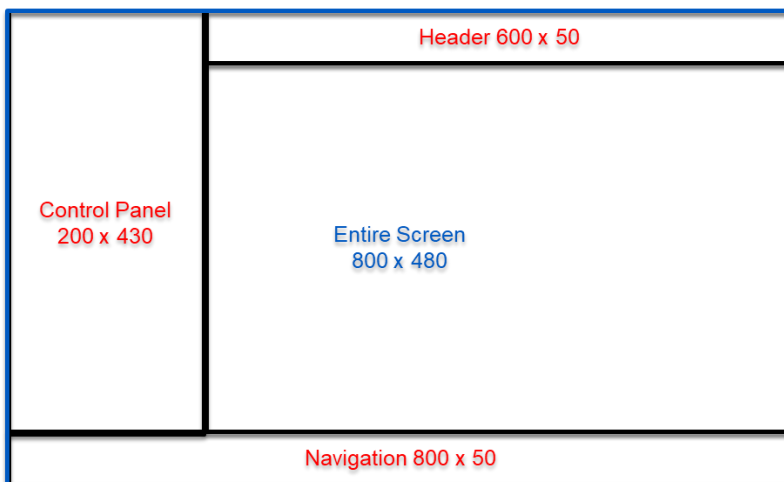


Project Layout

Mini-Lab

Requirements

- HMI Editor (Movicon) software
- The following “floorplan” for the HMI layout dimensions (pixels)



Lab Overview

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

- I. Create 5 Main Screens (10 min)
- II. Create 3 smaller Embedded Screens (5 min)
- III. Embed the 3 smaller screens onto the Main Screens
- IV. Complete the Header Screen (10 min)
- V. Verify Screens in Runtime (5 min)

Lab Goal

- Placeholders for 5 main screens, each with embedded Control Panel and Navigation placeholders and completed Header

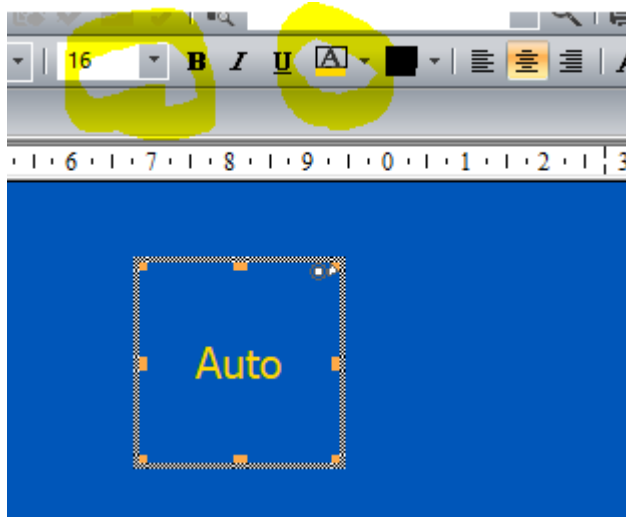
I. Create 5 Main Screens (10 min)

A. Create the Auto screen

1. Project Explorer → Screens → Right click → Add a new screen
2. Name = 1_Auto

B. Add a text box to identify the screen

1. Toolbox → Basic Shapes → Text, drag onto screen
2. Edit Text
3. Adjust text size and color, position etc.

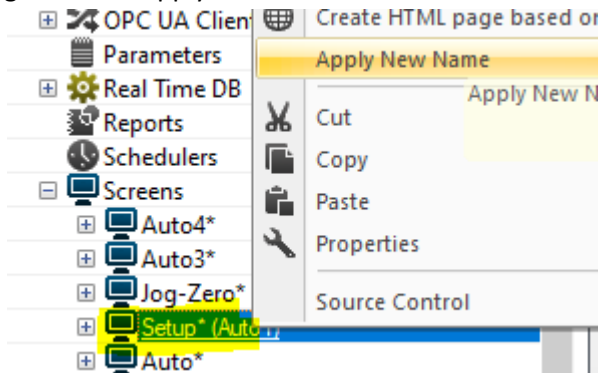


C. Copy and paste to create a total of 5 screens

1. Project Explorer → Screens → Right click on the Auto screen → Copy, Paste

D. Rename the copied screens

1. 1_Auto, 2_Setup, 3_Jog-Zero, 4_Alarms, 5_Recipes
2. Click twice to edit text
3. Right click to Apply New Name



E. Edit the text box of the copied screens

1. Auto, Setup, Jog-Zero, Alarms, Recipes

II. Create 3 Embedded Screens

A. Create Header screen

1. Project Explorer → Screens → Right click → Add a new screen
2. Name = Header

B. Change the dimensions

1. Properties → General → width, height
2. Adjust dimensions according to the “floorplan”

C. Add a text box to identify the screen

1. Copy and paste a text box from another screen
2. Position the text box and edit the text

D. Create the Navigation screen from the Header screen (or create new)

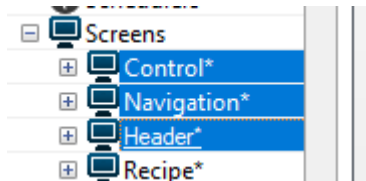
1. Copy/paste Header screen and rename
2. Adjust dimensions according to the “floorplan”
3. Rename & edit text box

E. Create the Control screen from the Header screen (or create new)

1. Copy/paste Header screen and rename
2. Adjust dimensions according to the “floorplan”
3. Rename & edit text box

F. Change the background color of all the screens simultaneously

1. Hold the Ctrl key and click to multiple select all 3 screens (Header + Navigation + Control)



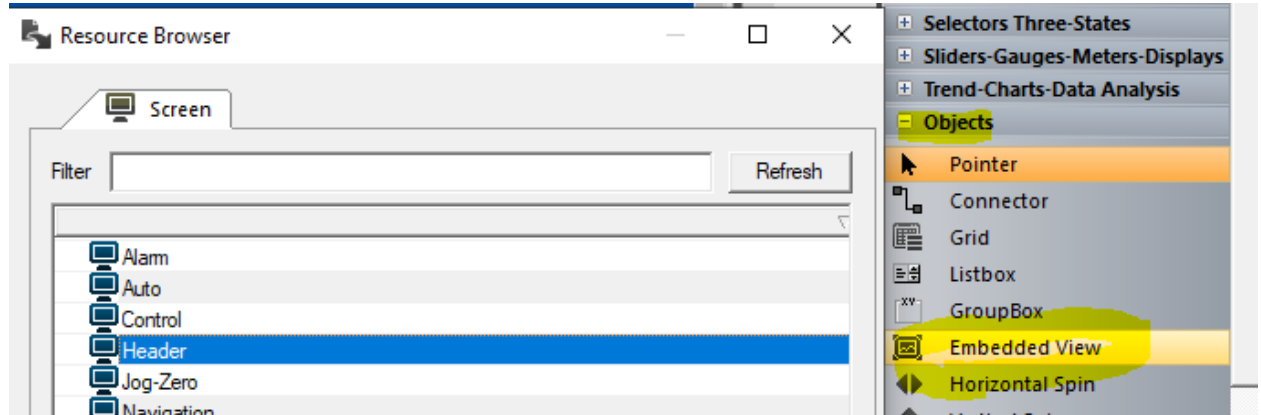
2. Properties → Background → Back Color
3. Choose dark gray or any color you like

This concept of multiple select to change properties of several objects at a time generally holds true for all Movicon editing. It can save a lot of time!

III. Embed the 3 smaller screens onto the Main screens

A. Embed Header onto the Auto screen

1. Open Auto screen
2. Toolbox → Objects → Embedded view
3. Draw a box to the approximate shape and location of the embedded screen.
4. Choose the Header screen (Click “Refresh” if the Header screen is not shown)



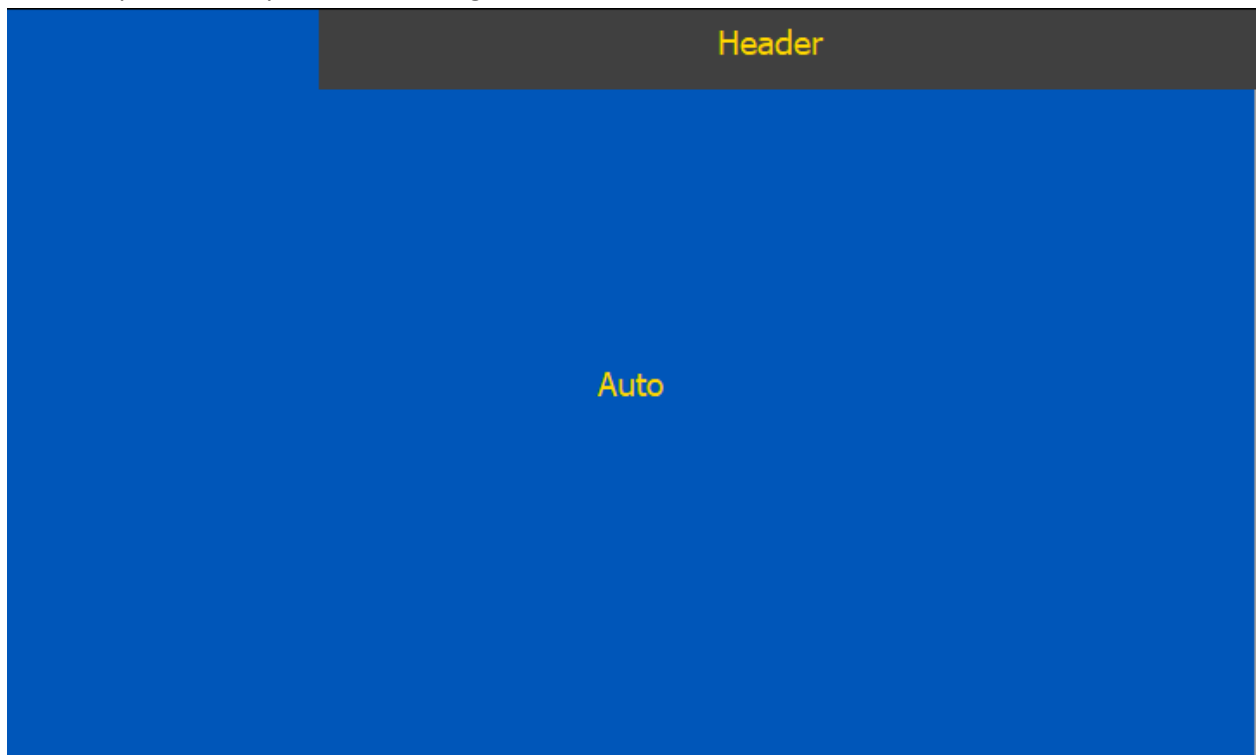
B. Match the dimensions of the Embedded View to the dimensions of the screen

Otherwise the embedded screen will resize to fit the dimension of the embedded view

1. Properties → Position → Width, height
2. Adjust dimensions according to the “floorplan”
3. Move the Embedded View into place

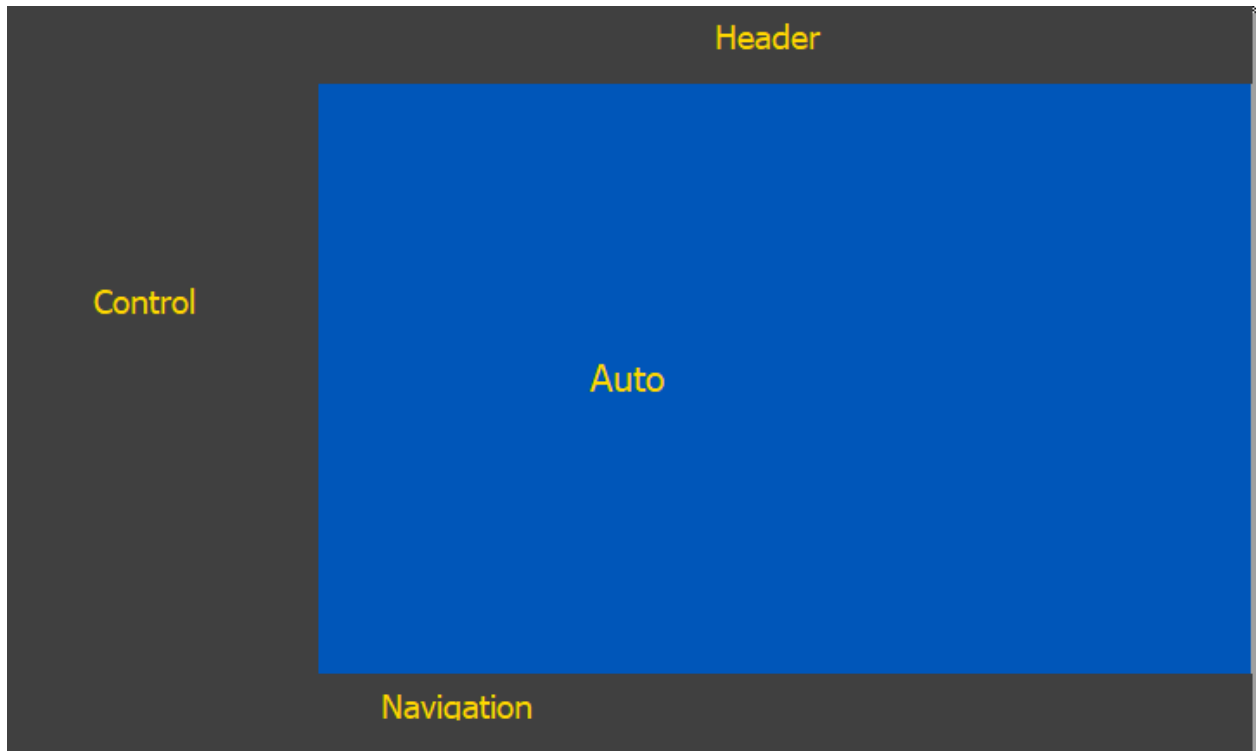
C. Show the background color of the embedded screen

1. Properties → style → Show Background



D. Repeat the process for Control and Navigation

1. See above steps



E. Copy the Embedded screen layout to the other screens

1. Ctrl-select
2. Copy
3. Open one of the main screens
4. Paste
5. Main screens include
 - i. Auto
 - ii. Setup
 - iii. Jog-Zero
 - iv. Alarm
 - v. Recipe

IV. Complete the Header Screen

A. Insert a rectangle to contain the image

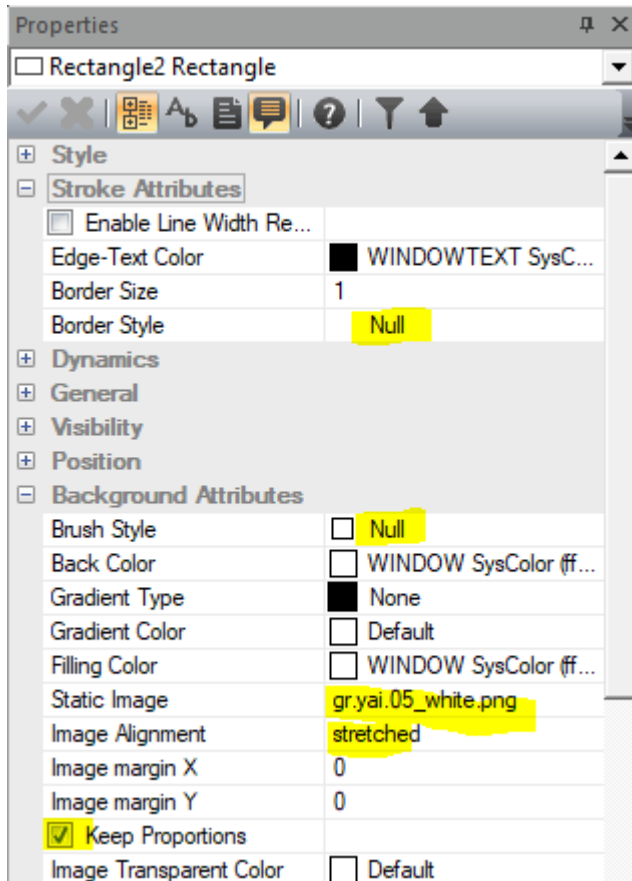
1. Open the header screen
2. Toolbox → Basic Shapes → Rectangle
3. Draw a box where you want the logo to be positioned

B. Remove the border of the rectangle

1. Properties → Stroke Attributes → Border Style = null

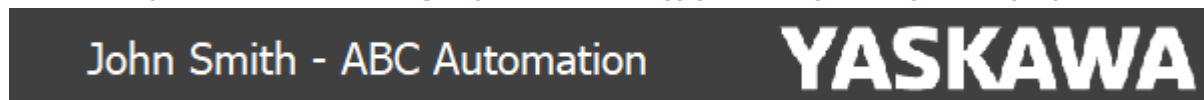
C. Adjust the background of the rectangle

1. Properties → Background Attributes
2. Brush Style = Null
3. Static Image = <select desired image file>
 - i. Yaskawa Logo is under class materials. File name **gr.yai.05_white**.
 - ii. Or use an image of your choice
 - iii. PNG with transparent background is supported
4. Image Alignment = stretched
5. Keep Proportions = true



D. Adjust the Header Text to add your name and organization

This will help the Yaskawa Training Department identify your HMI for certification purposes



V. Verify the screen operation in Runtime

A. Note

1. Updates to an embedded screen are not immediately refreshed in the editor
2. To refresh:
 - i. Option 1: Delete the embedded screen, then Undo
 - ii. Option 1: Close Movicon and open again

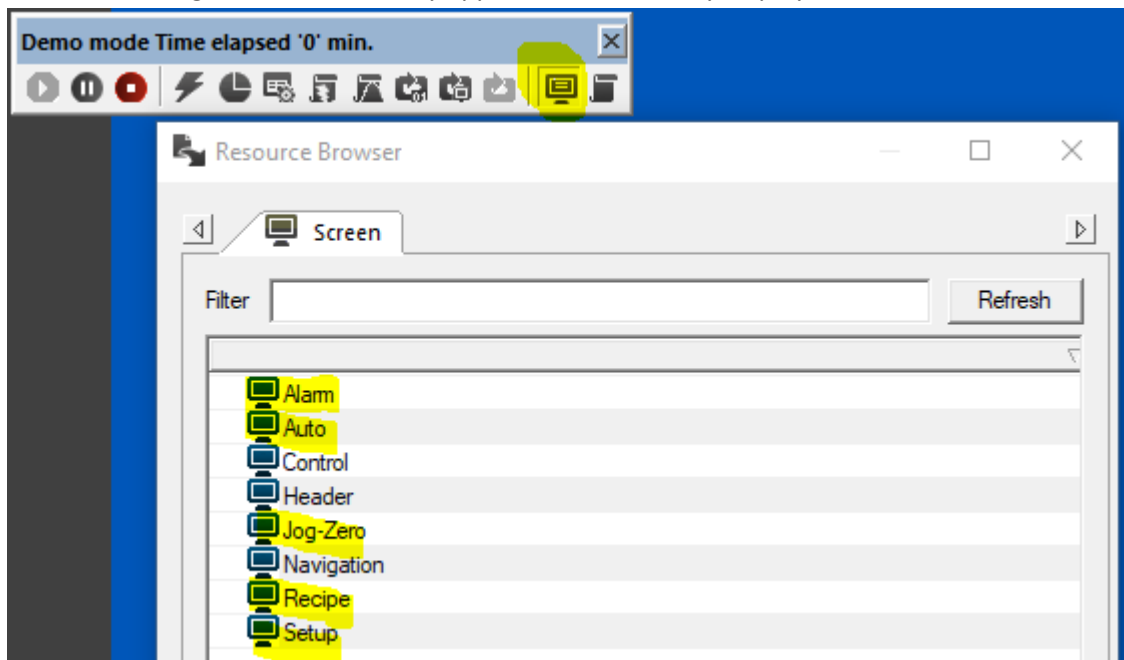
B. Start the project with built-in runtime

1. File → Start Project



C. Use the "Open a screen" button

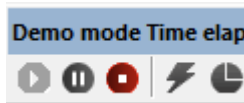
1. Locate the floating toolbar, which may appear on a secondary display monitor



D. Notice if you select one of the smaller screens, it will resize to fit the window (by default)

E. Exit the runtime

1. Option 1: click the red stop button



2. Option 2: close the runtime window
3. Option 3: create a button to exit (coming later)

End Of Mini-Lab

Troubleshooting Tips

- ☐ Be sure the dimensions for the Embedded View match the dimensions of the selected screen
- ☐ Set dimensions according to the provided floorplan
- ☐ To delete a screen, first close the tab, then select it in the tree and press DELETE key
- ☐ Always select the object before changing properties when navigating between tabs

Certification Checklist

- ☐ Navigate to each of the 5 main screens using the Resource Browser
- ☐ Each main screen contains all three embedded screens arranged according to the provided floorplan

VI. Optional Exploration – Work on any of the following in any order as time permits

- A. Add more logos or images
- B. Experiment with colors, fonts, and other formatting
- C. Create buttons to navigate the screens (more on this in the next section)