Engineering Base

New Features in Version 6.2.1

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1 New Features

1.1 New Features in this Version

We are glad to be able to offer you with this version of Engineering Base new features that have the potential to improve your productivity.

New feature	Background
Data exchange and integration of external systems	Complete and improve data exchange with external systems
New and enhanced wizards	Handling efficiency enhanced and new wizards added
Enhancement of Worksheets	More functionality and more options available
Enhancement of revision functionality	Supervise previous revisions states for improved tracking
Miscellaneous	More functionality, more options to configure EB and more user support

1.2 Migration of Data from Previous Versions

To convert data from previous Engineering Base versions, you must update the database with the database manager.

How to update a database:

1. Open the **database manager** via the Windows **start menu**.
2. In the **File** menu, click on **Update databases**.

   The wizard for updating the database is started. Follow the instructions.

 Databases from previous versions can only be accessed if they have been updated. Databases not matching the installed Engineering Base version are not displayed in the selection dialog.

2 Data Exchange and Integration of External Systems

2.1 Signals in PDF Project Export

The function **Convert to PDF** serving to export a project in PDF format, includes now signals, too.

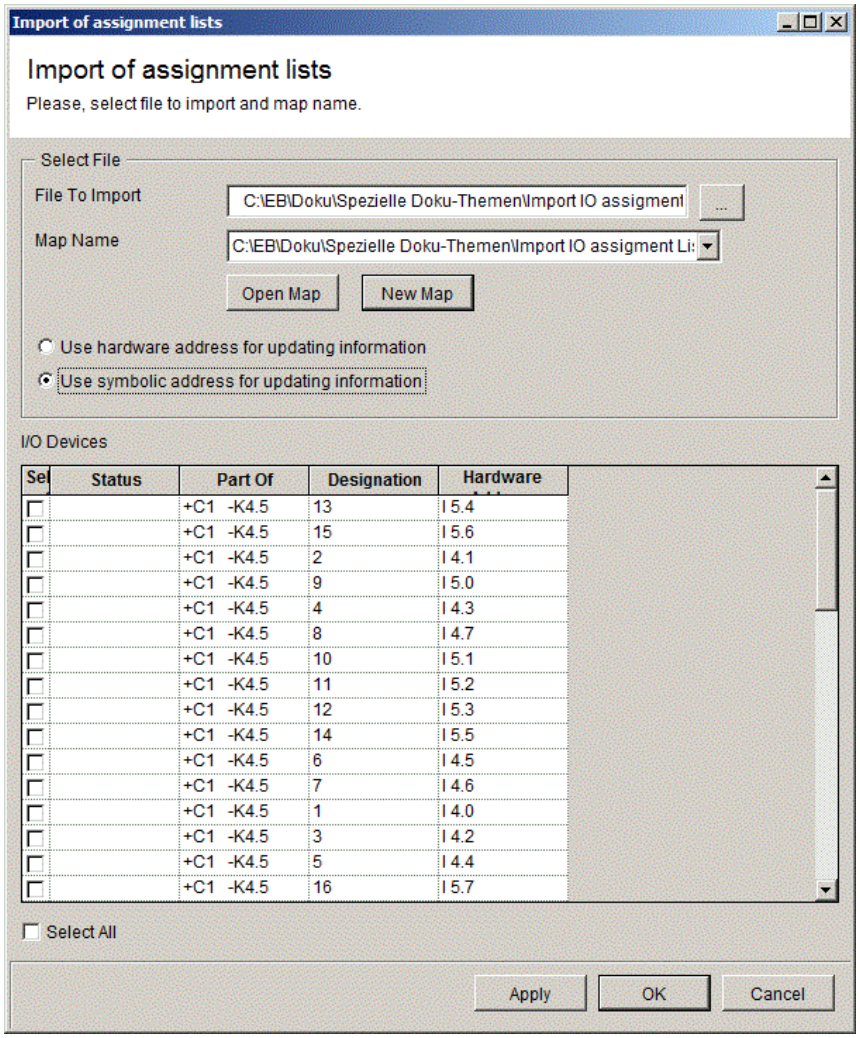
2.2 Attribute “Exclude from printing”

The attribute **Exclude from printing** in the **Open** dialog of sheets or drawings refers now equally to PDF export, MEx export, and printing. The attribute value of the drawing has higher priority than the one of the related sheet.

3 New and Enhanced Wizards

3.1 Import of I/O Assignment Lists

Engineering Base offers functionality to export assignment lists for I/O devices from their respective worksheets. But, up to now, there was no easy way to re-import them, in case, they had been modified externally. Now, with the **Import of assignment lists** wizard designed to import xls, xlsx, and csv files, Engineering Base provides a solution for this problem.



Dialog of the Import of assignment lists wizard

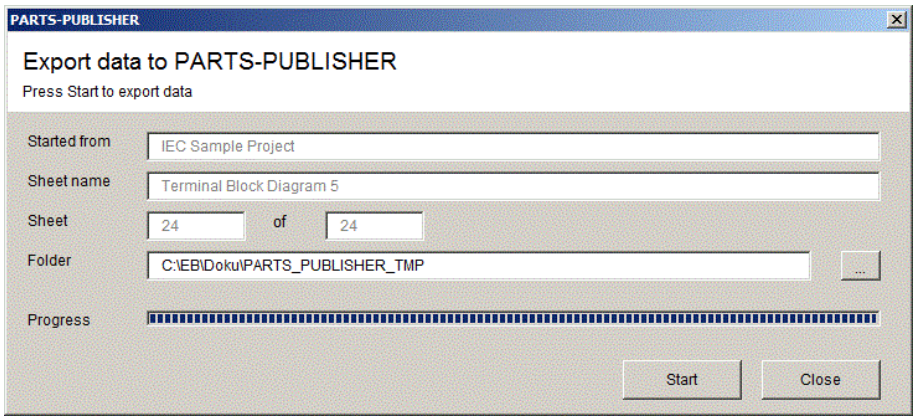
The **Import of assignment lists** wizard can be started from the **Equipment** folder, a location, or device (multiple selections are possible). You can choose between using the hardware address as identifier or the symbolic address as identifier for updating the information.

For the re-import to be both flexible and well-defined, a specification of how to map imported attributes to Engineering Base attributes is required. This map file can be created and edited using the **New Map** and **Open Map** button of the **Import of assignment lists** dialog.

3.2 PARTS-PUBLISHER

The newly added **PARTS-PUBLISHER** wizard serves to export all drawings of a project in TIFF format and to create an XML file in UTF8 format describing all items and parts of the project and how they are to be linked with the TIFF files via hotspots.

To run the **PARTS-PUBLISHER**, select the project you want to export and start the wizard from there using the shortcut menu.



PARTS-PUBLISHER dialog

Then, the progress of the export will be displayed by the progress bar in the field **Progress**. In the fields **Sheet name**, **Sheet**, and **of** are the name of the currently exported sheet, its sequence number within the number of sheets to be exported, and the total number of sheets to be exported displayed. Once, the export is finished successfully, a corresponding message is issued.

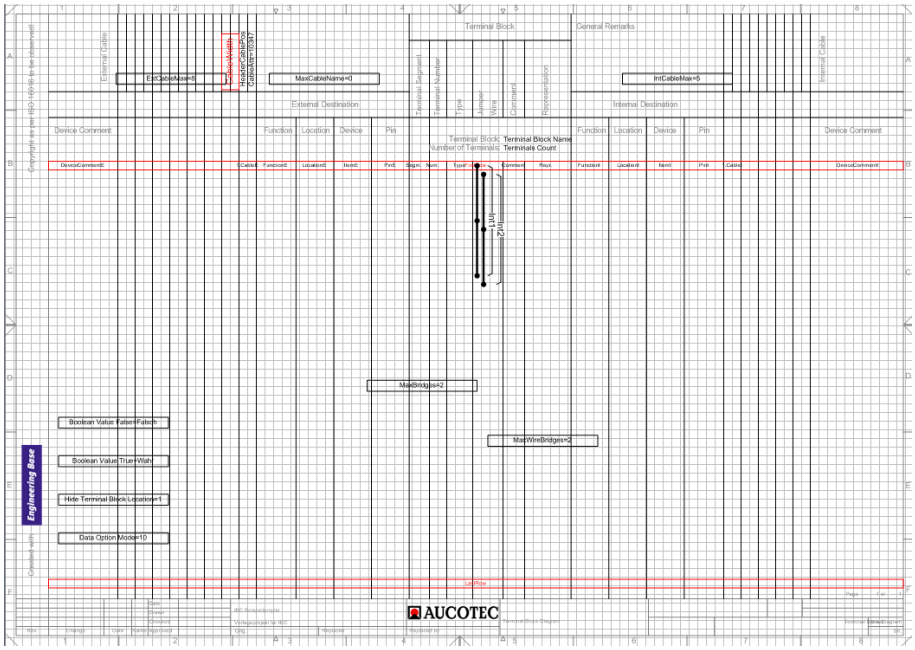
3.3 Delete Functions with Associations

Engineering base now offers a macro to delete functions together with the related associations: The macro **Delete Functions with Associations** can be started on any number of selected functions. It deletes the marked functions, its associated objects if they are either of type cable, device, sheet or wire, and to delete the child functions of the functions and the associated objects of the children if they are again either of type cable, device, sheet or wire. There is an UNDO function available for this macro.

3.4 Terminal Block Diagram

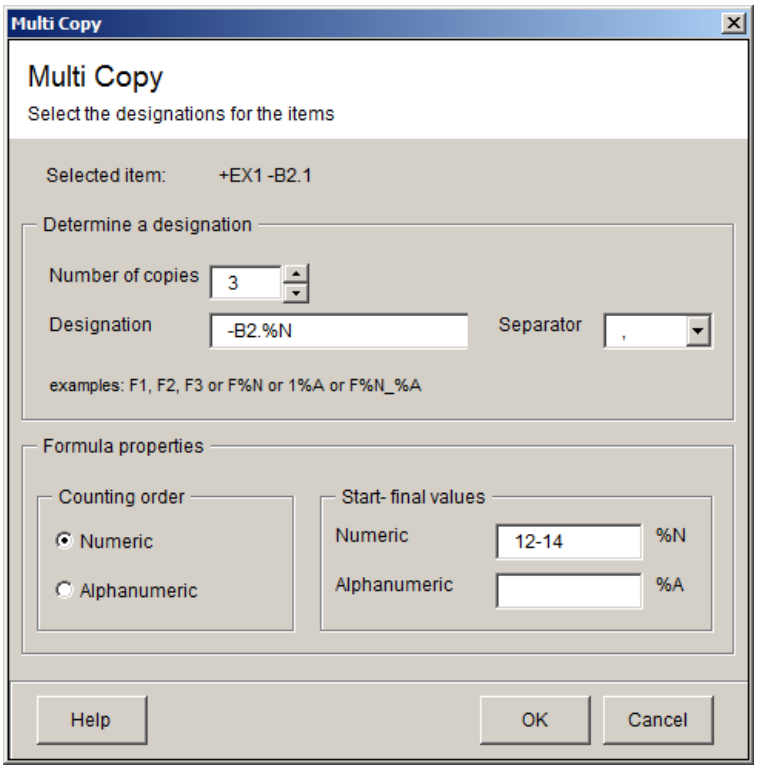
Up to now, changes on the terminal block diagram template were only possible by changing the XML description of the template using the macro **Terminal Block Diagram Config**. To facilitate graphical changes of the terminal block diagram, the macro was enhanced by an additional module, the **Terminal Block Diagram Open Template**.

The macro is started on the terminal block diagram template to be changed or on the current terminal block diagram, if only the current one is to be effected. After starting the macro, the template is opened in Visio (see figure below), and the parameters that can be changed are marked.



*The terminal block diagram template opened using the macro **Terminal Block Diagram Open Template**.*

3.5 Multi Copy



*The **Multi Copy** dialog*

The newly added macro **Multi Copy** can be executed on any object (device, pin, cable, function, folder, ...): It serves to create any number of copies of the marked object, and allows to determine the designation of the objects copied.

3.6 Equipment Diagram

The newly added assistant **Equipment Diagram** serves to create equipment diagrams, special documents mainly used in the electrical utilities domain to be able to list devices displayed in a distributed manner in a central list. For this purpose graphic symbols are used. The equipment diagram is basically available in two variants:

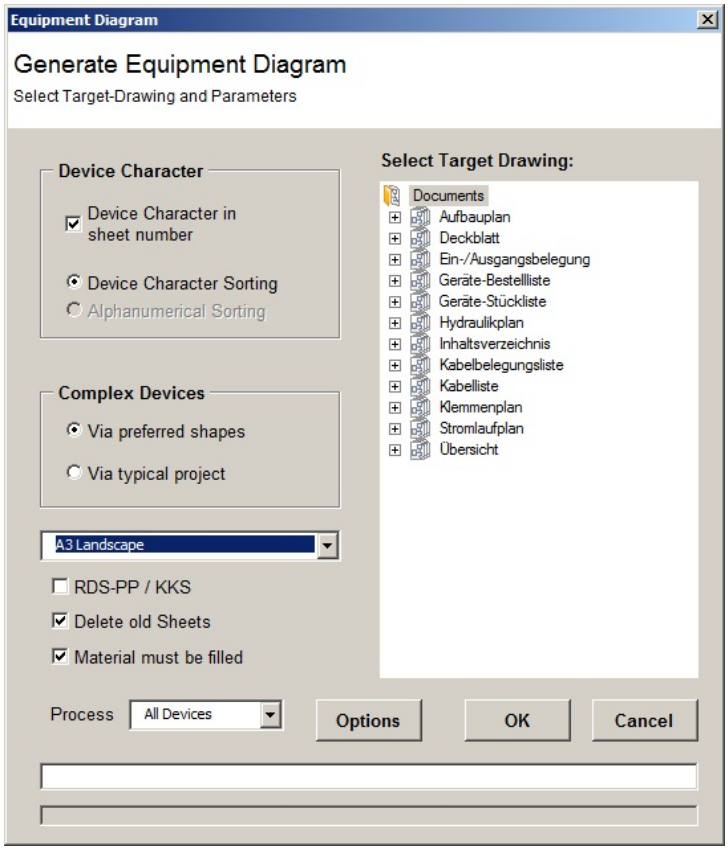
1. Equipment diagram for standard devices

A typical example for this are relays whose coils or contacts occur anywhere in the circuit diagrams. In the equipment diagram, a complete line symbol is placed once for the material number, where initially a graphic symbol for the complete device is displayed and subsequently other graphic symbols follow for each element, coil, main contact, N/C contact, etc. Underneath, the item designations and comments respectively are arranged for all pieces of equipment with the same material number, and the references to the elements are displayed along the line. This kind of device was already supported previously in EB via the symbol design with dynamic area.

2. Equipment diagram for large devices

In this context large device does not mean physical size but a complex interior structure. Only one of these large devices is represented per sheet or distributed over several sheets. Again the aim is to refer to all representations of the subordinate elements; however, in this case it is not reasonable to create a corresponding symbol with dynamic area or is not possible with justifiable effort.

To sensibly map large devices, a new pin type was introduced in symbol design that is addressed similar to the pin for wiring diagrams, namely via the pin name; this pin type is equipped with a reference to the pin representation in the circuit diagram independent of whether the pin there possesses a single-pin representation or is a pin within a symbol. In the circuit diagram a device frame is made available that has a reference to the representation in the resource schedule.



*The **Generate Equipment Diagram** dialog.*

The macro is started on the **Equipment** folder or on any object below **Equipment**: In the dialog Generate Equipment Diagram (see above), the following defaults are set:

- Device Character in sheet number
- Device Character sorting
- Large devices are created Via preferred shapes
- Delete old Sheets is switched on
- Attribute Material must be filled
- All code letters (All Devices) are handled

As needed, you can switch on **RDS-PP / KKS** to effect the use of Dev1_KKs* or rather DEV2_KKs* shapes for standard devices. Once, you have selected a target drawing and the sheet template, the **OK** button is activated and the generation can be started.

The **Options** dialog enables you to allow for standard names for stencils and the various shapes. Changed values are stored in the Registry and reoffered with each new start.

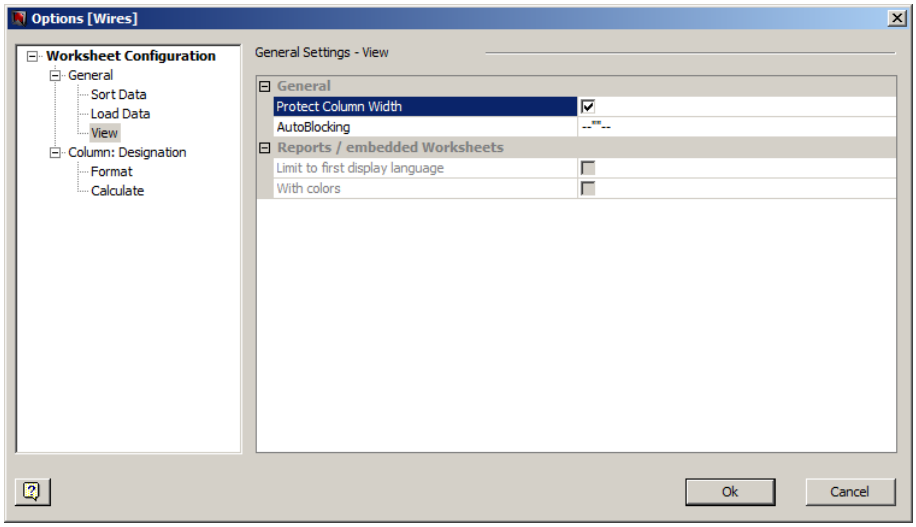
4 Extensions for Worksheets

4.1 Worksheet Templates

Up to now, Engineering Base made a distinction between standard and user worksheets: This distinction is no longer valid, and you can change or delete now all worksheet templates.

4.2 Freeze Column Widths in Worksheets

Engineering Base now enables you to freeze the width of all columns in a worksheet. To freeze the width of all columns a worksheet, select **Properties** in the worksheet and click the checkbox **Protect Column Width** in the **Options** dialog of the worksheet.



Options dialog

4.3 Worksheets for Objects from Selected Sheets

Now all available types of worksheets can be created on the **Documents** folder, on all folders below **Documents**, on drawings, and on sheets, too. A multiple selection of folders, drawings, and sheets is possible, also. In the resulting worksheets, all objects represented on the related sheets are listed.

5 Extension of Revision Functionality

5.1 Additional revision Attributes for Drawings and Sheets

Engineering Base offers additional attributes for document revision on drawings and sheets. Now, there are five attribute sets available - with four members each – that are filled in a cyclic way each time there is a new revision:

- Revision Index 1…4
- Document Version Index 1…4
- Datum Document Revision (new) 1…4
- Document Revision User Name (new) 1…4
- Comment Revision 1…4

To use the revision attributes for sheets and drawings, you have to select in the **Properties** dialog the **Enable Revisions for Diagrams** check box to activate revisions on graphical documents, and, thereafter, create a **Zero Revision**. Afterwards, change the sheet or drawing and create for each round of changes a new revision, then the attributes listed above are cyclically filled with the latest revision information.

Remark: Only those sheets and drawings are taken into account, which have been marked as **Changed**.

6 Miscellaneous

6.1 Disassociating a Device from the Catalog

Engineering Base supports you to link device and catalog information through the material number of a device. You can do so e.g. by coping a device from the catalog of your choice to the Equipment folder of the project, or by selecting the material number from the catalog of your choice using the **Open** dialog of the respective device.

Once you have linked device and catalog information, all attributes from the catalog item are inherited by the device, the property **From catalog** is set for the inherited attributes, and the inherited attributes are write-protected and displayed with pale blue background color.

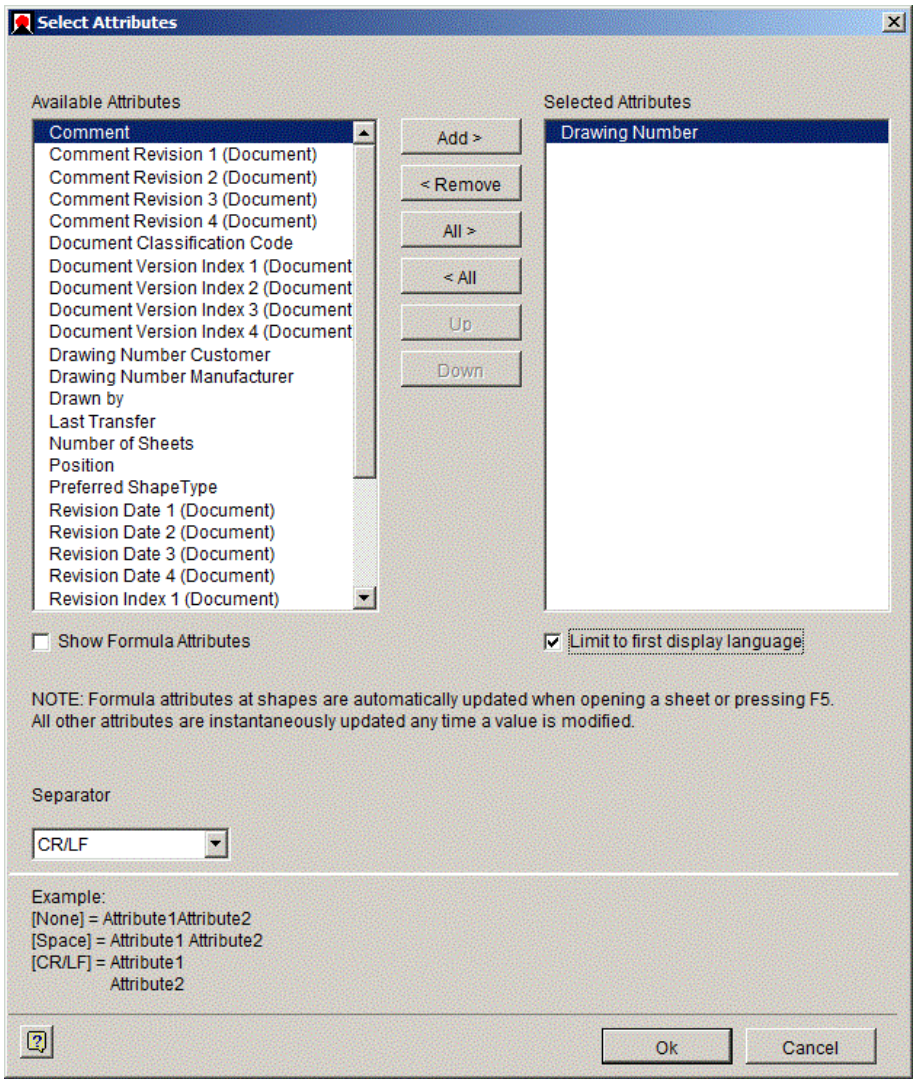
From now on, you can unlink device and catalog information by deleting the content of the attribute **Material** or by replacing it by a material number not contained in the catalog. After this, for all attributes inherited from the catalog, the property **From catalog** is unset, the write-protection is reset, and the background color is changed back to white.

6.2 Use Attributes from Register “Others” in Symbol Construction

Imported attributes, collected under the register card **Others**, are now available for use for the construction of symbols.

6.3 Limit to First Display Language

When defining attributes for form sheets or text blocks, Engineering Base now offers the option to limit the displayed texts to the first display language without having to switch globally off all but one display language. To limit the displayed texts to the first display language, open the **Select Attributes** dialog of the form sheet or text block, and click the check box **Limit to first display language** below the **Selected Attributes** list (see figure below).



Select Attributes dialog

6.4 Frames with Multiple Assignments

Engineering Base now enables you to connect frames of different objects: This means, you are able to build a frame with multiple assignments by combining Device, Location, Function, or Cable Frames.

Once, have built a frame with multiple assignments you can select the group of frames (you will see a green rectangle) and shift it, change its size, copy it, or, create a stencil from.

6.5 Defining a Preferred Stencil or Master for Pins

Defining a preferred master or stencil makes it easier for you to select a proper shape for a specific object. Preferred masters are always displayed on the top-most stencil in the preview pane. This very useful functionality is now available for pins, too.

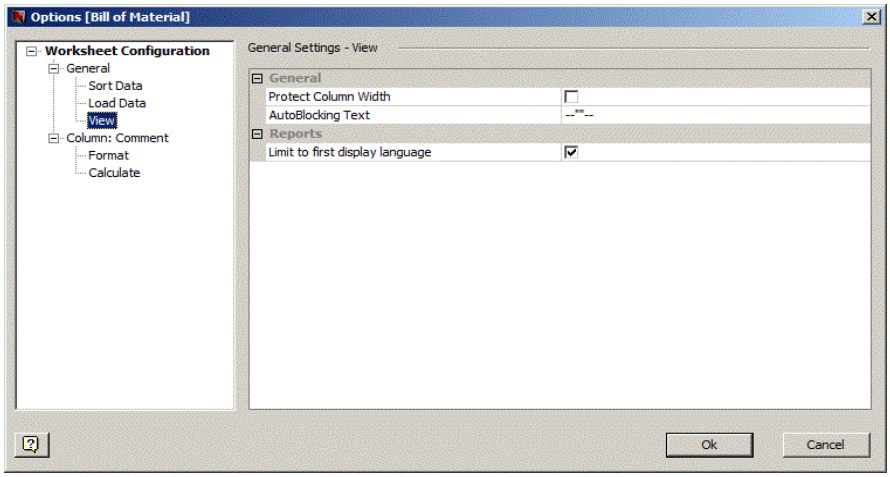
6.6 Shape Properties and Multiple Representations of Terminal Connectors

Engineering Base allows now for multiple representations of terminal pins together with proper creation of related automatic wires.

But remember, if you want to work with multiple representations of one and the same pin of a device in drawings, the related shape property **Associate shape automatically** in the **Properties** dialog must not be set!

6.7 Limit Report to First Display Language

Reports in Engineering Base offer now the option, to limit the output information to the first display language of the project. By default, all display languages switched on for the project are displayed. To limit the output information to the first display language, open the **Options** dialog of the worksheet, and click the check box **Limit to first display language** in the **View** option of the dialog (see figure below).

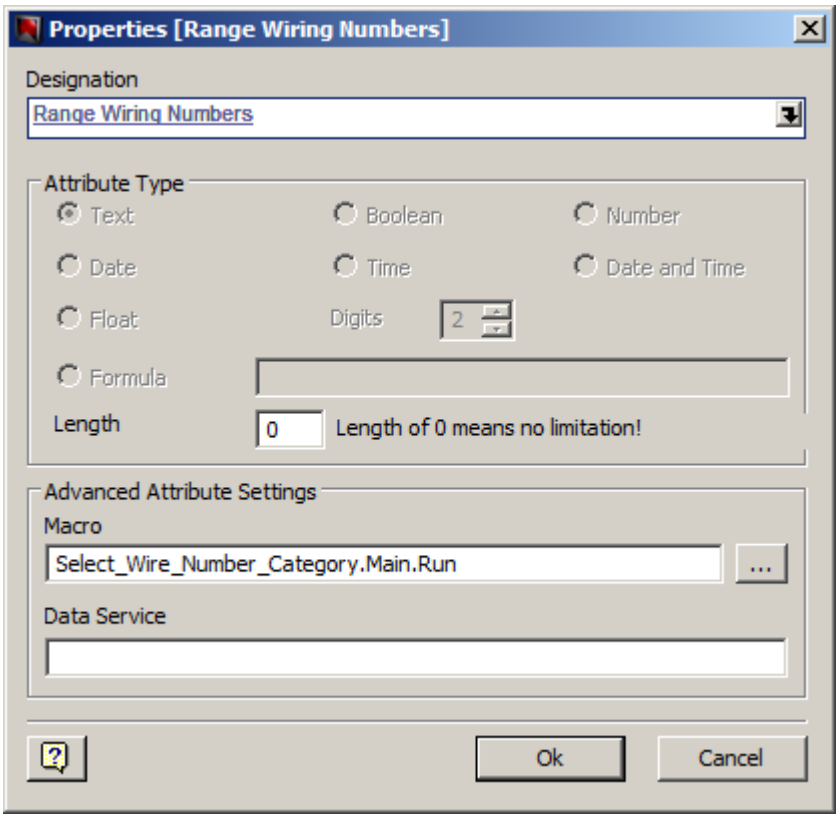


6.8 Attribute Properties: Introduction of “Confirmed Flag”

Engineering Base has introduced a new attribute property, the **Confirmed Flag**: It serves to set an inspection status. By default, the inspection status is not set. For virtual attributes, the inspection status cannot be set. An attribute with the inspection status set is displayed with dark green text color.

6.9 Enhancement of Advanced Attribute Settings

Engineering Base enables you in the area **Advanced Attribute Settings** of the dialog **Properties** of an attribute (see below), to associate in the field **Macro** a macro to be started from this attribute. Once, a macro is selected for an attribute, then in the **Open** dialog of an item containing this attribute, the macro now can be started by clicking the symbol in the right corner of the attribute input field.



Properties dialog for attributes