

Movicon HMI Editor Basics

Class No. TRM010-HMI-Movicon_Basic_selfg

Rev. 1.00

Date: March 11, 2021

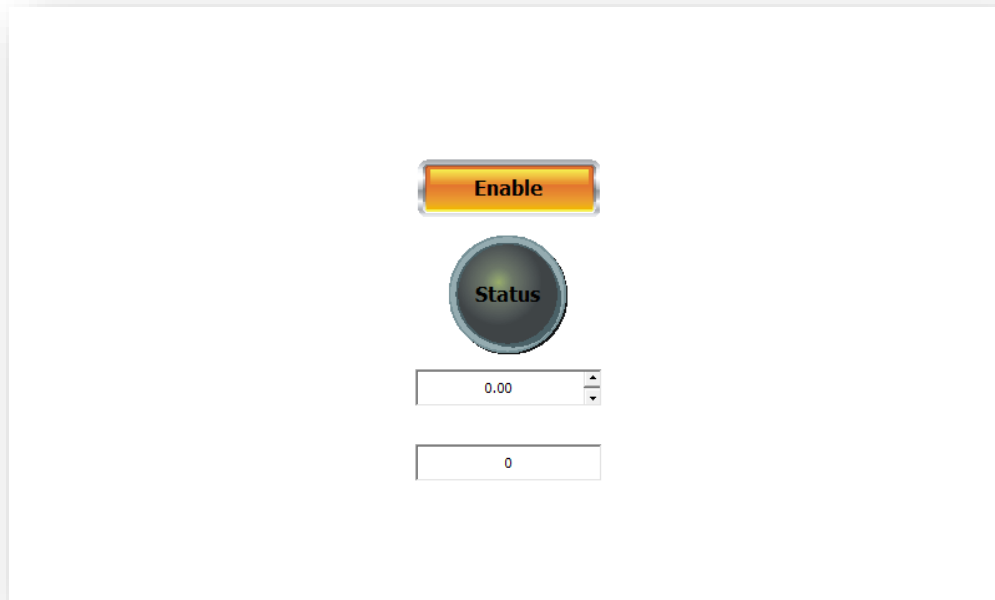
Yaskawa Live Online Training

- Content Overview
- Equipment
- Software
- Self-guided Instruction
- Pre-Requisites
- Training Materials
- Itinerary
- Certification Testing

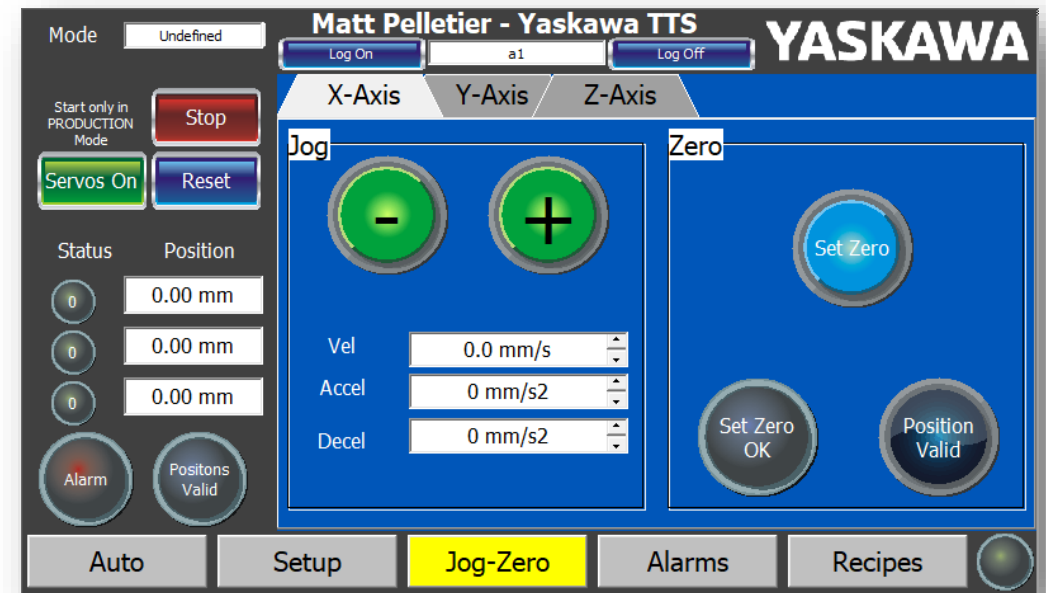
Content Overview

Introduction

- Quick Start



- Main Project



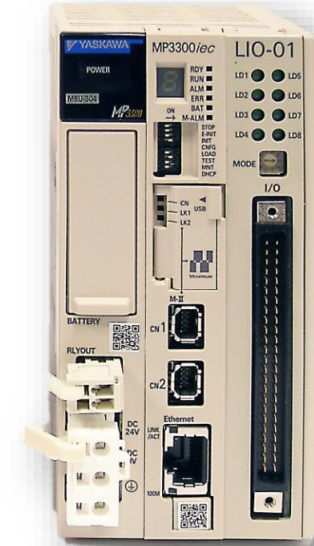
Equipment

Introduction



Movicon
MotionWorks IEC
VNC Viewer
Secomea Link Manager

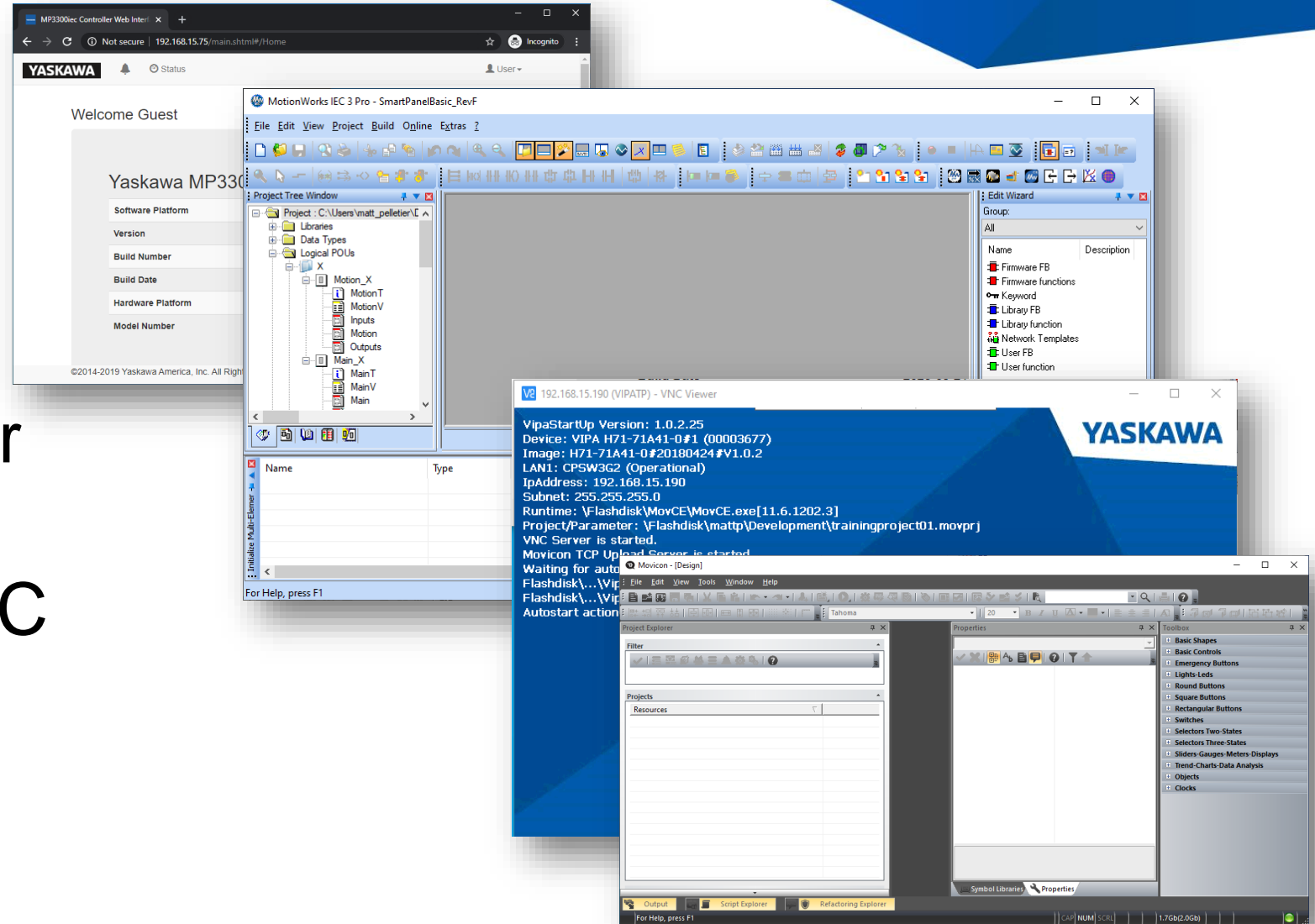
Secomea Link



Software

Introduction

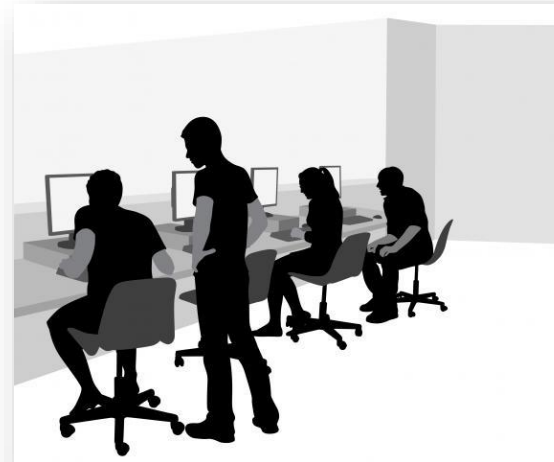
1. Remote IO
2. Web UI
3. Internet Explorer
4. VNC Viewer
5. MotionWorks IEC
6. HMI Editor (Movicon)
7. Secomea Link Manager



Self-Guided Instruction

Introduction

- Present & Demonstrate Concepts
- Follow Mini-Lab Instructions
- Solution Steps
- Support:
training@yaskawa.com



Most but not all
sections contain a
Mini-Lab

Pre-Requisites

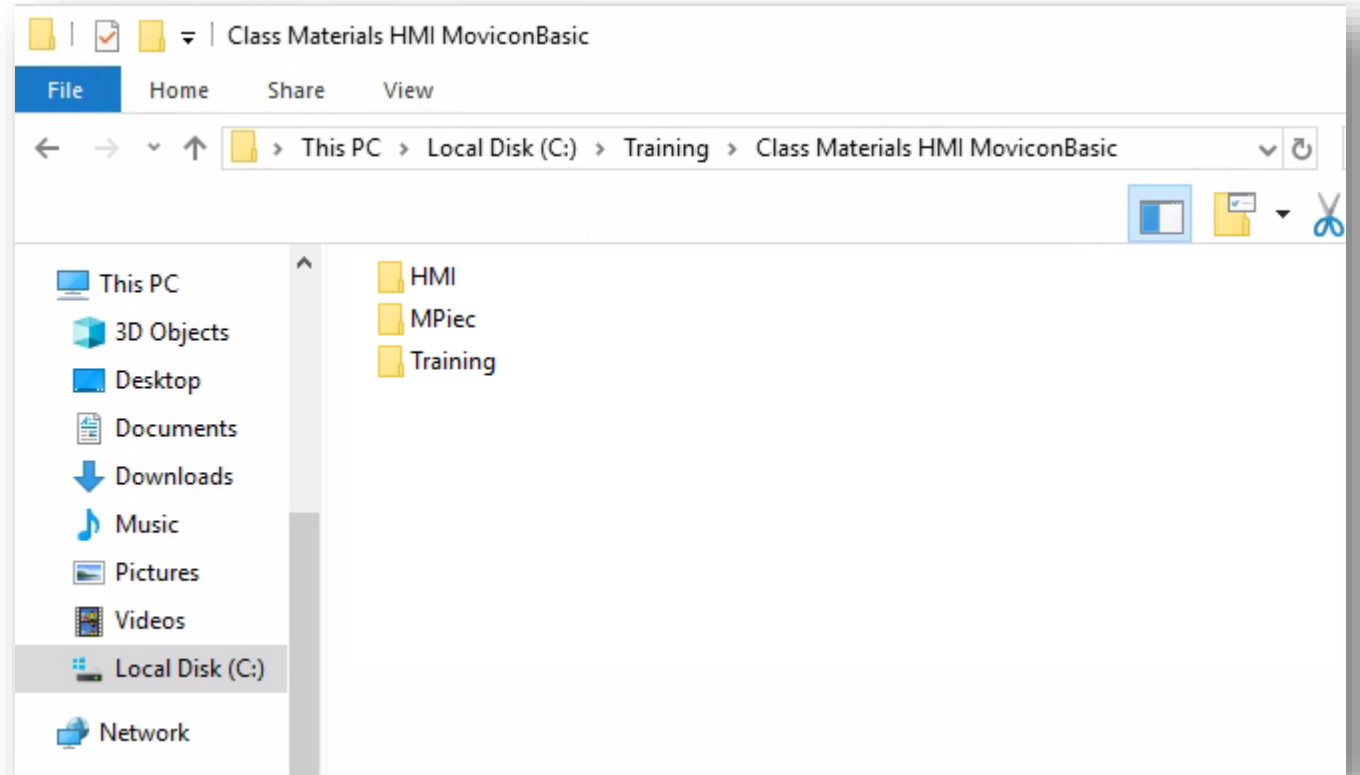
Introduction

1. www.Yaskawa.com/HMI
 2. eLV.SmartPanel.01.HMI_QuickStart
- Recommended
 - IEC61131Basic Self-Guided Training
 - PLCopenBasic Self-Guided Training
 - WebUIBasic Self-Guided Training

Training Materials

Introduction

- Training
 - PowerPoint Presentation (PDF)
 - Mini-Labs (PDF)
- MPiec
 - Archive
 - Project files for reference



Itinerary

Introduction

- | | | | |
|----|------------------------|-----|--------------------|
| 1. | Introduction | 10. | Project Management |
| 2. | Remote Demo Connection | 11. | Setup Screen |
| 3. | Setup | 12. | Jog-Zero Screen |
| 4. | Quick Start Project | 13. | Editing Tips |
| 5. | Main Project Overview | 14. | Auto Screen |
| 6. | Communications | 15. | Recipe Screen |
| 7. | Project Layout | 16. | Alarm Screen |
| 8. | Navigation Bar | 17. | User Management |
| 9. | Control Panel | 18. | Symbols |
| | | 19. | Certification Test |

Certification Test

Introduction

1. Upload final project to the smartPanel HMI
2. Verify operation with VNC Viewer
3. Email training@Yaskawa.com
4. Checklist certification by instructor



Setup

- MP3300iec Hardware Setup
- Software Setup
- Movicon Overview

Itinerary

Movicon HMI Editor Basics

1. Introduction
2. Remote Demo Connection
3. Setup
4. Quick Start Project
5. Main Project Overview
6. Communications
7. Project Layout
8. Header Bar
9. Navigation Bar
10. Control Panel
11. Project Management
12. Setup Screen
13. Jog-Zero Screen
14. Auto Screen
15. Recipe Screen
16. Alarm Screen
17. User Management
18. Arrays, Structures & Symbols
19. Certification Test

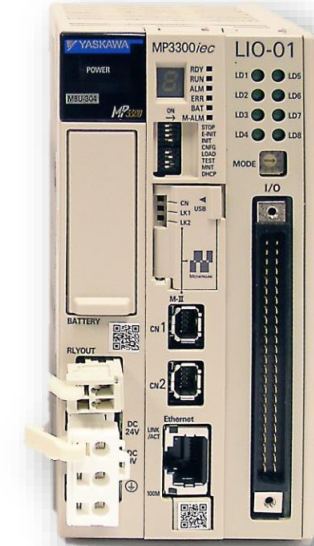
Equipment

Setup



Movicon
MotionWorks IEC
VNC Viewer
Secomea Link Manager

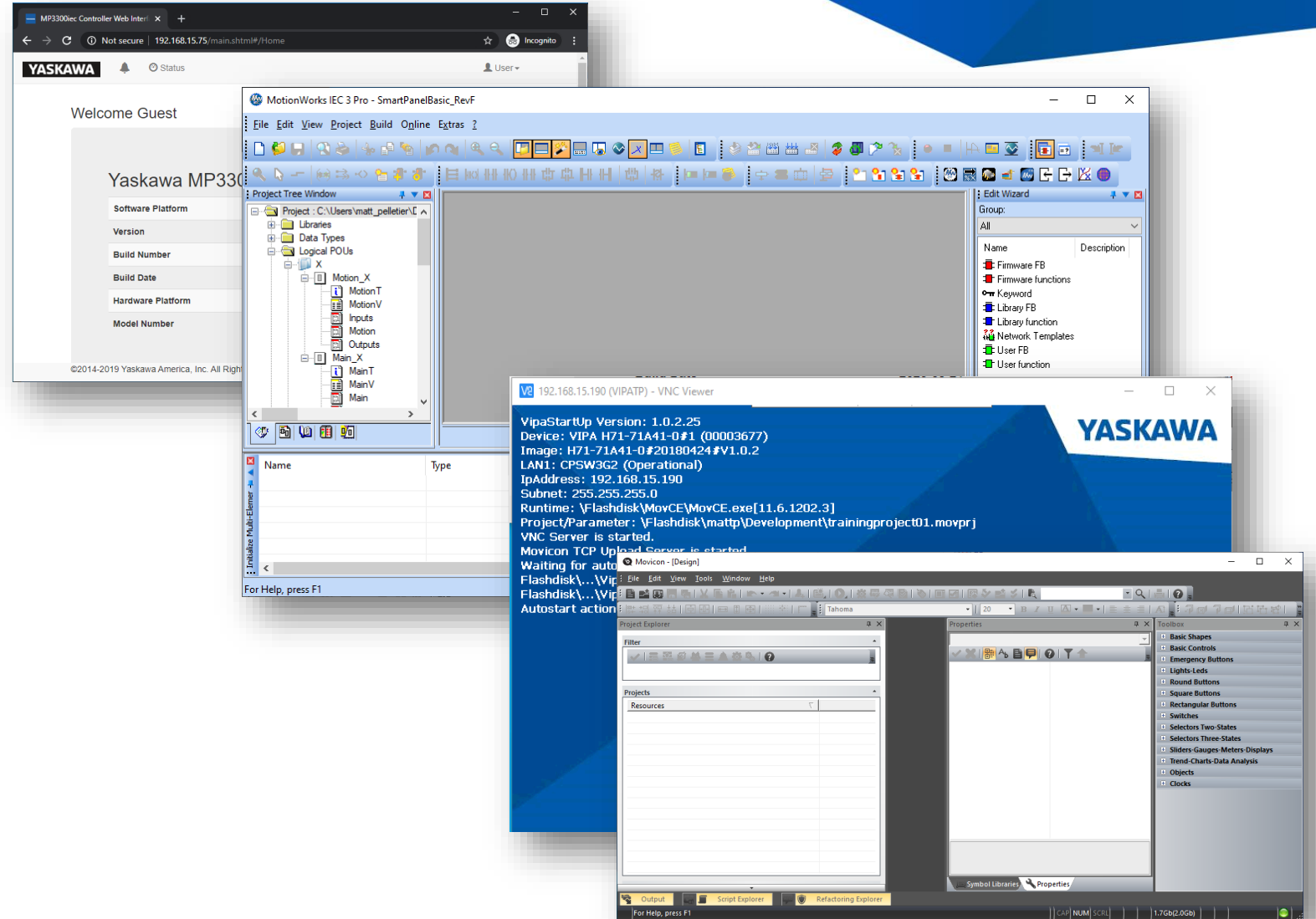
Secomea Link



Software

Setup

1. Remote IO
2. Web UI
3. VNC Viewer
4. MotionWorks IEC
5. HMI Editor (Movicon)



Yaskawa Remote IO

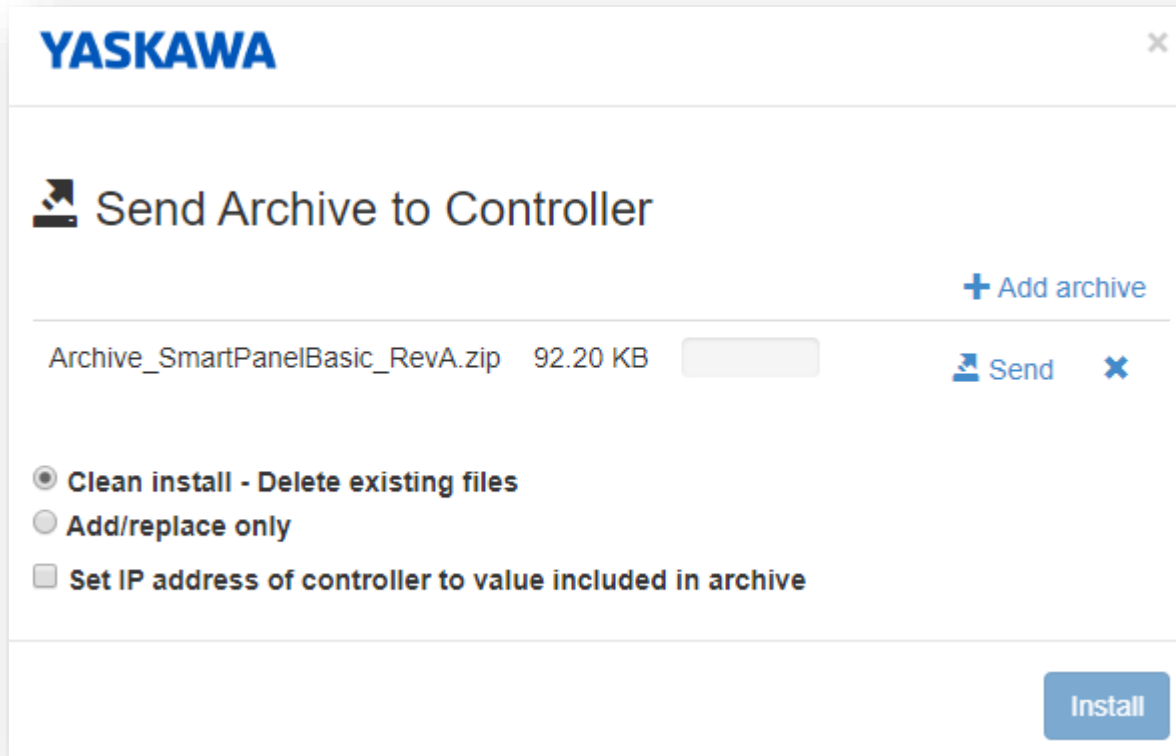
Setup

- Connect XYZ Control Power
- Other functions not used



Web UI

Setup



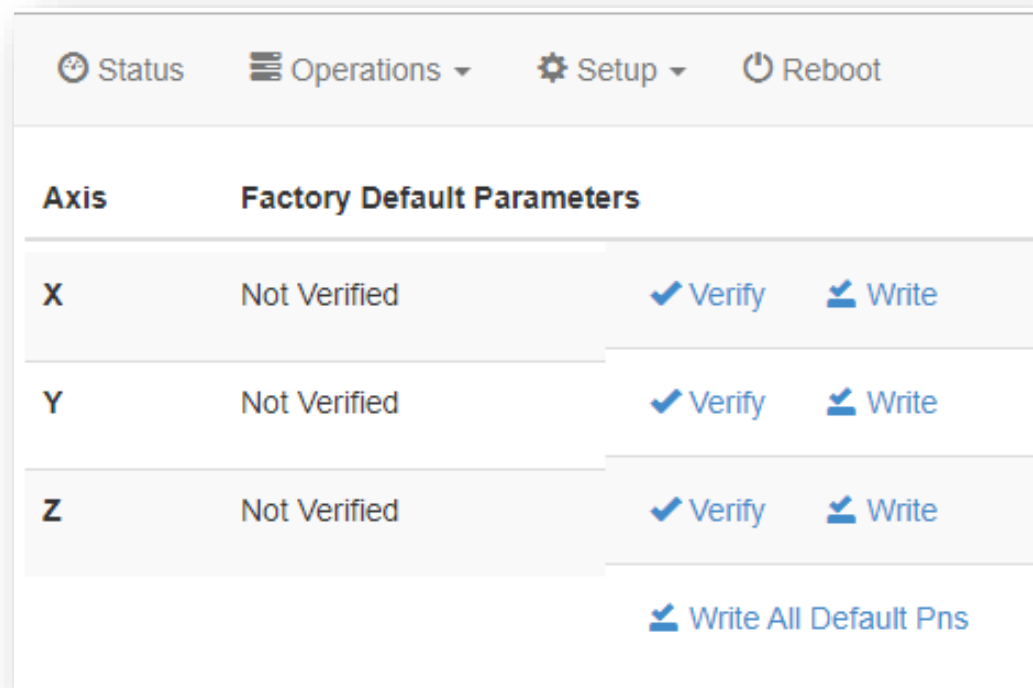
The screenshot shows a web browser window with the YASKAWA logo in the top left corner. The main heading is "Send Archive to Controller" with a folder icon. Below this is a "+ Add archive" link. A table lists the selected archive: "Archive_SmartPanelBasic_RevA.zip" with a size of "92.20 KB". To the right of the table are "Send" and "X" icons. Below the table are three radio buttons: "Clean install - Delete existing files" (selected), "Add/replace only", and "Set IP address of controller to value included in archive" (unchecked). An "Install" button is located at the bottom right of the window.

Archive Name	Size	Actions
Archive_SmartPanelBasic_RevA.zip	92.20 KB	

- Log In
- Send Project Archive to MPiec Controller
- Reboot

Web UI

Setup



The screenshot shows the 'Setup' tab of the Yaskawa Web UI. At the top, there are four navigation buttons: 'Status' (with a clock icon), 'Operations' (with a list icon), 'Setup' (with a gear icon and a dropdown arrow), and 'Reboot' (with a power icon). Below these is a table titled 'Factory Default Parameters'. The table has two columns: 'Axis' and 'Factory Default Parameters'. There are three rows for axes X, Y, and Z. Each row shows 'Not Verified' in the second column, followed by 'Verify' (with a checkmark icon) and 'Write' (with a pencil icon) buttons. At the bottom of the table, there is a 'Write All Default Pns' button (with a pencil icon).

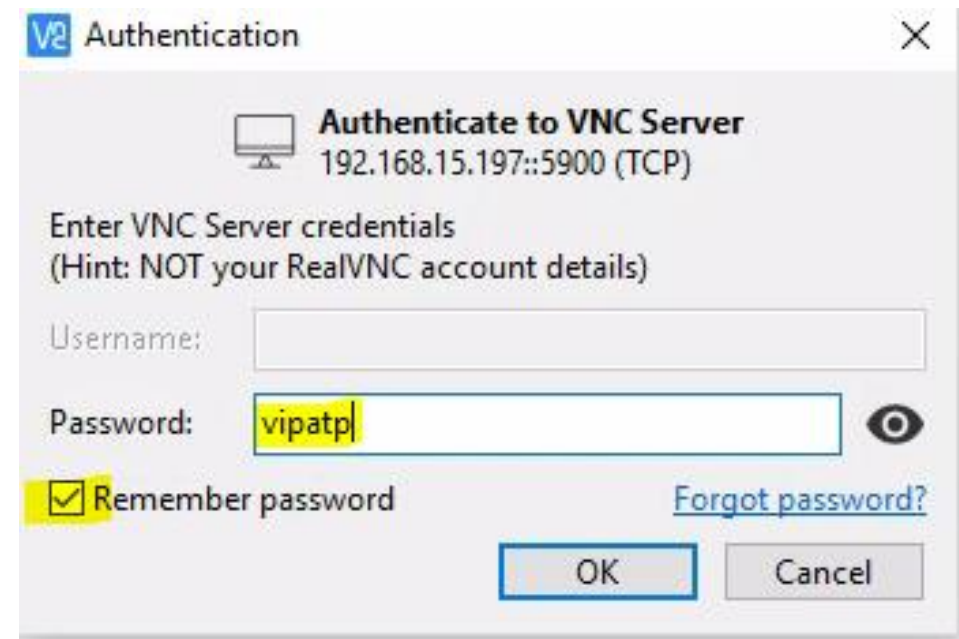
Axis	Factory Default Parameters
X	Not Verified ✓ Verify ✎ Write
Y	Not Verified ✓ Verify ✎ Write
Z	Not Verified ✓ Verify ✎ Write
✎ Write All Default Pns	

- Set Drive Parameters to Default
- Reboot

VNC Viewer

Setup

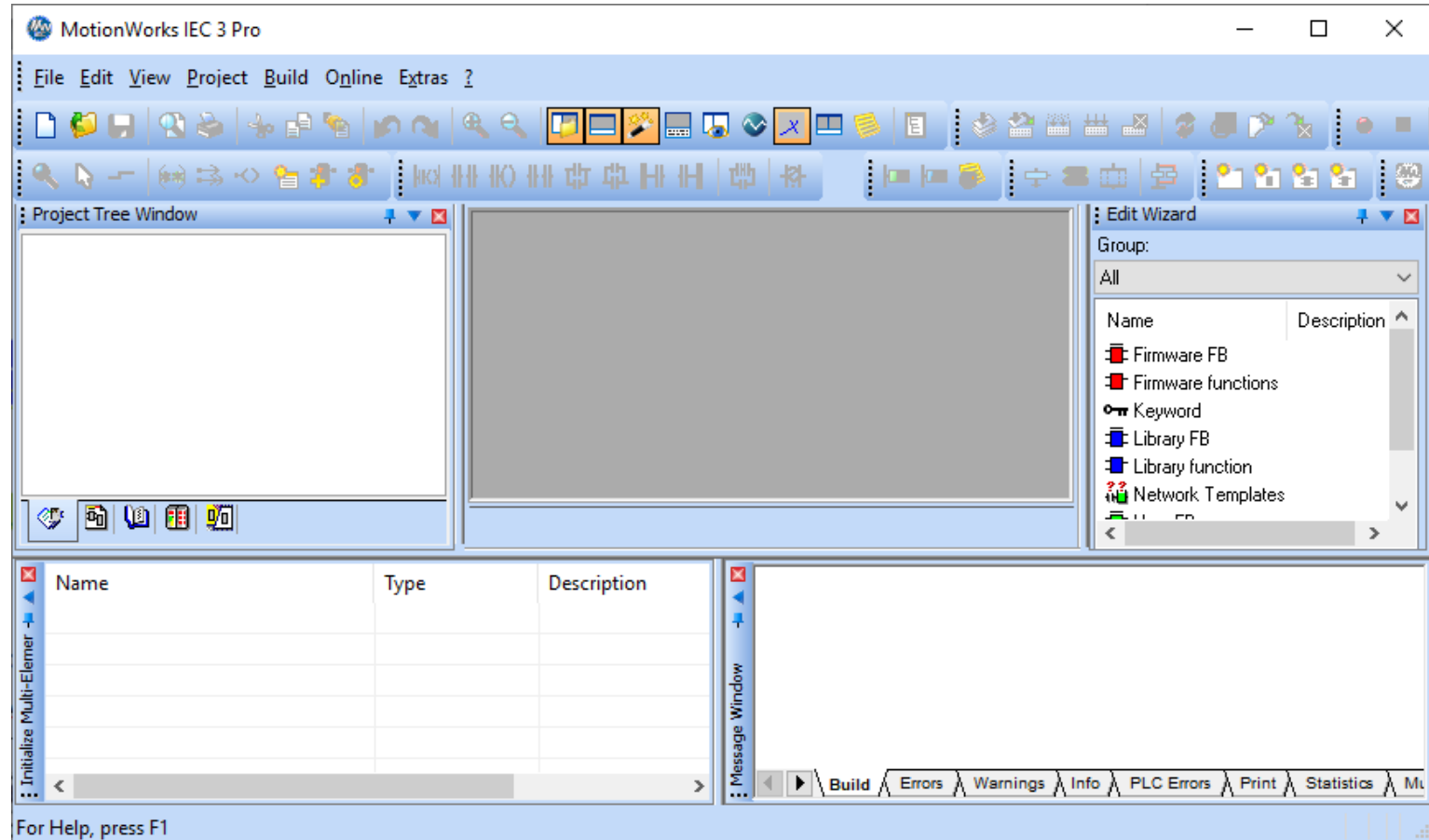
- Enter HMI IP address
- Password: `vipatp`



MotionWorks IEC

Setup

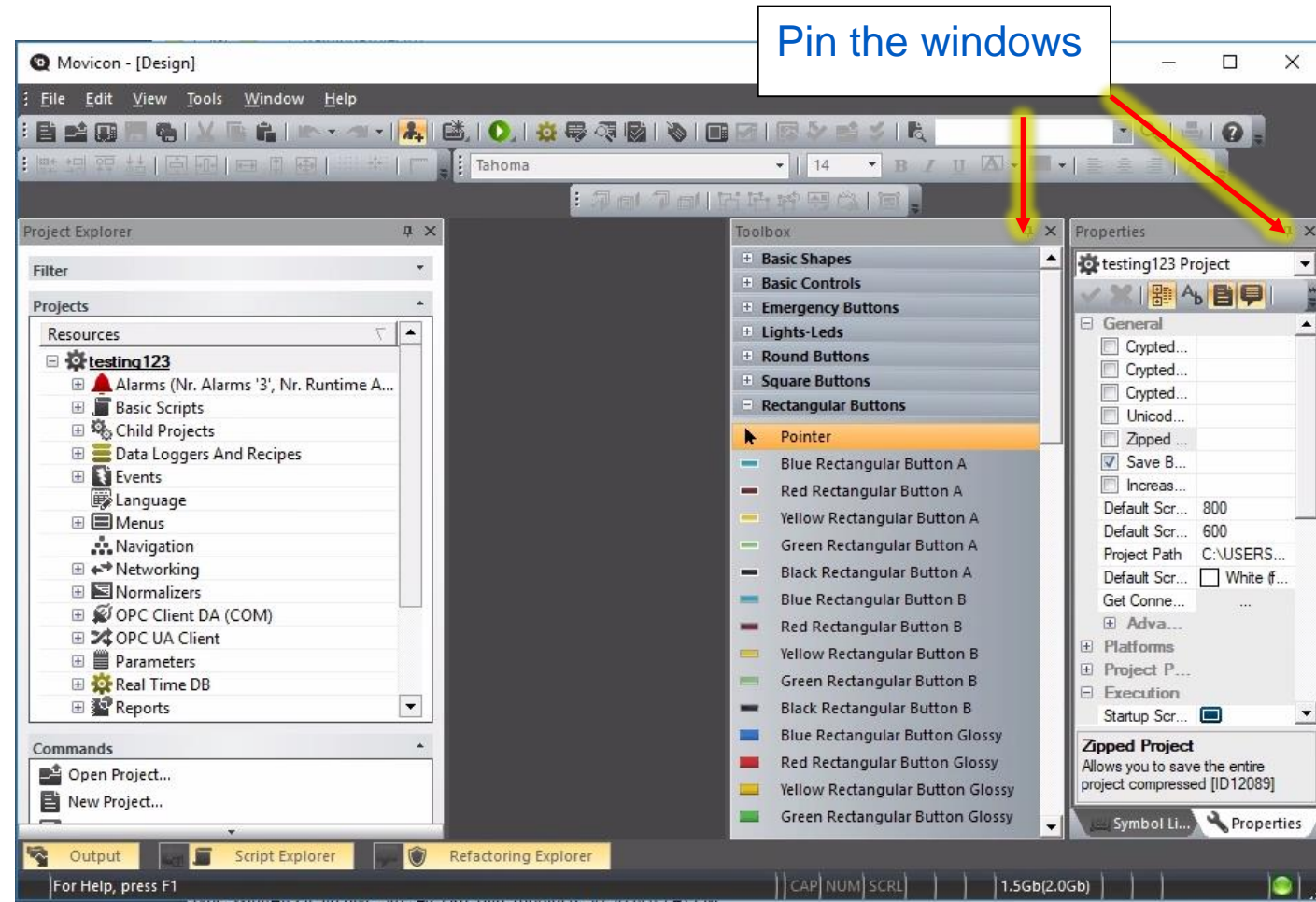
- Trial or License
- Close Project



Movicon Overview

Setup

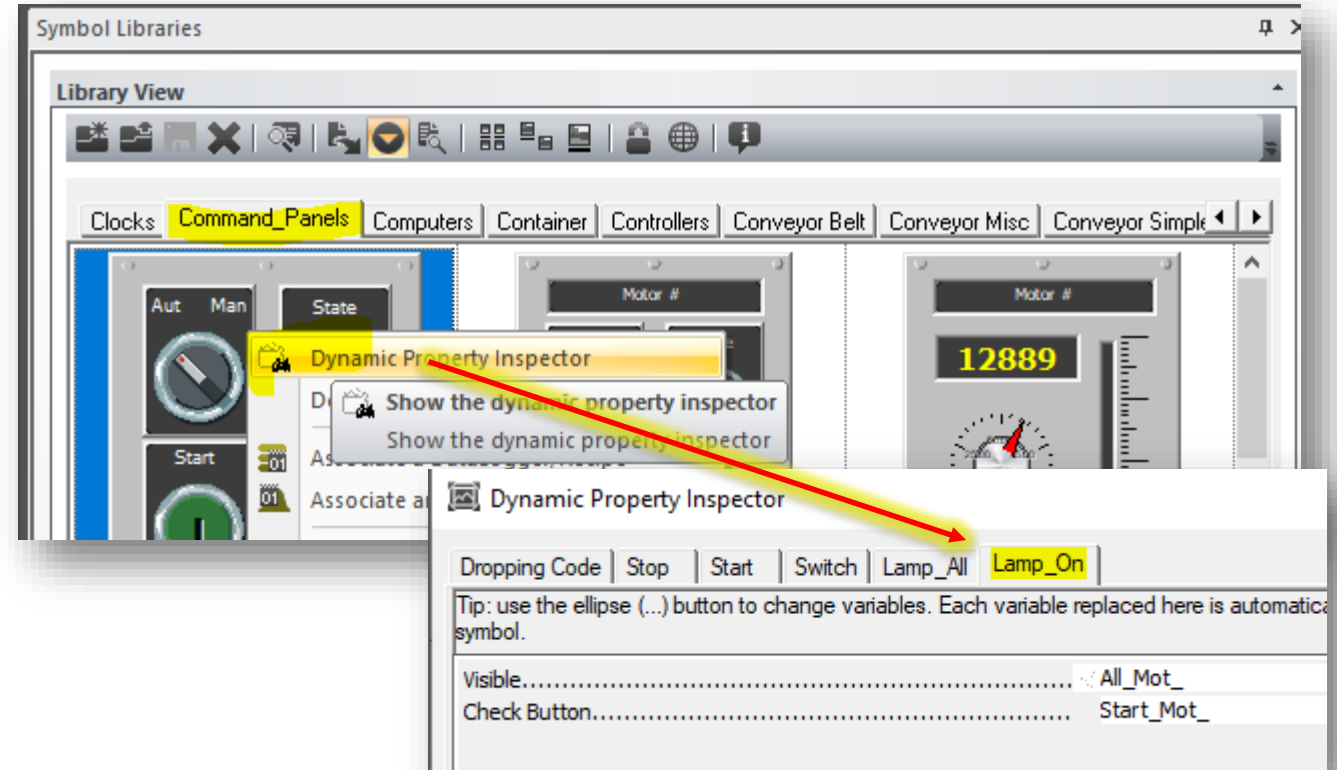
- Project Explorer
- Toolbox
- Properties
- Symbol Libraries
- Toolbars



Movicon Overview

Setup

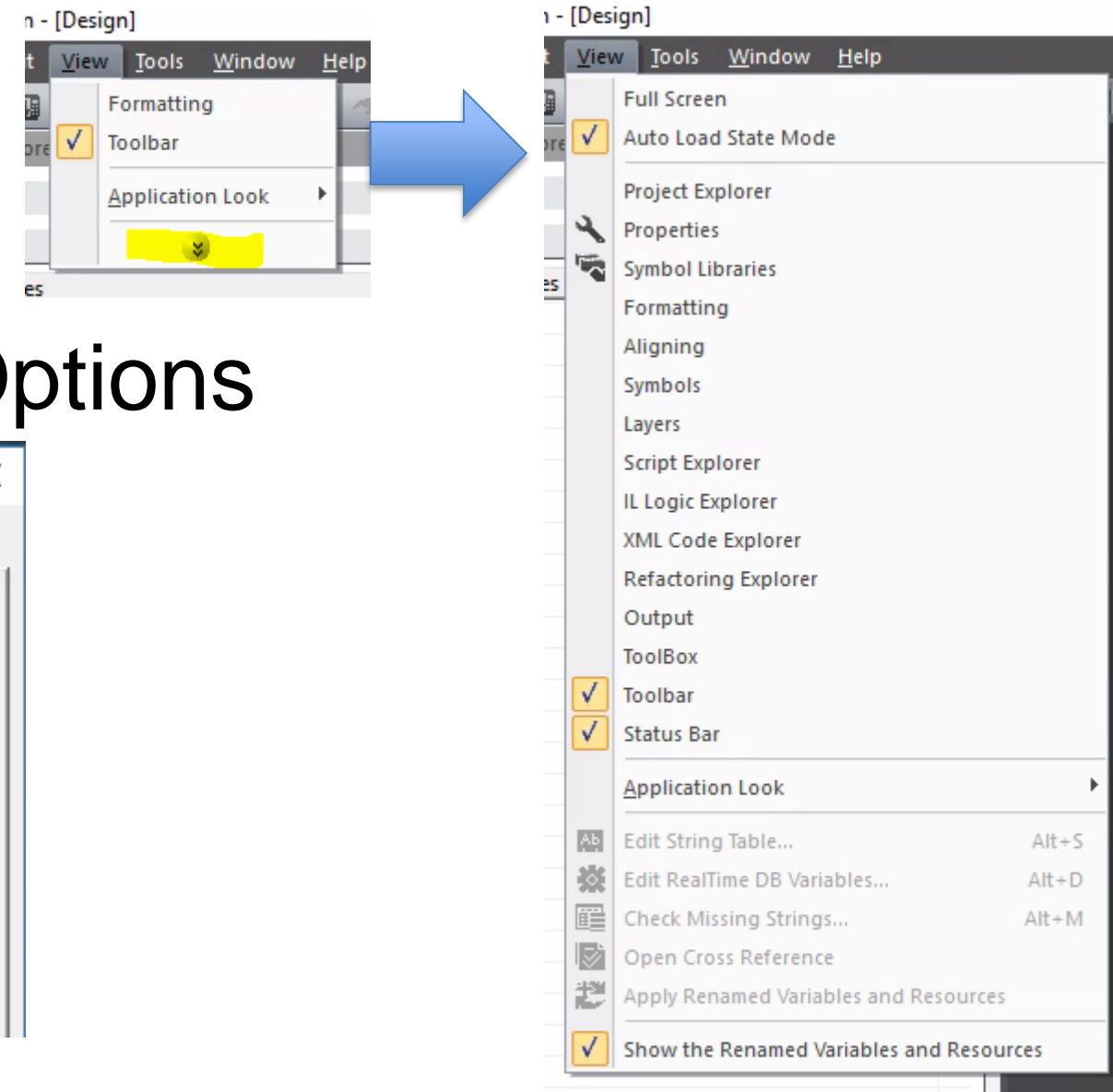
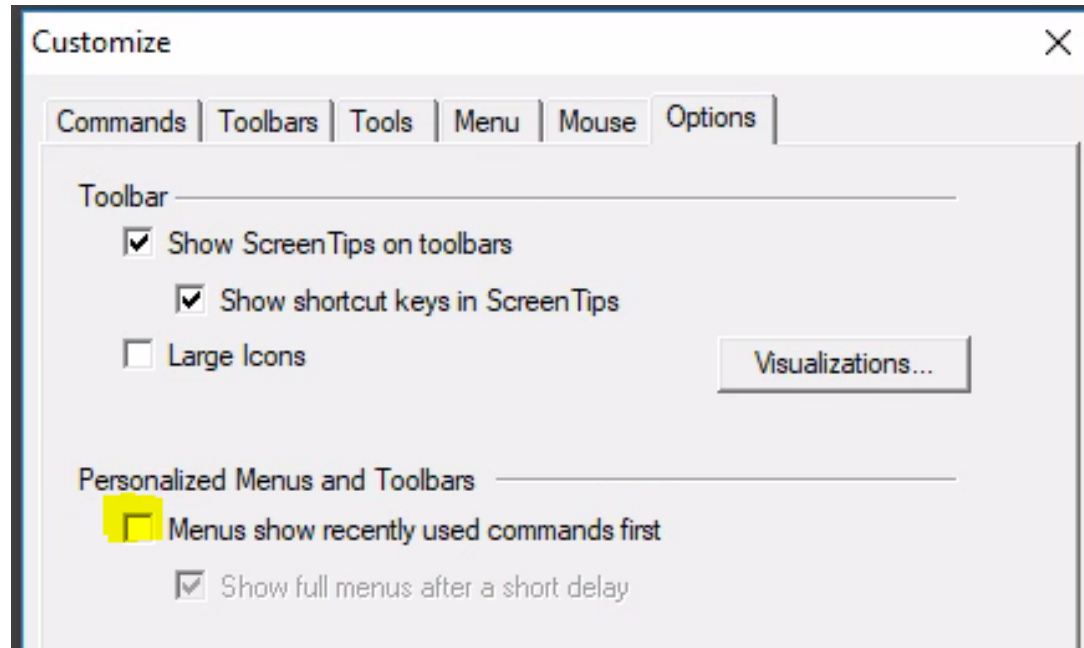
- Symbol Libraries
- Grouped Objects
 - Right-click “Dynamic Property Inspector”
- Custom Libraries



Movicon Settings

Setup

- Tools → Customize → Options



Quick Start Project

- Variable Import
- Simple HMI Screen
- Runtime Simulation
- Run smartPanel HMI

Itinerary

Movicon HMI Editor Basics

1. Introduction
2. Remote Demo Connection
3. Setup
4. Quick Start Project
5. Main Project Overview
6. Communications
7. Project Layout
8. Header Bar
9. Navigation Bar
10. Control Panel
11. Project Management
12. Setup Screen
13. Jog-Zero Screen
14. Auto Screen
15. Recipe Screen
16. Alarm Screen
17. User Management
18. Symbols
19. Certification Test

Overview

Quick Start Project

- Mini-Lab PDF Document
 - Requirements
 - Lab Overview
 - Lab Goal

YASKAWA

QuickStart

Mini-Lab

Requirements

- MP3300iec Controller
 - Servos and IO not required
- 7 inch smartPanel HMI
- MotionWorks IEC Project "HMI Quickstart"
 - Can also be created quickly

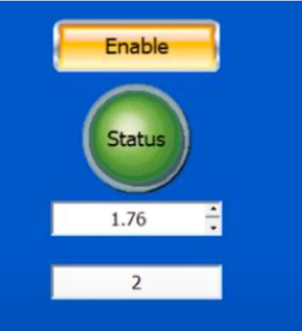
Lab Overview

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

- Run HMI_Quickstart on the MP3300iec (5 min)
- Start Movicon Project (5 min)
- Import Variables to Project (5 min)
- Create Simple HMI Screen (15 min)
- Test Runtime Simulation (5 min)
- Run project on the HMI Hardware (15 min)

Lab Goal

- A simple project runs on the HMI and communicates to the controller



Hardware Setup

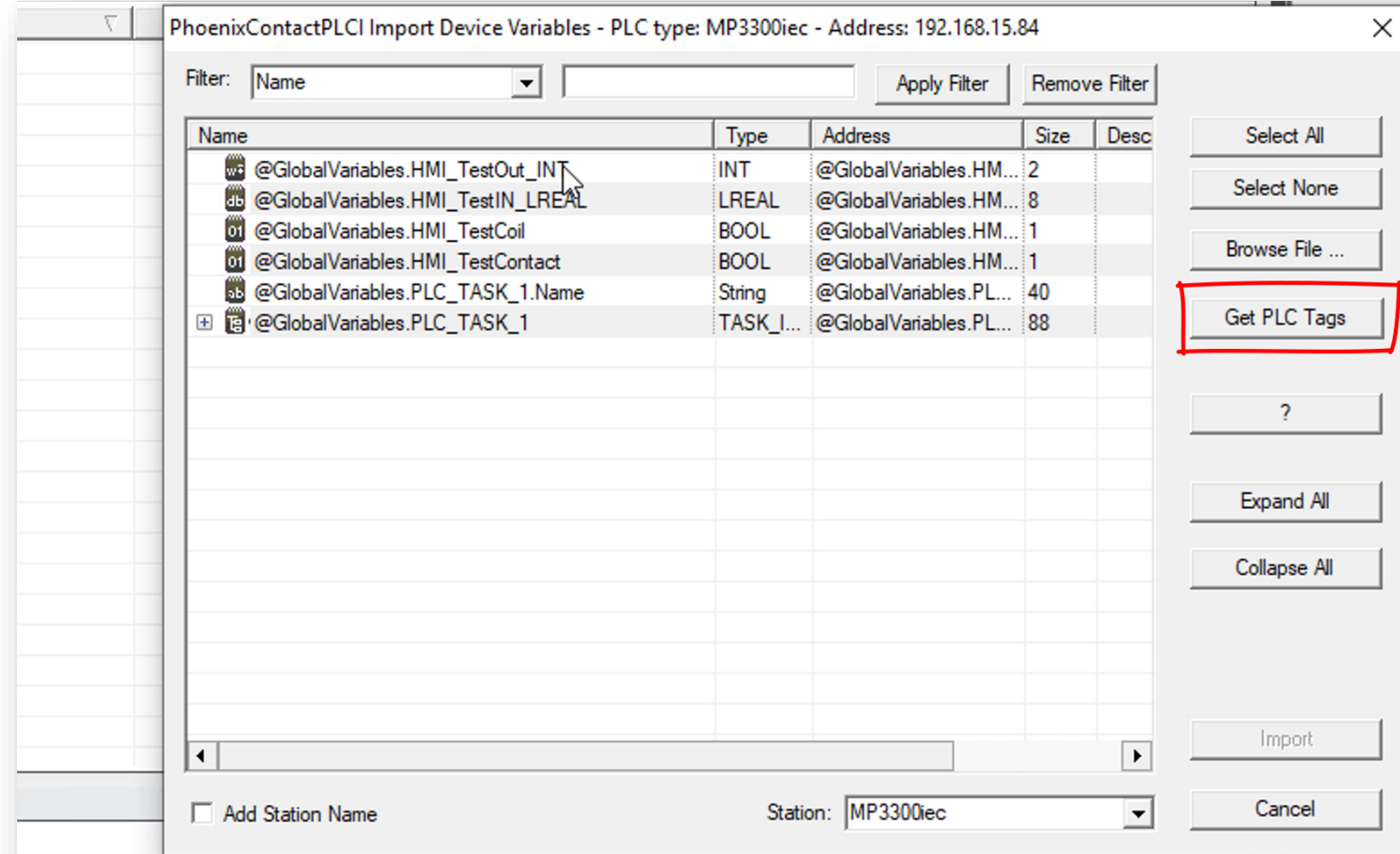
Quick Start Project

- Global Variables marked OPC

	Name	Description	Address	Init	Retain	PDD	OPC	TB	Hid...	Init...	Default Hid...
	PLC_TASK_8		%MB1.5896		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	PLC_TASK_9		%MB1.6024		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	PLC_TASK_10		%MB1.6152		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	PLC_TASK_11		%MB1.6280		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	PLC_TASK_12		%MB1.6408		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	PLC_TASK_13		%MB1.6536		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	PLC_TASK_14		%MB1.6664		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	PLC_TASK_15		%MB1.6792		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	PLC_TASK_16		%MB1.6920		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	ISR_TIMING	ISR (Motion Engine) Timing Data	%MD3.65536		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	ISR_EVT_TIMING	ISR Event Timing Data	%MD3.65560		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	HIGH_EVT_TIMING	High Event Timing Data	%MD3.65584		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	LOW_EVT_TIMING	Low Event Timing Data	%MD3.65608		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	ALM_EVT_TIMING	Alarm Event Timing Data	%MD3.65632		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Controller		%MD3.66560		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	+ X <SGD7W> - Sigma-7W Se Names, Not Group Name. *)										
	+ Z <SGD7S> - Sigma-7S Se Names, Not Group Name. *)										
	+ Y <SGD7W> - Sigma-7W Se Names, Not Group Name. *)										
	- User Variables										
	HMI_TestContact				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	HMI_TestCoil				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	HMI_TestIN_LREAL				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	HMI_TestOut_INT				<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

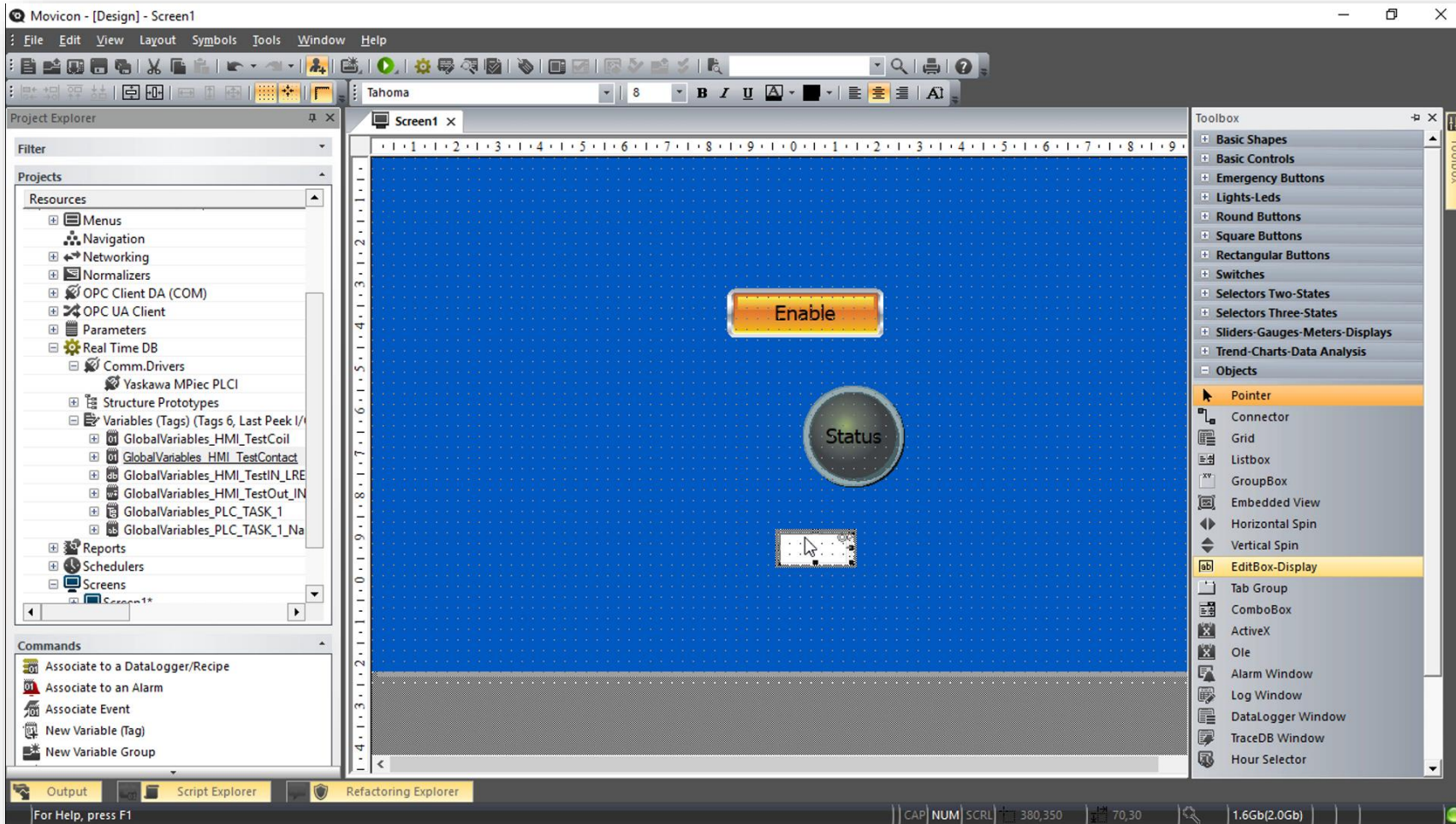
Variable Import

Quick Start Project



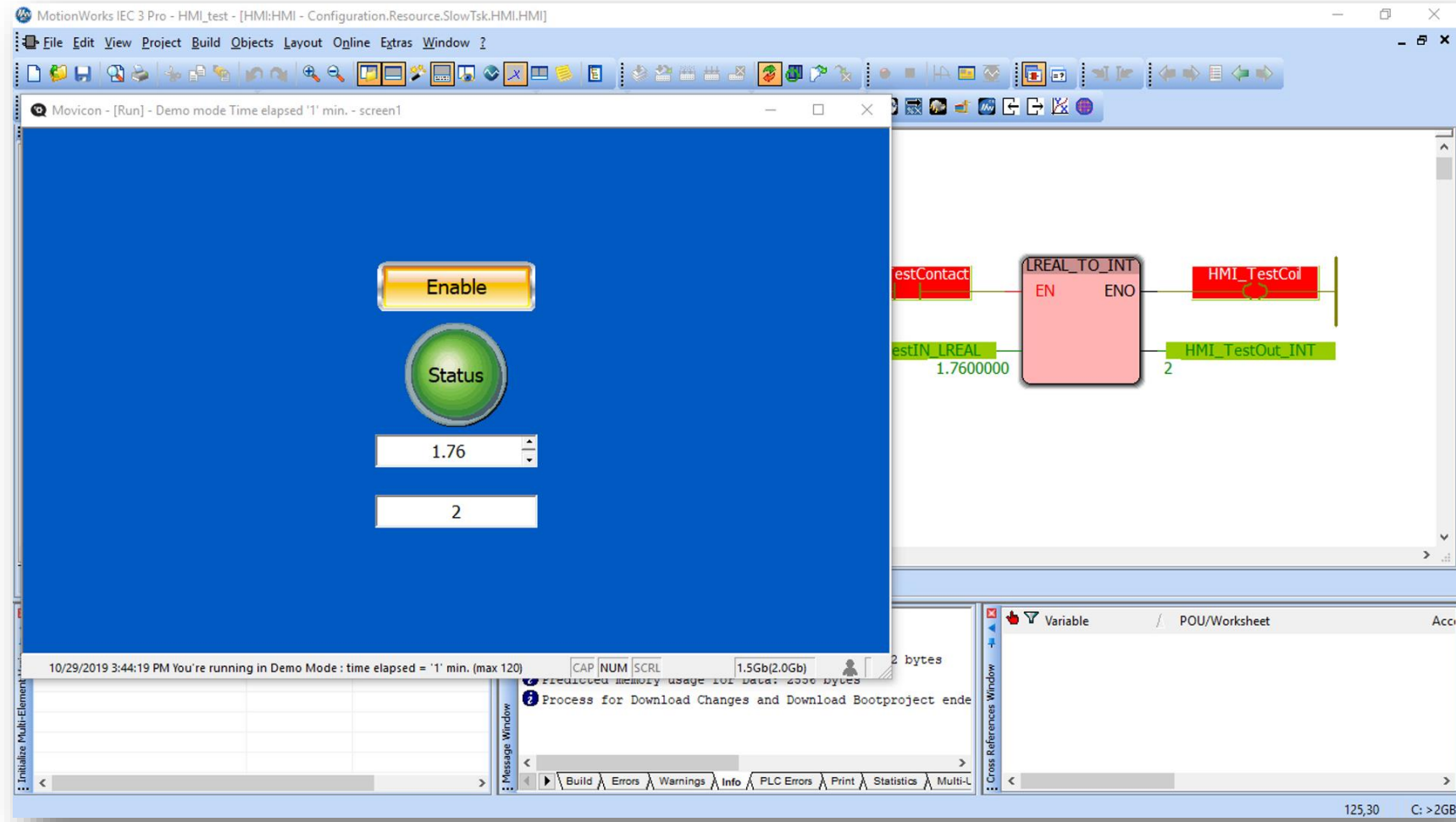
Simple HMI Screen

Quick Start Project



Runtime Simulation

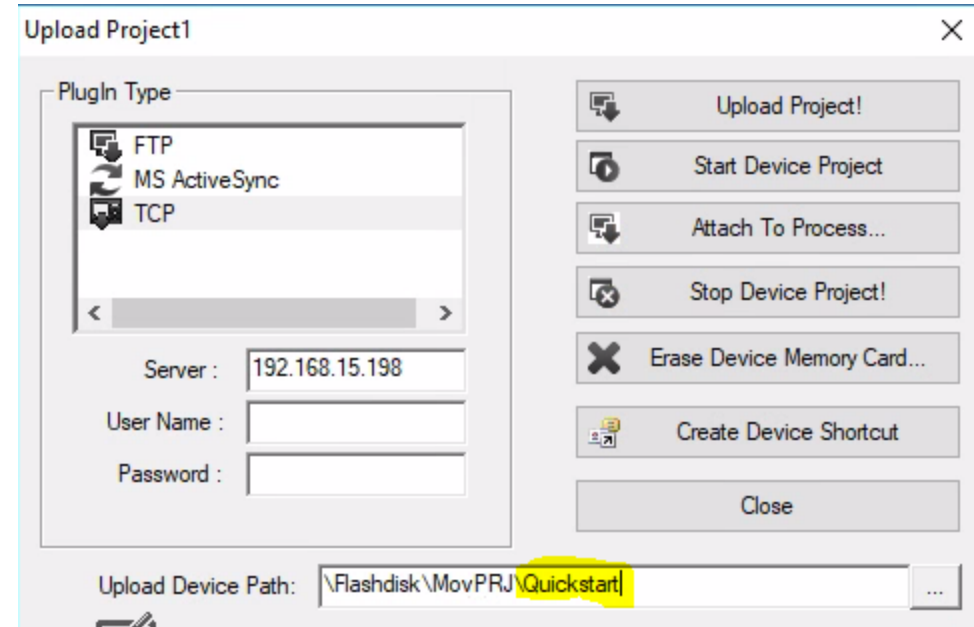
Quick Start



Run smartPanel HMI

Quick Start Project

- Upload to any directory within Flashdisk
- Type to create directory
- Best Practice: Create new directory for each project
 - \Flashdisk\YourName\Quickstart



Quick Start Project

Mini-Lab

- Run MP3300iec
- Movicon Project
- Import Variables
- Create Screen
- Runtime Simulation
- HMI Hardware

YASKAWA

QuickStart

Mini-Lab

Requirements

- MP3300iec Controller
 - Servos and IO not required
- 7 inch smartPanel HMI
- MotionWorks IEC Project "HMI Quickstart"
 - Can also be created quickly

Lab Overview

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

- Run HMI_Quickstart on the MP3300iec (5 min)
- Start Movicon Project (5 min)
- Import Variables to Project (5 min)
- Create Simple HMI Screen (15 min)
- Test Runtime Simulation (5 min)
- Run project on the HMI Hardware (15 min)

Lab Goal

- A simple project runs on the HMI and communicates to the controller



Main Project Overview

- Network Connections
- Screen Components
- Jog-Zero
- Auto
- Alarms
- Recipes
- Setup
- User Management

Itinerary

Movicon HMI Editor Basics

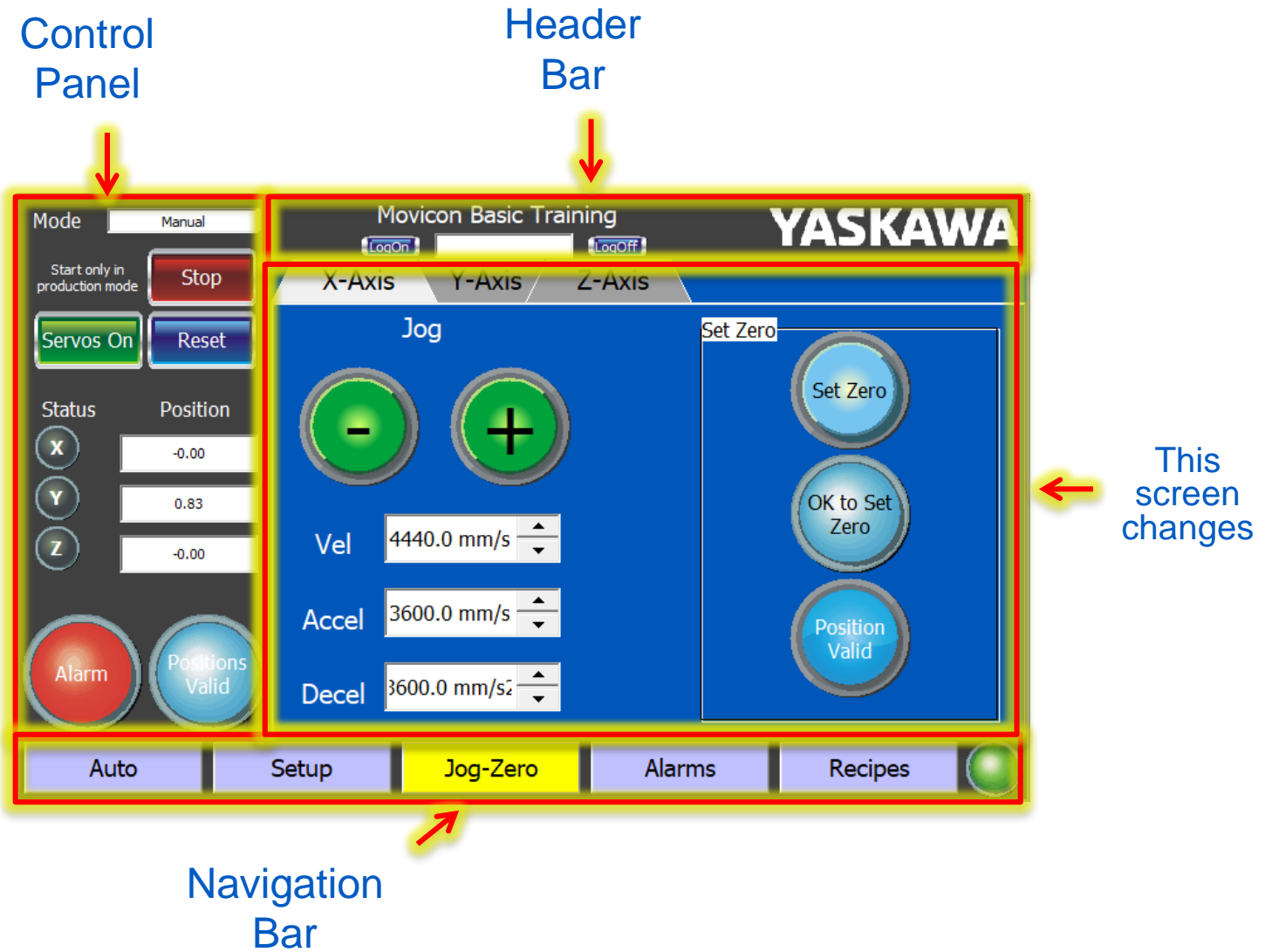
1. Introduction
2. Remote Demo Connection
3. Setup
4. Quick Start Project
5. Main Project Overview
6. Communications
7. Project Layout
8. Header Bar
9. Navigation Bar
10. Control Panel
11. Project Management
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13. Jog-Zero Screen
14. Auto Screen
15. Recipe Screen
16. Alarm Screen
17. User Management
18. Symbols
19. Certification Test

Screen Components

Project Overview

Functions:

- Header Bar
- Control Panel common to all screens
- Navigation between screens

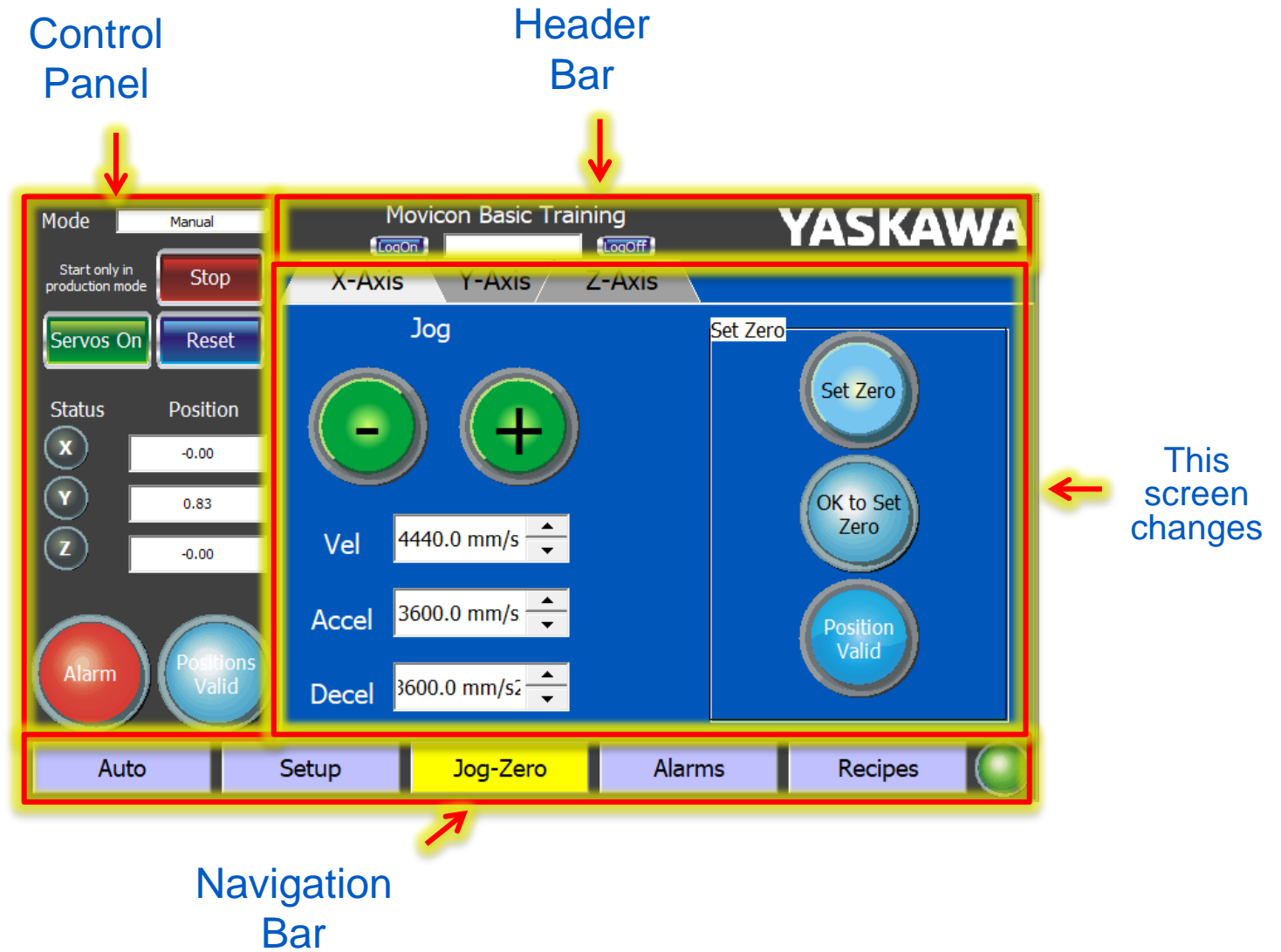


Control Panel

Project Overview

Functions:

- Control Mode
- Start, Stop, Servo ON
- Reset Cycles
- Servo On Status
- Feedback Position
- Alarm Status
- Zero position valid status

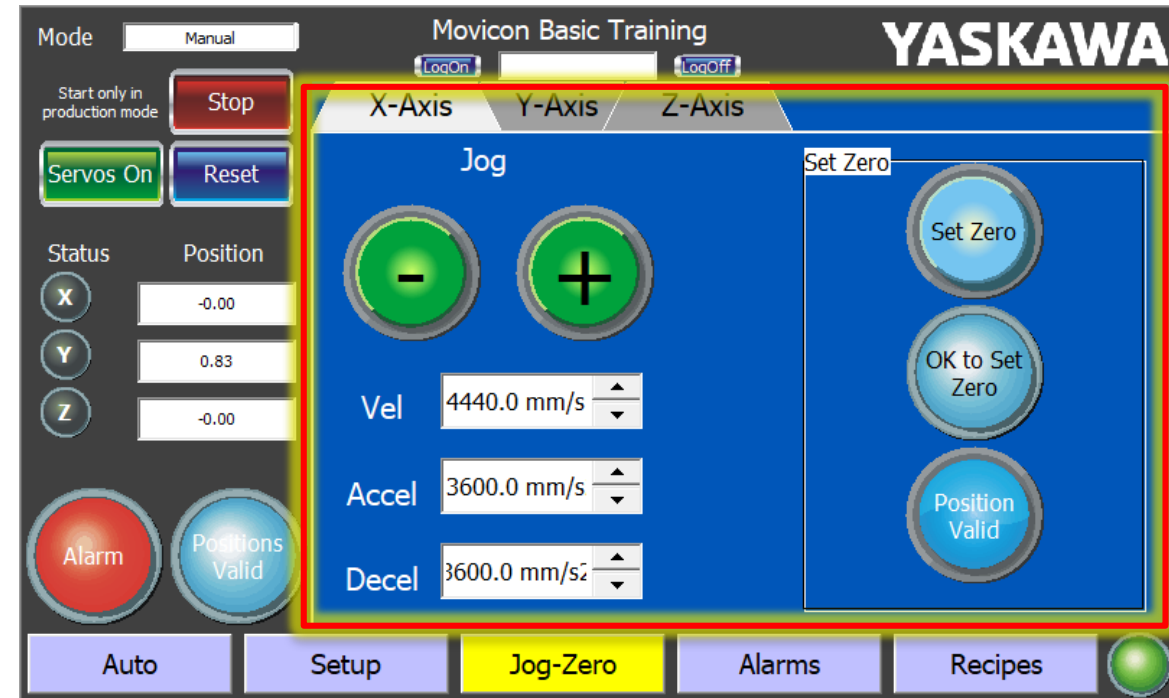


Jog-Zero Screen

Project Overview

Functions:

- Jog each servo
- Set Zero Position
- Auto move sequence cannot start from Jog-Zero screen



← Jog-Zero Screen

Auto Screen

Project Overview

Functions:

- Enter number of cycles
- Enter Move Parameters
- Monitor progress
- (optional) Animation of process

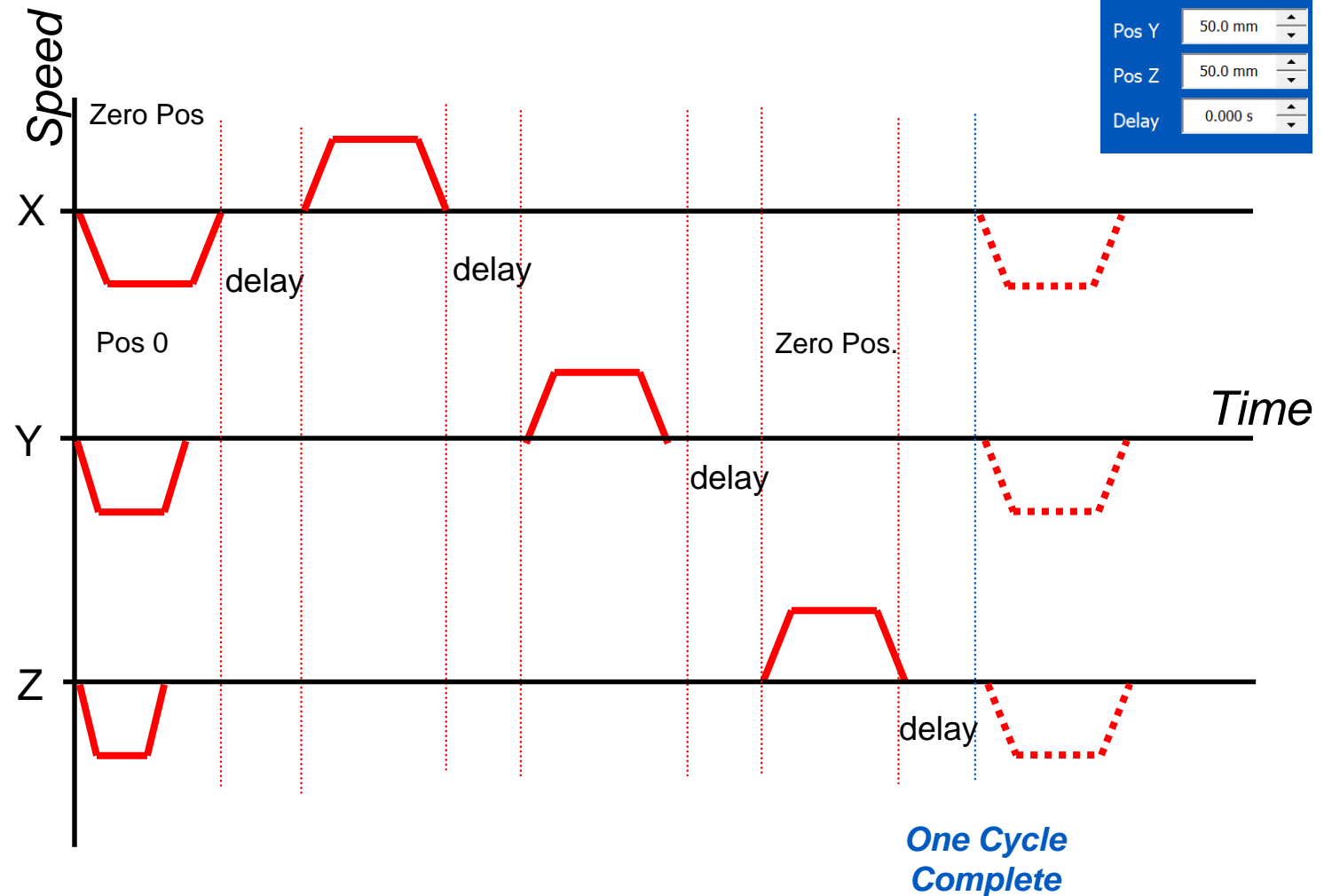


Application Move Profile

Project Overview

Machine Cycle:

1. All to Pos 0
2. Pos X, delay
3. Pos Y, delay
4. Pos Z, delay



Recipes Screen

Project Overview

Functions:

- Save and recall data for production mode as recipes



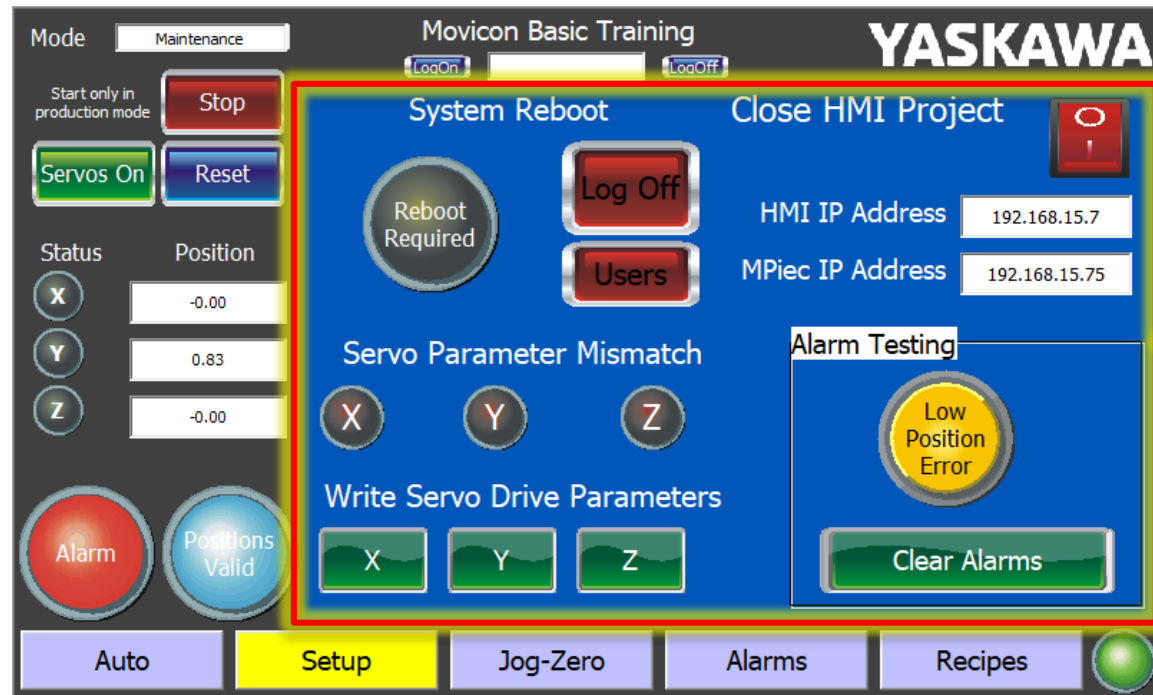
← Recipes Screen

Setup Screen

Project Overview

Functions:

- Reboot
- Servo Parameters
- IP Address
- Alarm Testing



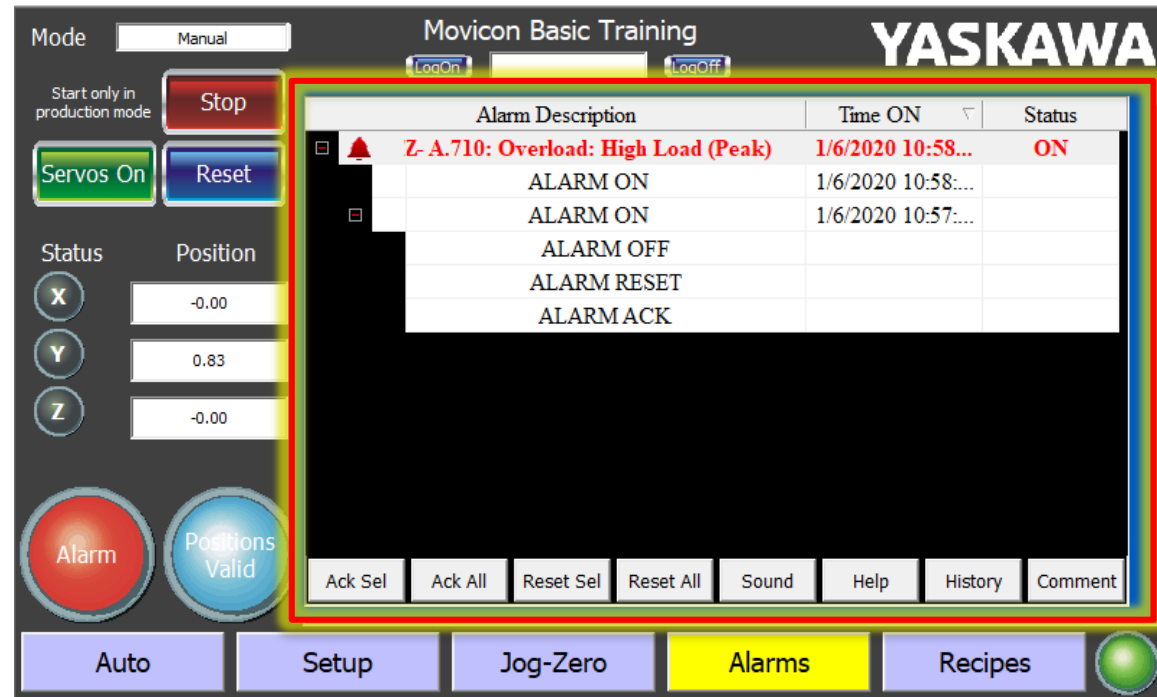
Setup
Screen

Alarms Screen

Project Overview

Functions:

- List all active alarms
- Display alarm text
- History of active alarm
- Acknowledge and Reset alarm



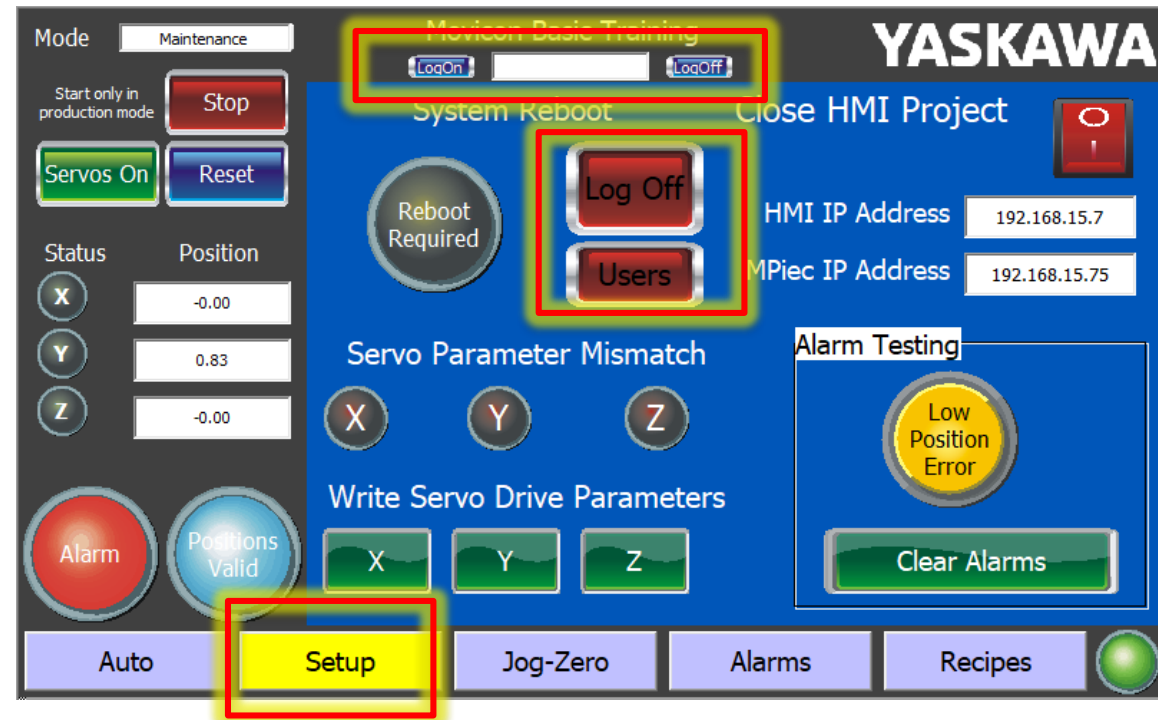
← Alarms Screen

User Management

Project Overview

Functions:

- Passwords to access certain screens and objects



Customization

Project Overview

- Customize Your HMI
 - Colors
 - Object Styles
 - Graphics
 - Additional functionality



Communications

- Prepare MPiec
- Movicon Project
- PLCI Driver
- Import PLCI Variables

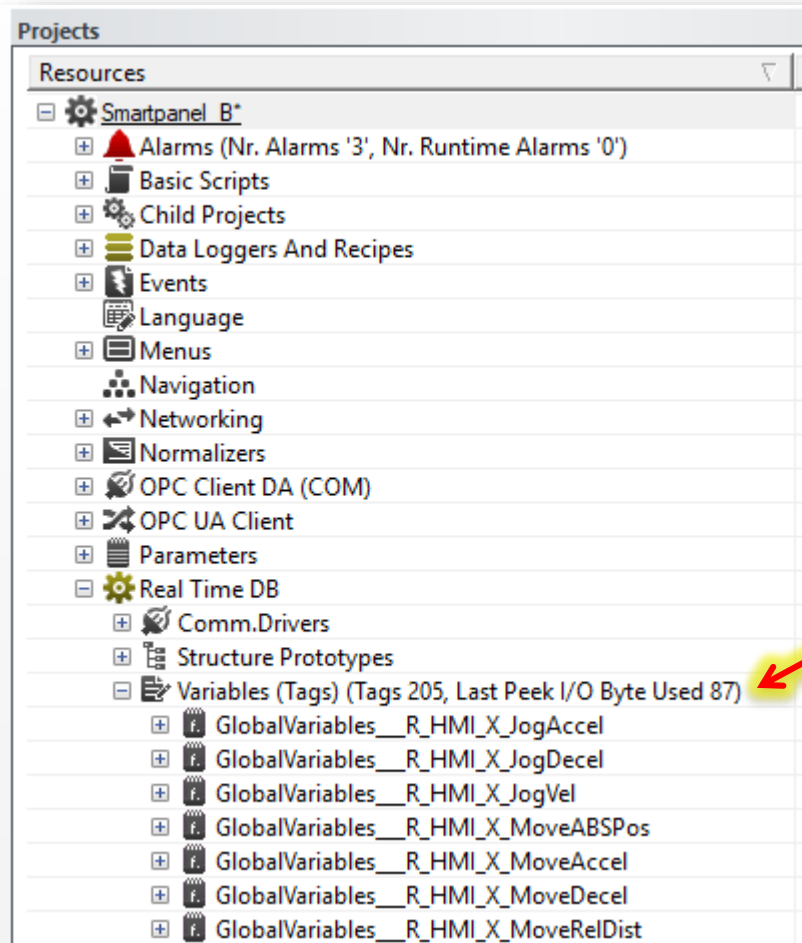
Itinerary

Movicon HMI Editor Basics

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19. Certification Test

General Concept

Communications



YASKAWA

Send Archive to Controller



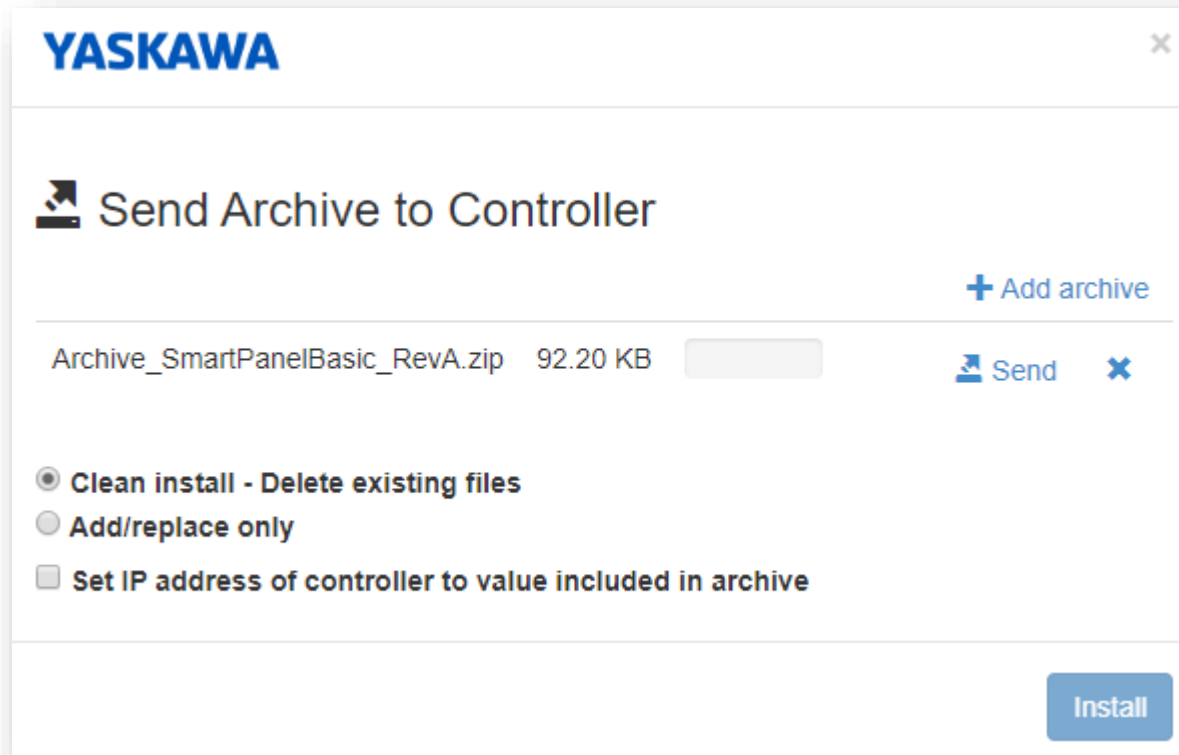
Receive PLCI tags
from MotionWorks
IEC Offline Project



YASKAWA

Web UI

Communications



The screenshot shows a web browser window with the YASKAWA logo in the top left corner. The main heading is 'Send Archive to Controller'. Below this, there is a '+ Add archive' link. A table lists the selected archive: 'Archive_SmartPanelBasic_RevA.zip' with a size of '92.20 KB'. To the right of the table are 'Send' and 'X' icons. Below the table, there are three radio button options: 'Clean install - Delete existing files' (which is selected), 'Add/replace only', and 'Set IP address of controller to value included in archive' (which is unchecked). An 'Install' button is located at the bottom right of the dialog.

Archive Name	Size	Actions
Archive_SmartPanelBasic_RevA.zip	92.20 KB	

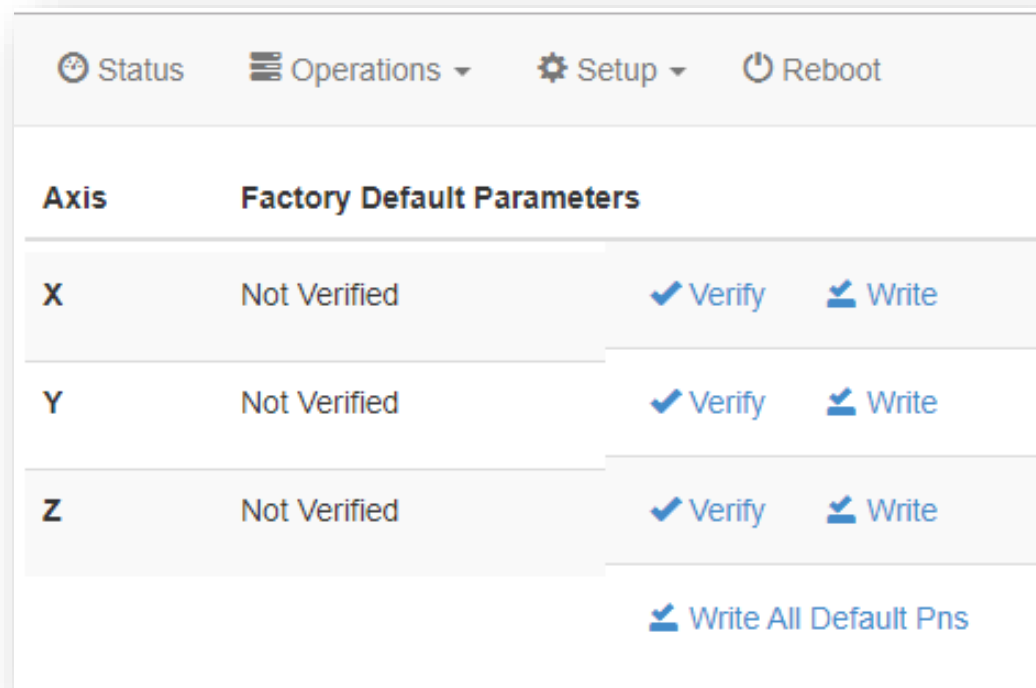
☒ Clean install - Delete existing files
☐ Add/replace only
☐ Set IP address of controller to value included in archive

Install

- Send Project Archive to MPiec Controller
- Reboot

Web UI

Communications



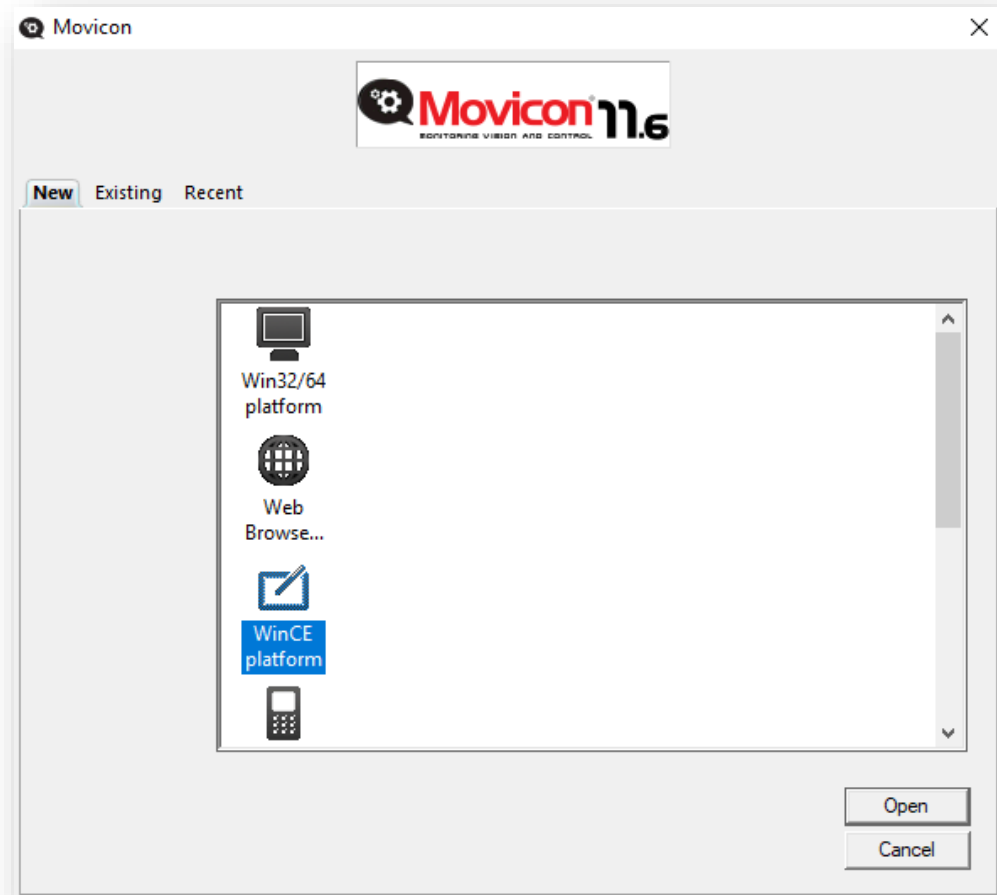
The screenshot shows the Yaskawa Web UI interface. At the top, there are four tabs: Status, Operations, Setup, and Reboot. Below the tabs is a table titled 'Factory Default Parameters'. The table has two columns: 'Axis' and 'Factory Default Parameters'. There are three rows for X, Y, and Z axes. Each row shows 'Not Verified' in the 'Factory Default Parameters' column. To the right of each row are two buttons: 'Verify' (with a checkmark icon) and 'Write' (with a pencil icon). At the bottom of the table is a button labeled 'Write All Default Pns'.

Axis	Factory Default Parameters		
X	Not Verified	✓ Verify	✎ Write
Y	Not Verified	✓ Verify	✎ Write
Z	Not Verified	✓ Verify	✎ Write
		✎ Write All Default Pns	

- Set Drive Parameters to Default
- Reboot

Start Movicon Project

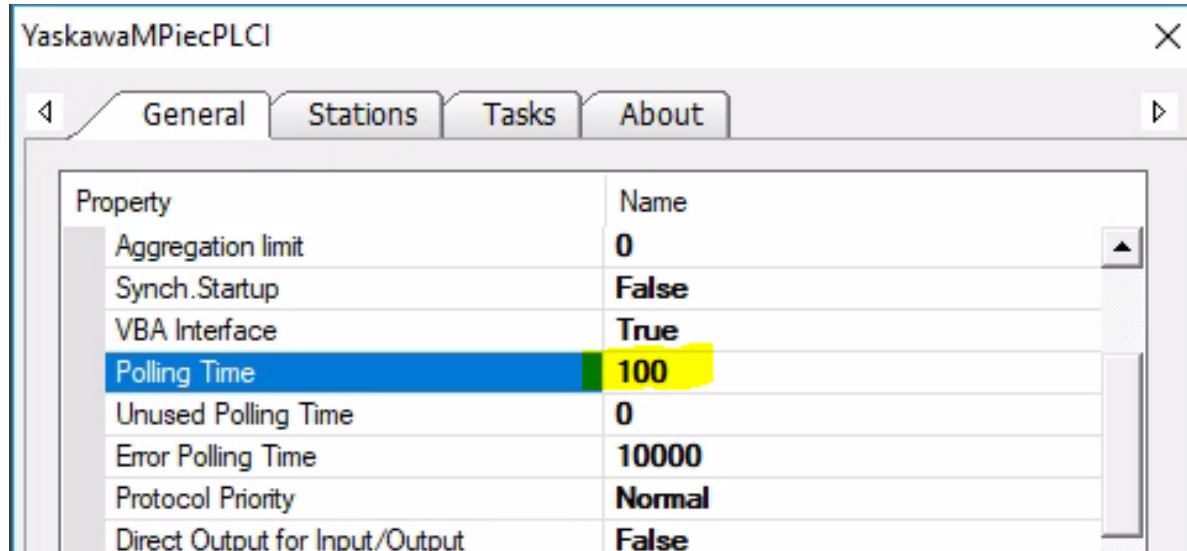
Communications



- Windows CE
 - smartPanel
 - Panel PC
- PLCI comm. driver
- 800x480
 - 7 inch smartPanel

Comm. Driver Setup

Communications



- Station Properties
- Server Address
- Station Name
- Polling Time

Import Tags

Communications

Filter:

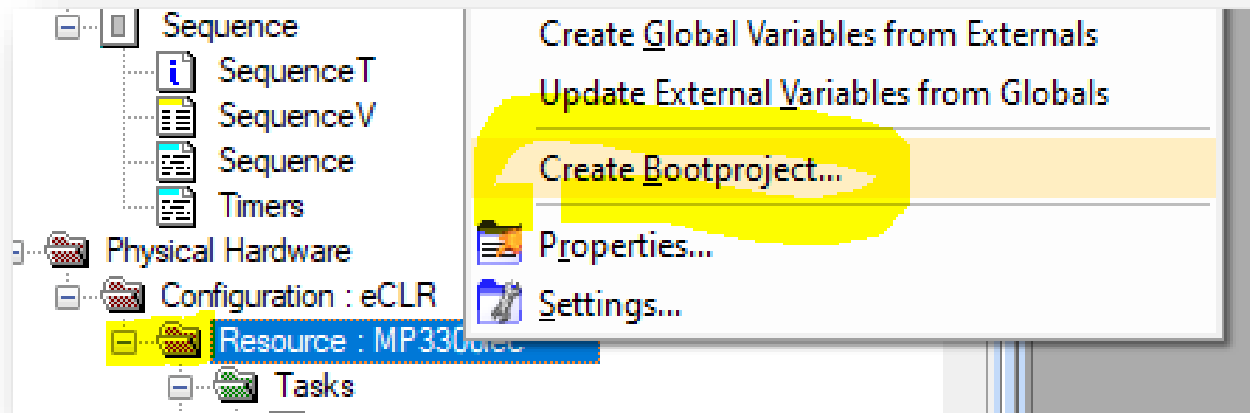
Name	Type	Address	Size	Description
+ [icon] @GlobalVariables.G_Z...	T_AXIS...	@GlobalVariables.G_...	11	
- [icon] @GlobalVariables.G_Z...	String	@GlobalVariables.G_...	86	
01 [icon] @GlobalVariables.G_Z...	BOOL	@GlobalVariables.G_...	1	
+ [icon] @GlobalVariables.G_Z...	Y_DISE...	@GlobalVariables.G_...	36	
+ [icon] @GlobalVariables.G_Z...	Y_ENG...	@GlobalVariables.G_...	38	
- [icon] @GlobalVariables.G_Z...	String	@GlobalVariables.G_...	86	
+ [icon] @GlobalVariables.G_Z...	CamStruct	@GlobalVariables.G_...	48	
+ [icon] @GlobalVariables.G_Z...	INPUT_...	@GlobalVariables.G_...	2	
+ [icon] @GlobalVariables.G_Z...	TRIGGE...	@GlobalVariables.G_...	6	
+ [icon] @GlobalVariables.G_Z...	Registra...	@GlobalVariables.G_...	8	
+ [icon] @GlobalVariables.G_Z...	HomeStr...	@GlobalVariables.G_...	101	
+ [icon] @GlobalVariables.G_Z...	AxisPara...	@GlobalVariables.G_...	404	
+ [icon] @GlobalVariables.G_Z...	AXIS_R...	@GlobalVariables.G_...	2	
+ [icon] @GlobalVariables.G_Z...	AxisStruct	@GlobalVariables.G_...	59	
- [icon] @GlobalVariables.G_Z...	String	@GlobalVariables.G_...	86	
+ [icon] @GlobalVariables.G_Y...	T_AXIS...	@GlobalVariables.G_...	11	
- [icon] @GlobalVariables.G_Y...	String	@GlobalVariables.G_...	86	
01 [icon] @GlobalVariables.G_Y...	BOOL	@GlobalVariables.G_...	1	
+ [icon] @GlobalVariables.G_Y...	Y_DISE...	@GlobalVariables.G_...	36	

☐ Add Station Name Station:

- Browse File
- Select All
- Import

MotionWorks IEC Bootproject

Communications

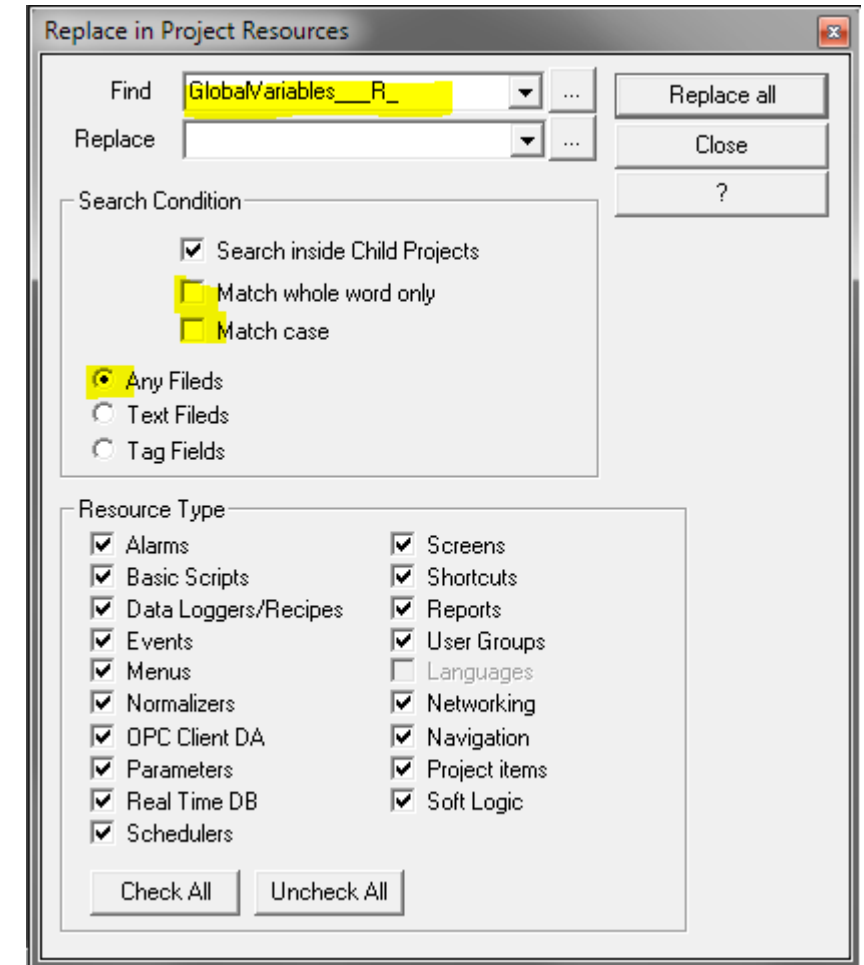
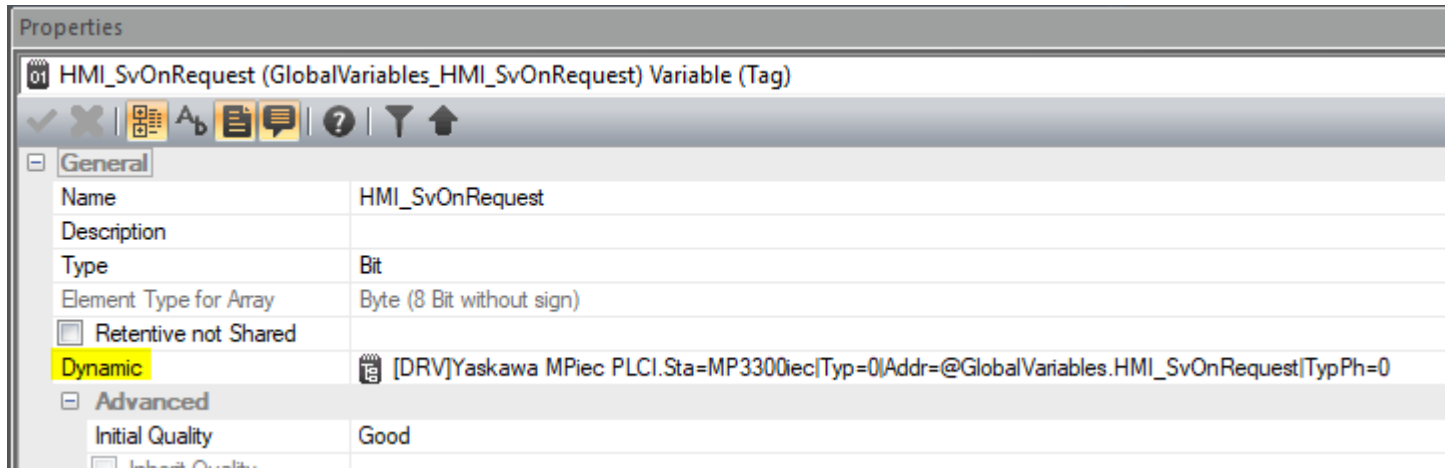


- Right-click Resource
- Create Bootproject

Remove Prefix

Communications

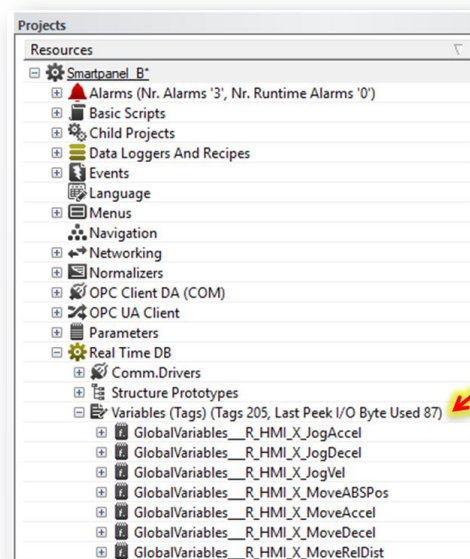
- Replace Text in All Project Resources
- “Dynamic” Property of Variable



Communications

Mini-Lab

1. MPiec Project
2. Movicon Project
3. Import Variables



Send IEC Program



Receive PLCI tags
from MotionWorks
IEC Offline Project

Project Layout

- Main Screen Placeholders
- Embedded Screen Placeholders
- Header Bar Embedded Screen

Itinerary

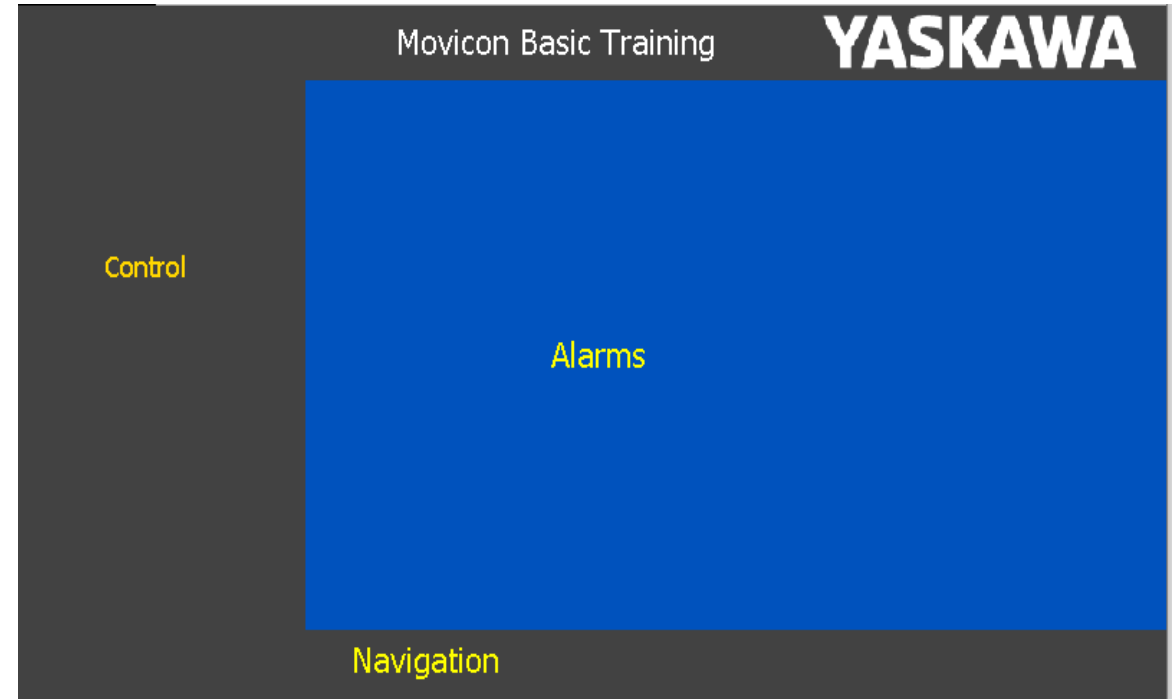
Movicon HMI Editor Basics

1. Introduction
2. Remote Demo Connection
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4. Quick Start Project
5. Main Project Overview
6. Communications
7. Project Layout
8. Navigation Bar
9. Control Panel
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11. Setup Screen
12. Jog-Zero Screen
13. Auto Screen
14. Recipe Screen
15. Alarm Screen
16. User Management
17. Symbols
18. Certification Test

Final Outcome

Project Layout

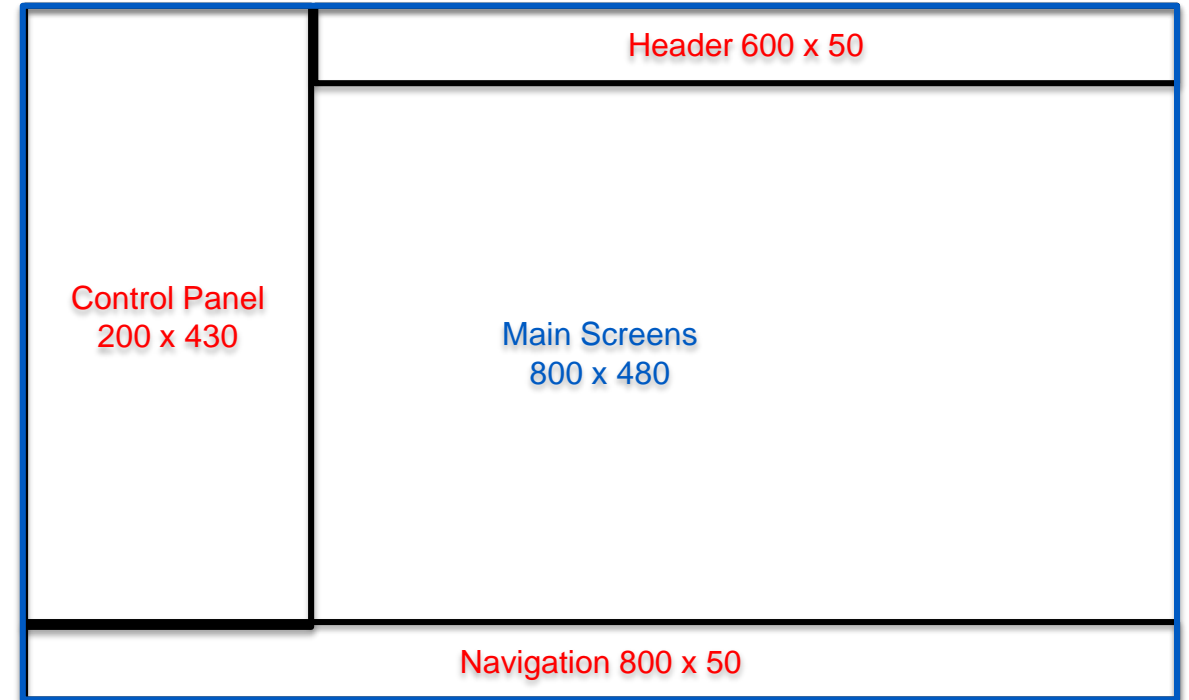
- Header
- 5 Blank Main Screens
- Blank Control Panel
- Blank Navigation Bar



Floorplan

Project Layout

- Determine Dimensions
- Create Screens in project tree
- Embed small screens on top of main screens



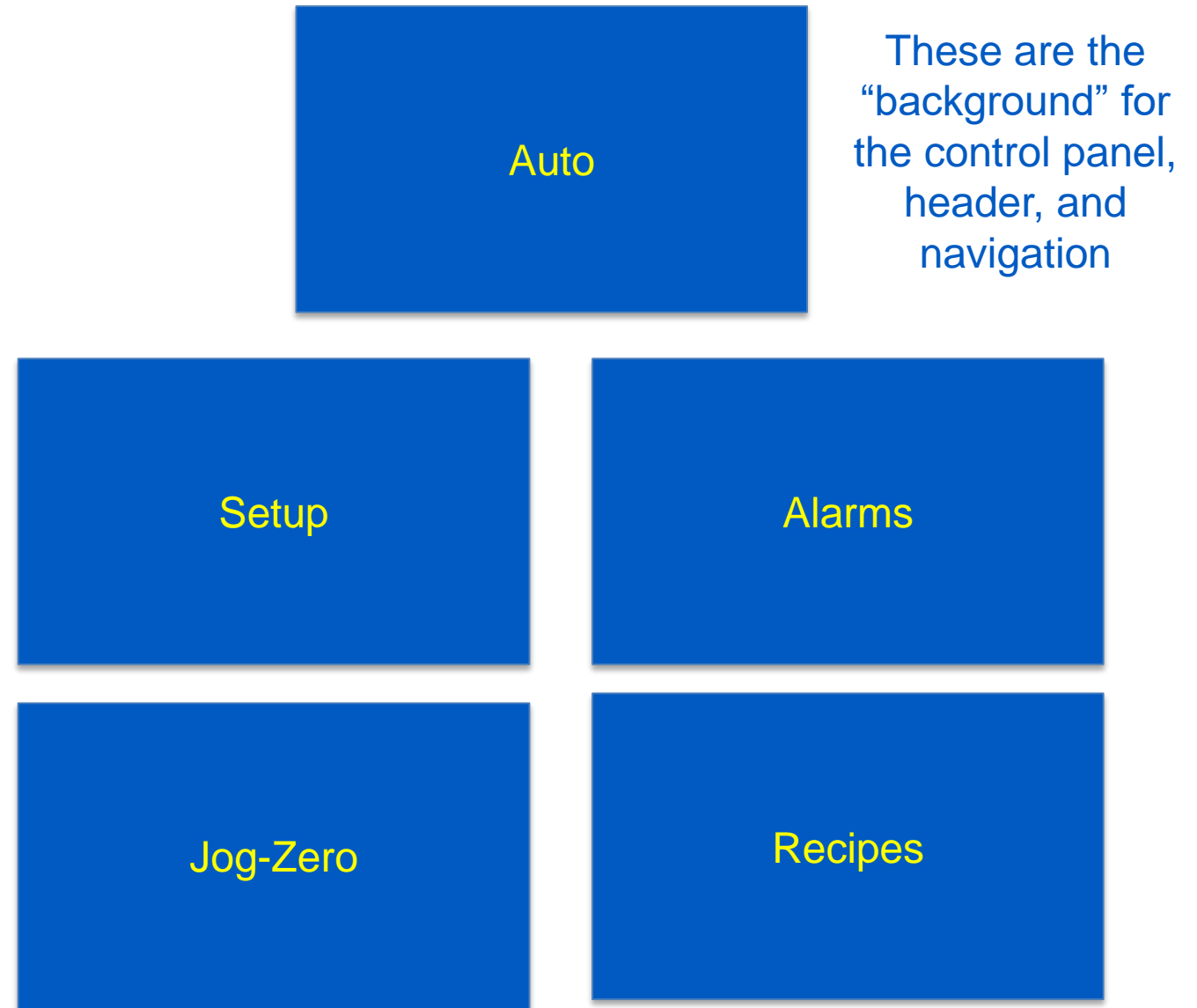
Create the Screens

Project Layout

- Main Screens
 - Auto
 - Setup
 - Jog-Zero
 - Alarms
 - Recipes

HINT: Enter text on each screen to identify it

Toolbox → Basic Shapes → Text

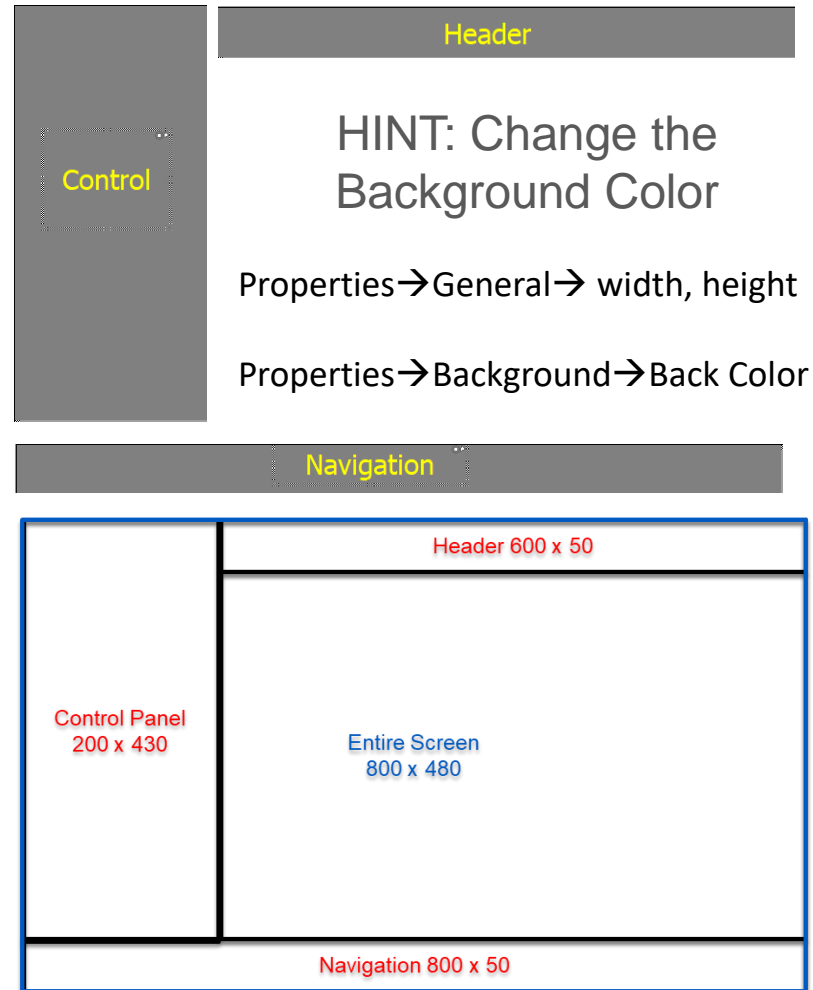


Create the Screens

Project Layout

- Embedded View
 - Header
 - Control
 - Navigation

These screens will be
“Embedded” on top of the
main screens



Embed Screens

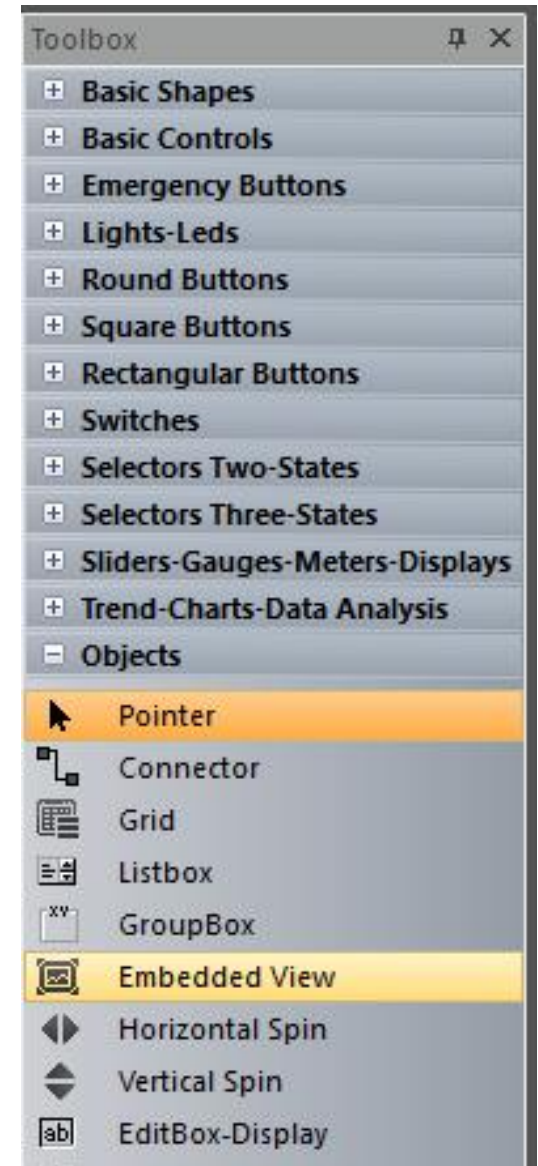
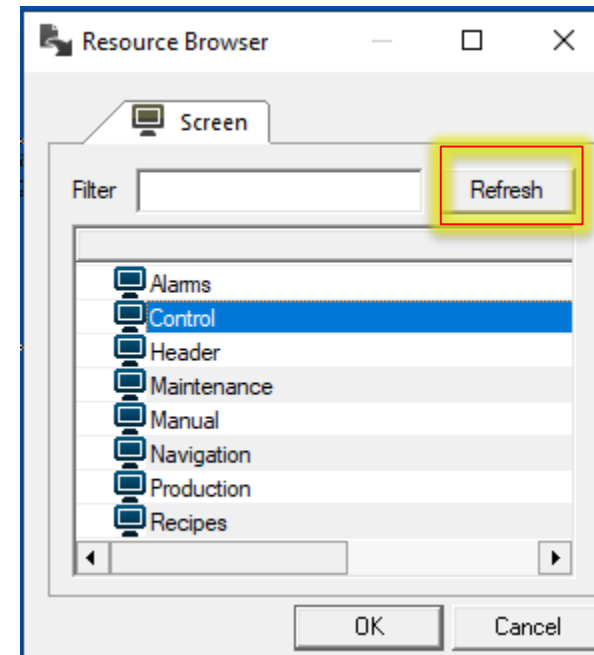
Project Layout

- Insert the object “embedded view” on the Auto screen
- Adjust size and position
- Show Background

Toolbox → Objects → Embedded view

Properties → Position → width, height

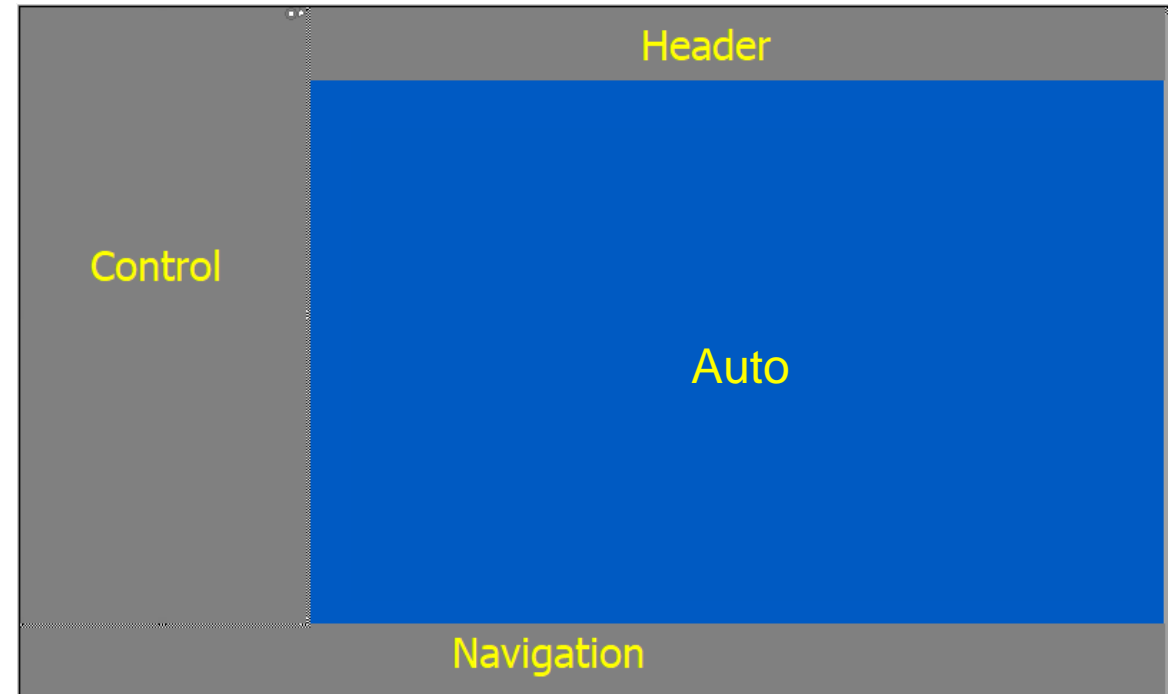
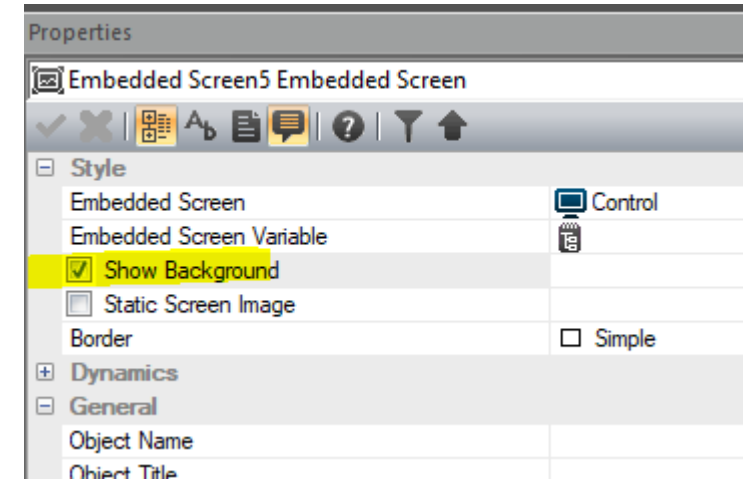
Properties → Style → Show Background



Auto Screen Layout

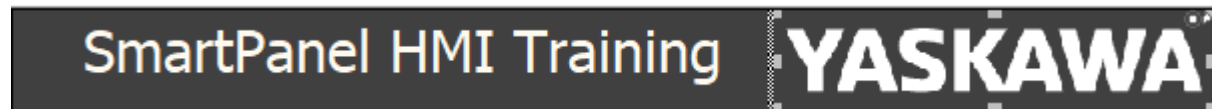
Project Layout

- Copy the layout to the other main screens
 - Ctrl-click
 - Copy
 - Paste



Header Bar

Project Layout



- Image (logo)
 - Rectangle
- Background Attributes
 - Brush Style = Null
 - Static Image = <select desired image file>
 - Image Alignment = stretched
 - Keep Proportions
- Stroke Attributes:
 - Border style = null

Toolbox → Basic Shapes → Rectangle

Properties → Background Attributes

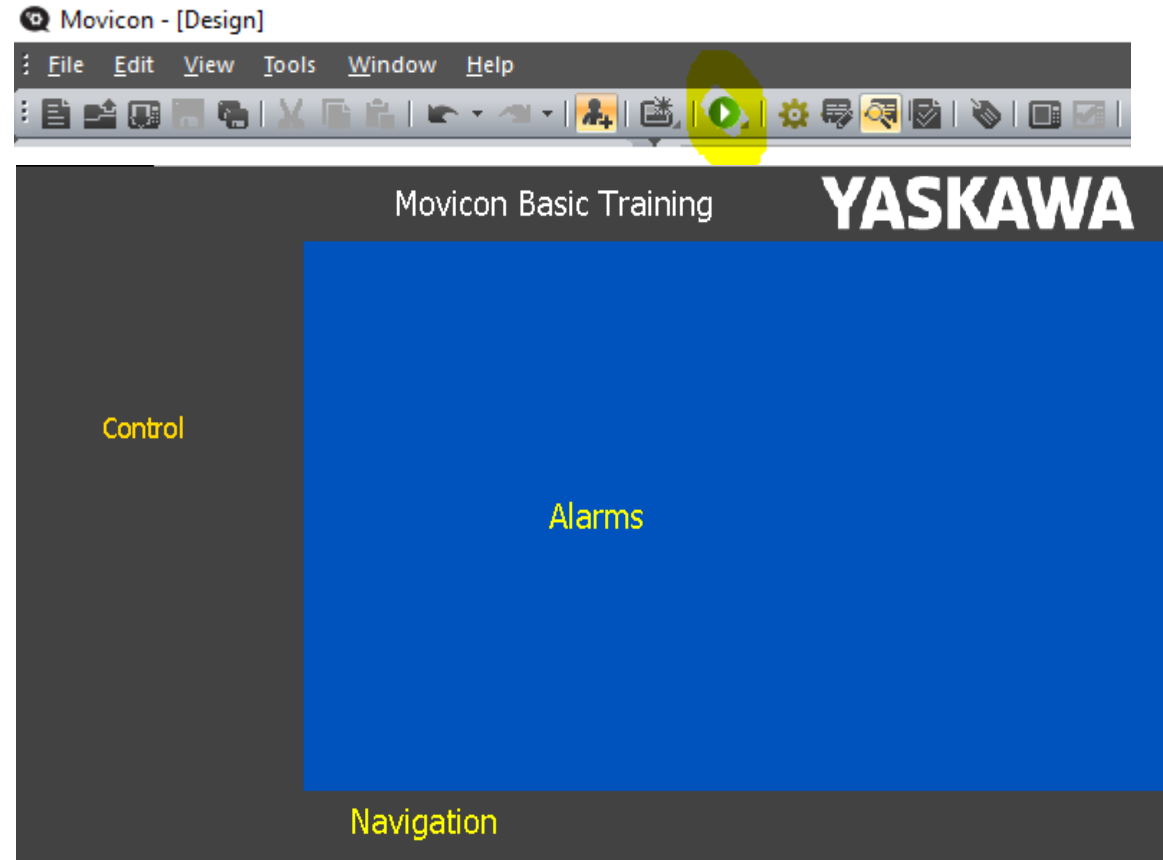
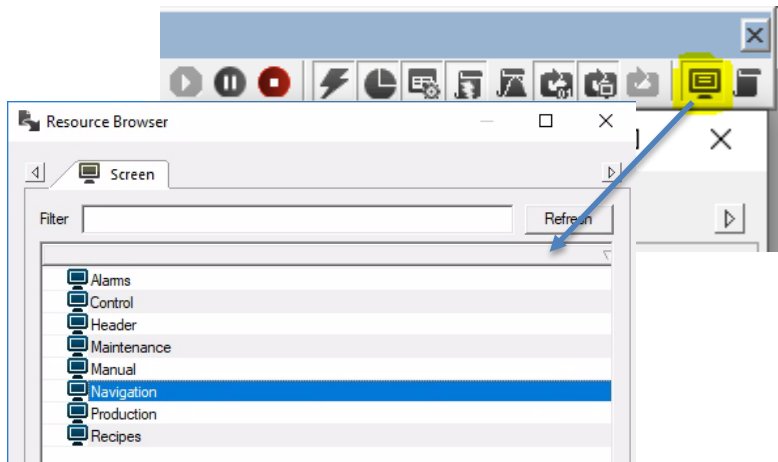
TIP: The embedded view will
update when

1. The project is opened again
2. Delete and undo

Start the Project

Project Layout

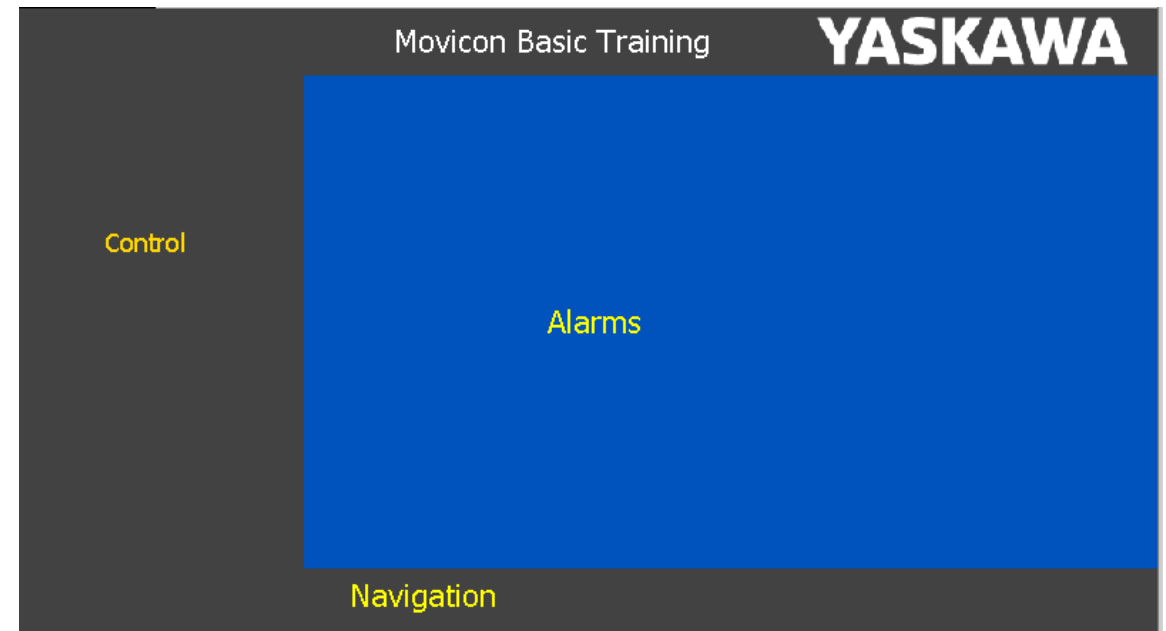
- Confirm pages
- Navigate pages using toolbar



Project Layout

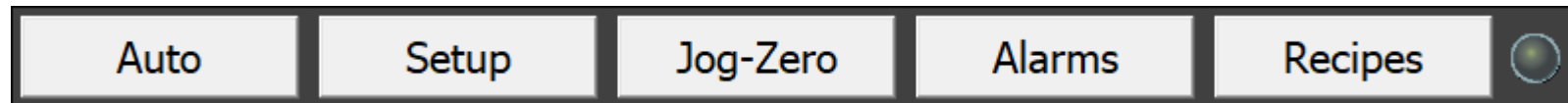
Mini-Lab

1. 5 Main Screens
2. 3 Embedded Screens
3. Logo on Header
4. Verify



Navigation Bar

- Create the buttons
- Track the active screen



Itinerary

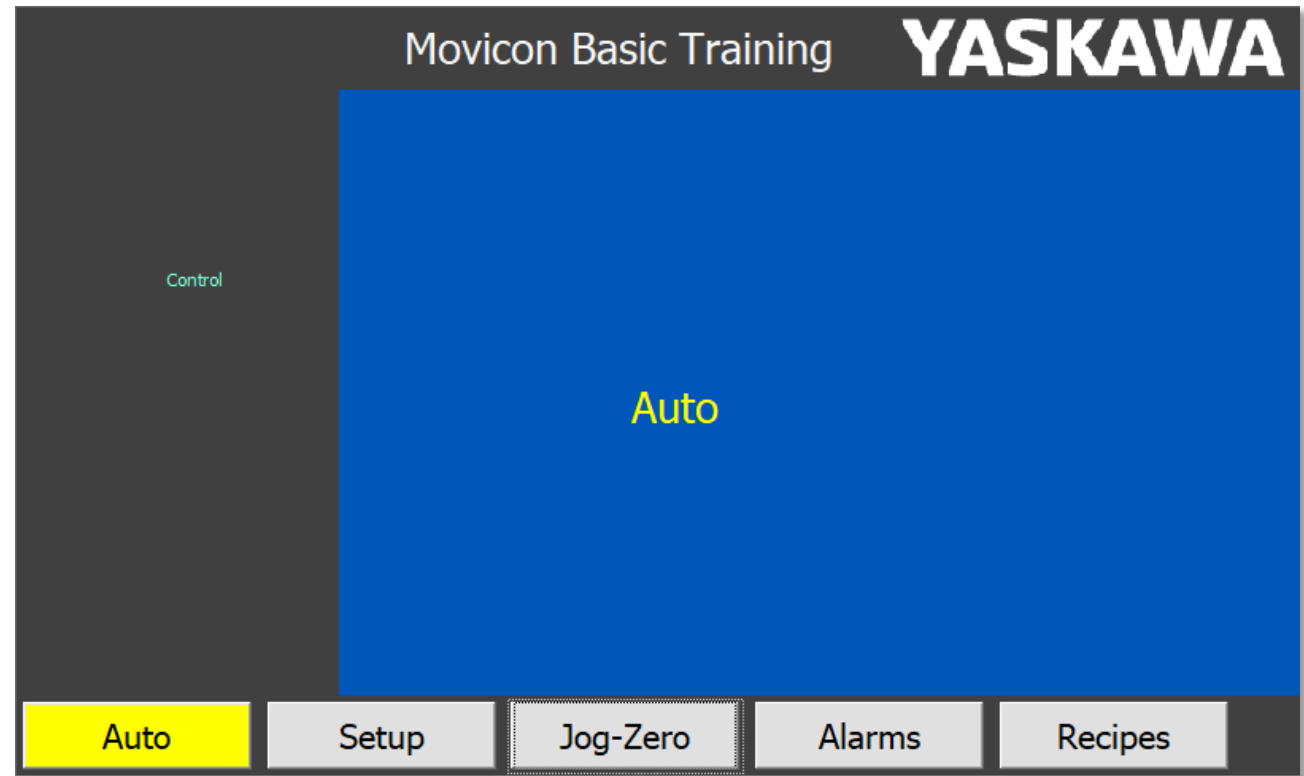
Movicon HMI Editor Basics

1. Introduction
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13. Jog-Zero Screen
14. Auto Screen
15. Recipe Screen
16. Alarm Screen
17. User Management
18. Symbols
19. Certification Test

Final Outcome

Navigation Bar

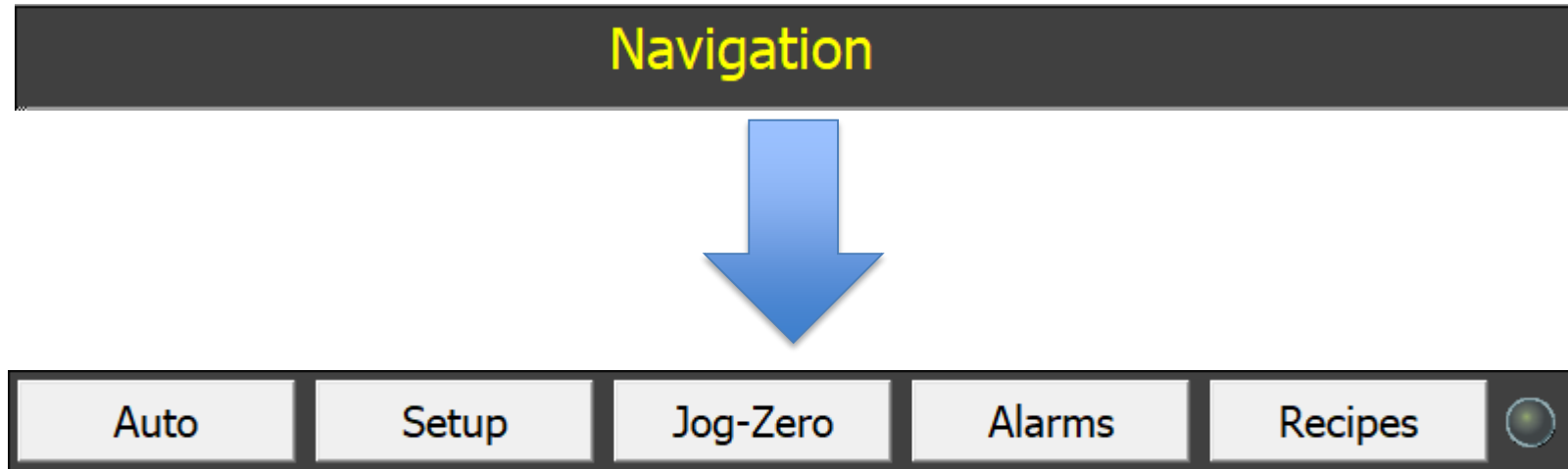
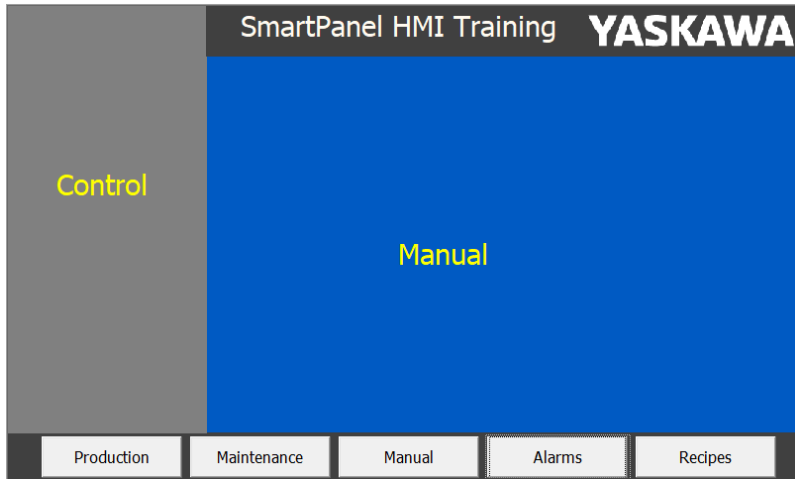
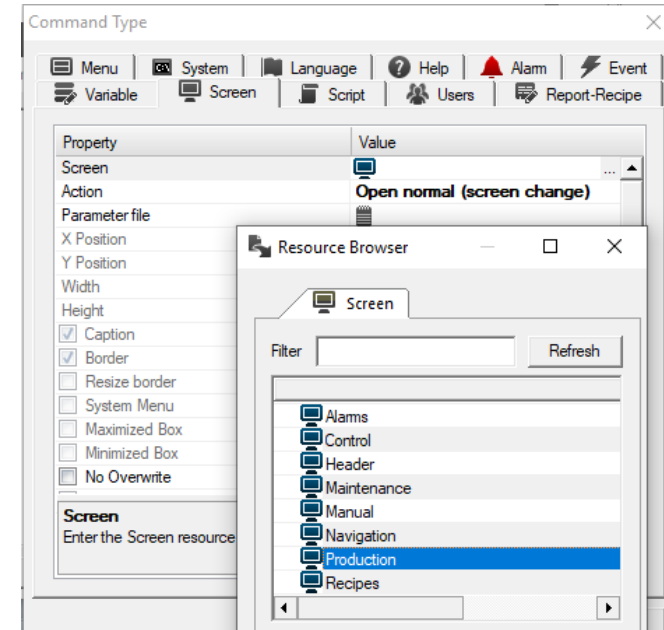
- Navigation
- Color



Buttons to Open Screens

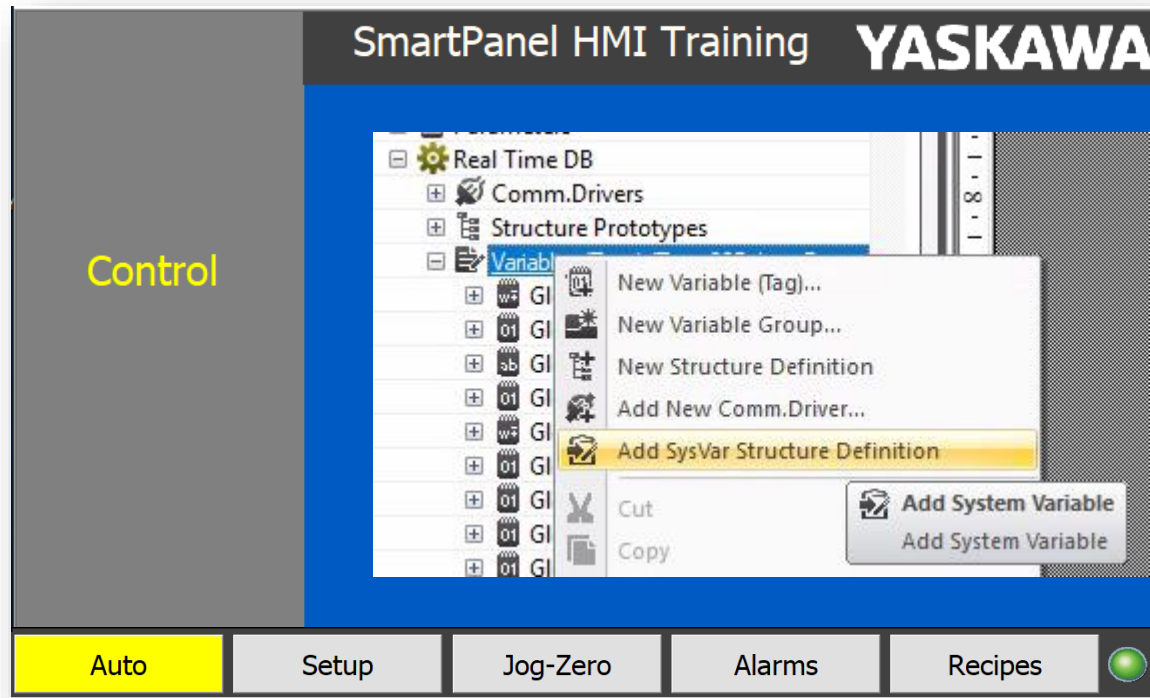
Navigation Bar

- Toolbox → Basic Controls → Push Button

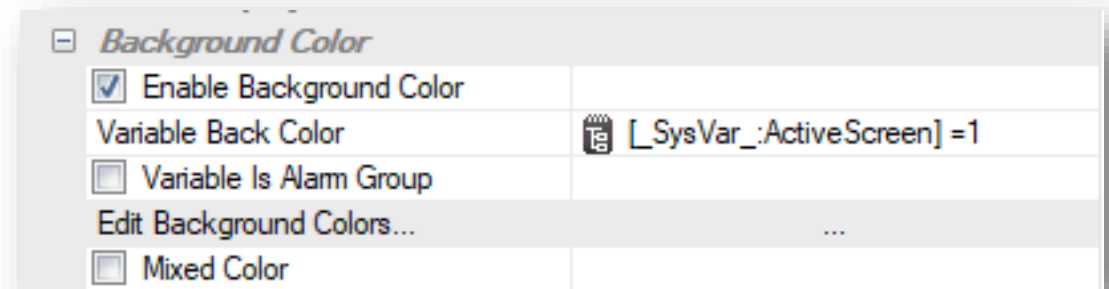


Dynamic Button Color

Navigation Bar



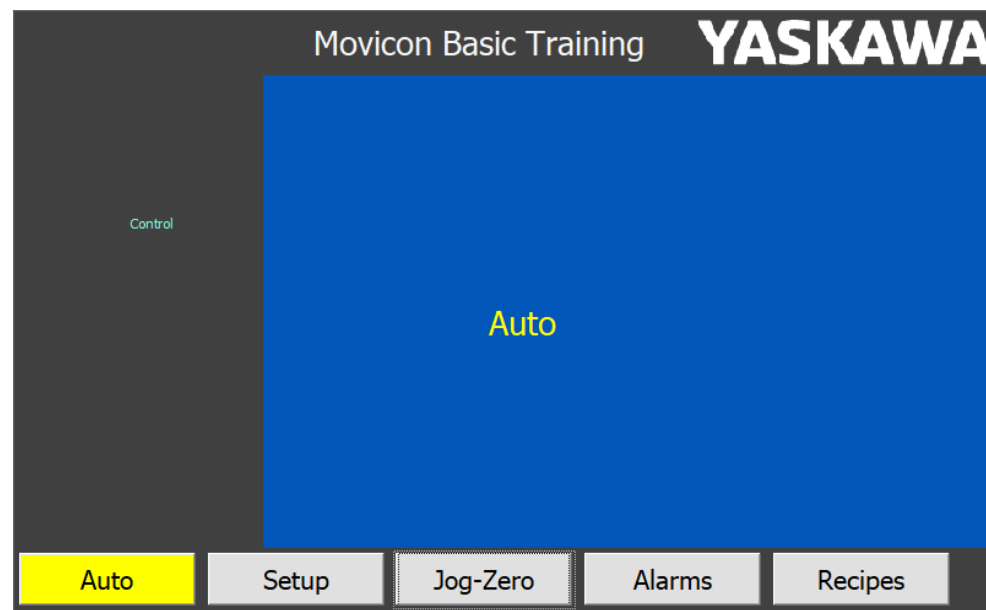
- Use `_SysVar_` to detect open screen
- Basic push buttons can change color
- Styled buttons have fixed color



Navigation Bar

Mini-Lab

1. One Button
2. Active Screen
3. Background Colors
4. Button Copy/Edit



Project Management

- Overview
- Save As
- ZIP
- Suggested Strategy
- Multiple Projects

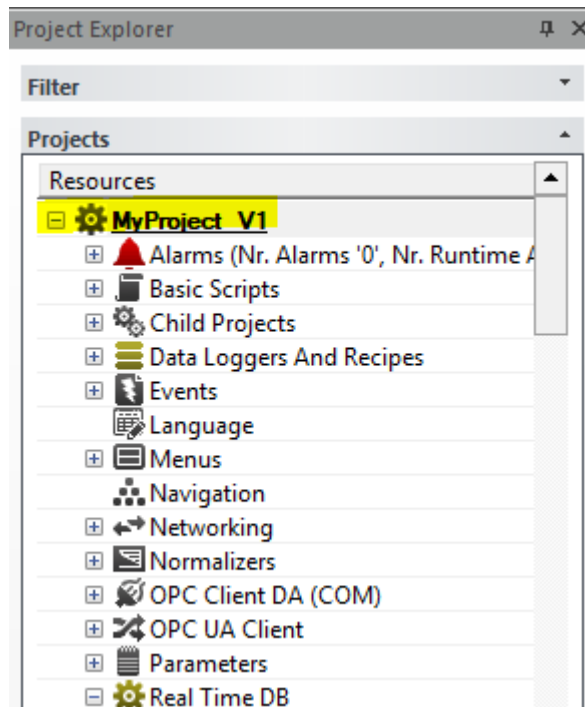
Itinerary

Movicon HMI Editor Basics

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Overview

Project Management

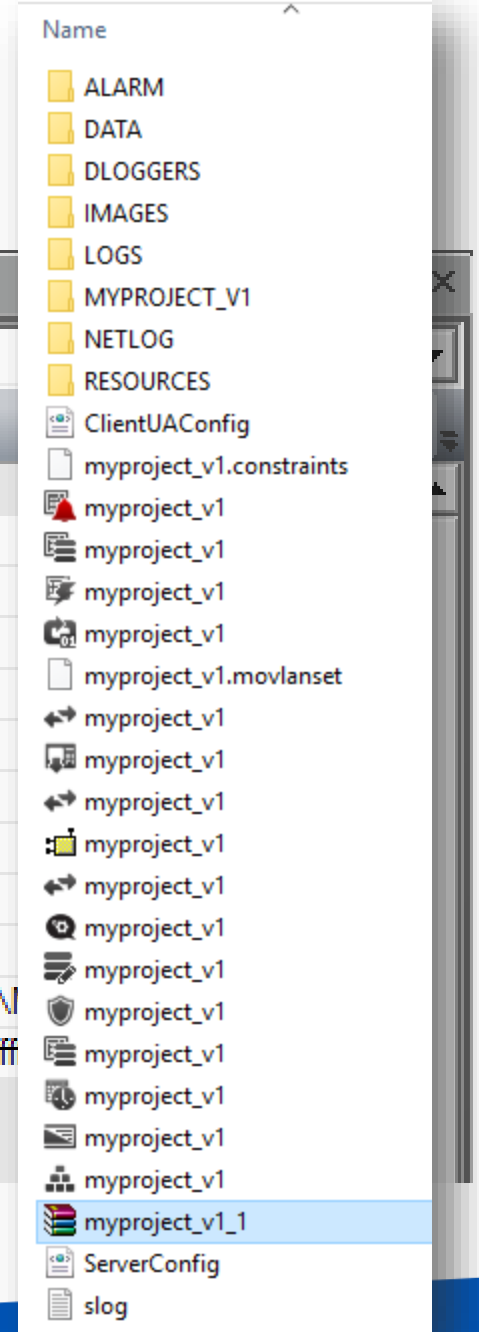
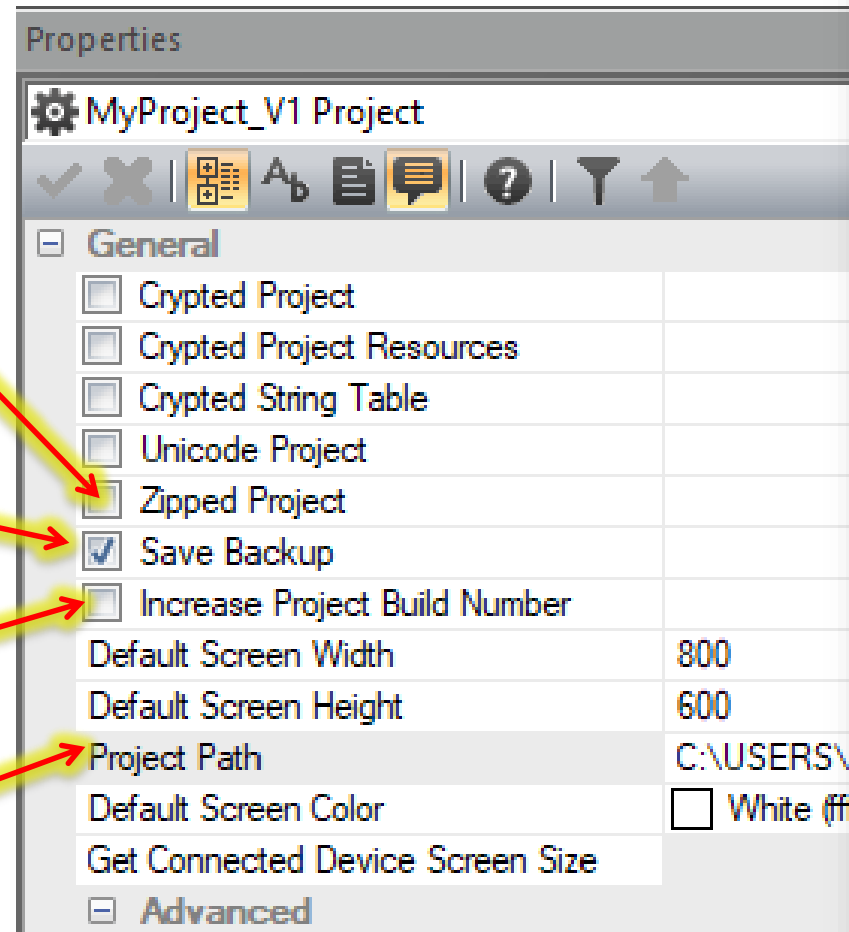


Compresses all project files

ZIP of entire
project

New ZIP at every save

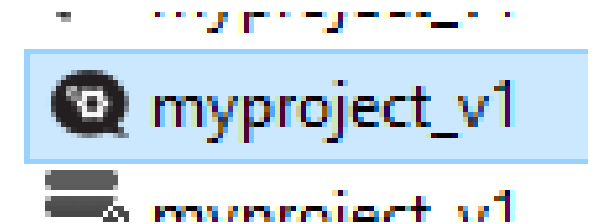
All files and
sub-folders
will be saved
in this
directory



Overview Details

Project Management

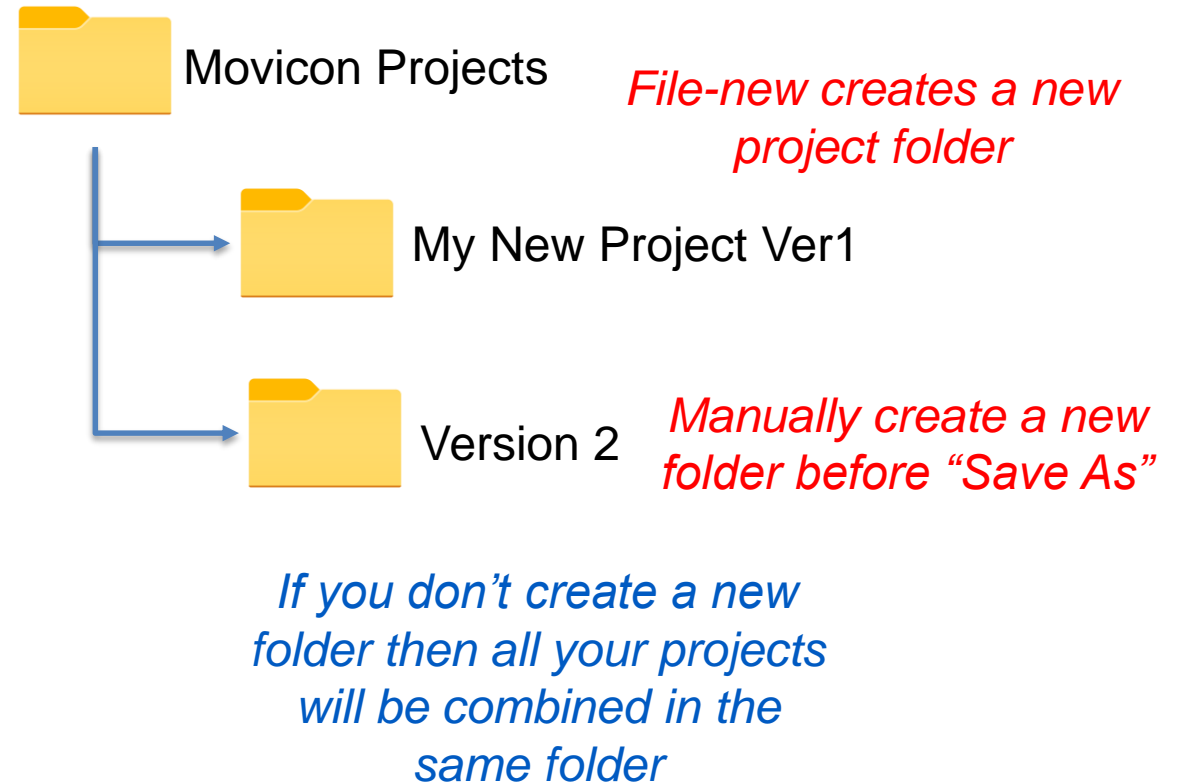
- Zipped Project
 - Compresses project files
 - DOES NOT CREATE ZIP FILE
- Save Backup
 - Backs up the project to the ZIP file
 - Change, then Save All or Start Project
- Increase Project Build Number
 - Creates a new zip file at every save
 - Append number to filename



Save As

Project Management

- Select Project Explorer
- Create a New Folder
- Navigate to the Folder



Revision Control

Project Management

- Option 1:
 - Rename the ZIP file
 - The unzipped project will have the original name
- Option 2:
 - Save As in new folder

Extract ZIP

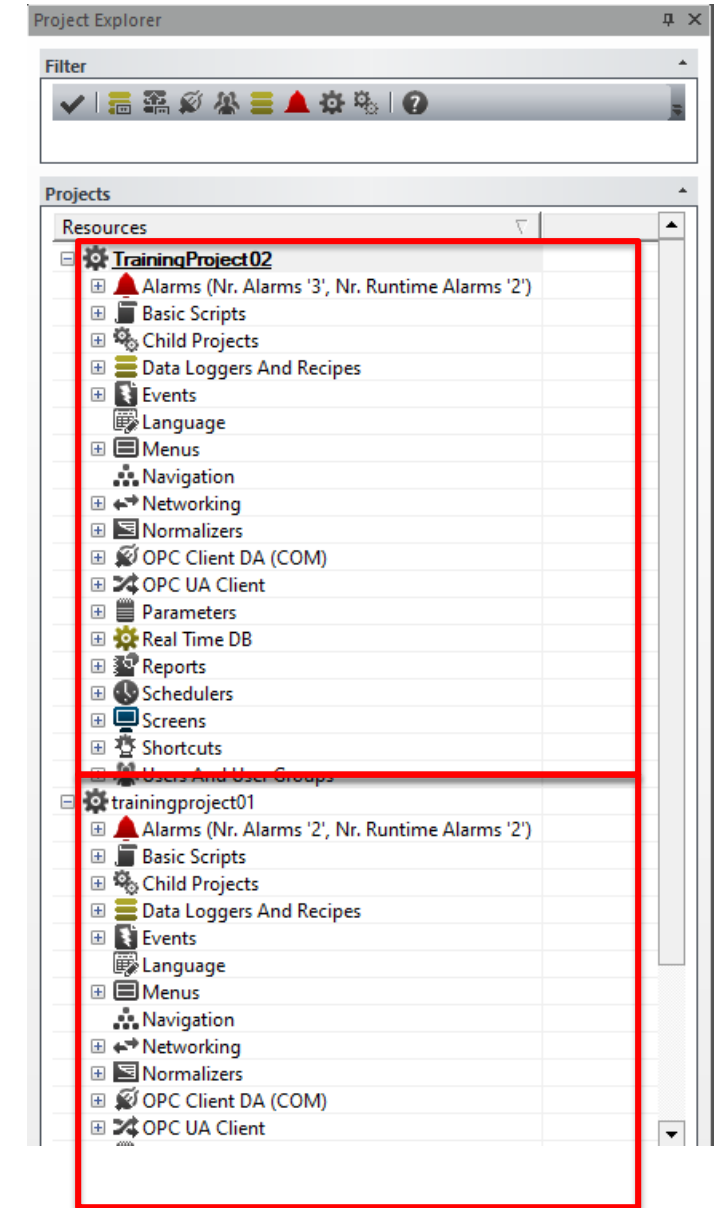
Project Management

- Movicon 11.6 cannot open a zipped project
- Unzip to new folder in Windows
- Launch the project file
 - Movicon
 - Windows Explorer

Multiple Projects

Project Management

- Multiple projects open at once
- Swap components between projects
- Right-click to set the active project
- Easy to mix up projects unintentionally



Setup Screen

System Reboot

OFF
Reboot
Request

Reboot
Required

Close HMI Project

HMI IP Address

x

MPiec IP Address

x

Servo Parameter Mismatch

X

Y

Z

Alarm Testing

Low PE

Write Servo Drive Parameters

X

Y

Z

Clear Alarms

Itinerary

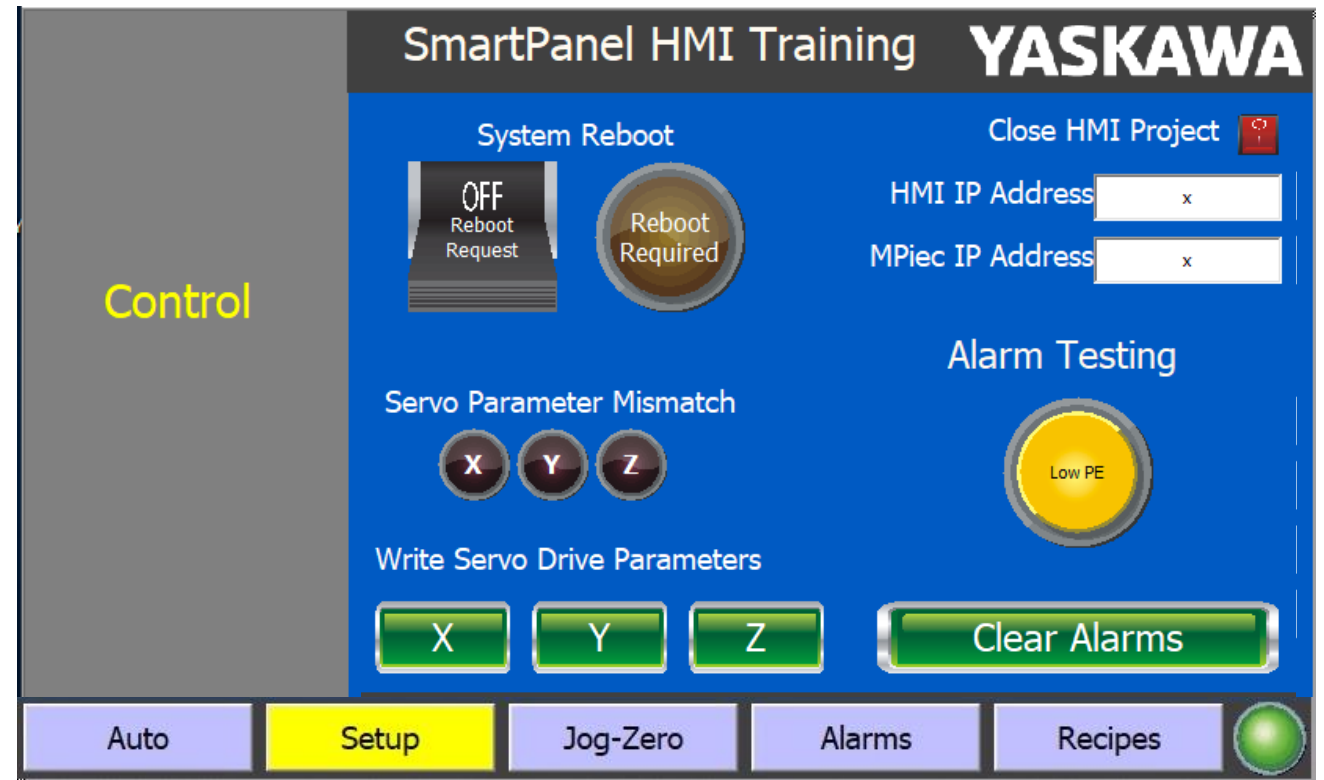
Movicon HMI Editor Basics

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Overview

Setup Screen


- Text Labels
- Switch
- LEDs
- Buttons
- TextBox-Display



SysVar

Setup Screen

- System Command
 - Close project
- _SysVar_
 - HMI IP Address

Close HMI Project 

HMI IP Address

MPiec IP Address

Watch Window

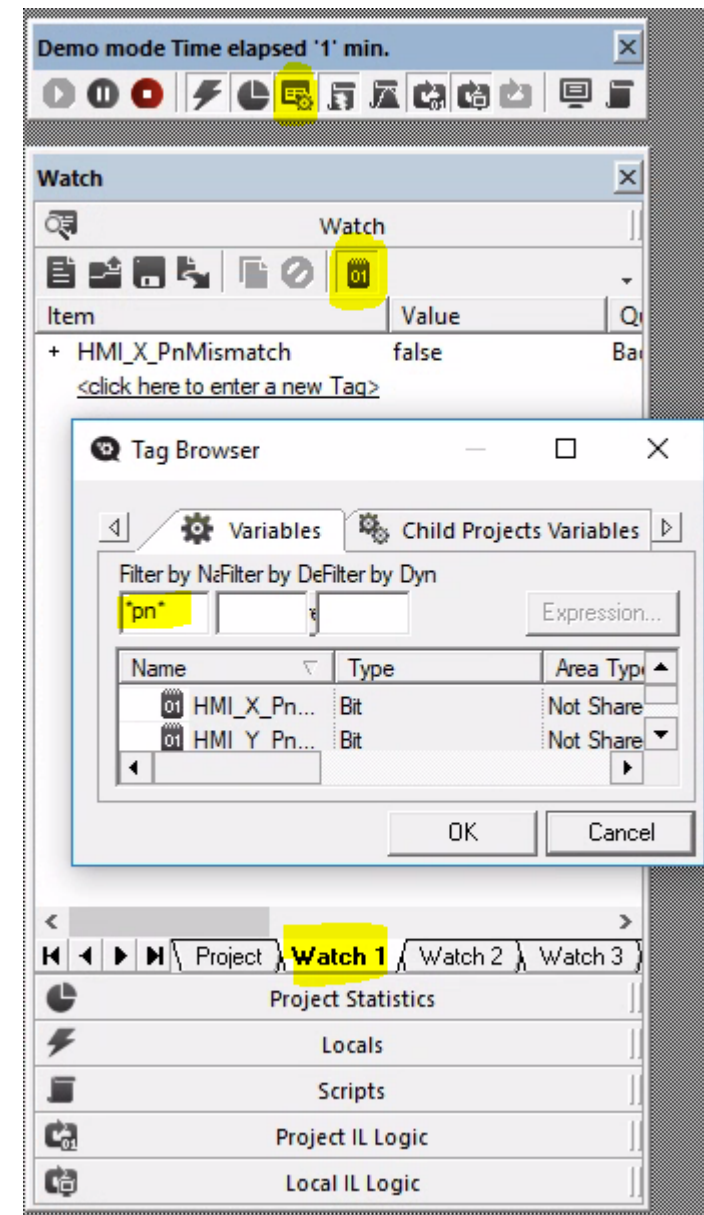
Setup Screen

1. Add a Variable to Watch



2. Write Data

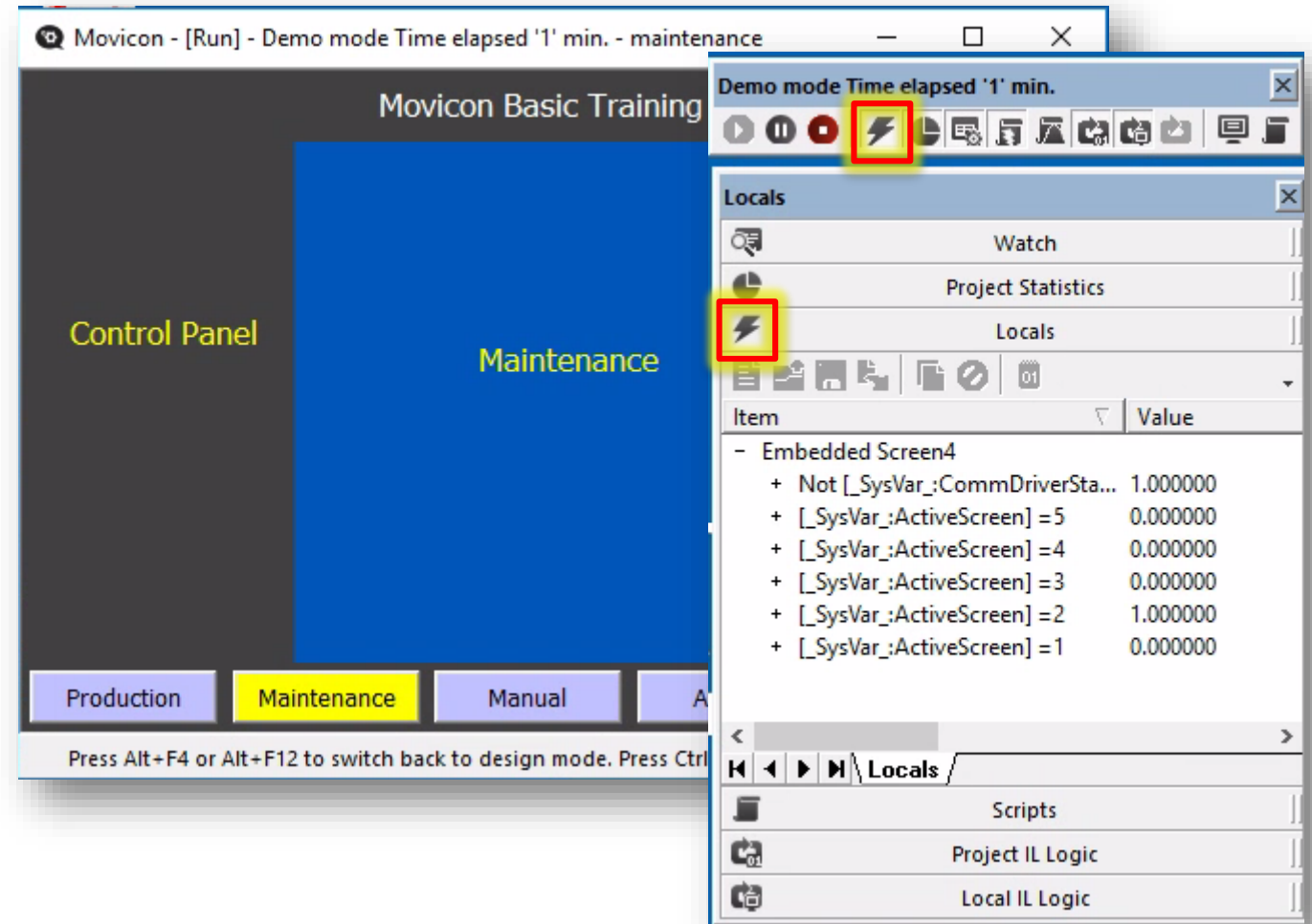
- Click, wait, click



Locals Window

Setup Screen

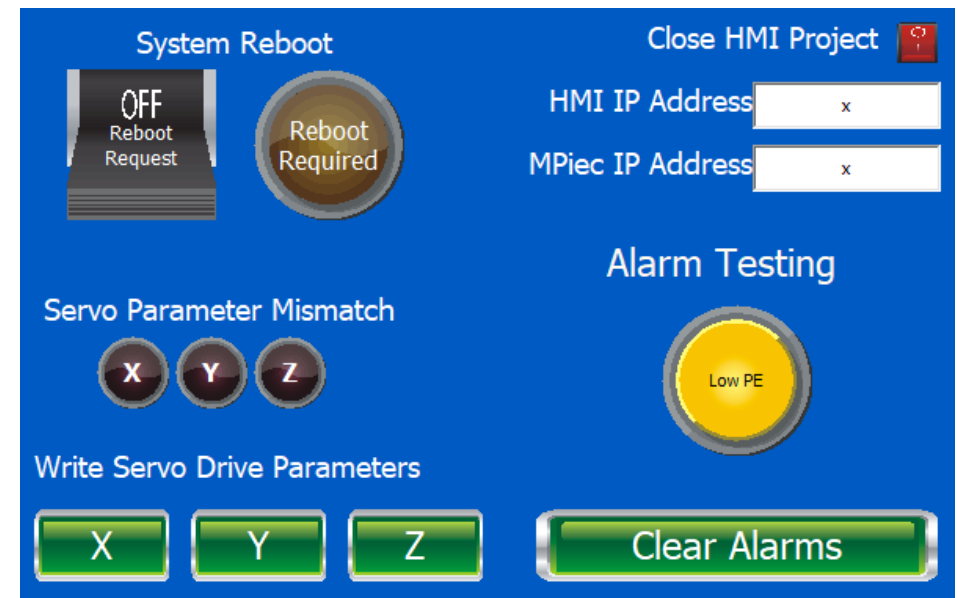
1. Open “Locals”
2. Click Object Onscreen
3. Expand to View Object Variables



Setup Screen

Mini-Lab

1. Lay Out Objects
2. Connect Variables and Commands
3. Verify Functionality



Control Panel

Control Panel

Mode

Start in production mode only

Status	Position
X	<input type="text" value="0.12 mm"/>
Y	<input type="text" value="-0.12 mm"/>
Z	<input type="text" value="0.09 mm"/>

Itinerary

Movicon HMI Editor Basics

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17. Symbols
18. Certification Test

Final Outcome

Control Panel

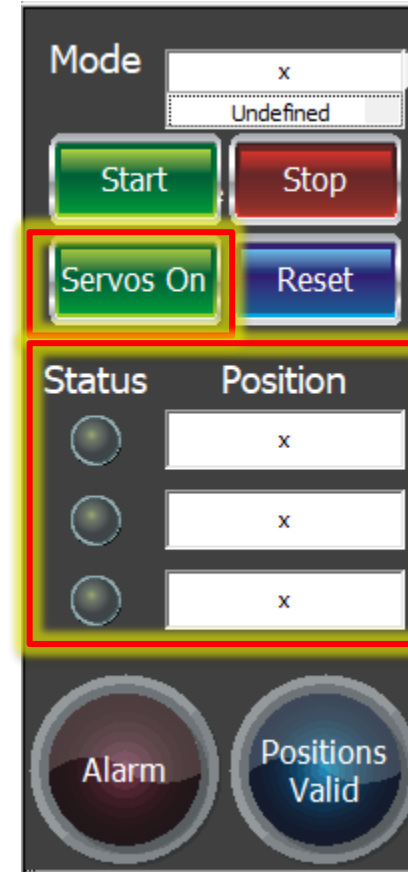
- Mode
- Start/Servos On
- Stop/Reset
- Status/Position
- Alarm/Valid



Overview

Control Panel

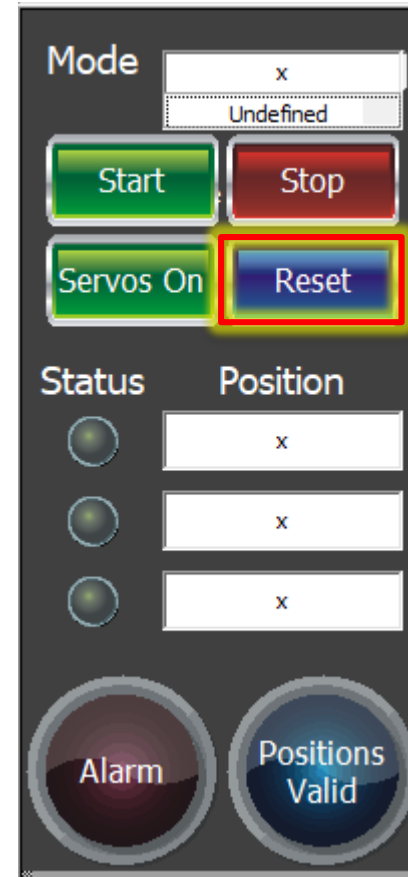
- Simple Objects
 - Button (Servos On)
 - LED (Status)
 - Position (EditBox-Display)



Impulsive Time

Control Panel

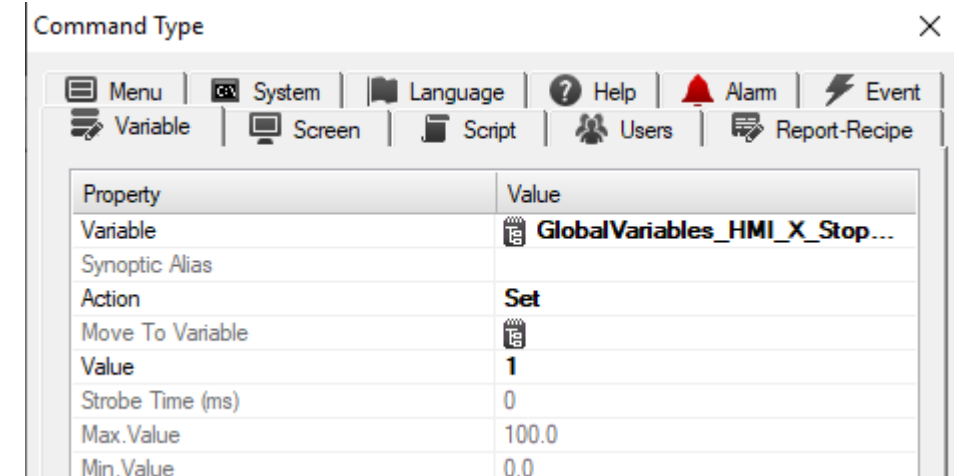
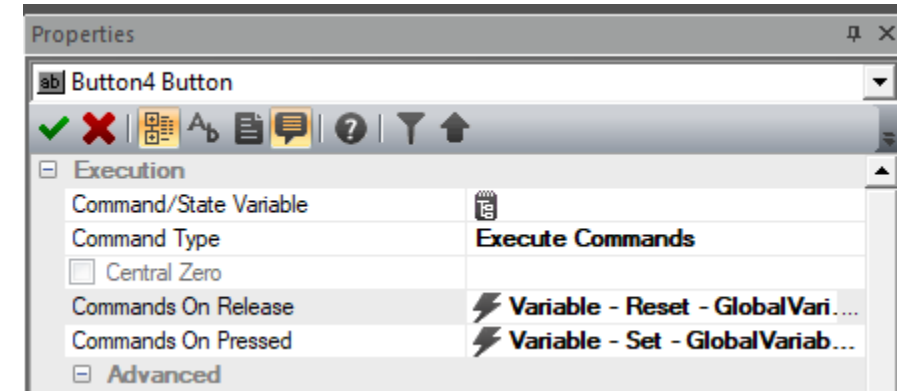
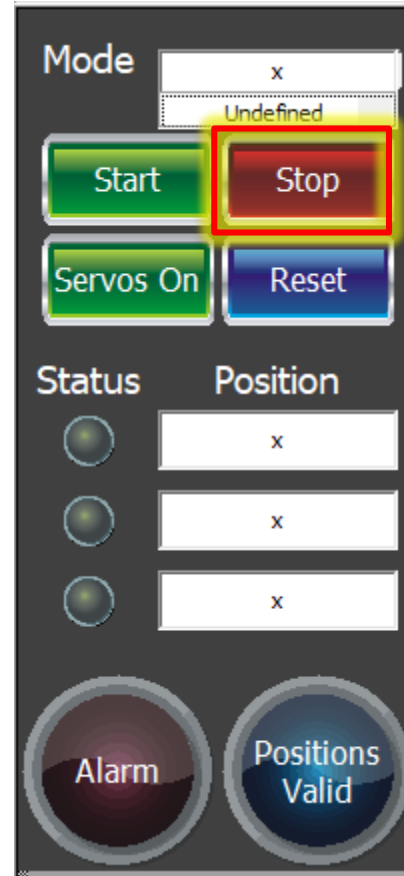
- Reset
 - Impulsive time to set exact ON-time pulse
 - Reset button resets the production mode cycle counter



Execute Commands

Control Panel

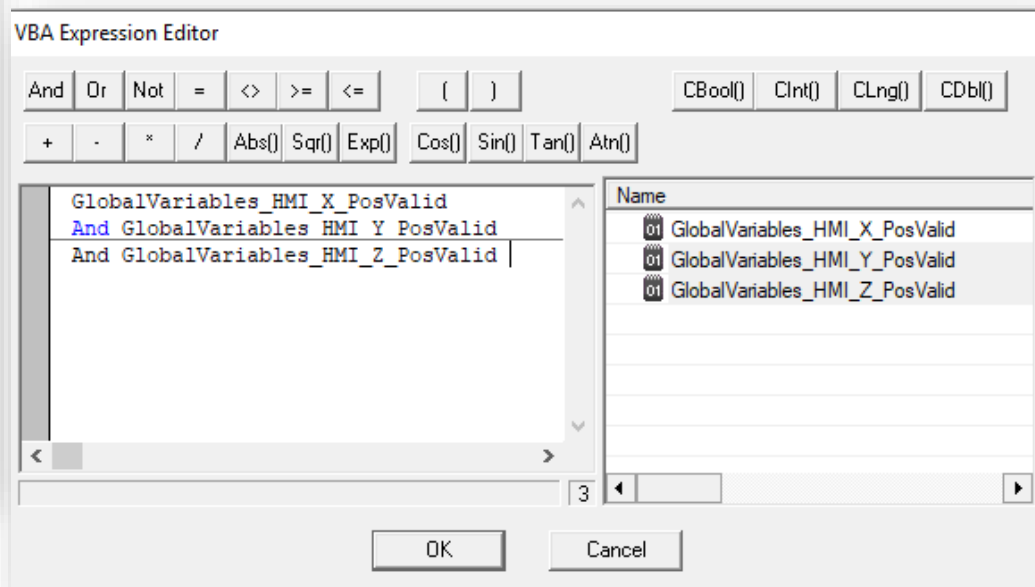
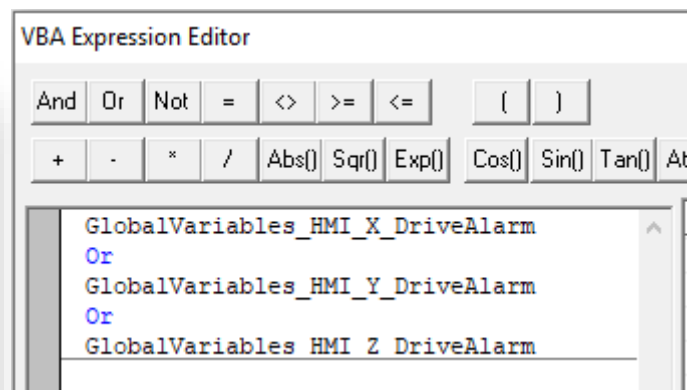
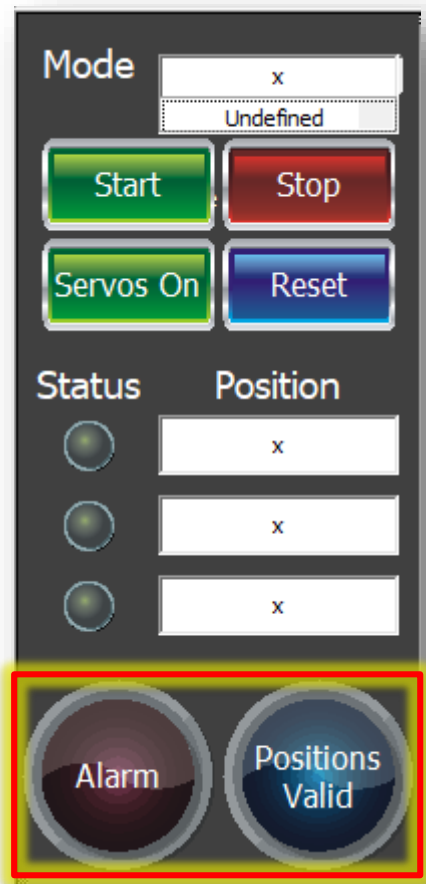
- Stop
 - Stop each axis using Execute Commands



Expression

Control Panel

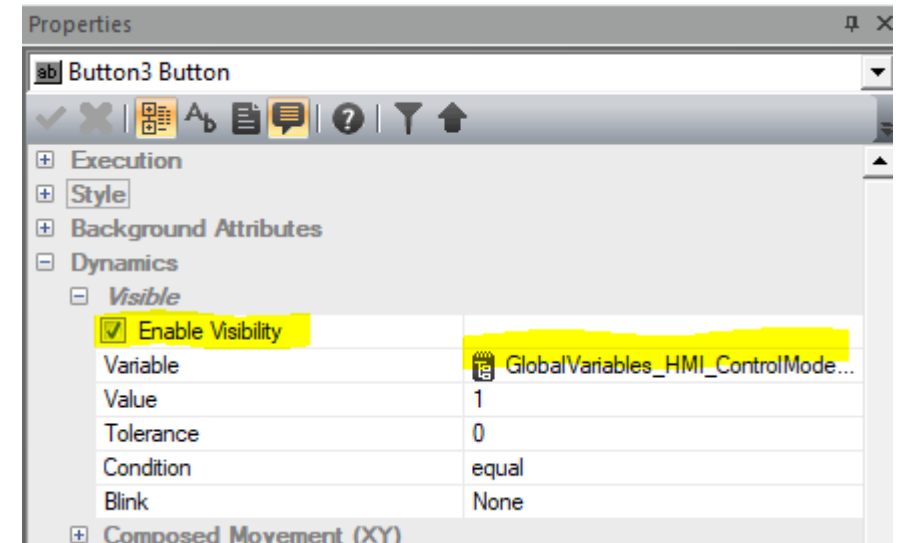
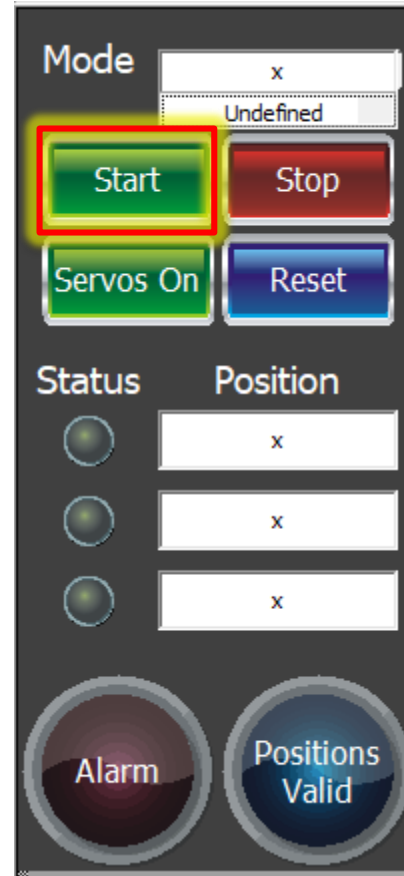
- Alarm
 - OR Logic
- Positions Valid
 - AND Logic



Visibility Dynamics

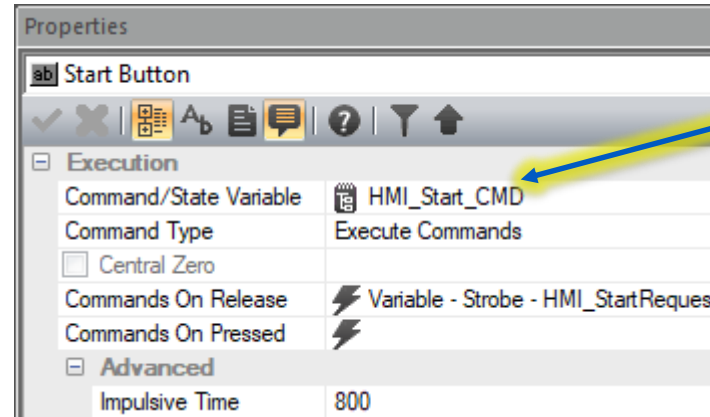
Control Panel

- Start
 - Visible only when MPiec is in Production mode



Command/State Variable

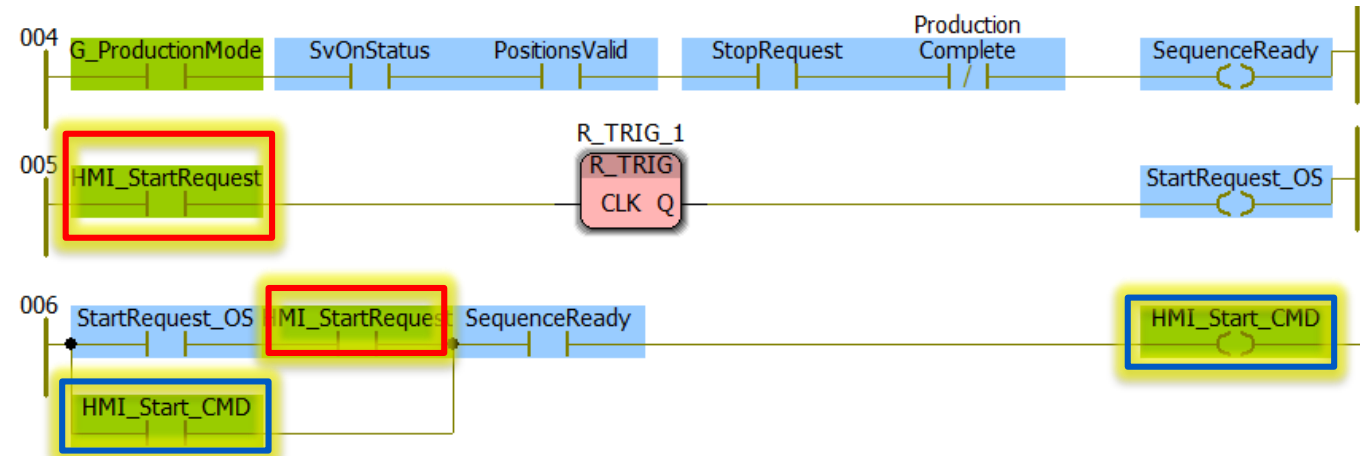
Control Panel



Button illumination state =
HMI_Start_CMD

Button command =
HMI_StartRequest

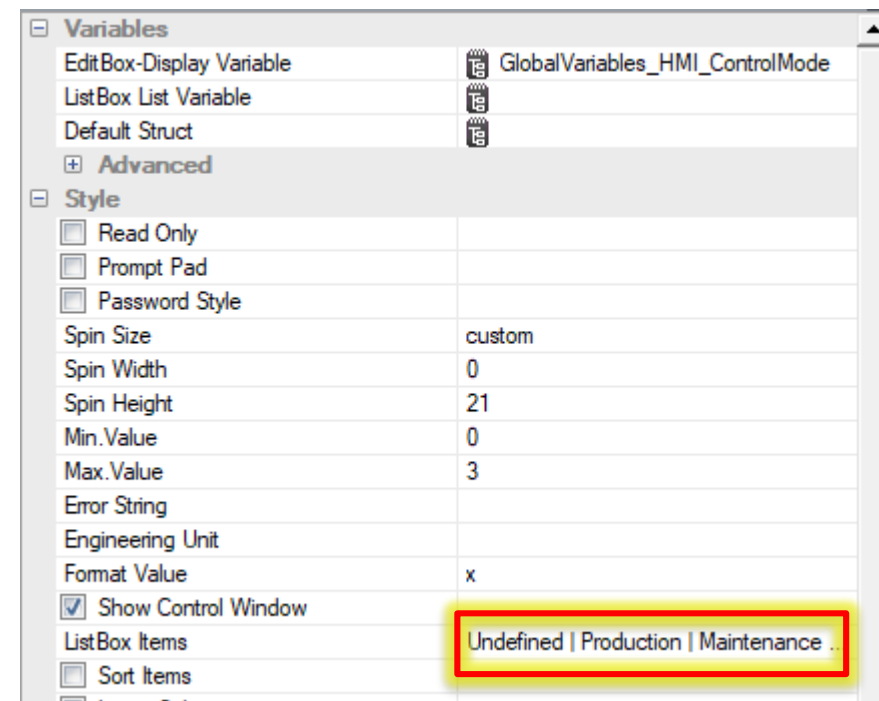
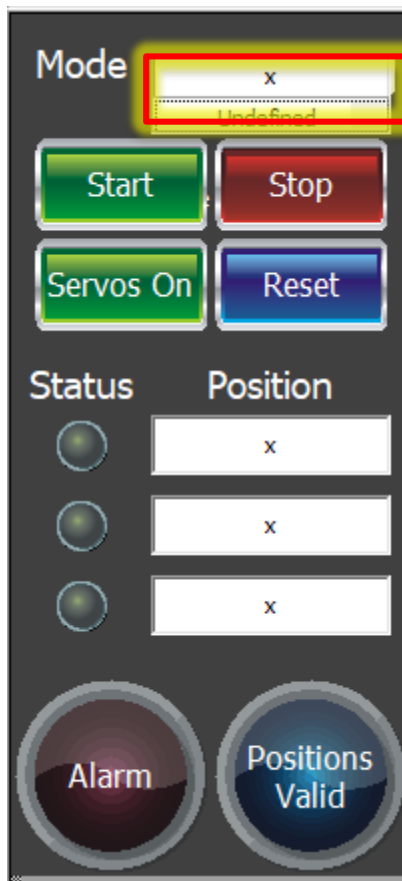
- Start
 - Impulsive
 - Strobe Command
HMI_StartRequest
 - State Variable
HMI_Start_CMD



Combo Box

Control Panel

- Mode
 - Numeric value from Mpiec
 - Combo Box with ListBox Items
 - Event to send active screen to MPiec



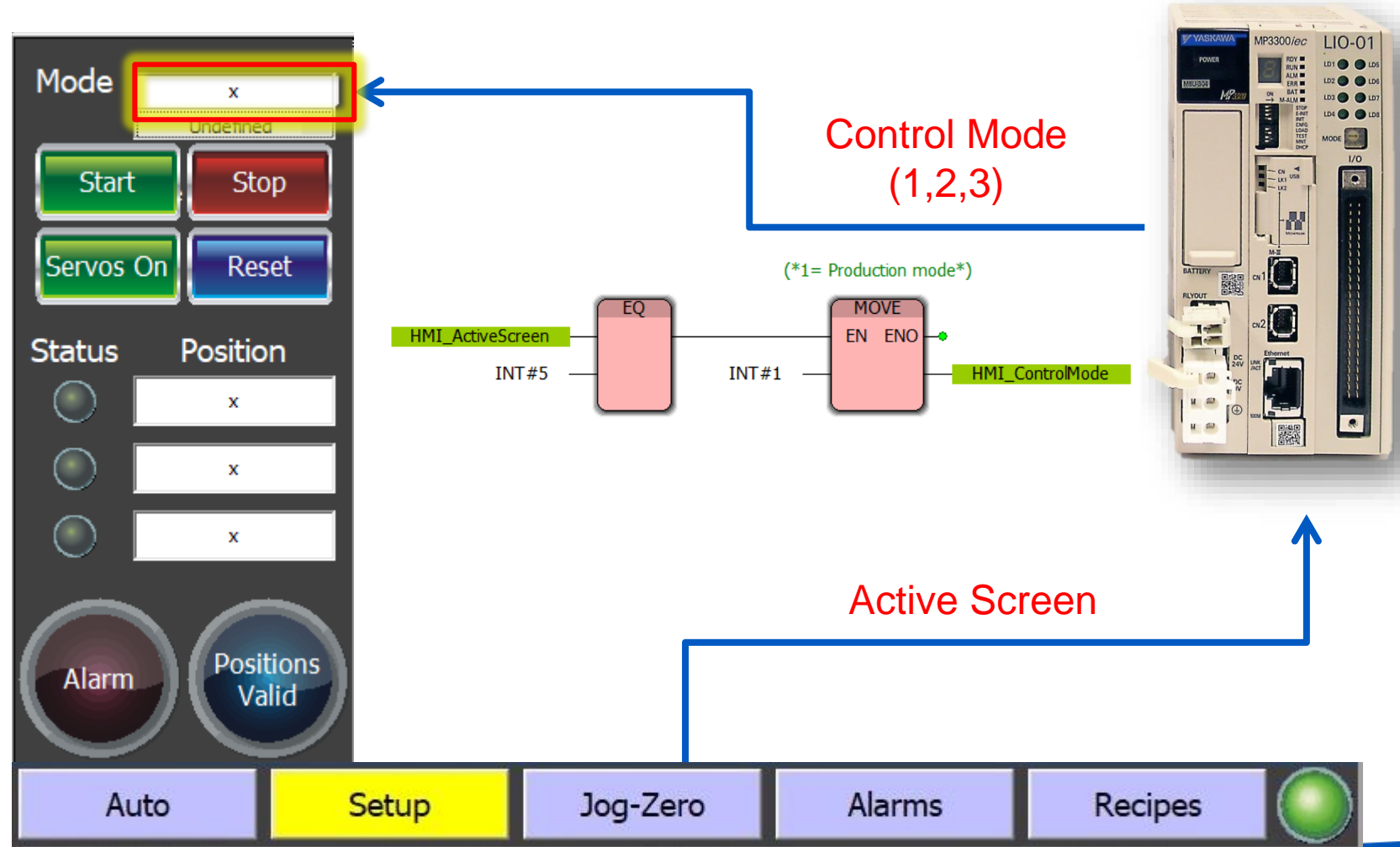
Toolbox → Objects → ComboBox

Properties → Style → ListBox Items

Event

Control Panel

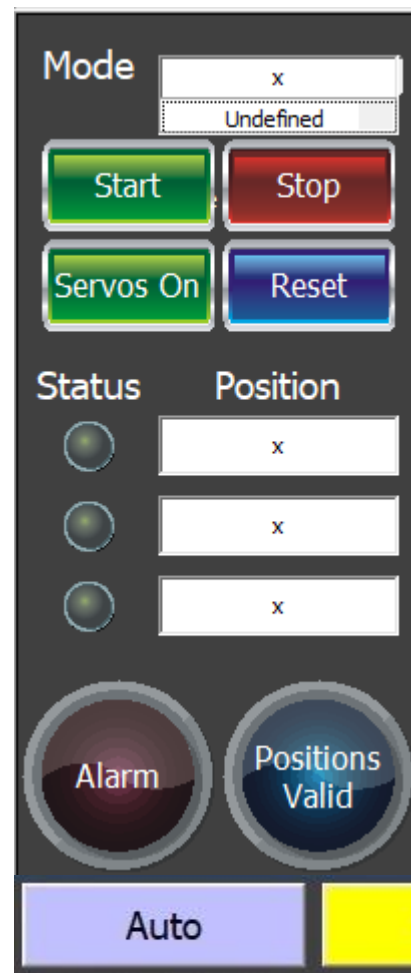
- Mode
 - **Active Screen to MPiec**
 - **Control Mode from MPiec**



Event

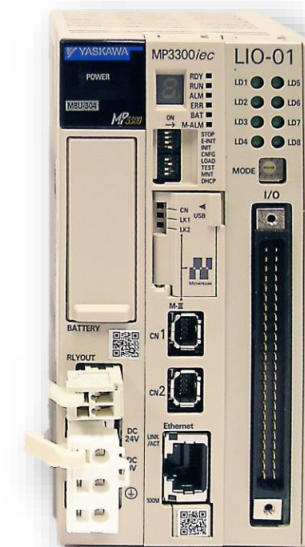
Control Panel

- Active Screen variables exist in both HMI and MPiec



IF ToggleBits change

THEN move the value of
SysVar:ActiveScreen to
HMI_ActiveScreen



HMI_ActiveScreen

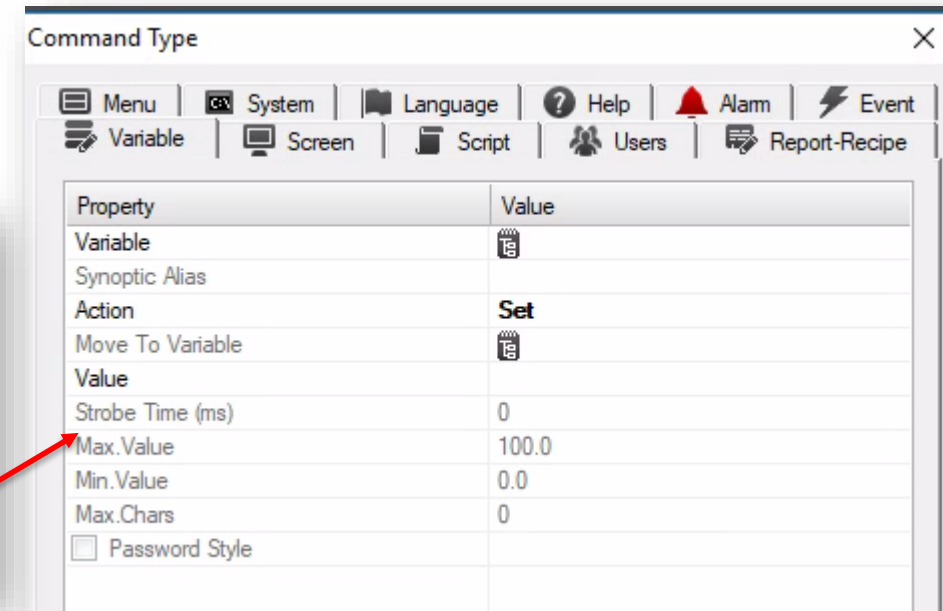
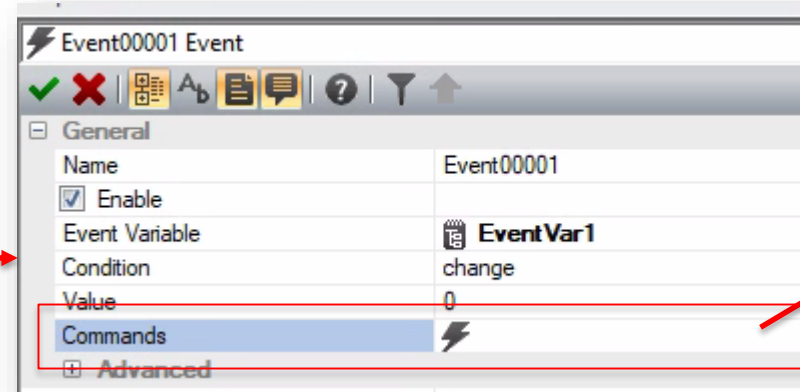
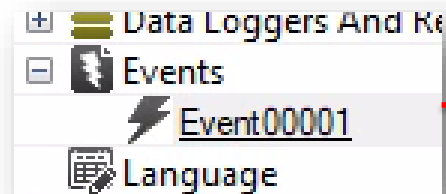
SysVar_:ActiveScreen

Event

Control Panel

- A command will automatically occur based on the value of a variable
- Like an “IF” statement in a program

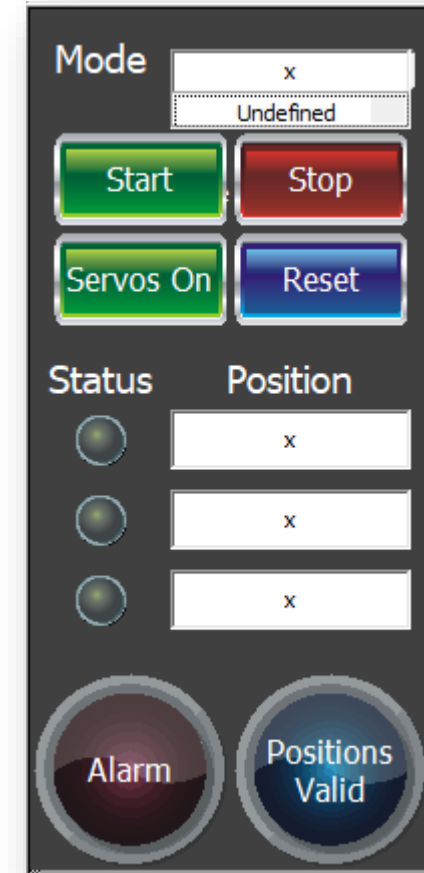
IF (EventVar1 = **change**)
THEN
Execute the commands.



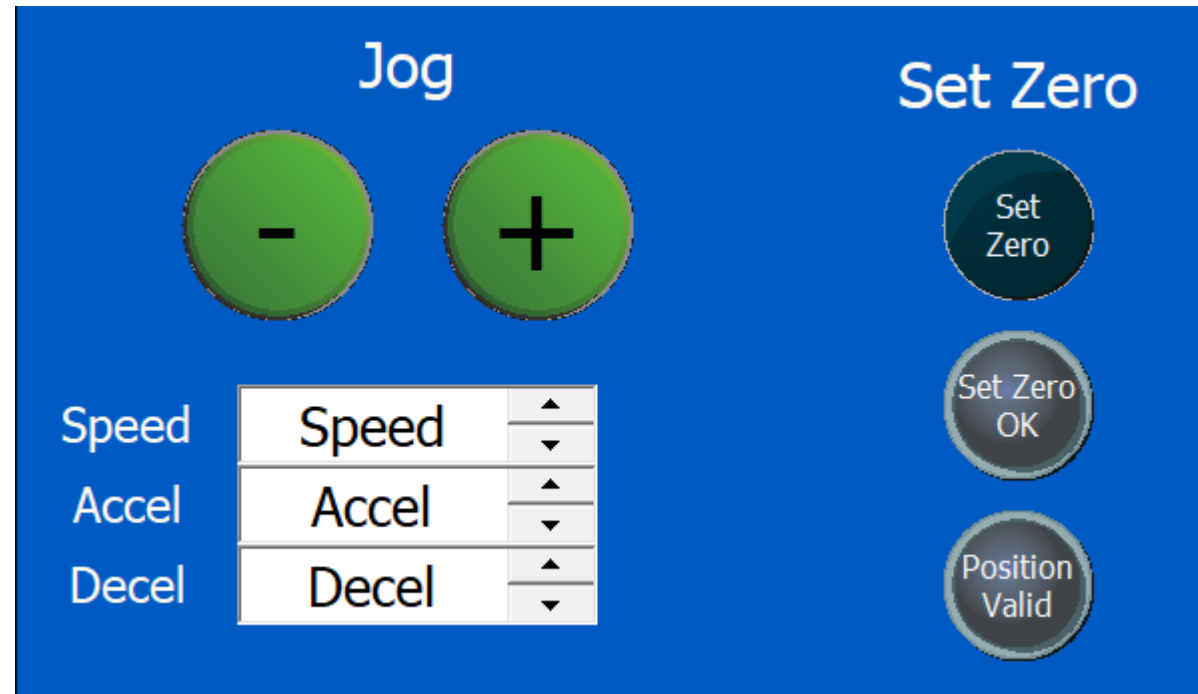
Control Panel

Mini-Lab

1. Arrange and Format Objects
2. Set Object Properties
3. Verify Functionality



Jog-Zero Screen



Itinerary

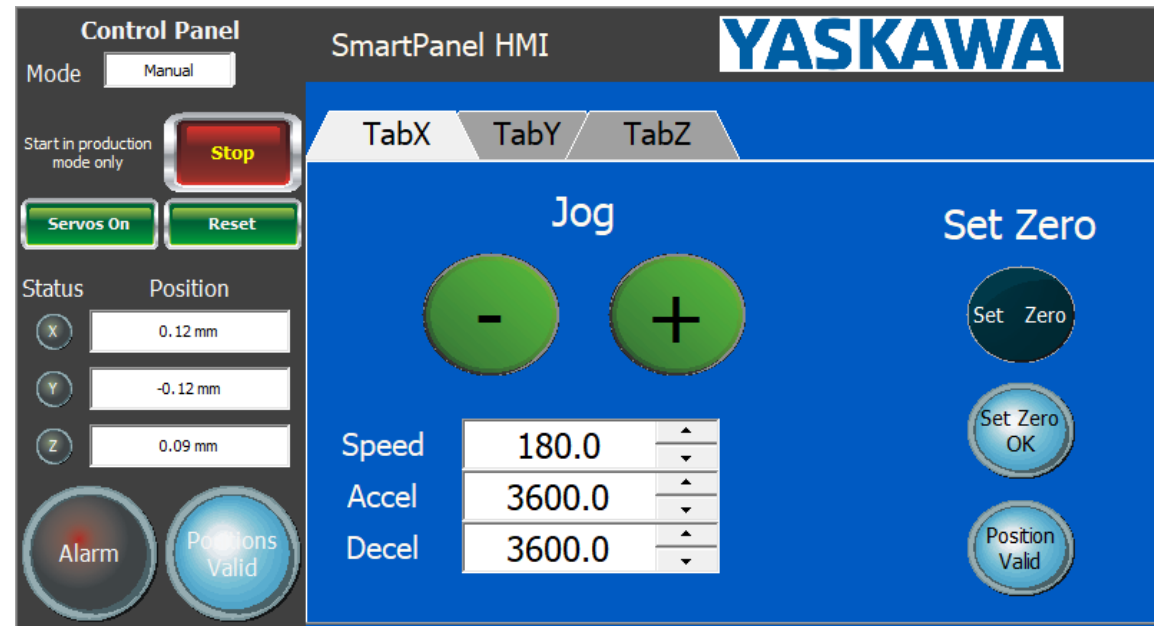
Movicon HMI Editor Basics

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Final Outcome

Control Panel

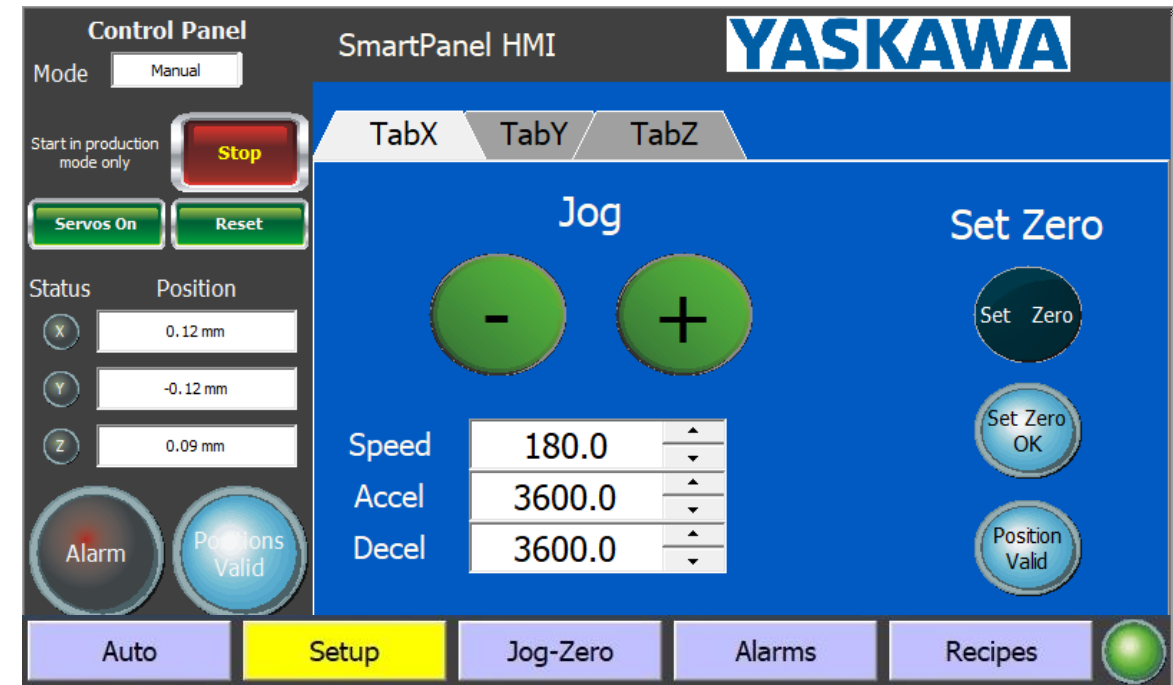
- Tabs
- Jog
- Speed
- Accel, Decl
- Set Zero



Overview

Jog-Zero Screen

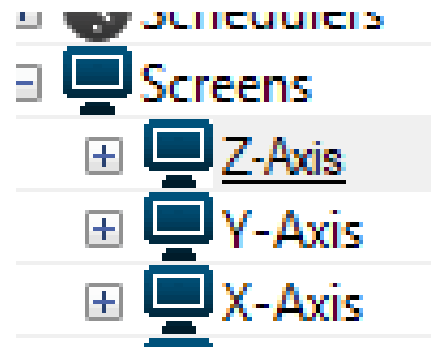
- Tab Group
 - Toolbox → Objects → Tab Group
 - Create screens for tab group
 - Allow height of 30 pixels for tabs (depends on settings)



Tab Screen Placeholders

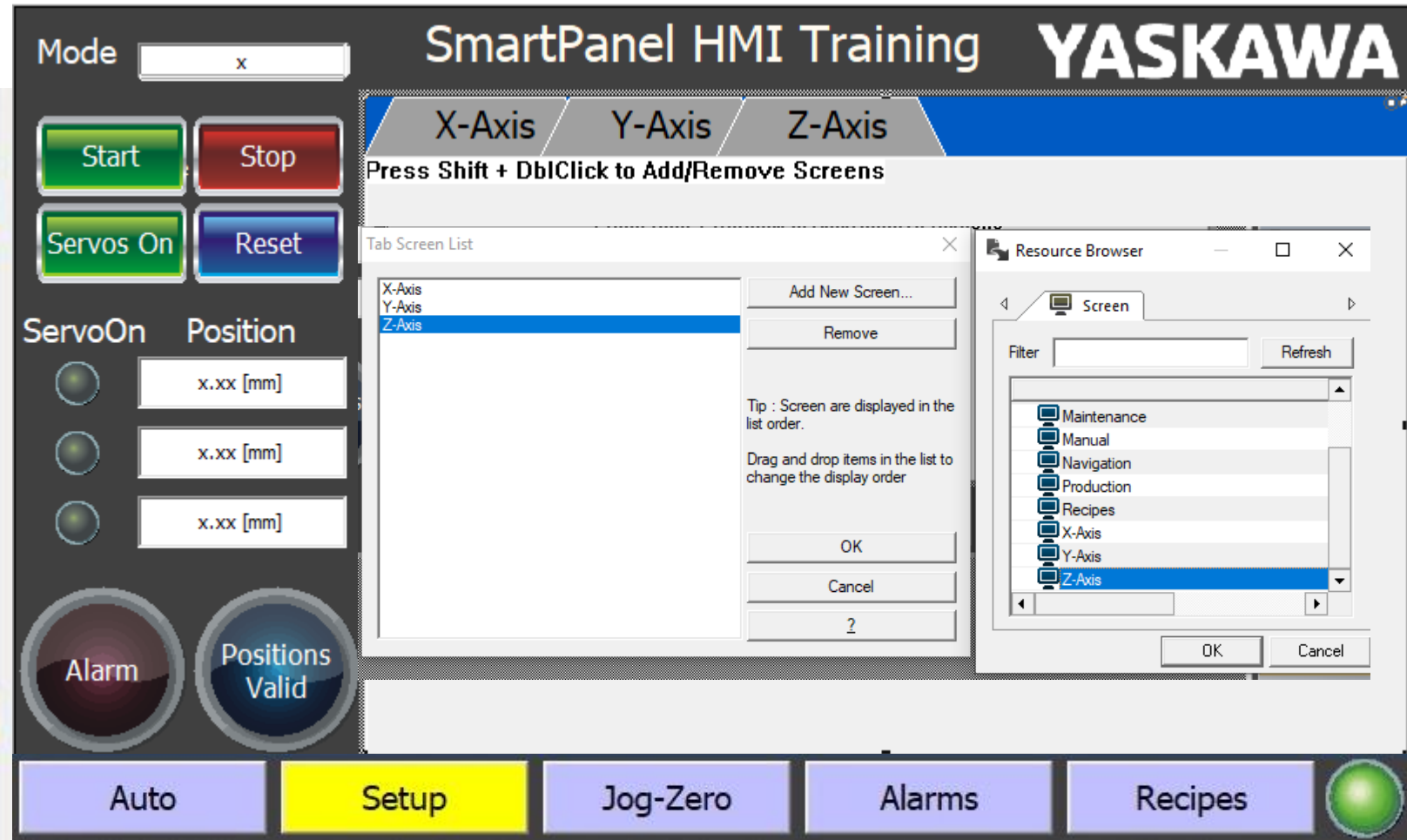
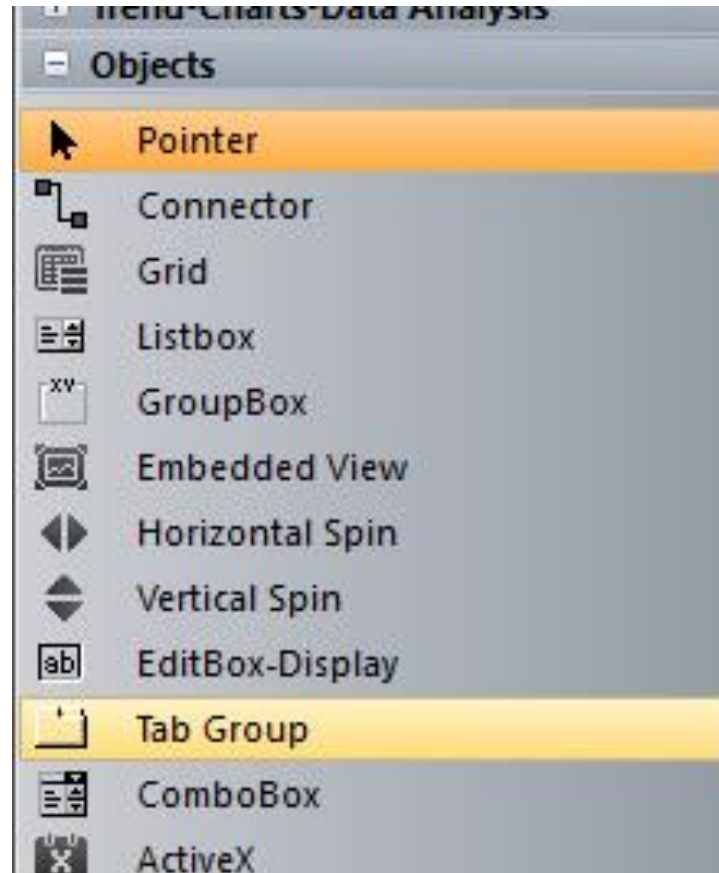
Jog-Zero Screen

- Separate tab screen for each axis



Tab Group

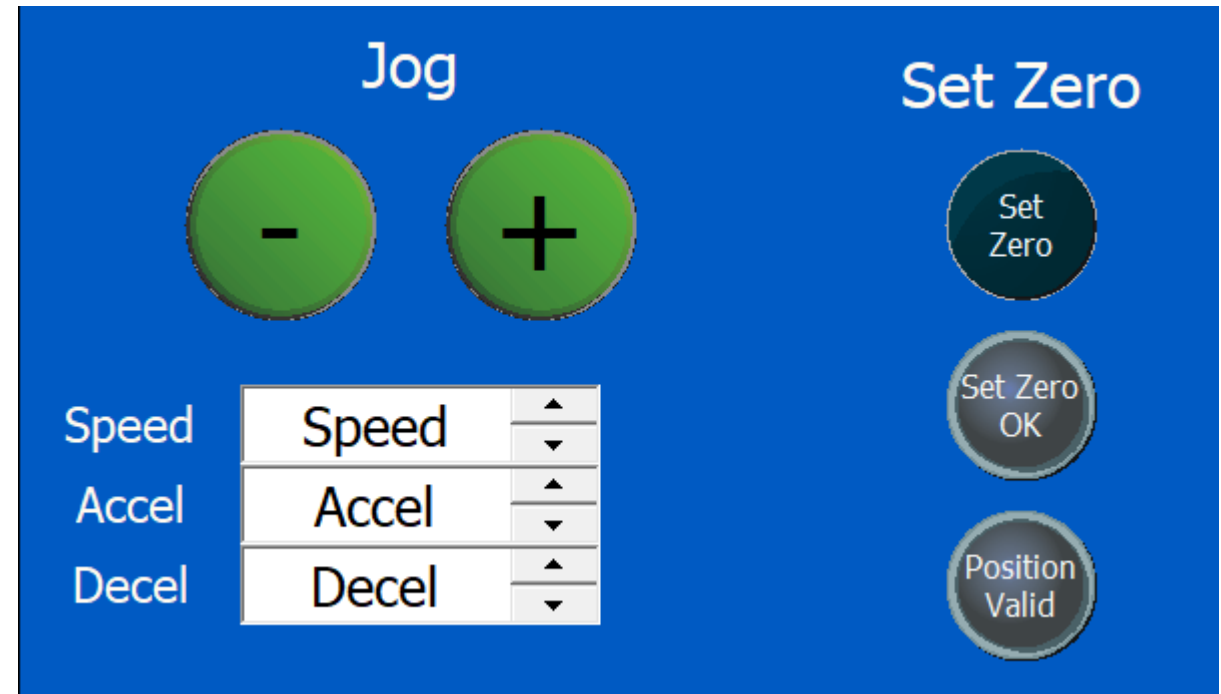
Jog-Zero Screen



X-Axis

Jog-Zero Screen

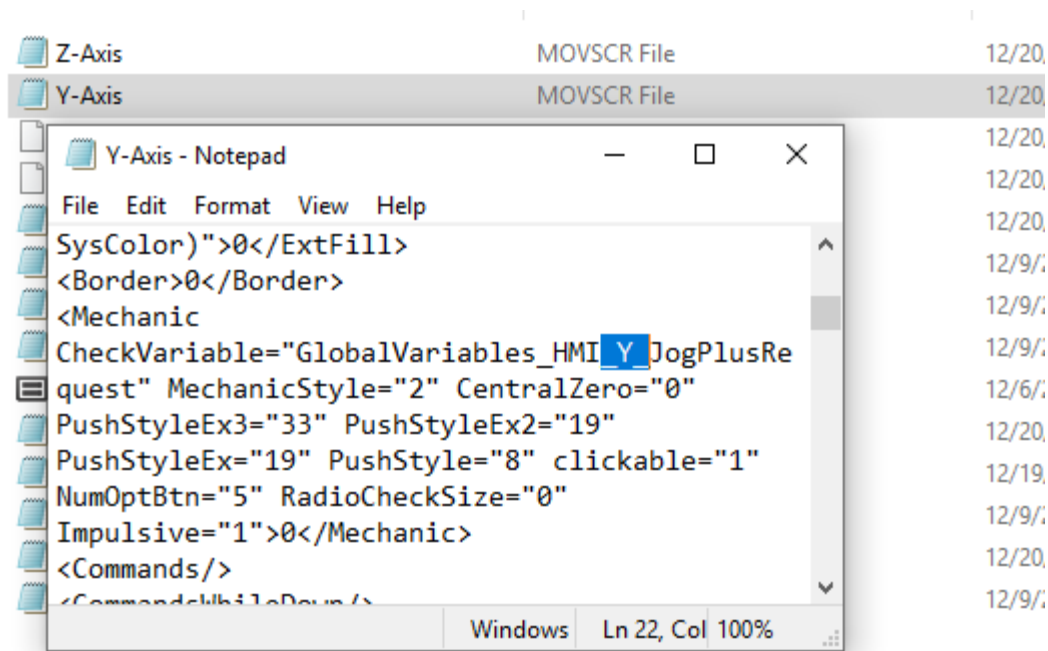
- Lay out and verify operation of the X axis
- Copy and paste for Y and Z axis
- Find and replace



Replace in Notepad

Jog-Zero Screen

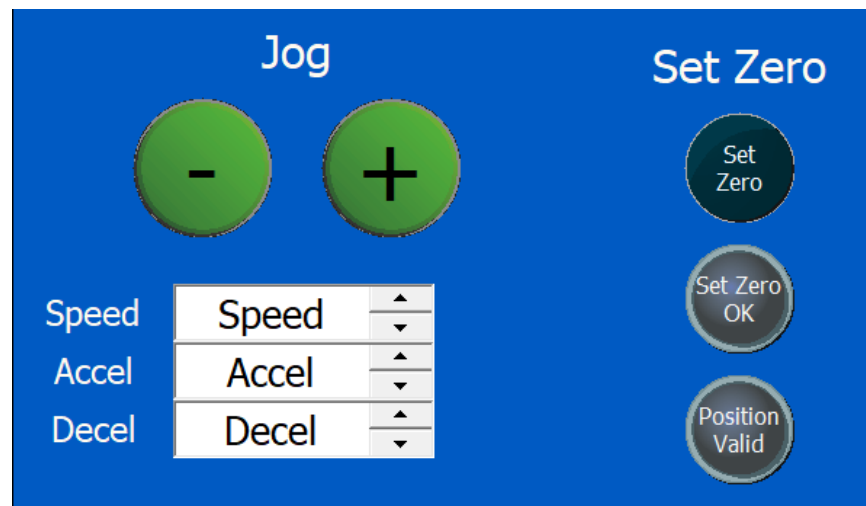
- Update Axis Variables
- Edit → Replace
 - `_X_` → `_Y_`
 - `_X_` → `_Z_`



Jog-Zero Screen

Mini-Lab

1. Tab Screens and Group
2. Build and Verify X-Axis Screen
3. Copy-Replace to Y-Axis and Z-Axis



Editing Tips

- Screen Options
- Object Selection
- Object Tooltip
- HMI Variables



Itinerary

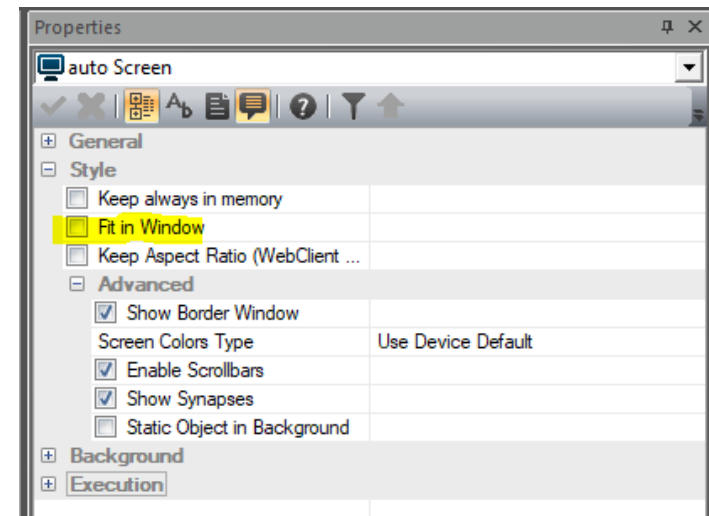
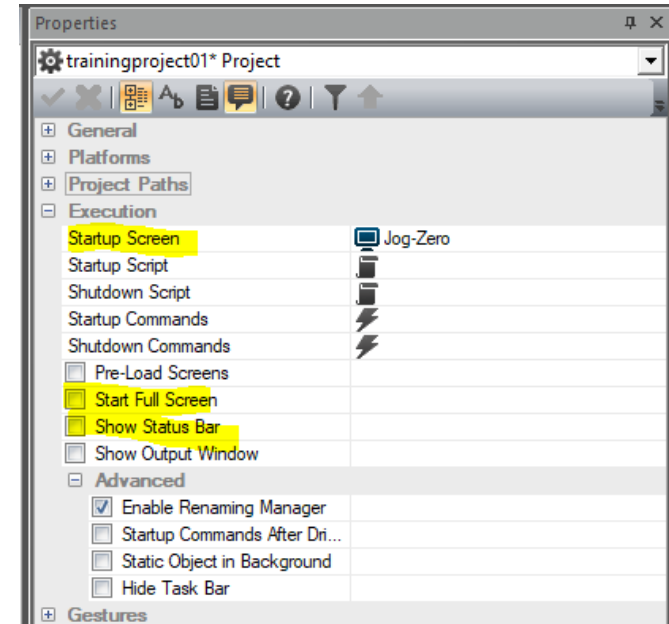
Movicon HMI Editor Basics

- | | | | |
|----|------------------------|-----|--------------------|
| 1. | Introduction | 10. | Project Management |
| 2. | Remote Demo Connection | 11. | Setup Screen |
| 3. | Setup | 12. | Jog-Zero Screen |
| 4. | Quick Start Project | 13. | Editing Tips |
| 5. | Main Project Overview | 14. | Auto Screen |
| 6. | Communications | 15. | Recipe Screen |
| 7. | Project Layout | 16. | Alarm Screen |
| 8. | Navigation Bar | 17. | User Management |
| 9. | Control Panel | 18. | Symbols |
| | | 19. | Certification Test |

Screen Options

Editing Tips

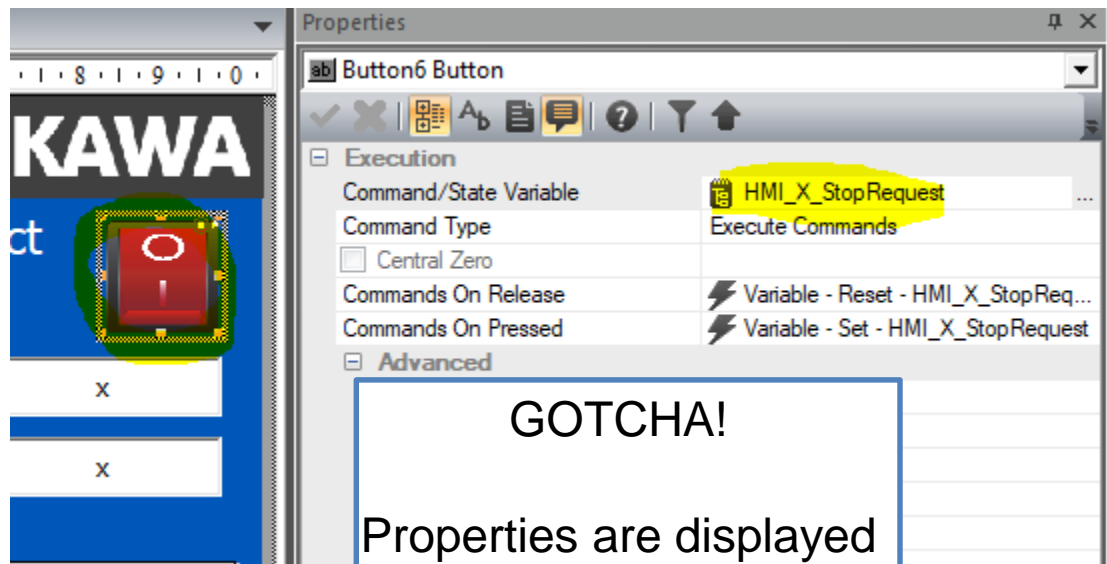
- Project → Properties → Execution
 - System Menu Bar (22 pixels on top)
 - Apply “Start Full Screen” to remove
 - Status Bar (19 pixels on bottom)
 - Remove with “Show Status Bar” property
- Screen → Properties → Style
 - Display Runtime the same size as HMI
 - Deselect “Fit in Window”



Object Selection

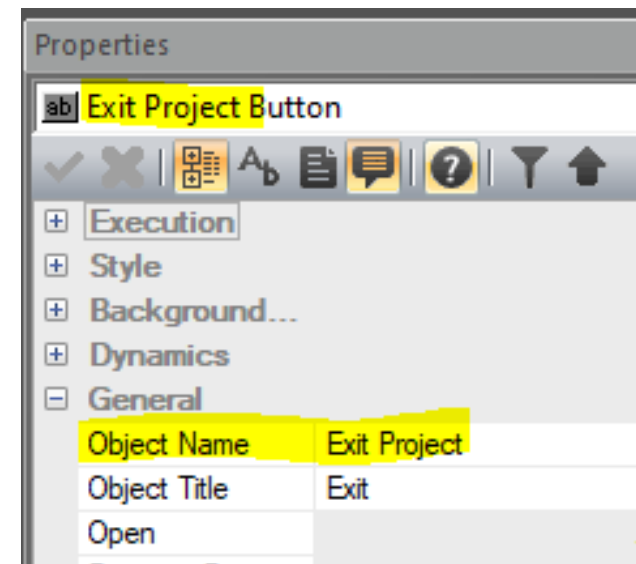
Editing Tips

- Select an Object and Change Screen



GOTCHA!

Properties are displayed from the last selected button ... in another screen!



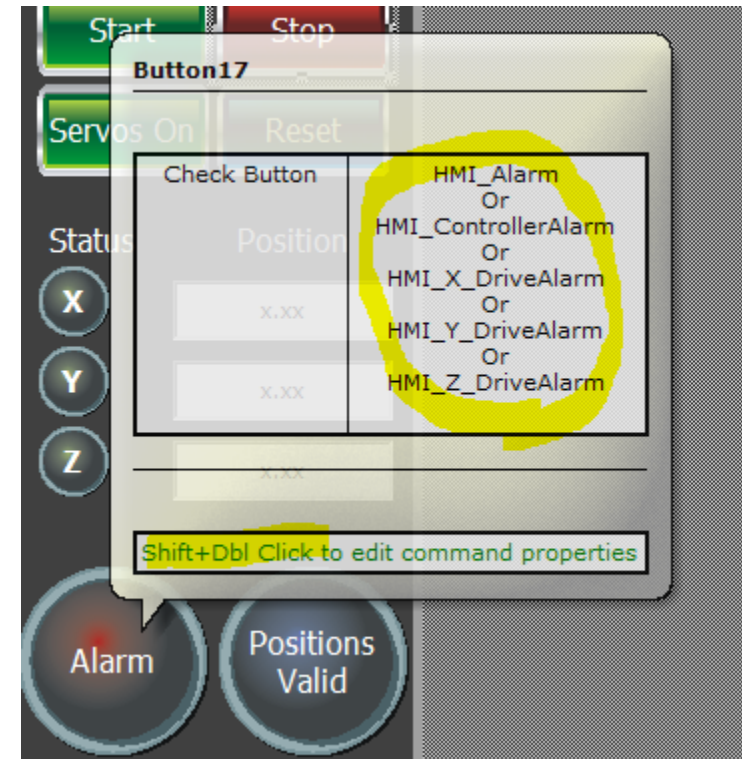
SUGGESTION

Set the Object Name for visual confirmation

Object Tooltip

Editing Tips

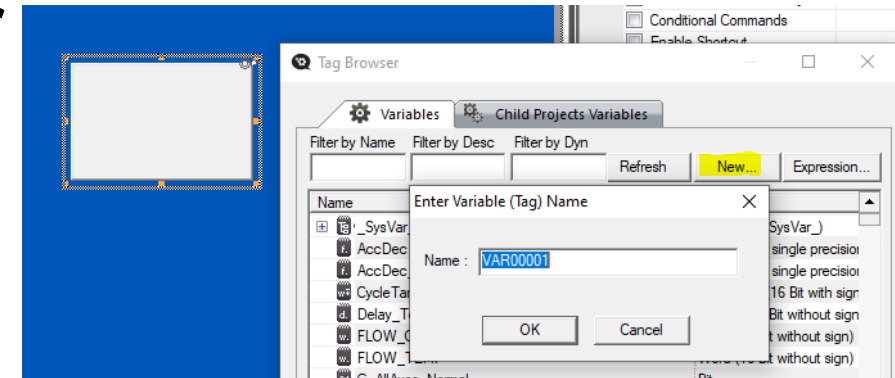
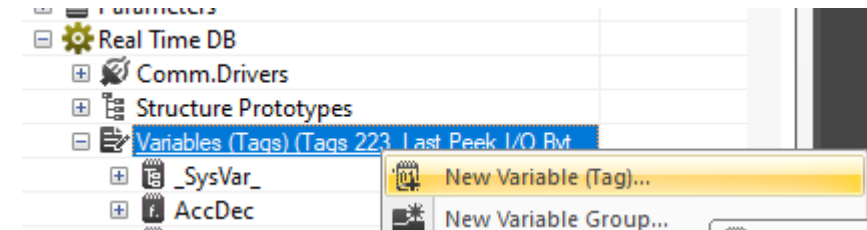
- Object Tooltip
 - Hover mouse
 - Expression and Variables displayed
 - Shift+Dbl Click



HMI Variables

Editing Tips

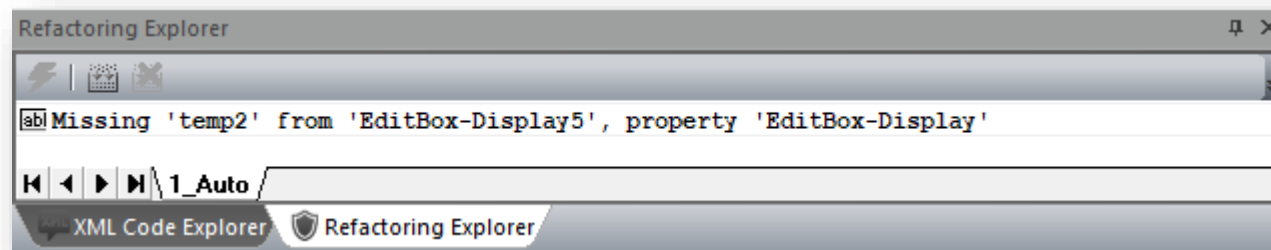
- Create Variable in RealTimeDB
 - Set datatype in properties
- Create Variable in Tag Browser
 - Set datatype with right-click
- Retentive Not Shared
 - Current value survives reboot



HMI Variables

Editing Tips

- Case Sensitive
- Misspelled variable
 - Error displayed in Refactoring Explorer
 - No data displayed on HMI
 - Flexibility to import or define variables later
- Best Practice
 - Select variable from tag browser
 - Edit - don't type



Auto Screen



Itinerary

Movicon HMI Editor Basics

- | | | | |
|----|------------------------|-----|--------------------|
| 1. | Introduction | 10. | Project Management |
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| 4. | Quick Start Project | 13. | Editing Tips |
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| 6. | Communications | 15. | Recipe Screen |
| 7. | Project Layout | 16. | Alarm Screen |
| 8. | Navigation Bar | 17. | User Management |
| 9. | Control Panel | 18. | Symbols |
| | | 19. | Certification Test |

Final Outcome

Auto Screen

- Cycle Count
- Move Profile
- Positions
- Delay

Mode

Movicon Basic Training **YASKAWA**

Start **Stop**
Servos On **Reset**

Status **Position**

X
Y
Z

Alarm Positions Valid

Cycles
Velocity
Acc/Dec
Pos X
Pos Y
Pos Z
Delay

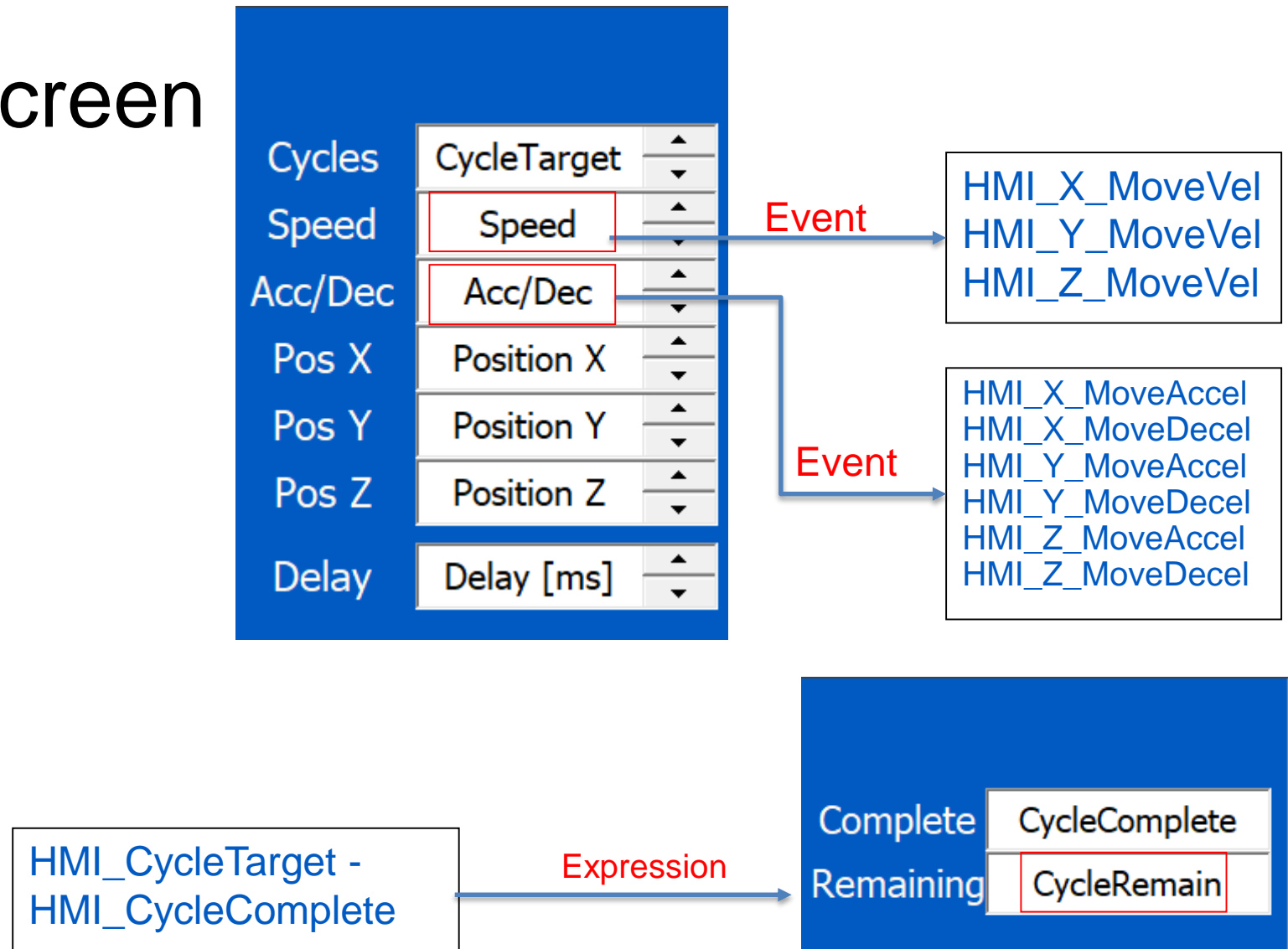
Complete
Remaining

Auto Setup Jog-Zero Alarms Recipes Comms

Variables in Auto Screen

Auto Screen

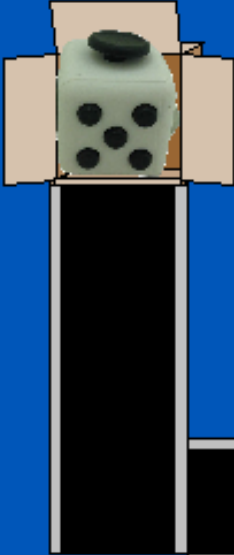
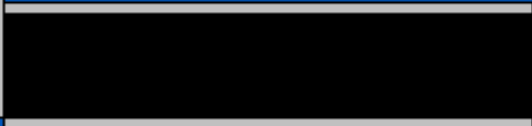
- HMI Variable
 - Speed
 - Acc/Dec
 - CycleRemain
 - Calculate



Symbols

Auto Screen

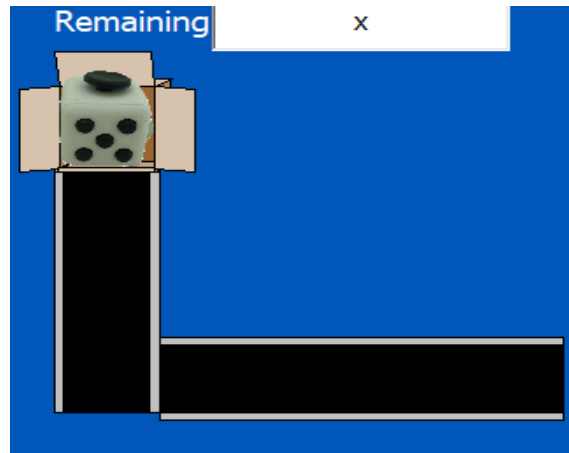
- Symbol Library
- Image

Cycles	<input type="text" value="x"/>	Complete	<input type="text" value="x"/>
Velocity	<input type="text" value="x.xx mm/s"/>	Remaining	<input type="text" value="x"/>
Acc/Dec	<input type="text" value="x mm/s2"/>		
Pos X	<input type="text" value="x.xx mm"/>		
Pos Y	<input type="text" value="x.xx mm"/>		
Pos Z	<input type="text" value="x.xx mm"/>		
Delay	<input type="text" value="x.xxx sec"/>		

Animate Image (optional)

Auto Screen

- Dynamics
 - Enable Visibility
 - Move based on motor position



Border Style	Color
Dynamics	
Visible	
<input checked="" type="checkbox"/> Enable Visibility	
Variable	GlobalVariables_HMI_PartPresent
Value	1
Tolerance	0
Condition	equal
Blink	None
Composed Movement (XY)	
Move Horizontal (X)	
<input checked="" type="checkbox"/> Enable X Movement	
<input checked="" type="checkbox"/> Invert X Direction	
Variable for Move X	GlobalVariables_HMI_X_CurPos/ Gl...
Start Value X	0
End Value X	160
Offset for the X Start Value	0
Offset for the X End Value	1
Move Vertical (Y)	
<input checked="" type="checkbox"/> Enable Y Movement	
<input checked="" type="checkbox"/> Invert Y Direction	
Variable for Move Y	GlobalVariables_HMI_Y_CurPos/ Gl...
Start Value Y	0
End Value Y	130
Offset for the Y Start Value	0
Offset for the Y End Value	1

Auto Screen

Mini-Lab

1. Screen Layout
2. Object Properties
3. Verify



Recipe

SmartPanel HMI Training **YASKAWA**

Mode: Production

Start Stop

Servos On Reset

ServoOn Position

29.20 [mm]

-0.47 [mm]

-0.03 [mm]

Alarm Positions Valid

Production_Presets

Product 2 ▼

Activate

Save

Delete

Read

Recipes

Cycles 8

Speed 5420 [mm/s]

AccDec 900000 mm/s^2

PosX 180.0 [mm]

PosY 195.0 [mm]

PosZ 165.0 [mm]

Delay 676

Production Maintenance Manual Alarms **Recipes**

Itinerary

Movicon HMI Editor Basics

1. Introduction
2. Remote Demo Connection
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18. Symbols
19. Certification Test

Final Outcome

Recipe

- Read
- Save
- Activate
- Export
- Delete
- Import

Mode Production **Matt Pelletier - Yaskawa TTS** **YASKAWA**

Recipes

Recipe1

	Temp	Active
Cycles	4	4
Velocity	1640.0 mm/s	1640.0 mm/s
Acc/Dec	357,500 mm/s ²	357,500 mm/s ²
Pos X	3120.00 mm	3120.00 mm
Pos Y	-750.00 mm	-750.00 mm
Pos Z	3210.00 mm	3210.00 mm
Delay	0.656 sec	0.656 sec

Start Stop

Servos On Reset

Status Position

X 0.00 mm

Y 0.00 mm

Z 0.00 mm

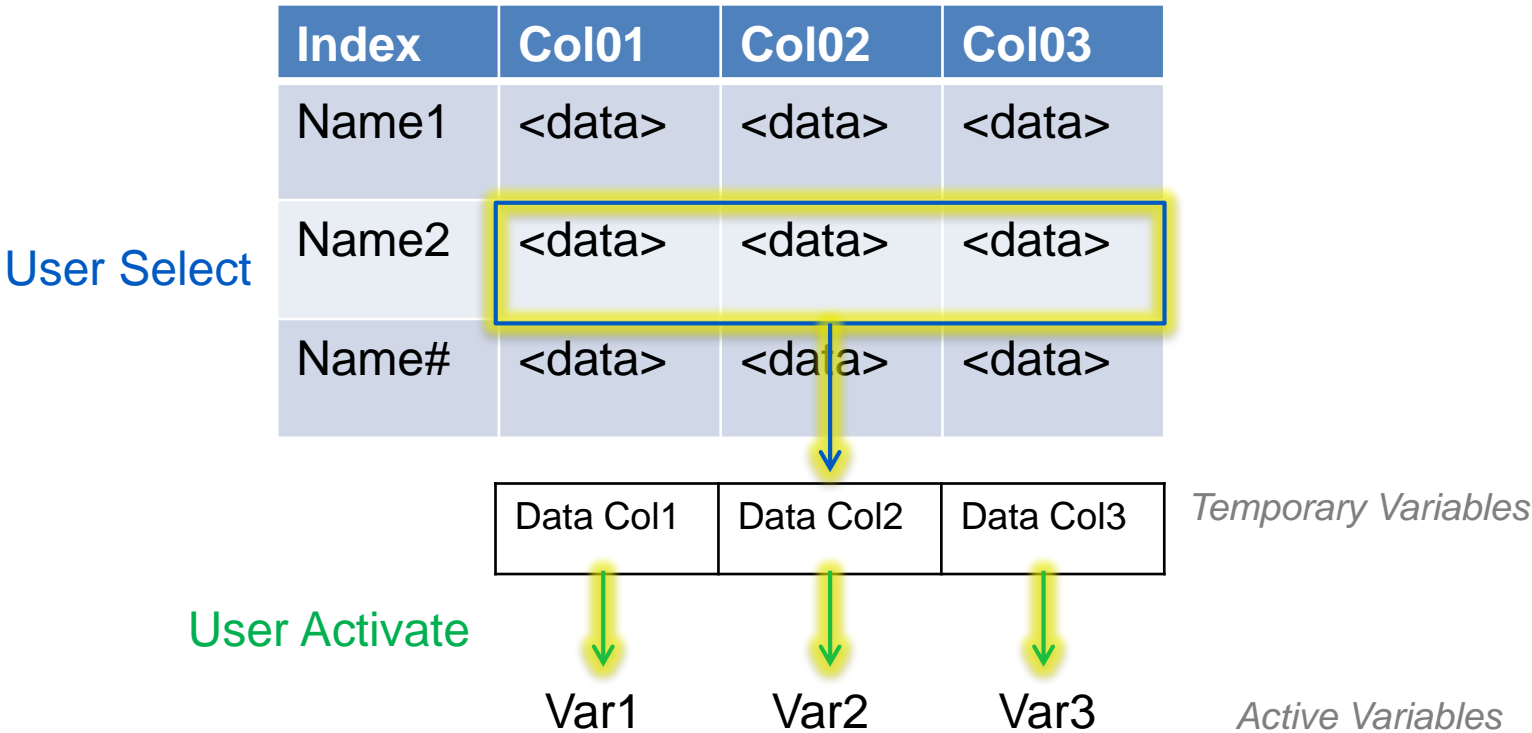
Alarm Positions Valid

Activate Save Delete Read Export Import

Auto Setup Jog-Zero Alarms **Recipes**

Concept Diagram

Recipe



Production_Presets

Product 2 ▼

Activate

Save

Delete

Read

Recipes

Cycles 8

Speed 5420 [mm/s]

AccDec 900000 mm/s^2

PosX 180.0 [mm]

PosY 195.0 [mm]

PosZ 165.0 [mm]

Delay 676

Concept Diagram

Recipe

User Select
or Create
New Index

Index	Col01	Col02	Col03
Name1	<data>	<data>	<data>
Name2	<data>	<data>	<data>
Name#	<data>	<data>	<data>

User Save

Data Col1	Data Col2	Data Col3
-----------	-----------	-----------

Temporary Variables

User Read

Var1

Var2

Var3

Active Variables

Production_Presets

Product 2

Activate

Save

Delete

Read

Recipes

Cycles

8

Speed

5420 [mm/s]

AccDec

900000 mm/s^2

PosX

180.0 [mm]

PosY

195.0 [mm]

PosZ

165.0 [mm]

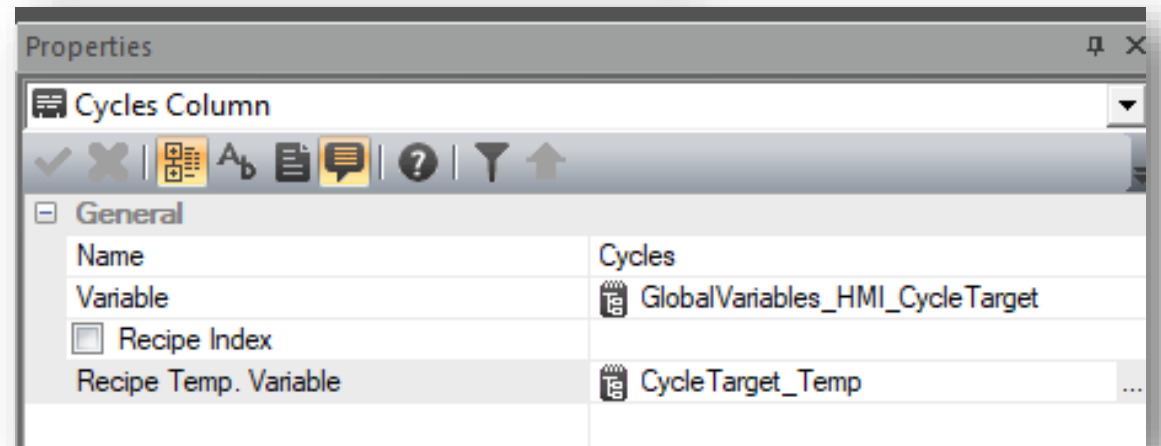
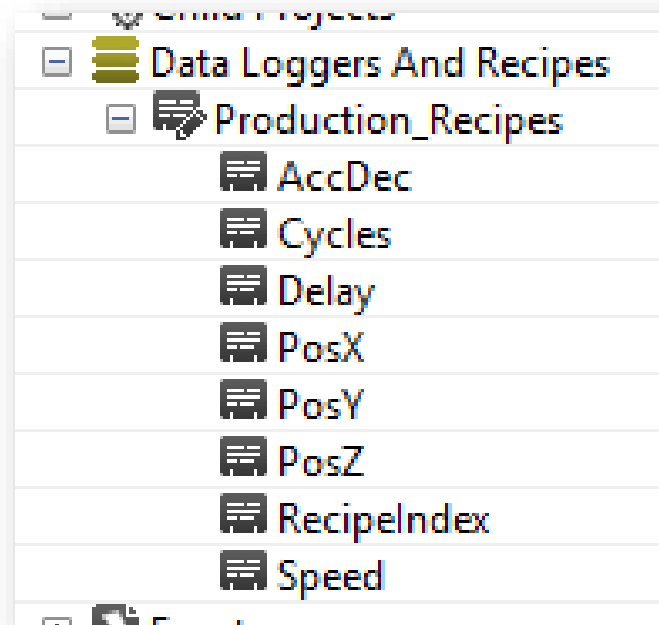
Delay

676

Define the Recipe

Recipe

- Recipe Index
- Columns
- Temp. Variables



Create the Screen

Recipe

- Auto-Generated
- Adjust Layout
- Adjust Formatting
- Replace Text Boxes

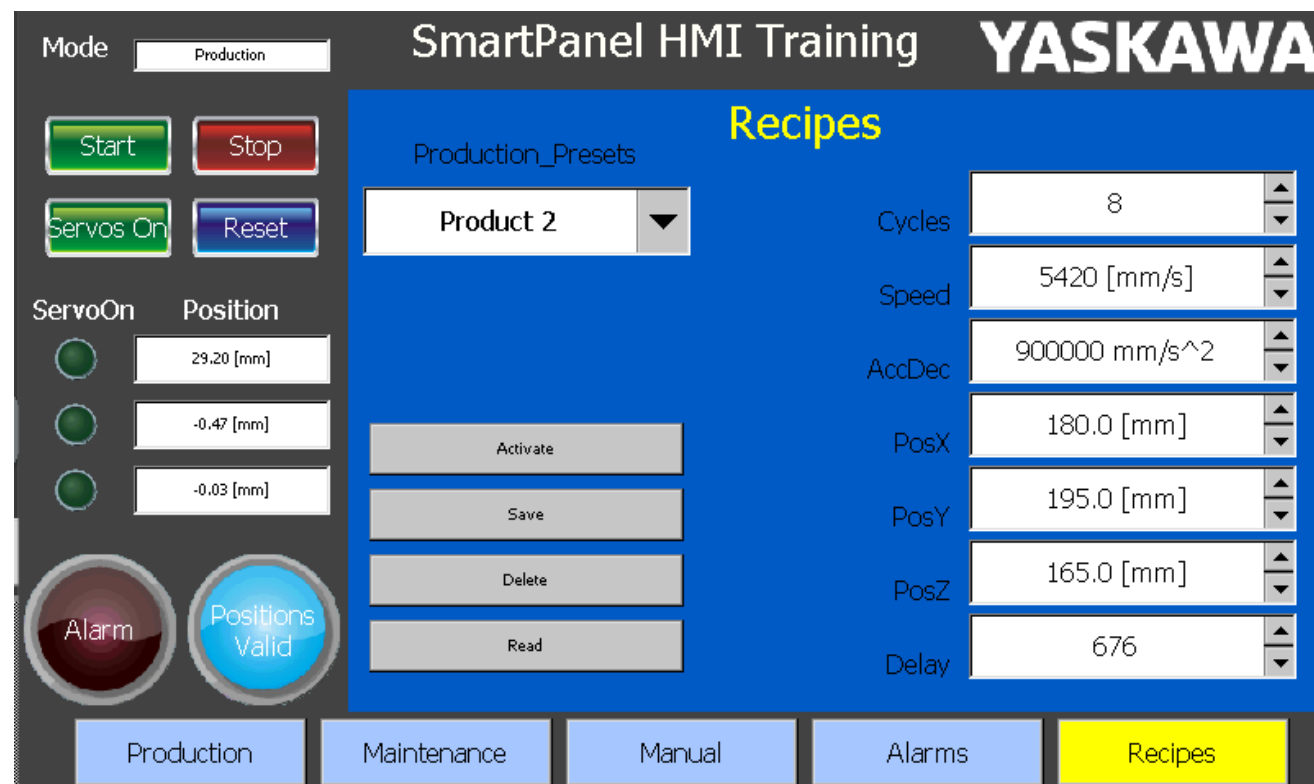
The screenshot shows a Yaskawa HMI screen with a blue background. The title 'Recipes' is displayed in yellow at the top right. On the left, a panel titled 'Production_Presets' contains a dropdown menu with 'x' selected, a large empty text box, and four buttons: 'Activate', 'Save', 'Delete', and 'Read'. On the right, a list of parameters is shown, each with a text box containing 'x' and a vertical scrollbar:

Parameter	Value
Cycles	x
Speed	x
AccDec	x
PosX	x
PosY	x
PosZ	x
Delay	x

Recipe

Mini-Lab

1. Define Recipe
2. Create Screen
3. Verify Operation



Alarms

Mode Manual

Matt Pelletier - Yaskawa TTS

YASKAWA

Start only in PRODUCTION Mode

Stop

Servos On

Reset

Status

Position

D00

1746.13 mm

D00

373.64 mm

D00

732.42 mm

Alarm

Positions Valid

Alarm Description	Time ON	Condition
smartPanel - Start pressed with zero ... Reset or increase cycles then press start		
<div>+</div> SGD7S - Z- A.D00: Position Error ...	2/24/2021 11:52:2...	ON
<div>+</div> SGD7W Axis B - Y- A.D00: Positio...	2/24/2021 11:52:2...	ON
<div>+</div> SGD7W Axis A - X- A.D00: Positio...	2/24/2021 11:52:2...	ON
<div>-</div> ALARM ON	2/24/2021 11:52:28 AM	
<div>-</div> ALARM ON	2/24/2021 11:51:47 AM	
<div>-</div> ALARM RESET		
<div>-</div> ALARM ACK		
<div>+</div> ALARM ON	2/24/2021 11:51:25 AM	
<div>+</div> ALARM ON	2/24/2021 11:44:55 AM	
<div>+</div> ALARM ON	2/24/2021 11:33:12 AM	
<div>+</div> ALARM ON	2/24/2021 11:32:41 AM	
<div>+</div> ALARM ON	2/24/2021 11:32:00 AM	
<div>+</div> ALARM ON	2/24/2021 11:29:48 AM	
<div>+</div> ALARM ON	2/24/2021 11:24:14 AM	

Ack Sel

Ack All

Reset Sel

Reset All

Alarm Log

Help

History

Auto

Setup

Jog-Zero

Alarms

Recipes

Itinerary

Movicon HMI Editor Basics

1. Introduction
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16. Alarm Screen
17. User Management
18. Symbols
19. Certification Test

Final Outcome

Alarms

- Active Alarm
- Help
- History
- Acknowledge
- Reset

Mode Manual **Matt Pelletier - Yaskawa TTS** **YASKAWA**

Start only in PRODUCTION Mode Stop

Servos On Reset

Status Position

D00 1746.13 mm

D00 373.64 mm

D00 732.42 mm

Alarm Positions Valid

Alarm Description	Time ON	Condition
smartPanel - Start pressed with zero ...	2/24/2021 11:52:30 AM	OFF
Reset or increase cycles then press start		
+ ! SGD7S - Z- A.D00: Position Error ...	2/24/2021 11:52:2...	ON
+ ! SGD7W Axis B - Y- A.D00: Positio...	2/24/2021 11:52:2...	ON
+ ! SGD7W Axis A - X- A.D00: Positio...	2/24/2021 11:52:2...	ON
- ALARM ON	2/24/2021 11:52:28 AM	
- ALARM ON	2/24/2021 11:51:47 AM	
- ALARM RESET		
- ALARM ACK		
+ ALARM ON	2/24/2021 11:51:25 AM	
+ ALARM ON	2/24/2021 11:44:55 AM	
+ ALARM ON	2/24/2021 11:33:12 AM	
+ ALARM ON	2/24/2021 11:32:41 AM	
+ ALARM ON	2/24/2021 11:32:00 AM	
+ ALARM ON	2/24/2021 11:29:48 AM	
+ ALARM ON	2/24/2021 11:24:14 AM	

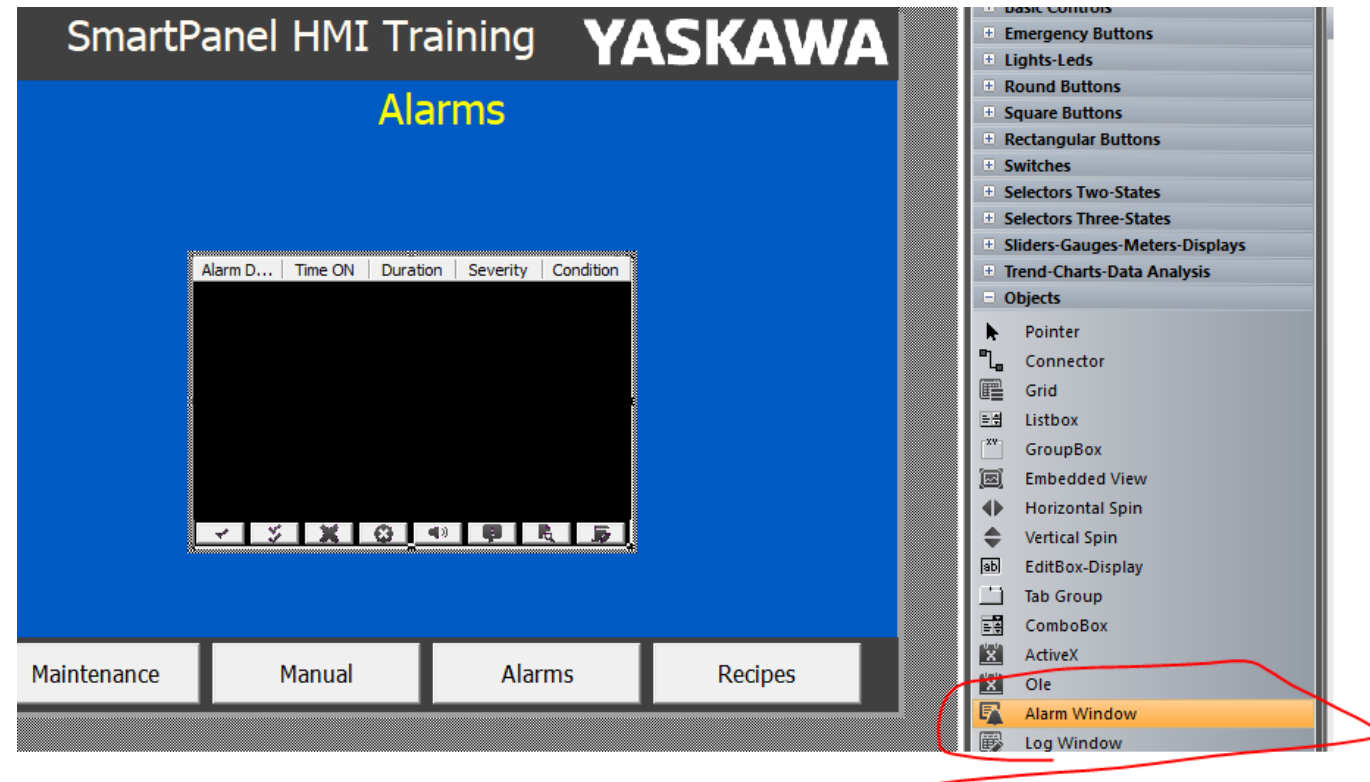
Ack Sel Ack All Reset Sel Reset All Alarm Log Help History

Auto Setup Jog-Zero **Alarms** Recipes

Alarm Window

Alarms

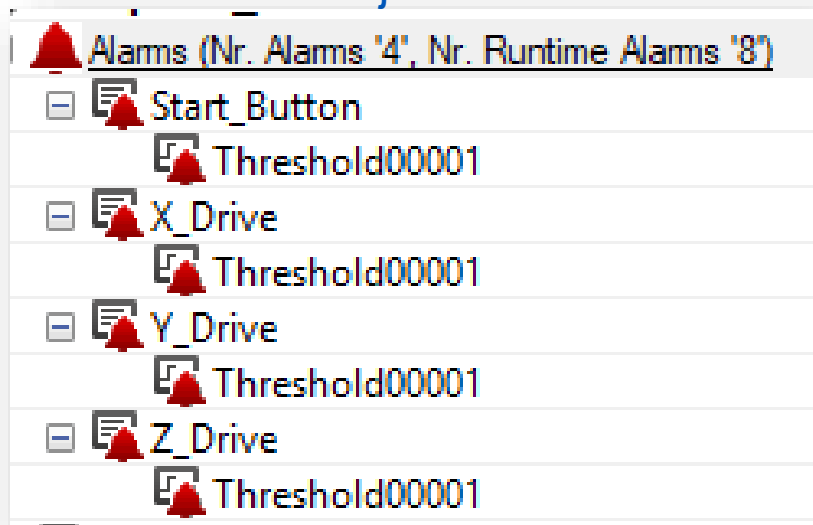
- Size
- Properties
- Select Buttons
- Select Columns



Define Alarms

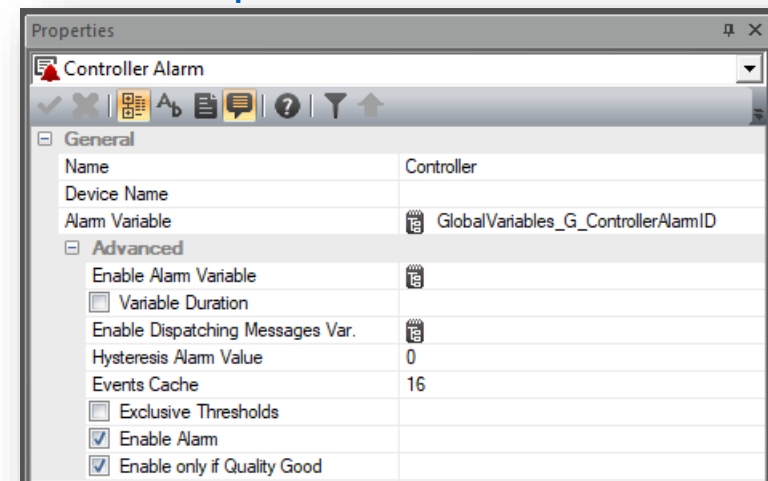
Alarms

Alarms in the Project Tree

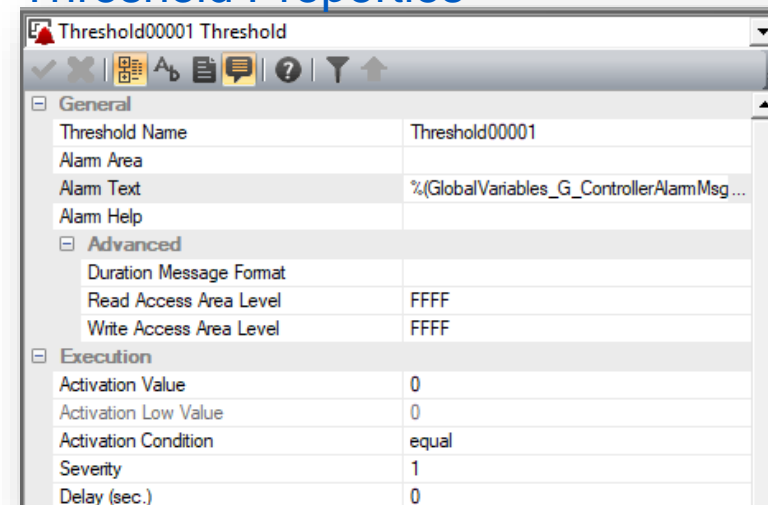


1. Create Alarm
2. Create Threshold

Alarm Properties

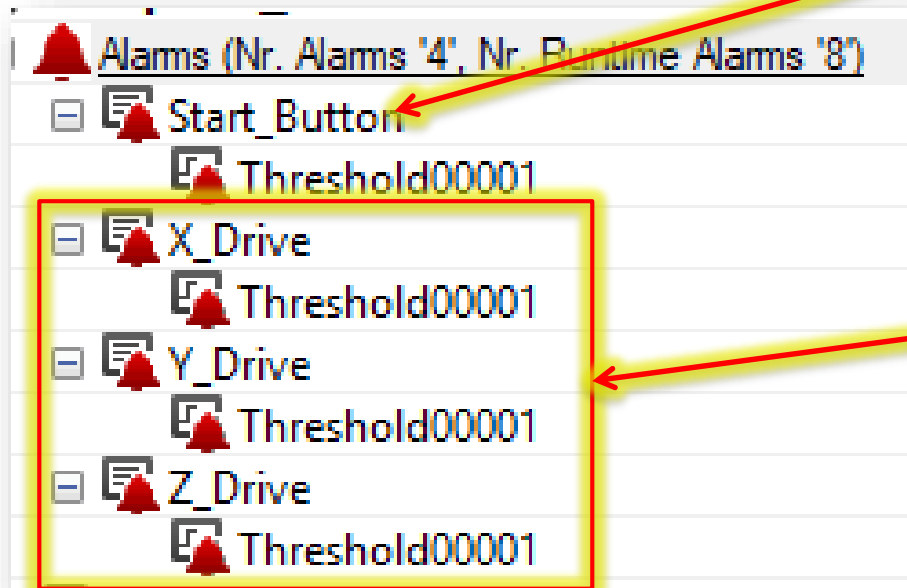


Threshold Properties



Define Alarms

Alarms



Alarms Detected by HMI

- Ex: Pressed start under invalid conditions

- You type the alarm message

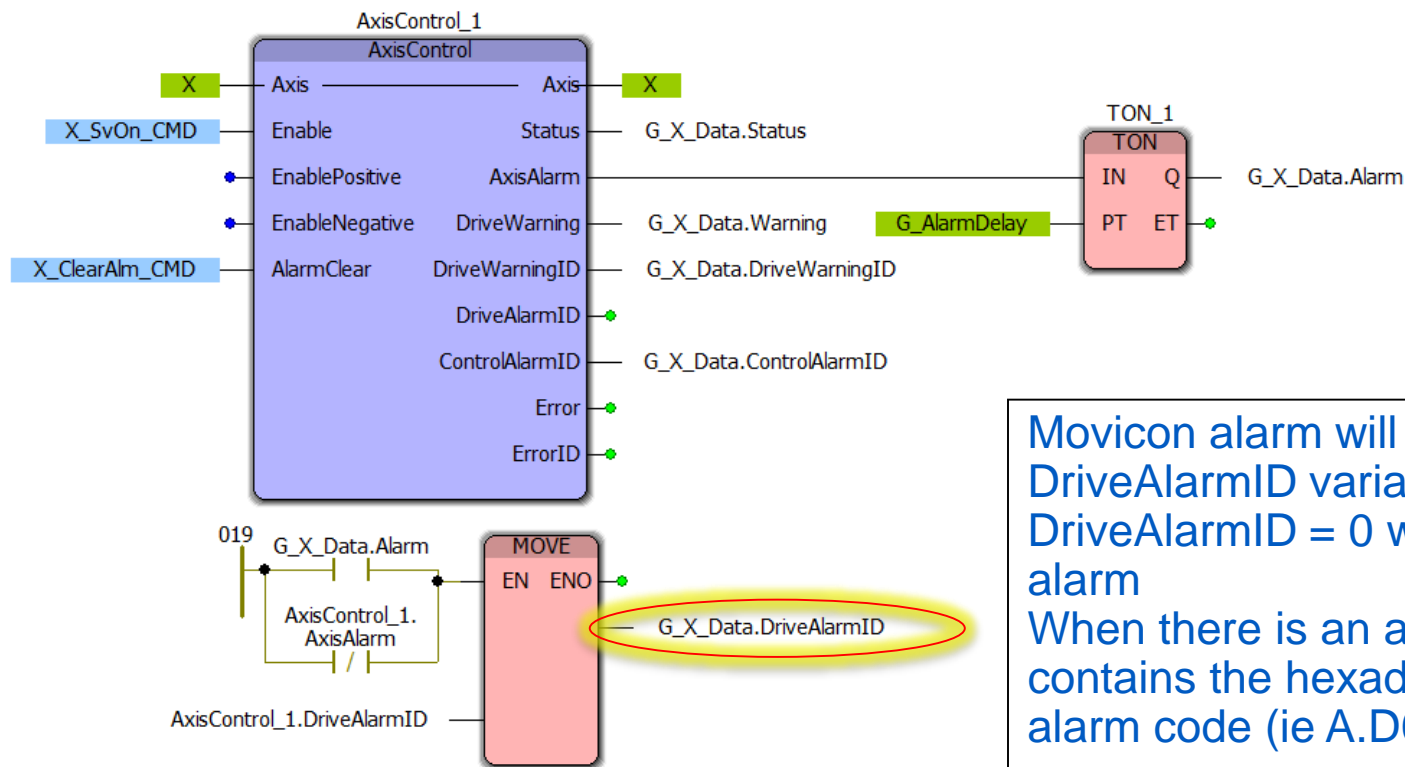
Alarms Detected by MPiec

- Hardware level alarm codes from servo drives
- Alarm message received as string from MPiec

MotionWorks IEC Code

Alarms

- POU: Main_X.Main



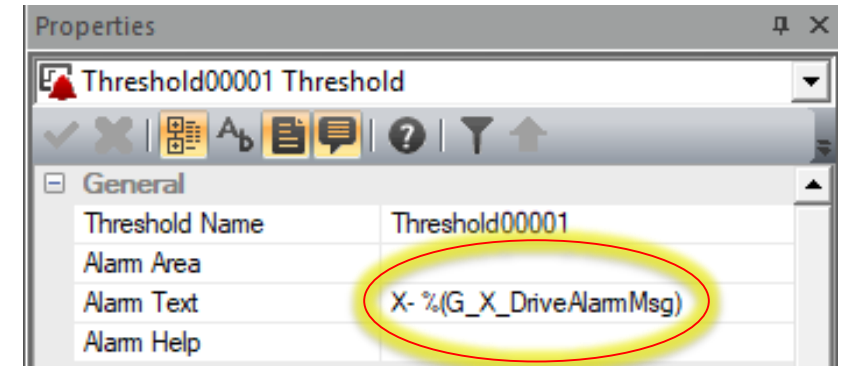
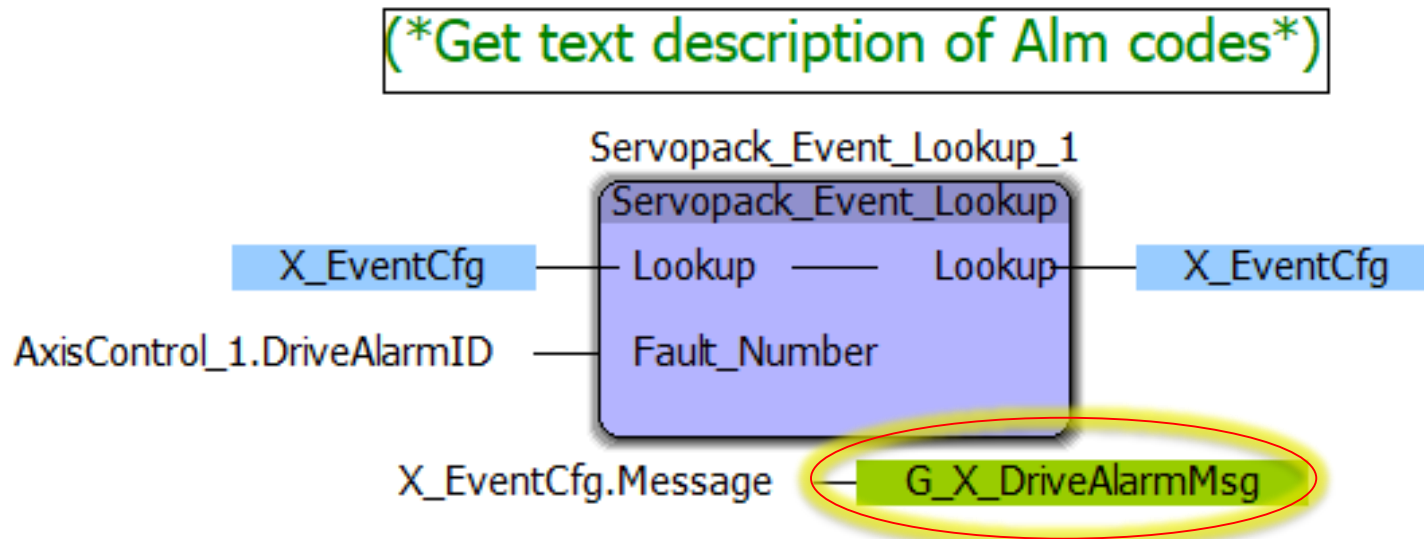
G_AlarmDelay gives time for alarm message string to update in the HMI before the alarm code appears.

Movicon alarm will monitor the DriveAlarmID variable.
DriveAlarmID = 0 when no alarm
When there is an alarm, this contains the hexadecimal alarm code (ie A.D00 etc)

MotionWorks IEC Code

Alarms

- POU: Main_X.HMI



DriveAlarmMsg is a STRING with the text description of the alarm. This is displayed in the threshold Alarm Text using %() syntax

Alarms


Mini-Lab

- Alarm Window
- HMI Alarms
- MPiec Alarms

Alarms		
Alarm Description	Time ON	Condition
smartPanel - Start pressed with zero cycles remaining Reset or increase cycles then press start	1/27/2020 9:52:42 PM	OFF
ALARM ON	1/27/2020 9:52:42 PM	
ALARM OFF		
ALARM ON	1/27/2020 6:44:08 PM	
ALARM ON	1/27/2020 6:42:00 PM	
ALARM ON	1/27/2020 5:29:27 PM	
X - A.D00: Position Error Overflow	1/27/2020 9:50:37 PM	OFF
ALARM ON	1/27/2020 9:50:37 PM	
ALARM OFF		
ALARM ON	1/27/2020 9:48:35 PM	
ALARM ON	1/27/2020 9:42:21 PM	
Reset Sel (R) Reset All (Ctrl+R) Toggle Sound (S) Help (H) Get History (G)		

User Management

Enter Password for User Level 0 (0) ? X




Protected By Movicon

User Name: ...

Password: ...

☐ Change Password after Login



OK Cancel

Itinerary

Movicon HMI Editor Basics

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15. Recipe Screen
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18. Symbols
19. Certification Test

Final Outcome

User Management

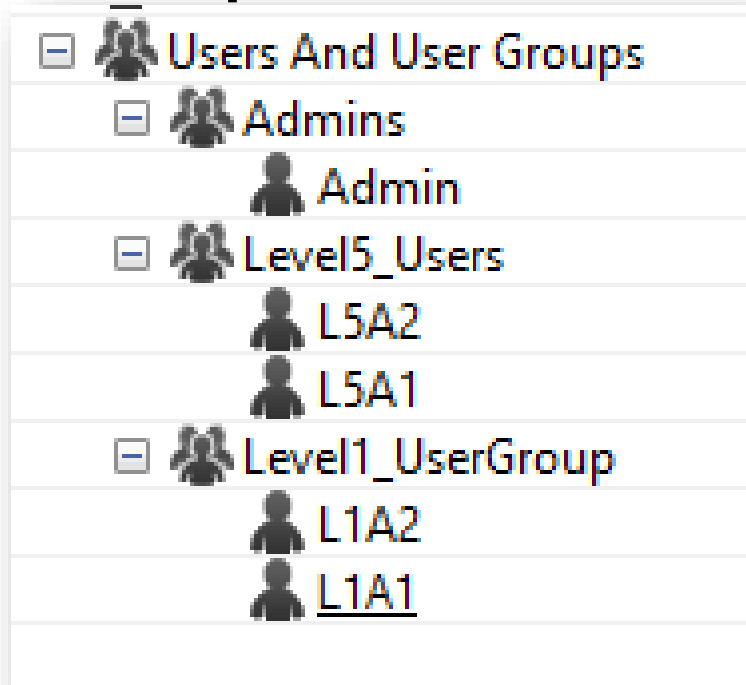
- Log On/Off
- Active User
- User Level
- Access Levels
- Runtime User Management



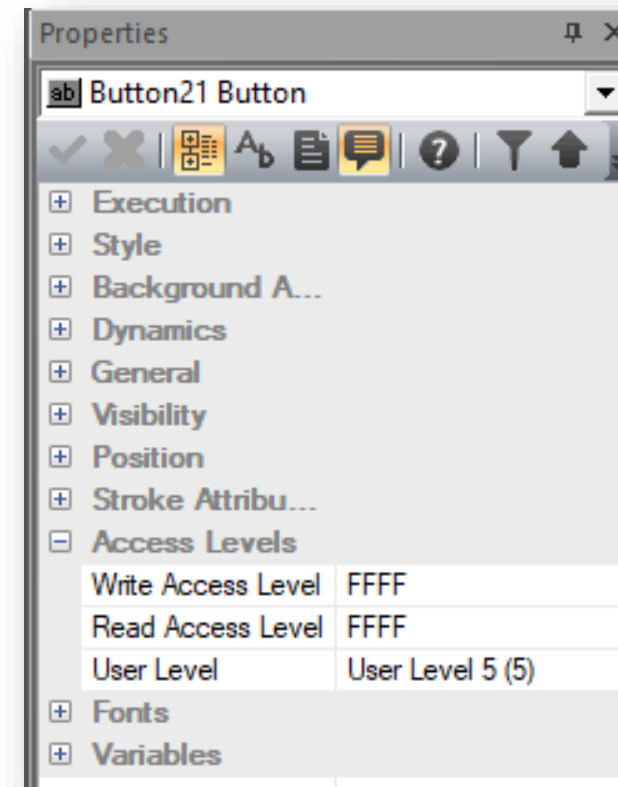
Overview

User Management

- Create Users within Groups



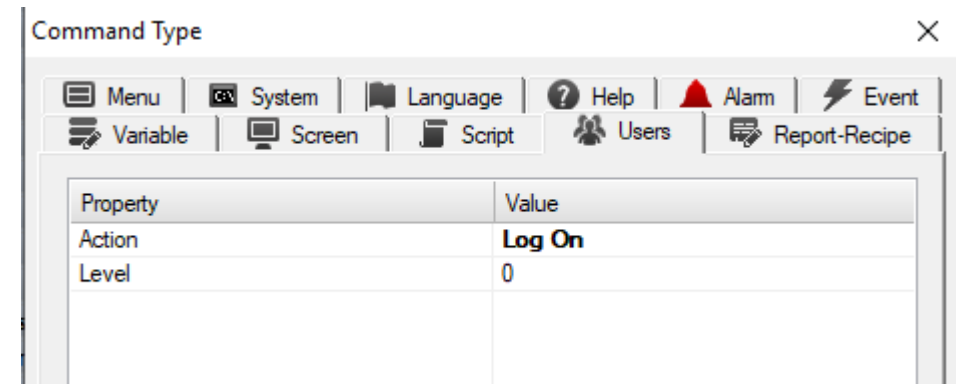
- Assign Levels to Objects



Log On

User Management

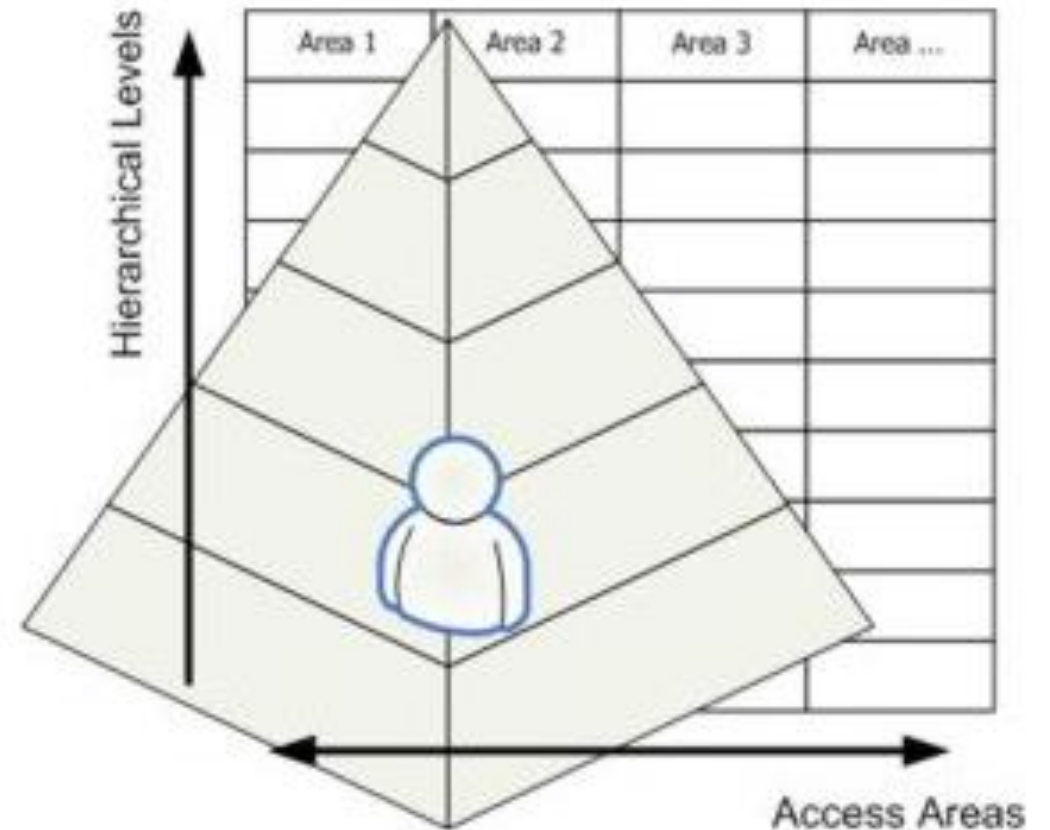
- Button for log on and log off
- Execute Commands



User Level vs Access Level

User Management

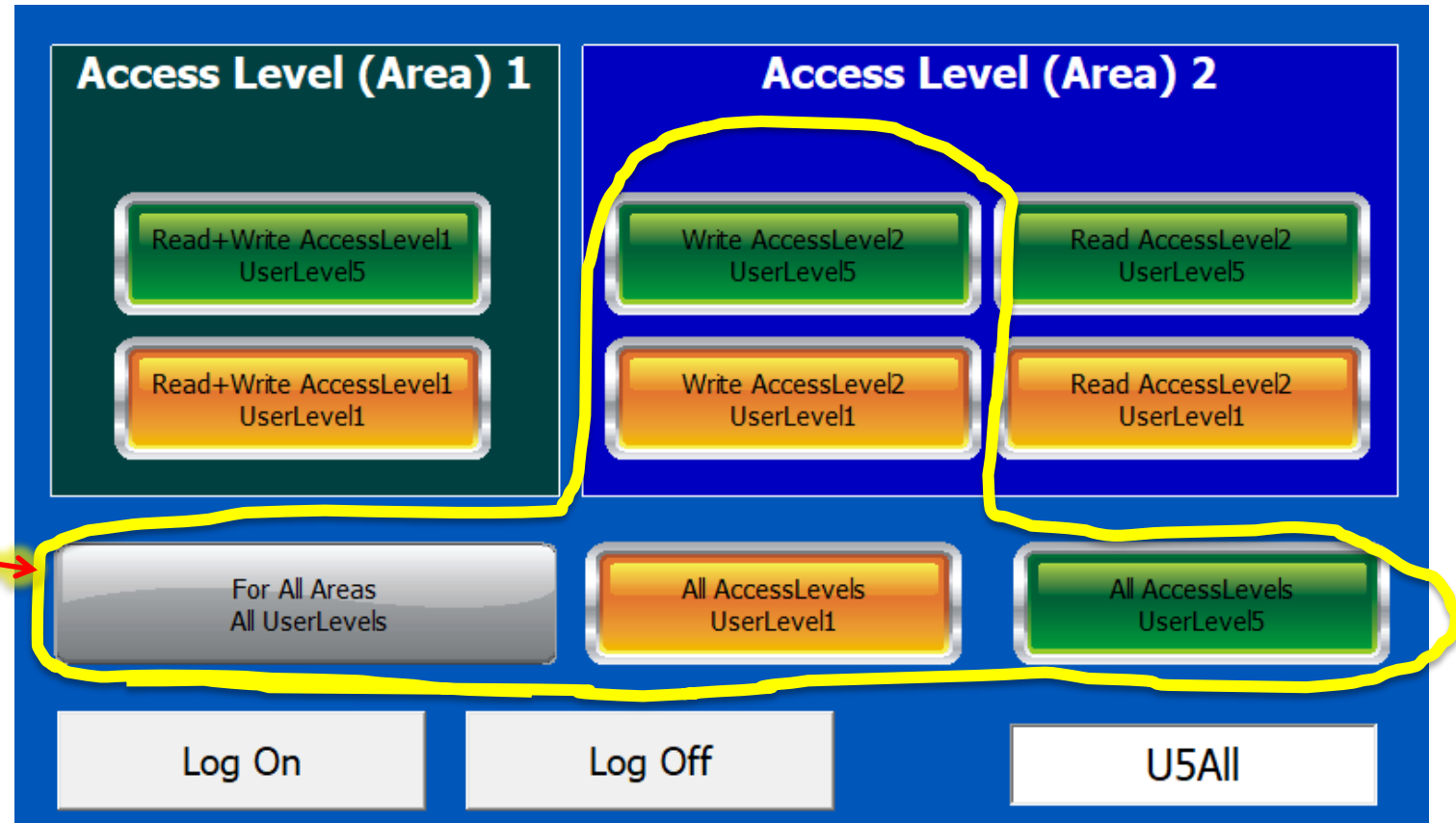
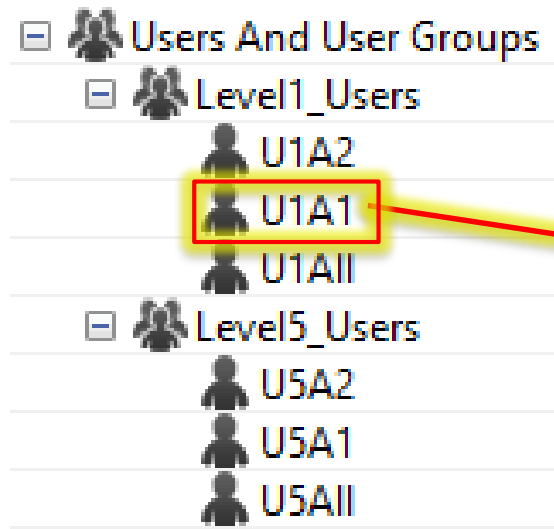
- User Level is Hierarchical
- Access Level for Areas of the System



Levels and Areas

User Management

- Example:



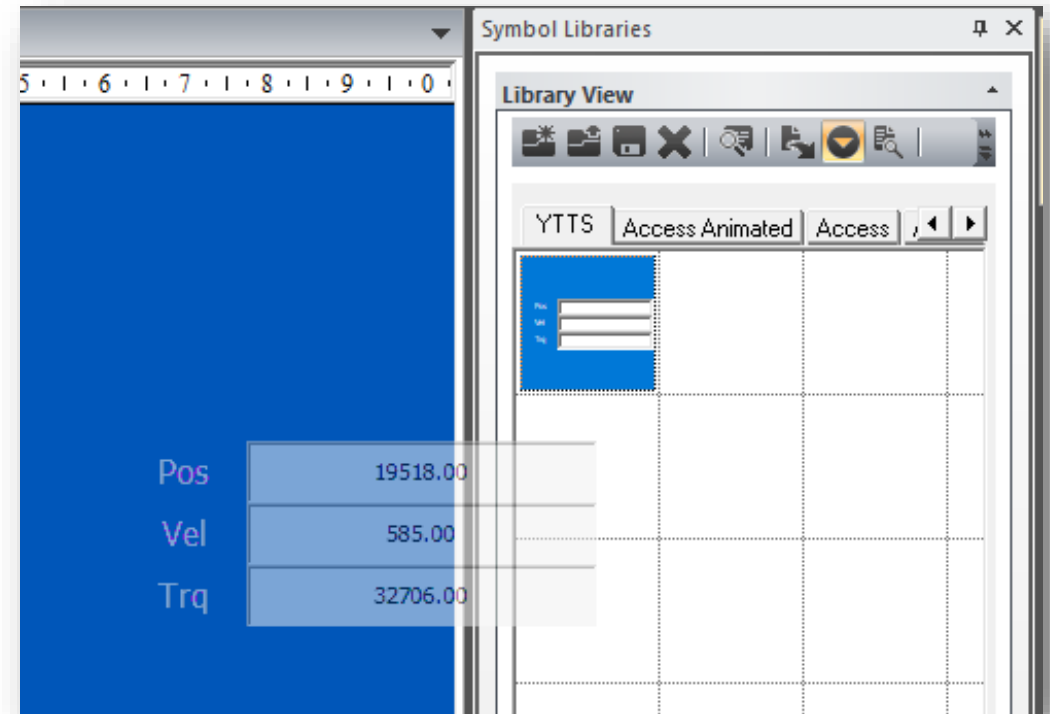
User Management

Mini-Lab

1. Apply User Level to HMI objects
2. Set Up User Groups
3. Create Button for Log On and Log Off

Arrays, Structures & Symbols

- Arrays
- Structures
- PLCI Import
- Create a Symbol
- Add Symbol to Library



Itinerary

Movicon HMI Editor Basics

1. Introduction
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15. Recipe Screen
16. Alarm Screen
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19. Certification Test

Final Outcome

Arrays, Structures & Symbols

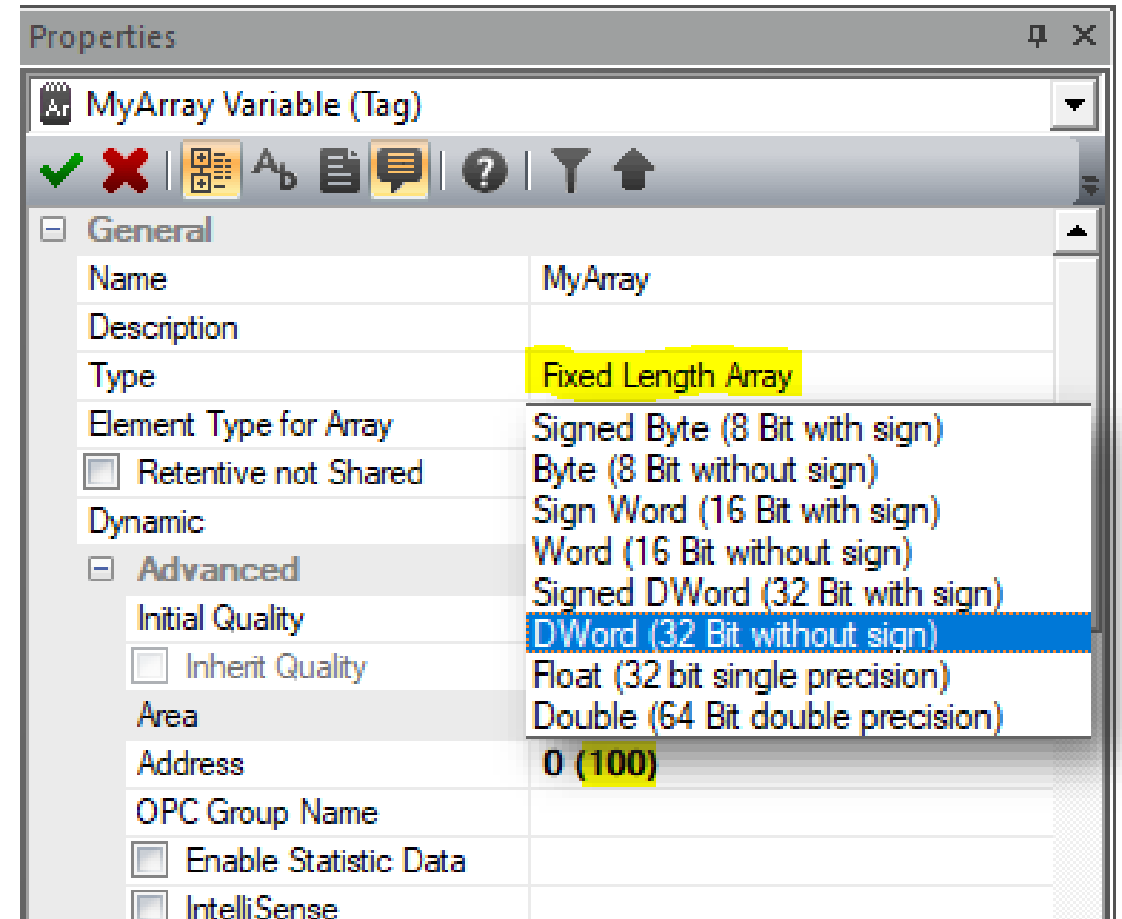
- Array
- Structure
- Symbols

	<input type="text" value="1"/>				
	<input type="text" value="1.23"/>				
	<input type="text" value="6.28"/>				
Pos	<input type="text" value="79.70"/>	Pos	<input type="text" value="0.00"/>	Pos	<input type="text" value="0.00"/>
Vel	<input type="text" value="80.02"/>	Vel	<input type="text" value="80.02"/>	Vel	<input type="text" value="80.02"/>
Trq	<input type="text" value="1.57"/>	Trq	<input type="text" value="1.57"/>	Trq	<input type="text" value="1.57"/>

Arrays

Arrays, Structures & Symbols

- Datatype = Fixed Length Array
- Elementary Datatypes
 - Except String
- Array Size
 - Properties → General → Advanced → Address
 - 0(<max 4096 elements>)

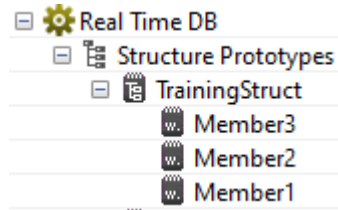


Structures

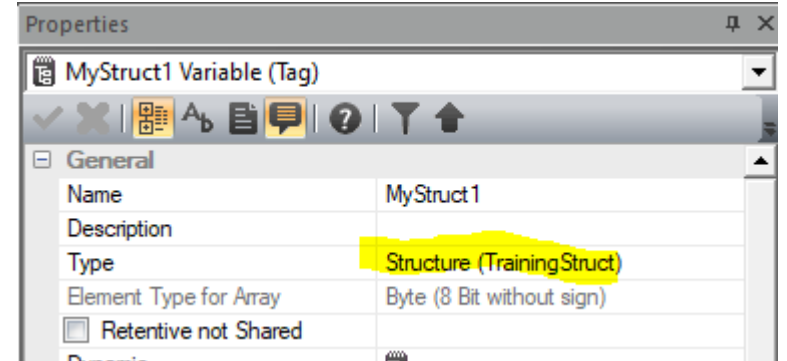
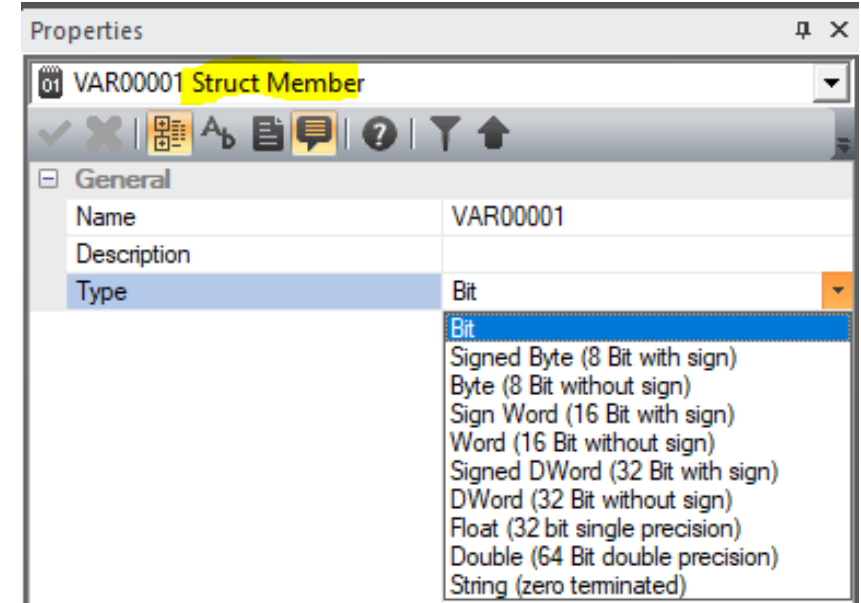
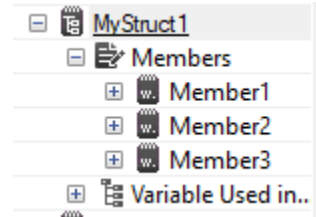
Arrays, Structures & Symbols

- Structure Prototypes
- Create or Import
- Elementary Datatypes
- Assign Structure Datatype to Variable
- Colon Separates Variable from Member
 - Ex: MyStruct1:Member1

Structure Definition



Variable with Structure Datatype



PLCI Import From MotionWorks IEC

Arrays, Structures & Symbols

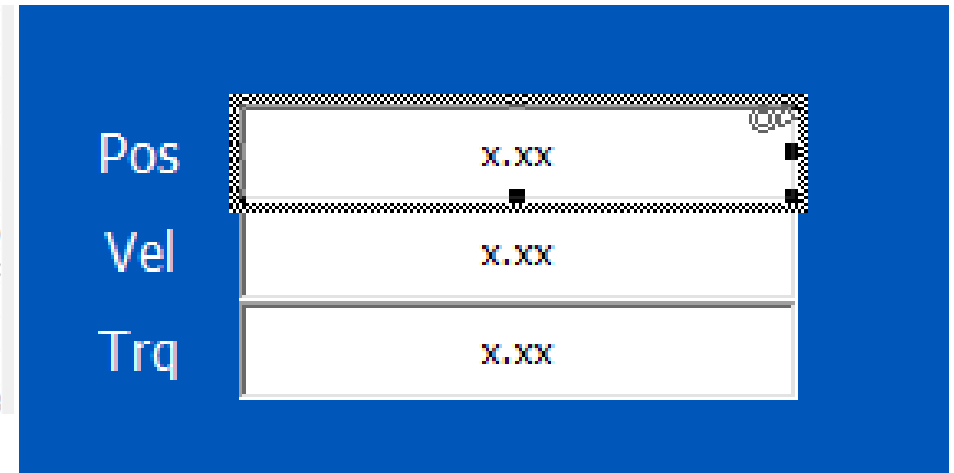
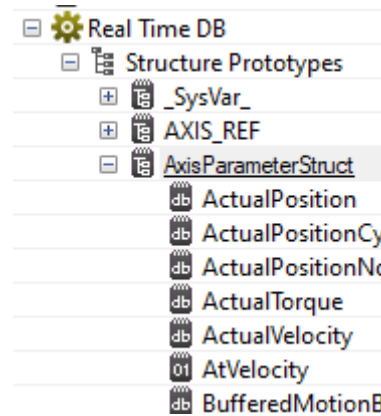
- Datatypes are “Flattened” to fit Movicon environment

MotionWorks IEC	Movicon Import
Array of Elementary Datatypes	Array of Elementary Datatypes
Array of Arrays	Separate Array variables
Structure of Elementary Datatypes	Structure of Elementary Datatypes
Array of Structures	Separate structure variable for every array element
Structure that includes arrays	One structure variable of the elementary datatypes and separate variables for the array elements
Structure that includes Structures	One structure variable of the elementary datatypes and separate variables for the structure elements

Create a Symbol

Arrays, Structures & Symbols

- Symbols are objects Grouped Together
- Objects use data from members of the same structure
- Reuse for variables that use the same structure prototype



Create this assembly of text and Editbox-Displays as a single object.

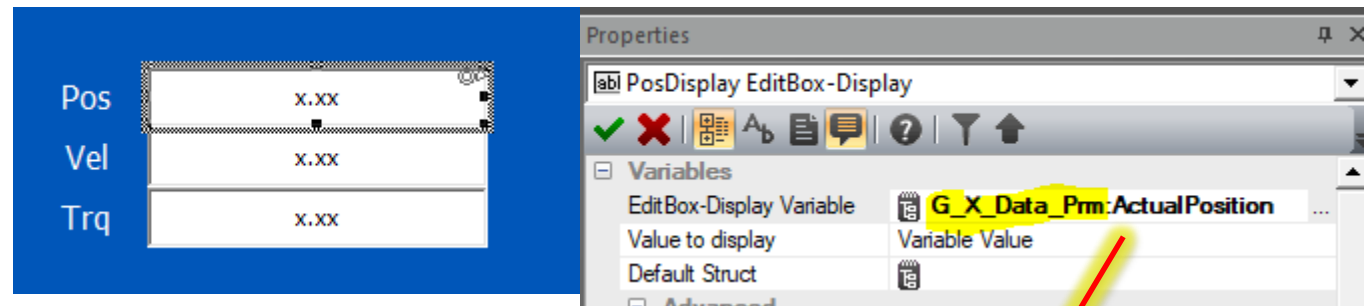
Use Struct Members from
AxisParameterStruct

Reuse for any axis data

Create a Symbol

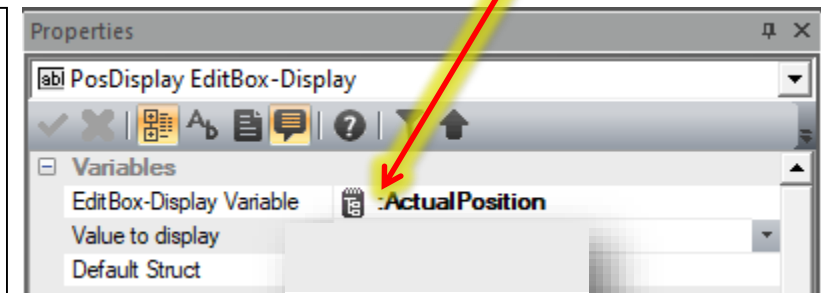
Arrays, Structures & Symbols

- Enter only the name of the struct member
- Prefix with colon
“:” character



First character is colon
:ActualPosition

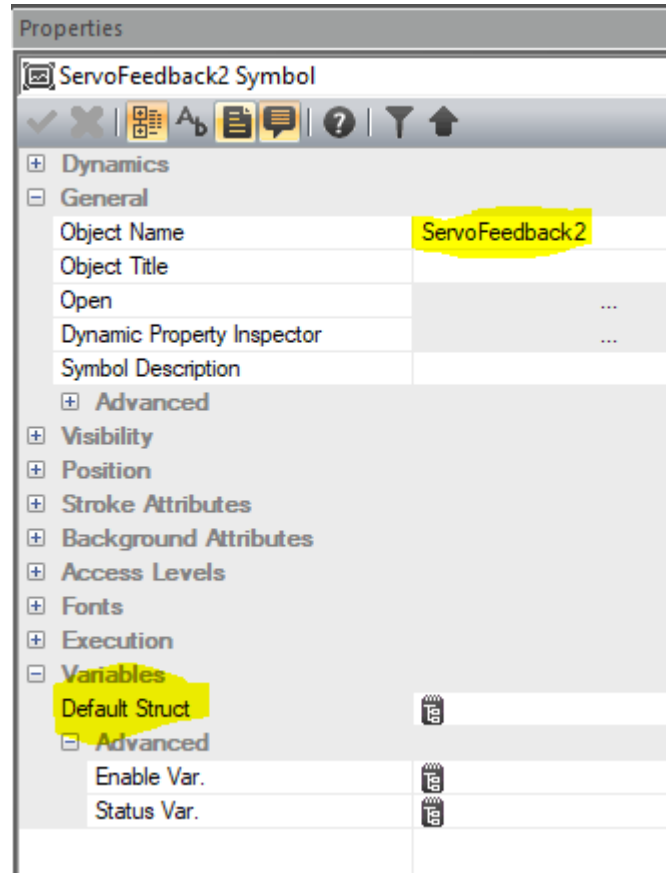
The specific structure
variable will be defined
later



Create a Symbol

Arrays, Structures & Symbols

- Group the objects
- All must use the same structure
- Copy/paste
- Adjust Default Struct



Pos	x.xx
Vel	x.xx
Trq	x.xx
Pos	x.xx
Vel	x.xx
Trq	x.xx
Pos	x.xx
Vel	x.xx
Trq	x.xx

Variables
Default Struct G_X_Data_Pm

Variables
Default Struct G_Y_Data_Pm

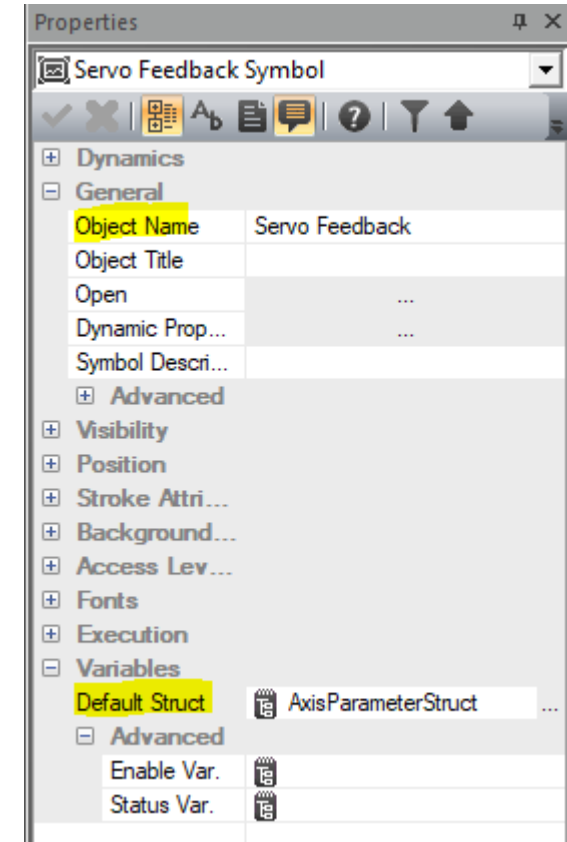
Variables
Default Struct G_Z_Data_Pm

Add Symbol To Library

Arrays, Structures & Symbols

- Best Practice Prep
 - General → Object Name
 - Enter a descriptive name
 - Variables → Default Struct
 - Enter the Datatype name

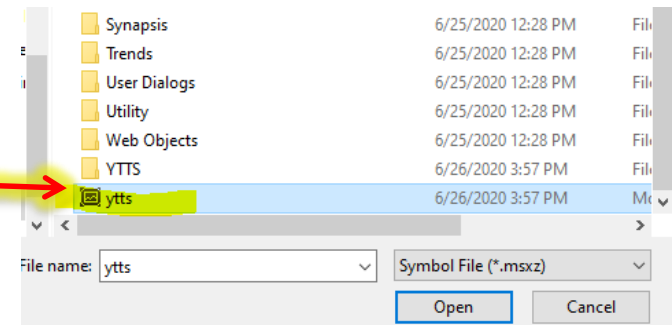
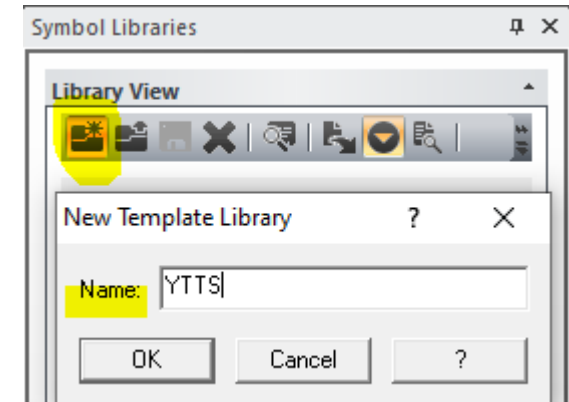
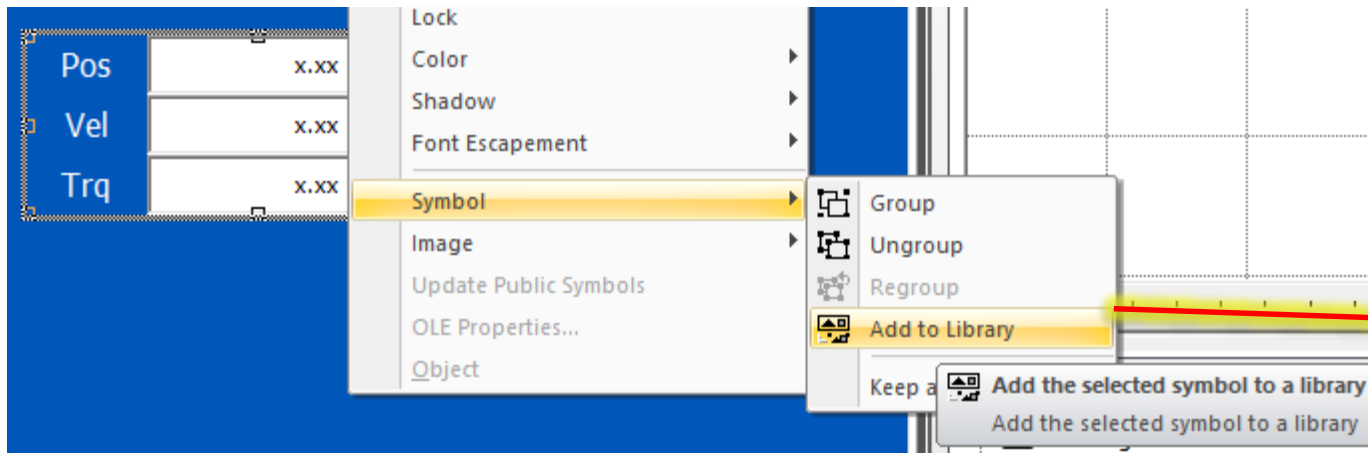
Pos	x.xx
Vel	x.xx
Trq	x.xx



Add Symbol To Library

Arrays, Structures & Symbols

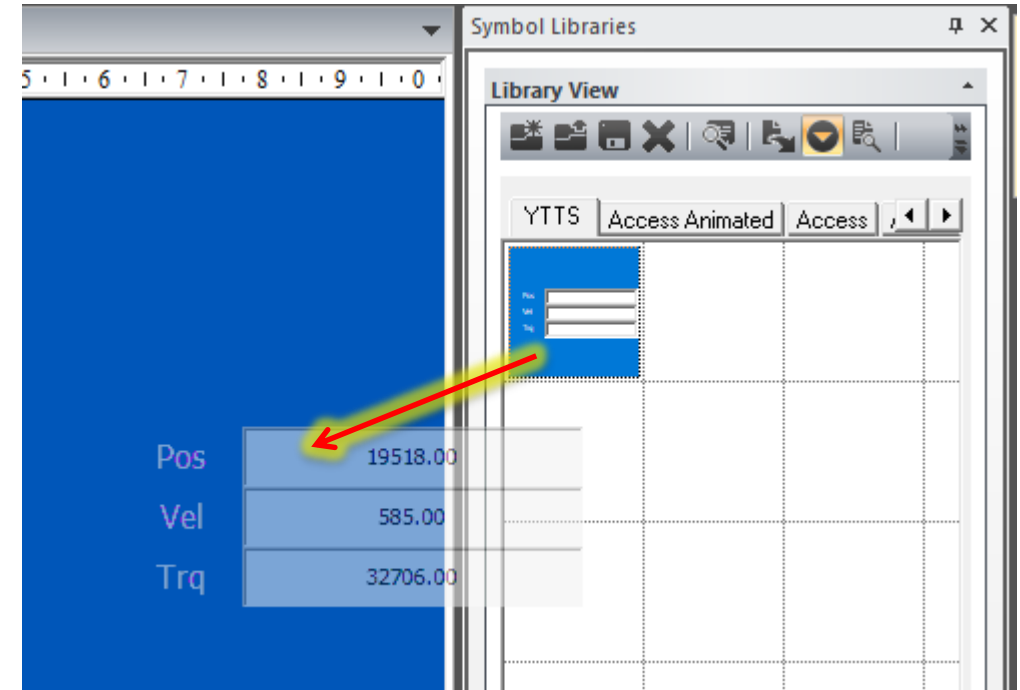
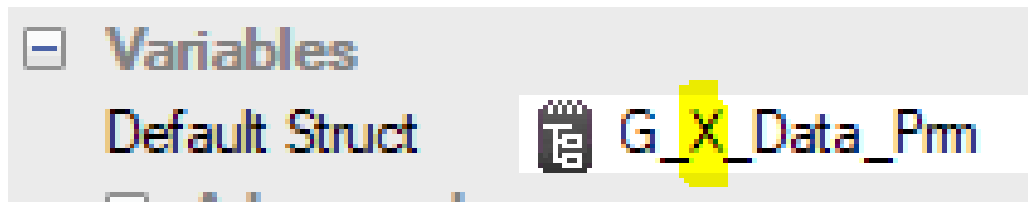
- Create New Template Library
- Add to Library
- Select Library File
- Save Library



Use Symbol

Arrays, Structures & Symbols

- Drop from Library to Screen
- Enter Default Struct
- Repeat for 62 axes



Certification Test

1. Training Certificate
2. CEU Credit

Process

Certification Test

1. Upload to HMI
2. Confirm Function (checklist)
3. Email Training@Yaskawa.com
4. Online Session with Instructor

Checklist Example

Certification Test

Certification Test

CT.HMI.02.MoviconBasic_selfg.CertificationTest

YASKAWA

Student Name: _____

Company Name: _____

Address: _____

Phone: _____

Email: _____

Test Date: _____

The following HMI operation checklist is to be verified by Yaskawa Technical Training Services

User Management / General

1. No "file" menu or scroll bars on smartPanel HMI (status bar is optional)
2. Name and organization in header
3. Image in header
4. Cannot navigate to Setup screen unless logged on as user "en1"
5. Log on as "en1" and navigate to setup screen, use Low PE button
6. Active User Name is displayed
7. Log off and setup screen controls do not work

Setup Screen

8. IP address displays
9. With servos off, use Write Servo Drive Parameters. Reboot Required indicator lights
10. Use Reboot Request switch (or hold Reboot Required indicator)
11. Close HMI project with button and relaunch using VipaStartUp

Control Panel

12. Mode indicator updates for each of the 5 main screens
13. Start button appears only in Production mode
14. Servos turn on/ status on
15. Position feedback for each axis with 2 digits after decimal
16. With Cycles=1 and default move parameters, press Reset then Start. Verify start button illuminates for duration of motion

YASKAWA