Subject: Quick Start	Product: MPiec Controllers	Doc#: AN.MP2600iec.01
Title: Quick Start Guide for MP2600iec		

This document will detail the basic sets required to get the motor moving once the SGDV / MP2600iec controller is removed from its packaging.

Contents

Removing the unit from the box.

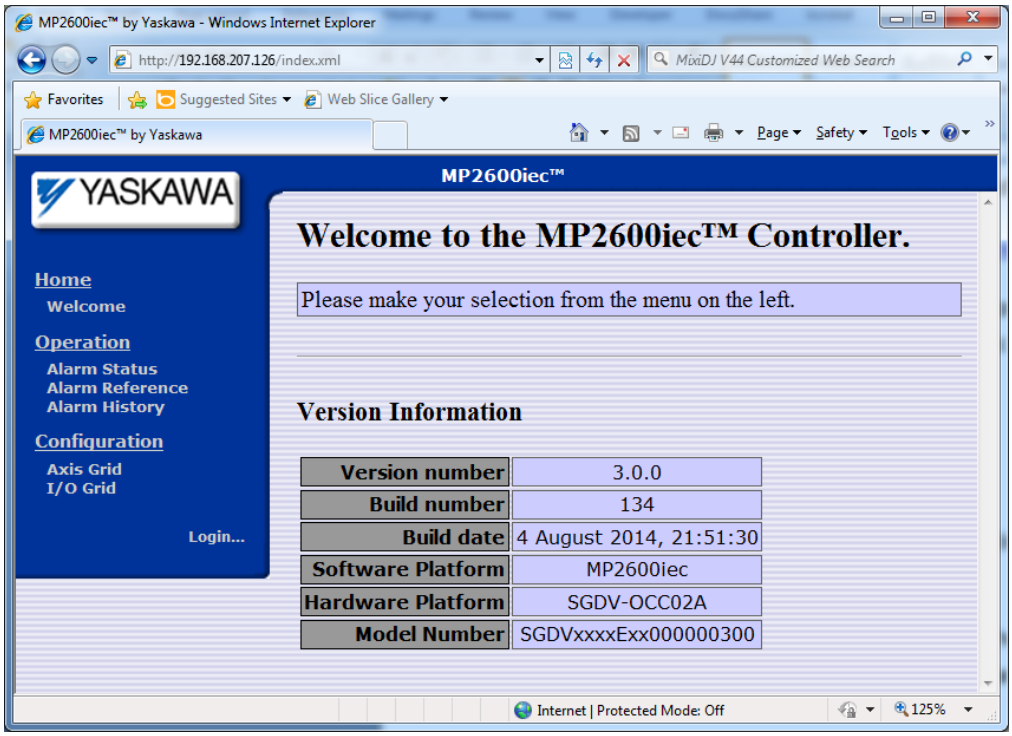
1) Connect the battery to the MP2600iec connector (CN14) located on the bottom right.
    a. Important: Battery alarms must be cleared as described in the Clearing Alarms section on page 3.
2) Connect power to the Servopack, but do not power it on yet.
3) On the MP2600iec, set SW1 "CNFG" and "E-INIT" switches to the ON position, all others should be OFF. When the E-INIT switch is on, the controller will use the IP address 192.168.1.1.

Connecting to the Controller

1) Apply power to the ServoPack's control power terminals L1C and L2C. If using a 400 VAC ServoPack, apply 24 VDC as described in the Sigma-5 Option Amplifier manual.
2) Connect an Ethernet cable to the PC and to the MP2600iec controller.
3) Configure the PC with an IP address of 192.168.1.x where x is anything between 2 and 250. If you're not sure how to do this, follow link provided below, or Google "configure PC IP address":

http://www.howtogeek.com/howto/19249/how-to-assign-a-static-ip-address-in-xp-vista-or-windows-7/

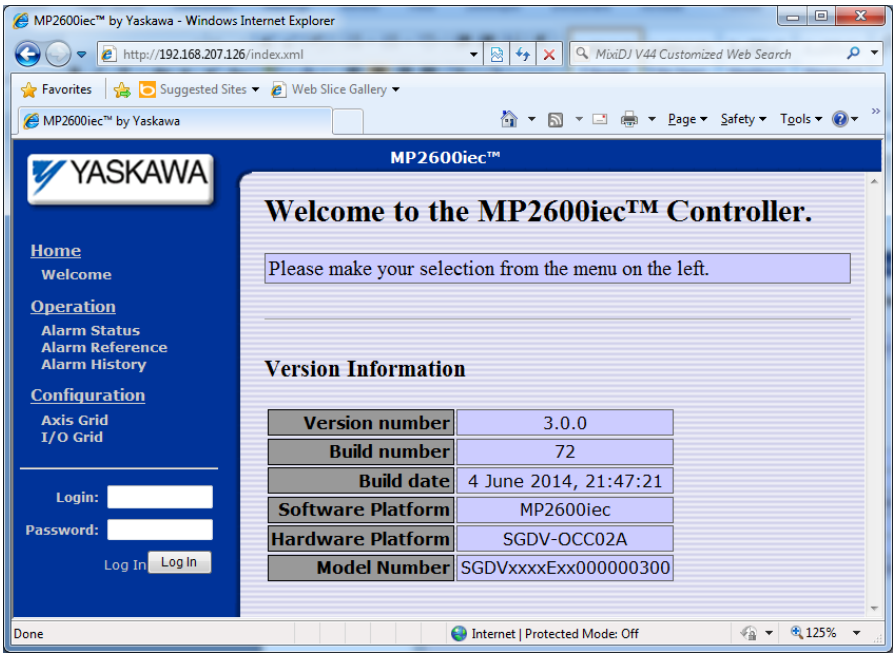
4) Open Internet Explorer and enter the controller's IP address "192.168.1.1" in the address bar. The browser should look something like this:



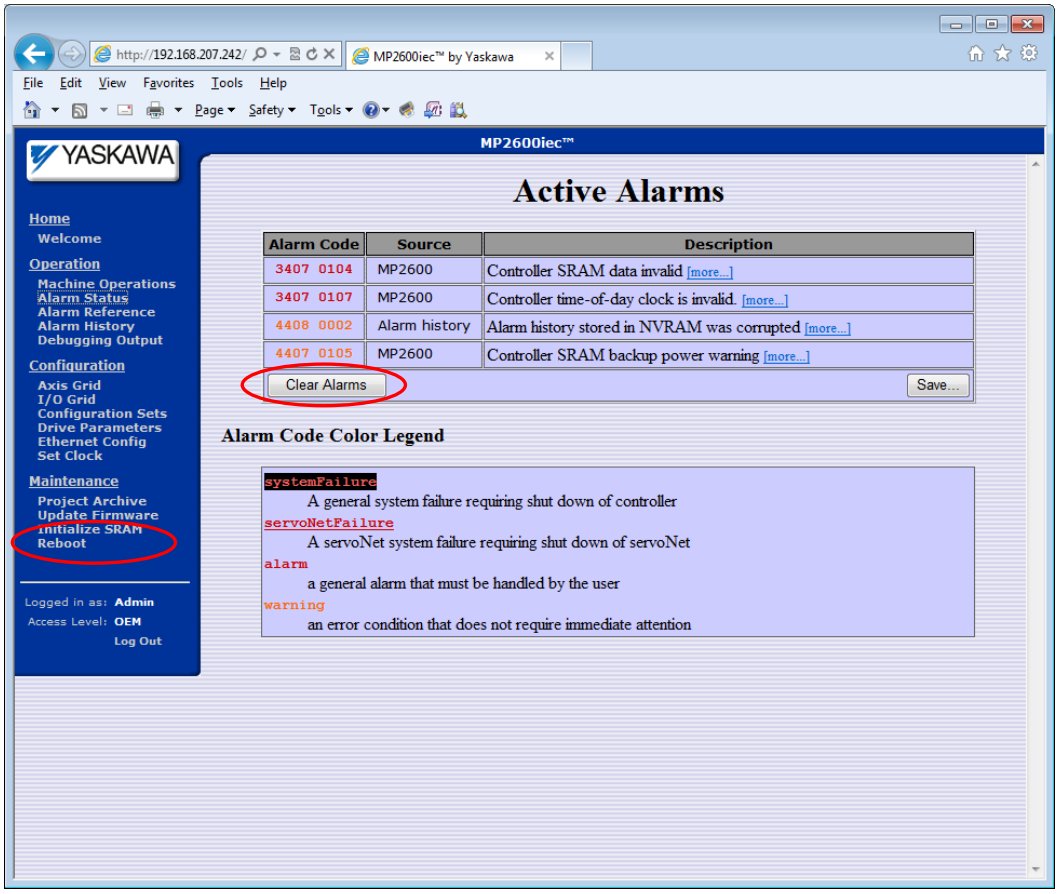
Clearing Alarms

If the battery has been disconnected for some time (the MP2600iec is shipped with the battery disconnected) the controller will have SRAM alarms.

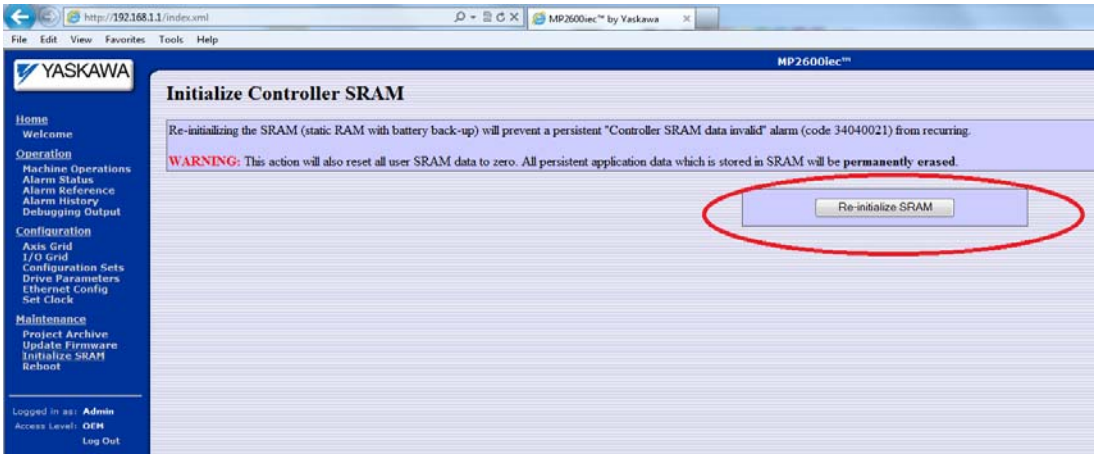
1) Login into the controller by clicking in the textbox next to Login and entering “Admin” and “MP2600” in the Password textbox. Note that both are case sensitive.



2) Click on the “Alarm Status” link at the left of the page.
3) Click the “Clear Alarms” button.

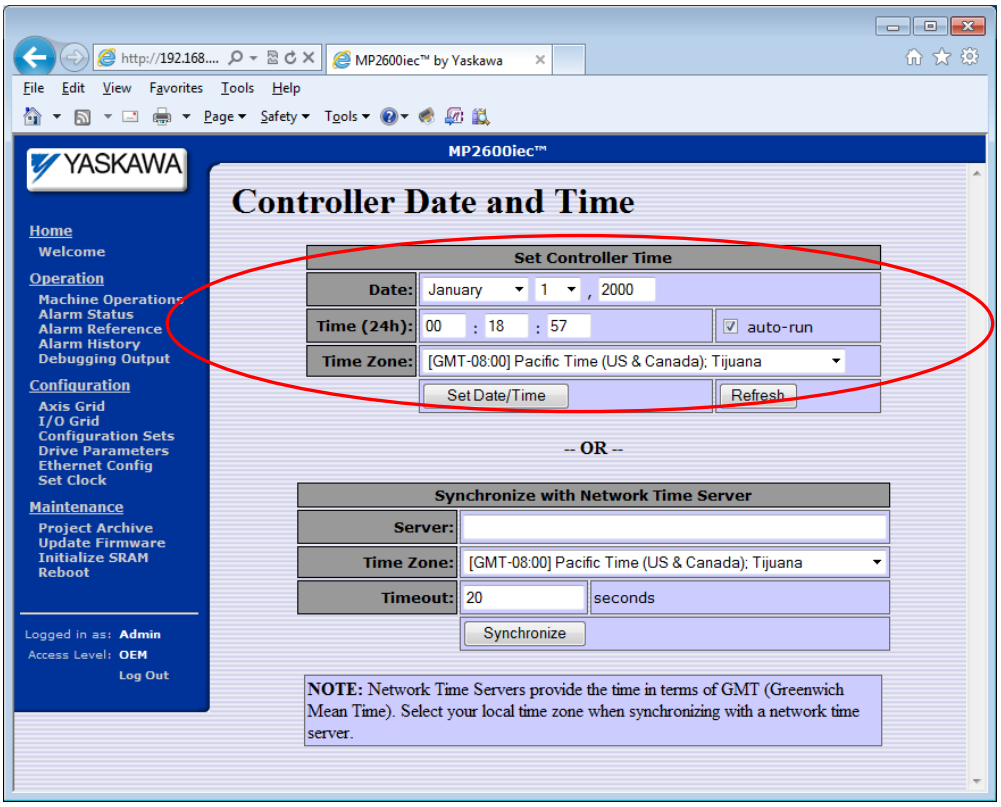


5) Click the “Initialize SRAM” link.
6) On the Initialize SRAM screen, click the “Re-initialize SRAM” button.



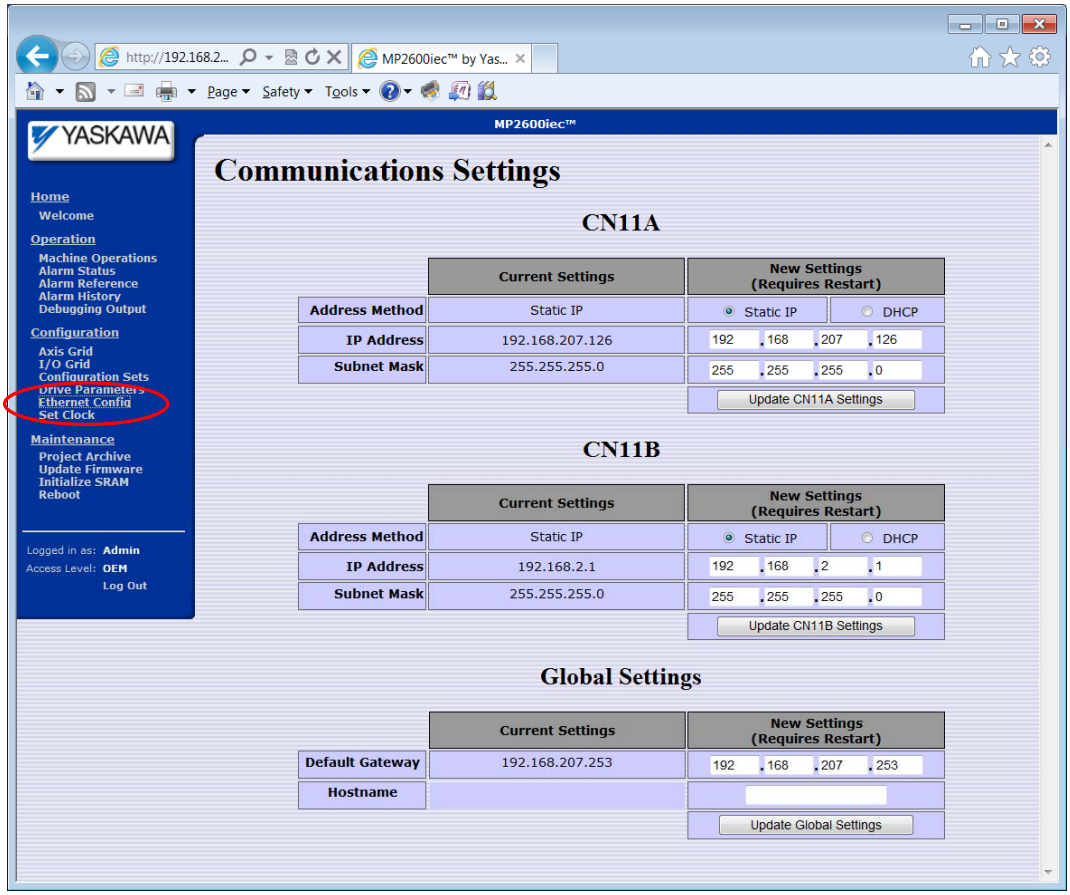
7) Reboot the controller.
8) Once the controller has rebooted, click the “Set Clock” link.

9) Set the correct date, time, and time zone then click “Set Date/Time”.



Setting an IP address (optional)

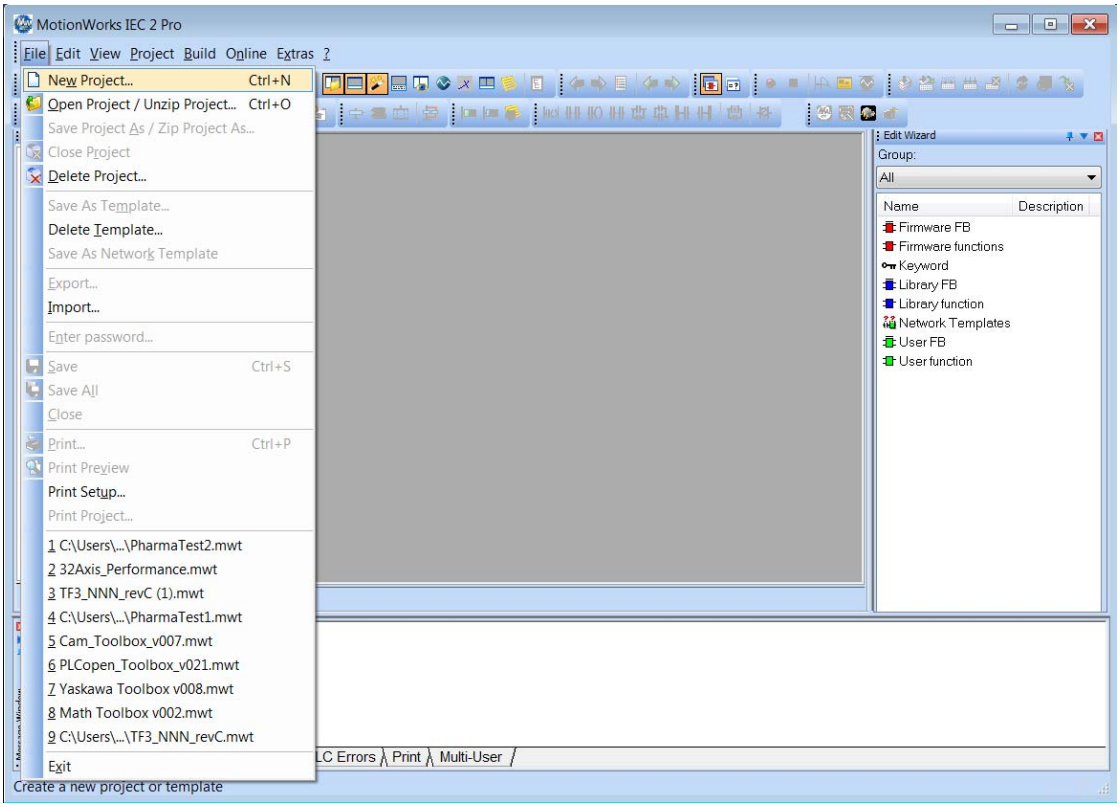
1) Login into the controller by clicking in the text box next to “Login” and entering “Admin” and “MP2600” in the Password text box. Note that both are case sensitive.
2) Click on the Ethernet Config link on the left side of the screen.
3) Set the IP address and click on “Update Built-in Ethernet Settings.”
4) Set the Default Gateway and click on “Update Global Settings.” (Do not set both values before clicking on a button or you will have to reenter the value for the button that was not clicked.)



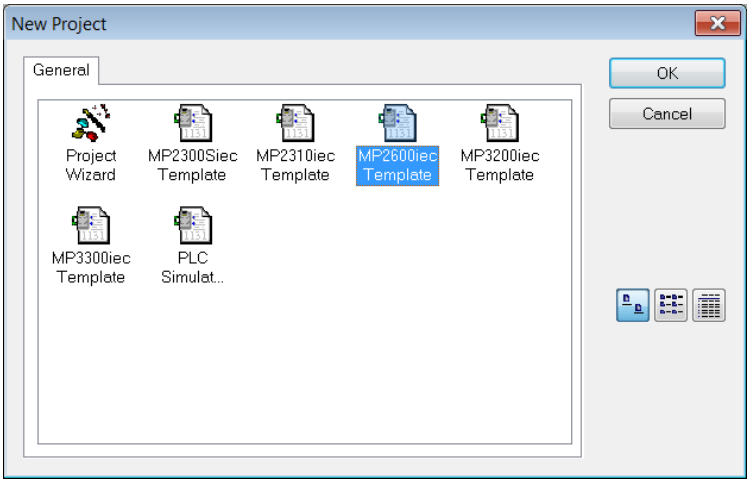
5) Reset SW2 so that all switches are off. If E-INIT is left ON, the controller will not use the configured IP address.
6) Reboot the controller and reset the PC’s IP address. If you plan to connect directly to the controller, then the PC’s IP address must be on the same subnet.
7) Confirm communication by typing the configured IP address in the address bar of Internet Explorer.

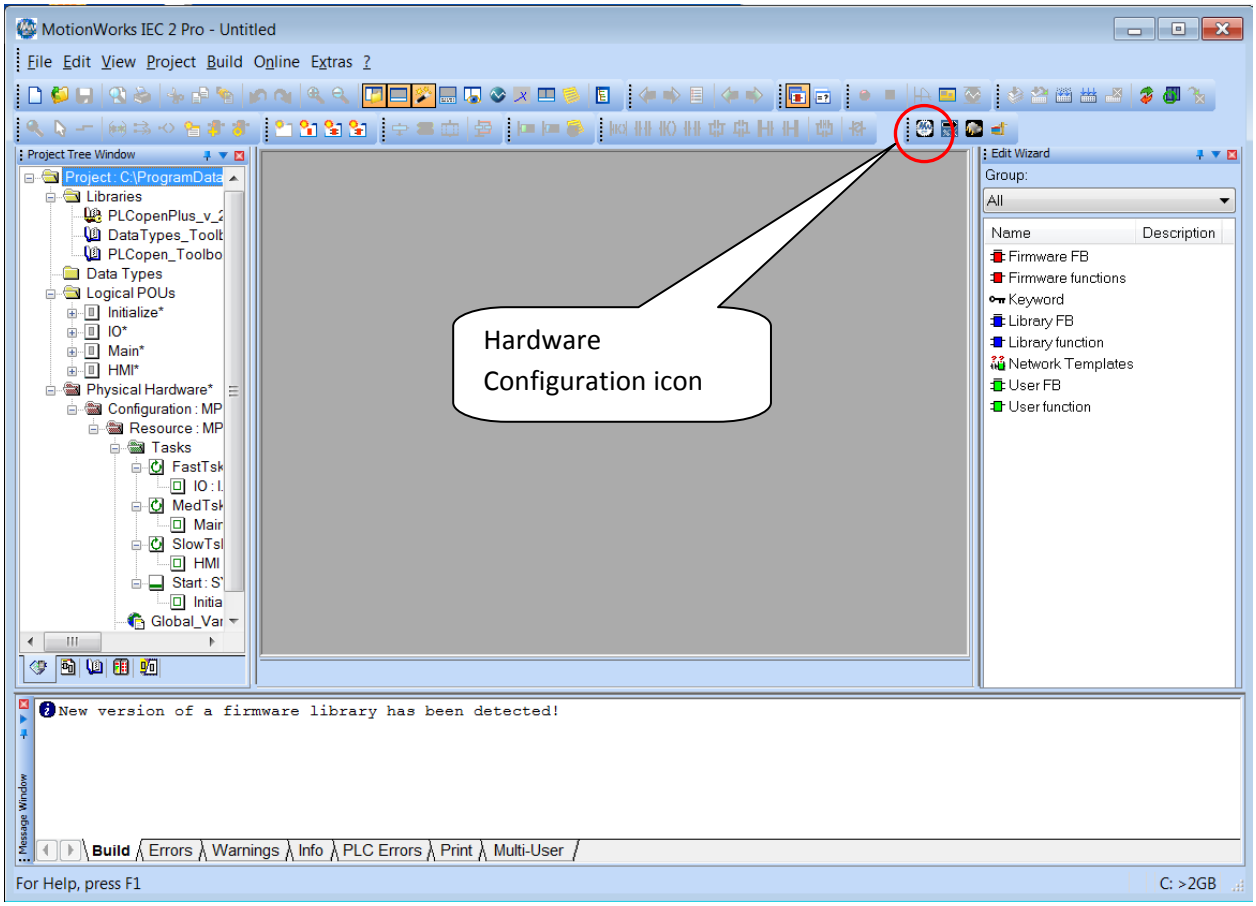
Creating a New Project

1) Open MotionWorks IEC and open a new MP2600iec project by selecting File -> New Project.



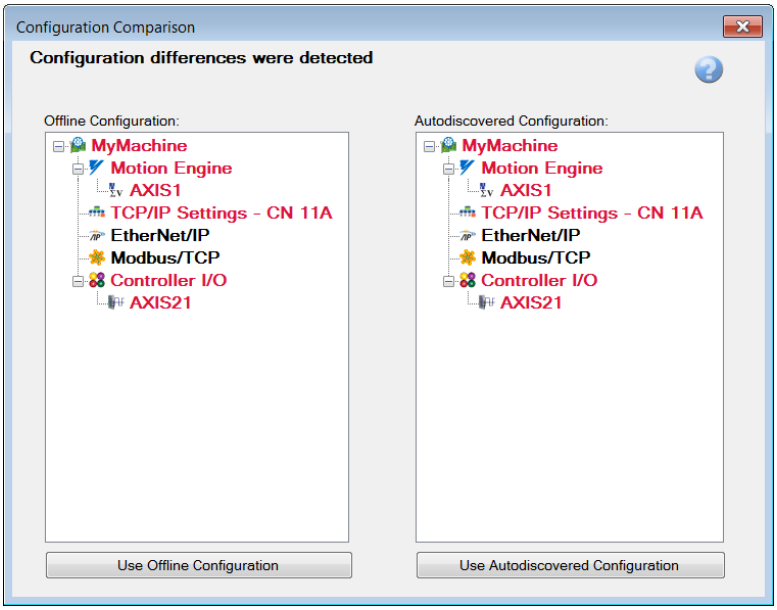
2) Select the MP2600Siec Template.



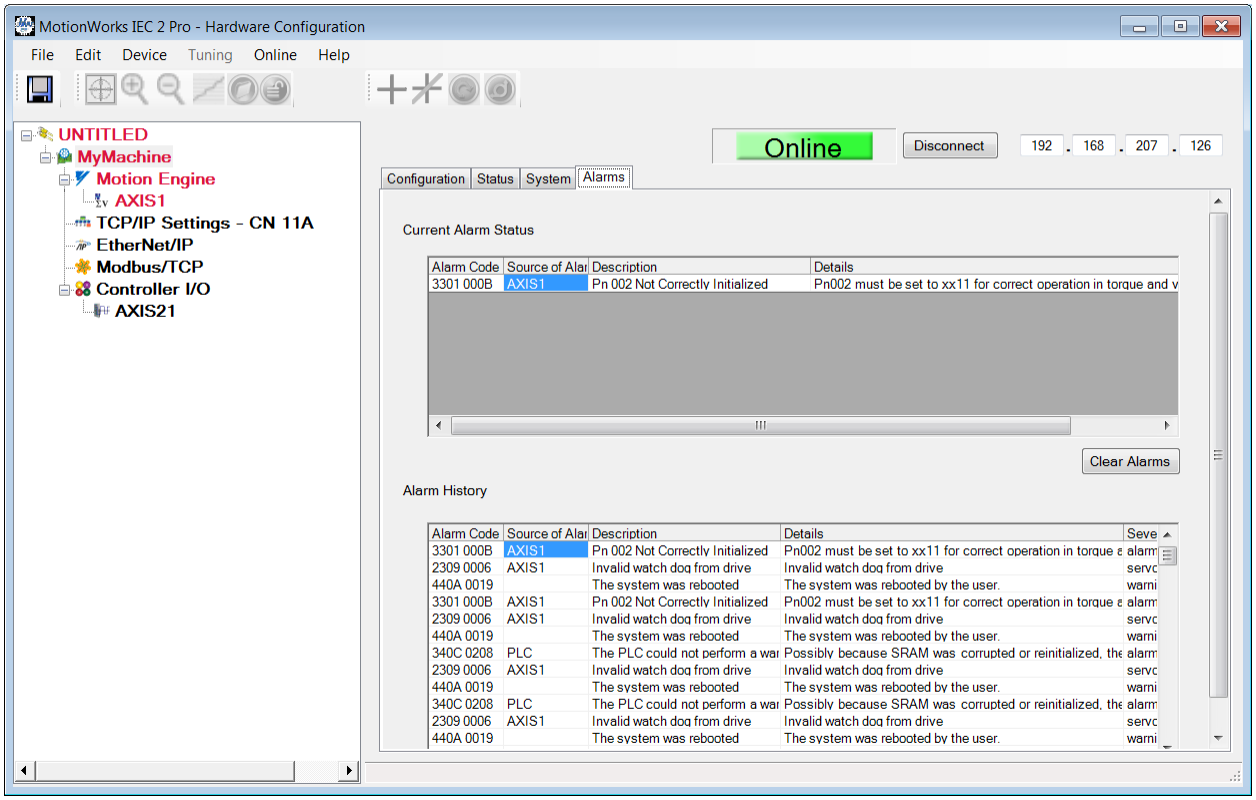


3) Locate and click the icon to open the Hardware Configuration. Note, this toolbar may be on the bottom left of the toolbar area.

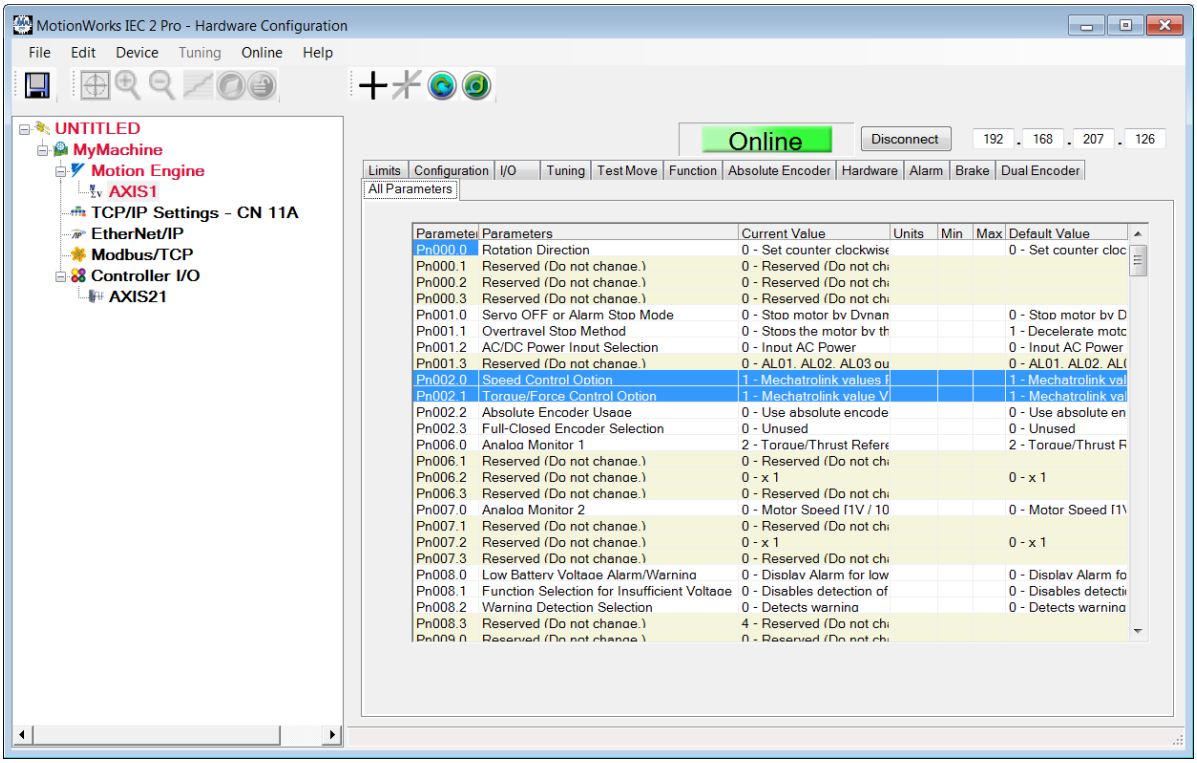
4) Set the configured IP address in the boxes on the upper right and click on the Connect button.



5) The Hardware Configuration will display configuration differences since the project's default configuration will not match the autodiscovered configuration. Select the "Use Autodiscovered Configuration" button.



6) If the Servopack has factory default parameters, the axis will be shown in red, because it has alarms. Click on MyMachine in the configuration tree and then on the Alarms tab. The current alarm status will likely show an alarm that Pn002 is not properly initialized as shown above.

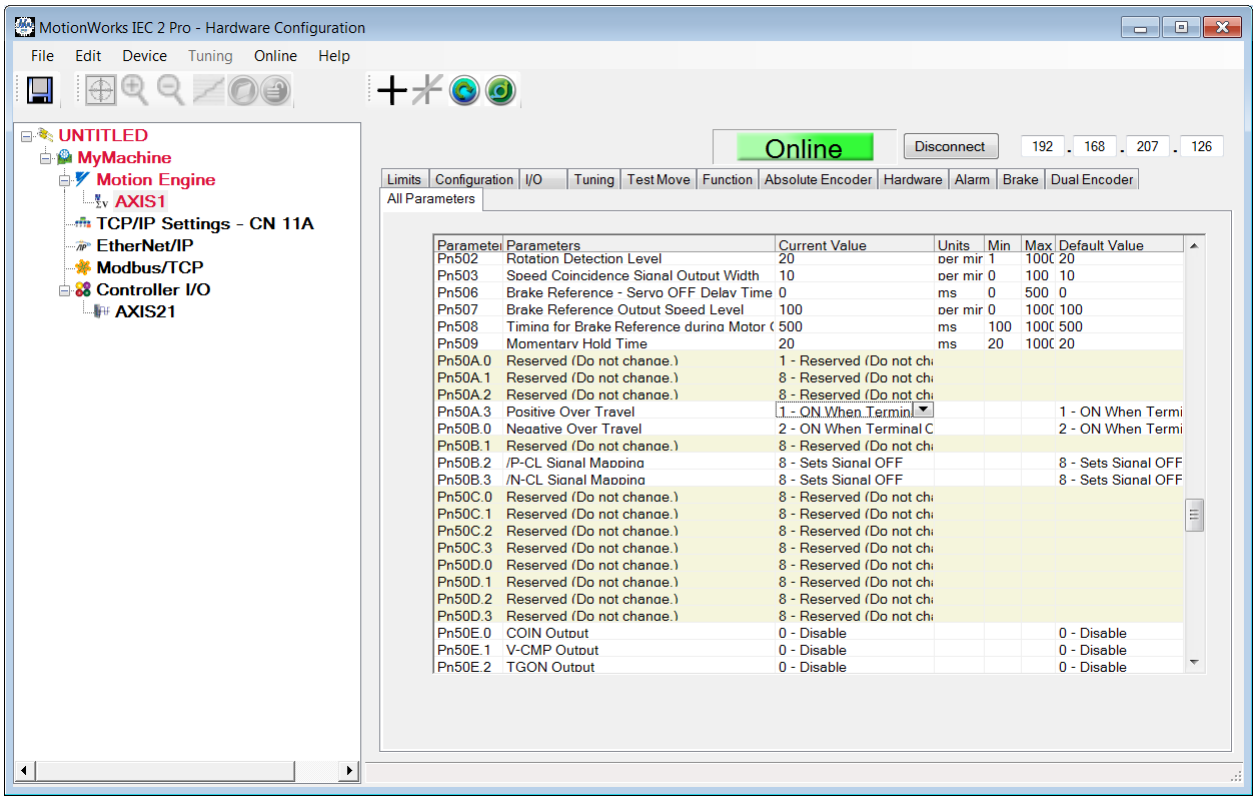


7) Click on Axis1 in the configuration tree view and then on the “All Parameters” tab. Observe that the required for Pn002 is set properly. Save these values to the controller.

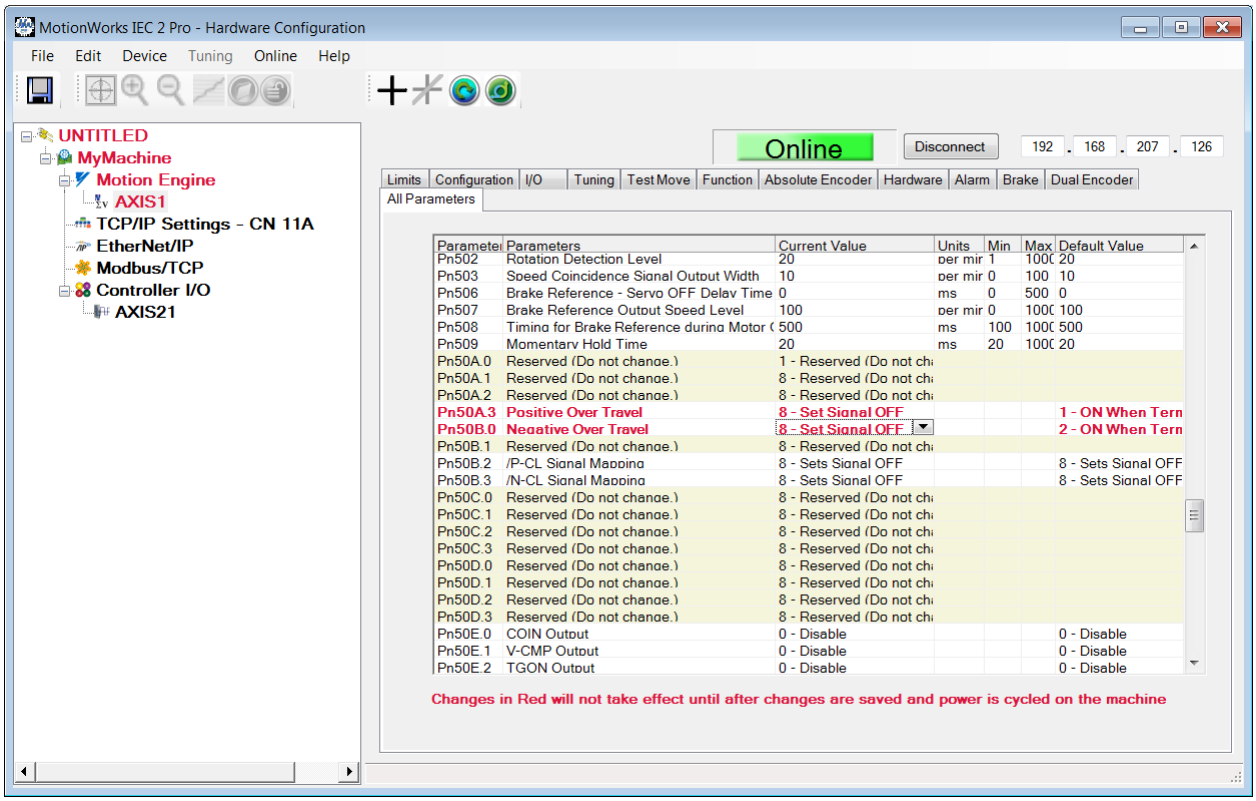
Limit Switches

1) On the All Parameters tab, scroll down to Pn50A and 50B.

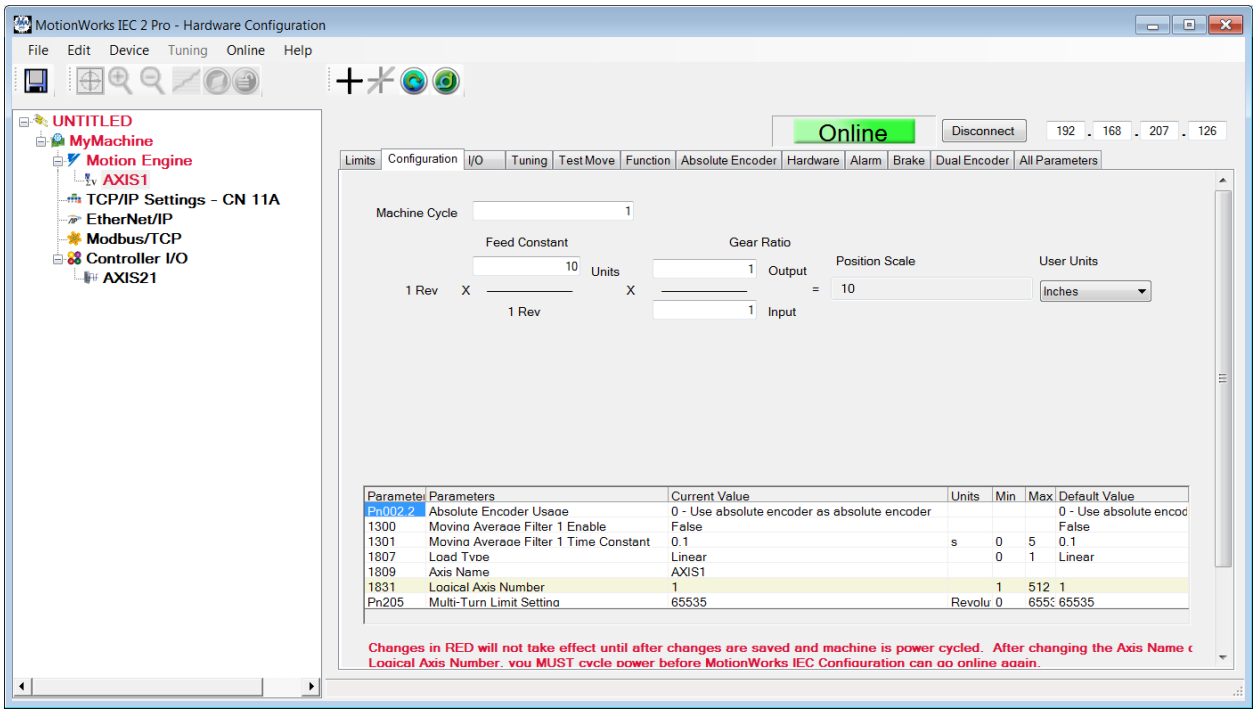
WARNING: Do not disable the limit switches if the axis can physically hit something. If this is the case, connect over travel (limit) switches to the Servopack's CN1 IO connector. If the axis is unconnected from its load or if it is impossible for the axis to hit anything, proceed to disable the limit switches.



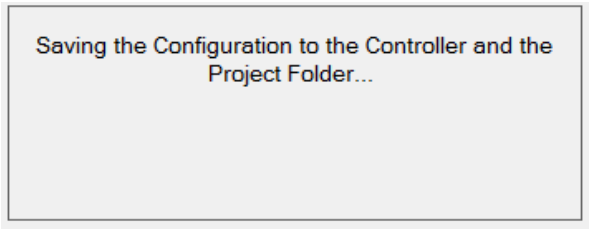
2) To disable the limit switches, set Pn50A.3 and Pn50B.0 to 8. When these parameters are changed, a warning will be displayed indicating that this setting will not take effect until the ServoPack power is cycled off and on again.



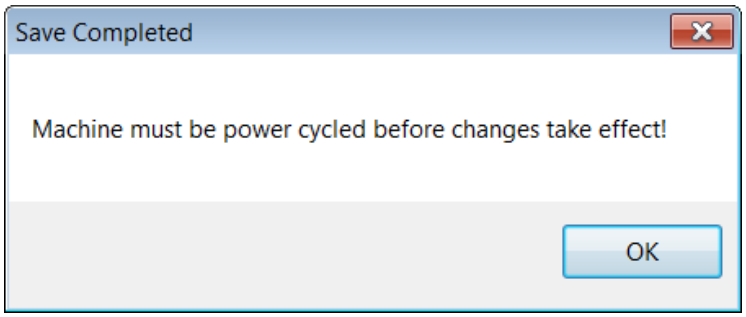
3) Click on the configuration tab to set user units. For this example the load will move 10 inches for every motor revolution so set the position scale to 10 and the user units to inches.



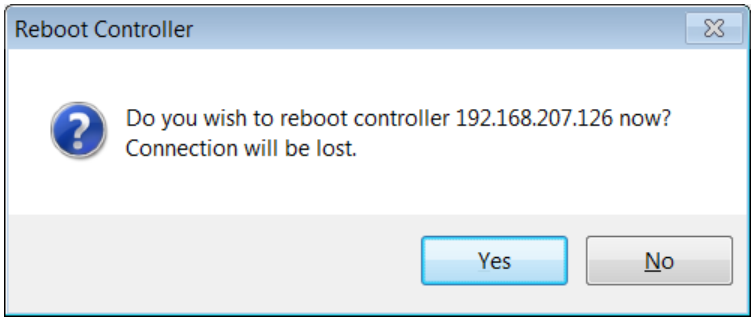
4) After setting the position scale, save all of these settings to the MP2600iec controller and Servopack by selecting the Save icon or choosing Save from the file menu. The following dialog will appear while the configuration is being saved.



When saving has completed, a dialog box will indicate that the system must be power cycled.

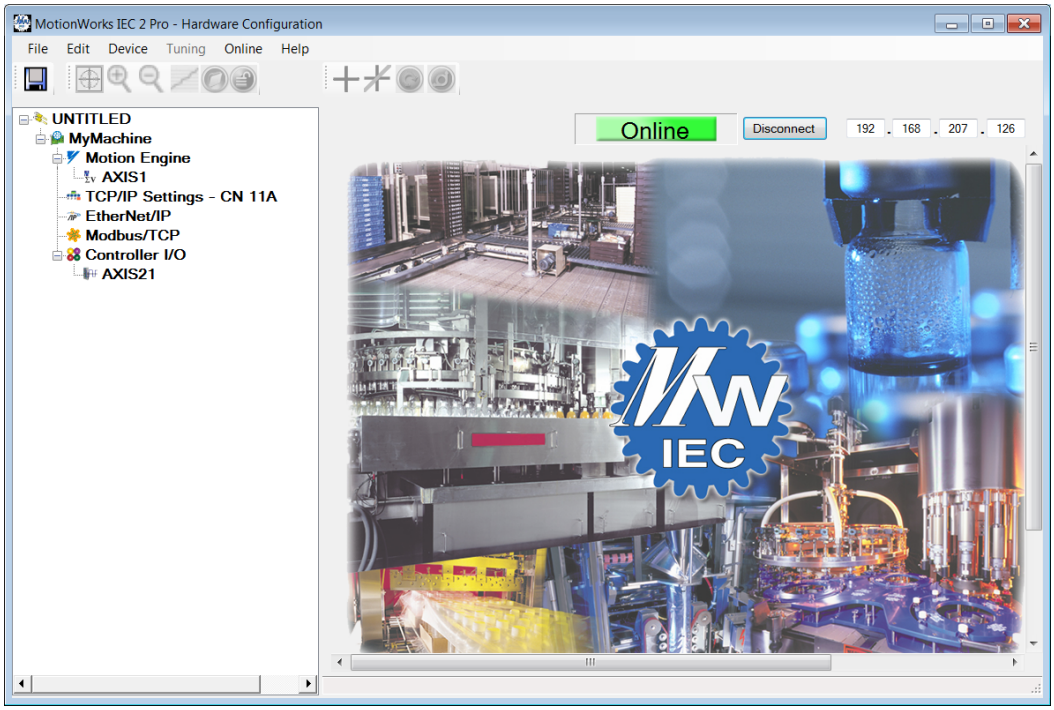


5) From the Online menu, select “Reboot Controller,” and then click Yes to the following confirmation dialog.



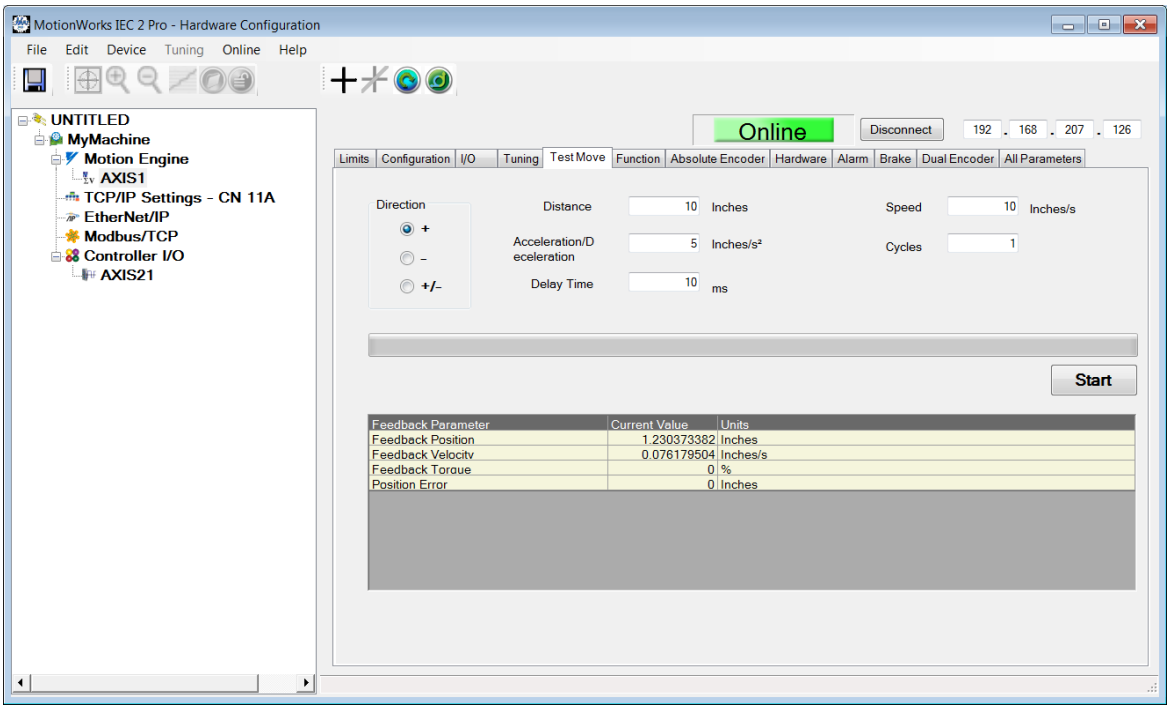
When the MP2600iec controller reboots, it performs a software reset on the ServoPack, so there is no need to physically remove power from the Servopack.

6) After the controller has finished rebooting, click Connect again.

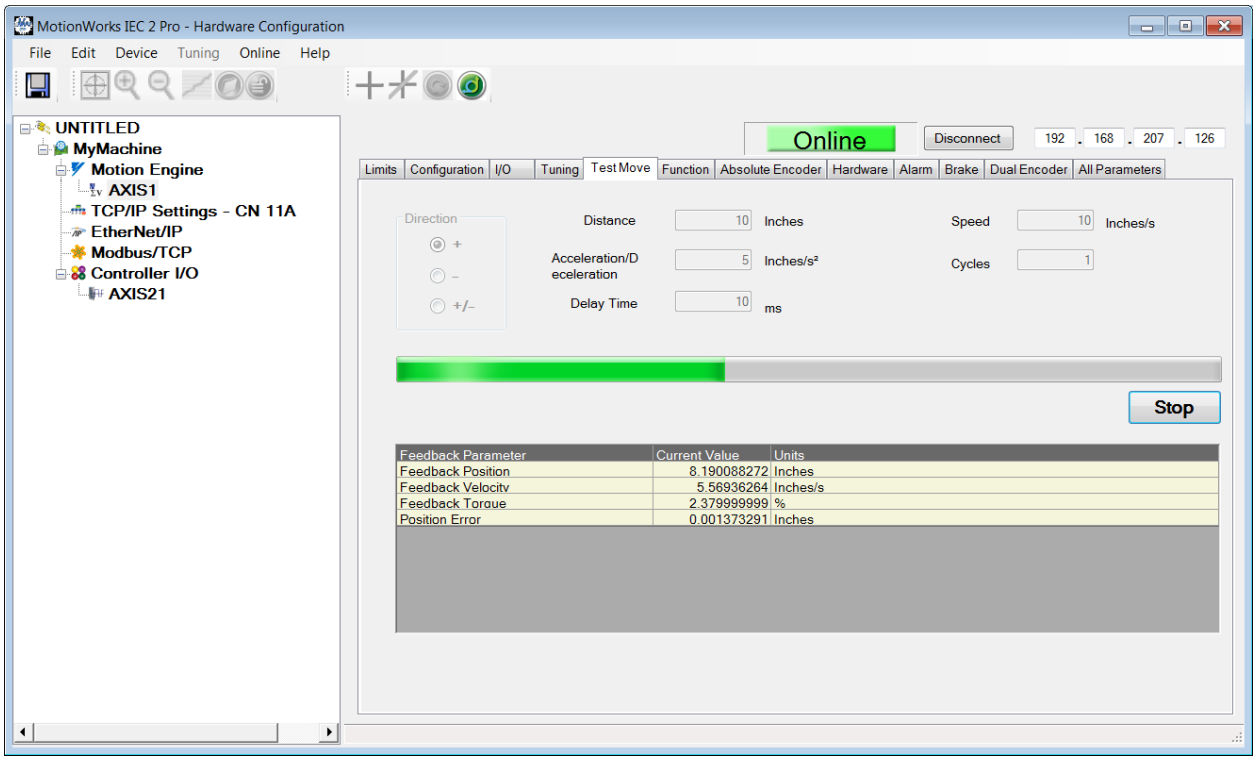


Making a Test Move

To run the test move, click on the Test Move tab. In this example, the axis will be commanded to move 10 inches at 10 rev/sec in one direction only. The test move will be repeated only once as indicated by the "Cycles' field. Click on the "+" icon to enable the motor and then click Start to begin motion.



The motor will begin moving and the screen will show updated information as the axis moves.



Now that the motors are enabled and running, the next steps in the development of an application is to mount and tune the motors and write the IEC 61131 application program. Follow the link for a good reference document about tuning the servo.

http://www.yaskawa.com/site/dmservo.nsf/SearchV/7BBC75A9A5EBFF1A862578F40075604E?OpenDocument&Source=SearchResultPage