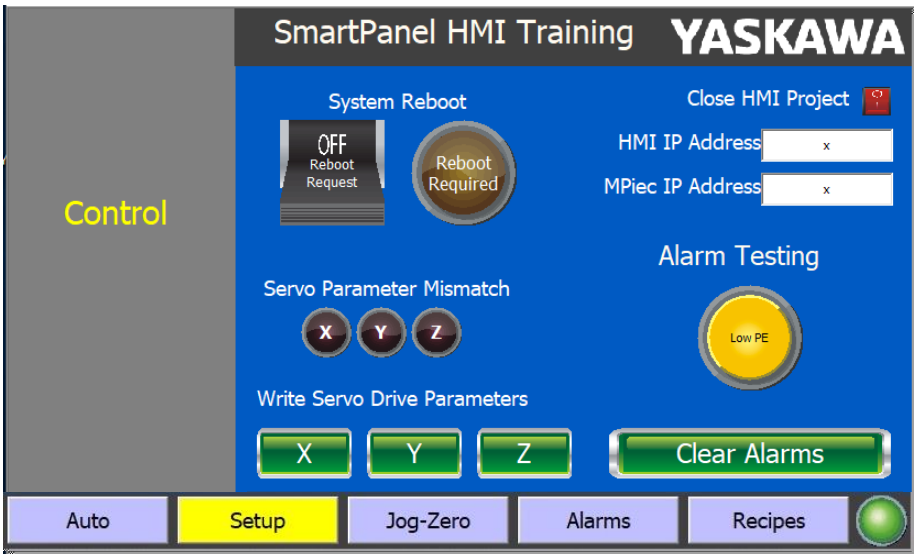
Setup Screen

Mini-Lab

Requirements

- MP3300iec Demo
- HMI project with navigation functional



Lab Overview

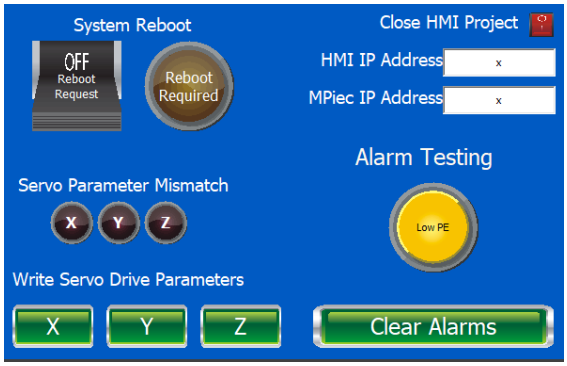
This lab document will guide the participant through the following steps:

I. Lay Out the Controls (15 min)
II. Connect Variables and Commands (15 min)
III. Verify Functionality (10 min)

Lab Goal

- Setup screen will be complete
- All servo parameters and alarms updated

I. Lay Out the Controls (without function)



Follow the suggested layout or create your own

A. Text Labels

Toolbox → Basic Shapes → Text

B. Switch with text

Toolbox → Switches → Switch F (or any)

C. LEDs with text

Toolbox → Lights-Leds

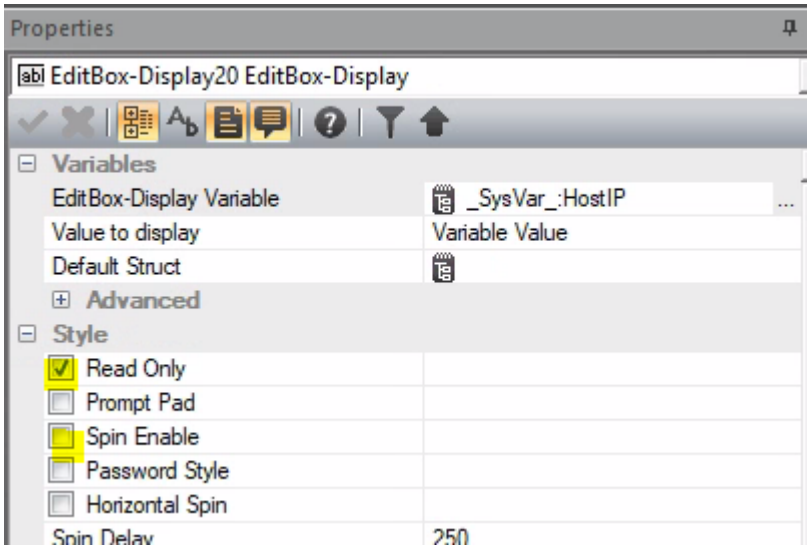
D. Buttons with text

Toolbox → Rectangular Buttons, Round Buttons

E. EditBox-Displays

Toolbox → Objects → EditBox-Display

Properties → Style:



1. Spin Enable/Disable
2. Read Only

II. Connect Variables and Commands

A. General Tips

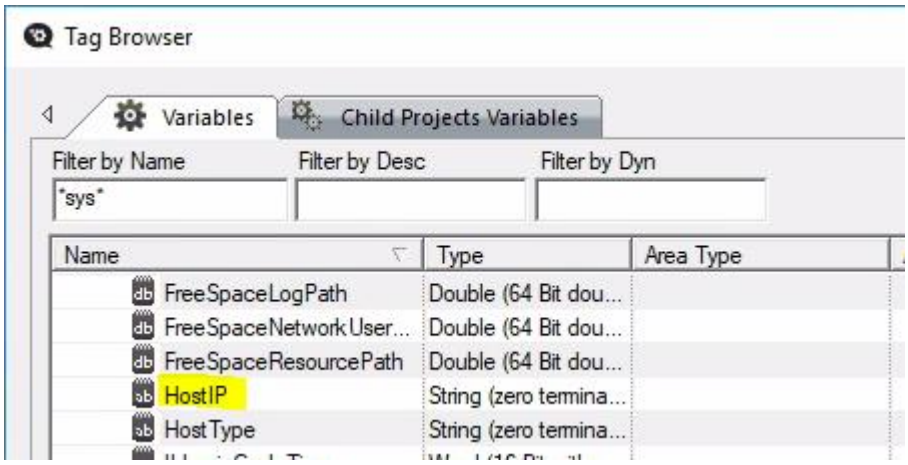
1. These PLCI variables are used in the Setup screen to communicate to the MPiec

Variable	Description
HMI_ClearAlarmsRequest	Request all axes Alm Clear
HMI_IPAddress_MPiec	String with IP address of the Mpiec controller
HMI_RebootRequest	Request controller and all axes reboot cycle
HMI_RebootRequired	Controller detects that reboot is required
HMI_SetLowPE	Set allowable position error low on all axes (for alarm testing)
HMI_X_PnMismatch	Parameters in Servopack don't match MPIec XML file
HMI_X_WriteDriveParams	Write SERVOPACK parameters from controller XML file
HMI_Y_PnMismatch	Parameters in Servopack don't match MPIec XML file
HMI_Y_WriteDriveParams	Write SERVOPACK parameters from controller XML file
HMI_X_PnMismatch	Parameters in Servopack don't match MPIec XML file
HMI_Z_WriteDriveParams	Write SERVOPACK parameters from controller XML file

2. Filter to find the MPiec tag (ex: *reboot*, *mismatch*, *write*, *IP*, *LowPE*, *clear*)

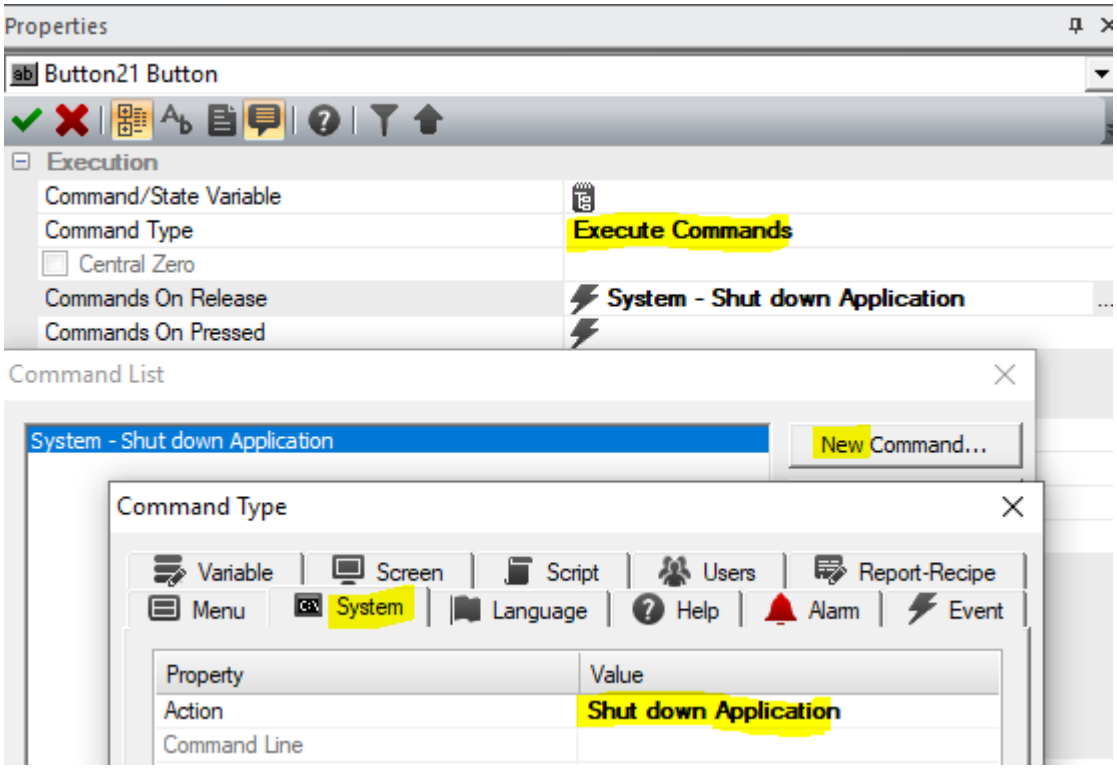
B. HMI IP Address EditBox-Display Variable

HINT: A member the _SysVar_ structure contains the HostIP



C. Close HMI Project

This switch uses Execute Command, not a variable



Properties → Execution → Command Type = Execute Commands

1. Commands on release → New Command → System – Shut Down Application

III. Verify Functionality

A. Confirm interaction with MPiec program

1. Expect data for IP Address in both EditBox-Display

2. Expect Parameter Mismatch on all axes

3. Set “Write Servo Drive Parameters” for each servo

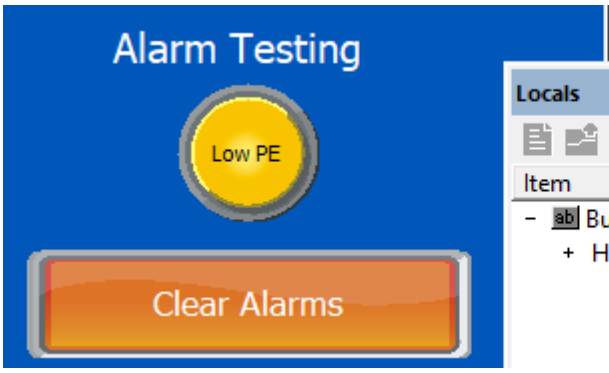
4. Expect Reboot Required
5. Set Reboot Request = ON

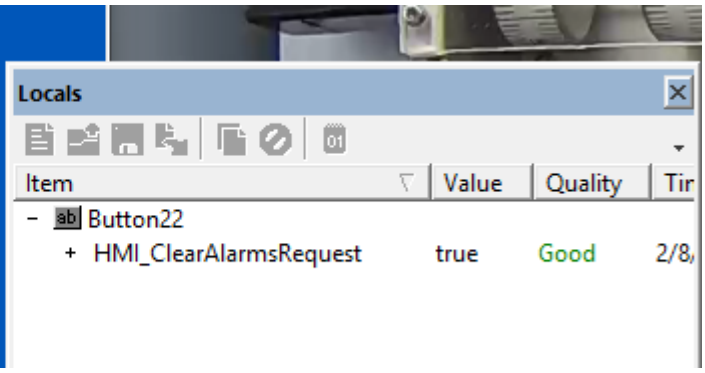
6. Monitor the reboot by looking at the controller LEDs on the MPiec front panel

   After 30 sec expect no alarms

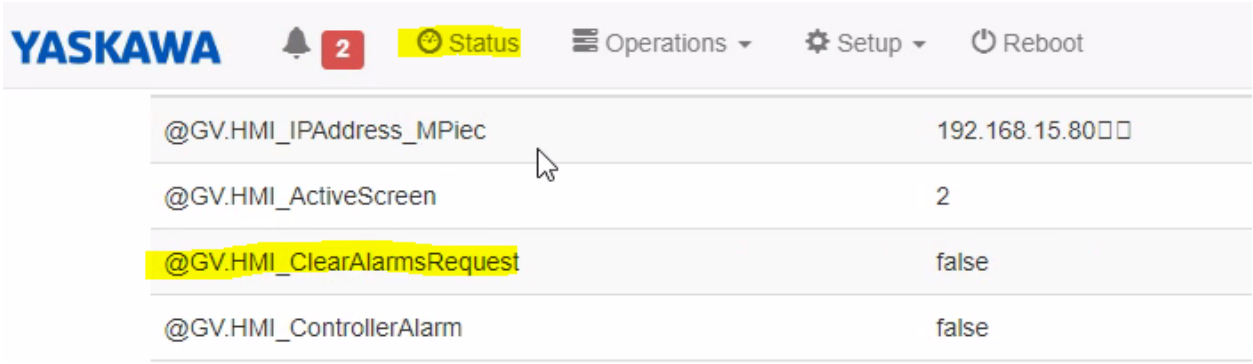
B. Confirm function of HMI_SetLowPE and HMI_ClearAlarmsRequest

1. Using Watch or Locals

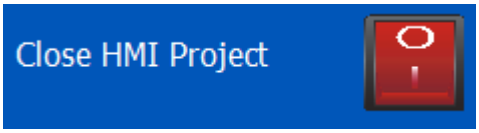




2. Using Web UI → Status



C. Confirm function of Close HMI Project button



End Of Mini-Lab

Troubleshooting Tips

- Use the Watch and Locals to monitor variables on the screen

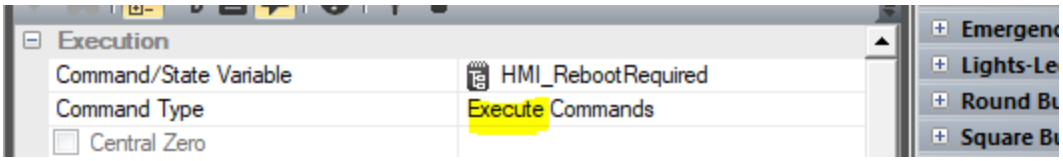
Certification Checklist

- Interaction with MPiec program successful

IV. Optional Exploration – Work on any of the following in any order

A. Add function to click on the Reboot Required lamp for 3 seconds to reboot the controller

1. Make Reboot Required light clickable (Style→ clickable)
2. Change command type to Execute commands (Execution → command type)



3. Commands On Pressed = wait 3 sec, then set HMI_RebootRequest = 1
4. Commands On Release = reset HMI_RebootRequest