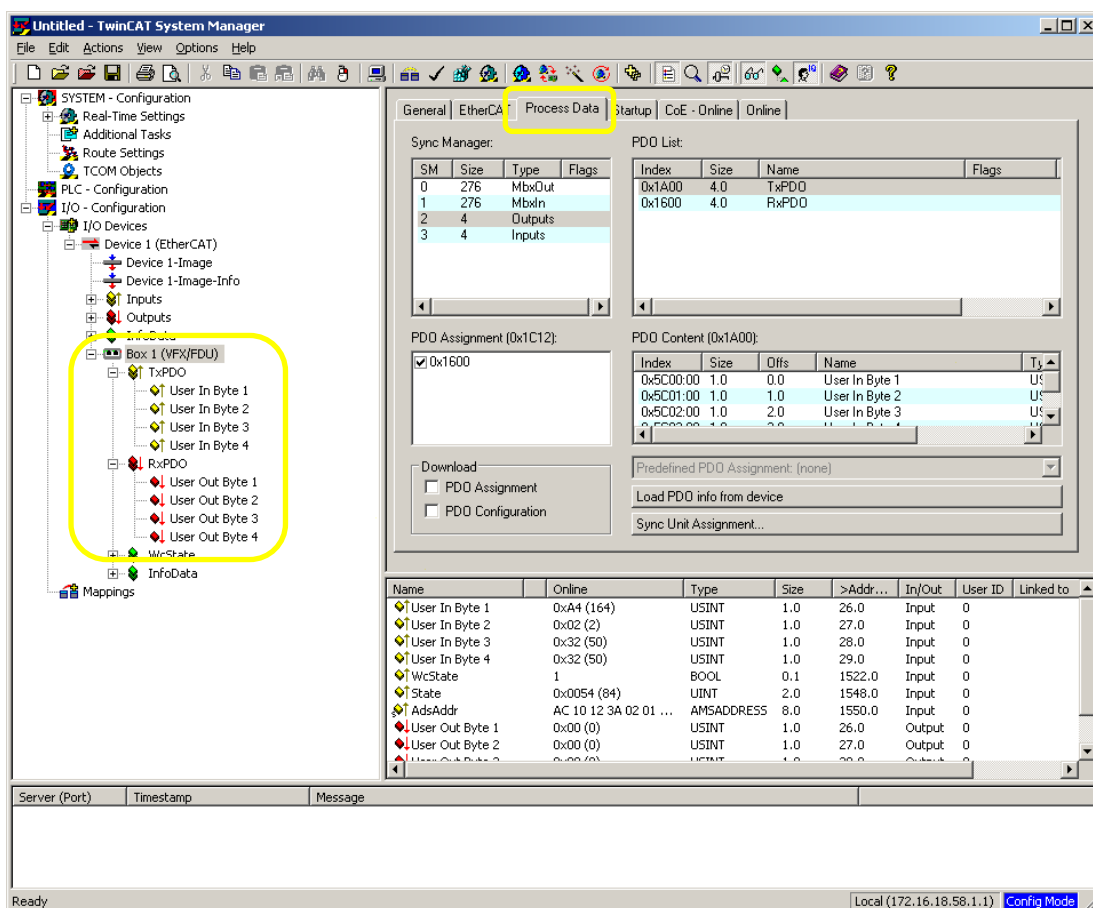


Additional Process data object

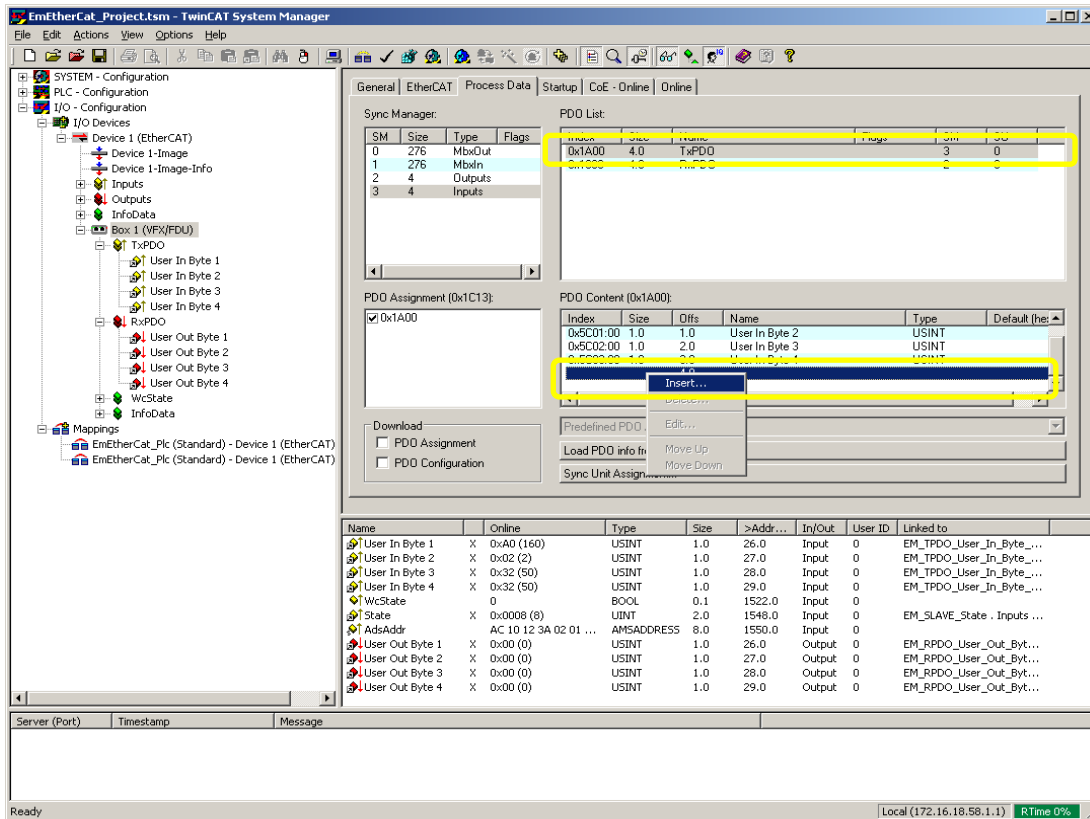
This quick start guide is a description of how to add one additional process data value input and output to TwinCAT system with Emotron VSD device.

Add process data objects in System Manager

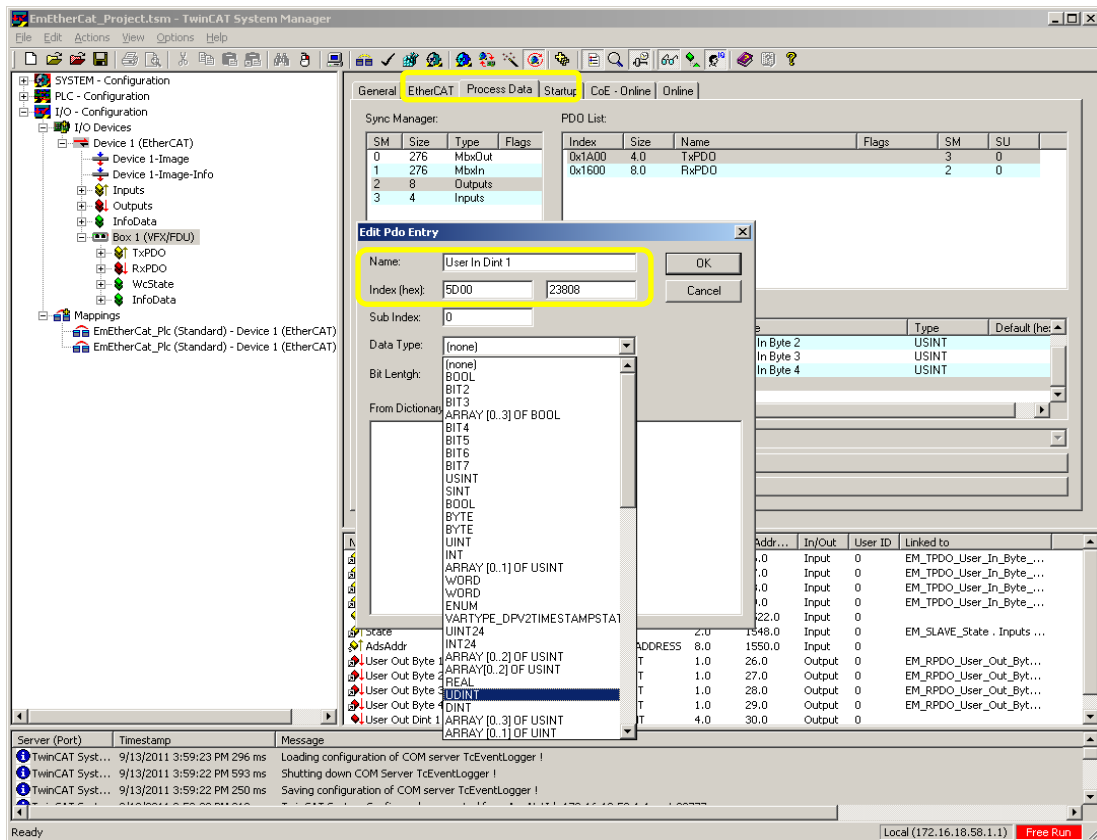
Open System Manager tool and expand the Box 1 (Emotron VFX/FDU) node in the explorer and select *Process Data* tab. Make sure that you are in *Config Mode*.



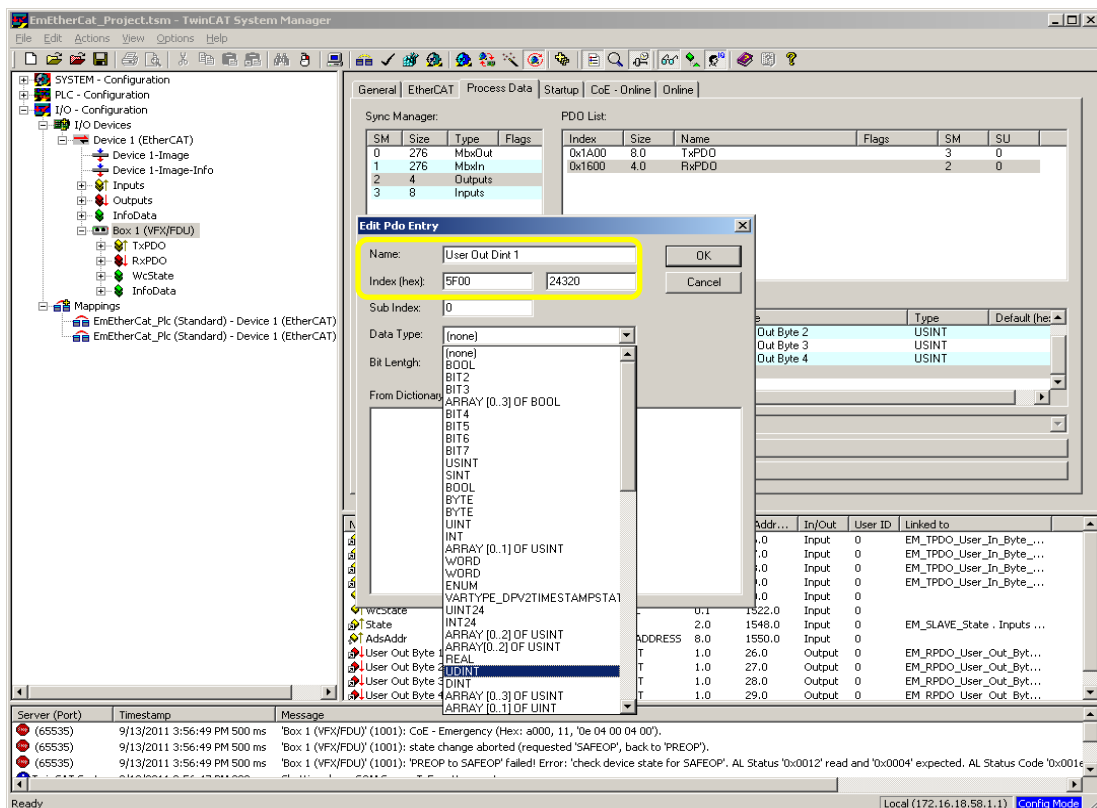
Select and highlight the inputs in the *PDO List* named TxPDO. Select an empty row in the *PDO content* grid and right click on the row and select Insert. The *PDO List* publishes the information about the start address 0x1A00h of the TxPDO index which is the inputs from the device. The RxPDO is the outputs to the device and starts from index address 0x1600h.



Type the variable name to the field and the object index *5D00h*. The index is the first free index after the basic input PDO objects. Select the Data Type UDINT and click the *OK* button.

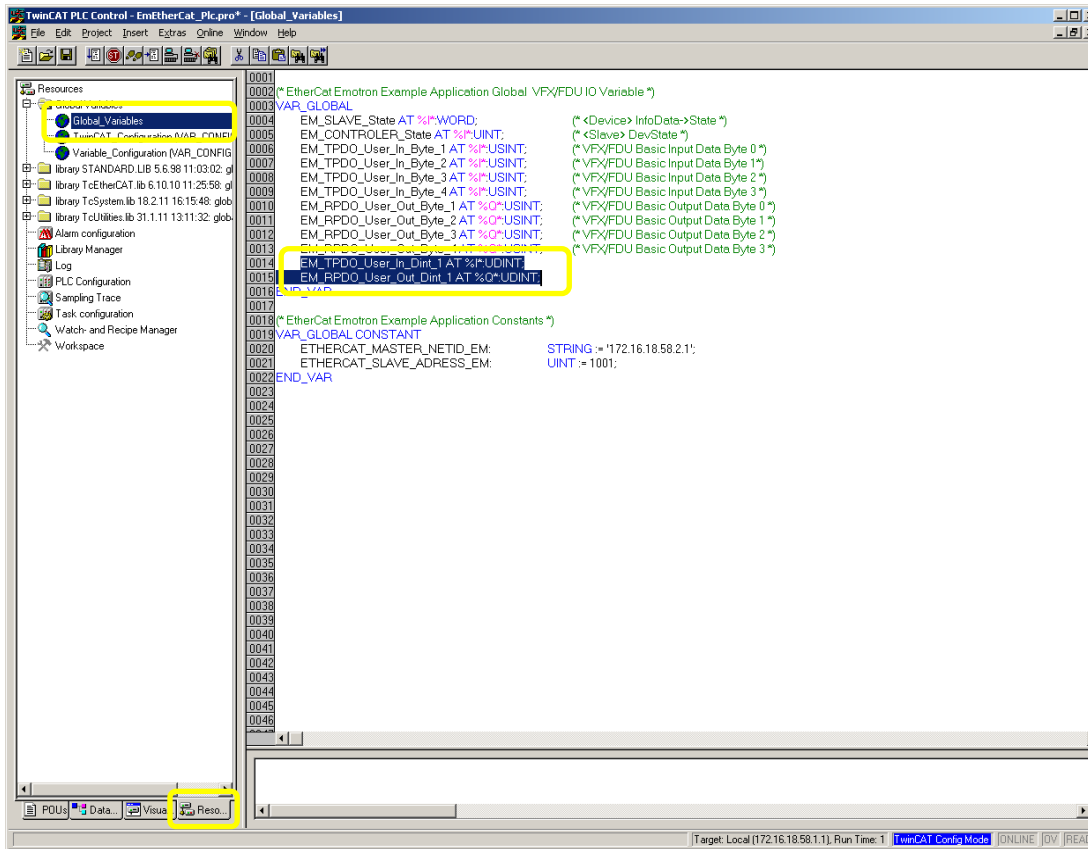


Do the same procedure to the output variable, the object index address starts from *5F00h*.

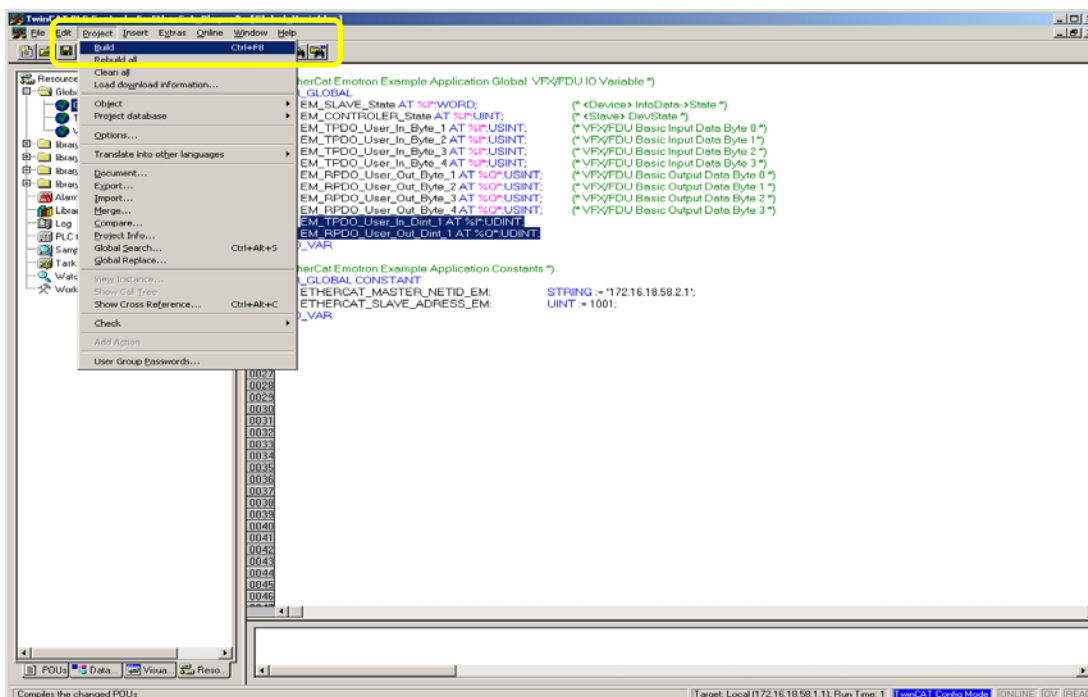


TwinCAT PLC Control add Variables

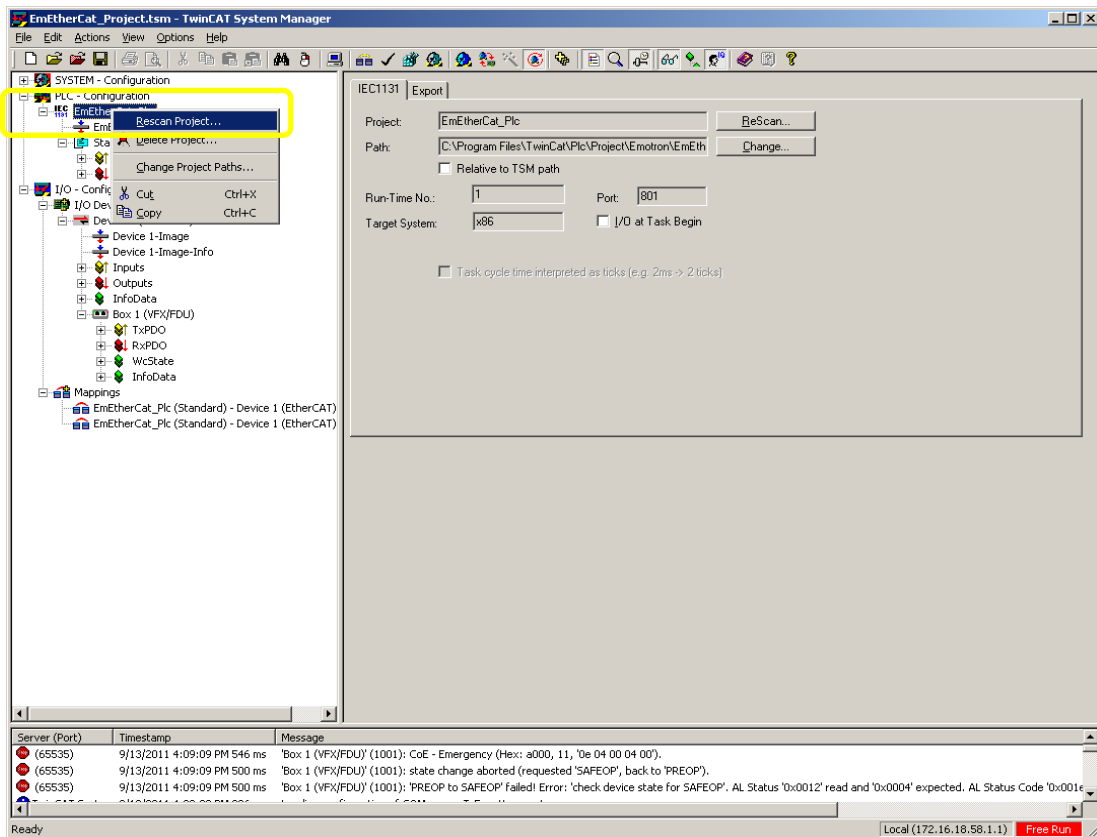
Open the TwinCAT PLC Control and select *Resources* tab. Highlight the *Global_Variable* node and double click on the selection. Add one input variable *%I** data type UDINT and one output variable *%Q** data type UDINT to global variable declaration (in the example below named EM_TPDO_User_In_Dint_1 and EM_RPDO_User_Out_Dint_1).



Build the project, select Menu: *Project -> Build*

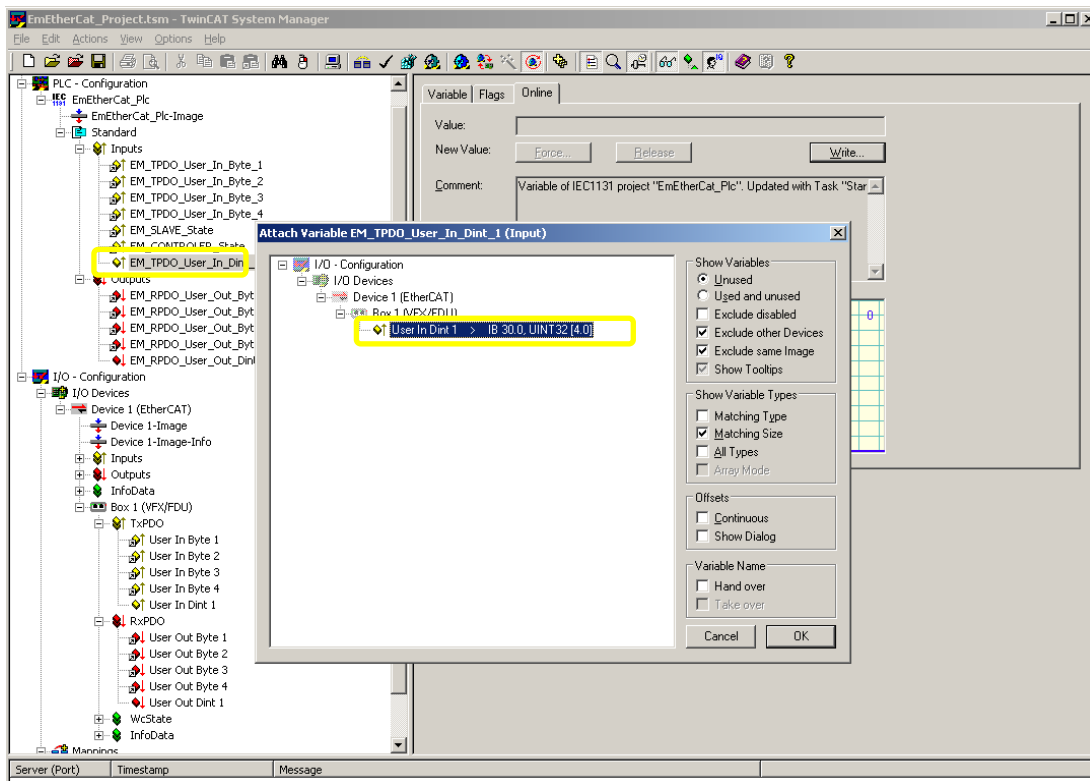


Open the System Manager and expand the *PLC-Configuration* node, right click on the PLC project *EmEtherCAT_plc* and select the *Rescan Project* from the menu. If the example project is not loaded into the System Manager, append the PLC project (See the quick start guide TwinCAT PLC Controller for details).

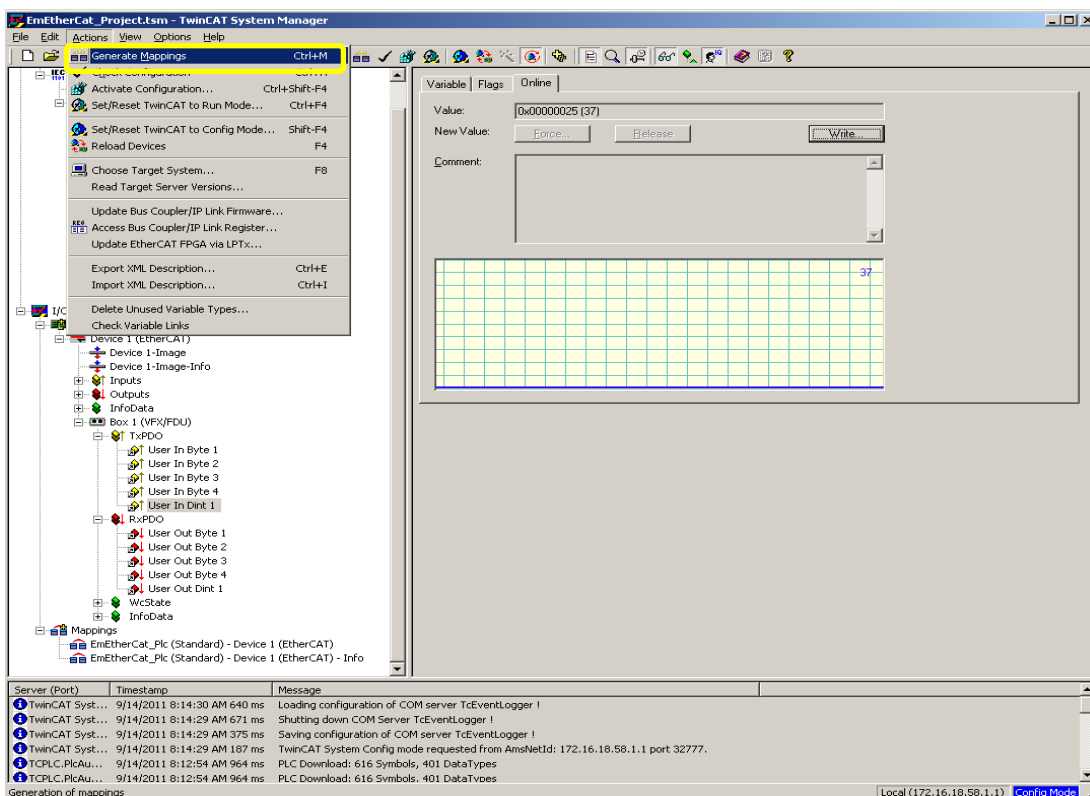


Bind Variable to PDO

Explore the inputs and expand the node. Right click or double click on the variable (EM_TPDO_User_In_Dint_1) and bind it to the PDO data object. Do the same procedure to the output.

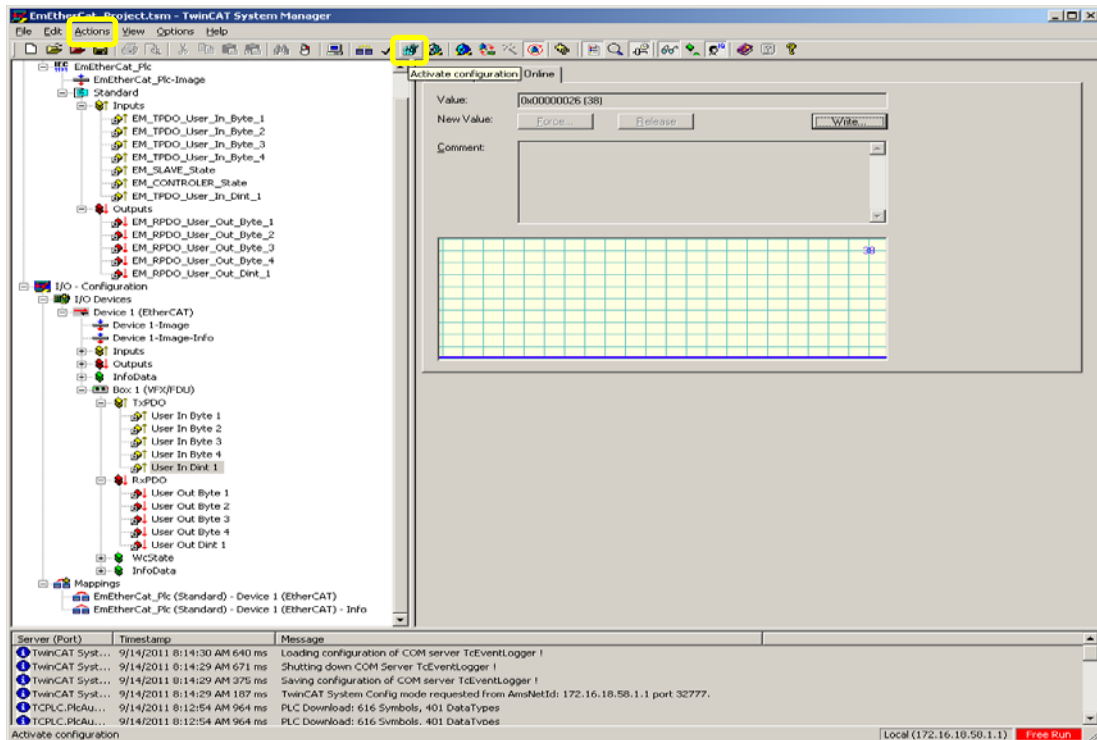


To update the mapping, select Menu: *Actions -> Generate Mapping*

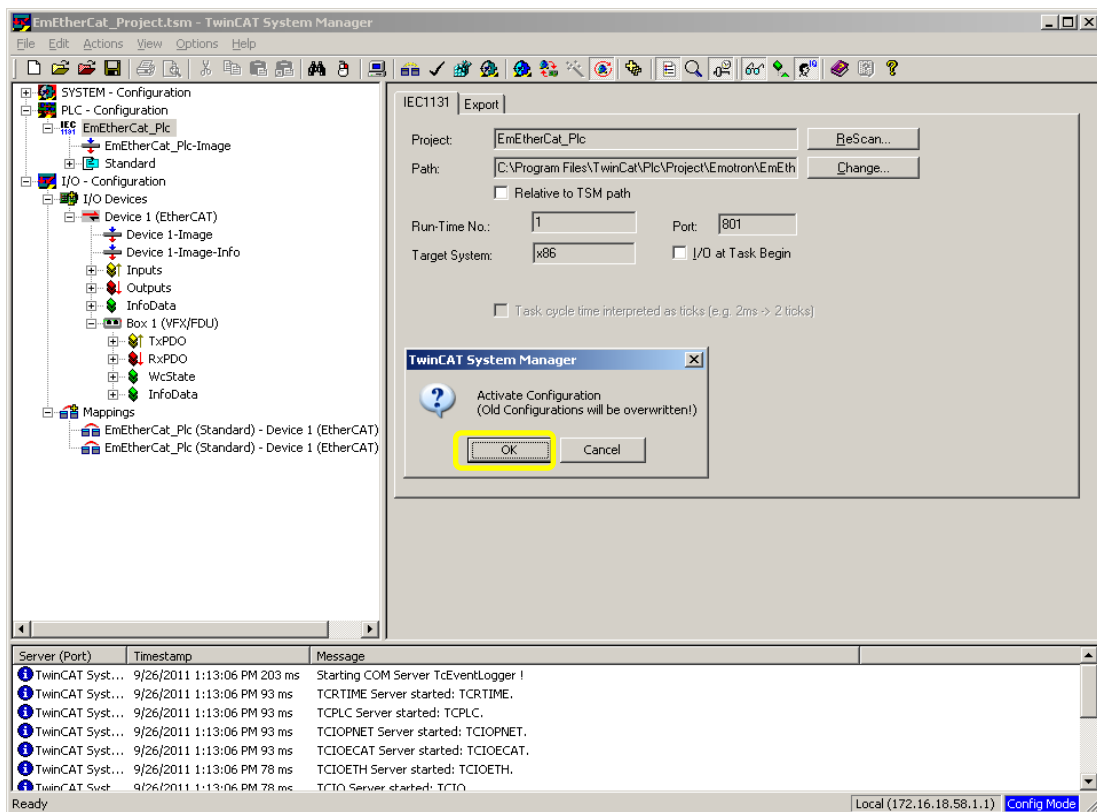


Activate

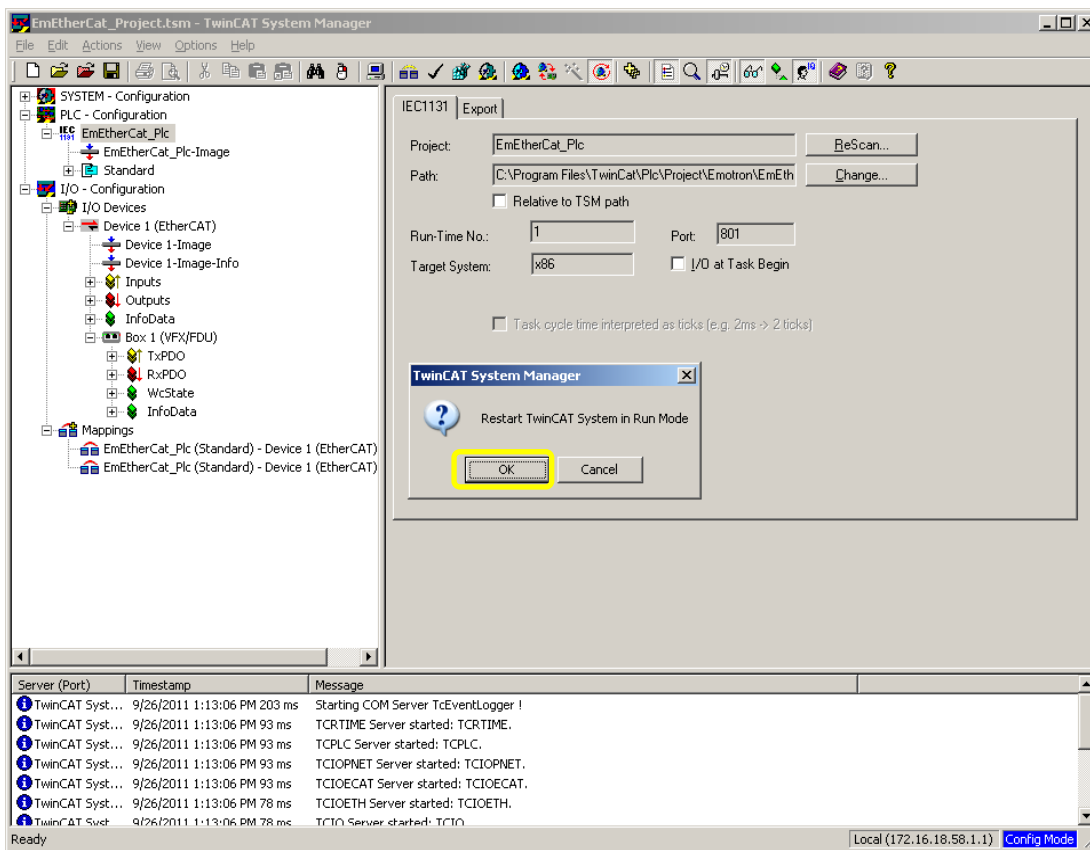
Activate the configuration. Click On the *Activate Configuration* Icon or Select Menu: *Actions -> Activate Configuration*.



Click on *OK* button

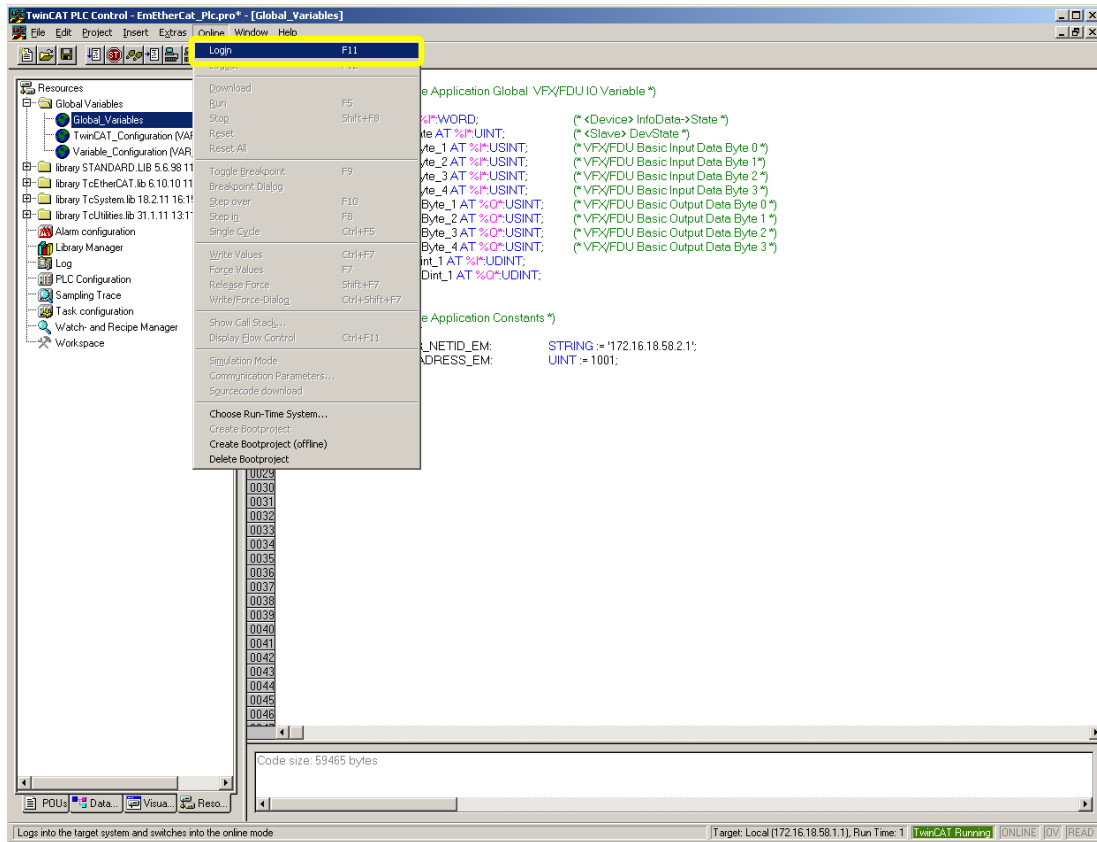


Restart TwinCAT system in run mode, click on *OK* button

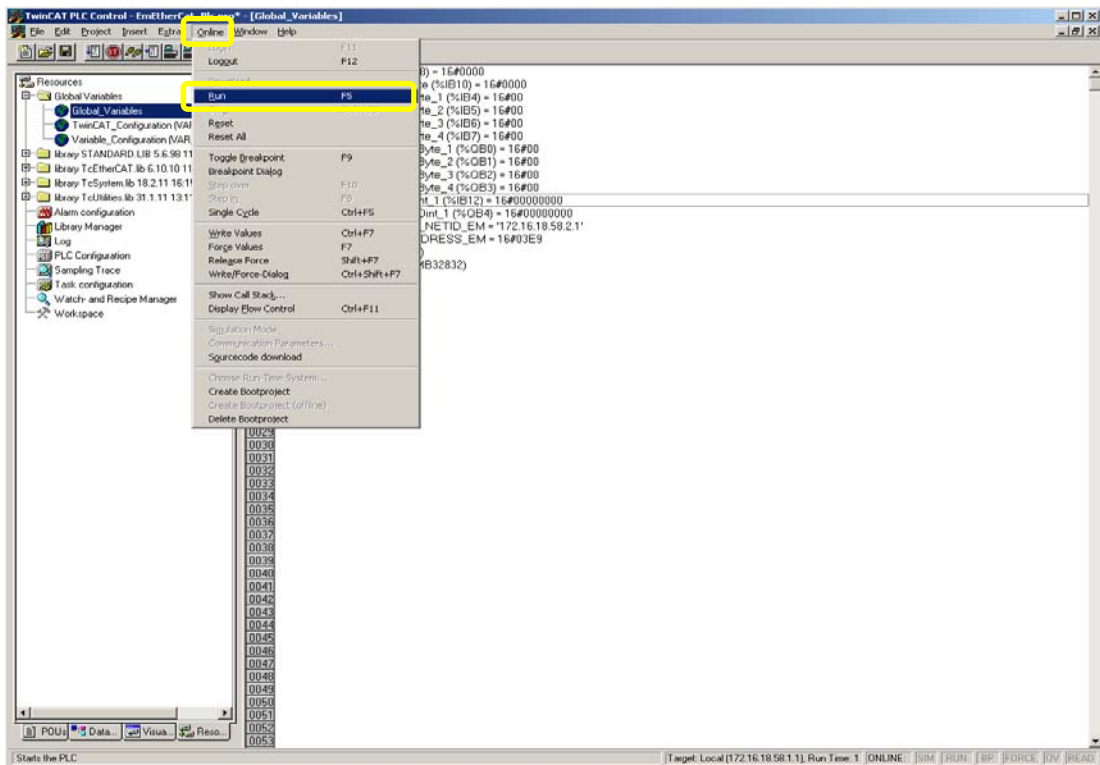


TwinCAT PLC Controller run time

Open TwinCAT PLC Controller and select Menu: *Online -> Login*



Select run mode. Menu: *Online -> Run*



The controller and I/O-device are now in run mode.

