Completed**, or **Failed**

Sample Request — Import

```
curl -X GET "https://jci.example.com/labs/v1/reqif/12345/IMPORT/status" \
   -H "Accept: application/json" \
   -u "<jci-username>:<jci-password>"
```

Sample Request — Export

```
curl -X GET "https://jci.example.com/labs/v1/reqif/12345/EXPORT/status" \
   -H "Accept: application/json" \
   -u "<jci-username>:<jci-password>"
```

4. **Start the export** — Use the export endpoint to generate a ReqIF output file from the target conversation context.

   Endpoint

   ```
   POST /labs/v1/reqif/{id}/export
   ```

   Sample Request

   ```
   curl -X POST "https://jci.example.com/labs/v1/reqif/12345/export" \
      -H "Content-Type: application/json" \
      -u "<jci-username>:<jci-password>" \
      -d "{}"
   ```

   Successful Response

   ```
   202 Accepted
   {
     "integrationId": "12345",
      "statusUrl": "/labs/v1/reqif/12345/EXPORT/status"
   }
   ```

5. **Download the export file** — After the export completes successfully, use the download endpoint to retrieve the generated ReqIF output file.

   You can download the file only when the latest persisted EXPORT status is COMPLETED and an export artifact exists. A **RUNNING** or **FAILED** export, or a missing artifact, returns separate error responses.

   Endpoint

   ```
   GET /labs/v1/reqif/{id}/download-file
   ```

   Sample Request

   ```
   curl -X GET "https://jci.example.com/labs/v1/reqif/12345/download-file" \
      -H "Accept: application/octet-stream" \
      -u "<jci-username>:<jci-password>" \
      --output exported-requirements.reqif
   ```

Reference

Find answers to common questions, troubleshoot ReqIF REST API operations, and review common ReqIF REST API error codes.

See the following topics:

- Troubleshooting [88]
- FAQ [88]
- Common ReqIF REST API error codes [88]

Troubleshooting

Question	Answer
Why does the upload return 409 Conflict?	Check the current IMPORT status before retrying. A running import prevents another upload or import operation from starting for the same conversation.
Why does the import not start?	Confirm that a valid ReqIF or ReqIFz file was uploaded successfully to the correct conversation and that the mapping is complete.
Why can't I download the export file?	Confirm that the EXPORT process has completed successfully before requesting the file.

FAQ

Question	Answer
Can an upload proceed while an export is running?	Yes. Upload blocking applies to a running IMPORT process, not a running EXPORT process.
Can two imports run at the same time for the same conversation?	No. A second import request returns 409 PROCESS_RUNNING while an import is running.
Where do I check the import or export status?	Use /labs/v1/reqif/{id}/IMPORT/status for imports or /labs/v1/reqif/{id}/EXPORT/status for exports.
What is the final step for an export?	After the export completes successfully, call GET /labs/v1/reqif/{id}/download-file.

Common ReqIF REST API error codes

Status or error	Description
400	The request is invalid. Possible causes include a missing conversation, invalid mode or location, invalid mappings, or invalid export configuration.
403	Access to the conversation is denied.
404	The conversation, current import file, status, file, or export artifact is unavailable.
409	Another process is already running.
413	The uploaded file is too large.
415	The content type is not supported.
500	An internal failure occurred during file upload, import initiation, export initiation, or file download.
500 IMPORT_INITIATION_ERROR	The import failed before processing was accepted.

Configure round-trip settings for ReqIF import and export

Round-trip exchanges involve multiple back-and-forth imports and exports of the same dataset. On subsequent updates, the original requirements in Jama Connect must be located and updated, rather than duplicated. To facilitate this, requirements in Jama Connect are matched to the corresponding spec objects in the ReqIF file and those matches are maintained throughout the life of the exchange.

When you configure your round-trip exchanges, you are prompted to select the type of matching, the extent of the scoped updates, and import and export settings.



Note
Round-trip exchanges are not supported for baseline or filter exports.

Matching methods

In each ReqIF conversation in Jama Connect Interchange, you can choose which matching methodology to use for round-trip exchanges:

- **Jama Connect matching** — (Default) Automatically pairs Jama Connect API IDs with ReqIF identifiers and maintains these associations within the conversation. This method requires no configuration. However, the same conversation must be used throughout the exchange lifecycle. Creating a new conversation results in the generation of duplicate items rather than updates to existing items.
- **Round Trip ID matching** — Utilizes a designated text field within the Jama Connect item to store the corresponding ReqIF identifier. During the initial import or export, this field is automatically populated with the corresponding ReqIF identifier and subsequently referenced in all future exchanges. With Round Trip ID matching, the same conversation is not required throughout the exchange lifecycle, as long as the Round Trip ID field is properly populated and the ReqIF identifier remains unchanged.

Conversation update scope

This user-controlled setting determines how far updates are applied during an import operation — independent of the matching method (Jama Connect matching or Round Trip ID matching).

- **Project scope updates** — Updates are applied across the entire project if the items match, regardless of where items are located within the project. Items might be reordered or moved back to match the source structure. See Example: Project Scope Updates [90] below.
- **Container scope updates** — Updates are limited to only the selected import container (target location). Only items within that container are updated and reordered, isolating updates to a subset of the project. See Example: Container Scope Updates [91] below.

To configure round-trip settings:

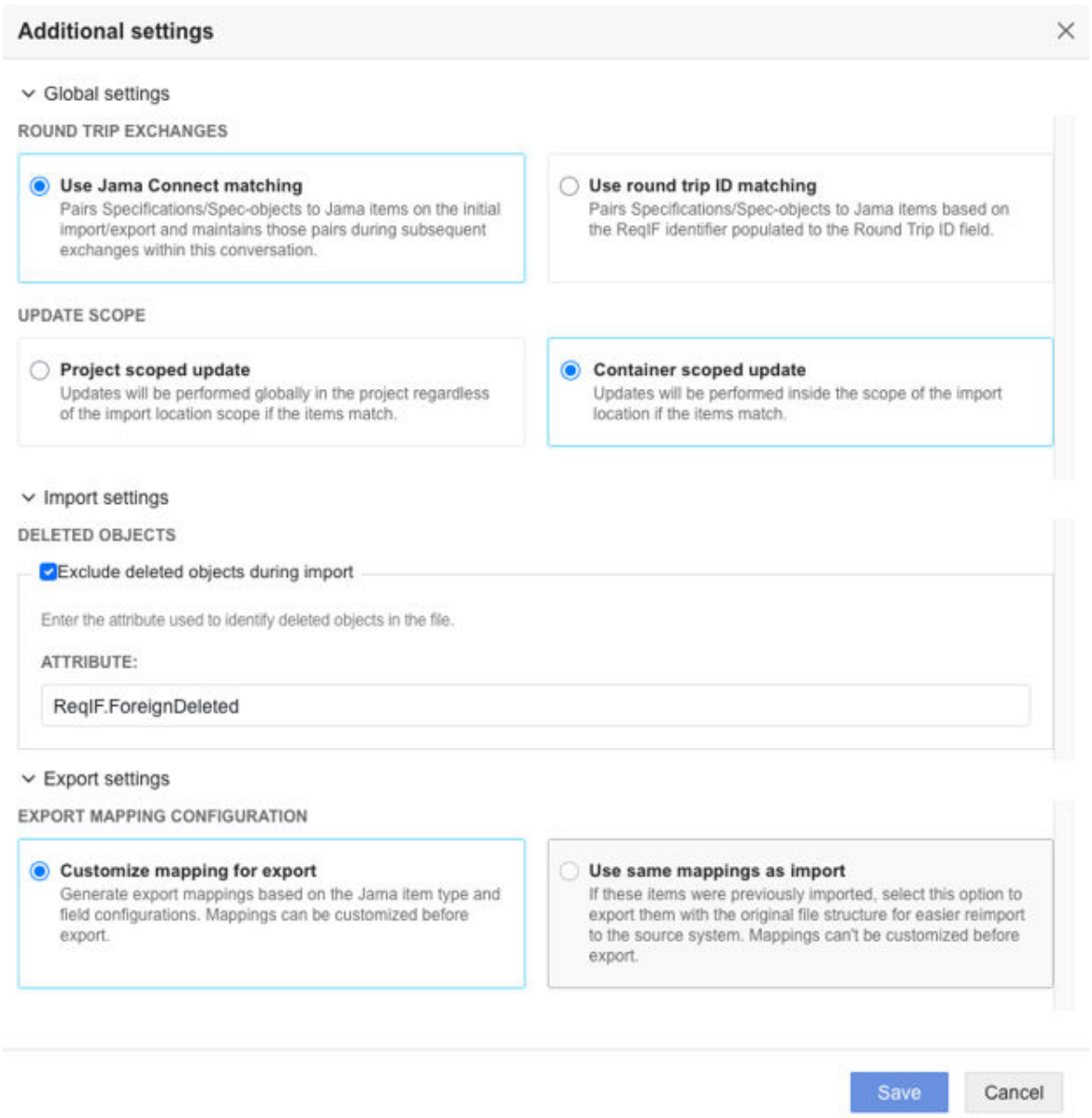
1. **Round Trip ID matching only** — In Jama Connect, configure a new text field to hold the ReqIF identifier. For information on how to create a field, see Add, edit, or delete fields.

   > **Note**
   > To exchange requirements for multiple item types, add the new field to each item type, making sure to use the same display name for each one.

2. On the Conversations page, select the conversation you want to configure for a round trip.
3. Select **Import** or **Export**, then select **Additional settings**.



4. In the Global settings section, select one of these options:
   - **Use Jama Connect matching** (Default)
   - **Use Round Trip ID matching**



5. (Round Trip ID matching only) In the **Jama Connect Round Trip ID** field, enter the display name of the Jama Connect field that will hold the ReqIF identifier. For example, **Round Trip ID**.
6. In the Update Scope section, select one of these options:
   - **Project Scope Updates**
   - **Container Scope Updates**
7. Under **Import settings:**
   a. Select **Exclude deleted objects during import**.
   b. Enter the attribute that identifies deleted objects in the file. For example, **ReqIF.ForeignDeleted**.
8. Under **Export settings**, select one of these options:
   - **Customize mapping for export**
   - **Use same mapping as import**
9. Select **Save**.

The round-trip settings for ReqIF import and export are saved.

Example: Project Scope Updates

1. Import requirements into Folder A.

2. Update the ReqIF file (for example, change requirement names and descriptions).
3. Move one requirement from Folder A to Folder B.
4. Perform a subsequent import.

Results:

- All matching requirements in the project are updated with the new content (for example, updated names and descriptions).
- The requirement moved to Folder B is updated.
- The requirement is moved back to Folder A to match the ReqIF hierarchy.
- The hierarchy matches the ReqIF file.

Example: Container Scope Updates

1. Import requirements into Folder A.
2. Update the ReqIF file (for example, change requirement names and descriptions).
3. Move one requirement from Folder A to Folder B.
4. Perform a subsequent import into Folder A.

Results:

- Requirements still in Folder A are updated with the new content (for example, updated names and descriptions).
- The requirement in Folder B is not updated.
- The requirement in Folder B keeps its original content and location.
- The requirement remains in Folder B.
- Only the hierarchy within Folder A is updated to match the ReqIF file.



Notice
When processing repeated imports within a conversation, if it's necessary to update existing items and change the location for Container Scope Updates, use the Round Trip ID matching instead of Jama Connect matching.

Supported field type combinations

When importing ReqIF files to Jama Connect, the following field type combinations are supported for mapping.

ReqIF	Jama Connect
String	Text field Text box – Text Text box – HTML
XHTML	Text field Text box – Text Text box – HTML
Integer	Integer Float Text

ReqIF	Jama Connect
Real	Integer Float Text
Enumeration – Single	Single-select Text Text box – HTML
Enumeration – Multi-value	Multi-select Text Text box – HTML
Boolean	Flag Picklist Text
Date	Date Text

When exporting items from Jama Connect to a ReqIF file, fields are converted as follows.

Jama Connect	ReqIF
Text field	String
Text box – Text	String
Text box – HTML	XHTML
Integer	Integer
Float	Real
Single-select	Enumeration – Single
Multi-select	Enumeration – Multi-value
Flag	Boolean
Date	Date
URL	String
Release	String

Configuring Datatap

Jama Connect Datatap is a secure data export service for Jama Connect Cloud. It exports your Jama Connect data in a structured format to a dedicated SFTP location for downstream reporting, analytics, and data retention needs.

Datatap is designed for teams that need regular access to large sets of Jama Connect data outside the application. Instead of making frequent high-volume API calls, Datatap delivers scheduled file-based exports that are compatible with business intelligence and reporting tools such as Power BI or Tableau.

Key details

- Datatap delivers exported Jama Connect data on a regular schedule.
- Delivery is secured through the use of SFTP and SSH key-based access.
- Datatap is available for Jama Connect Cloud environments.
- Jama Connect Datatap is part of the Jama Connect Interchange product umbrella and requires the Datatap module to be licensed and enabled for your organization.

Important considerations

- Only Jama Connect Interchange Admin users can access and submit the Datatap request flow.
- Your organization must be licensed for the Datatap module before the Datatap option appears in Jama Connect Interchange.
- Paste only a public SSH key into the form. Do not provide a private key.
- SSH key must be entered as text; SSH key file upload is not supported.

Activating Datatap

After you license Datatap, a Named Support Contact at your organization must submit a request to activate the daily exports.

Before submitting the request, make sure you have:

- The Datatap module licensed for your organization.
- Jama Connect Interchange Admin access and Named Support Contact status.
- Your Jama Connect URL.
- A business email address.
- A valid SSH public key, ready to paste into the request form as text. To request an SSH key pair, follow the instructions in Generate SSH keys for service-managed users.

To request setup:

1. Sign in to Jama Connect Interchange as an Admin user.
2. In the header, select **Datatap**.
3. Start a new Datatap request.
4. Enter the required information, including your Jama Connect URL, business email address, and SSH public key.
5. Submit the request.

Jama Connect Interchange generates a support request with the information you provided. After a successful submission, a confirmation message is displayed. Jama Software then reviews your request, validates your identity as the requester, and finalizes the enablement process. When setup is complete, you receive an email with the necessary Datatap/SFTP connection details to access the system.

Jama Connect MCP™

Jama Connect Model Context Protocol (MCP) allows you to connect approved MCP-compatible clients, such as Integrated Development Environment (IDE) or Command-Line Interface (CLI) tools, to Jama Connect to securely retrieve information and execute supported actions through controlled tool calls.

The process of setting up Jama Connect MCP includes reviewing the prerequisites and completing the configuration steps. It is also helpful to review supported operations, validated workflows, and known limitations.

Important considerations

- Jama Connect does not host or manage the Large Language Model (LLM) used by your MCP client. You are responsible for providing and securing the LLM according to your organization's requirements.
- Jama Connect does not use MCP interactions to train external AI models.
- Jama Connect MCP tools access only the data that is scoped to your Jama Connect tenant.
- Authentication and authorization are enforced through your credentials and permissions.

Best practices

- Limit token permissions to the minimum required scope.
- Avoid high-frequency polling via `search_jama_entities`.
- Validate entity IDs before performing destructive operations.
- Test workflows in a non-production project before scaling.
- Before launching the IDE or client that uses Jama Connect MCP (such as Cursor, CodeX, or Claude Desktop), first log in to Jama Connect in your default browser. This avoids some IDEs or clients from blocking the login action.

Architecture overview

Jama Connect MCP is a cloud-hosted or on-premises service in your Jama Connect environment.

Data flow overview

1. A developer uses an MCP-compatible client, such as an IDE plugin.
2. The client receives the available tools from Jama Connect MCP.
3. The client shares that tool information with the customer-managed LLM.
4. When the LLM needs Jama Connect data or needs to perform an action, it sends a tool call through the client.
5. The client sends the tool call to Jama Connect MCP.
6. Jama Connect MCP performs the authorized request in Jama Connect.
7. Jama Connect returns the requested data or results to Jama Connect MCP.
8. Jama Connect MCP returns the results to the client.
9. The client provides the results to the customer-managed LLM, which uses it to continue processing and complete the response.

Prerequisites

Before configuring Jama Connect MCP, make sure that the following are in place and available.

Jama Connect access

- Active Jama Connect tenant administrator access for configuration

- Active Jama Connect Interchange platform and Jama Connect MCP connector
- Defined project permissions for users whose credentials will be used
- Enabled REST API access
- A Named Creator license and assigned REST API credentials for anyone using Jama Connect MCP

MCP-compatible desktop environment

You must provide:

- Node.js version 22.13.1 or later
  To install Node.js, see https://nodejs.org/en/download
- npm version 10.9.2 or later
  npm is installed automatically with Node.js. If, for some reason, it isn't, you must install it manually.
  To install npm, see https://docs.npmjs.com/downloading-and-installing-node-js-and-npm
- An MCP-compatible client (such as IDE integration or a custom tool) that is able to delegate authentication to mcp-remote: https://www.npmjs.com/package/mcp-remote
- Your own LLM provider (if applicable)

> **Important**
> Jama Connect doesn't configure or manage your client-side LLM.

- Your own model configuration

OAuth REST API credentials

OAuth REST API credentials must be generated for the user account that authenticates Jama Connect MCP calls. For more information, see Set REST API credentials.

The credentials determine:

- Project access
- Item-level permissions
- Ability to create and edit entities
- Ability to create relationships and baselines

All actions performed through Jama Connect MCP are executed under the identity of the credential owner.

> **Important**
> Jama Connect MCP doesn't make REST API calls and doesn't consume REST API bandwidth. Jama Connect MCP inherits only REST API authentication mechanisms.

Configuring Jama Connect MCP for LLM plugins (organization level)

You can configure Jama Connect MCP as a custom plugin for LLMs like ChatGPT.

Jama Connect MCP supports two authentication options, available in root admin:

- OAuth service provided by Jama Connect
- Customer-provided OAuth through your organization's identity provider

> **Important**
> If you use Jama Connect Cloud, contact Support for help configuring authentication.

OAuth service provided by Jama Connect

Use the OAuth service provided by Jama Connect to authenticate Jama Connect MCP applications. Once in root admin, the Authorization Code Client Properties page:

- Lets you create new static registration clients that accept a Redirect URI from your LLM.
- Generates a Client ID and Client Secret to use in your LLM when setting up MCP with Jama Connect.

For example setup instructions with ChatGPT, see Setting up ChatGPT to connect with Jama Connect MCP using OAuth.

For setup instructions with Microsoft Copilot Studio, see Connect Microsoft Copilot Studio to Jama Connect MCP™.

Customer-provided OAuth

Customer-provided OAuth lets you manage Jama Connect MCP sign-in through your identity provider. When you enable this option as root admin, Jama Connect no longer uses its internal OAuth flow for Jama Connect MCP authentication in LLM plugins. Instead, Jama Connect MCP trusts tokens issued by your identity provider.

Each token must:

- Come from the configured issuer.
- Be validated against the issuer's published public signing keys.
- Contain the expected audience.
- Identify a user who matches a valid Jama Connect user.

This approach lets your organization manage sign-in through its identity platform while Jama Connect continues to enforce tenant boundaries.

For more information, see Configure Your Identity Provider for a Custom MCP App.

Set up Jama Connect MCP as a remote server (local level)

The process of setting up Jama Connect MCP as a remote server includes reviewing the prerequisites and completing the configuration steps. It is also helpful to review Supported MCP capabilities [98], Validated example workflows [99], and Operational constraints and known limitations [101].

To configure Jama Connect MCP as a remote server:

1. Confirm that Jama Connect MCP access has been enabled for your tenant by Jama Software. If unsure, contact your Customer Success Manager.
2. Generate the API token:
   a. Log in to Jama Connect and create the MCP OAuth credentials.

      > **Important**
      > You must generate new credentials once Jama Connect MCP has been enabled. Pre-existing credentials don't work.

   b. Make sure that your user is enabled in **Admin > REST API > Managed Access Control**.

c. Create OAuth Client ID and Secret: Set API credentials.
d. Store the credentials in a secure place.

3. To configure a generic MCP-compatible client, use one of the following code examples, replacing the variables the way your MCP client defines or configures Jama Connect MCP.
This code snippet was tested with the Copilot extension in Visual Studio Code.

```
{
    "servers": {
        "jama-mcp": {
            "command": "npx",
           "args": [
                "-y",
                "mcp-remote@latest",
                "<tenant URL>/mcp/mcp-core",
                "--host",
                "127.0.0.1",
                "--static-oauth-client-info",
                "@<credentials file path>",
                "--transport"
            ]
        }
    },
    "inputs": []
}
```

This code snippet was tested against the Copilot plugin in IntelliJ.

```
{
   "Jama-Connect-MCP": {
    "command": "npx",
    "args": [
      "-y",
      "mcp-remote@latest",
      "<tenant-url>/mcp/mcp-core",
      "--host",
      "127.0.0.1",
      "--static-oauth-client-info",
      "<jama-oauth-credentials-file>"
    ]
  }
}
```

Replace this...	With this...
`tenant-url`	Your Jama Connect subdomain.
`<jama-oath-credentials-file>`	File location where you stored your credentials. Mac example: `@/Users/username/.mcp.auth.json` PC example: `C:/Users/testuser/.mcp.auth.json` Use the following JSON example to provide your OAuth credentials: `{ "client_id": "<client-id>", "client_secret":"<client-secret>" }`
`client-id`	Your generated REST API client ID.
`client-secret`	Your generated REST API client secret.

4. Launch the MCP client:

a. Log in to the Jama Connect environment linked to Jama Connect MCP.
b. Launch Jama Connect MCP, following the instructions for your IDE. In many cases, a **Start** button appears near the server configuration in the mcp.json file.

Jama Connect MCP is now enabled and available for use as a remote server.

Troubleshooting Jama Connect MCP

Question	Answer

Jama Connect MCP failed to start or failed to authenticate.	Clear your Jama Connect MCP Authentication cache according to your environment, then restart your server.
	
	Mac OS via Terminal
	
	1. Terminate the mcp-remote process:
	`pkill -9 -f "mcp-remote"`
	2. Clear the MCP Auth Cache:
	`rm -rf ~/.mcp-auth`
	
	Window OS via Powershell
	
	1. Terminate the mcp-remote process:
	`Get-CimInstance Win32_Process |`
	`Where-Object {$_.CommandLine -match "mcp-remote"} |`
	`ForEach-Object {Stop-Process -Id $_.ProcessId -Force}`
	2. Clear the MCP Auth Cache:
	`Remove-Item -Recurse -Force "$HOME\.mcp-auth"`

Jama Connect MCP stopped working after a period of inactivity.	1. Check if the IDE or client includes an option to stop and restart Jama Connect MCP. 2. Try restarting the IDE or client to force it to reconnect to Jama Connect MCP. 3. If restarting doesn't resolve the issue, repeat the steps described in Set up Jama Connect MCP [96].

Supported Jama Connect MCP capabilities

The following tool categories are supported in this release.

Tool category	Operation
Search	• `search_jama_entities` • `search_jama_projects` Search operates within the scope of the authenticated user's permissions.
Entity operations	• `get_jama_attachment` (supports PNG, JPEG, GIF, BMP, and TIFF image formats; SVG images aren't supported) • `create_jama_item` • `edit_jama_entity` • `move_jama_entity` • `get_jama_entity_details` • `get_jama_entity_type_details` • `create_jama_comment` • `get_jama_test_case_steps` • `update_jama_test_case_steps` • `get_jama_entity_version` • `list_jama_entity_versions` Permissions are enforced based on the role assigned to the credential owner.
Container operations	• `create_jama_component` • `create_jama_set` • `create_jama_folder` • `get_jama_hierarchy_manifest` (retrieves items within a container including item name, status, and place in hierarchy)
Project operations	• `list_jama_projects` • `get_jama_project_details`

Tool category	Operation
Relationship operations	• `create_jama_relationship` • `list_jama_entity_relationships` • `list_jama_relationship_types` **Important** • Relationship types must already be defined in Jama Connect. • Jama Connect MCP doesn't create or modify relationship rules.
Baseline operations	• `create_jama_baseline` • `list_jama_baselines`
Workflow operations	• `execute_jama_item_workflow_transition` • `list_jama_item_workflow_transition_options`
Reviews	• `create_jama_review` • `search_jama_users`

Validated example workflows

Workflow 1 – Requirement lookup from IDE

Tools likely to be used	Outcome
• `search_jama_entities` • `get_jama_entity_details` • `list_jama_projects` • `list_jama_entity_relationships`	• Retrieve requirement text • Retrieve metadata • Retrieve existing relationships • Surface requirement context inside the development environment

Example: Single prompt approach
 	
• Set context to the [Item Name] item in the Jama Connect project [Project Name].
Print displays of:
  • Where the item is in the Project Tree.
  • The item description and all item metadata.
  • All item's relationships, including direction and relationship type.
	Example: Multiple prompt approach
	
	• Set context to the Jama Connect project [Project Name].
	• Set context to [Item Name].
	• Print a display of the item description and all item metadata.
	• Print a display of all the item's relationships, including direction and relationship type.
	• Print a display of where the item is in the Project Tree.

Workflow 2 – Create or update requirement from code context

Tools likely to be used	Guardrails
• `create_jama_item` • `edit_jama_entity` • `get_jama_entity_type_details` • `list_jama_projects` • `get_jama_entity_details` • `search_jama_entities`	• Required fields must be provided. • Item types must be valid. • Workflow state rules are enforced. • Permission checks apply.

Tools likely to be used	Guardrails
Example: Create and edit new item • Set context to Jama Connect project [Project Name]. • Set the context to the [Folder Name] folder within the [Set Name] set. • Create a Jama Connect item with the following fields: *Name* – Test Manually Created item *Description* – This is a test created item **[Field Name]* – [Field Value] **[Field Name]* – [Field Value] • Update the created item to add the current time in UTC in the description.	***Example: Edit existing item*** • Set context to Jama Connect project [Project Name]. • Edit the Jama Connect item Parental Controls PIN and content filtering description to say: "This has been updated by Jama Connect MCP."
* Jama Connect 9.34+ only; not available in Jama Connect 9.33.	

Workflow 3 – Create trace link between code and requirement

Tools likely to be used	Requirements
• `create_jama_entity_relationship` • `get_jama_entity_details`	• Valid source and target entity IDs. • Existing relationship type. • Proper permissions.
Example: Create the Jama Connect link • Set the context to the Jama Connect project [Project Name]. • Set the context to the Jama Connect folder [Parent Name] > [Folder Name]. • In the current folder, create a new item with the following fields: *Name* – Authorization works properly. *Description* – The authorization is set up to properly authorize user access to their library. • In the current file, attach an annotation comment in the form `// JamaID: ${id}` to the method `[MethodName]()` with the new ID.	***Example: Review relationships for links*** • In the current file, review all annotation comments in the form `// JamaID: ${id}` and validate that all referenced items include both upstream and downstream relationships.
* Example prompts assume Java source code.	

Workflow 4 – Baseline creation

Tools likely to be used	Constraints
• `create_jama_baseline`	• Applies to project scope. • Standard Jama Connect baseline rules apply.
Example prompts • Create a baseline of the [Folder Name] folder in the Jama Connect project [Project Name] named [New Baseline Name]. • Create a baseline of the set with the ID [Set ID] named [New Baseline Name].	

Logging, auditing, and governance

All Jama Connect MCP tool calls:

- Are authenticated using a Jama Connect API token.
- Are executed under the identity of the token owner.
- Are recorded in Jama Connect activity logs.
- Follow standard Jama Connect audit and permission enforcement.

Jama Connect doesn't have visibility into LLM prompts.

No elevated or bypass access is granted via Jama Connect MCP.

Governance remains consistent with standard Jama Connect behavior.

Configuring Jama Connect MCP in Jama Connect Interchange

View and manage the Jama Connect MCP status for connected Jama Connect tenants in Jama Connect Interchange.

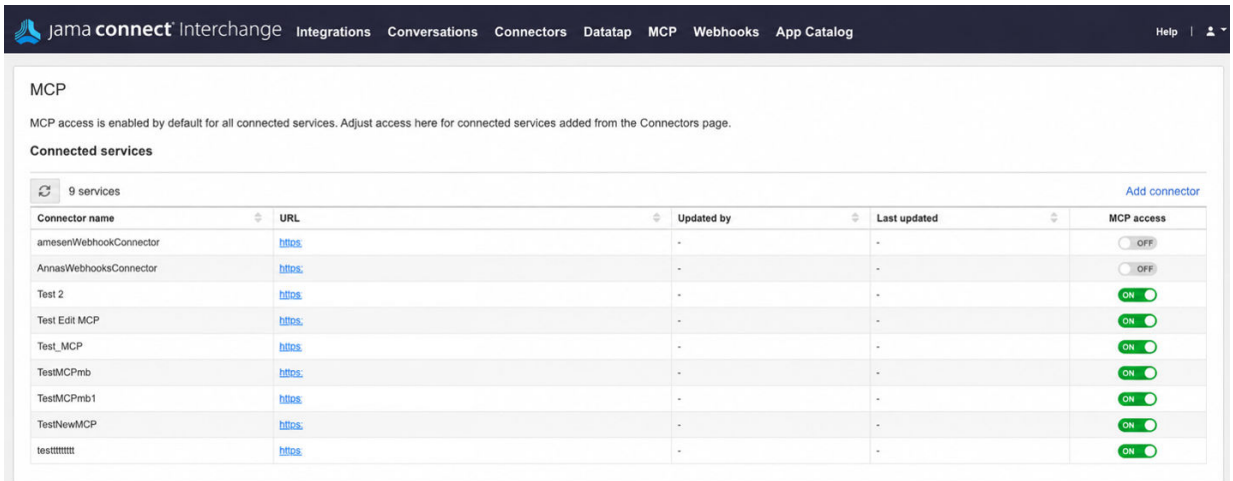
After you add a Jama Connect Interchange connector for a Jama Connect tenant, Jama Connect Interchange manages the Jama Connect MCP status for that tenant.

How configuration works

- If a tenant doesn't have a connector, Jama Connect MCP remains enabled for that tenant.
- After you add a connector, Jama Connect Interchange determines whether the tenant can use Jama Connect MCP.
- This configuration is optional for Jama Connect MCP administration. However, after you add a connector for a Jama Connect tenant, Jama Connect Interchange controls whether that tenant can use Jama Connect MCP.
- The same connector can also support additional Jama Connect MCP configuration options or Jama Connect Webhooks administration.

View and change the Jama Connect MCP status

When one or more connectors are configured, Jama Connect Interchange administrators can open the Jama Connect MCP page to view each connected Jama Connect tenant, and the current Jama Connect MCP status for each tenant.



Operational constraints and known limitations

Jama Connect MCP includes these constraints and limitations.

- No bulk transactional operations.
- No multi-call atomic transactions.
- No webhook or event subscriptions.
- No streaming tool calls.
- No automatic relationship rule creation.
- No bulk export; MCP is intended for retrieval of scoped context only.
- No semantic search; search is text-based only.

Frequently Asked Questions

Question	Answer
What is Jama Connect MCP?	Model Context Protocol (MCP) is an open protocol that enables seamless integration between LLM applications and external data sources and tools. See https://modelcontextprotocol.io/specification/2025-06-18 for more information.
Will Jama Connect MCP have access to Jama Connect Advisor™ features?	No. Jama Connect MCP is used with external tools and isn't exposed to the Jama Connect Advisor capabilities.
Do I need an additional server to operate the AI software? If so, what type of system specs do I need?	We are not planning to host or deploy an LLM for Jama Connect MCP to use. You need to host an LLM and work with the selected vendor to determine the required specifications.
What are the software applications I need to install for my Jama Connect server to use Jama Connect AI capabilities?	None, other than the LLM you choose to use. If you choose to use an MCP client, you must install that, but it is not a requirement to use Jama Connect MCP.
Can I install my LLM on my Jama Connect server?	No. We recommend installing LLM on a separate server from Jama Connect to avoid significant performance issues.

What does the Jama Connect MCP architecture look like?	Jama Connect MCP in our implementation is not a separate running server. Instead, it is exposed as an endpoint within the Jama Connect application at **/rest/mcp**. This endpoint receives MCP RPC messages and processes them according to the specification listed in the first question.
	
	Because of this architecture, Jama Connect MCP traffic follows the *same transport path and infrastructure* as standard REST API requests:
	
	• Requests arrive over **HTTPS**.
	  • They pass through the *same network path, gateways, and bulkheads*.
	  • They are processed by the *same application services*.
	• The difference between REST API and Jama Connect MCP is primarily the **message structure**.
	  • REST API uses *resource-oriented HTTP requests*, such as GET, POST, and PUT.
	  • MCP sends *RPC-style messages* defined by the MCP protocol.
	  • However, both ultimately travel over **standard HTTP(S)** and are handled by the same infrastructure.

Question	Answer

Can Jama Connect MCP impact performance or "take down" a tenant, and how does it compare to REST API?	No. Jama Connect MCP isn't expected to create meaningful performance risk. In our implementation, Jama Connect MCP runs through the same infrastructure and controls as REST API, and its expected traffic volume is significantly lower than typical REST integrations. Jama Connect MCP is not making REST API calls or consuming REST API bandwidth.
	
	Key points:
	
	• **Same infrastructure as REST** — Jama Connect MCP requests are received through an endpoint in the Jama Connect application (/mcp/mcp-core) and travel over standard HTTPS, using the same network path, bulkheads, and infrastructure protections as REST API.
	• **Significantly lower request volume** — Jama Connect MCP workflows typically generate tens of requests, while many REST API integrations generate thousands in the same timeframe.
	• **Bulkhead protections already proven** — Jama Connect infrastructure is designed to handle millions of REST API calls, so Jama Connect MCP traffic represents only a small incremental load.
	  • Cloud bulkheads are currently handling between 8-9.2M REST calls per day.
	  • Self-hosted capacity largely depends on your infrastructure. Contact Support for information and guidance in this area.
	• **LLM usage cost limits runaway scenarios** — If a Jama Connect MCP-driven workflow were to loop, it typically generates only 1–2 calls per second, and the cost of LLM usage limits how long such a loop might run.
	
	Jama Connect MCP uses the same infrastructure protections as REST API, but generates fewer requests. Under normal use, there is no realistic scenario where Jama Connect MCP degrades tenant performance or takes down a tenant.
	
	Jama Connect MCP operations are *not designed to return extremely large datasets*.

Why are some Jama Connect MCP tools missing from my local MCP client?	MCP clients and local MCP proxies might cache the tool list when a connection starts. Tools released after the cache was created might not appear. To refresh the tool list, restart or reconnect the MCP client or server. For local MCP proxies, configure tools/list to query the live Jama Connect MCP endpoint on startup. Use cached tools only if the live request fails. If tools are still missing: 1. Clear the local MCP tool cache. 2. Verify the configured endpoint, such as **<tenant-url>/mcp/mcp-core**. 3. Confirm that your OAuth credentials were generated after Jama Connect MCP was enabled. If the issue persists, contact Support. Include your tenant URL, client name and version, endpoint, and missing tool names.
Why aren't newly released Jama Connect MCP tools appearing in my organization's LLM connector?	Organization-level MCP connectors in platforms such as ChatGPT and Microsoft Copilot Studio might cache the available tool list. Newly released Jama Connect MCP tools might not appear automatically, even when the connector is configured and working. To retrieve the latest tool list, your organization administrator might need to refresh or update the connector in the platform's administrative settings. The steps vary by platform. Typically, the administrator locates the configured Jama Connect MCP connector and selects an option to refresh or update its available tools. If the new tools don't appear after the first refresh, try again. Caching or synchronization delays might prevent updates from appearing immediately. If the issue persists, contact your organization's IT administrator to verify the connector configuration and refresh the tool list.

Jama Connect Webhooks

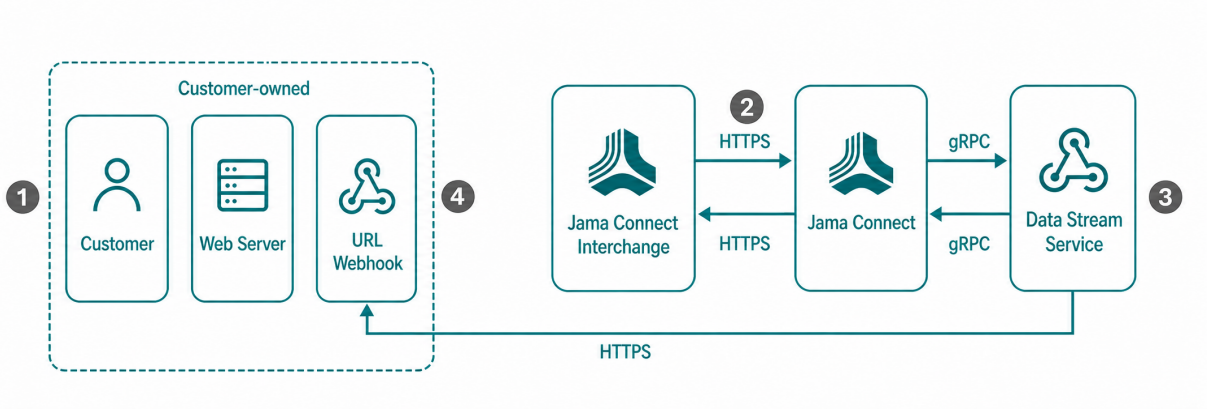
Jama Connect Webhooks sends event-driven notifications from Jama Connect to a customer-hosted webhook endpoint. Admins can configure subscriptions in Jama Connect Interchange by providing an endpoint URL and selecting the events that your application receives.

The event delivery flow includes three layers:

- **Jama Connect Interchange** — Manages webhook configuration, endpoint URLs, and subscriptions.
- **Jama Connect** — Generates events based on activity in your Jama Connect instance and passes subscribed events into the delivery flow.
- **Data Stream Service** — Verifies the webhook URL and delivers event notifications to your endpoint.

Your application must host a publicly reachable HTTPS endpoint that accepts POST requests with JSON request bodies. After the endpoint is verified, the service sends subscribed event notifications to it. Your application validates and processes each event payload according to your business logic.

Jama Connect Webhook event flow



1. Customer hosts a publicly reachable HTTPS endpoint for receiving webhook notifications.
2. Customer (admin) adds a webhook subscription in Jama Connect Interchange and provides the endpoint URL.
3. Jama Connect sends subscribed events to the Data Stream Service.
4. The Data Stream Service delivers the events notifications to your webhook endpoint.

The customer's application validates and processes the event payload.

Setting up Jama Connect Webhooks

To set up Jama Connect Webhooks, an admin must configure a webhook endpoint, add a Jama Connect Webhooks subscription, and validate signed events that are sent to your application. Adding a subscription registers the webhook URL and starts the verification process. After verification, copy and securely store the signature key before validating signed events.

> **Important**
> To administer Jama Connect Webhooks, you must set up a Jama Connect service account and Jama Connect Interchange connector. Only organization admins can complete this setup. For more information, see Setting up a Jama Connect service account and Jama Connect Interchange connector [109].

Prepare the webhook endpoint — Prerequisites (admin)

You must configure a publicly reachable HTTPS webhook endpoint that can respond to the verification challenge before you add a subscription.

Customer Webhook Receiver Requirements

- Your webhook receiver must process each delivery and return an HTTPS 200 response before the webhook timeout. If it doesn't, webhook treats the delivery as unsuccessful and retries it.
- Jama Connect Webhooks might deliver events in array batches. Configure your receiver to process batched events correctly to prevent unsuccessful deliveries.

Make sure the endpoint meets these requirements. The webhook server handles the verification request in this order:

1. Accepts an HTTPS POST request with a JSON body.
2. Checks whether the event type is VERIFICATION.
3. Reads the challenge value from the request body.
4. Returns that exact challenge value in the HTTPS response.
5. Returns an HTTPS 200 OK status.

Verification payload example:

```
{
 "specVersion": "1.0",
 "messageId": "<uuid>",
 "messageType": "event",
 "tenantName": "<tenant>",
 "webhookUrl": "https://customer-domain.com/webhook",
 "timestamp": "<ISO-8601 timestamp>",
 "eventType": "VERIFICATION",
 "data": {
   "challenge": "<challenge value>",
   "expiresAt": "<ISO-8601 timestamp>"
}
}
```

Important

Do not wrap the challenge in a JSON object or add a prefix, suffix, or other content. After verification succeeds, the webhook URL can receive ordinary event notifications. When you add a new subscription in Jama Connect Interchange, copy and securely store the signature key because it is displayed only once.

- The webhook endpoint is publicly reachable over HTTPS.
- The webhook endpoint accepts HTTPS POST requests with JSON request bodies.

Note

Local URLs, including localhost and 127.0.0.1, aren't supported.

Example webhook URL: https://customer-domain.com/webhook

Add a Jama Connect Webhooks subscription (admin)

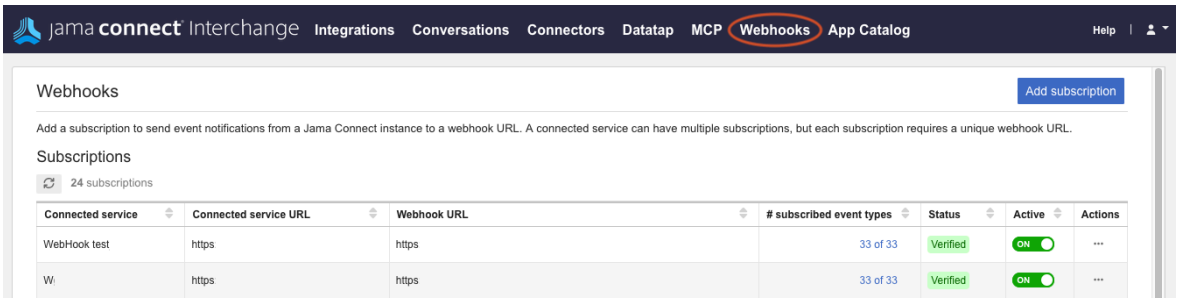
You can add a subscription in Jama Connect Interchange to register a webhook URL, as well as send selected notifications from your Jama Connect instance to that URL.

Important considerations

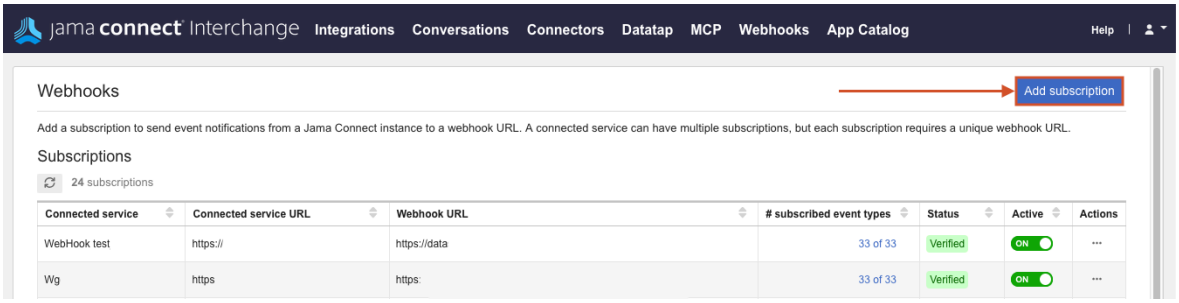
- Adding a subscription automatically registers the webhook URL. You don't need to complete a separate registration step.
- Each connected service can have multiple subscriptions.
- A webhook URL can be associated with only one subscription.
- The signature key appears only after you add the subscription. Copy and store it securely.

To add a subscription:

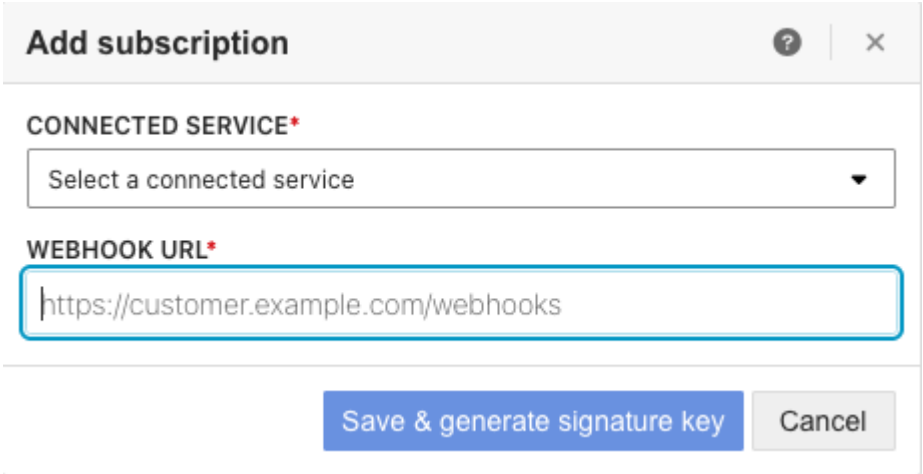
1. In the Jama Connect Interchange header bar, select **Webhooks**.



2. On the page that opens, select **Add subscription**.



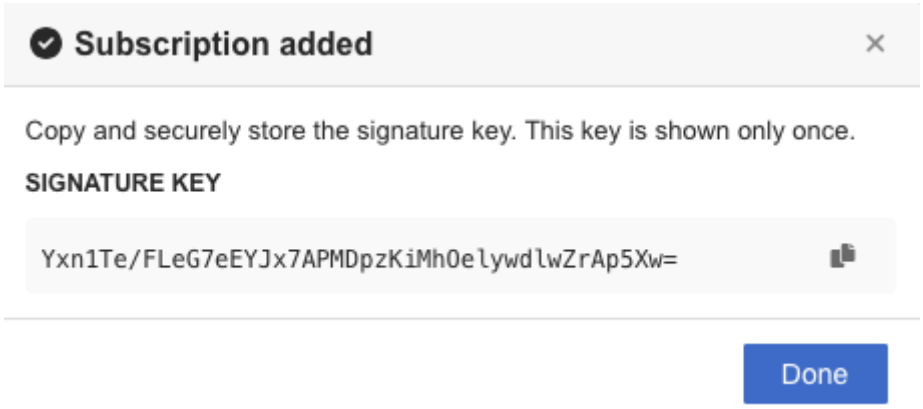
3. In the window that opens:
   - Select a connected service.
   - Enter the Webhook URL that will receive notifications.



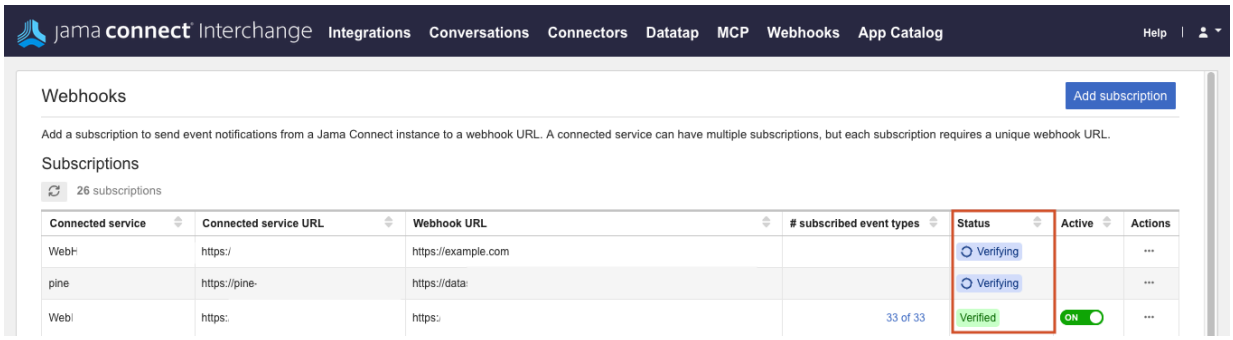
4. Select **Save & generate signature key**.

5. In the Subscription added window, copy the signature key, then select **Done**.

> **Important**
> Copy the signature key, so you can store it securely and use it to validate signed webhook events.



The subscription appears in the Subscriptions table with the status of: **Verifying**, **Verified**, or **Failed**.

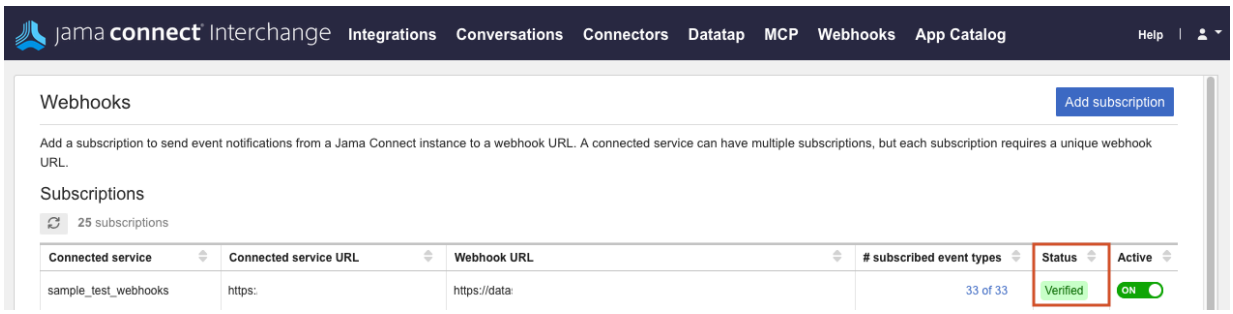


Verify the webhook URL (admin)

After you add a subscription in Jama Connect Interchange, Jama Connect sends a verification request to the webhook URL you provided. Your webhook endpoint must respond successfully to confirm that it is reachable.

To verify the webhook URL:

1. Ensure that your webhook endpoint is running and can receive requests from Jama Connect.
2. Add the subscription [106] in Jama Connect Interchange.
3. Allow the endpoint to receive and respond to the verification request.
4. In the **Subscriptions** table, confirm that the subscription status changes to **Verified**.



After verification succeeds, Jama Connect can send webhook events to the endpoint.

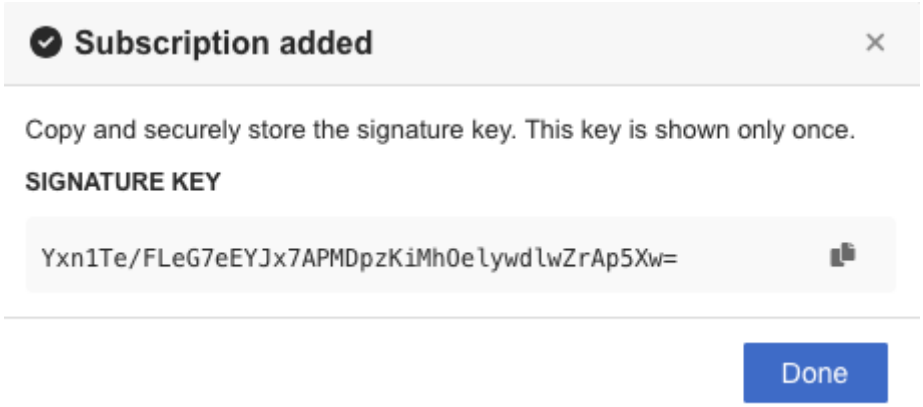
If verification fails, check your client configuration, then delete and re-add the subscription to try again.

Store the signature key (admin)

When you add a subscription, Jama Connect Interchange generates a signature key. Your webhook server uses this key to validate signed webhook requests sent for the subscription.

To store the signature key:

1. Copy the signature key that was generated when you added the subscription.



2. Store it alongside your webhook server, such as in a secret store or environment variable.
3. Configure your webhook server to retrieve the stored key when validating signed requests for the subscription.

Validate signed webhook events (admin)

Jama Connect Interchange signs ordinary webhook events after the webhook URL is verified.

Read the following request headers:

- X-DS-Message-Id
- X-DS-Timestamp
- X-DS-Nonce
- X-DS-Body-SHA256
- X-DS-Signature

To validate each event:

1. Preserve the raw request-body bytes before parsing the JSON.
2. Compute SHA-256 over the raw request body.
3. Compare the computed value with X-DS-Body-SHA256. Reject the request if the values don't match.
4. Construct the signing input in this order:
   a. HTTPS method
   b. Request path
   c. X-DS-Timestamp
   d. X-DS-Nonce
   e. X-DS-Message-Id
   f. X-DS-Body-SHA256
5. Compute HMAC-SHA256 over the signing input using the stored signature key.
6. Compare the computed signature with X-DS-Signature. Reject the request if the signatures don't match.

7. Process the webhook event after all validation succeeds.

> **Important**
> Parse the request body only after you compute its hash. Parsing and reserializing the JSON can change the original bytes and cause validation to fail.

Setting up a Jama Connect service account and Jama Connect Interchange connector

Set up a Jama Connect service account and a Jama Connect Interchange connector to administer Jama Connect Webhooks and configure Jama Connect MCP.

You can manage multiple Jama Connect tenants from one Jama Connect Interchange instance, but you must set up each tenant separately. This setup process is required to administer Jama Connect Webhooks, but it is optional for Jama Connect MCP administration.

Jama Connect MCP continues to work without a connector for a specific tenant. After you add a connector, Jama Connect Interchange determines whether that tenant can use Jama Connect MCP.

Add a Jama Connect service account

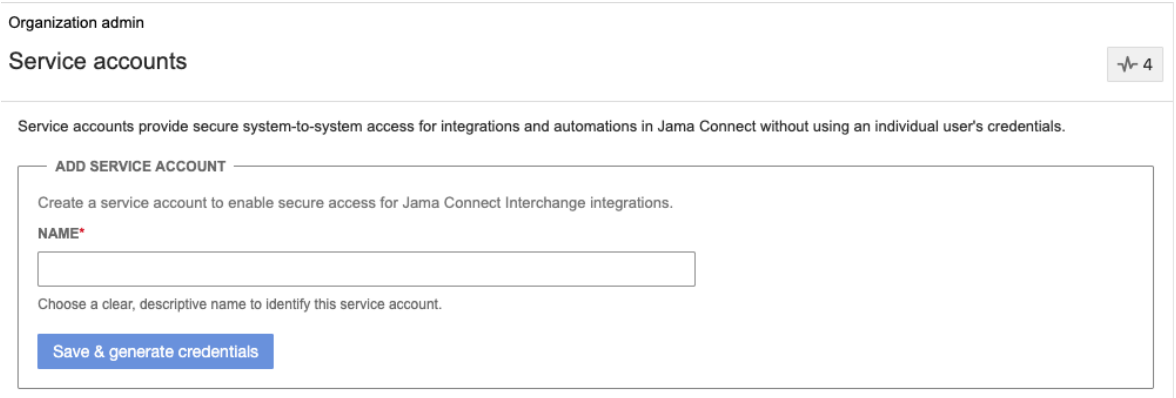
Add a Jama Connect service account and obtain credentials for use with Jama Connect Interchange.

Important considerations

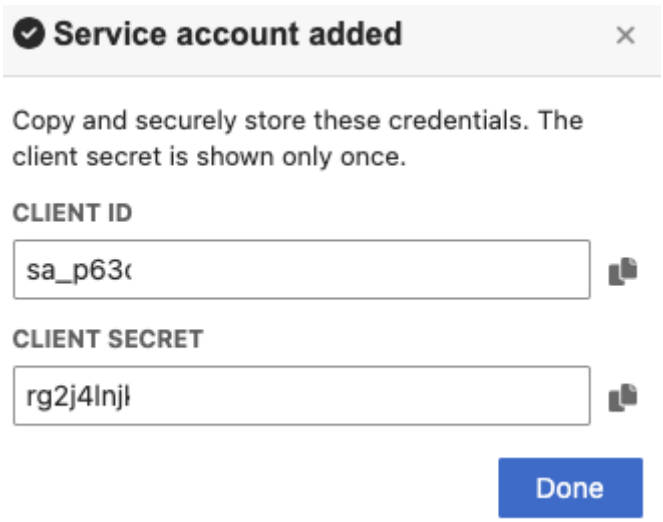
- Service accounts are available in Jama Connect 9.40 and later.
- You must have organization admin access in Jama Connect.
- The client secret is displayed only once. Copy and securely store it during setup.
- The service account is intended for service-to-service access, not for signing in as a user.

To add the service account:

1. In Jama Connect, select **ADMIN > Service accounts**.
2. In the Add Service Account section, enter a name, then select **Save & generate credentials**.

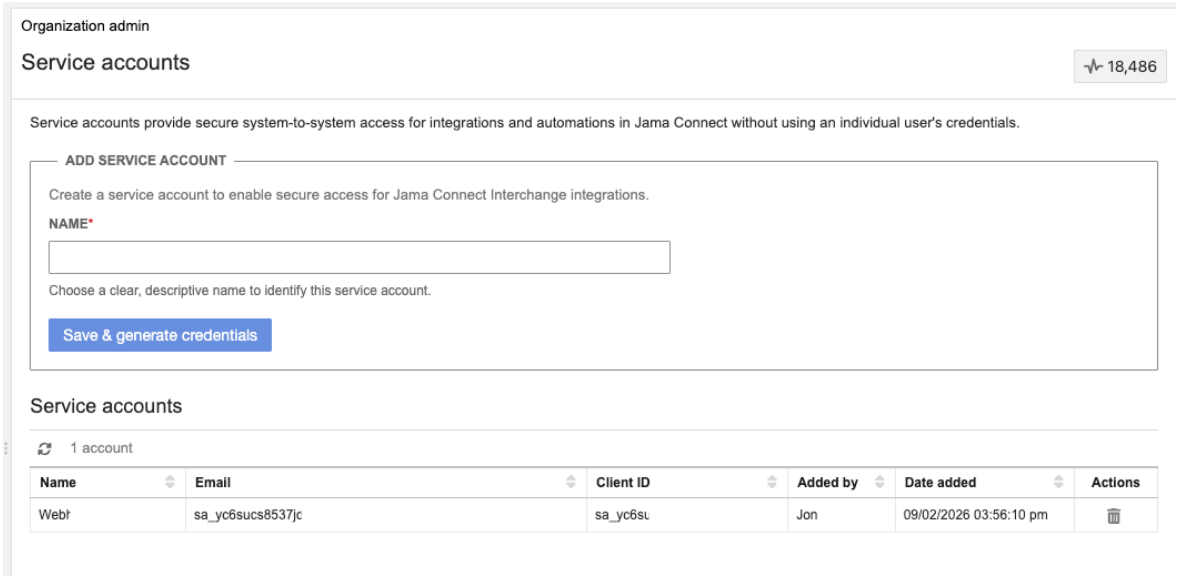


3. In the window that opens, copy the **Client ID** and **Client Secret**, then select **Done**.



> **Important**
> The client secret cannot be retrieved after you refresh the page or leave the one-time credential screen.

4. Confirm that the service account appears in the active service account list and that its credentials are copied and securely stored.



Add a Jama Connect Interchange connector

Add a Jama Connect Interchange connector and use a Jama Connect service account to connect to a Jama Connect tenant.

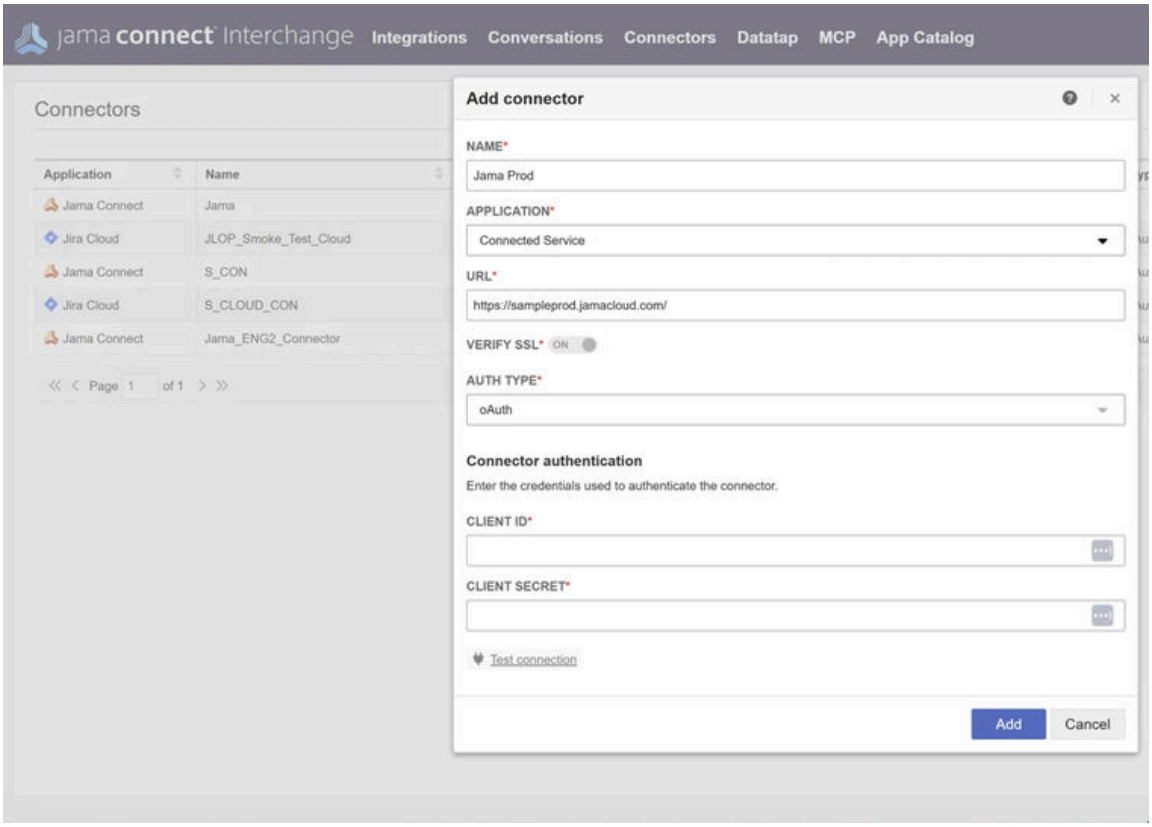
Requirements

- Admin access in Jama Connect Interchange.
- A Jama Connect service account.
- The Jama Connect base URL for the target tenant.
- The **Client ID** and **Client Secret** for the Jama Connect service account.

You can manage multiple Jama Connect tenants from one Jama Connect Interchange instance, but you must set up each tenant separately.

To add the connector:

1. In Jama Connect Interchange, select **Connectors**, then select **Add Connector**.
2. In the window that opens, complete the fields.
   - **Name** — Enter a name for the connector.
   - **Application** — Select **Connected Service**.
   - **URL** — Provide the Jama Connect base URL for the target tenant.
   - **Client ID** — Provide the ID from the Jama Connect service account.
   - **Client Secret** — Provide the ID from the Jama Connect service account.



3. Select **Test connection** to verify the connection.
4. Review the connection result, then select **Add**.

After you add the connector, use it to administer Jama Connect Webhooks and configure Jama Connect MCP.

Troubleshoot a Jama Connect service account

Review common issues with Jama Connect service account credentials and account status.

Question	Answer
What if I didn't save the client secret?	The client secret can't be retrieved after you leave the one-time credential screen. Add a new secret or Jama Connect service account through the supported process.
Why doesn't the service account appear in the active list?	Confirm that the setup completed successfully and that you are viewing active service accounts.
How do I disable a service account?	Delete the service account in Jama Connect.

Manage Jama Connect Webhook events and subscriptions (admin)

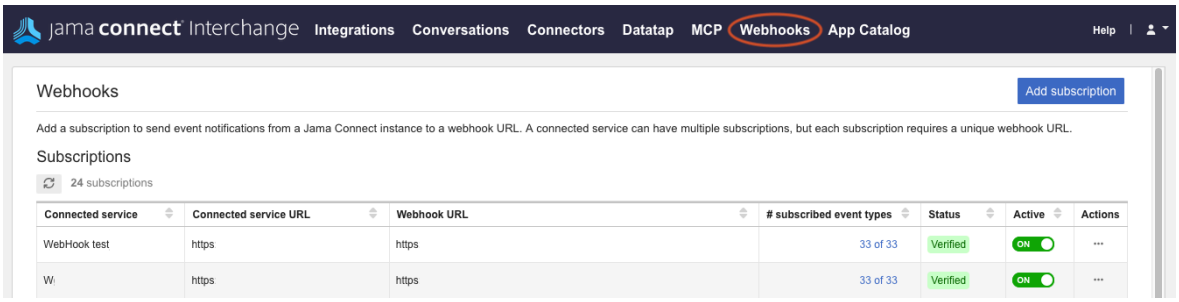
You can manage Jama Connect Webhook subscriptions in Jama Connect Interchange by updating events, enabling or disabling a subscription, and deleting a subscription.

Important considerations

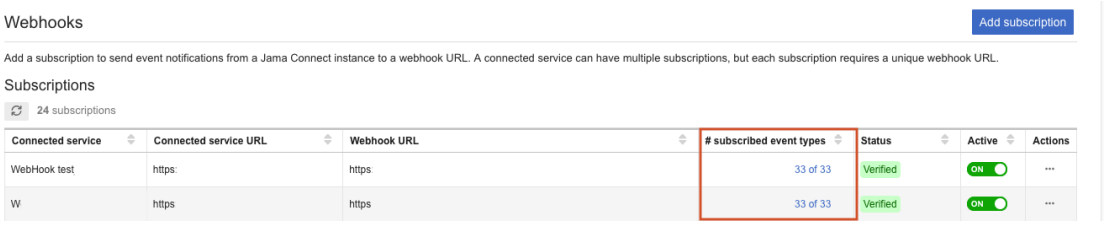
- Deleting a subscription permanently removes it and stops event notifications from being sent.
- Regenerating a signature key immediately invalidates the current key. Update your endpoint with the new key to continue validating webhook requests. Remember to store the new signature key [108].

To manage events and subscriptions:

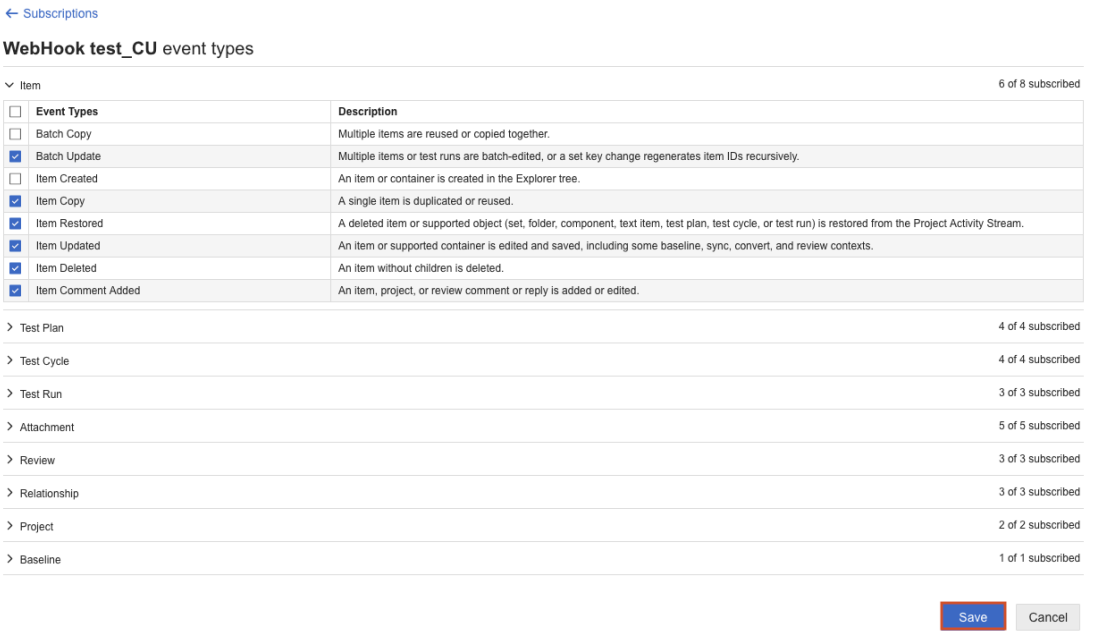
1. In the Jama Connect Interchange header bar, select **Webhooks.**



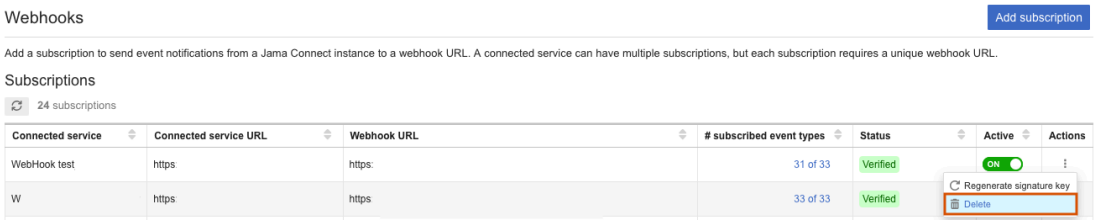
2. To modify subscribed events:
   a. In the **# subscribed event types** column, select the link to the events you want to modify.



   b. Select the events you want to add or remove, then select **Save**.

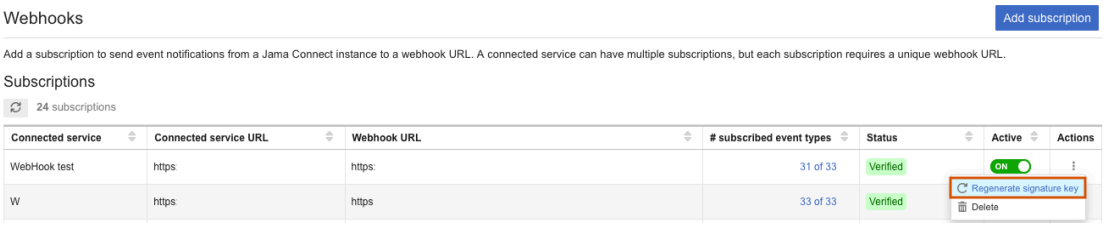


3. To disable or enable a subscription, select the toggle in the **Active** column.
4. To delete a subscription:
   a. In the Actions column, select the ellipsis icon, then select **Delete**.



b. In the confirmation window, select **Delete**.

5. To regenerate a signature key:
   a. In the Actions column, select the ellipsis icon, then select **Regenerate signature key**.



   b. In the window that opens, select **Regenerate**, then select **Done**.

Webhook event triggers

User actions in Jama Connect can trigger webhook events. Refer to the following tables to see which actions trigger specific webhook events. Some workflows can trigger multiple events when related records are created, updated, copied, or deleted as part of the same action.

By default, you are subscribed to all events. To modify this setting, see Manage Jama Connect Webhook events and subscriptions [111].

Items

Event	Trigger
ITEM_CREATED	An item is created in a project, including through standard creation, quick add, and a release-based workflow.
ITEM_UPDATED	An item is changed and saved, its type is changed, it's restored from a baseline, synchronized, or another action updates its content or configuration.
ITEM_DELETED	An item without child items is deleted.
ITEM_RESTORED	A previously deleted item is restored from the project activity stream.
ITEM_COPY	An item is duplicated, reused, or synchronized to create a copy.
ITEM_COMMENT_ADDED	A comment or reply is added or edited on an item, project, attachment, activity stream, or review.
ITEM_ATTACHMENT_ADDED	An attachment is uploaded to an item or an existing attachment is linked to it.
ITEM_ATTACHMENT_REMOVED	An attachment is removed from an item, either directly or by deleting the linked attachment.

Reviews

Event	Trigger
REVIEW_CREATED	A review is started for one or more items. This also creates the initial revision and baseline.
REVISION_PUBLISHED	A review is started or a new revision is published within an existing review.
REVIEW_FINALIZED	An active review is finalized by a moderator.

Relationships

Event	Trigger
RELATIONSHIP_CREATED	A relationship is created between items, either directly or while items are copied or synchronized with their relationships.
RELATIONSHIP_UPDATED	An existing relationship between items is edited.
RELATIONSHIP_DELETED	An existing relationship between items is removed.

Projects and baselines

Event	Trigger
PROJECT_CREATED	A project is created.
PROJECT_DELETED	A project is deleted.
BASELINE_CREATED	A baseline is created directly, a review is started, or a new review revision is published.

Test plans, cycles, and runs

Event	Trigger
TEST_PLAN_CREATED	A test plan is created.
TEST_PLAN_UPDATED	An existing test plan is edited.
TEST_PLAN_DELETED	A test plan is deleted. This can also delete its associated test cycles and test runs.
TEST_PLAN_RESTORED	A previously deleted test plan is restored.
TEST_CYCLE_CREATED	A test cycle is added to a test plan. This also creates the related test runs.
TEST_CYCLE_UPDATED	A test cycle is edited or the test cases assigned to it are changed.
TEST_CYCLE_DELETED	A test cycle is deleted directly or its parent test plan is deleted. This also deletes associated test runs.
TEST_CYCLE_RESTORED	A previously deleted test cycle is restored.
TEST_RUN_CREATED	A test cycle is created with test cases or test cases are added to an existing cycle.
TEST_RUN_UPDATED	An existing test run is edited.
TEST_RUN_DELETED	A test run is deleted, its test case is removed from a cycle, or the cycle or test plan that contains it is deleted.

Attachments

Event	Trigger
ATTACHMENT_CREATED	An attachment is uploaded or created, an item is copied or synchronized with its attachments.
ATTACHMENT_UPDATED	An attachment is edited or its file is replaced.
ATTACHMENT_DELETED	An attachment is deleted. If it is linked to an item, the item attachment association is also removed.

Bulk operations

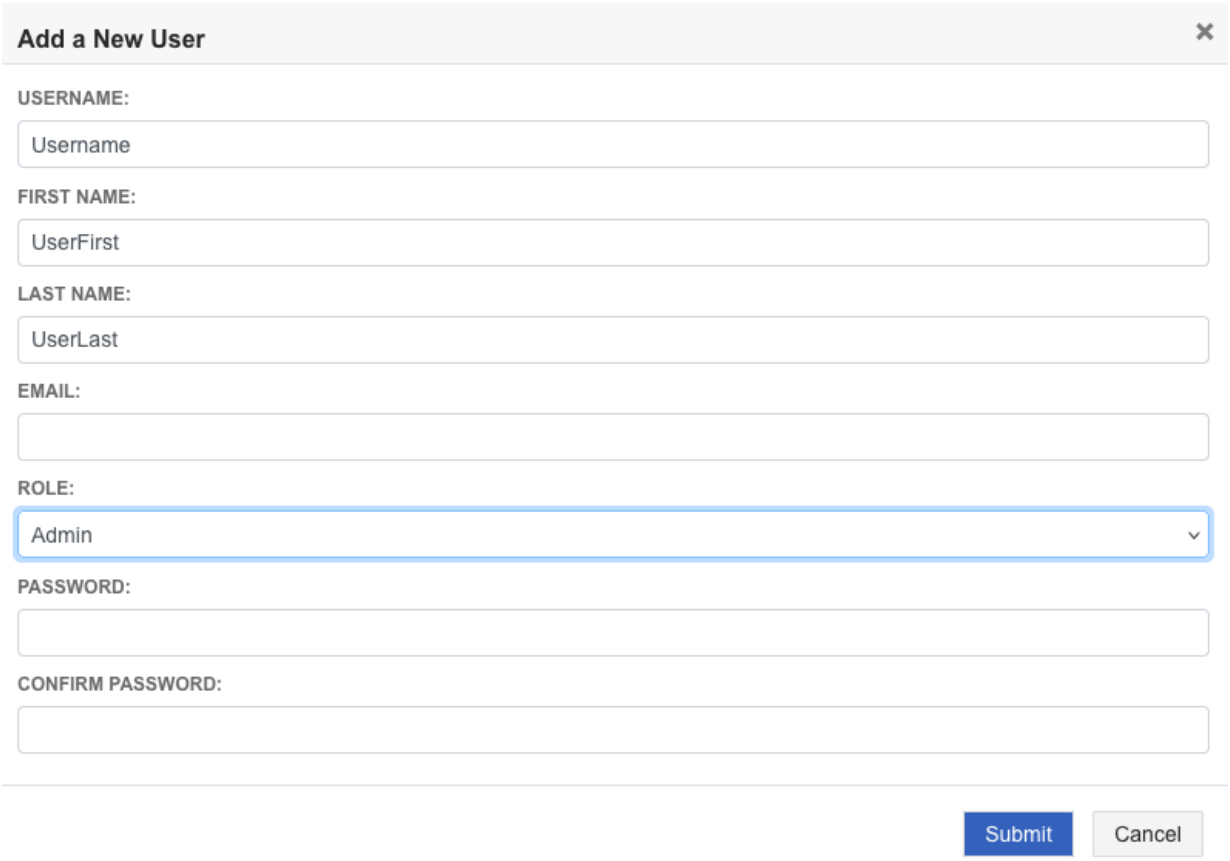
Event	Trigger
BATCH_UPDATE	One change is applied to multiple items or test runs, or a set key is changed while item IDs are regenerated.
BATCH_COPY	Multiple items are reused or synchronized at once, optionally including their relationships.

Managing users, passwords, and profiles

In Jama Connect Interchange, admins can create and manage user account for each person who manages integrations. Users can only manage their own user account profile.

User accounts in Jama Connect Interchange are authenticated with a basic authentication model and are separate from the user accounts that log in to Jama Connect.

To complete the admin tasks (creating, editing, activating, and deactivating users), you must be assigned an Admin role on the **Add a New User** page or **Edit User** page.



Admin tasks:

- Create a new user [116]
- Edit an existing user [116]
- Deactivate a user [116]
- Reset a user's password [117]

User task:

- Edit your profile (user) [117]

Session timeout

Users are logged out of Jama Connect Interchange after 30 minutes of inactivity.

Create a new user account (admin)

When creating an account for a new user, you can specify **Admin** for each person who manages other's user accounts or **User**.

To create a user account:

1. In the Jama Connect Interchange header bar, select the **User icon > User admin**.
2. Select **Add New User**.
3. Complete these fields:
   - **Username** — Enter a unique username.
   - **First Name** — Enter the user's first name.
   - **Last Name** — Enter the user's last name.
   - **Email** — Enter the user's email address.
   - **Role** — Select **Admin** to allow this user to manage user accounts for other users. Otherwise, select **User**.
   - **Password** — Enter an initial password for the user. The password must include at least 8 characters, 1 uppercase letter, 1 lowercase letter, 1 special character, and 1 number.
     The user can update their password after they log in for the first time.
   - **Confirm Password** — Reenter the password.
4. Select **Submit**.

The user account is now available for use.

Edit an existing user account (admin)

Modify the details of an existing user account as needed.

To edit a user account:

1. In the Jama Connect Interchange header bar, select the **User icon > User admin**.
2. Locate the user in the table.
3. In the Actions column, select the **Edit user** icon.
4. Update these fields as needed:
   - **First Name** — Enter the user's first name.
   - **Last Name** — Enter the user's last name.
   - **Email** — Enter the user's email address.
   - **Role** — Select **Admin** to allow this user to manage user accounts for other users. Otherwise, select **User**.
   - **Password** — Enter a new password for the user. The password must include at least 8 characters, 1 uppercase letter, 1 lowercase letter, 1 special character, and 1 number.
     The user can update their password after they log in.
   - **Confirm Password** —Reenter the password.
5. Select **Submit**.

The user account is saved with the changes.

Deactivate a user account (admin)

Deactivate a user account to prevent that user from logging in to the system. Deactivated user accounts aren't deleted from the user database and, if needed, can be reactivated by an admin.

To deactivate a user account:

1. In the Jama Connect Interchange header bar, select the **User icon > User admin**.
2. Locate the user in the table.
3. In the Actions column, select the **Deactivate user** icon.

4. When prompted to confirm, select **Deactivate**.
5. (Optional) To reactivate the user, select the **Reactivate user** icon in the Actions column.

The deactivated user can no longer log in to the system.

Reset a user's password (admin)

If a user loses their password, you can create a new password for them.

To reset a user's password:

1. In the Jama Connect Interchange header bar, select the **User icon > User admin**.
2. Locate the user in the table.
3. In the Actions column, select the **Edit user** icon.
4. Update these fields:
   - **Password** — Enter a new password for the user. The password must include at least 8 characters, 1 uppercase letter, 1 lowercase letter, 1 special character and 1 number.
     The user can update their password after they log in.
   - **Confirm Password** — Reenter the password.
5. Select **Save**.

You can now give the new password to the user.

Edit your profile (user)

As a Jama Connect Interchange user, you can edit your own user profile and update your passwords when needed.

To edit your user profile:

1. In the Jama Connect Interchange header bar, select the **User icon > My Profile**.
2. Select **Edit**.
3. Update these fields as needed:
   - **First Name** — Enter your first name.
   - **Last Name** — Enter your last name.
   - **Email** — Enter your email address.
   - **Old Password** — Enter your existing password.
   - **New Password** — Enter a new password.
     The password must include at least 8 characters, 1 uppercase letter, 1 lowercase letter, 1 special character, and 1 number.
   - **Confirm Password** — Reenter the new password.
4. Select **Save Profile**.

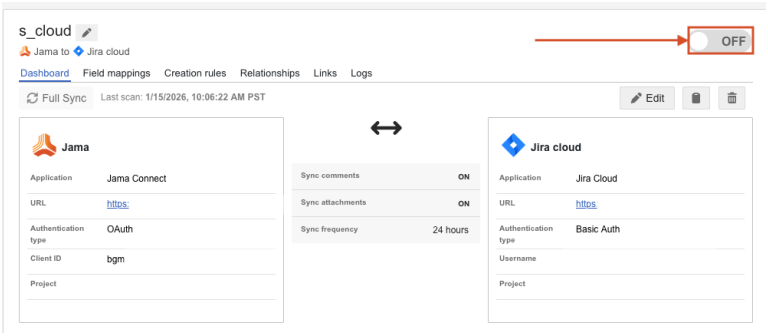
Your new password is saved in your profile.

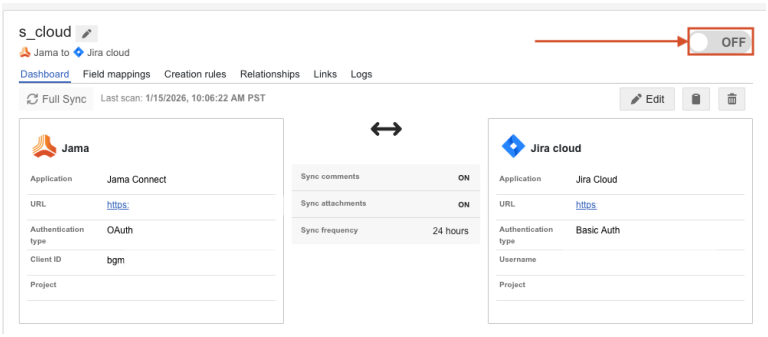
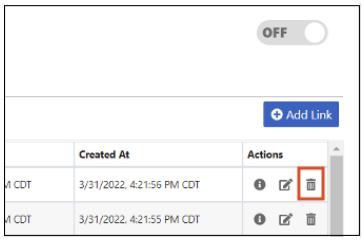
Troubleshooting and FAQs

The following topics include questions and helpful answers for troubleshooting issues with your Jama Connect Interchange integrations.

- Jira [118]
- Jira Data Center [120]
- Excel Functions [120]
- All integrations [121]

Jira troubleshooting

Question	Answer
I created a Jama Connect to Jira integration and ran the first sync, but now I need to add another field mapping to the integration. How do I do this without overwriting any data for the synced items.	1. Turn off the integration.  2. Select the **Field Mappings** tab and add a row for the new field mapping. 3. Use the drop-down lists to select the fields you want to map. 4. Use the arrows to select the directionality for the field mapping. 5. Select **Save Changes**. 6. Turn the integration back **ON**. 7. Select **Full Sync**. 8. On the first page of the Full Sync wizard, select **Custom sync**. 9. On the second page of the wizard, select only the newly mapped field and its sync direction. For example, if all information for this field is currently stored in Jama Connect, select → so that information flows from Jama Connect to Jira when the custom sync is run. 10. On the final page of the wizard, select **Confirm** to execute the sync. For more information about using the Full Sync wizzard, see Perform a Full Sync for Jira integrations [38].
An item I created in Jama Connect isn't automatically created in Jira, and vice versa.	If an item isn't created in the destination system as expected, check the following: • **Directionality** — On the Integration dashboard, make sure the sync is configured to create items bidirectionally, and not one-way. For more information, see Integrations [10]. • **Item location** — Make sure the item you created is located within the correct set (Jama Connect) or project (Jira). You can confirm the integration's configured Jama Connect set and Jira project on the Integration dashboard. • **Creation rules** — Make sure no creation rules exclude this item from the sync. For more information, see Configure creation rules [21]. • **Lock status** — If the item was created in Jama Connect, make sure that it isn't currently locked by another user. • **Link errors** — On the Links tab, search for the item using its API ID. You can identify the API ID by looking at the item's URL. For example: *https://[jama-instance]/perspective.req#/items/* If an item can't be created because of an error or misconfiguration, the error message "Unable to create entity" is displayed for the item on the Links page. The most common cause for this error is that required fields in the destination system were left blank. Make sure those fields are mapped on the Field Mappings page and marked as required in the source system.

Question	Answer
If a link was created between two items and one of the items is later deleted, how do I create a new link to the remaining item? *For example, I create a Requirement in Jama Connect, and a corresponding Epic is automatically created and linked in Jira. The Epic in Jira is deleted by mistake. How do I link the Jama Requirement to a new Jira Epic?*	Create a new link if one of the original linked items is deleted. 1. Turn off the integration.  2. Go to the Links page and delete the old link for that item.  3. Turn the integration back **ON**. 4. Select **Full Sync**. A new item is created in the destination system and linked to the existing item in the source system.
How does Jama Connect Interchange handle conflicting changes in mapped fields? For example, if one user makes changes to an item in Jama Connect, and another user makes changes to the corresponding Jira item, how are changes reconciled when the sync is run?	When the Delta Sync runs, the most recent update for each field is honored. For example, in the following scenario where a Delta Sync is configured to run every 10 minutes: • The Jama Connect Name field is updated at 12:00. • The Jira Name and Description fields are updated at 12:02. • The Jama Connect Description field is updated at 12:05. When Delta Sync runs, both items are updated with the Jira Name and the Jama Description.
Does Jama Connect Interchange support the X-ray plugin for Jira?	Jama Connect Interchange doesn't formally support the X-ray plugin for Jira. However, you can still sync X-ray issues from Jira to Jama Connect in practice. X-ray issues are viewed by the integration as normal Jira issues with added specialty plug-in fields. Using Jama Connect Interchange, you can sync the standard Jira fields included on the X-ray issue (such as Summary and Description), but you can't sync the specialty X-ray fields

Jira Data Center troubleshooting

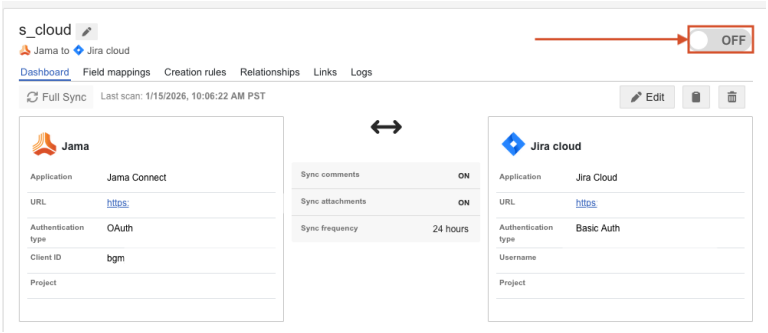
Question	Answer

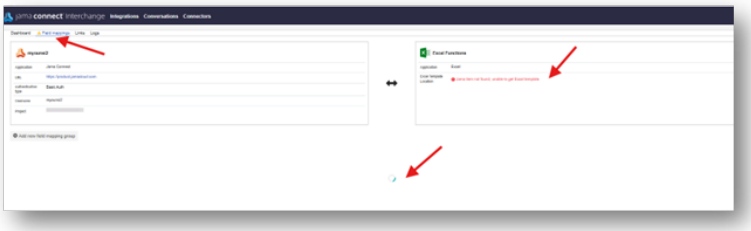
I receive an error when I try to create a connector to my Jira Data Center instance.	If you are having trouble connecting or syncing with Jira Data Center, it's usually due to an authentication issue on the Jira side.
	
	Check the following:
	
	• **(Recommended) Authenticate using a Personal Access Token (PAT)** — For more information, see Link to your Jira instance [13].
	• **Verify user permissions** — Make sure the service account user in Jira has the necessary permissions to read and write to the Jira projects and issue types you are syncing. The simplest way to verify this is to log in to Jira as that user and try creating or updating items in the project you intend to sync.
	• **Verify authentication type** — If your Jira Data Center connector uses basic authentication, make sure that basic authentication is enabled on your Jira system for all users or, at minimum, for the Jama Connect Interchange user.
	  • If you must authenticate using basic authentication, see Creating an allow list when basic authentication is disabled.
	  • In step 2, enter the following script, replacing **"svc-jama-integration"** with the username for your Jama Connect Interchange service account.
	`{ "block-requests": true, "allowed-paths": [ "/rest/issue/*", "/rest/search/*", "/rest/myself/*", "/rest/project/*", "/rest/field/*", "/rest/workflow/*" ], "allowed-users": [ "svc-jama-integration" ], "show-warning-message": true`
	• **Verify IP and URL allow lists** — Add the Jama Connect Interchange IP address and URL to your Jira allow lists.
	
	1. Add URLs to the allow list, using your Jama Connect Interchange URL in the format "https://<name>.jamainterchange.com".
	2. Specify IP addresses for product access. To obtain the Jama Connect Interchange IP address, submit a ticket to Support.

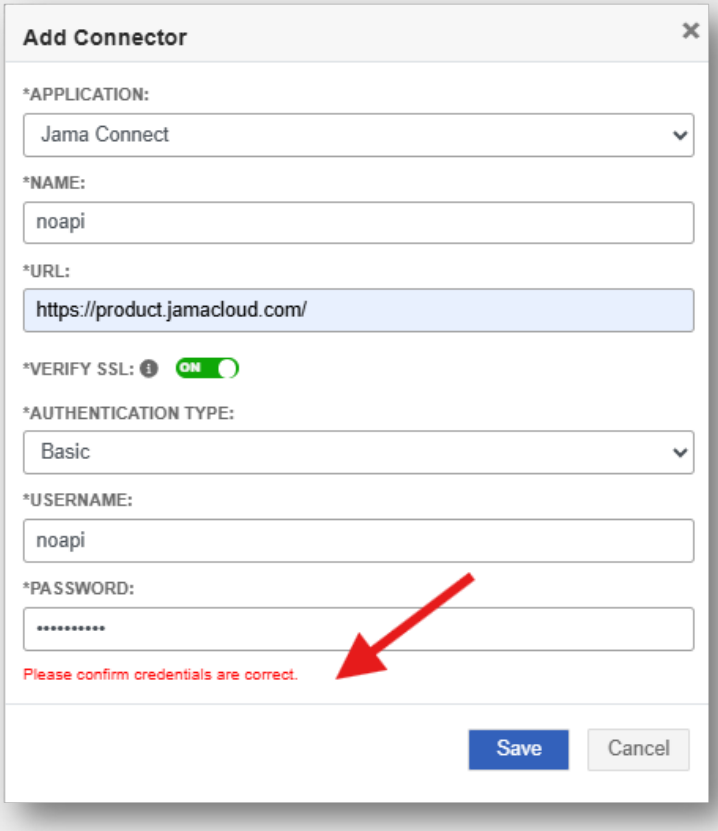
Excel Functions troubleshooting

Question	Answer
I created an Excel Functions integration that isn't populating values the way I expect.	Before contacting Support, check the following: • Make sure the functions in the Excel template are working correctly on their own. Test the functions directly in the Excel template and address any errors before attaching the template in Jama Connect. • Make sure the functions in the Excel template are supported. For a full list of supported functions, see Appendix - Supported Excel Functions [126]. • Make sure the Excel template is attached to the Jama Connect item that you specified in the integration wizard. • Check for errors on the Links page and Logs page in Jama Connect Interchange.
Can the Excel Functions integration be used with Jama Connect lookup matrix fields?	Yes. Using the Excel Functions integration, values can be written directly to a lookup matrix picklist. This allows you to use both solutions together for more advanced work streams.
On the Links page for my Excel Functions integration, the Status column for some items is blank. What does this mean?	A blank status for an Excel Functions link indicates the item was unable to sync successfully on the first run of the integration. In this scenario, the integration initially fetched these items and added them to the Links page. However, after the initial fetch, an error occurred when the mapped values were synced to the Excel template. These errors typically occur because of a missed configuration in the template or on the Field Mappings page. Check the Logs page for a corresponding error message with more information.

All integrations troubleshooting

Question	Answer
How do I update field mappings for an existing integration that is running?	1. Turn off the integration.  2. Modify the field mappings you need to change, then select **Save Changes**. 3. Turn the integration back on.
My Jama Connect Interchange system is configured with many integrations running simultaneously. How does the Jama Connect Interchange execution service determine the order in which to process each integration?	Most Jama Connect Interchange instances are configured with five execution threads, meaning up to five integrations can be processed at the same time. If more than five integrations are queued to process, Jama Connect Interchange prioritizes them in the following order: 1. Integrations that have never run before. 2. Integrations with the longest delay since the last run time. **Note:** Integrations with links in error are retried constantly until errors are resolved, leading them to be prioritized over other integrations. If you find that integrations aren't processing in a timely manner, addressing or turning off integrations with errors can help restore bandwidth to the execution service.
The integration log occasionally displays the message "Token is expired." What does this message mean?	If your Jama Connect connector uses oAuth authentication, the Logs page occasionally displays this message when the oAuth token has expired and is being regenerated. This is a normal, automated process that doesn't interrupt the integration.
Where can I find the configuration service log for my self-hosted Jama Connect Interchange instance?	Run the following command to copy the file to your system: • `sudo docker cp config-svc-interchange:/services/config-svc/logs/config-svc.log`
When I access the Field Mapping page in an integration, the project name and the field mapping groups don't appear.	This issue occurs if the Jama Connect Interchange user can no longer authenticate to Jama Connect. Typically, this happens if the user's credentials have changed.  1. Make sure that your credentials are up to date. See Edit your profile (user) [117]. 2. Log out of Jama Connect Interchange, then log back in with your new credentials.

Question	Answer
When I access a conversation in Jama Connect Interchange, the Import tab or Export tab fails to load and a server error message appears: "Failted to fetch Jama relationship type data with integration ID [###]."	This issue occurs if the Jama Connect Interchange user can no longer authenticate to Jama Connect. Typically, this happens if the user's credentials have changed.  1. Make sure that your credentials are up to date. See Edit your profile (user) [117].See Edit your profile (user) [117] 2. Log out of Jama Connect Interchange, then log back in with your new credentials.
After downgrading a license that removes API permissions, the field mapping group isn't displayed when I try to view field mappings and this error message appears: "Jama item not found, unable to get Excel template."	 1. Check your license type in Jama Connect. 2. If your current license lacks API permissions, consider upgrading your license or contacting your admin for appropriate access.

Question	Answer
If a user tries to create a connector but lacks API permissions, this generic error message is displayed: "Please confirm credentials are correct."	 1. Verify that the user account you are using for the connector has sufficient API permissions in Jama Connect. 2. If the issue persists, contact your Jama Connect Interchange admin to ensure proper permissions are assigned.

Appendix

- Delta Syncs and Full Syncs [124]
- Supported Jira field mapping combinations [125]
- Supported Excel Functions [126]
- Performance metrics [127]
- Self-hosted server specifications [129]
- Cloud backups and data retention [128]

Delta Sync and Full Sync

Jama Connect Interchange syncs data using two methods — Delta Sync and Full Sync.

Delta Sync

Delta Sync occurs automatically at regular intervals, based on the frequency selected on the Integration dashboard.

Each time a Delta Sync is run, any mapped fields that were updated by the user since the last Delta Sync are automatically synchronized by Jama Connect Interchange.

Important considerations

- With Delta Sync, the integration synchronizes only mapped fields that were changed since the last sync. Mapped fields without changes are not re-synchronized.
- When Delta Sync runs, data is merged field by field. For example, if the Name field was updated in Jama Connect and the Description field was updated in Jira, after the sync runs, items in both systems contain the Name from Jama Connect and the Description from Jira.

Conflicting changes for Jama Connect to Jira integrations

With bidirectional field mappings, if conflicting changes are made in Jama Connect and Jira between syncs, the most recent update for each field is honored.

For example, when a Delta Sync is configured to run every 10 minutes:

- The Jama Connect Name field is updated at 12:00.
- The Jira Name and Description fields are updated at 12:02.
- The Jama Connect Description field is updated at 12:05.

After Delta Sync runs, both items are updated with the Name from Jira and the Description from Jama Connect.

New field mappings

If you add new field mappings to an integration after items already begin syncing, the newly mapped fields aren't automatically synced on the next Delta Sync. They are only synced if a user makes a change to the mapped field.

For example, you create an integration that includes mappings for the Name and Description fields, then begin syncing items. If you later add a mapping for the Priority field, it isn't automatically synced for all items on the next Delta Sync. Instead, the Priority field is synced only for an item after a user makes an update to that field.

Full Sync

A Full Sync only occurs when you manually select **Full Sync** on the integration dashboard.

> **Important**
> Full Sync is a time-intensive process, so only run a Full Sync with the guidance of Support.

Default Full Sync

When a Default Full Sync runs, all mapped fields for all items in the integration are fully synchronized. During the Full Sync, the following operations occur, in the following order.

1. New items in Jama Connect are synced to Jira.
2. New items in Jira are synced to Jama Connect.
3. Fields for applicable mappings are back-flowed in both directions. For example, if your field mappings are set up to populate a Jama Connect text field with the URL of a Jira item, that population occurs during this step.
4. Existing linked items are updated in both directions:
   Bidirectional field mappings — Data is merged at the item level, not the individual field level. All mapped fields are updated with the values from the item that was saved most recently. For example, if the Name, Description, and Priority fields are all mapped bidirectionally between Jama Connect and Jira, the Jira item was updated and saved most recently. When the Full Sync runs, all three values from the Jira item are written to the Jama Connect item.
   One-way field mappings — Fields are updated one-way, based on the direction selected on the Field Mappings page.
5. Comments are synced from Jama Connect to Jira, then from Jira to Jama Connect.
6. Attachments are synced from Jama Connect to Jira, then from Jira to Jama Connect.

> **Note**
> Full Sync takes considerably more time when Comments and Attachments are included in the sync.

Custom Full Sync

The Custom Full Sync option allows you to run a Full Sync on a subset of items and/or mapped fields. For details, see Perform a Full Sync for Jira integrations [38].

The Custom Full Sync can be used in these scenarios:

- **Adding a new field mapping** — When you add a new field mapping to an existing integration, you can then run a Full Sync for that field only, so that existing items in the integration are updated for that field.
- **Troubleshooting** — If a single field didn't sync correctly, you can run a Full Sync for that field only to reconcile items.
- **Pre-existing items in one system** — When you have a set of pre-existing items that you want to sync to the other system, you can run a Full Sync in one direction to migrate those issues to the other system.

Supported Jira field mapping combinations

For a Jama Connect to Jira integration, the following field mapping combinations are supported.



Note
The Labels mapping supports Jira's default Labels field. If you created a custom field using the Labels field type, it isn't available for mapping.

Source (“From”) field type	Destination (“To”) field type
Boolean	Single Select
DateTime	DateTime Text
Float	Float Integer Text
HTML	HTML
Integer	Float Integer Text
Multi Select	Multi Select Text Tags (Jama only) Labels (Jira only)
Single Select*	Single Select Text Tags (Jama only) Labels (Jira only) *Includes workflow status
Text	DateTime Float Integer Multi Select Single Select Text Tags (Jama only) Labels (Jira only)
Boolean	Single Select
DateTime	DateTime Text
Tags	Bidirectional syncing to Jira labels, single-select, multi-select, and text fields
Labels	Bidirectional syncing to Jama labels, single-select, multi-select, and text fields

Supported Excel Functions

The following Excel Functions are supported by Apache POI 5.2.3, the third-party Excel SDK that Jama Connect Interchange uses to run functions in memory.

ABS	DCOUNTA	ISRERR	NOW	SQRT

ACOS	DEGREES	ISERROR	NPERR	STANDARDIZE
ACOSH	DEVSQ	ISLOGICAL	NPV	STDEV
ADDRESS	DGET	ISNA	ODD	STDEVA
AND	DMAX	ISNONTEXT	OFFSET	STDEVP
AREAS	DMIN	ISNUMBER	OR	STDEVPA
ASIN	DOLLAR	ISREF	PEARSON	SUBSTITUTE
ASINH	DPRODUCT	ISTEXT	PERCENTILE	SUBTOTAL
ATAN	DSTDEV	LARGE	PERCENTRANK	SUM
ATAN2	DSTDEVP	LEFT	PI	SUMIF
ATANH	DSUM	LEN	PMT	SUMPRODUCT
AVEDEV	DVAR	LN	POISSON	SUMSQ
AVERAGE	DVARP	LOG	POWER	SUMX2MY2
AVERAGEA	ERROR.TYPE	LOG10	PPMT	SUMX2PY2
CEILING	EVEN	LOOKUP	PRODUCT	SUMXMY2
CHAR	EXACT	LOWER	PROPER	T
CHOOSE	EXP	MATCH	PV	TAN
CLEAN	FACT	MAX	RADIANS	TANH
CODE	FALSE	MAXA	RAND	TDIST
COLUMN	FIND	MDETEREM	RANK	TEXT
COLUMNS	FIXED	MEDIAN	RATE	TIME
COMBIN	FLOOR	MID	REPLACE	TIMEVALUE
CONCATENATE	FORECAST	MIN	REPT	TODAY
CORREL	FREQUENCY	MINA	RIGHT	TRANSPOSE
COS	FV	MINUTE	ROMAN	TREND
COSH	GEOMEAN	MINVERSE	ROUND	TRIM
COUNT	HLOOKUP	MIRR	ROUNDDOWN	TRUE
COUNTA	HOUR	MMULT	ROUNDUP	TRUNC
COUNTBLANK	HYPERLINK	MOD	ROW	UPPER
COUNTIF	IF	MODE	ROWS	VALUE
COVAR	INDEX	MONTH	SEARCH	VAR
DATE	INDIRECT	NA	SECOND	VARA
DATEVALUE	INT	NORMDIST	SIGN	VARP
DAVERAGE	INTERCEPT	NORMINV	SIN	VARPA
DAY	IPMT	NORMSDIST	SINH	VLOOKUP
DAYS360	IRR	NORMSINV	SLOPE	WEEKDAY
DCOUNT	ISBLANK	NOT	SMALL	YEAR

Performance metrics

Jama Connect Interchange can efficiently process large integration sets containing thousands of items.

The integration service identifies changes to items using the Activity Stream in Jama Connect. This allows the service to operate more efficiently because it can immediately begin processing the changes listed in the Activity Stream, rather than having to first scan each item in the integration set to detect changes.

Manually edited items

When an item is manually edited by a user in Jama Connect:

- There is no delay in processing changes to items, even if:
  - Multiple users are working at the same time.
  - The integration set contains tens of thousands of items.
- The integration service updates items at the default sync frequencies after the user makes a change:

- 2–5 seconds (Excel Functions)
- 15 seconds (Jira)

Batch-edited items

When items are updated simultaneously using a batch operation in Jama Connect, processing time increases based on the number of items in the batch:

- 10 items: ~10s–90s
- 100 items: ~1m30s–2m30s
- 1000 items: ~16m40s–17m40s
- 10,000 items: ~2hr35m

These ranges are based on the amount of time it takes for Jama Connect to send batch updates to the Activity Stream. This variability ranges from about 3 seconds to 2 minutes. Once updates are available in the Activity Stream, the integration service processes those updates at consistent speeds.

Full Sync

When items are updated through a Full Sync (all fields in all items in the integration set are scanned for changes), processing time increases based on the number of items in the set:

- 100 items: ~1m17s
- 1000 items: ~13m16s
- 10,000 items: ~2hr2m

Running multiple integrations and operations simultaneously

The integration service can run up to five integrations at the same time. Running multiple *large* operations simultaneously can result in timeouts.

If you have more than five integrations queued to run, they are run five at a time until all integrations in the queue are run. At the default frequencies, each integration takes about five seconds to run, so if you have 100 integrations, for example, the integration service processes all of them in 1.5-2 minutes.

Each integration runs one operation at a time. For example, if both a batch operation and a Full Sync are queued to run, the first operation runs to completion before the next begins.

Cloud backups and data retention

The Cloud instance of Jama Connect Interchange is hosted by Amazon Web Services (AWS). Each instance is backed up daily, and backups are retained for seven days.

The backup includes the connection and integration data that you see in your Jama Connect Interchange instance, including connector settings, integration settings, links, and log messages.

The backup does *not* include the individual item data originating from the linked system (for example: Jama Connect items, Jira issues, Excel templates stored in Jama Connect). Data stored in these systems are subject to each respective system's backup and data retention policies.

Installing Jama Connect Interchange (self-hosted)

If you purchased a self-hosted installation of Jama Connect Interchange, complete the tasks in this section to install and set up Jama Connect Interchange on your self-hosted server.

> **Important**
> Jama Connect Interchange must be installed on its own dedicated server, separate from Jama Connect.
>
> Before you install Jama Connect Interchange, first make sure your server meets all requirements to be able to run the application. For details, see Self-hosted server specifications [129].

The installation process includes these tasks:

- Install Jama Connect Interchange on a host system
- Apply your Jama Connect license file to Jama Connect Interchange
- Configure TLS for Jama Connect Interchange

Self-hosted server specifications

If you purchase a self-hosted implementation of Jama Connect Interchange, you must provision a dedicated server to run the application. This server must be separate from the server that hosts Jama Connect.

The server hosting Jama Connect Interchange must meet the specifications listed here.

> **Note**
> Jama Software tests Jama Connect Interchange using an AWS EC2 Ubuntu virtual machine. Performance is dependent on several factors such as the number of integrations and the items they are tracking to sync.

Recommended server specs

- OS — One of these Linux platforms

Ubuntu	The 64-bit version of one of these Ubuntu versions: • Ubuntu Kinetic 22.10 • Ubuntu Jammy 22.04 (LTS) • Ubuntu Focal 20.04 (LTS) • Ubuntu Bionic 18.04 (LTS) • Docker Engine is compatible with x86_64 (or amd64), armhf, arm64, and s390x architectures
CentOS	A maintained version of one of the following CentOS versions: • CentOS 7 • CentOS 8 (stream) • CentOS 9 (stream)
RHEL	A maintained version of RHEL 7, RHEL 8 or RHEL 9 on s390x (IBM Z). Archived versions aren't supported or tested.

- Architecture — 64 bit
- CPU cores — 4 cores
- Memory —16 GB
- Storage — 20 GB 100–GB (scales based on integration volume)

Minimum server specs

- OS — Some Linux distribution
- Architecture — 64 bit
- CPU cores — 2 cores
- Memory — 4 GB
- Storage — 20 GB

Network access

To view the application webpage, the host system must be reachable within the network. Ports 8080 and 443 must be opened on the host system.

The host system must be able to reach the systems that Jama Connect Interchange is integrating with via APIs. For a Jama Connect to Jira integration, both connectors use the REST API to integrate data. In this case, the host system must be able to reach both Jama Connect and Jira via the network on port 443.

TLS certificate

(Optional) Jama Connect Interchange can be configured to use TLS for added security. Have your TLS private key ready before installing Interchange.

Frequently asked questions for self-hosted installations

Do any special TCP ports need to be unblocked in our firewalls?	Yes. The server hosting Jama Connect Interchange must have the inbound ports 22, 80, 443, 8080, and 8443 unblocked. For outbound traffic, ports 80 and 443 must be unblocked.
Is Jama Connect Interchange installed as part of our Jama Connect self-hosted installation?	Jama Connect Interchange is installed separately from Jama Connect, but the two processes are similar.
Does Jama Connect Interchange support airgapped installations?	Yes. Jama Connect Interchange can be installed in an airgapped environment.

Install Jama Connect Interchange (self-hosted)

Jama Software sends you an email that includes the installation package. Complete these steps to install Jama Connect Interchange on your host server.

To install Jama Connect Interchange:

1. Install the Docker engine on the Jama Connect Interchange host server following Docker's instructions: https://docs.docker.com/engine/install/
2. Download the installation package from the Jama Software Support Site and copy it to the host system.
3. On the host system, create the application directory for Jama Connect Interchange:
   ```
   sudo mkdir /opt/jci
   ```
4. Untar the archive of Docker images to the target directory:
   ```
   sudo tar -xf jci-self-host-{VERSION_TAG}.tar.gz -C /opt/jci/
   ```
   The archive includes an additional tarball and a Docker compose file.
5. Load the images into the system registry from the tarball:
   ```
   sudo docker load < /opt/jci/jci-self-host-{VERSION_TAG}.tar
   ```
6. Run Docker compose to start the services:
   ```
   cd /opt/jci sudo docker compose up -d
   ```

7. Test the web service:

   ```
   curl http://localhost:8080/login
   ```

   By default, the application is available at localhost:8080. The curl command returns you to the login page.
8. Update the hostname to make the web service externally accessible:

   ```
   sudo docker exec -i config-svc-interchange sh -c "../update_host_url.sh 'http://{SERVER_HOST}:8080/'"
   ```

The Jama Connect Interchange services are restarted.

Apply Jama Connect license to Jama Connect Interchange (self-hosted)

After installing Jama Connect Interchange, you must apply the Jama Connect license file before you can access the application.

To apply the license file:

1. Open the email from Jama Software and save the attached license file to your Jama Connect Interchange host system.
2. Confirm that the license file is named **connect_license.txt**.
   If needed, use the mv command to rename it. For example:

   ```
   mv Jama_License_Example_exp_31_2021_Commercial.txt connect_license.txt
   ```
3. While the Jama Connect Interchange services are running, copy the license to each service:

   ```
   sudo docker cp connect_license.txt config-svc-interchange:/static-files/
   sudo docker cp connect_license.txt exe-svc-interchange:/static-files/
   ```
4. Restart the Jama Connect Interchange services:

   ```
   cd /opt/jci
   sudo docker compose restart
   or
   sudo docker-compose restart
   ```

   The services take a few minutes to restart. When it's finished, the license is updated.
5. To log on to Jama Connect Interchange for the first time, use these default credentials:
   Username — **interchange_admin**
   Password — **interchange_password**

The license file is applied and the Jama Connect Interface is displayed.

Configuring TLS for Jama Connect Interchange (self-hosted)

For added security, your self-hosted Jama Connect Interchange can be configured to use TLS (Transport Layer Security).

Complete the following procedures to configure TLS on the Jama Connect Interchange host server.

- Configure the web service with your new TLS certificate [131]
- Install the TLS certificate and private key [132]

Configure the web service to use a new TLS certificate (self-hosted)

For added security, configure your self-hosted Jama Connect Interchange web service with the new TLS certificate.

Requirements

- You must be running Jama Connect Interchange 1.10 or later.

To configure the web service:

1. Copy the existing properties file to the Jama Connect Interchange host server:
   ```
   sudo docker cp config-svc-interchange:/static-files/application.properties .
   ```
2. Open the application.properties file, make the following changes, then save and close the file.
   a. If installing the TLS certificate from a default installation, remove the default port mapping property **server.port=8080** from the file.
   b. Add these properties to the file:
      ```
      server.port=8443
      spring.ssl.bundle.pem.jcibundle.keystore.certificate=jciserver.crt
      spring.ssl.bundle.pem.jcibundle.keystore.private-key=jciserver.key
      server.ssl.enabled=true
      server.ssl.bundle=jcibundle
      server.ssl.bundle.client-auth=NEED
      ```
   c. Edit the jci.host-url property to match the domain name assigned to the certificate.
3. Copy the properties file back to the Docker container:
   ```
   sudo docker cp application.properties config-svc-interchange:/static-files/
   ```

Your web service is now configured to use the TLS certificate.

Install the TLS certificate and private key (self-hosted)

Complete the following steps to install the TLS certificate and private key.

Requirements

- You must be running Jama Connect Interchange 1.10 or later.
- Before you begin, generate a PEM-encoded TLS certificate and private key.

To install the TLS certificate and private key:

1. Rename the TLS certificate and private key to **jciserver.crt** and **jciserver.key**.
   For example:
   ```
   mv server.crt jciserver.crt
   mv server.key jciserver.key
   ```
2. Copy the TLS certificate to the web service Docker container:
   ```
   sudo docker cp jciserver.crt config-svc-interchange:/static-files/
   sudo docker cp jciserver.key config-svc-interchange:/static-files/
   ```
3. Restart the services:
   ```
   cd /opt/jci
   sudo docker compose restart
   ```

The TLS certificate and private key are installed.

Upgrade Jama Connect Interchange (self-hosted)

The process of upgrading your self-hosted instance of Jama Connect Interchange to a new version consists of downloading the package, creating a backup of your database, and loading the Docker images to the system registry.

> **Note**
> Jama Connect Interchange self-hosted upgrades don't need to be sequential. You can skip versions—for example, upgrade directly from 1.36 to 1.38 without upgrading to 1.37 first.
>
> **Exception:** Some releases might require sequential upgrades because of specific migration steps or dependencies. Before upgrading, review the installation instructions included with the download package. For package-specific instructions, see: Jama Connect Interchange Self-Hosted Installation Package

To upgrade Jama Connect Interchange:

1. Download the installation package from the Jama Software Support Site and copy it to the host system.
2. While services are running, create a backup of the database before performing the upgrade:

   ```
   sudo docker exec mysql-interchange /usr/bin/mysqldump -u root --
   password=password configDB > config_backup.sql
   sudo docker exec mysql-interchange /usr/bin/mysqldump -u root --
   password=password logDB > log_backup.sql
   ```

   > **Note**
   > If a backup doesn't complete while services are running, retry the command with **--single-transaction --skip-lock-tables** before the database name. Apply the same options to both the **configDB** and **logDB** backup commands.

3. Navigate to the Jama Connect Interchange installation directory and stop the service:

   ```
   cd /opt/jci
   sudo docker compose down
   ```

4. Untar the archive of Docker images to the target directory:

   ```
   sudo tar -xf jci-self-host-{VERSION_TAG}.tar.gz -C /opt/jci/
   ```

   The archive includes an additional tarball and a Docker compose file.
5. Load the images into the system registry from the tarball:

   ```
   sudo docker load < /opt/jci/jci-self-host-{VERSION_TAG}.tar
   ```

6. Navigate to the installation directory and restart Jama Connect Interchange:

   ```
   cd /opt/jci
   sudo docker compose up -d
   ```

The new version of Jama Connect Interchange is installed and the Jama Connect Interchange service is restarted.