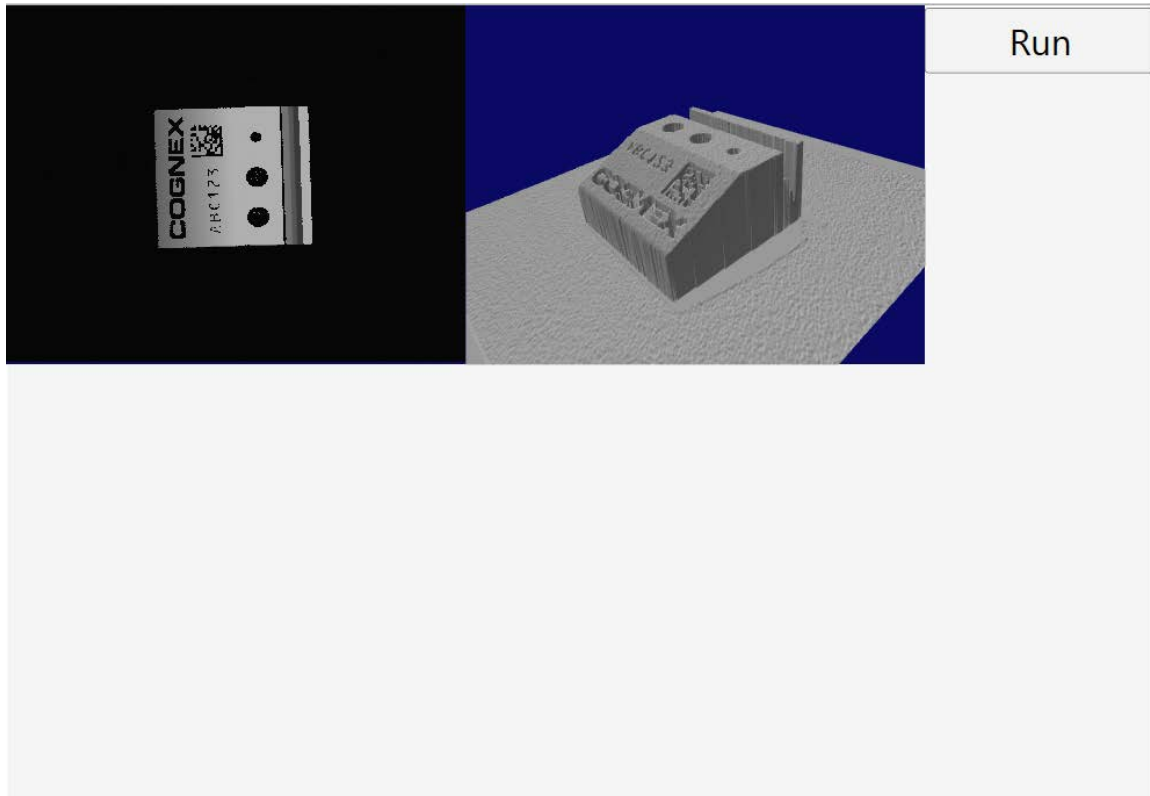


Cognex Designer Standard – Section 4
Building an HMI Lab
Approximate Duration: 30 minutes

EXPECTED OUTCOMES:

- View an Intensity Image of the Demo Block
- View a 3D Image of the Demo Block
- Ability to run the Sequence from the HMI

EXPECTED VISUAL RESULT:

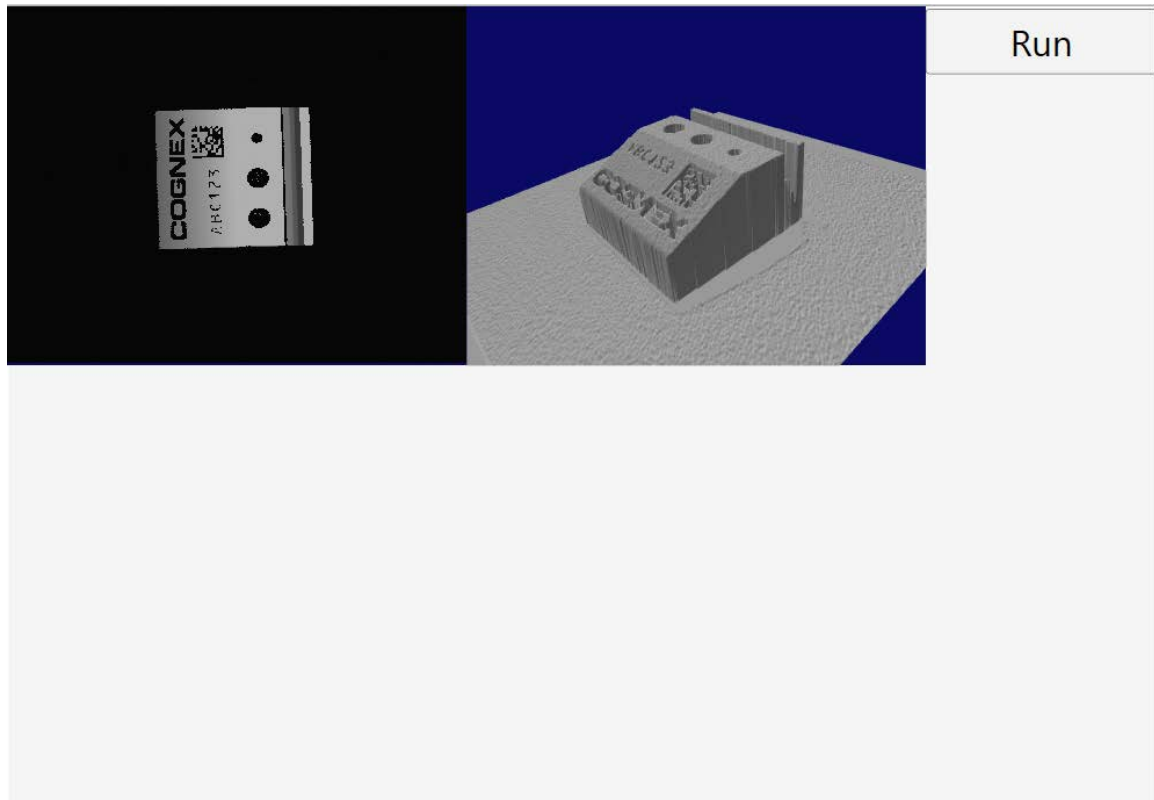


OUTLINE OF LAB:

1. Add Tags to the Sequence for each of the displays
2. Add Displays to the HMI
 - a. Use tag to set 3D display
 - b. Use PatMax result to set 2D display
3. Add a button to HMI
 - a. Have the button run the Sequence once
4. Go into Test Mode and Run the Application

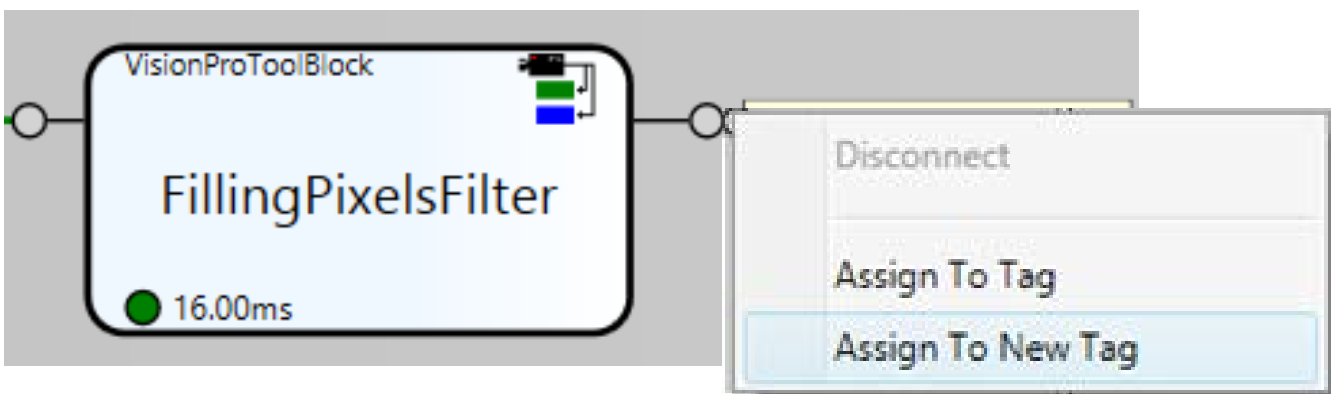
Steps for the Lab:

We'll be building a user interface that looks like this:

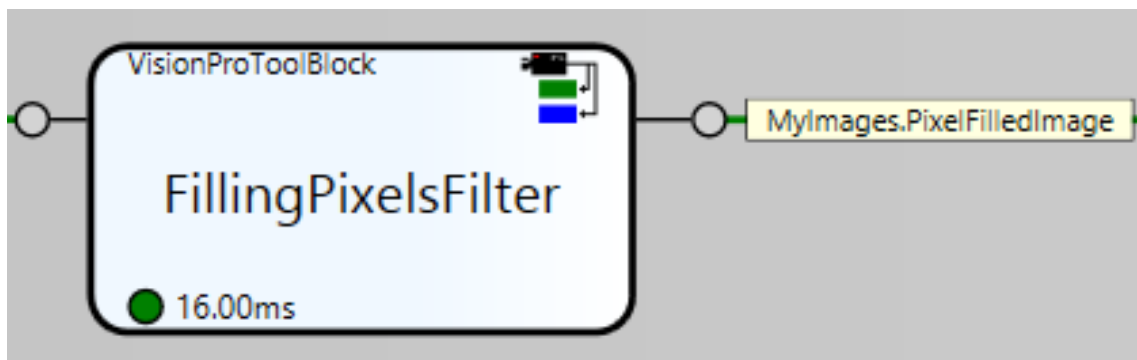
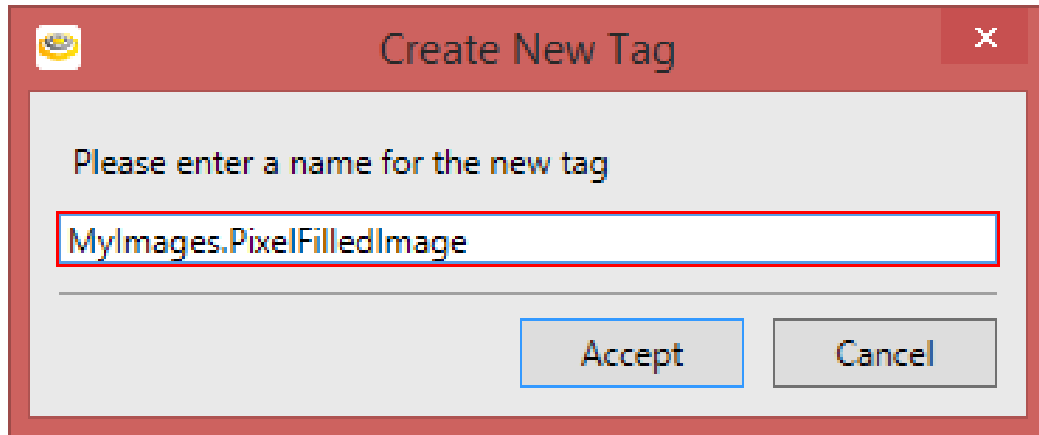


1. Add Tags to the Sequence for each of the displays

- Go to the sequence and right-click on the output pin of the FillingPixelsFilter Tool Block and select “Assign To New Tag”

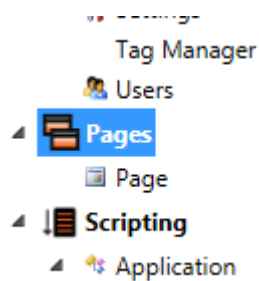


- Call it “MyImage.PixelFilledImage” and press “Accept”. Note the Tag reference now on the Sequence.

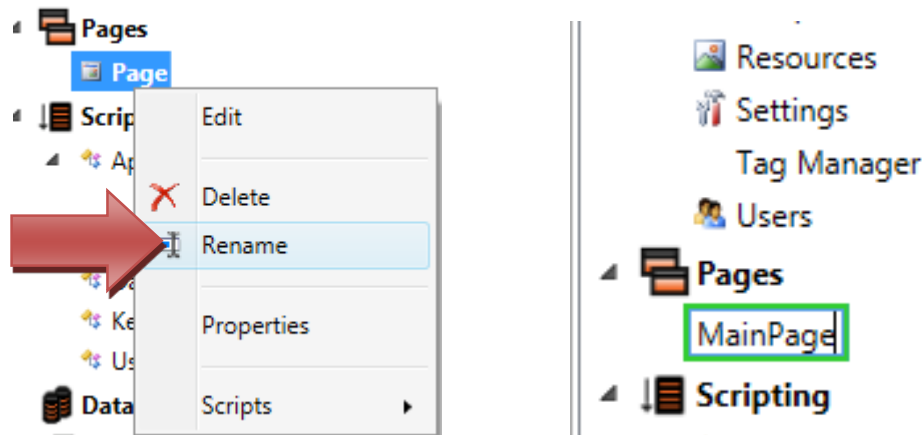


2. Add Displays to the HMI

- Go to the Page tab. If it is not showing, look at the Explorer bar and go to the Pages Area.

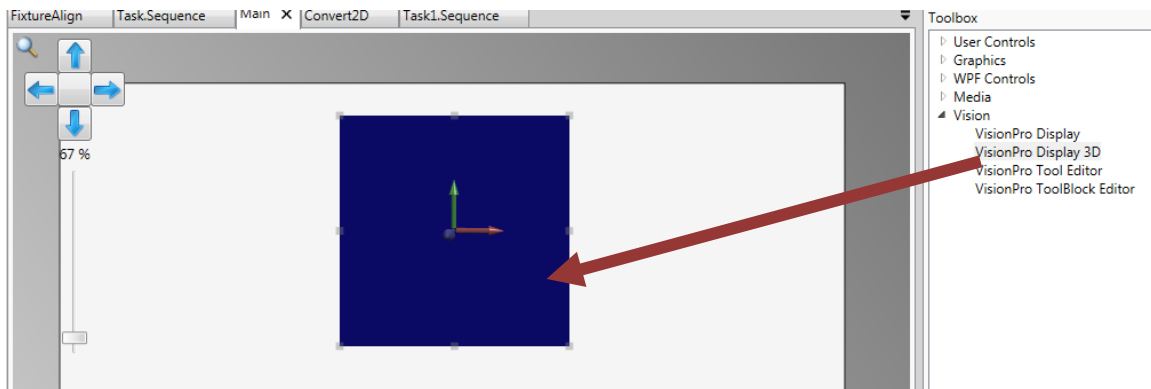


- Right-Click on Page and rename it “MainPage” to make it easier to identify as the main page later.

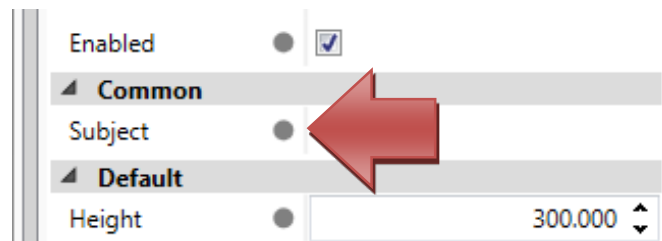


a. Use tag to set 3D display

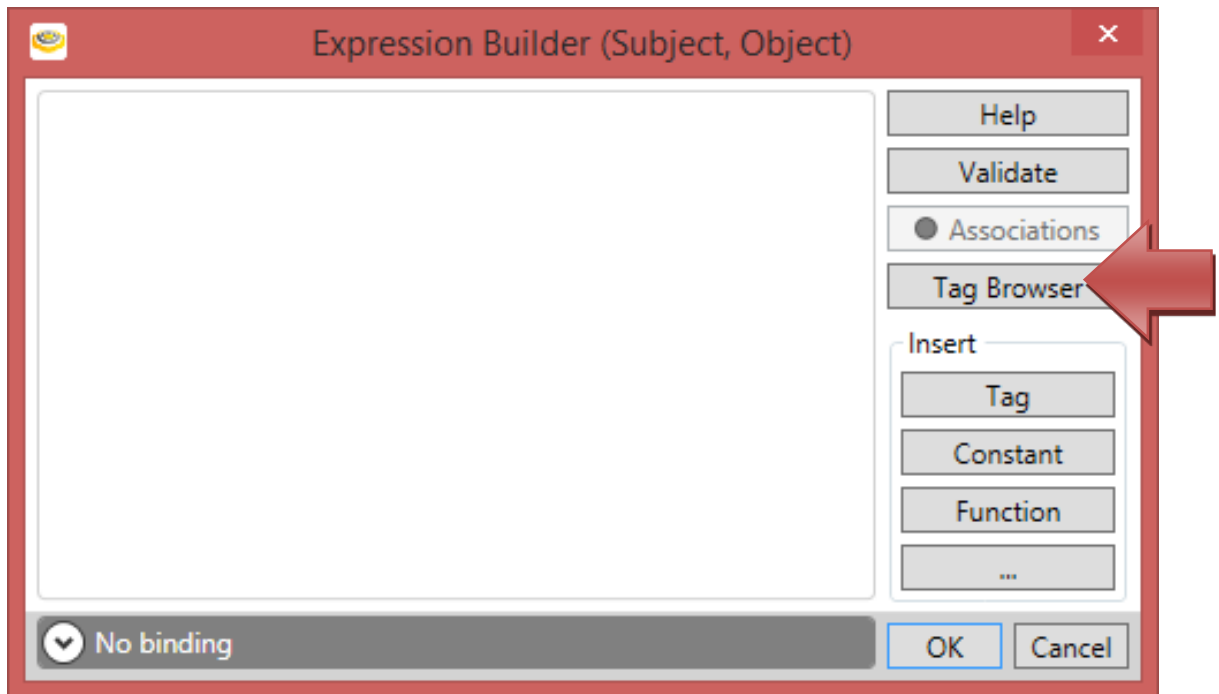
- Add a 3D Display to the Main page.



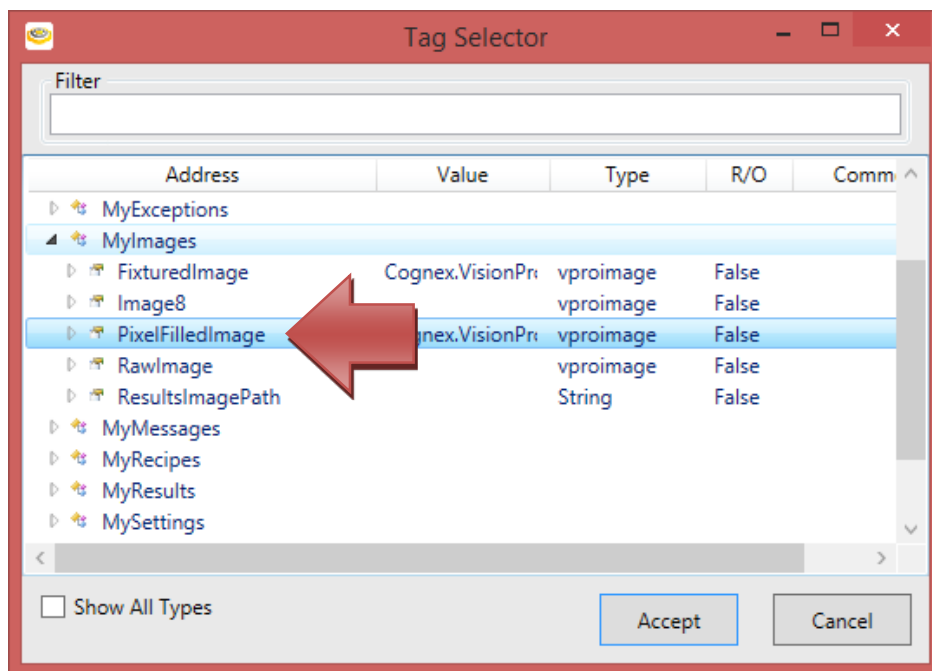
- Go to the Subject of the Display in the Properties tab and select the grey dot.



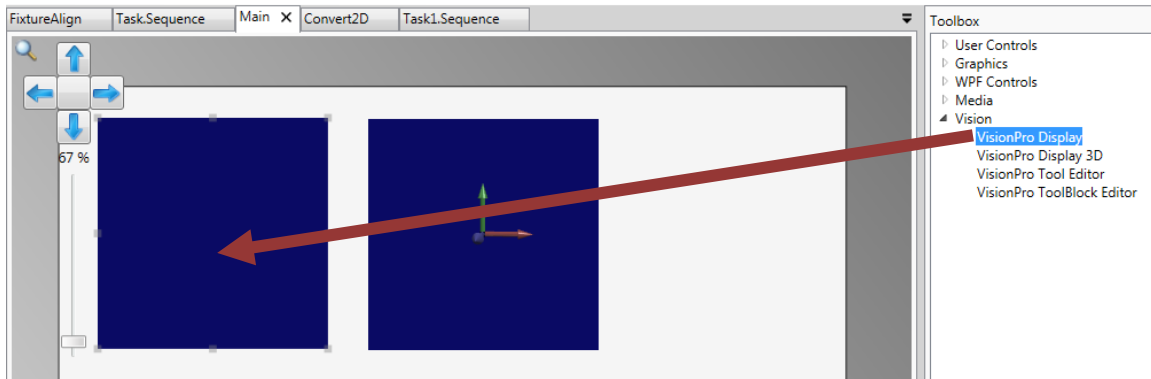
- iii. The Expression Builder will appear. Select “Tag Browser”.



- iv. Choose “Display.Image3D” from the list and select “Accept” on the Expression Builder.

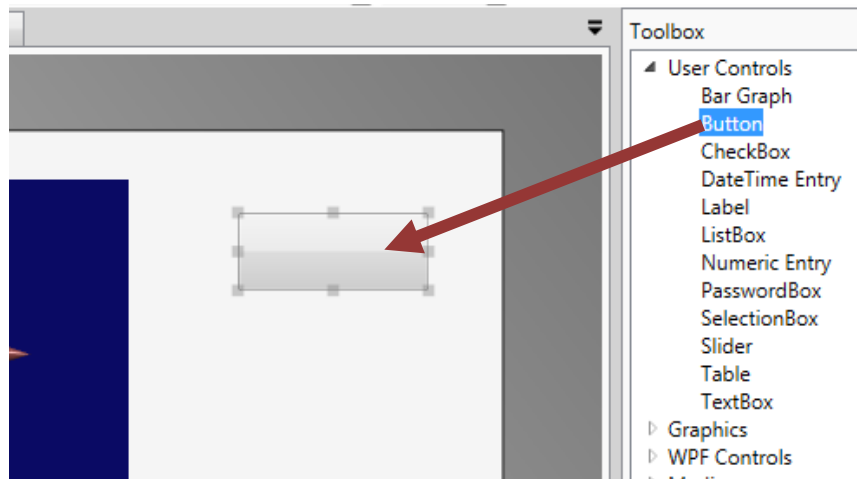


v. Repeat step a above to create a VisionPro Display

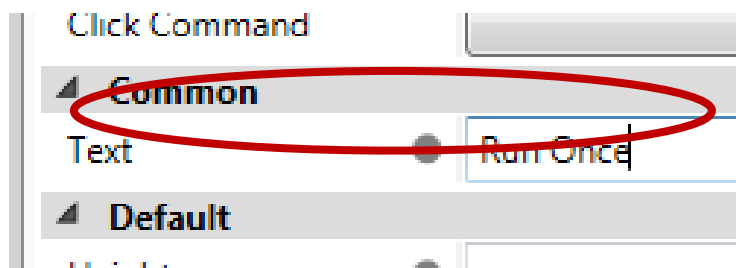


3. Add a button to HMI

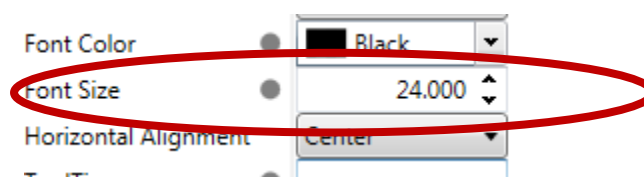
- Add a button



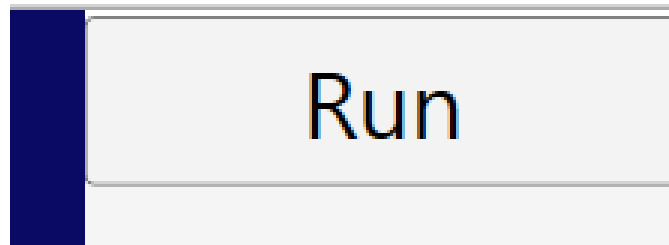
- Set its text property to “Run”



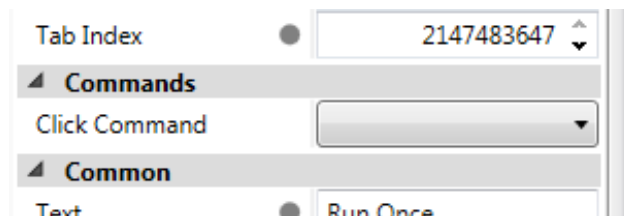
- Set its font size to 24



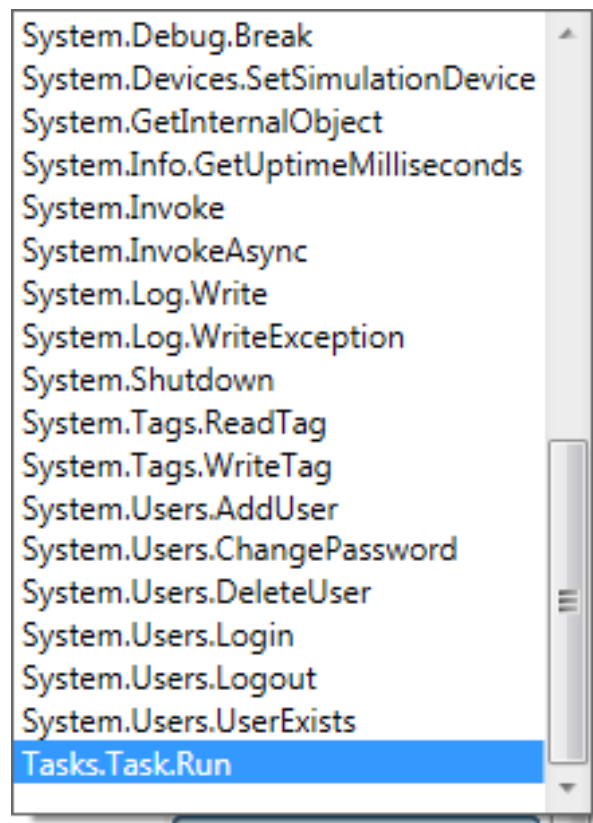
- ... so it looks similar to this one.



- a. **Have the button run the Sequence once**
 - i. Go to the Click Command in the Properties.



- ii. Pull down the list and go to the last entry which should be Tasks.Task.Run



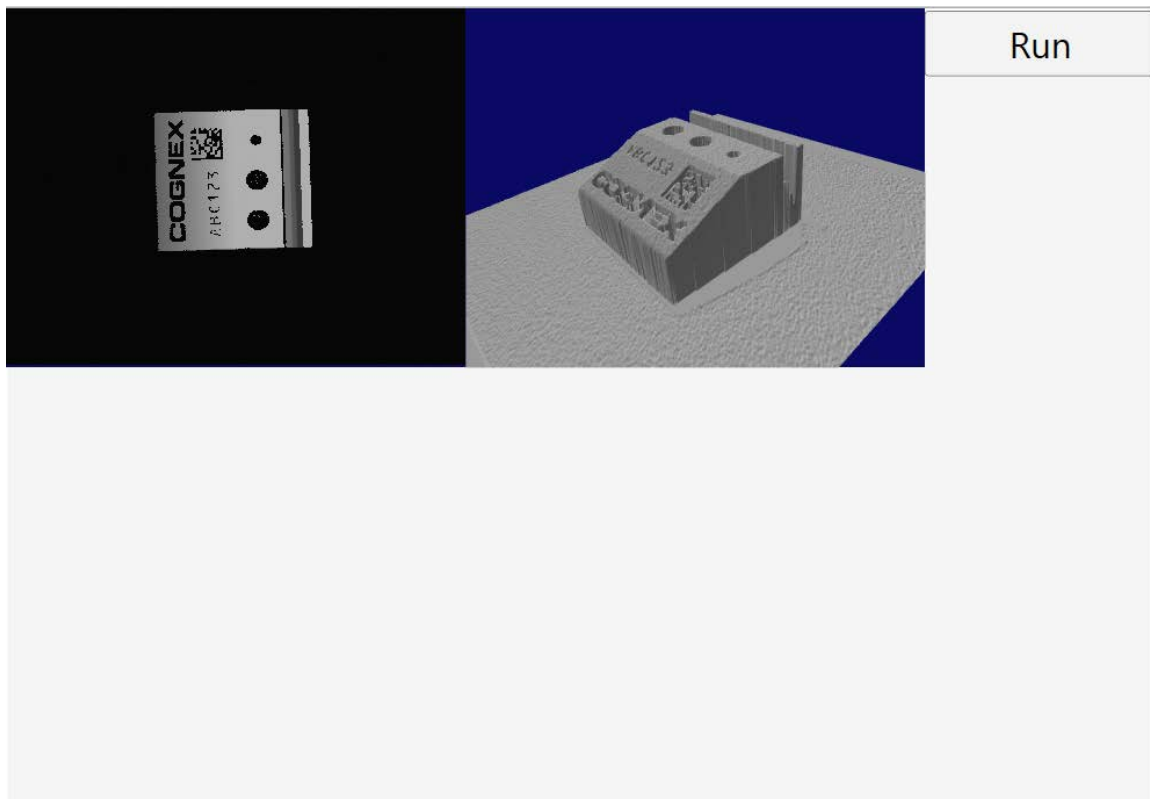
iii. Save the program.

4. Go into Test Mode and Run the Application

- Choose the Test Mode Button and press the Run Once – make sure you move your gantry the complete amount in order to get the full image and avoid a time out.



- Press F11 to go into full screen mode.



Extra Credit: Create a tag for the PMAAlignTool's score. Report the score to your HMI.