



# Open Module

## 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](mailto: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.

# Table of Contents

About the Open Module.....	5
Interaction with other Planon ProCenter TSIs.....	5
Open Module - Concepts.....	6
Business objects - Open Module.....	6
Making free business objects translatable.....	6
Reference date in Open Module.....	7
Selection levels and steps.....	7
Fields in Open Module.....	8
Four eyes principle.....	9
Configuring Open Module.....	11
Configuring free business objects in Field Definer.....	11
Creating references between business objects.....	12
Reference from a free business object to another free business object.....	12
Reference from a free business object to an existing business object.....	13
Reference from an existing business object to a free business object.....	14
Keeping a history on free business objects.....	15
Open Module – Field Descriptions.....	17
Fixed fields.....	17
Index.....	18

# About the Open Module

The **Open Module** enables you to create functionality that does not exist in the standard Planon ProCenter TSIs. You do not need any programming skills to define the content of the **Open Module**, configuring is the only thing you have to do.

The **Open Module** consists of three selection levels and contains the **Properties** system business object and ten freely definable business objects which can be fully customized to suit your organization's needs.

## Interaction with other Planon ProCenter TSIs

Configuring free business objects in **Field Definer** is similar to configuring system business objects such as **Personnel** and **Properties**.

Like any other TSI, the **Open Module** can be configured in TSIs .

For configuring authorization also the same functionality is available in **Authorization** as for the other business objects.

After you have configured the **Open Module**, you should use the Navigation Panel TSI to make the **Open Module** available to end users.



For more information on configuring business objects, refer to *Field Definer*.

For more information on configuring TSIs, refer to *TSIs* .

For more information on configuring authorization, refer to *Authorization* and *Accounts*.

For more information on making TSIs available to end users, refer to *Navigation Panel* .

# Open Module - Concepts

This section discusses the following concepts in the **Open Module** and explains how they are connected

- [Business objects - Open Module](#)
- [Reference date in Open Module](#)
- [Selection levels and steps](#)
- [Fields in Open Module](#)

## Business objects - Open Module

In Planon ProCenter , a business object (BO) is a logical unit of functionality that refers to a facility management or real estate concept. For example: properties, work orders, requests, budget types.

The Open Module includes 48 free, definable business objects, in addition to the system-defined **Properties** business object. The Free BOs (1-48) and the Free History BOs can be configured to suit your organization's needs. You can create actions (BOMs) and also add your own statuses and status transitions.

The free business objects include:

- 17 simple business objects (Free1-6, Free11-12, Free16-18, Free21-26)
- 31 hierarchical business objects (Free7-10, Free13-15, Free19-20, Free27-48)
- Free business object 46, Free business object 47 and Free business object 48 support the [approval feature](#).
- Free business object 1-45 are translatable - see [Making free business objects translatable](#).



- For more information on creating and configuring user-defined business objects and statuses, see [Field Definer](#).
- For more information on transferring your configured items from one environment to another, see Configuration Transfer.

## Making free business objects translatable

As described in [Business objects - overview](#), Free 1 - 45 are translatable.

This topic describes how to make these business object translatable.

## Procedure

1. Go to **Layouts** , select your business object and navigate to **Layouts** level.
2. Select the layout and put it **Under construction**.
3. Click the layout panel to enable it, and drop the **Translated name** field (LangFieldDetail) from **Unused fields** there.
4. Save the changes and switch the layout to **Completed**.

**You can now translate the business object.**

5. Go to **Field definer** , find you business object and put it **Under construction**.
6. Go to **Details** level > **Fields**, find the **Translated name** field and provide a translation in the appropriate language.
7. Switch the business object to **Completed**.



If you export your language, the new translated name will be included in the language file.

## Reference date in Open Module

A reference date can be used for all free business objects. In **Field Definer**, you can specify for each free business object whether you want to use a reference date.



For more information on this subject, refer to *Field Definer*.

In the **Open Module**, a reference date can be set at the **Components** and **Data** selection levels to be able to retrieve specific time-dependent data. By default, the system date is the reference date, but you can select any other date from the date picker, whether it is in the past or in the future.

Once a reference date has been selected, your elements list will be filtered on this date. In other words, the filter on the reference date is by default activated.

The elements list will only display the elements that are valid on the reference date, i.e. elements whose begin date is earlier than or equal to the reference date and whose end date is later than or equal to the reference date.

## Selection levels and steps




The **Open Module** displays the following five selection levels by default:

- **Properties:** is the first selection level, as in most standard ProCenter TSIs. It lists all the properties available in Planon ProCenter.

- **Components**: is the second selection level. It can have a step for any of the Free BOs 1-45.
- **Free data 1**: The third level. It consists of 12 selection steps for free business objects 4, 5, 6, 9, 10, 21, 29 and 31-35 among which 9, 10, 29 and 31-35 are hierarchical free business objects. This level also consists of five free history BOs 1, 2, 3, 7 and 8.
- **Free data 2**: The fourth selection level. It consists of 13 selection steps for free business objects 11, 12, 13, 14, 15, 22, 23, 30 and 36 - 40 among which 13, 14, 15, 30 and 36-40 are the hierarchical free BOs. This level also consists of free history BOs 4, 5, 6, 9, 10, 21, 29 and 31-35.
- **Free data 3**: The fifth selection level. It consists of 15 selection steps for free business objects 16, 17, 18, 19, 20, 24, 25, 26, 27, 28 and 41 - 45, among which 19, 20, 27, 28 and 41 - 45 are hierarchical free business objects. This level also consists of free history BOs 11, 12, 13, 14, 15, 22, 23, 30 and 36 - 40.
- **Free History**: The sixth selection level. It consists of 15 free history BOs 16, 17, 18, 19, 20, 24, 25, 26, 27, 28 and 41-45.

Along with the five default selection levels, you can also configure **Components** selection level. On configuring it, **Components** appear as the second selection level next to **Properties**.

The **Components** selection level consists of several selection steps for every system business object that can be chosen for a free string field or for a free integer field. The steps are based on the existing business objects, such as Orders, Departments or Spaces. These steps can be activated through **TSI Manager**.

	<p>For more information, refer to the <i>TSIs</i> user documentation.</p>
	<p>It will not be possible to edit the business objects on the steps which are not for a free business object. The business objects will be read-only. Although you can configure the actions in <b>TSIs</b> , they will not become available on the steps.</p>
	<p>For more information on making inactive selection levels and steps active in <b>TSIs</b> , refer to <i>TSIs</i> .</p>

Contrary to the other TSIs, the drill down flow for the **Open Module** is not restricted. It is possible to descend from every business object on each selection level or selection step to every lower selection level or selection step.

## Fields in Open Module

In Planon ProCenter, a free business object contains fixed and free fields. The free fields have the following field types:



- Free string fields
- Free integer fields
- Free date/time fields
- Free numerical fields
- Free string extended



For more information on field types, refer to the Field types section in *Field Definer*.

Fixed fields are system fields and fields needed for general functionality, such as the **Code** and **Name** fields. By default, the fixed non-system fields are visible on the **Open Module**'s second and third selection level. If required, you can hide fields in **Field Definer** or **TSIs**.

For a description of the available fixed fields, refer to [Fixed fields](#)

The **Start date** and **End date** fields should only be used in combination with the reference date functionality.

If you do not want to use a reference date, you should not use the **Start date** and **End date** fields. Instead, you may use 'regular' date/time fields.

By default, the system date is the reference date. After clicking **Reference date (...)** in the toolbar, you can use the date picker to select another reference date.



If you set a reference date in – for example – **Spaces & Workspaces**, this reference date will also be active in the **Open Module**.

## Four eyes principle

The *four eyes principle* is a requirement that a certain business transaction must be reviewed, double-checked and approved by a second person. With the **Approval** feature in Planon, important changes always have to be approved by a second person before the changes are actually implemented. For more information, see [Using approvals](#).

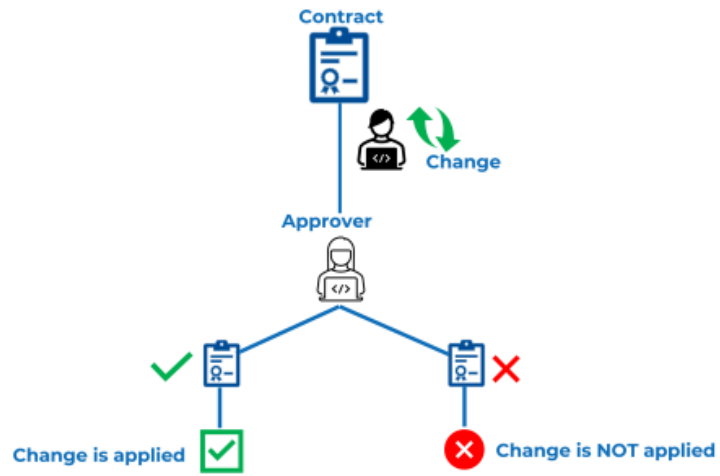
In Planon, the four eyes principle can be used for the following business objects:

- Contracts
- Contract lines
- Special lease amounts
- Contract options
- Properties and property details
- Free business objects 46, 47 and 48 (Open Module)



By default, Planon supports an approval process with one approver. If your organization wants to use more approvers, you have to configure this (TMS).

Planon also supports the approval process for changes imported through data import tools such as Enterprise Talk and SDI. The imported changes trigger approvals when they meet the approval conditions.



# Configuring Open Module

This section provides information on how to configure and customize the **Open Module**.

When configuring the **Open Module**, you complete the following steps:

- In **Field Definer**, configure the free business object(s) that you are planning to use. Refer to [Configuring free business objects in Field Definer](#).
- In **TSIs**, configure the **Open Module**'s selection levels and selection steps, define navigation actions, link TSI filters etc.
- In **Navigation Panel**, make the **Open Module** available to end users. In order to make the **Open Module** available to end users, you have to link it to a launch group and user group. To do this, use **Navigation Panel**, which enables you to configure the navigation panel for each user group by defining the available navigation groups and items.



For more information on configuring TSIs, refer to *TSIs*.

For more information on the **Navigation Panel** TSI, refer to *Navigation Panel*.

## Configuring free business objects in Field Definer

Proceed as follows to configure free business objects in **Field Definer**.

### To configure business objects in Field Definer

Procedure

1. At the Business Objects level, select the free business object that you want to configure.


At this selection level, you can enter a description for the business object, select an icon, enable the use of a reference date, activate authorization etc.




For more information on the business object settings you can make at the **Business Objects** selection level, refer to the Making General Business Object Settings section in Field Definer.

2. At Details > Fields, you can set field properties and enter a translation for the business object's fields that you want to use. Note that free fields can be used to create references between the selected free business object and another business object, either free or existing. For more information on this subject, refer to Creating references between business objects.

 Note that you should always enable the **In use** field property for each field you want to use.

 For more information on the available fields of a free business object, refer to [Fields](#). For more information on setting field properties at the **Fields** selection step, refer to the Making Field Settings section in the Field Definer.

3. At Details > Statuses, you can specify user-defined statuses for the free business object, if required.

 For more information on creating user-defined statuses, refer to the Creating User-defined Business Objects section in Field Definer.

## Creating references between business objects

You can create the following references between business objects:

- Reference from a free business object to another free business object
- Reference from a free business object to an existing business object
- Reference from an existing business object to a free business object

The various reference types are explained in the following sections.

### Reference from a free business object to another free business object

To ensure correct drill down behavior in the **Open Module**, you should create a reference from one free business object to another free business object. You can do this by using a free field and configure it as a reference field.

#### *Example*

End users should be able to descend from free business object 1 at the second selection level to free business object 5 at the third selection level.

#### **Procedure**

1. In **Field Definer**, select **Free business object 5** and set its status to **Under construction**.
2. In **Field Definer**, go to the **Details** selection level.
3. Select a free field and set the **In use** property to **Yes**.
4. In the **Field type** field, select **Free 1**.
5. Enter a translation for this field, for example **Free BO 1**, and save your settings.

You have now created a reference field that refers to free business object 1.



For more information on configuring a free field as a reference field, refer to the *Modifying the field type* section in *Field Definer*.

6. Go back to the **Business Objects** selection level and set the status of **Free business object 5** to **Completed**.
7. In **TSIs** , select **Open Module**.
8. Descend to the **TSI** selection level, and select the layout of **Free step 5**.
9. On the action menu, click **Jump to > Layouts** and set the status of the layout to **Under construction**.
10. Add the free field **Free BO 1**, which you added to **Free > business object 5** in **Field Definer**, to the layout.
11. Save your settings and then set the layout's status back to **Completed**.

## Reference from a free business object to an existing business object

At the **Open Module**'s second selection level, the existing system-defined business objects are available, such as the **Orders**, **Spaces**, **Addresses** and **Persons** business objects. You can make a reference from a free business object at the **Open Module**'s third selection level to an existing business object at the second selection level – for example **Spaces**.



If **multiple** (either fixed or free) fields are present on the third level that refer to the same business object on the first or second level, then no drill-down filtering is used. So all business objects are shown as if no drill-down selection was made.

### *Example*

At the second selection level, the **Spaces** step has been added. At the third level, free business object 4 has been configured as **Courses**. For end users this means that they can select a space at the second selection level and descend to the third level to retrieve the courses linked to that space.

### *How to configure this?*

#### **Procedure**


1. Add the **Spaces** step in **TSIs** .




For more information on adding selection levels and steps in **TSIs** , refer to *TSIs* .

2. In **Field Definer**, select **Free business object 4**, and set its status to **Under construction**.
3. Enter a translation for the free business object 4, for example **Courses**.
4. Descend to the **Details** selection level, select a free field (this can be a free integer field or a free string field), and set the **In use** property to **Yes**.

5. Change the field type of the selected free field to **Space**.  
You have now created a reference from the free business object **Courses** to the existing business object **Spaces**.

 For more information on configuring a free field as a reference field, refer to the Modifying the field type section in the *Field Definer*.

6. Enter a translation for this field, for example **Space**, and save your settings.
7. Use 'regular' date/time fields if you want to register the start date/time and end date/time of a course.
8. Enter a translation for the date-time fields field, for example **Start date/time of course**, and **End date/time of course**, and save your settings.

 The **Start date** and **End date** fields should only be used in combination with the reference date functionality. If you do not want to use a reference date, you should not use the **Start date** and **End date** fields. The **Start date** and **End date** fields can be removed using **Layouts** .

9. Go back to the **Business Objects** selection level and set the status of **Free business object 4** to **Completed**.
10. In **TSI Manager**, select **Open Module**.
11. Descend to the **TSI** selection level, and select the layout of **Free step 4**.
12. On the action panel, click **Jump to Layouts**, and set the status of the layout to **Under construction**.
13. Add the free fields **Space**, **Start date/time of course**, and **End date/time of course**, which you added to free business object 4 in **FieldDefiner**, to the layout.
14. Delete the **Start date** and **End date** fields from the layout.
15. Save the settings and then set the layout's status back to **Completed**.

## Reference from an existing business object to a free business object

With this type of reference you can make link between an existing business object from an existing TSI (for example Visitors) and a free business object in the **Open Module** (for example Courses).

### *Example*

In the **Personnel** TSI, it should be possible to register the course a visitor attends. To achieve this, you as a Planon administrator can create a reference field that refers to the free business object **Courses** in the **Open Module**.

For the **Open Module**, the Planon administrator can create a navigation action with which the visitors linked to a specific course can be retrieved.



For more information on creating navigation actions, refer to *TSIs* .

### How to configure this?

#### Procedure

1. In **Field Definer**, select the **Visitors** business object, and set its status to **Under construction**.
2. Descend to the **Details** selection level, select a free field and set the **In use** property to **Yes**.
3. Set the field type of the selected free field to **Free business object 4**.
4. Enter a translation for the free field, for example **Course**, and save your settings.



For more information on configuring a free field as a reference field, refer to the *Modifying the field type* section in the *Field Definer*.

5. Go back to the **Business Objects** selection level and set the status of the **Visitors** business object to **Completed**.
6. In *TSIs* , select **Personnel** .
7. Descend to the **TSI** selection level, and select the layout of **Visitors**.
8. On the action panel, click **Jump to Layouts** and set the status of the layout to **Under construction**.
9. Add the free field **Course**, which you added to **Free business object 4** in **Field Definer**, to the layout.
10. Save the settings and set the layout's status back to **Completed**.



If you have created a reference from a business object at the third selection level of the **Open Module** to a business object at the second selection level, you have to make sure that the corresponding step is active. Some steps are not available by default; these steps have to be added using **TSIs** .  
For more information on which steps are available by default, refer to [Selection levels and steps](#).

## Keeping a history on free business objects

In the **History** selection steps at the third and the fourth selection level, a free business object's history, i.e. the modifications which have been made to certain free business object's fields, can be entered. The **History** steps are not active by default and must be activated in **TSIs** to see them in the **Open Module**.



For every free business object at the second selection level a history selection step exists at the third selection level. For every free business object at the third selection level a history selection step exists at the fourth selection level.



For more information on adding selection levels and steps in **TSIs** , refer to *TSIs* .

If you have the appropriate authorization, you can manually add a history of changes to the selected free business object, via the action menu. Any comments you may want to make on changed data for the selected free business object can be specified in the **Comment** field and subsequently saved.

It is also possible to keep track of modifications automatically. In the **Field Definer** TSI, the functional application manager or a user with similar authorization can enable an automatic **History** option for individual free business object fields. It is possible to indicate per individual field whether a history should be registered. This means that any modifications in the field concerned will be saved automatically in a log file. The results of any field changes will show on the several **History** selection steps.



For more information on changing field characteristics using Field Definer, refer to *Field Definer*.



# Open Module – Field Descriptions

## Fixed fields

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<b>Field</b>	<b>Description</b>
Code	In this field you can enter a code for the business object.
Code	In this field you can enter a code for the business object.
Name	In this field you can enter a name for the business object.
Start date	This field should only be used if you are planning to work with a reference date. If you are using a reference date, the Start date field will be automatically populated with this date.
End date	This field should only be used if you are planning to work with a reference date. In this field, an end date can be specified for the business object.
Parent level	<p>If a free business object is a lower-level business object (sub), this field is used to specify the ID code and a description of the main free business object. You can add a lower level free business object (sub) to a main free business object by selecting one from a pick list.</p> <p>This feature is only available for hierarchical free business objects.</p>

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# Index

## A

Approvals 9

## B

Business object  
Translatable 6

## F

Four eyes principle 9  
Free BO 6  
Free Business object 6  
Free business object history 15

## O

Open Module  
Selection levels and steps 7  
Open Module:About 5  
Open Module:Configuration 11  
Open Module:Interaction with other  
TSIs 5

## R

Reference date:Open Module 7  
References between business objects  
12