



AUCOTEC
Create Synergy – Connect Processes

Engineering Base

Tendering Manager

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1 General

With **the Tendering Manager** Engineering Base offers a wizard by means of which projects or parts of projects can be compared with each other. This wizard enables you, e.g., to process or revise parts of projects separately, compare versions and integrate those into a main project again.

The Tendering Manager has a license of its own and may be used with any EB module. It is included in the following licenses:

- Instrumentation Plant Design
- Instrumentation Basic Engineering
- Instrumentation Pro

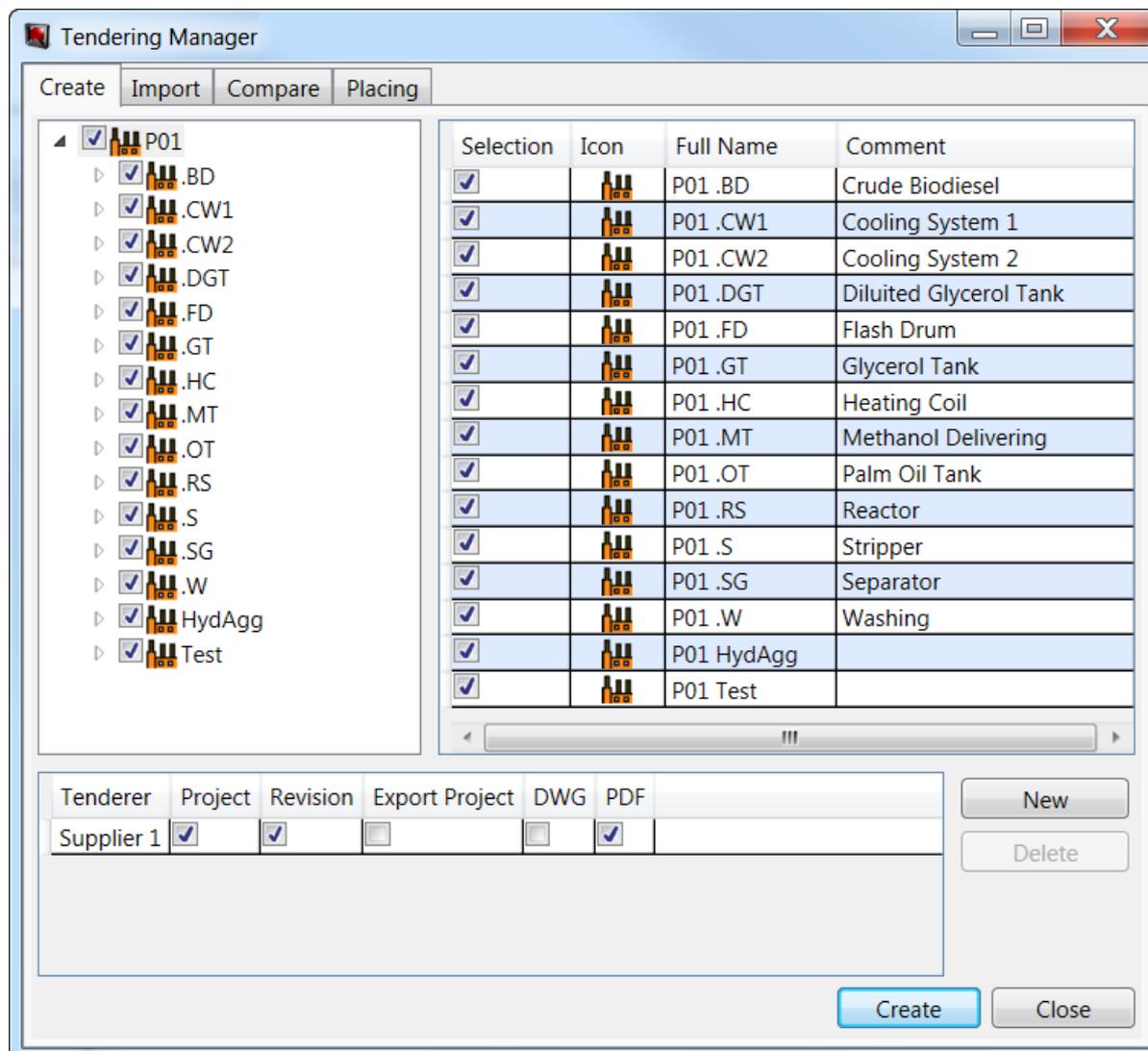
The Tendering Manager is subdivided into four functions that can be selected via the tabs of the main dialog.

1. **Create function:** Enables the export of a project or of parts of a project. So not only a transfer file (*.exp) is created but a new project with the same name is created in Engineering Base.
2. **Import function:** Enables the comparison of project containers, data sheets or external documents. A new project is automatically created.
3. **Compare function:** Enables the comparison of one or several selected projects with the main project. The differences are marked.
4. **Placing function:** Enables the insertion of parts of a project into the main project.

The **Tendering Manager** is started in the Explorer on the project or functions level via the context menu or under Assistants with **Tendering Manager**.

2 Create

By means of this function a project or parts of a project are exported.



The Create dialog of the Tendering Manager is subdivided in three parts.

- The project tree and its functions are shown on the left-hand side. The functions to be transferred can be selected here.
- On the right-hand side additional information on the selected functions, e.g. comment, is shown.
- In the lower window, the export project is defined
 - Use **New** to define a new transfer project
 - Use **Delete** to delete the definition of a transfer project.

The following parameters can be defined:

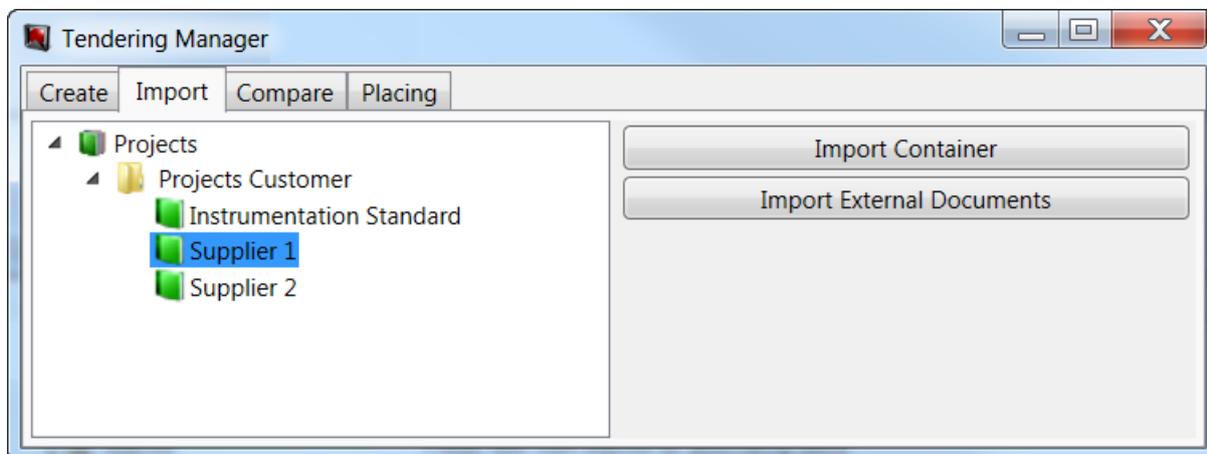
Parameter	Meaning
Tenderer	Here you can enter the name of the transfer project (e.g. name of the supplier).
Project	The currently selected functions are stored as transfer project in the database.

Parameter	Meaning
	<p>To export the transfer project or create an output as DWG or PDF, this parameter must be marked.</p> <ul style="list-style-type: none"> <input type="checkbox"/>  Supplier 1 Export 1 <input type="checkbox"/>  Supplier 2 Export 1 <input type="checkbox"/>  Terminal Block Connection Diagram Example <input type="checkbox"/>  Recycle Bin <input type="checkbox"/>  Catalogs <input type="checkbox"/>  Dictionaries
Revision	A revision status is assigned to the documentation.
Export Project	The currently selected functions are stored as an export container outside of Engineering Base. A file selection dialog opens.
DWG	Drawings are stored as DWG files. A file selection dialog opens.
PDF	Drawings are stored as PDF files. A file selection dialog opens.

Use **Create** to start the data export.

3 Import

By means of the import function you can import project containers, datasheets and external documents. The project and the objects to be imported have to be specified.



The import dialog of the Tendering Managers is subdivided in two parts.

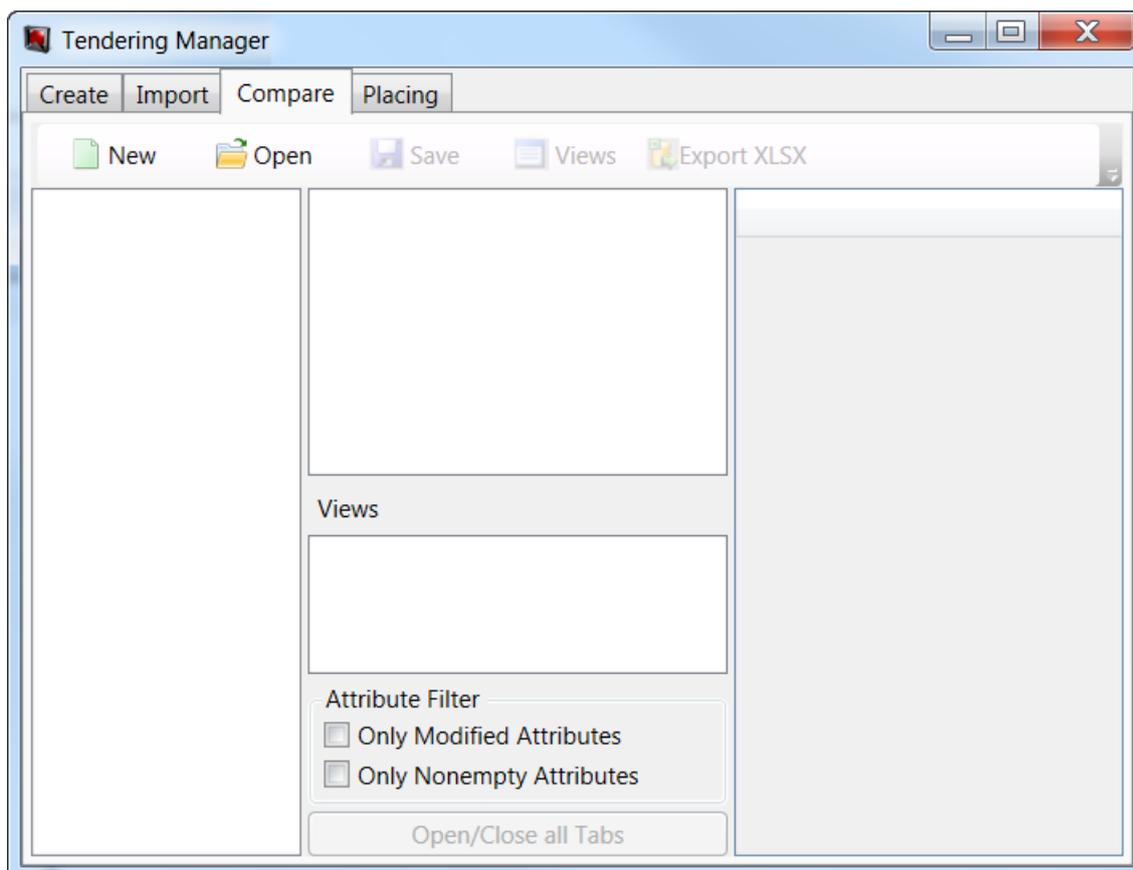
- On the left-hand side you can select the project into which the data is to be imported.
- On the right-hand side you can select the data to be imported. Please select:
 - **Import container** to import a complete data container.
 - **Import external documents** to import external documents.

4 Compare

By means of the compare function of the tendering manager you can compare several projects with the main project. The differences are shown.

To enable comparison of the attribute entries of the compared projects, the objects must be defined one-to one, otherwise a comparison is impossible.

Upon selection of the tab **Compare**, the still empty Compare dialog is shown.



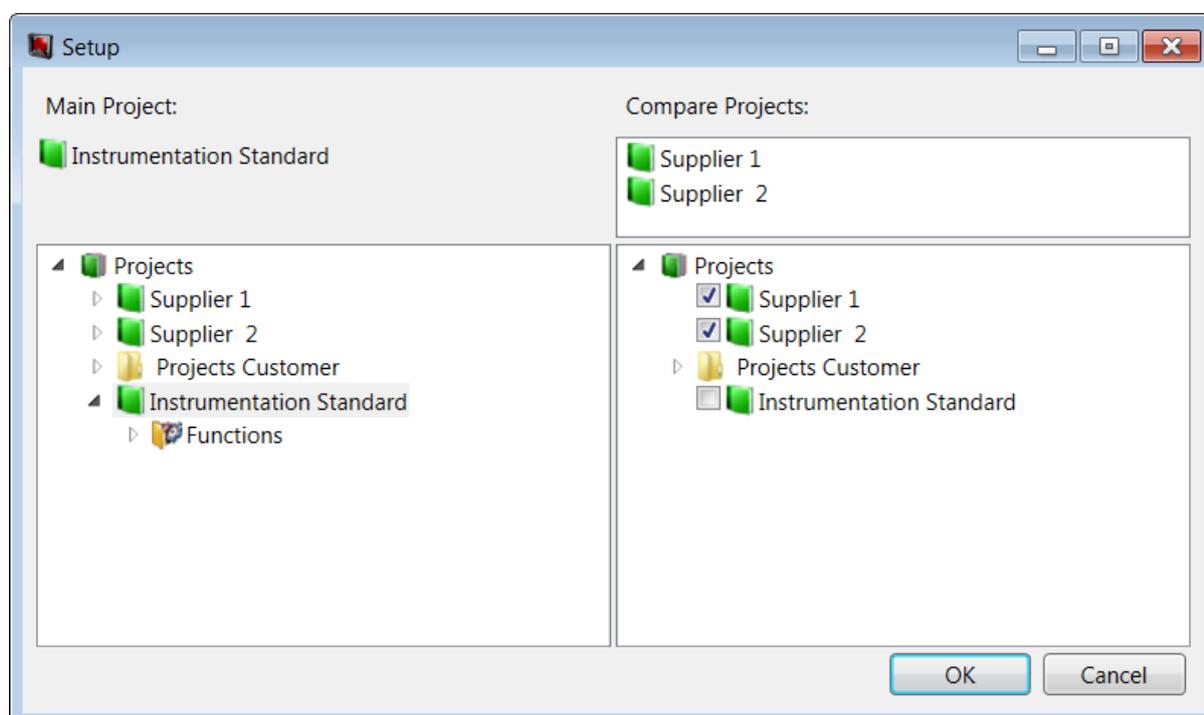
The desired action is selected via the toolbar.

Action	Meaning						
New	With New , the dialog Setup is displayed where you can specify the main and the compared projects (see 4.1 Creating a new comparison).						
Open	<table border="1" data-bbox="778 1659 1337 1921"> <thead> <tr> <th>Name</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>Instrumentation Standard, Supplier 1</td> <td>04.04.2014</td> </tr> <tr> <td>Instrumentation Standard, Supplier 2</td> <td>02.12.2014</td> </tr> </tbody> </table>	Name	Date	Instrumentation Standard, Supplier 1	04.04.2014	Instrumentation Standard, Supplier 2	02.12.2014
Name	Date						
Instrumentation Standard, Supplier 1	04.04.2014						
Instrumentation Standard, Supplier 2	02.12.2014						

	The dialog Open comparison is displayed, where the stored comparisons of a selected project are shown. Open the selected comparison with OK or a double click.
Save	Stores the current comparison in the folder Documents\Tendering of the main project.
Views	The dialog Views is shown, where you can define or delete viewing filters (see 4.2 Configure Views).
Export XLSX	The current comparison is exported as EXCEL file, a file selection dialog is shown.

4.1 Creating a new comparison

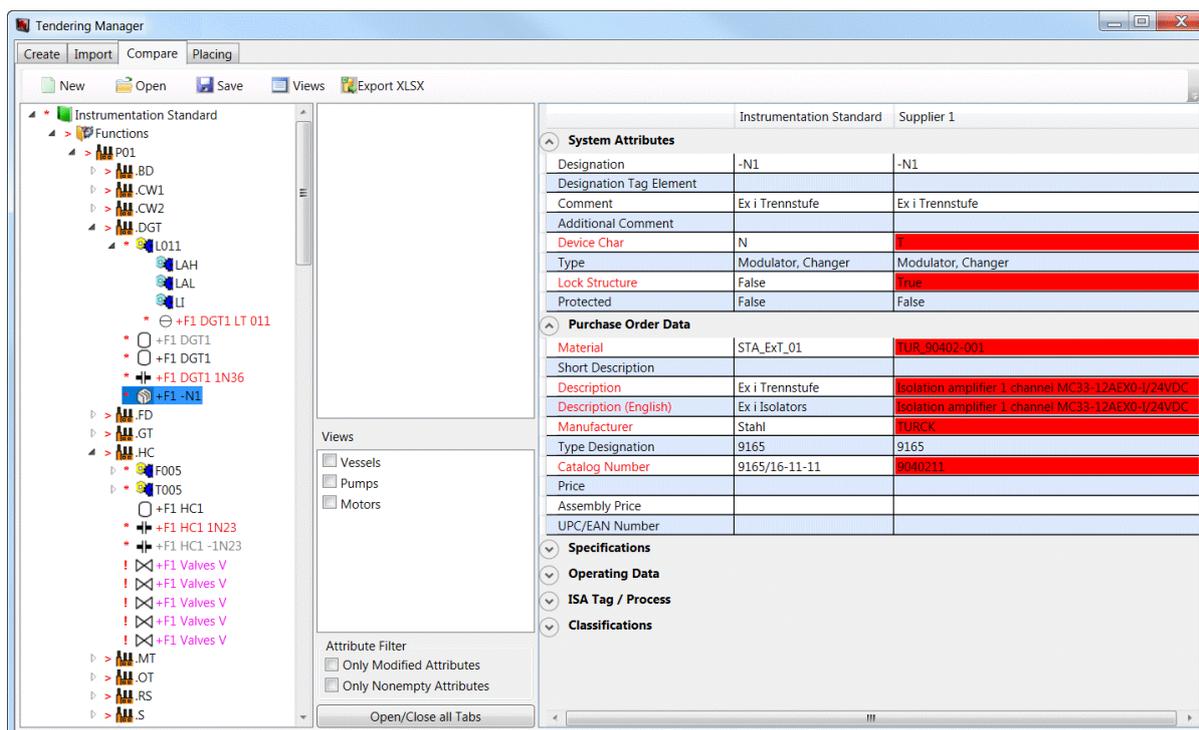
When **New** is selected, the **Setup** dialog is displayed.



The dialog is subdivided into the sections **Main project** and **Compared projects**.

- The project where the assistant was started is shown as the main project. You can change this selection by marking another project in the left-hand tree.
- The compared projects are selected in the right-hand tree by ticking them. The selected projects are shown on the upper right.
- The projects last exported with the tendering manager are automatically ticked and shown in the upper right section of the window. If these projects are not to be used for comparison, then the ticks must be removed.

The button **OK** starts the comparison of the projects, and in the main dialog the attributes of the selected projects are displayed side by side.



The displayed compare dialog shows the attributes of the projects that are compared. The settings of the level configuration are taken into account.

The window is subdivided in three parts:

Markings in the tree

The markings in the tree of the main project shown indicate differences in the compared projects.

Marking	Meaning
> (in red)	Underneath the object thus marked there are differences between the compared projects.
* (in red)	<p>This object indicates differences between the main and the compared project.</p> <p>Object name shown in black:</p> <p>The object was changed in or newly added to the compared project. The attributes of the compared project not matching the main project are shown shaded in red.</p> <p>Object name shown in gray:</p> <p>The object was deleted in the compared project. The attributes of the deleted object are shown shaded in dark red in the column of the compared project.</p>
! (in red)	<p>Object name shown in magenta:</p> <p>The objects thus marked are not defined one to one (designation, object ID, type ID). These objects cannot be compared. The attributes of the compared project are shaded in magenta.</p>

Limiters for the shown attributes

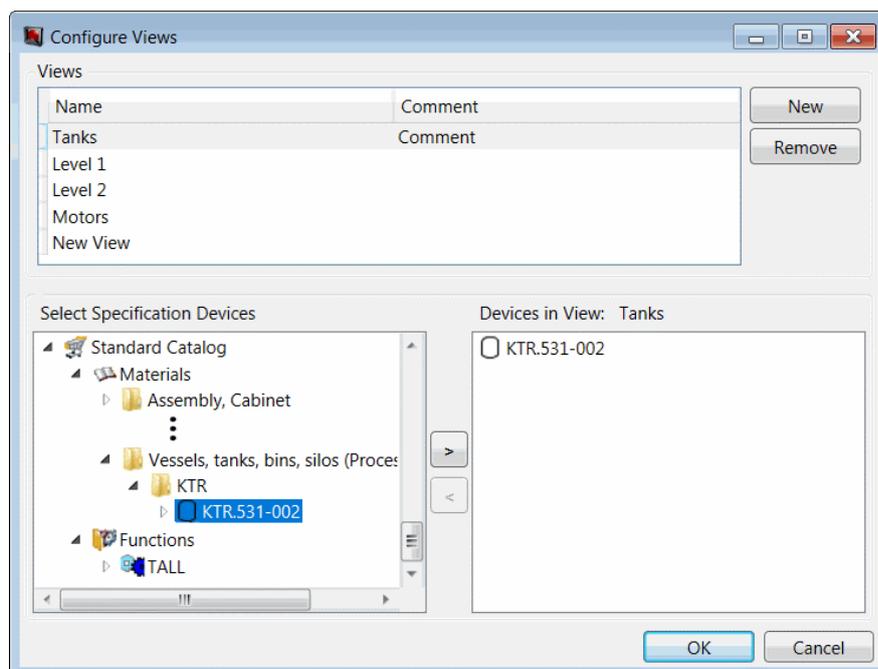
You can use parameters to restrict the attributes displayed in the comparison area on the right-hand side of the dialog.

- **Views:** List of defined views that can be used for the comparison. A multiple selection is not possible (see 4.2 [Configure Views](#)).
- **Tab Filter:** Selection of groups of attributes of the selected object (system attributes, order data etc.) that are to be displayed.
- Attribute Filter:
 - **Only Modified Attributes:** Only attributes changed in the compared projects are shown.
 - **Only nonempty attributes:** The display of empty attributes is suppressed.
- **Open/Close all Tabs:** Opens all tabs if they are closed and closes all tabs when at least one is open.

4.2 Configure Views

When comparing the projects always all devices with their attributes are compared. Using views, filters can be defined so that only selected specification devices or specification functions are displayed. The specification catalog defined in the project settings is used as the basis for the selection.

The dialog **Configure Views** opens after selecting **Views** in the toolbar.



How to create a new view

1. Click on **New**.
2. Click on the line New View.
3. Use the fields shaded in blue to enter the name and a comment for the view. The comment is shown as tooltip in the selection list view.

Use **Select Specification Objects** to select a specification object or a folder.

Use either the arrow key  or a double click to add the selected specification object to the list **Objects in View**.

4. To remove an object from this list, use either a double click or the arrow key .
5. Click on **OK** to store the view.

The configurations are stored in the project templates.

Within the views list, you can jump with the tab key.

The selected view is removed from the list with **Remove**. There is a query whether the view is to be deleted.

Abort terminates editing of the Views configuration. If changes were made, there is a query whether or not these are really to be executed.

You can change a view by marking it in the Views list and then making the corresponding change in the configuration. The changes are stored with **OK**.

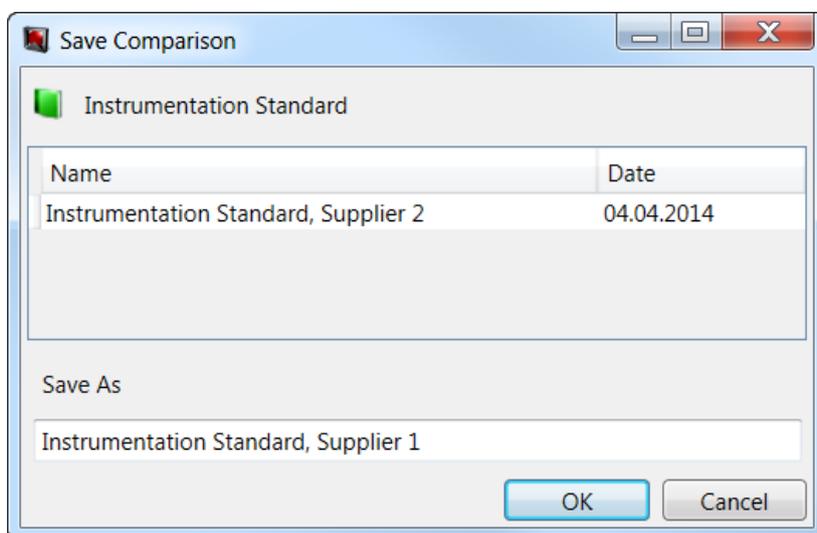
If the project is write protected, then the user is alerted to the fact that saving is impossible.

If level configurations were defined in the project catalog and a level is set in the project, then the display of the attributes depends on the current level configuration. If a view has the same name as a level, then this view is automatically marked when the comparison is made.

4.3 Save Comparison

You can store the results of the current comparison in the main project; all configurations such as selected views and filters are also stored. The comparisons are stored in the projects under Documents/Tendering and can also be renamed or deleted there.

When you select **Save** in the toolbar, the dialog **Save Comparison** is opened.



The upper window of the dialog shows which compared results have already been stored.

In the input line **Save As**, a name is proposed that consists of the names of the compared projects, sorted alphabetically and separated by comma.

If the name of the stored comparison is marked, then this is adopted into the input line and can be overwritten.

If a comparison is to be stored under a name already given to a stored comparison, then there is a query whether the existing comparison is to be overwritten.

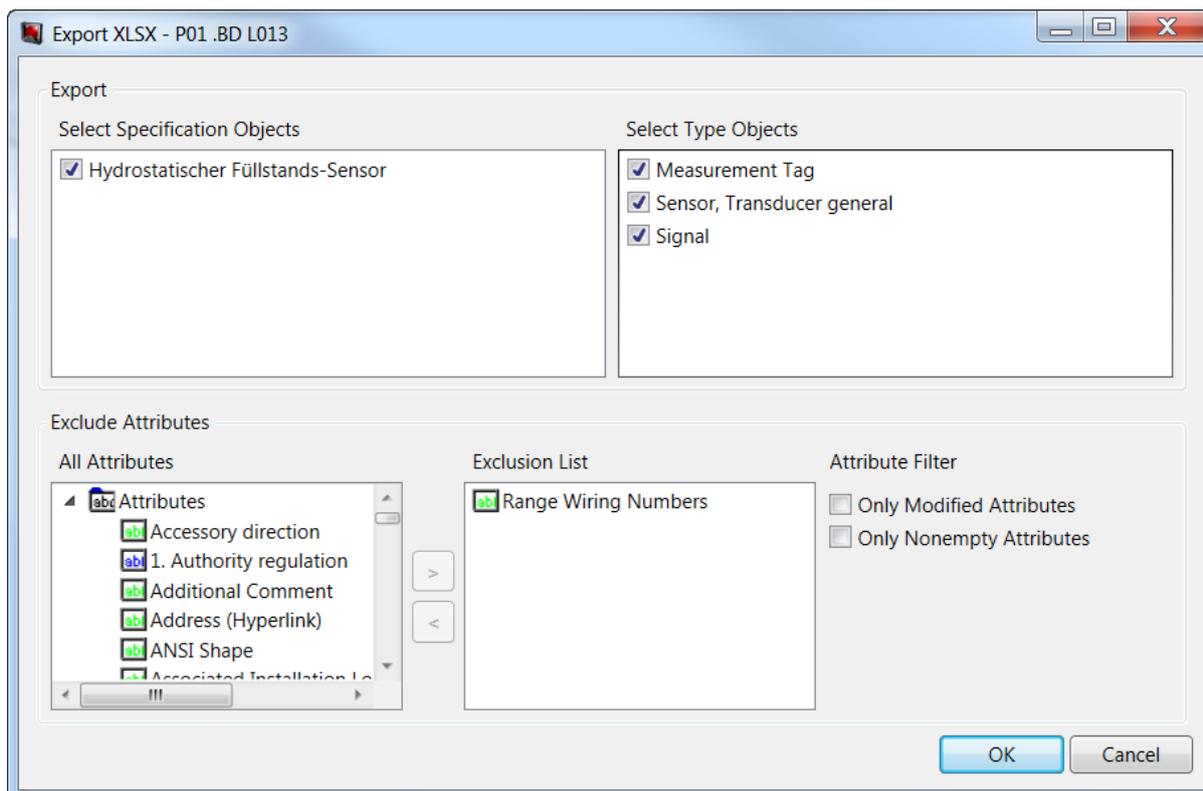
If the main project is write protected, the user is made aware that saving is impossible.

4.4 Export XLSX

The result of the current comparison can be output as EXCEL table.

The output can be realized per function or tag, these must be marked on the left in the tree of the main project.

Upon selecting **Export XLSX** in the toolbar, the export is started, and the dialog **Export XLSX** is shown. The dialog designation displays the start object (in the example: P01.BD L013). You can use the dialog to specify the output data more precisely.



The possible entries are:

- **Select Specification Objects:** The window lists all specification objects defined in the data. Mark the objects to be output. Multiple selection is possible.
- **Select Type Objects:** The window lists all object types present in the data. Mark the device types to be output. Multiple selection is possible.
- **Exclude Attributes:** Use **All Attributes** to mark the attributes that are not to be output. These are shown under **Exclusion List**.

Add the selected attribute to **the Exclusion List** either with the arrow key  or a double click.

To remove an attribute from this list, use either a double click or the arrow key . Multiple selection is possible.

- **Attribute Filter:**
 - **Only Modified Attributes:** Only attributes changed in the compared projects are shown.
 - **Only nonempty attributes:** The display of empty attributes is suppressed.

With **OK**, a file selection dialog is shown where you can specify the memory location and the name of the EXCEL file (by default the name of the main project).

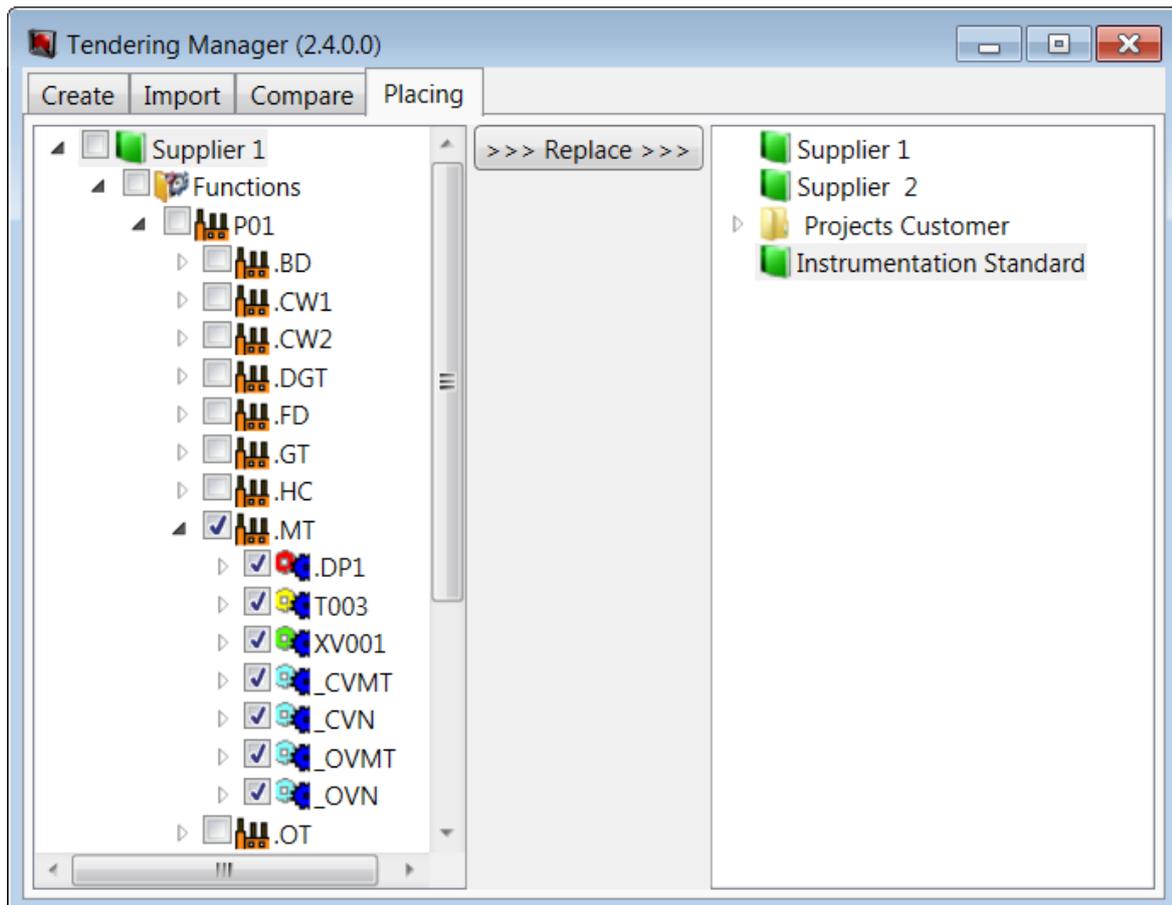
The selected files are shown as EXCEL file as follows:

	A	B	C
1	AC-Code	P01 .DGT -N1	
2	System Attributes	Instrumentation Standard	Supplier 1
3	Designation	-N1	-N1
4	Designation Tag Element		
5	Comment	Ex i Trennstufe	Ex i Trennstufe
6	Additional Comment		
7	Device Char	N	T
8	Type	Modulator, Changer	Modulator, Changer
9	Lock Structure	False	True
10	Protected	False	False
11	Purchase Order Data	Instrumentation Standard	Supplier 1
12	Material	STA_Ext_01	TUR_90402-001
13	Short Description		
14	Description	Ex i Trennstufe	Isolation amplifier 1 channel MC33-12AEX0-I/24VDC
15	Description (English)	Ex i Isolators	Isolation amplifier 1 channel MC33-12AEX0-I/24VDC
16	Manufacturer	Stahl	TURCK
17	Type Designation	9165	9165
18	Catalog Number	9165/16-11-11	9040211
19	Price		
20	Assembly Price		
21	UPC/EAN Number		
22	Specifications	Instrumentation Standard	Supplier 1
23	Input	Ex i analog	Ex i analog
24	Output	4-20 mA, Hart	4-20 mA, Hart
25	Protection Classification (IP)	IP30	IP30
26	Auxiliary Voltage	24V DC	24V
27	Short-Circuit Monitoring	<15 Ohm	<15 Ohm
28	Cable-Break Monitoring	>5 kOhm	>5 kOhm

5 Placing

Use the placing function to integrate the functions of a transfer project into a target project. A new project with the suffix "Placing" in the name is automatically created.

- ⊕  Instrumentation Standard
- ⊕  Instrumentation Standard Placing 1



The placing window is subdivided into three parts.

- On the left hand-side you can select the functions of the transfer project.
- The center contains the **Replace** button that starts the function. The button is activated if at least one function is marked in the transferred project and a target project is defined.
- On the right-hand side you can define the target project where the functions are to be integrated.