Enterprise Architect

User Guide Series

Integrate Data from External Providers

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CREATED WITH ENTERPRISE ARCHITECT

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Integrate Data from External Providers

The Pro Cloud Server helps you to integrate data from external providers into an Enterprise Architect Cloud model. A variety of third-party providers can be connected to, including:

- Application Lifecycle Management (formerly HP Quality Center)
- Jazz (Rational DOORS Next Generation)
- Jira & Confluence
- Team Foundation Server
- Wrike
- ServiceNow
- Autodesk
- Bugzilla
- SharePoint
- Dropbox and
- Other Enterprise Architect models

See Install and Configure for information on how to configure each provider.

All integrations offer support for linking objects and elements from the external system into an Enterprise Architect client. The Integration window supports browsing the external provider's items and retrieving lists of elements and objects based on the provider's queries. Capabilities include:

- Link an Enterprise Architect element to an external object
- View external element properties
- View and in some cases add to, external object discussions
- Export links to WebEA URL's that correspond to the current model
- Open external items in a web browser
- Import elements
- Export elements

As of version 14.1 it is possible to link a non-cloud model to Integration Plugins configured on a Pro Cloud Server. See Cloud Page for configuration options.

Access

Ribbon 	Specialize > Tools > Integration To view a list of all elements that are linked to external items: Specialize > Tools > Integration > Show All Linked Items
Context Menu	In a diagram or the Project Browser, for elements that are already linked to an external item: • Right-click on element > Specialize > External Properties

Features

Feature	Description
Pro Cloud Server Configuration	Each external provider needs to be configured on the Pro Cloud Server to enable connection. Multiple configurations can be made for each provider (e.g. connect to two separate Jira servers).
Authorization	If the Integration Provider requires authorization the user will be prompted to enter their credentials. If the provider supports it, a new internet browser window will open and prompt the user to log in to the Integration Provider and allow Enterprise Architect access to its resources. Alternatively, a simple dialog will pop up asking for the user's credentials, with the option to securely store these in the current model. If stored in the model the credentials will only be used for the current user.
Navigate External Provider	Find external items to link by navigating the external provider.
External Item Details	Select an external item from the list to see its properties, notes and discussions.
Link External Items	External items can be linked to Enterprise Architect as a generic «ExternalReference» stereotype or as another element type.
Add WebEA Link	Hyperlinks to WebEA can be added to the external item so that a user may quickly open the WebEA element from the external source. Right-click on a local linked element in the list and select 'Add WebEA Hyperlink to External Object'. This will update the external item with a link to the WebEA element that is linked to it. Note that not all provider types have a 'link' mechanism. Where none exists some providers might allow adding the link as a comment on the item. Ensure that the model has a valid WebEA address set in the model options.
Configuration	Each integration provider comes with a set of default mapping values which determines what type of local element is created in Enterprise Architect, as well as which fields are copied to the new element. These mappings are configurable via the 'Configure' option on the Integration window toolbar menu. Users must have the 'Configure External Data Sources' permission to access this functionality.
Troubleshooting	• The System Output window will show any errors while attempting to retrieve data from the external providers

	• The Pro Cloud Server outputs log files for each external provider

Notes

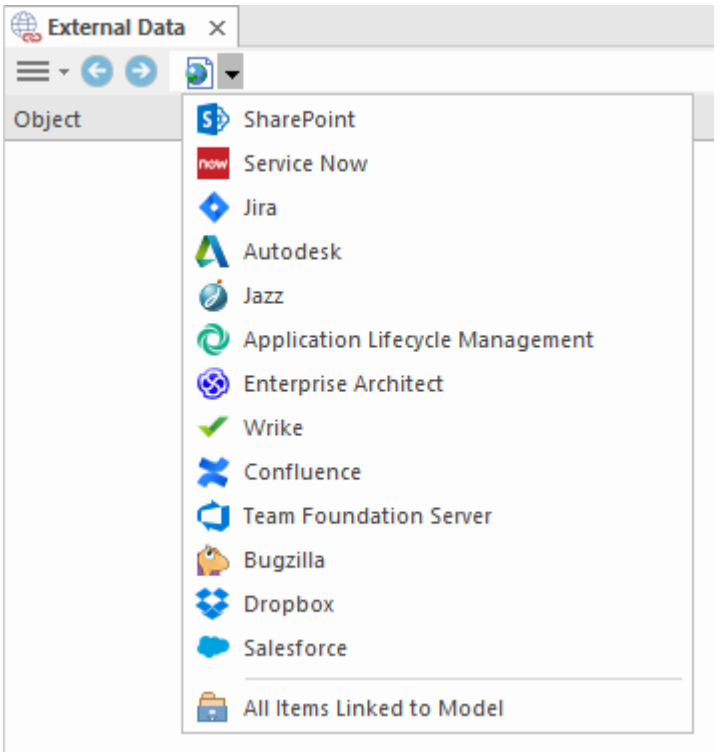
- 'Integration' requires a Pro Cloud Server and is only available to Cloud models
- 'Integration' is currently provided with the Ultimate edition of Enterprise Architect; in the future, a Data Bridge for Enterprise Architect will be available for separate purchase for use with the Corporate and Unified editions
- If you select two or more elements at the same time, you can perform an operation on all of the selected elements at once
- For WebEA links to work a valid URL must be set for the WebEA address (see the Cloud Page Help topic)

Navigate External Data

Each integration provider can be navigated through to show lists of external items that can be linked to Enterprise Architect. Each provider might provide a slightly different mechanism for navigation based on how it stores its data. Some provide a simple folder hierarchy, while others provide for user defined filters. See 'What data is returned by Integration Plugins' on Install and Configure for details of each provider.

Navigate the Hierarchy

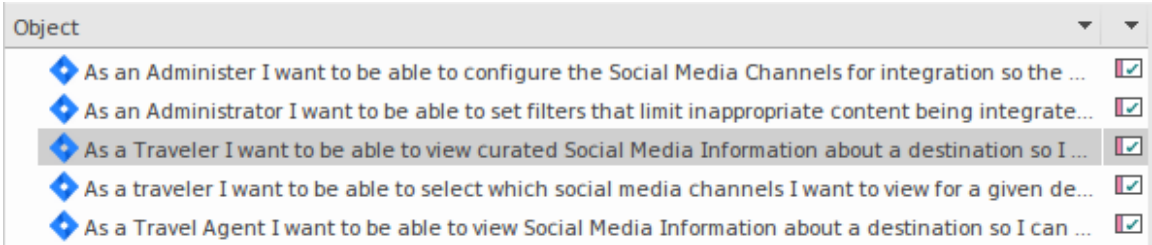
Begin navigation by selecting the provider type from the first drop-down menu.



Next, each provider type offers a slightly different navigation system: e.g. Dropbox allows for browsing the folder structure, while Jira give a list of projects followed by a list of user queries.

Item List

At each navigation level, if available, a list of items corresponding to the navigation level will populate the left-hand panel.



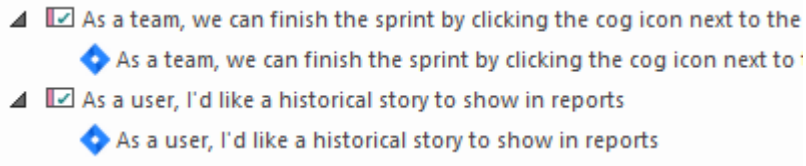
Any local Enterprise Architect elements that are linked to the external item will be shown as a child of the external item.

All Items Linked to Model

At each navigation level there is an option to show all local Enterprise Architect elements that are linked to the selected external data source. Select 'All Items Linked to Model' and choose a recent time period (7, 30 or 90 days, or 'All') to show.

Choose 'All Items Linked to Model' on the root navigation level to see the linked items for all external providers.

This view is different to the regular list as it shows the local Enterprise architect element on top, and the external linked item as a child of the local element. All the same context menu items are available in the view.



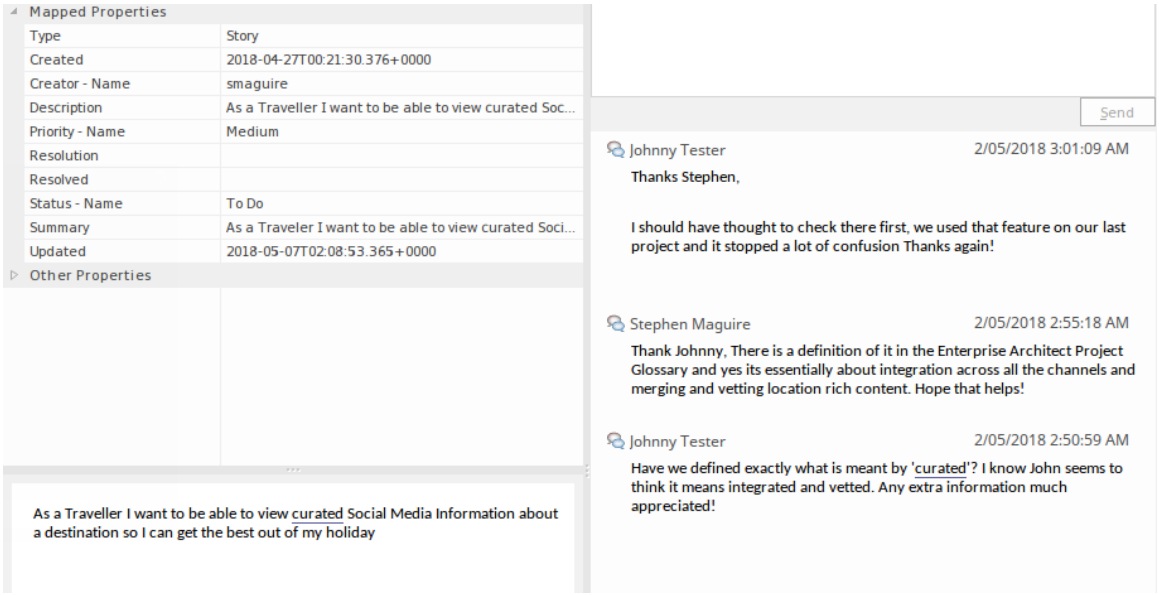
Show Items Linked to Current Context

In the integrations menu, select 'Items Linked to Current Context' to show only the external items that are linked to the currently selected local element. i.e. select an item in the Project Browser and see the external items that are linked to it.

This view is the same as for 'All Items Linked to Model' .

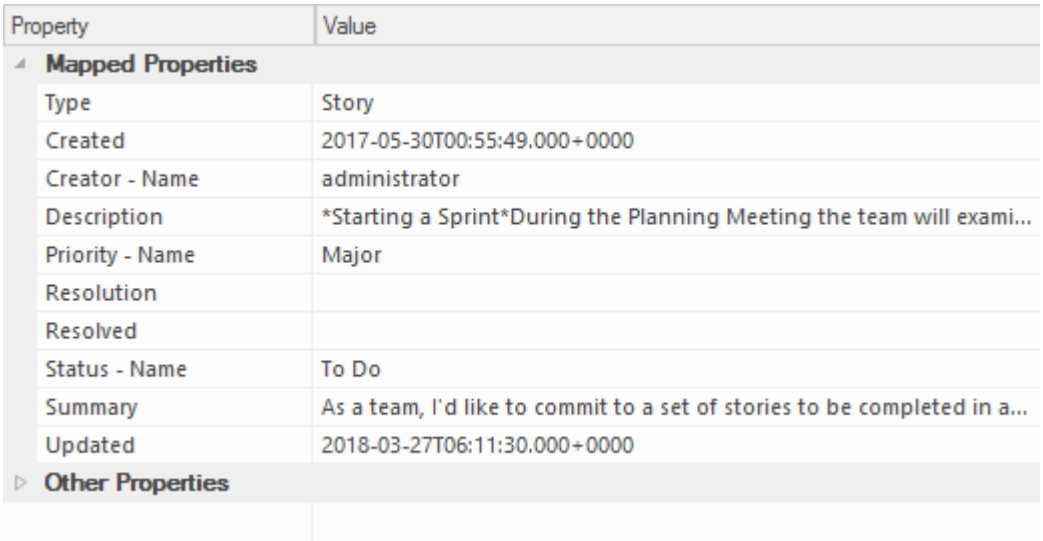
External Item Details

When an external item is selected in the list, the item's details are retrieved and displayed.



Properties

Select an external item from the list to view its External Properties. This window shows all available properties of the external item, as defined by the external provider.



Properties that will be used when creating a linked local element are show in the top group 'Mapped Properties' while all other properties are grouped in 'Other Properties'. The property mapping can be configured in Configuration.

Notes

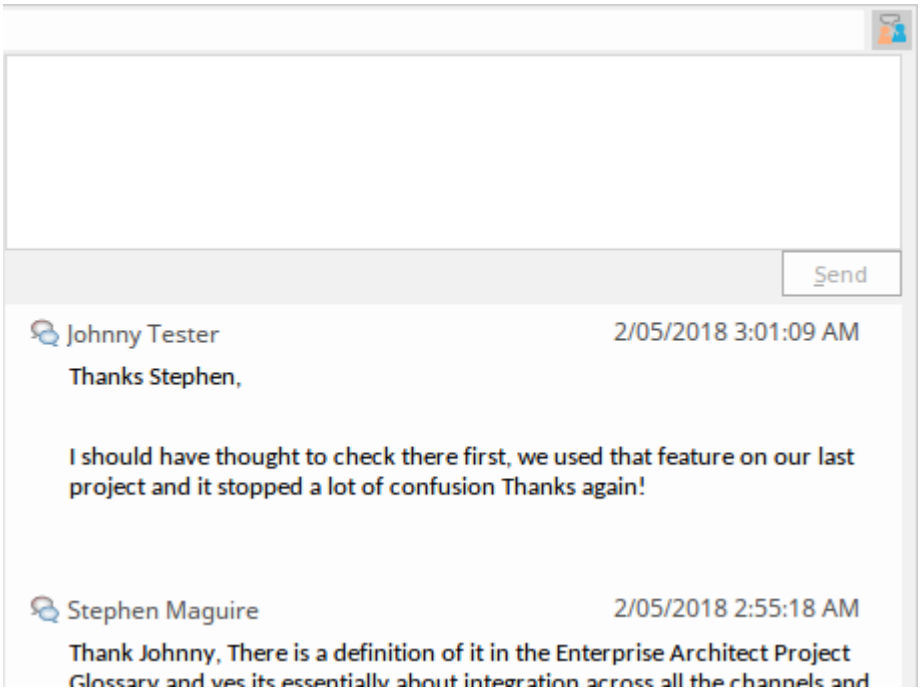
This external item's notes or description is shown below the properties. Note that not all external providers have a notes or description field.

Discussion

Select an external item from the list to view its External Discussions. This window shows the discussions or comments of the external item.

New discussions can be posted by typing into the top box and pressing 'Send'. The username used will be that is authorized on the Integration Provider. If generic credentials have been added to the server configuration then the local model's user name will be added to the start of the comment as well.

Show or hide the discussions by clicking the icon in the top-right corner.



Note:

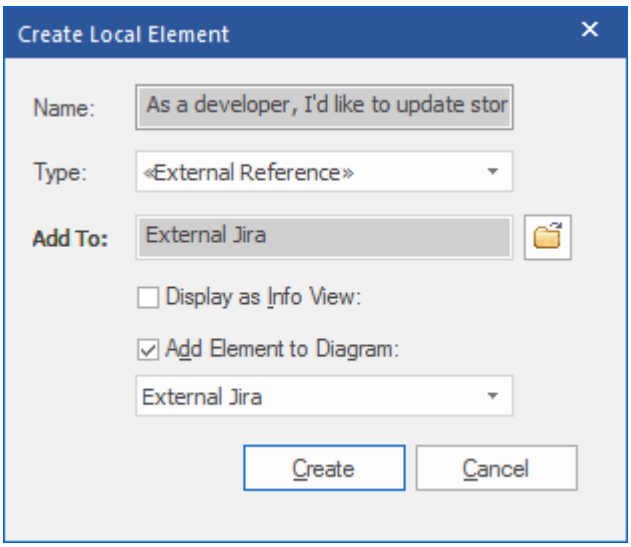
- To post an external discussion the Integration Provider must be configured to allow this on the Pro Cloud Server (allowed by default)
- Not all external providers have discussions or comments

Linking Items

Create Linked Element in Enterprise Architect

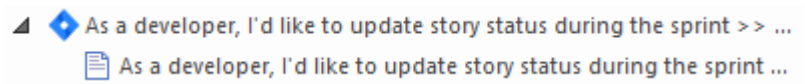
To create a new element in the Enterprise Architect model linked to the external item:

- Right-click on an external item in the list.
- Select Create Local Element
- Select either the default type (see Configuration) or «External Reference»
- Select which Package the element will be created in
- Optionally add the new element to an open Diagram



The local element will be filled in with the values defined in the Field Mapping in Configuration.

Once linked, the local element will show under the external item:



Note: Select multiple items to create multiple elements at the same time. All elements will be created with either the default type or «ExternalReference»

Link an Existing Enterprise Architect Element

An existing element in Enterprise Architect can be linked to an existing item in the external provider by dragging the local element from the Project Browser and dropping it onto the external item.

Create a Linked Item in the External Provider

Existing local elements in Enterprise Architect can be added to the External Provider in the following way:

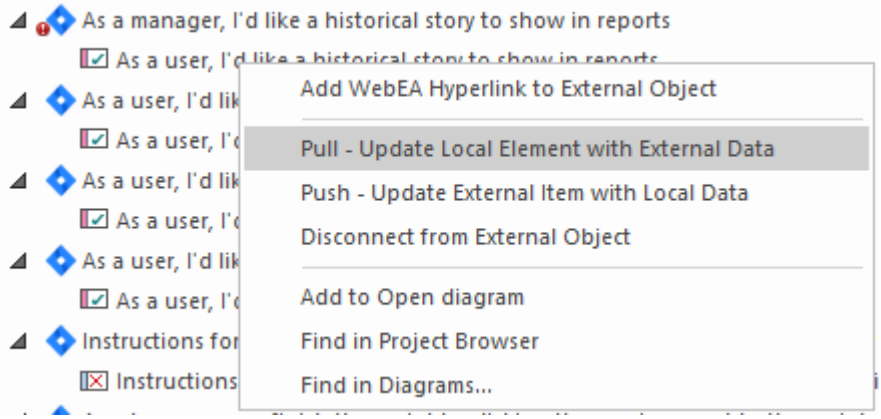
1. Select the local Enterprise Architect element (ie: in the Project Browser).
2. Browse the external provider and select the desired destination location.
3. In the External Data Menu, select 'Create Linked Item'.

Note:

- To create a new external item the Integration Provider must be configured to allow this on the Pro Cloud Server (disallowed by default).
- Note all providers allow for creation of new items.

Update Local Element ('Pull' changes)

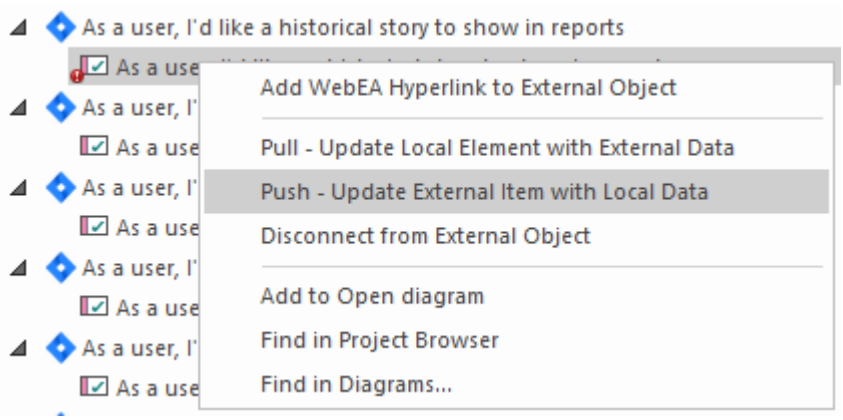
If either the local element or external item have been modified since the items were created or linked, an indicator will be shown on top of the item's icon. Right-click on the linked Enterprise Architect element and select the 'Pull - Update Local Element with External Data' option.



Note: If the local element has been modified since the link was created then its changes will be overwritten with the external data.

Update External Item ('Push' changes)

If either the local element or external item have been modified since the items were created or linked, an indicator will be shown on top of the item's icon. Right-click on the Enterprise Architect element and select 'Push - Update External Item with Local Data'.



Note:

- If the external element has been modified since the link was created then its changes will be overwritten with the local data.
- To update an external item the Integration Provider must be configured to allow this on the Pro Cloud Server (disallowed by default).

Configuration

Each integration provider comes with a set of default mapping values which determines what type of local element is created in Enterprise Architect, as well as which fields are copied to the new element. These mappings are configurable for each client model.

Permission

Users must have the 'Configure External Data Sources' permission to access this functionality.

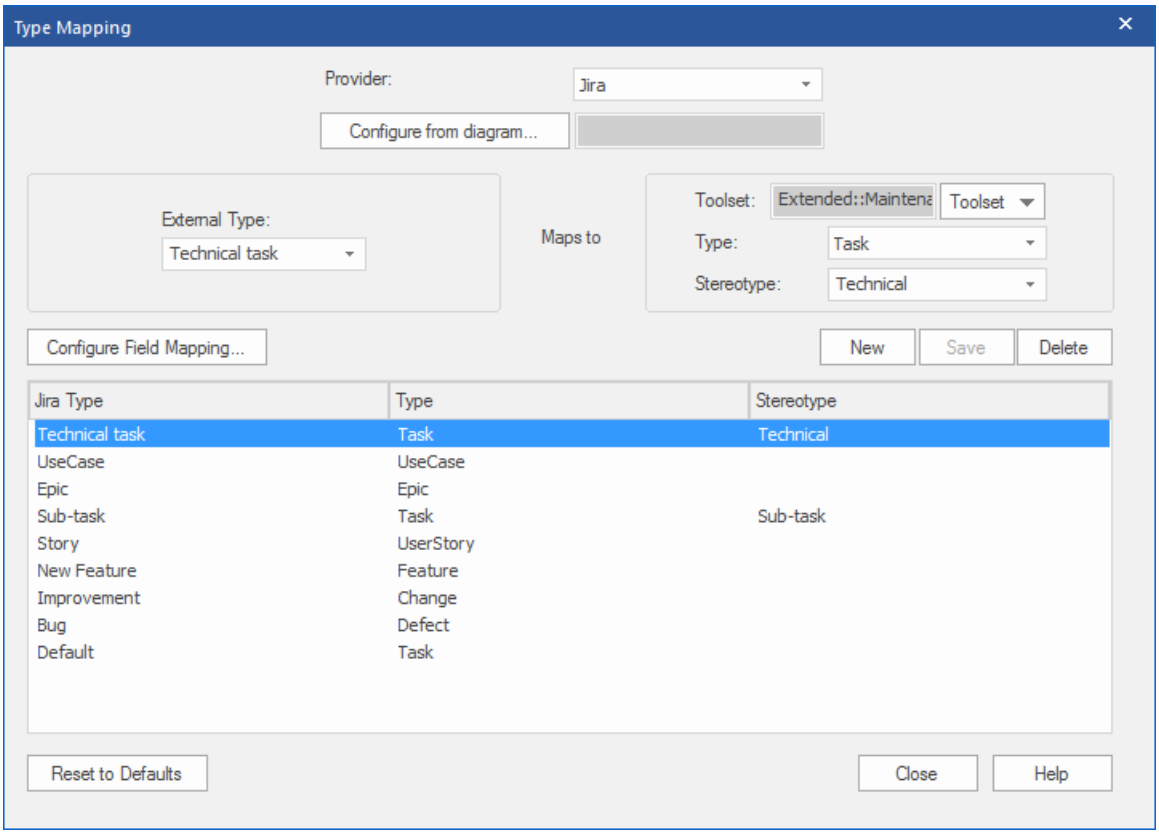
Access

Integration window toolbar	Menu > Configure

Type Mapping

This defines the element type that will be created when 'Create Local Element' is selected.

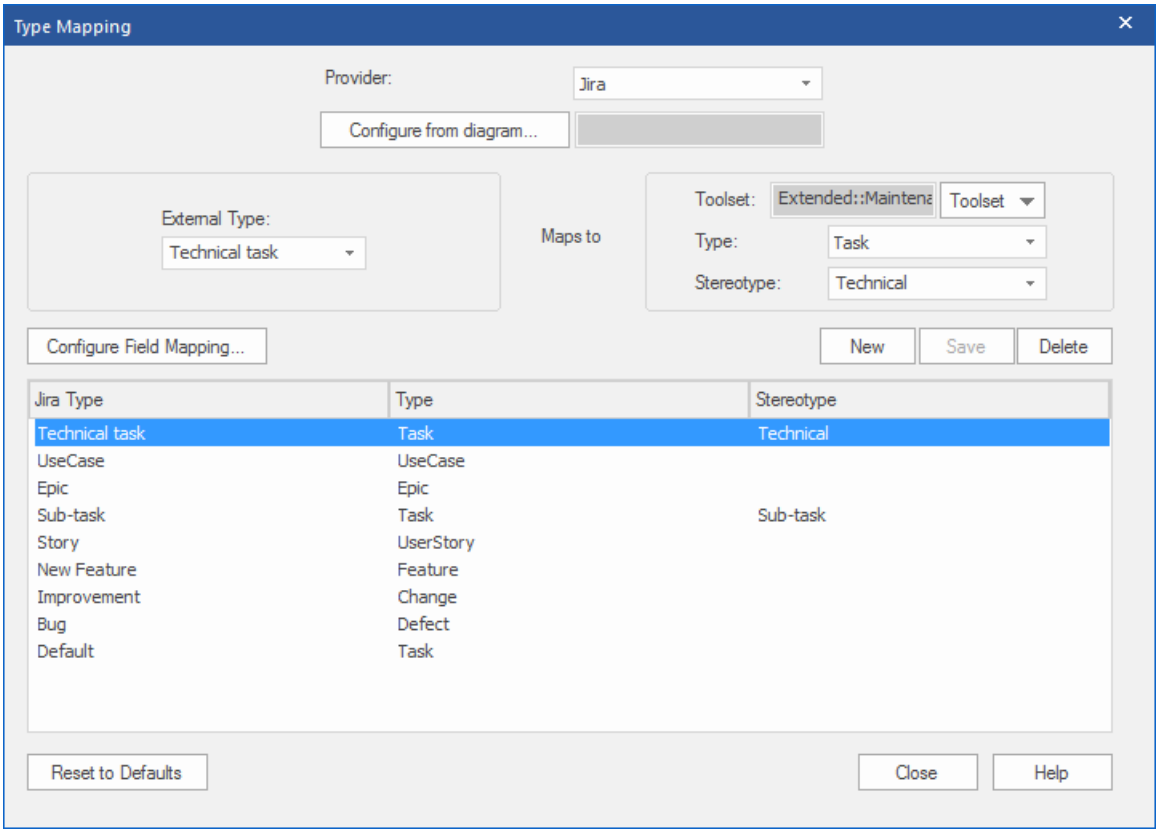
To create a new mapping, select the External Type, and use the toolbox selector to select the local element type.



Field Mapping

This defines the element type that will be created when 'Create Local Element' is selected.

To create a new mapping, select the External Type, and use the toolbox selector to select the local element type.



Notes

- Each mapping can be reset to default values by clicking 'Reset to Defaults'.
- If no type mapping is specified for a specific type, then the mapping for type 'Default' will be used.