



External BO links

Planon Software Suite

Version: L105

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About this Document

Intended Audience

This document is intended for *Planon Software Suite* users.

Contacting us

If you have any comments or questions regarding this document, please send them to: support@planonsoftware.com.

Document Conventions

Bold

Names of menus, options, tabs, fields and buttons are displayed in bold type.

Italic text

Application names are displayed in italics.

CAPITALS

Names of keys are displayed in upper case.

Special symbols

	Text preceded by this symbol references additional information or a tip.
	Text preceded by this symbol is intended to alert users about consequences if they carry out a particular action in Planon.

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Introduction

In a multi-instance environment, two or many environments can share Planon data.

This is only possible if both parties agree to share business object data, thus safeguarding data integrity and ownership.



This could be two or many Planon environments sharing data, or an external party sharing data with a Planon environment.

In this situation, both parties that share data have a common understanding about the data and its identity.

This situation would be applicable if, for example, one organization serves as a business partner to another organization, to unburden the latter by assuming responsibility for services such as asset or property maintenance, or personnel management.

Concepts

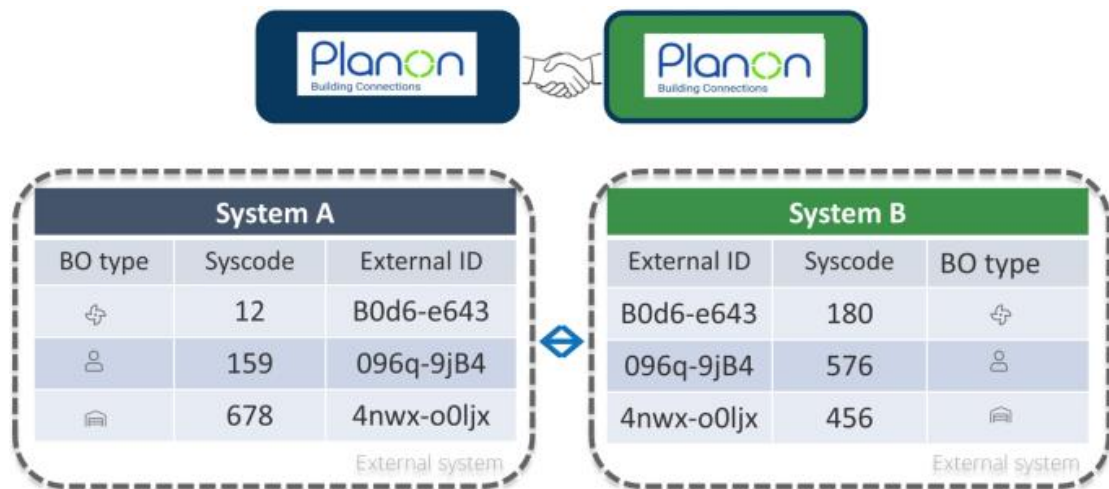
The following topics describe the concepts that are key to understanding the functionality.

External ID

If two or more environments exchange and maintain data, there needs to be a way to uniquely identify data.

In their mutual communication, the data that is passed between interacting systems is given a shared, unique identifier called an *external ID*.

i This could be two (or more) Planon systems, as is shown in the following image, but it could actually be any system.



By combining the system and the external ID, each system can identify the record in their own system and also it's business object type (asset, person, property, etc.).

i It is also possible to link one business object to multiple (different) external systems using different (or the same) external ID.

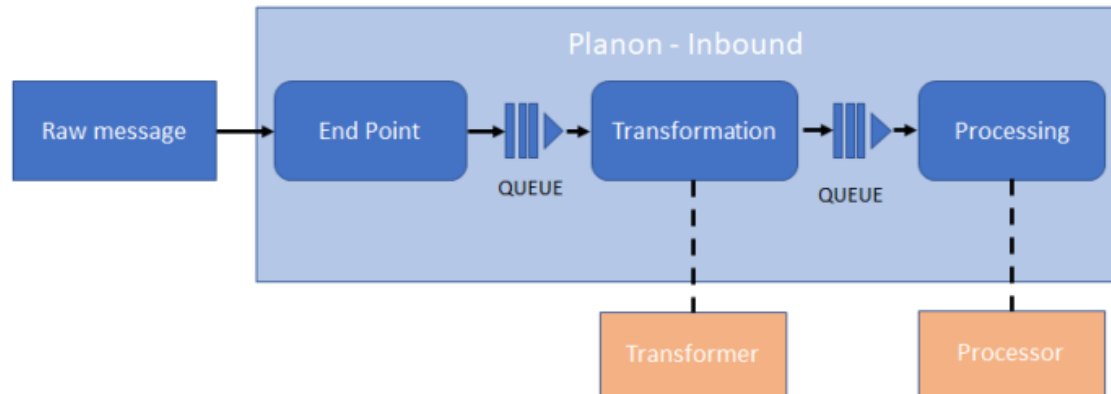
Event connector

Event connector is a gateway between third-party applications and Planon.

It is designed to process *messages* that are sent by another application and which need to be processed in the Planon application, and vice versa. Consequently, there is an inbound stream and an outbound stream.

Inbound

A message can be anything in any format. Consequently, the Planon application needs to be instructed on how to specifically handle messages.



Typically, inbound messages need to be *received*, *transformed* and *processed*.

Accordingly, Event connector consists of the following three TSIs (and business objects):

- Inbound raw messages
- Inbound messages
- Business events

Event connector can generically be applied to process all kinds of messages (data), that can subsequently be processed by the Planon application.

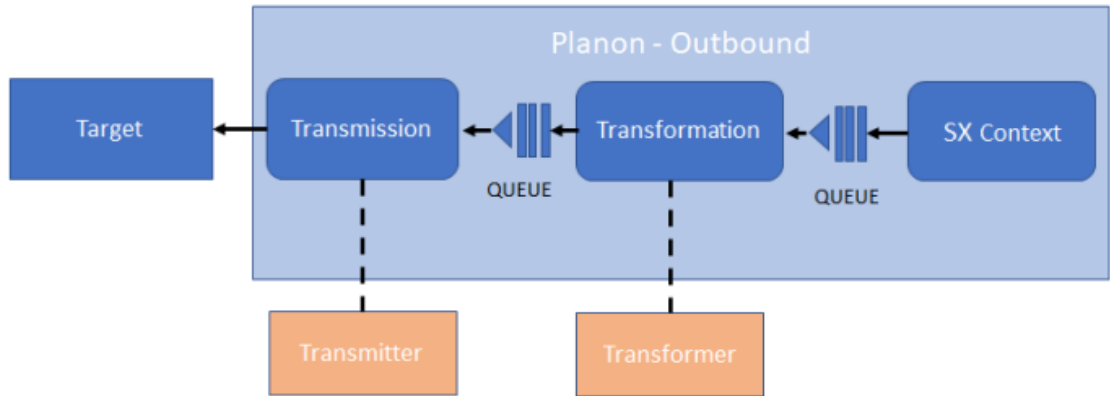
Outbound

Whenever specific message is received, it will be queued for transformation.

Once transformed into an *outbound message*, it will be queued again for transmission. The result will be an *outbound raw message*.

Accordingly, Event connector consists of the following two TSIs (and business objects):

- Outbound messages
- Outbound raw messages



The outbound raw message will subsequently be sent to the target, which can be anything, such as: another application, email, log, REST API, another Planon endpoint...

Working with...

This section describes the various functions available.

Specifying the external system

When deciding on collaborating and exchanging data - the instances must both identify their counterparts (external system).

Each instance must therefore *know* the external system it wants to exchange data with.

Procedure

1. Go to External systems and click Add.
2. Fill out the fields in the data panel.

For more information about these fields, see [External system - fields](#).

- One system is in the lead and will share its access key first.



This is a manual process and happens outside the system.

- The second system will use that information to specify the external system in their Planon environment. The second system will then be able to access the first.
3. When the configuration of the external system is completed, click Send credentials.

This will generate a new access key for the inbound account and send the information to the external system so that the link can be established (bidirectional). This *opens* your system to the external system, using the credentials of the inbound account to gain access.

The external system can now access your environment (and vice versa), data sharing can now happen.

Sharing business object data

When the connection between the external system is established, the business objects whose data is going to be exchanged must be mapped.

This means that for each individual record in Planon (recognized by its business object type and system code) the External ID for the communication with the external system needs to be registered in the **External BO links** business object.

This can be done by an app that uses the `IExternalBOLinkService` service interface to populate the [External BO links](#) level.

Using an app

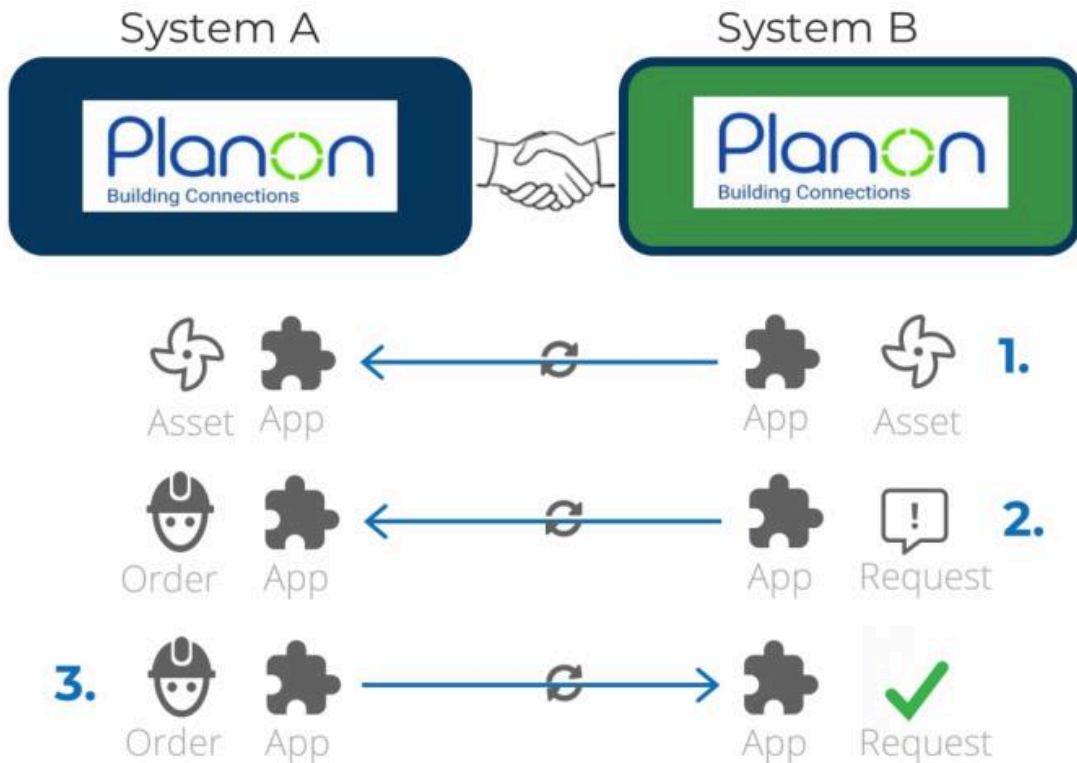
An app is built to monitor and synchronize the BO data for which it is designed to be used. Exactly which information this is, is included in the app. Between the systems that are sharing business object data there now is an understanding about this data.

Example

The following use case describes how an app can be used to share business object data.

i Apps can be implemented by Tailor Made Solutions (TMS) or partners. For more information, see [developing platform apps](#).

System A is responsible for maintaining System B's assets.



1. A new order is created in System B.

This is detected by the app, which will sync the BO data and share that with System A.


i The exchange takes place using [Event Connector](#). Message sent, must always include the external ID, which is used to identify the BO in the external system.

2. When a request is created in the System B for an asset, an order is created in System A.
3. Once the order is completed by System A, the data is synced with System B.


Field descriptions

The following section(s) describe(s) the fields, their purpose and meaning.

External system - fields

Field	Description
Code	Specify a code to identify the external system. This is an alphanumeric field.
Endpoint URL	The URL of the external system (outbound) that your system will share data with.
Endpoint key	<p>The access key that will allow your system account to access the external system. This must be an access key that belongs to and is generated by the external system!</p> <p>You can generate an access key in System Settings > Security.</p> <p>For more information, see Access keys.</p>
Inbound account	<p>Specify the (internal) account that will be used by the external system to contact the current system.</p> <div data-bbox="581 1213 1317 1472" style="border: 1px solid #0070C0; padding: 5px;"><p> Make sure the account is added to a user group containing the product definition: Event Connector.</p><ul style="list-style-type: none">• For additional security, restrict access for this account to only Event connector.• The external system can also be used without the inbound account (when only messages have to be sent to the external system).</div>

External BO links - fields

Field	Description
External ID	<p>The unique ID that identifies business objects in both the current system and the external system.</p> <div data-bbox="581 1774 1317 1864" style="border: 1px solid #0070C0; padding: 5px;"><p> The combination of the external system and the external ID is unique.</p></div>

Field	Description
External system	A reference to the external system for which the data is mapped.
Business object definition	A reference to the linked business object. This identifies the business object in the current instance. Any business object is allowed.
BO system code	The business object's system code in the current instance.
Description	A text field that can be used for storing information about the external BO link.

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