TECH NOTE :: PMX with Allen-Bradley PLC and Ethernet/IP

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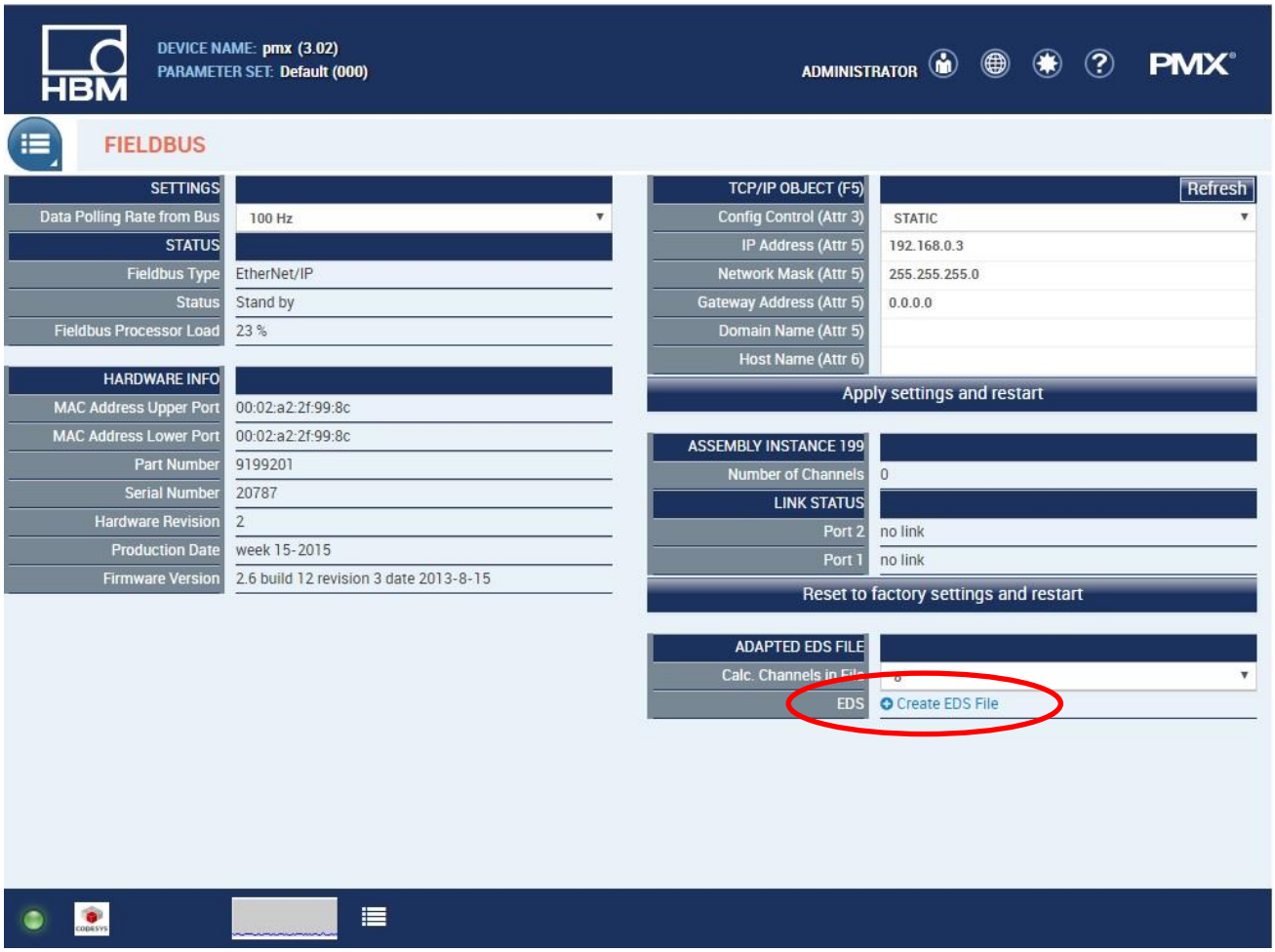
Brief description

This is a guide to creating a project using RSLogix5000 that connects the PMX to an Allen-Bradley controller over Ethernet / IP. Furthermore, there is a short explanation how measured values can be monitored by the PMX in the software. Basic knowledge of Ethernet / IP networking and PMX is recommended.

Generate GSE File

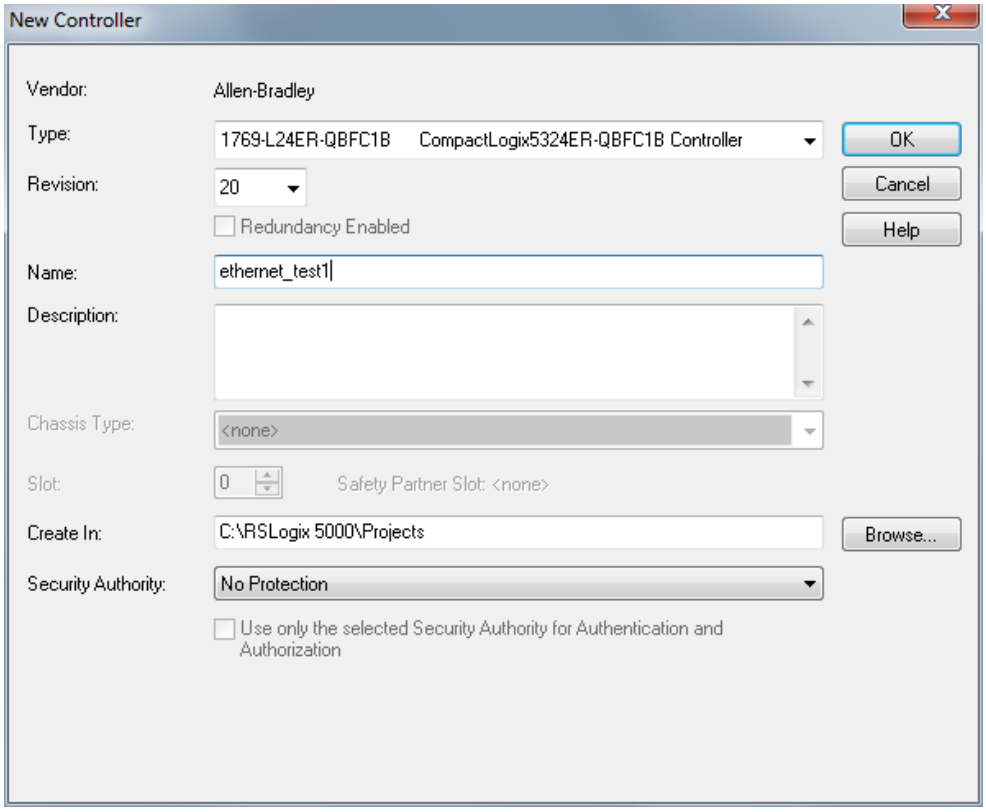
Since firmware version 2.00 it is possible to automatically generate an individual EDS (Electronic Data Sheet) file from each PMX. It includes the device configuration and names of all channels. Therefor go to settings -> fieldbus. Now click “Create EDS File” on the bottom. This approach saves time and is more resistent to mistakes compared to a manual configuration in the RSLogix.



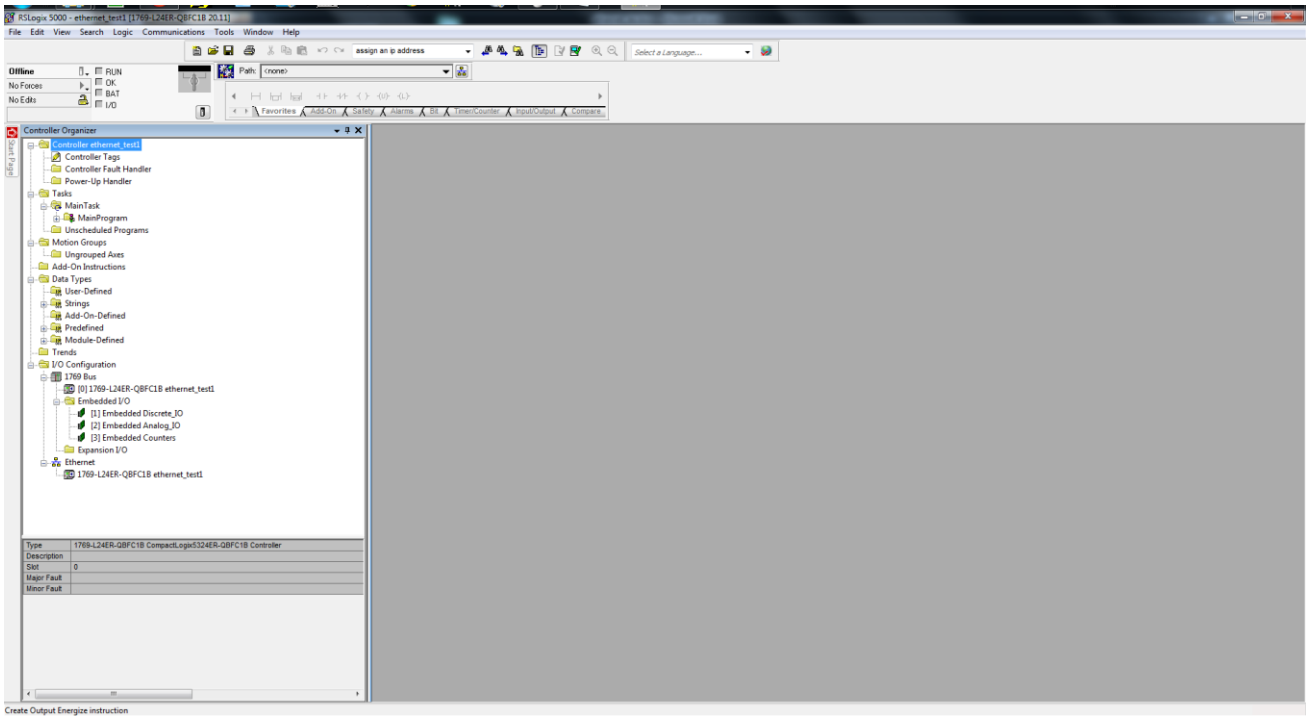
Important: It is essential to not change the file name. It is normed and includes important information for the software. Also define the number of transmitted calculated channels before generating the file. In the device there has to be mounted at least one measurement card (PX878 is not a measurement card).

Create a Project

Start a new project in RSLogix.

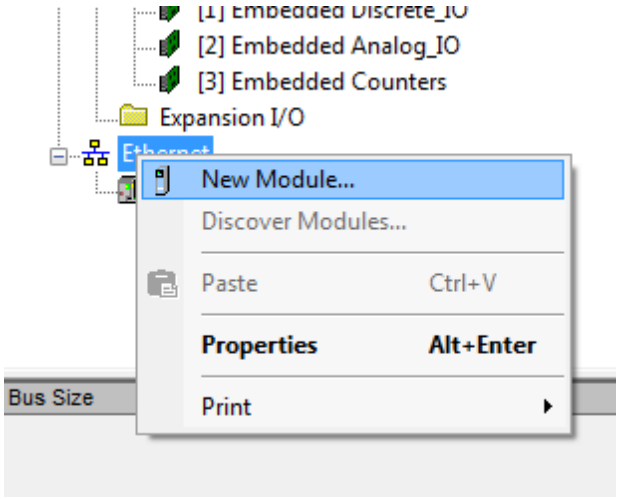


The following Overview will show up.

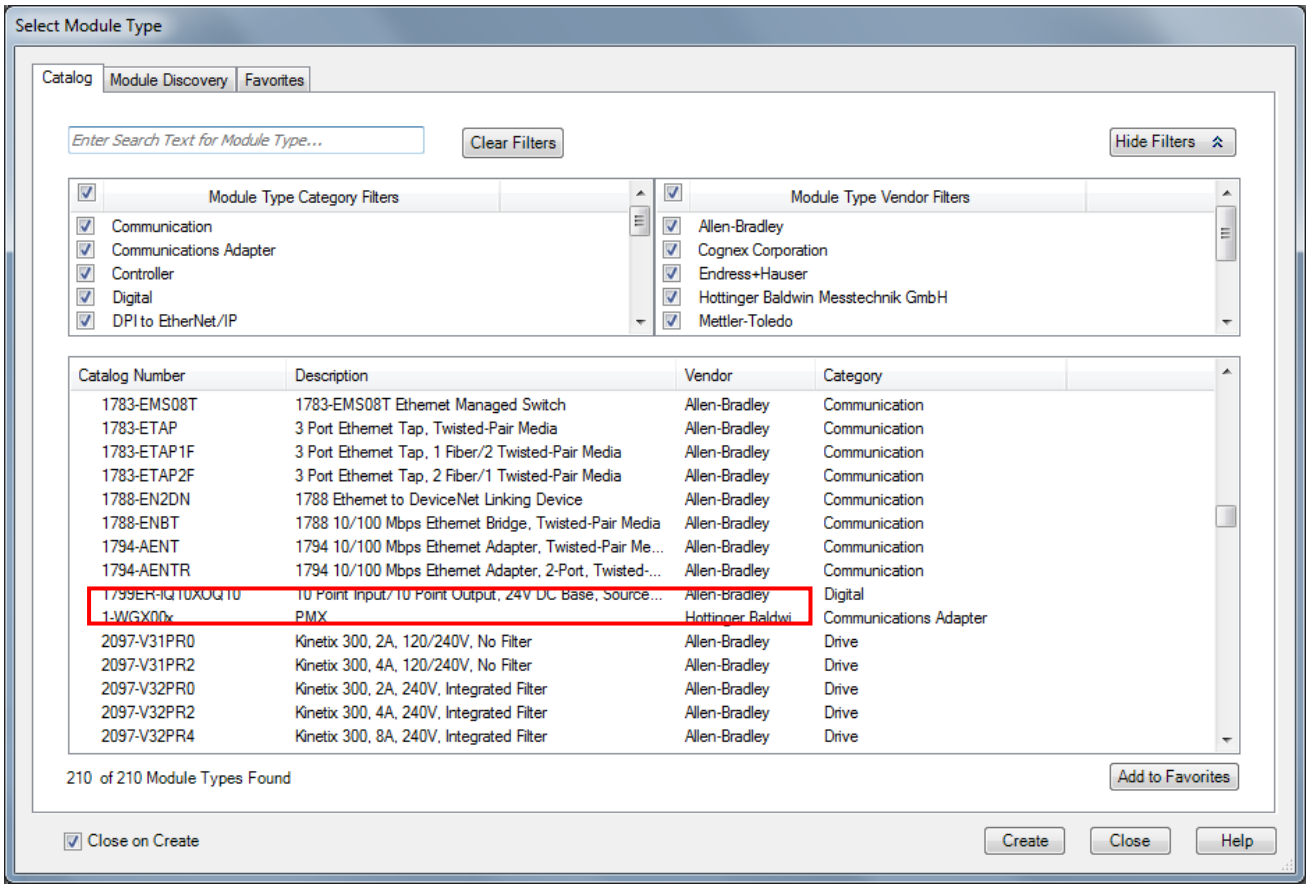


Install devices

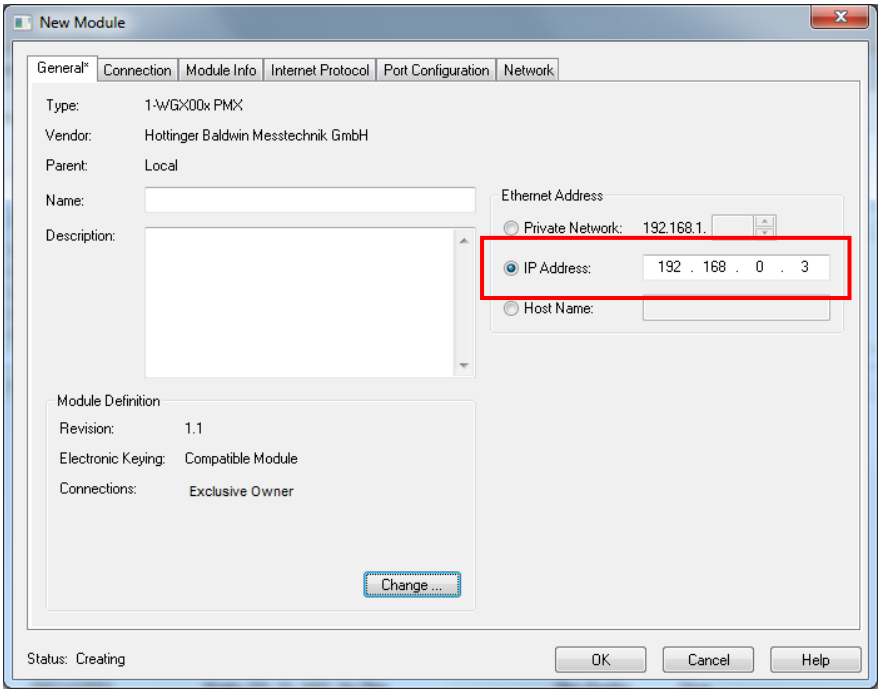
Right-click onto Ethernet and add a „New Module“.



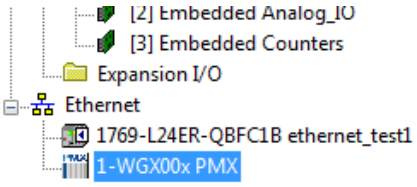
Choose the module type you want to setup (here: PMX) and select „Create“.



Assign the IP-Address according to the default settings with the PMX, further name the device.

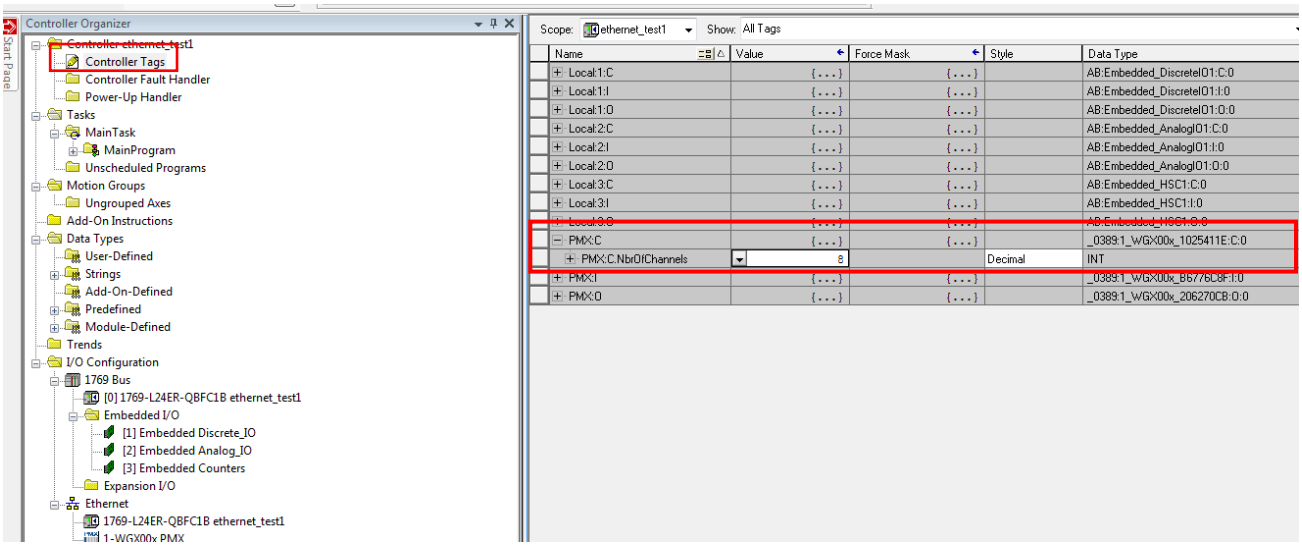


The PMX is added to the overview.

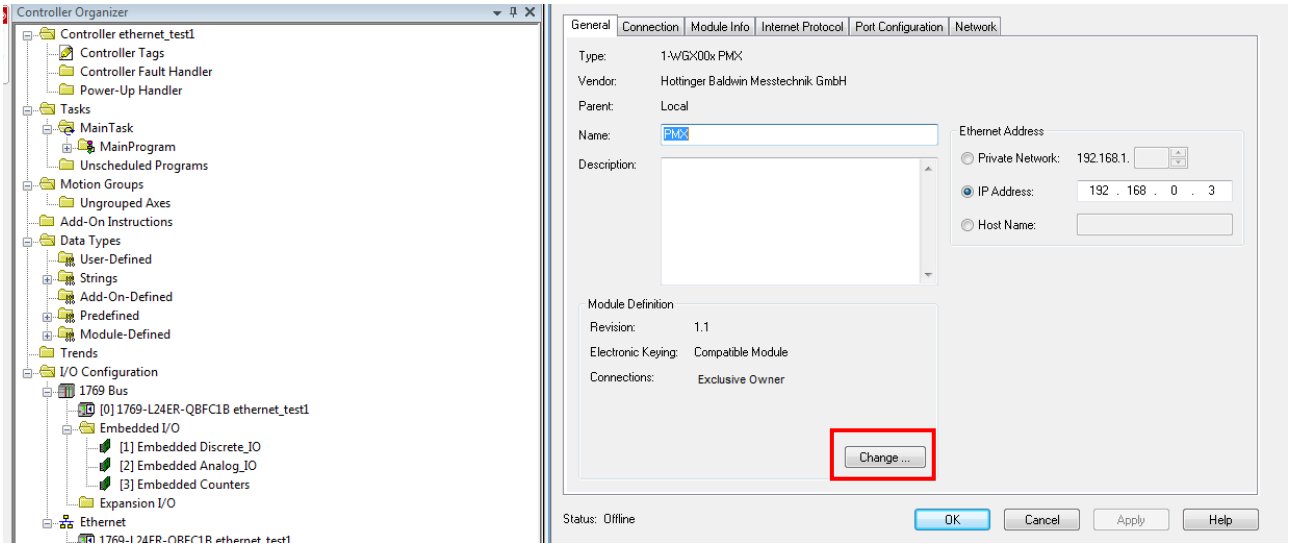


Select Controller Tags and define the number of Calculated Channels under “PMX C”.

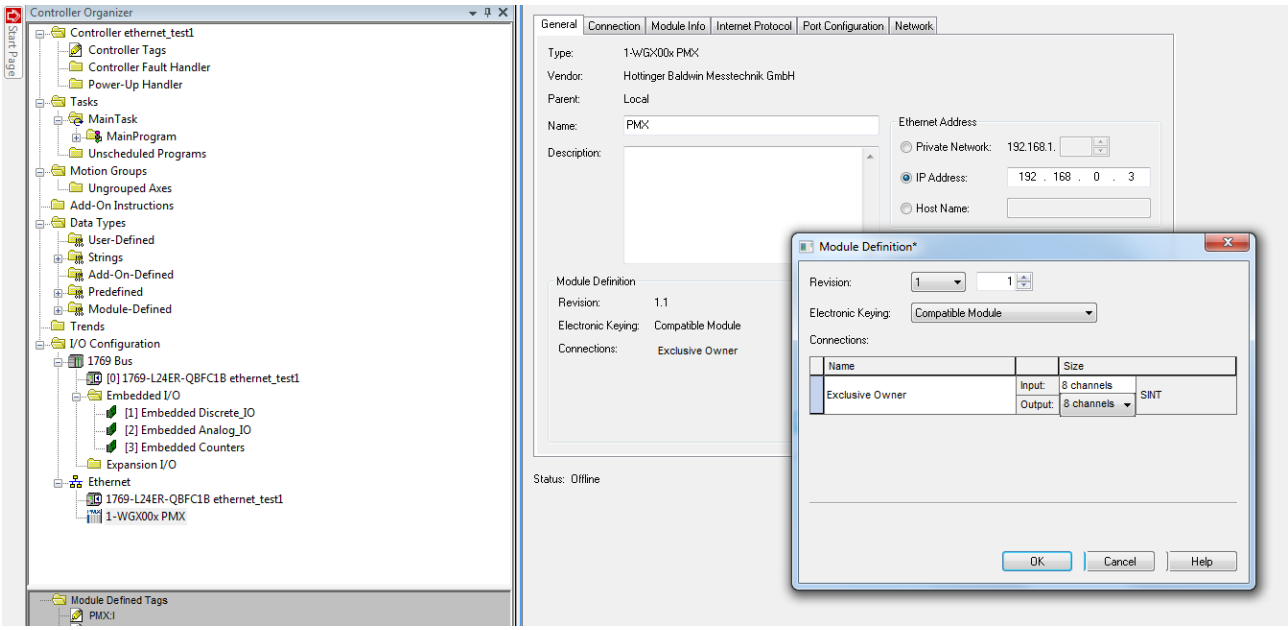
PMX C = Configuration
PMX I = Inputs (from PMX)
PMX O = Outputs (to PMX)



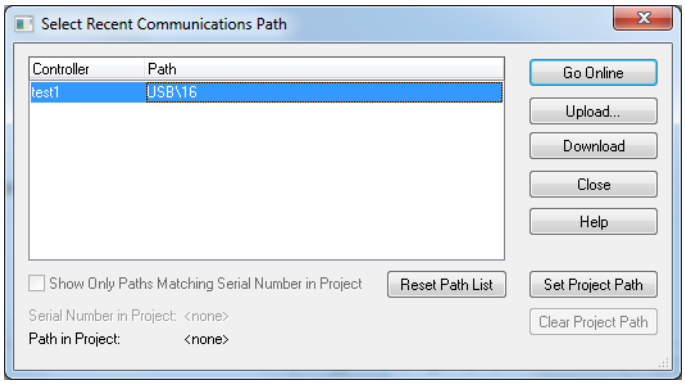
Double-click onto PMX in the structure for the settings.



A click on „Change…“ (see above) opens the window „Module Definition“, in which the Calculated Channels must be setup according to the defined number within the Controller Tags.

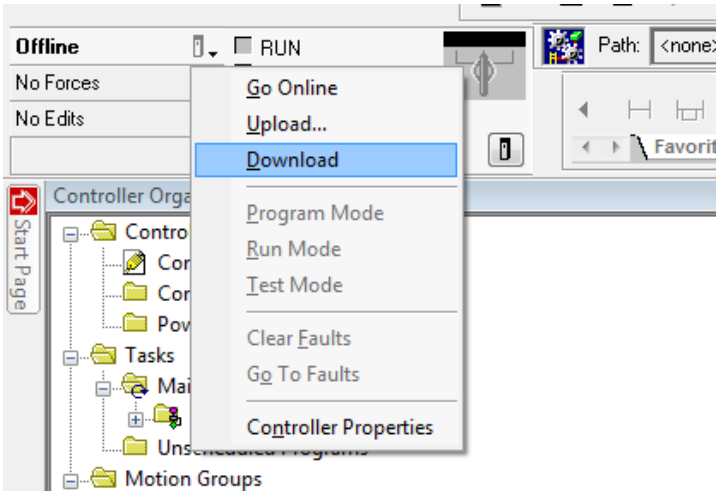


Choose a communication path (Path: Communications\Select Recent Path). Confirm your selection with „Go Online“.

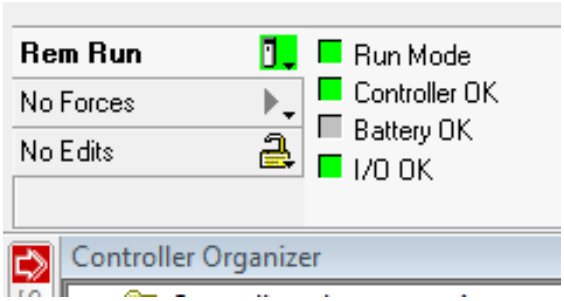


Display a measurement

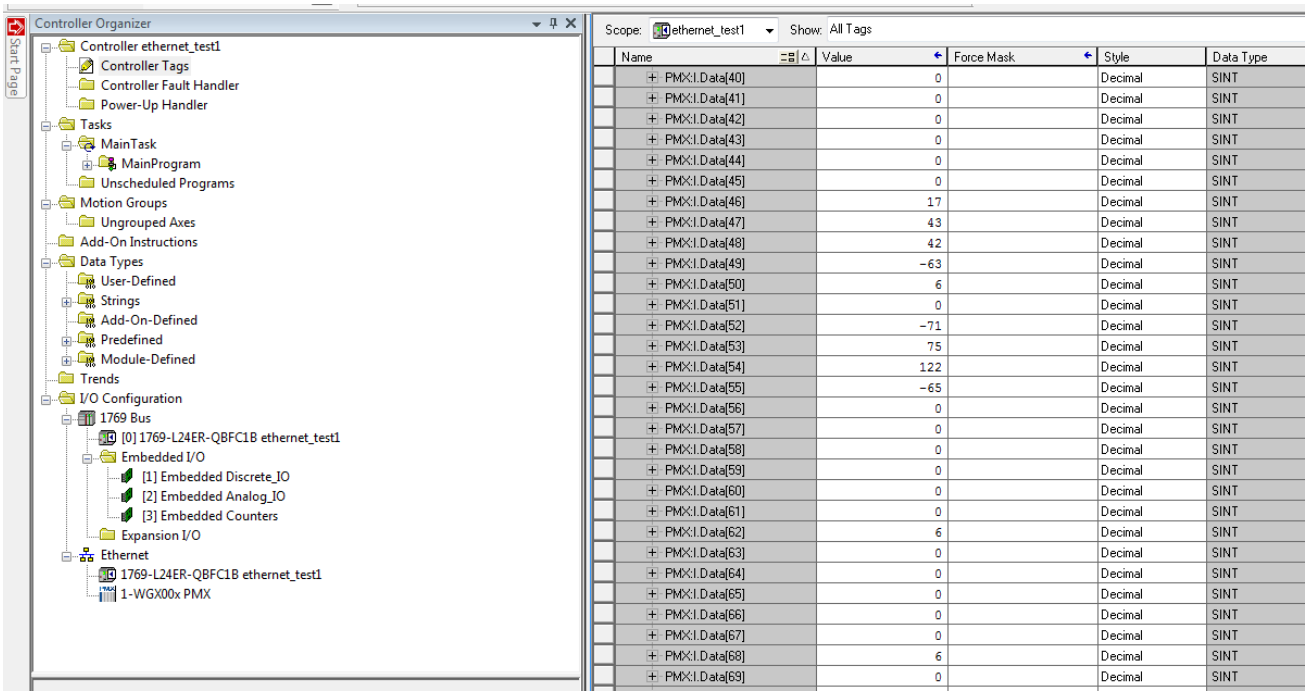
After Downloading to the device…



…the programm can be started by „Go online“.



The measured values are shown under Controller Tags \ PMX I (Input).



Disclaimer

These examples are for illustrative purposes only. They cannot be used as the basis for any warranty or liability claims.