

Restoring an IEC System to factory Defaults

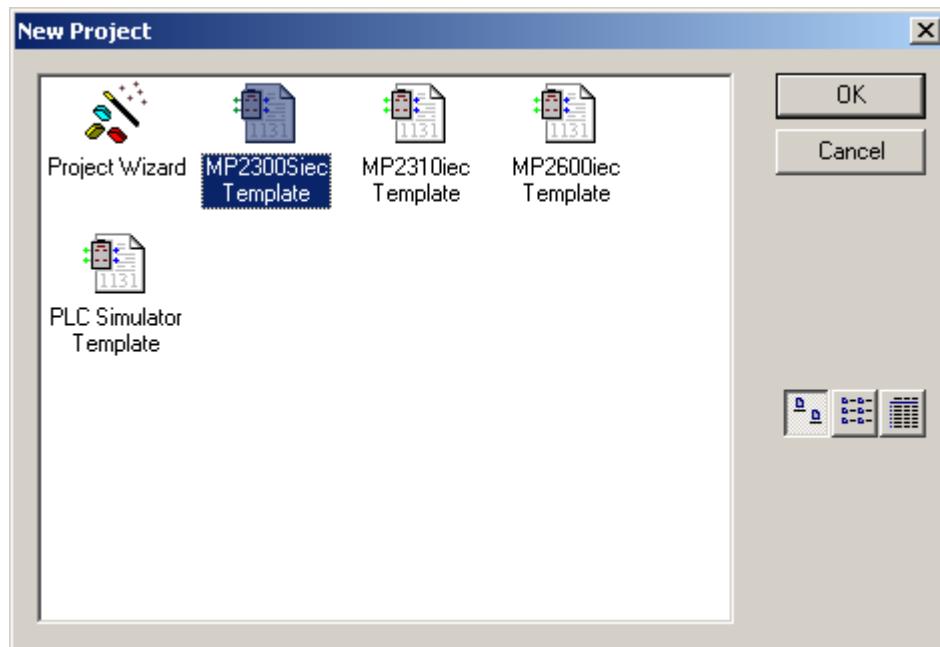
Introduction

Sometimes it is desirable to restore the system to the factory default state so the designer can begin an application from scratch. This document will detail how to accomplish this with an IEC system.

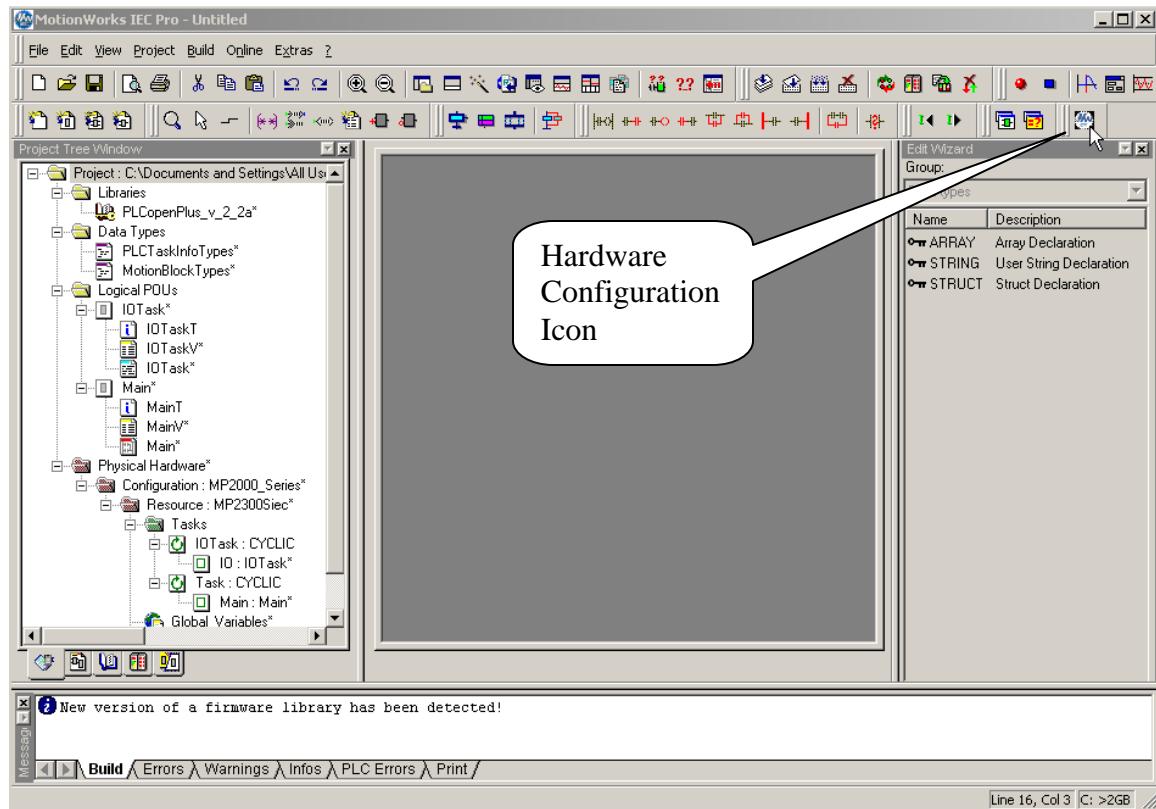
Resetting amplifier parameters

The first step is to reset all of the servo amplifiers parameters to their default value.

Open MotionWorks IEC and select new project from the file menu. A new project dialog will show various template projects.



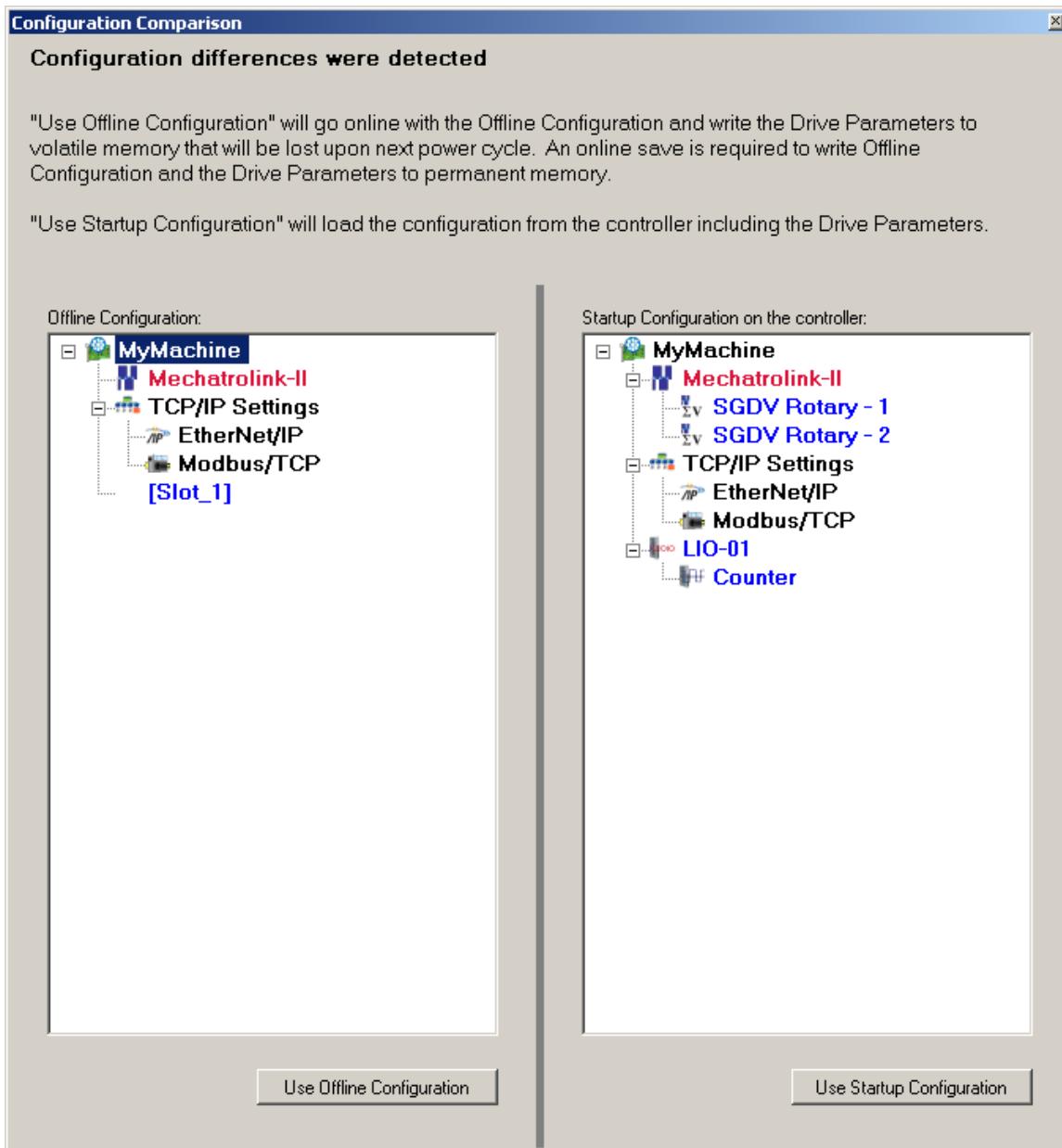
Select the template for your controller type and press OK.



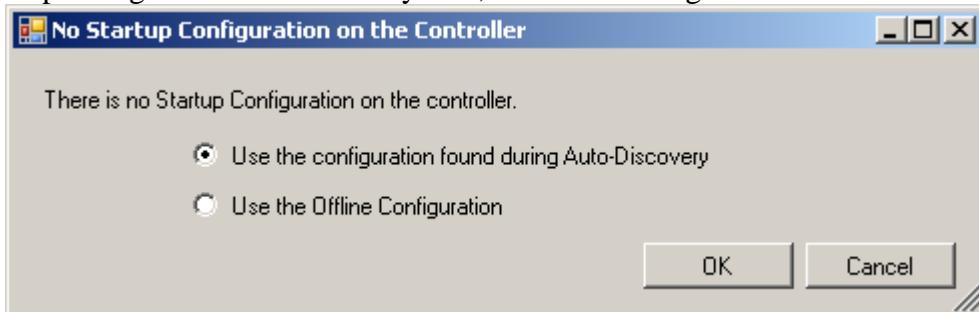
To start the configuration application, click on the hardware configuration icon on the top right of the toolbar.



Enter the IP address of the controller and select connect.

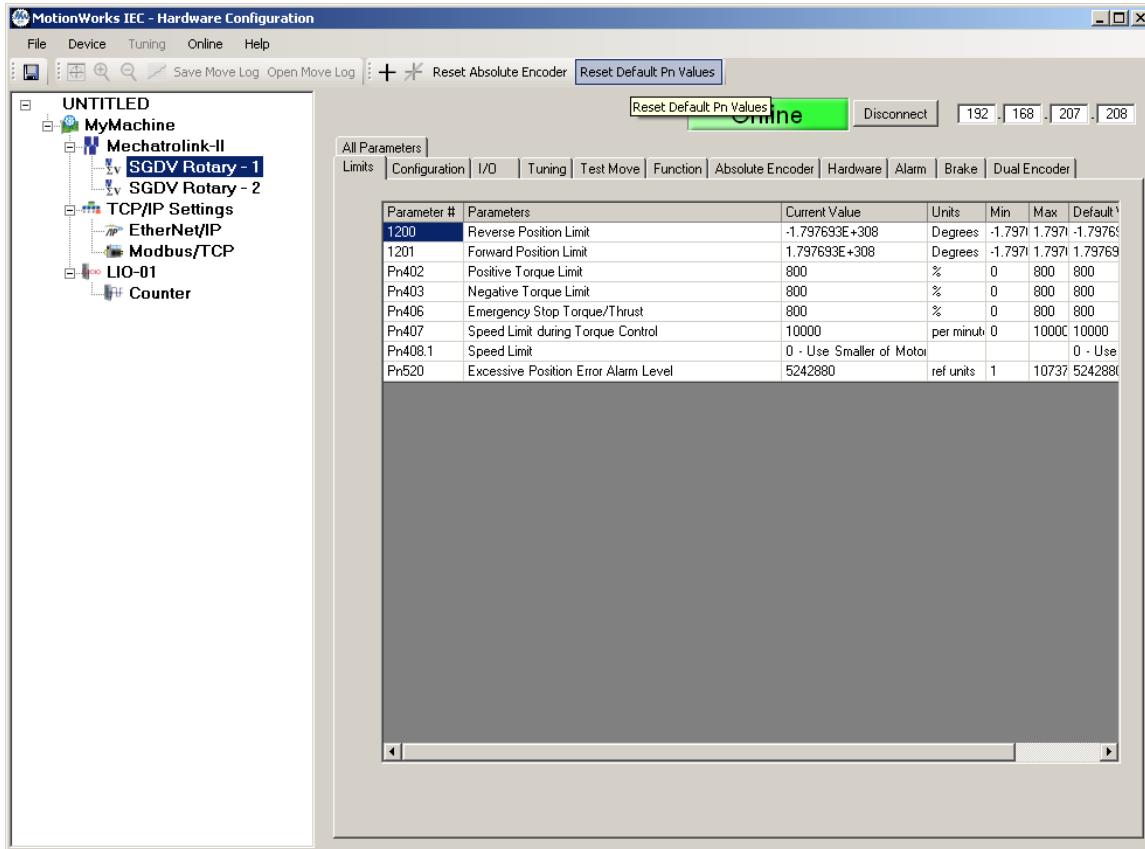


Depending on the state of the system, either the dialog above or below will be presented.

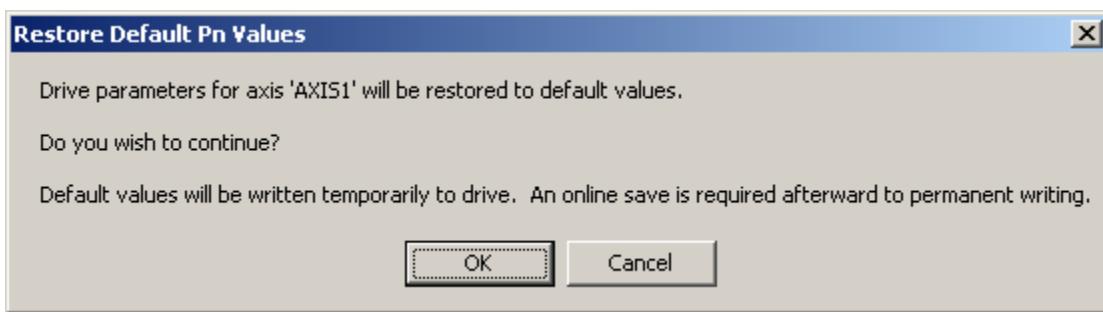


Choose either the startup configuration, or the configuration found during auto-discovery depending on which dialog is presented.

After going online, click on each axis and select the “Reset Default Pn Values” button.



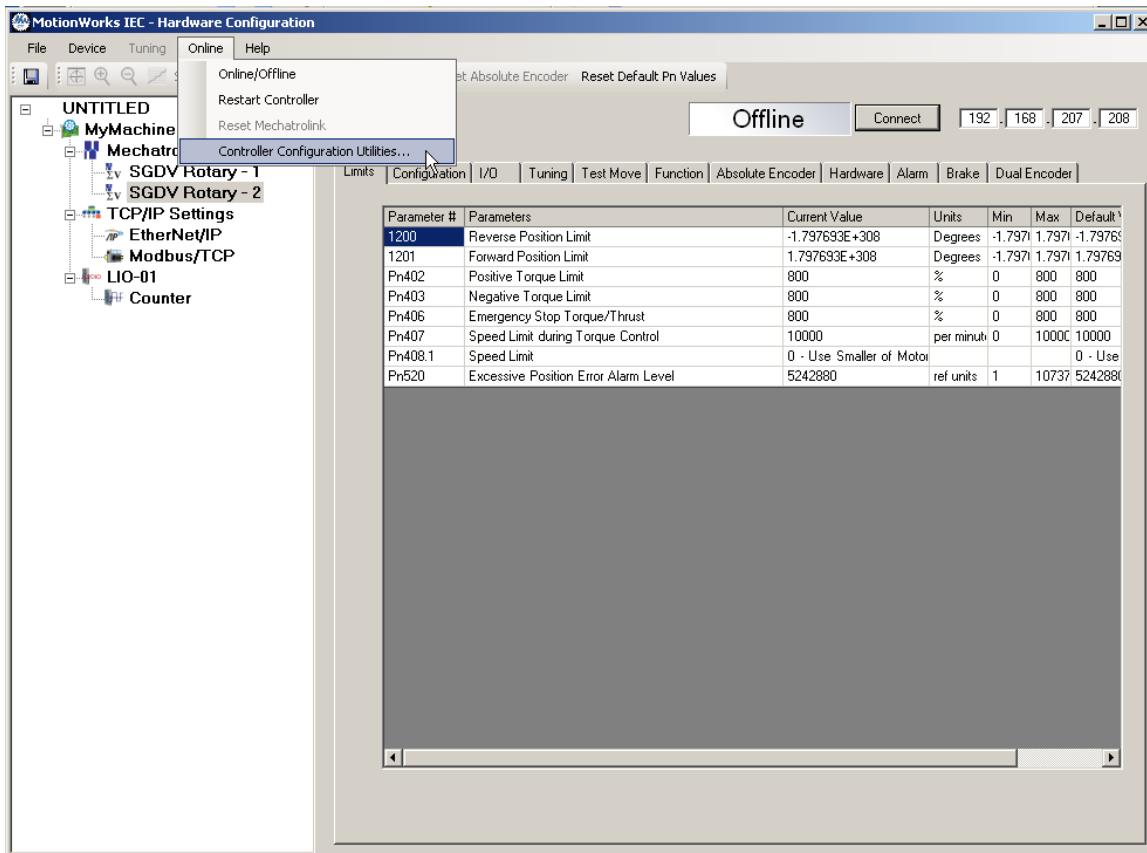
The following confirmation dialog will be shown to insure this operation was not selected by accident. Select OK.



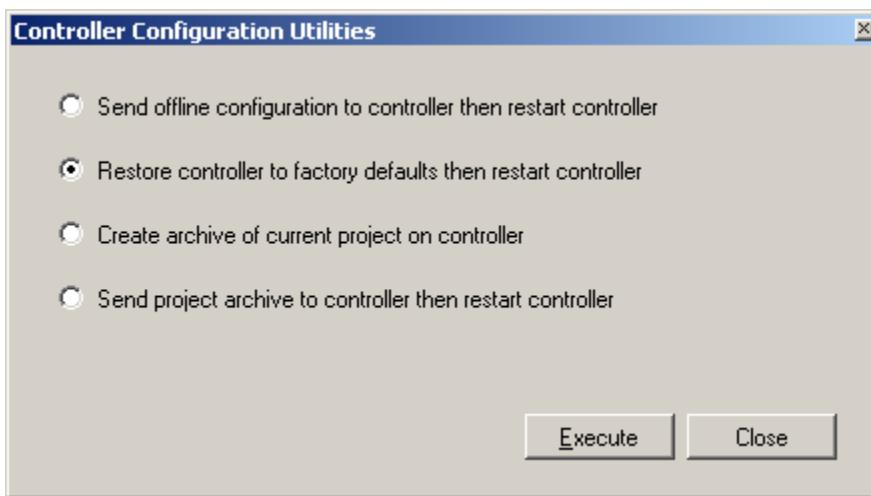
Be sure to do this for each axis.

Note: This operation will restore the amplifiers parameters to the IEC controllers default values (best if the amplifier will be used in the IEC system). To restore to factory defaults SigmaWin Plus or a digital operator must be used.

Resetting the controller



Click the disconnect button (if connected) and then select “Controller Configuration Utilities” from the Online menu.

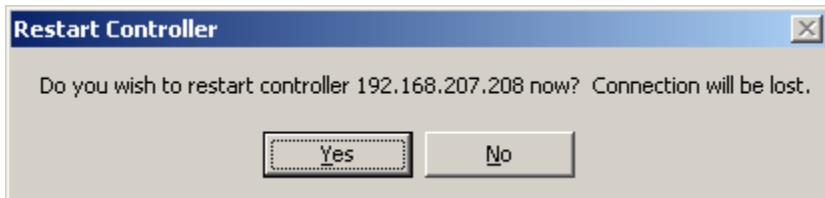


Select the “Restore controller to factory defaults then restart controller” radio button and then Execute.

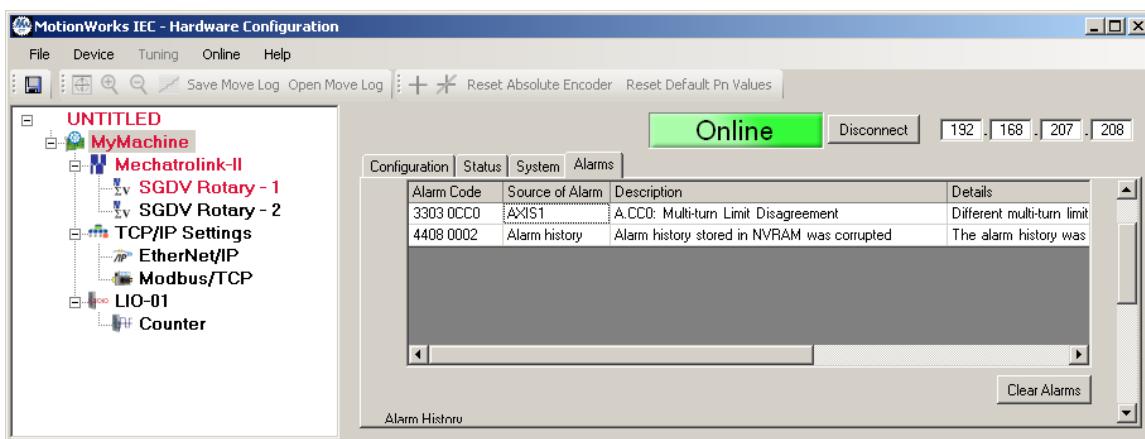
A confirmation dialog will be displayed. Select OK.



After that a dialog will ask if you wish to restart the controller. No should be selected so that power can be cycled on the entire system. Selecting yes and not powering down the system will restore the controller to factory defaults, but leave some amplifier parameters in their non-default state.



After power cycling the controller and reconnecting with the hardware configuration application, an alarm will be present showing that the alarm history was corrupted. This is a normal alarm that is shown when ever the system is reset. Clear this alarm using the alarm clear button on the alarms tab of the root node with the default name of MyMachine.



If there is an absolute encoder in the system and the multi turn limit was changed from factory default, an alarm will be shown because the multi turn limit stored in the motor is not the same as the multi turn limit stored in amplifier parameter Pn205.

To reset the multi turn limit see the document “Programming applications for absolute encoder motor replacement” for instructions on how to do this through the web server.

Conclusion

Restoring the IEC system to the default settings involves opening the hardware configuration, clicking on each amplifier node and restoring default PN values, going online with the “Controller Configuration Utilities” and resetting the controller, and then cycling power on the entire system.