

Create customize EtherCAT mapping

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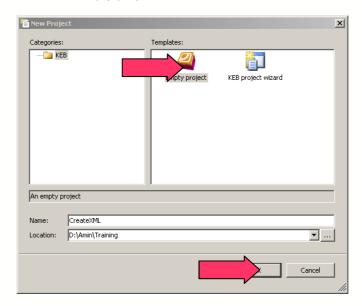


Introduction

This document describes how to create a custom EtherCAT XML description file for KEB Inverters.

How to create XML file from an online device

Open COMBIVIS 6 and create an empty project.

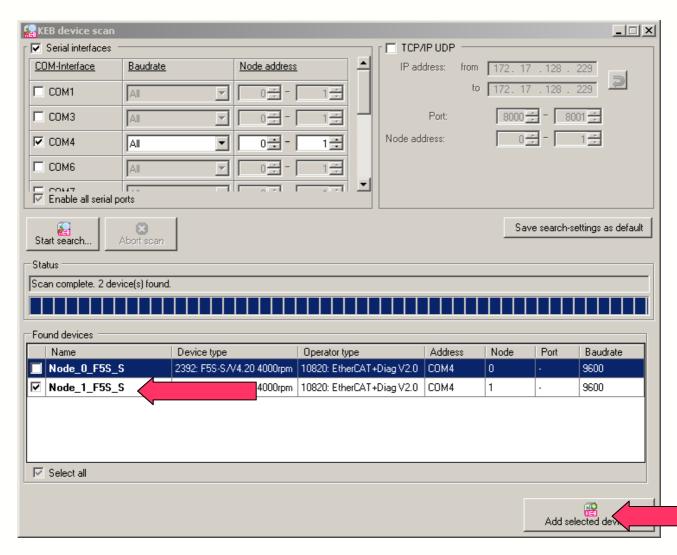


Be sure that the device is connected to the PC and click in the toolbar on the search KEB device button.

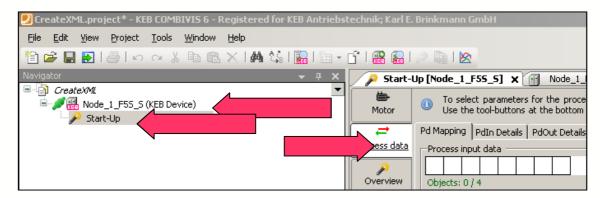


Depending the connection between the PC and device (COM port or Ethernet), set the search range node and addresses, then click Start Search. If any device would be found it will shown in the list. Select desired devices and click on Add selected devices.



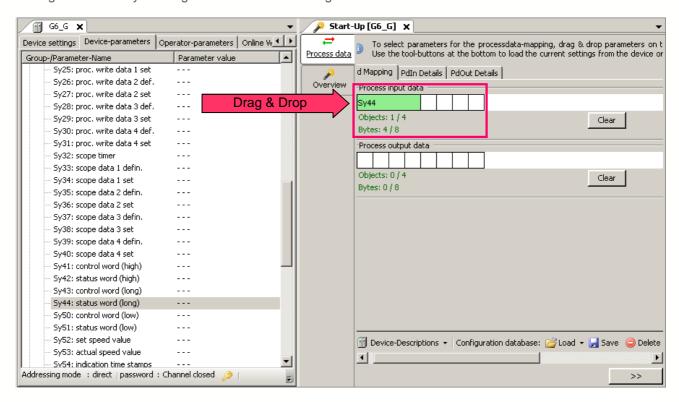


Click in the navigator window on the added device to see the device parameters on the right side. Also click on the Start-up wizard and choose Process data tab to see the PD Mapping tools.



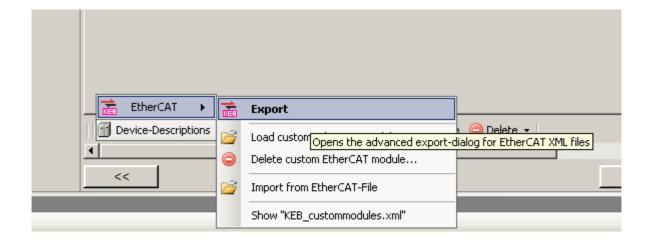


Arrange both tabs by dividing the window as following:



Standard PD mapping can be loaded from the prepared standard data from KEB. For making a customized PD mapping data, drag each desirable variable in device-parameter list and drop it on the right side to shape the data package. **Note**: For F5 inverters the sequence format of the data packet is **LWord-Word-Word** and should be considered when selecting the parameters.

At the bottom right, select Device-Descriptions / EtherCAT / Export.





There are 3 different options of generating a XML file.

1. Export as EtherCAT-Module XML:

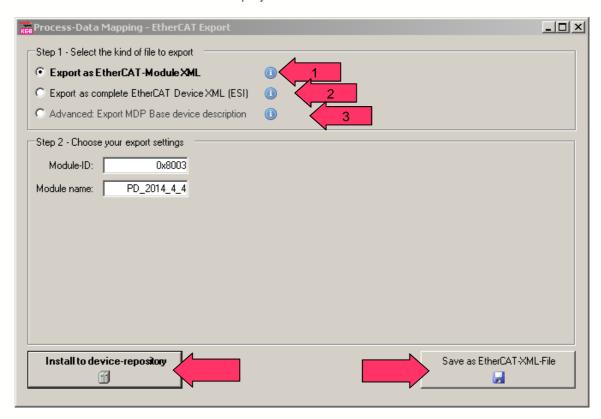
Export only the process data mapping independently from the device. It can be loaded to any other device later.

2. Export as complete EtherCAT Device XML

Exports the data mapping with the device combined.

3. Advanced: Export MDP Base device description.

Export only modular device profile (MDP) into the file. Any compatible process data file can be attached to a MDP later on in the project.



After choosing the type of the export, XML file can be generated by clicking on Save as EtherCAT XML File. It can also be installed to device-repository directly, if the device is used in a COMBIVIS studio 6 project.

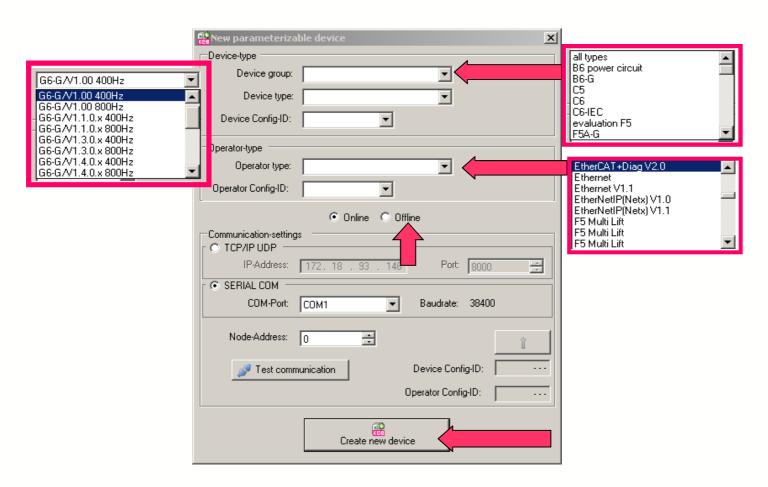


How to create XML file from an offline device

After creating the empty project take a right click on the project and choose Add KEB device.



Select the desired device properties and operator type from the drop down lists and press on Create new device. After the device is added, the rest of the procedure is identical to the online device.

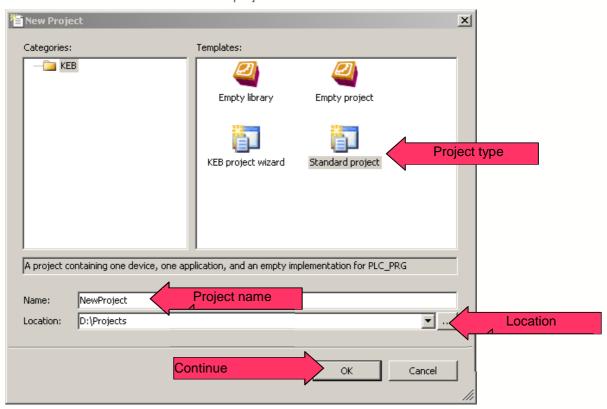




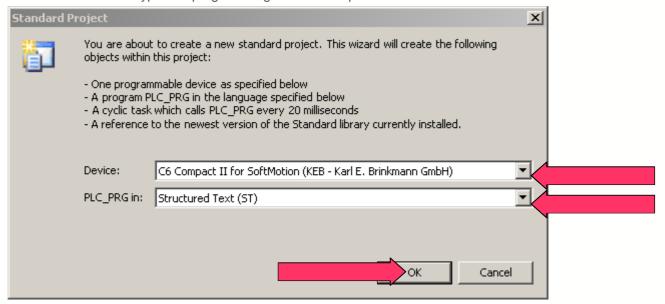
Sample Configuration for COMBIVIS studio 6

Creating a standard project

- 1. Start the COMBIVIS studio 6
- 2. Select the standard project"
- 3. Select a name and location to save the project



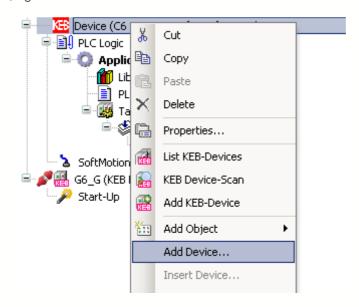
4. Select the device type and programming method and press ok.



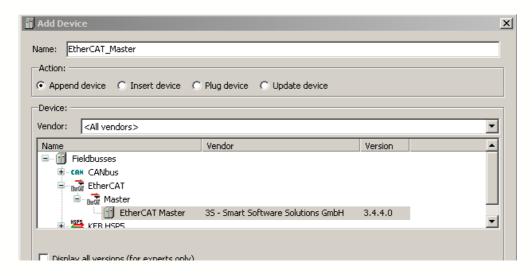


Adding a KEB device to a COMBIVIS studio 6 project

On the navigator menu, right click on the device and select add device.



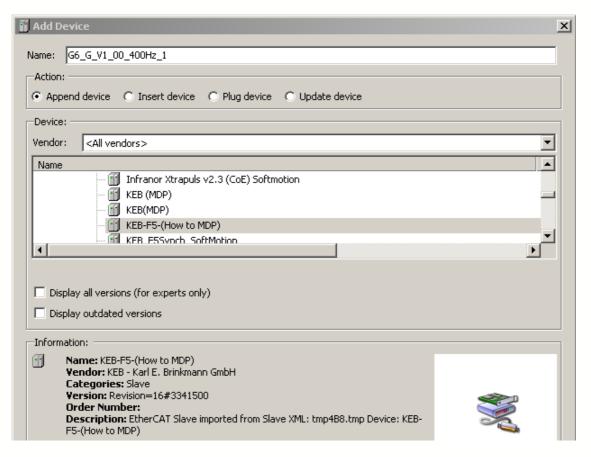
Select EtherCAT Master device from the list.



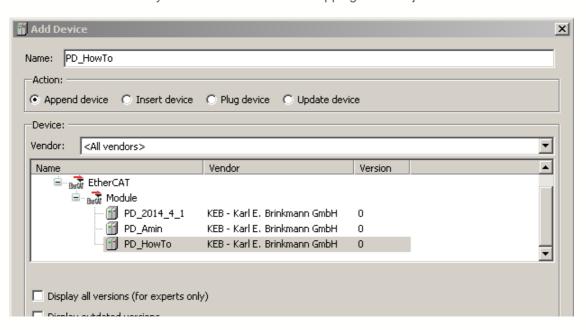
Now mark the EtherCAT Master in the navigation and you will see new devices in the add device window which are compatible to it.



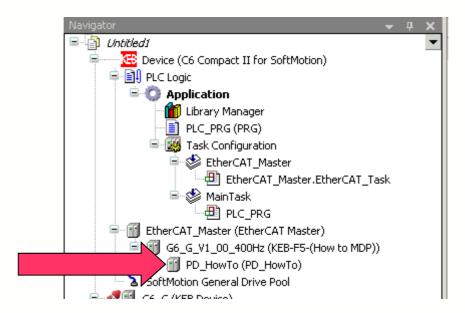
The device which was added to the device repository will now appear in this list.



If you created a MDP device you also need to add the mapping to the object.



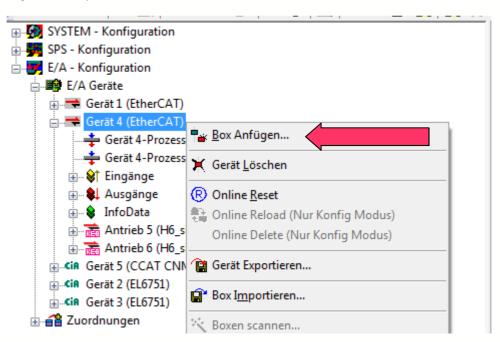




Now the EtherCAT device is ready to use.

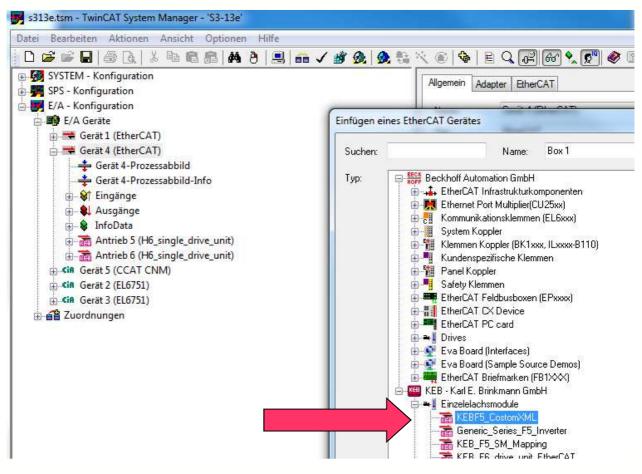
Sample configuration for TwinCAT

Place the previous created XML file in the folder "C:\Program Files\TwinCat\lo\EtherCAT" and reboot the system manager (if it was already started). All new XML files will now be added to the device list. Right click to your EtherCAT Master and choose add box



You find now the vendor group KEB in the device list. In the group you find the previous added device.





If you have the same device a few times you can also use the scan device function to save some time.



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