



CNTR8011–Factory Talk Automation

Summer
2025

Project 2

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Alarms Setup:

- Bit-1 : Fixture Not Extending
- Bit-2 : Fixture Not Retracting
- Bit-3: Clamp A Not Extending
- Bit-4: Clamp A Not Retracting
- Bit-5: Clamp B Not Extending
- Bit-6: Clamp B Not Retracting
- Bit-7: Clamp C Not Extending
- Bit-8: Clamp C Not Retracting
- Bit-9: E-Stop Pressed

Tag Editor

FAULTS

default

Categories

- All Properties
- Basic
- Meta Data
- Value
- Numeric
- Security
- Scripting
- Alarms (9)**
- History
- Custom

Alarms

Alarm Eval Enabled

True

Alarms

- Alarm - Bit State, High
- Alarm 1 - Bit State, High
- Alarm 2 - Bit State, High
- Alarm 3 - Bit State, High
- Alarm 4 - Bit State, High
- Alarm 5 - Bit State, High
- Alarm 6 - Bit State, High
- Alarm 7 - Bit State, High
- Alarm 8 - Bit State, High

Properties (Alarm)

Main	
Name	Alarm
Enabled	true
Priority	High
Timestamp Source	System
Label	E-Stop Pressed
Display Path	
Ack Mode	Manual
Notes	
Ack Notes Required	false
Shelving Allowed	true
Alarm Mode Settings	
Mode	Bit State
Bit Position	9
On Zero	false

OK Apply Cancel

Tag Editor

FAULTS

default

Categories

All Properties

Basic

Meta Data

Value

Numeric

Security

Scripting

Alarms (9)

History

Custom

Alarms

Alarm Eval Enabled

True

Alarms

Alarm - Bit State, High

Alarm 1 - Bit State, High

Alarm 2 - Bit State, High

Alarm 3 - Bit State, High

Alarm 4 - Bit State, High

Alarm 5 - Bit State, High

Alarm 6 - Bit State, High

Alarm 7 - Bit State, High

Alarm 8 - Bit State, High

Properties (Alarm 1)

Main

Name

Alarm 1

Enabled

true

Priority

High

Timestamp Source

System

Label

Fixture Not Extending

Display Path

Ack Mode

Manual

Notes

Ack Notes Required

false

Shelving Allowed

true

Alarm Mode Settings

Mode

Bit State

Bit Position

1

On Zero

false

OK

Apply

Cancel

Tag Editor

FAULTS

default

Categories

All Properties

Basic

Meta Data

Value

Numeric

Security

Scripting

Alarms (9)

History

Custom

Alarms

Alarm Eval Enabled

True

Alarms

Alarm - Bit State, High

Alarm 1 - Bit State, High

Alarm 2 - Bit State, High

Alarm 3 - Bit State, High

Alarm 4 - Bit State, High

Alarm 5 - Bit State, High

Alarm 6 - Bit State, High

Alarm 7 - Bit State, High

Alarm 8 - Bit State, High

Properties (Alarm 2)

Main

Name

Alarm 2

Enabled

true

Priority

High

Timestamp Source

System

Label

Fixture Not Retracting

Display Path

Ack Mode

Manual

Notes

Ack Notes Required

false

Shelving Allowed

true

Alarm Mode Settings

Mode

Bit State

Bit Position

2

On Zero

false

OK

Apply

Cancel

The image displays two screenshots of the 'Tag Editor' application, specifically the 'FAULTS' section under the 'default' configuration. Both screenshots show the 'Alarms' tab with a list of alarms and a detailed view of a selected alarm's properties.

Screenshot 1 (Top): Shows 'Alarm 3' selected. The 'Alarm Eval Enabled' dropdown is set to 'True'. The 'Alarms' list shows 'Alarm 3 - Bit State, High' as the selected item. The 'Properties (Alarm 3)' table is as follows:

Main	
Name	Alarm 3
Enabled	true
Priority	High
Timestamp Source	System
Label	Clamp A Not Extending
Display Path	
Ack Mode	Manual
Notes	
Ack Notes Required	false
Shelving Allowed	true
Alarm Mode Settings	
Mode	Bit State
Bit Position	3
On Zero	false

Screenshot 2 (Bottom): Shows 'Alarm 4' selected. The 'Alarm Eval Enabled' dropdown is set to 'True'. The 'Alarms' list shows 'Alarm 4 - Bit State, High' as the selected item. The 'Properties (Alarm 4)' table is as follows:

Main	
Name	Alarm 4
Enabled	true
Priority	High
Timestamp Source	System
Label	Clamp A Not Retracting
Display Path	
Ack Mode	Manual
Notes	
Ack Notes Required	false
Shelving Allowed	true
Alarm Mode Settings	
Mode	Bit State
Bit Position	4
On Zero	false

Tag Editor

FAULTS

default

Categories

- All Properties
- Basic
- Meta Data
- Value
- Numeric
- Security
- Scripting
- Alarms (9)**
- History
- Custom

Alarms

Alarm Eval Enabled

True

Alarms

- Alarm - Bit State, High
- Alarm 1 - Bit State, High
- Alarm 2 - Bit State, High
- Alarm 3 - Bit State, High
- Alarm 4 - Bit State, High
- Alarm 5 - Bit State, High**
- Alarm 6 - Bit State, High
- Alarm 7 - Bit State, High
- Alarm 8 - Bit State, High

Properties (Alarm 5)

Main	
Name	Alarm 5
Enabled	true
Priority	High
Timestamp Source	System
Label	Clamp B Not Extending
Display Path	
Ack Mode	Manual
Notes	
Ack Notes Required	false
Shelving Allowed	true
Alarm Mode Settings	
Mode	Bit State
Bit Position	5
On Zero	false

OK Apply Cancel

Tag Editor

FAULTS

default

Categories

- All Properties
- Basic
- Meta Data
- Value
- Numeric
- Security
- Scripting
- Alarms (9)**
- History
- Custom

Alarms

Alarm Eval Enabled

True

Alarms

- Alarm - Bit State, High
- Alarm 1 - Bit State, High
- Alarm 2 - Bit State, High
- Alarm 3 - Bit State, High
- Alarm 4 - Bit State, High
- Alarm 5 - Bit State, High
- Alarm 6 - Bit State, High**
- Alarm 7 - Bit State, High
- Alarm 8 - Bit State, High

Properties (Alarm 6)

Main	
Name	Alarm 6
Enabled	true
Priority	High
Timestamp Source	System
Label	Clamp B Not Retracting
Display Path	
Ack Mode	Manual
Notes	
Ack Notes Required	false
Shelving Allowed	true
Alarm Mode Settings	
Mode	Bit State
Bit Position	6
On Zero	false

OK Apply Cancel

Tag Editor

FAULTS

default

Categories

All Properties

Basic

Meta Data

Value

Numeric

Security

Scripting

Alarms (9)

History

Custom

Alarms

Alarm Eval Enabled

True

Alarms

Alarm - Bit State, High

Alarm 1 - Bit State, High

Alarm 2 - Bit State, High

Alarm 3 - Bit State, High

Alarm 4 - Bit State, High

Alarm 5 - Bit State, High

Alarm 6 - Bit State, High

Alarm 7 - Bit State, High

Alarm 8 - Bit State, High

Properties (Alarm 7)

Main

Name

Alarm 7

Enabled

true

Priority

High

Timestamp Source

System

Label

Clamp C Not Extending

Display Path

Ack Mode

Manual

Notes

Ack Notes Required

false

Shelving Allowed

true

Alarm Mode Settings

Mode

Bit State

Bit Position

7

On Zero

false

OKApplyCancel

Tag Editor

FAULTS

default

Categories

All Properties

Basic

Meta Data

Value

Numeric

Security

Scripting

Alarms (9)

History

Custom

Alarms

Alarm Eval Enabled

True

Alarms

Alarm - Bit State, High

Alarm 1 - Bit State, High

Alarm 2 - Bit State, High

Alarm 3 - Bit State, High

Alarm 4 - Bit State, High

Alarm 5 - Bit State, High

Alarm 6 - Bit State, High

Alarm 7 - Bit State, High

Alarm 8 - Bit State, High

Properties (Alarm 8)

Main

Name

Alarm 8

Enabled

true

Priority

High

Timestamp Source

System

Label

Clamp C Not Retracting

Display Path

Ack Mode

Manual

Notes

Ack Notes Required

false

Shelving Allowed

true

Alarm Mode Settings

Mode

Bit State

Bit Position

8

On Zero

false

OKApplyCancel

Alarm Screen:

Contains Active Alarms and Alarm History

ACTIVE ALARMS

Active Time

Display Path

Current State

Priority

Event Id

Label

7/27/25, 5...

Level Lo Alarm

Active, Un...

Med...

b5bdc...

Lo

8/14/25, 6...

Ramp High Ala...

Cleared, U...

Low

ba4da...

High ...

8/14/25, 6...

Ramp High Ala...

Cleared, U...

Low

b60d...

High ...

8/14/25, 6...

Ramp High Ala...

Cleared, U...

Low

686ba...

High ...

8/14/25, 6...

Ramp High Ala...

Cleared, U...

Low

c6b30...

High ...

8/14/25, 6...

Ramp High Ala...

Cleared, U...

Low

6e8c9...

High ...

Acknowledge

Shelve

ALARM HISTORY

Event Time

Even...

Display...

Event...

Pri...

Syst...

Ack'...

Event...

Curr...

Label

8/14/25...

45...

evt:Sy...

Acti...

Low

True

Acti...

Sys...

8/14/25...

74...

Ramp ...

Clear

Low

False

-9.9...

Cle...

Hig...

8/14/25...

00...

Ramp ...

Ack

Low

False

Liv...

Cle...

Hig...

8/14/25...

74...

Ramp ...

Acti...

Low

False

9.05...

Acti...

Hig...

8/14/25...

01...

Ramp ...

Clear

Low

False

-9.9...

Cle...

Hig...

8/14/25...

01...

Ramp ...

Acti...

Low

False

9.02...

Acti...

Hig...

8/14/25...

81...

Ramp ...

Ack

Low

False

Liv...

Cle...

Hig...

8/14/25...

e87...

evt:Sy...

Acti...

Low

True

Acti...

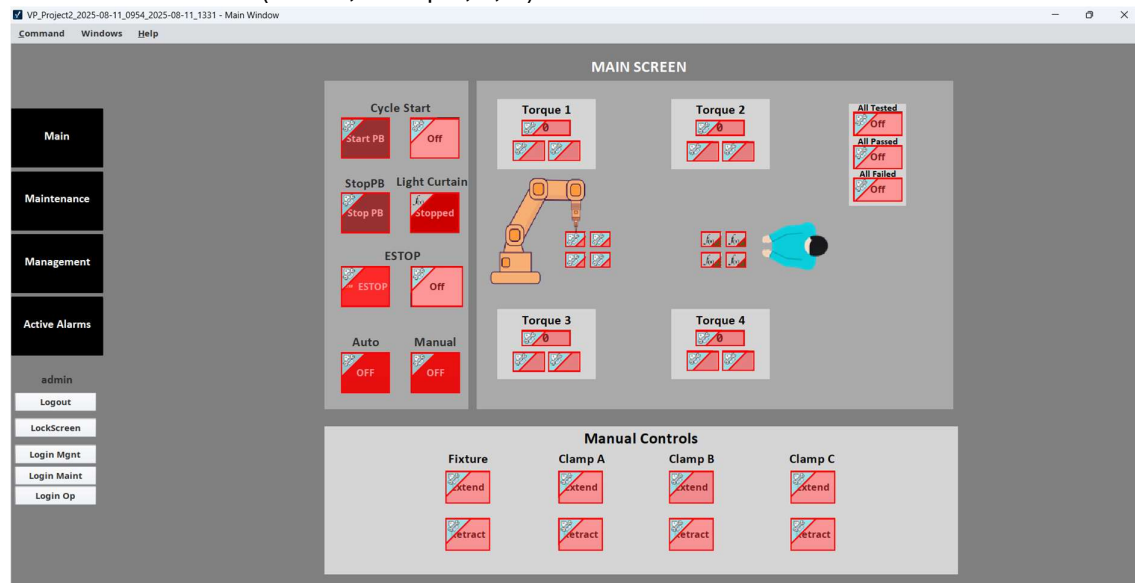
Sys...

12 events

Main Screen:

Contains:

- Cycle Start PB and indicator
- Stop PB
- Light Curtain Indicator
- Estop PB and Indicator
- Auto And Manual PB
- Detailed Screen for Torque 1 to 4 (Torque Values, Failed/Passed)
- Indicator for (All tested/ All Failed/ All Passed)
- Manual Controls for (Fixture, Clamp A, B, C)



Maintenance Screen:

Contains:

- Input for Model Change (Select from - 1/2/3)
- Load Button for loading specific model
- Inputs for Fastner 1 to 4 (Lower and Upper Limit)
- Numeric Display(Total Count, Total Passed, Total Failed – For Fastner 1-4)
- Numeric Display(Total Count and Count for Fastner 1-4)



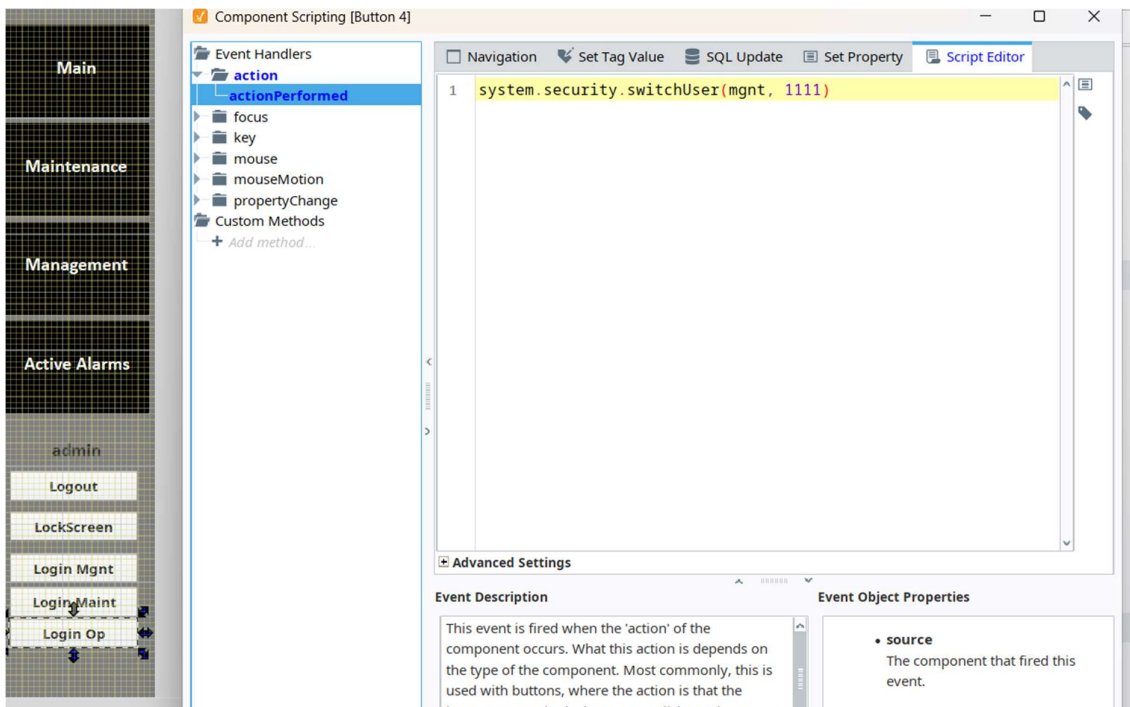
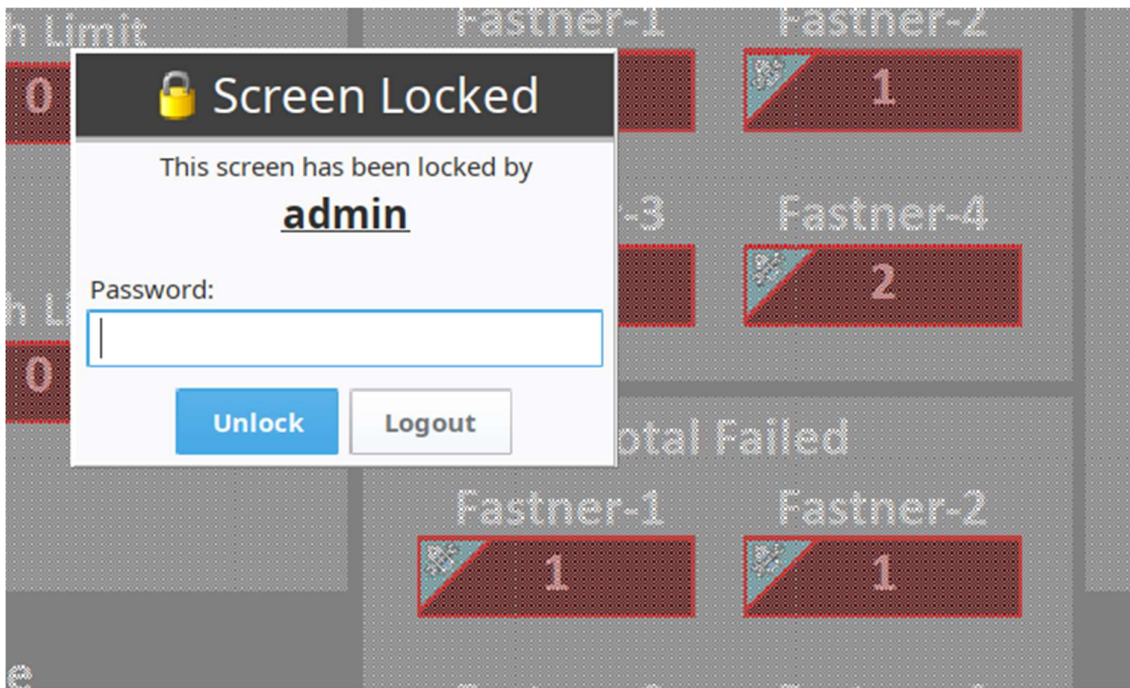
Management:

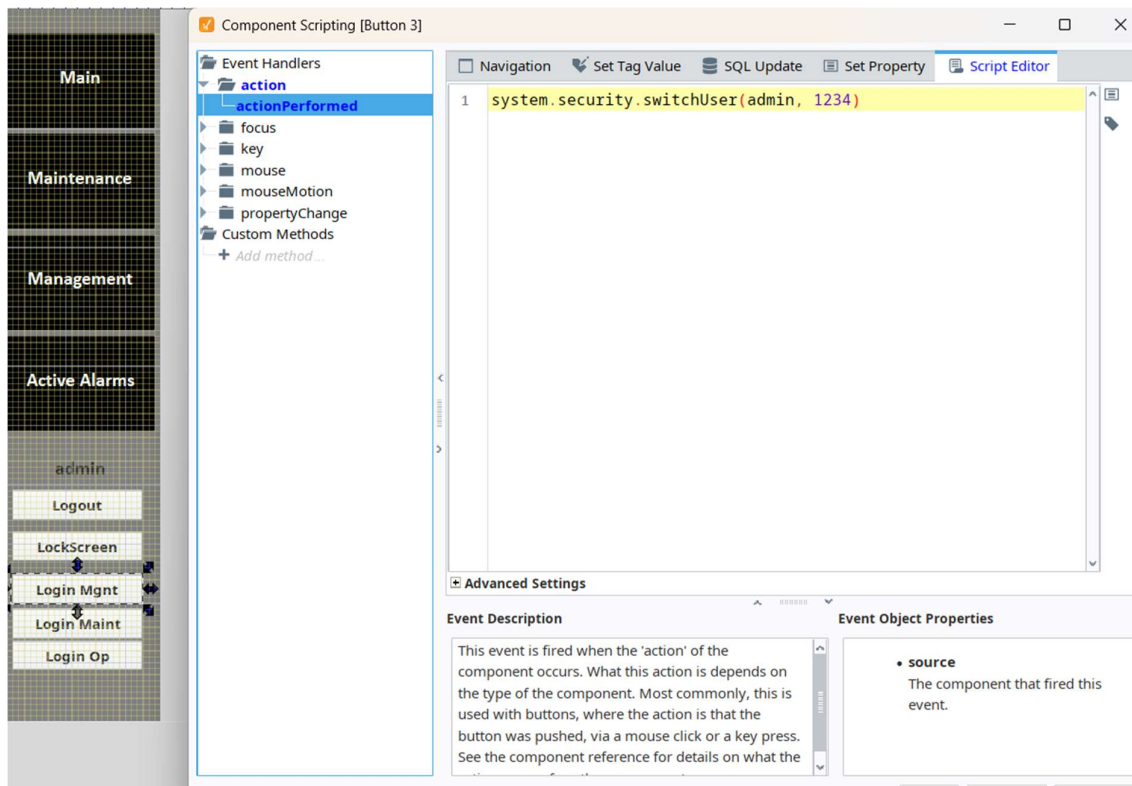
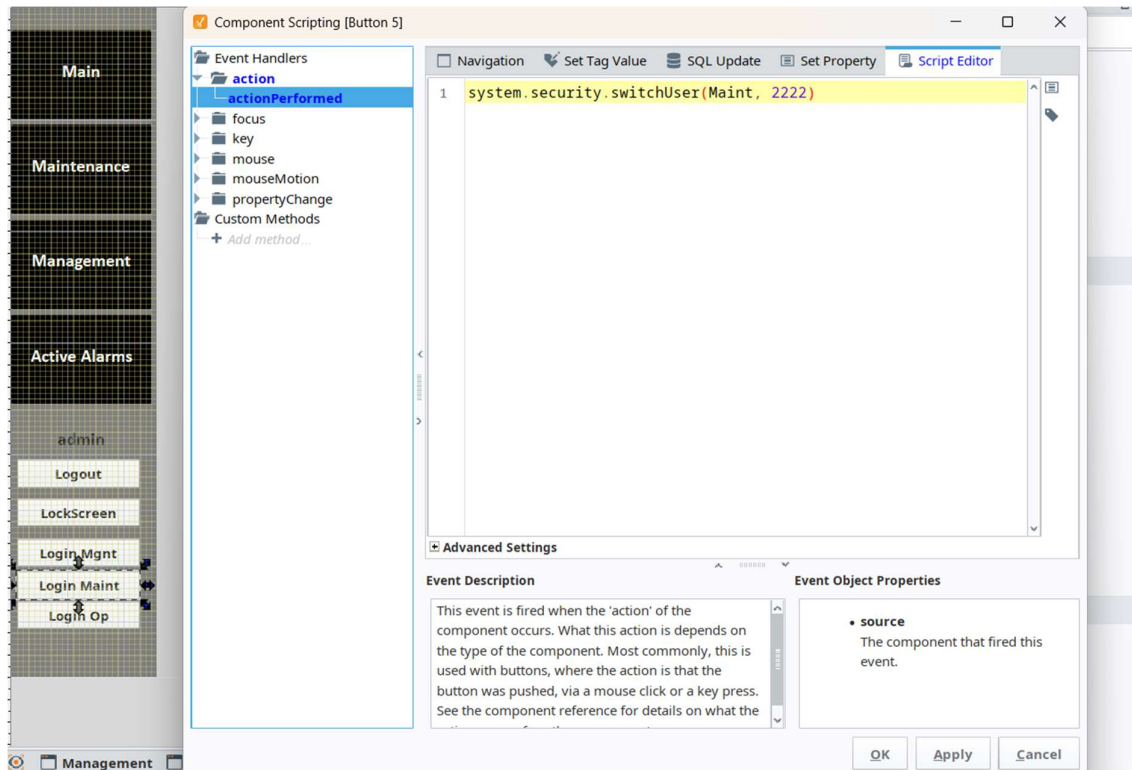
- Contains:
- Cycle time Average (F1-F4)
 - Average Torque(F1-F4)
 - Last 5 Part Data(F1-F4)
 - End Shift Button to reset the stats and start new shift



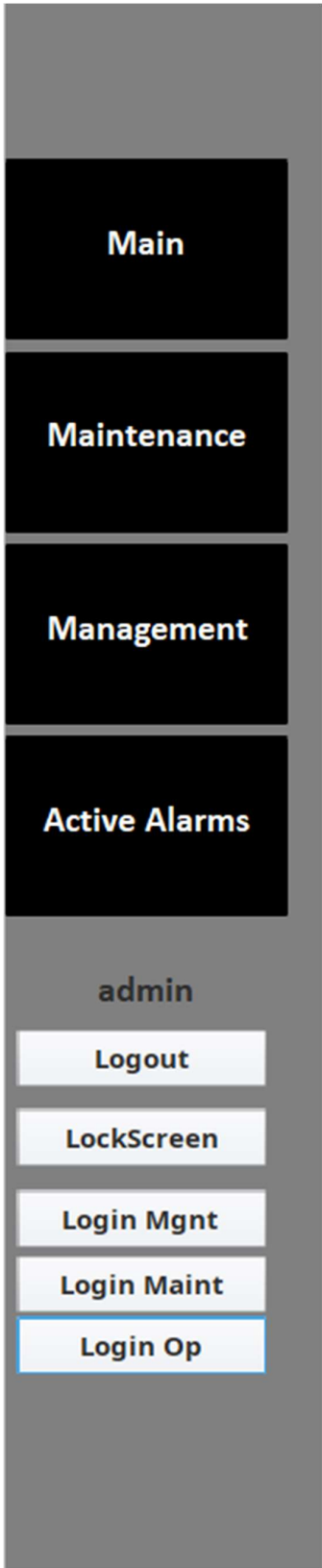
Security:

-Showing lock screen – password is 1234

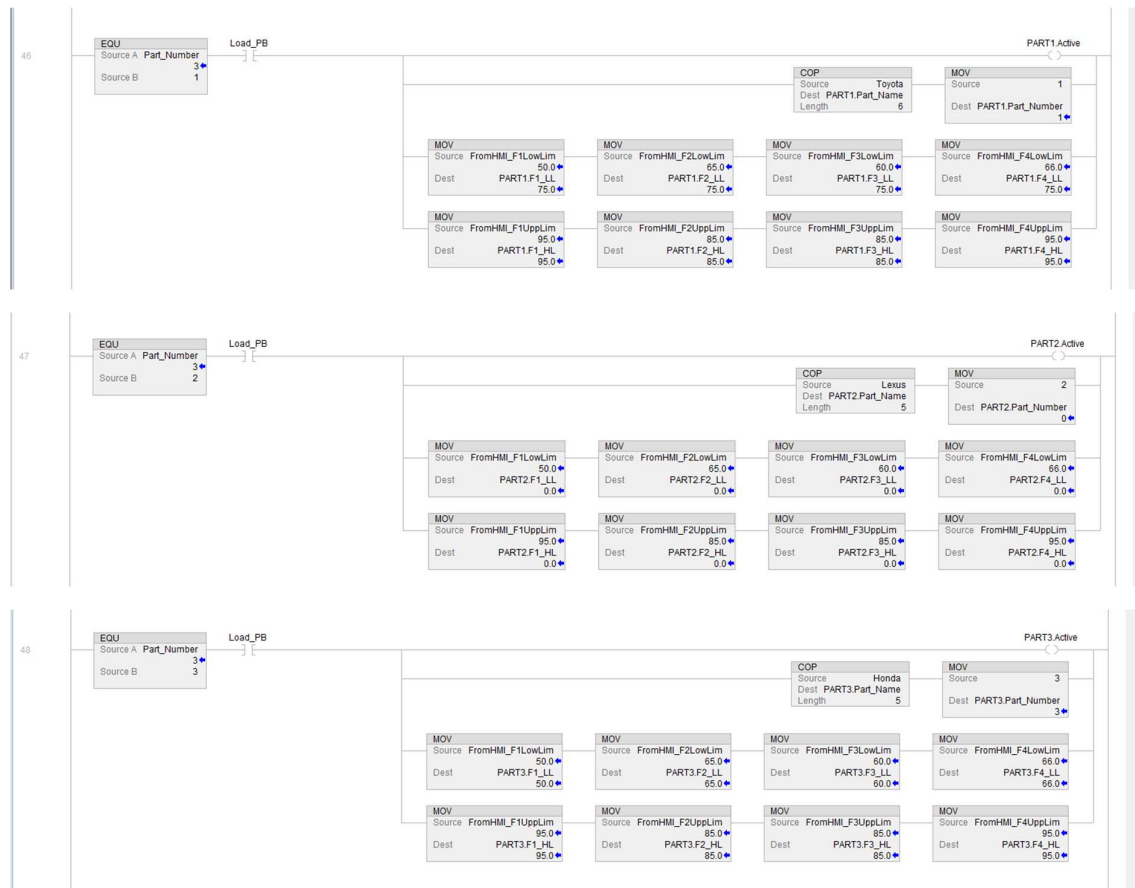




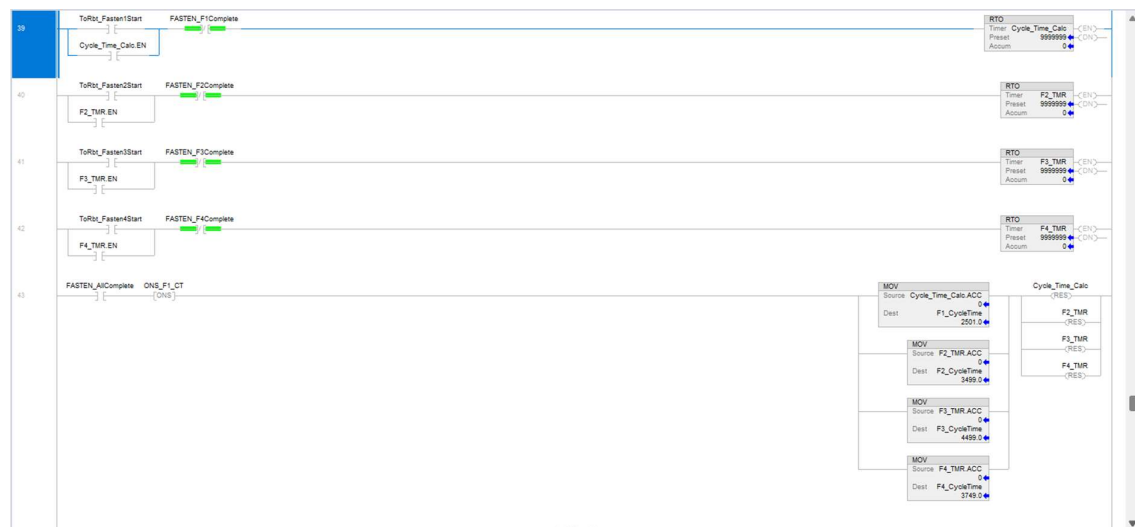
Navigation Screen:



PLC Logic for Different Partstyles:



PLC Logic for Average Cycle Time:





PLC Logic for Average Torque:

