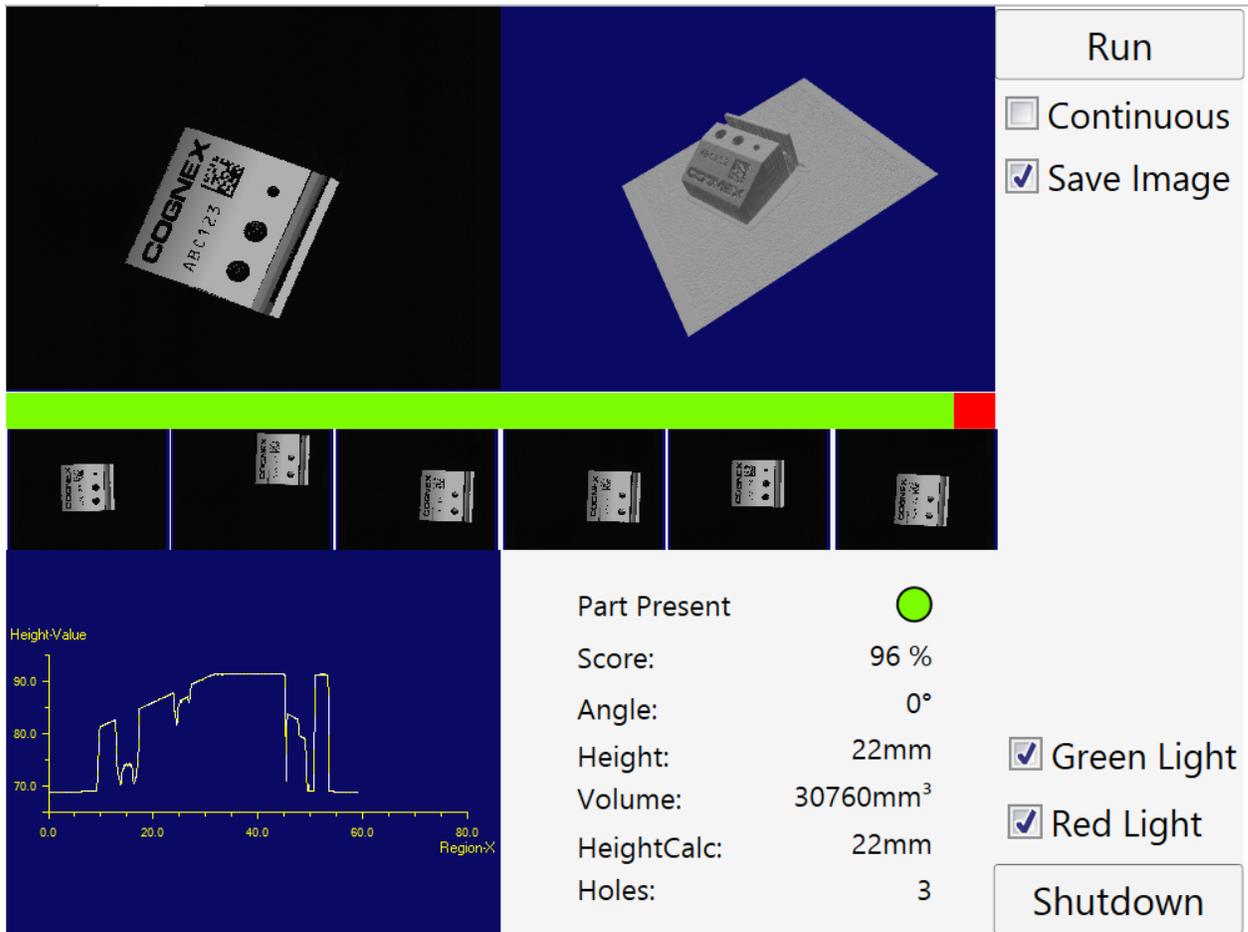


**Cognex Designer– Section 10**  
**Deployment Lab**  
**Approximate Duration: 15-30 minutes**

**EXPECTED OUTCOMES:**

- Save images to a database file
- Deploy the application

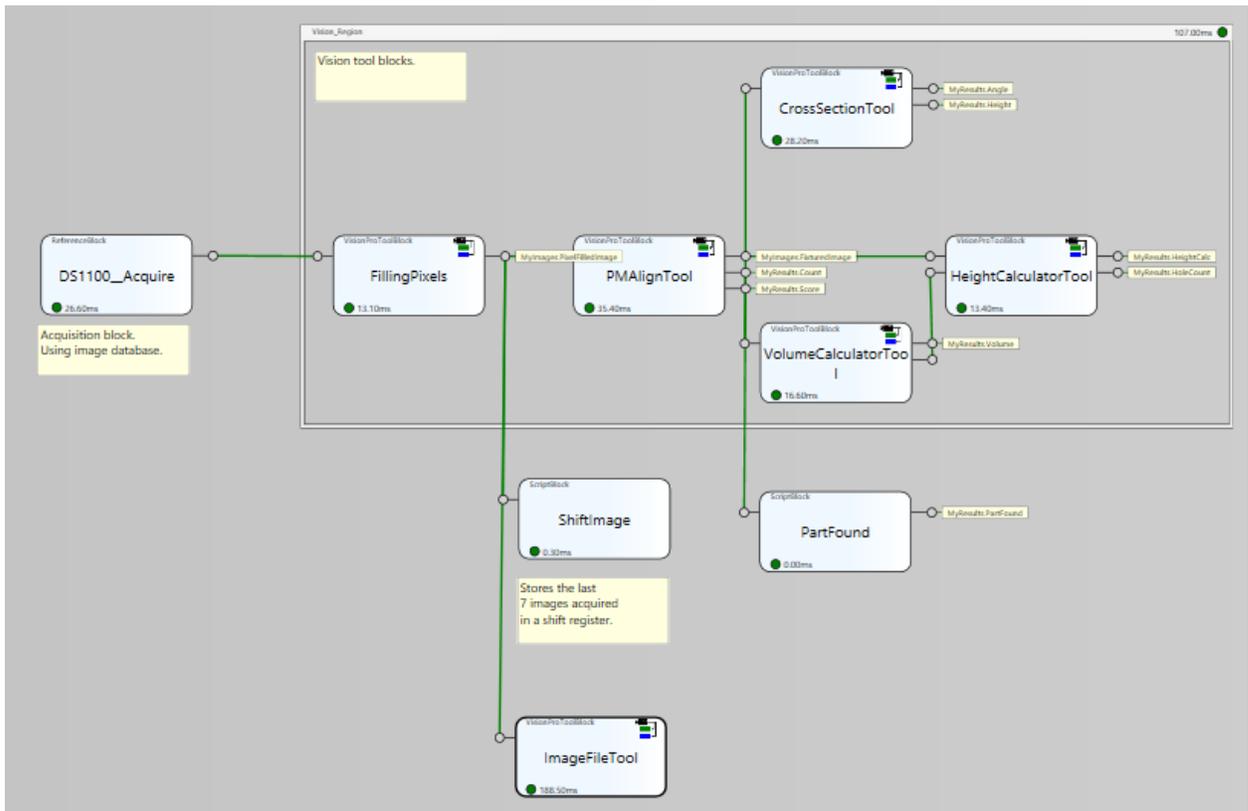
**EXPECTED VISUAL RESULT:**



The screenshot displays the Cognex Designer software interface. At the top left, a 3D model of a rectangular part is shown against a black background. To its right, another 3D model shows the part on a white surface against a blue background. Below these is a horizontal bar with a green segment and a red segment. Underneath the bar is a row of six small image thumbnails. In the bottom left, a graph titled 'Height-Value' plots height (70.0 to 90.0) against 'RegionX' (0.0 to 80.0). The bottom right contains a control panel with the following data:

Part Present	<input checked="" type="checkbox"/>
Score:	96 %
Angle:	0°
Height:	22mm
Volume:	30760mm <sup>3</sup>
HeightCalc:	22mm
Holes:	3

Control buttons include 'Run', 'Continuous' (unchecked), 'Save Image' (checked), 'Green Light' (checked), 'Red Light' (checked), and 'Shutdown'.



## OUTLINE OF LAB:

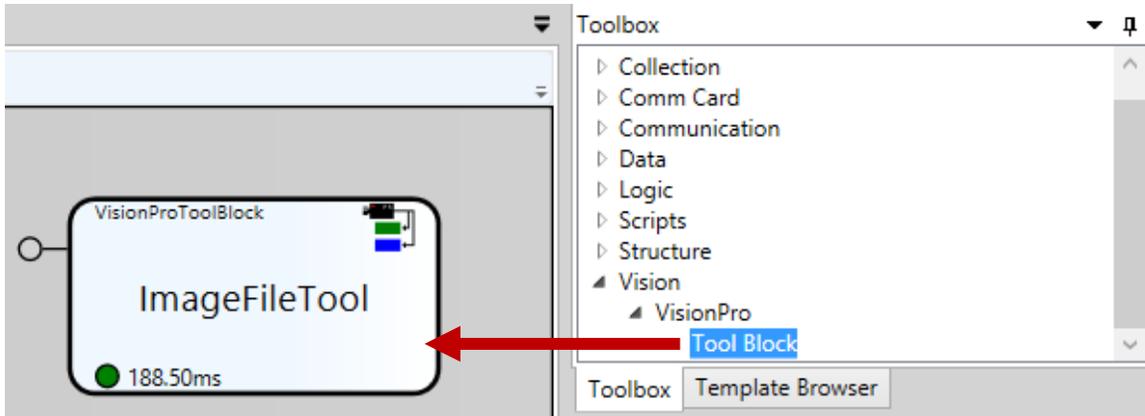
1. Add ToolBlock to save images
  - a. Use the ImageFile Tool
  - b. Control saving through Condition
2. Deploy application
  - a. Add button to shutdown application
  - b. Deploy application

## Steps for the Lab:

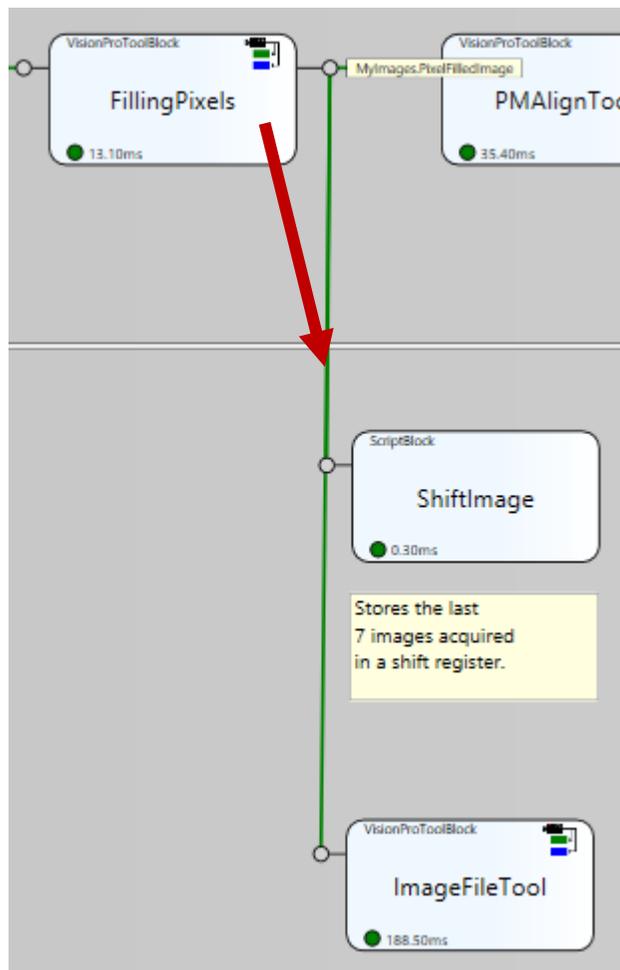
### 1. Add ToolBlock to save images

#### 1. Use the ImageFile Tool

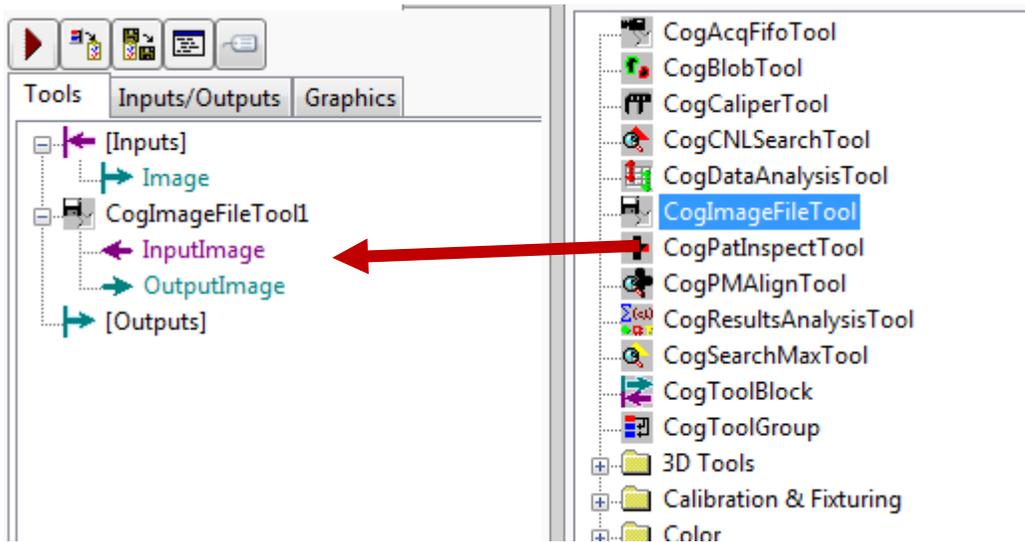
- i. Add another VisioPro ToolBlock to the Sequence and rename it “ImageFileTool”



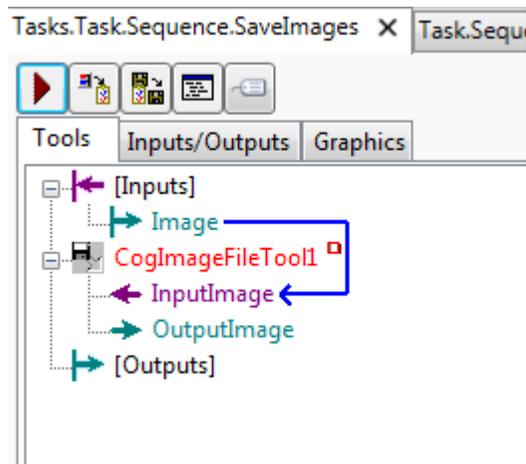
- ii. Attach the output of the FillingPixels to the input pin of the ImageFileTool Tool Block



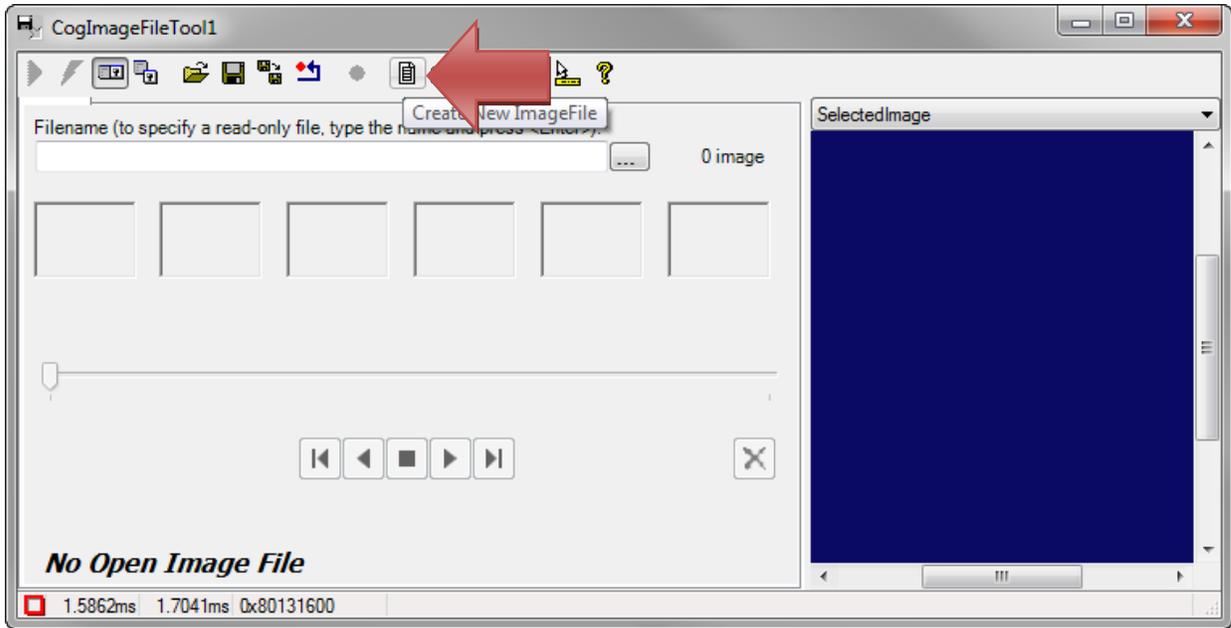
- iii. Open the ToolBlock and add the CogImageFileTool to the program. Make sure you run the ToolBlock once to get in the image.



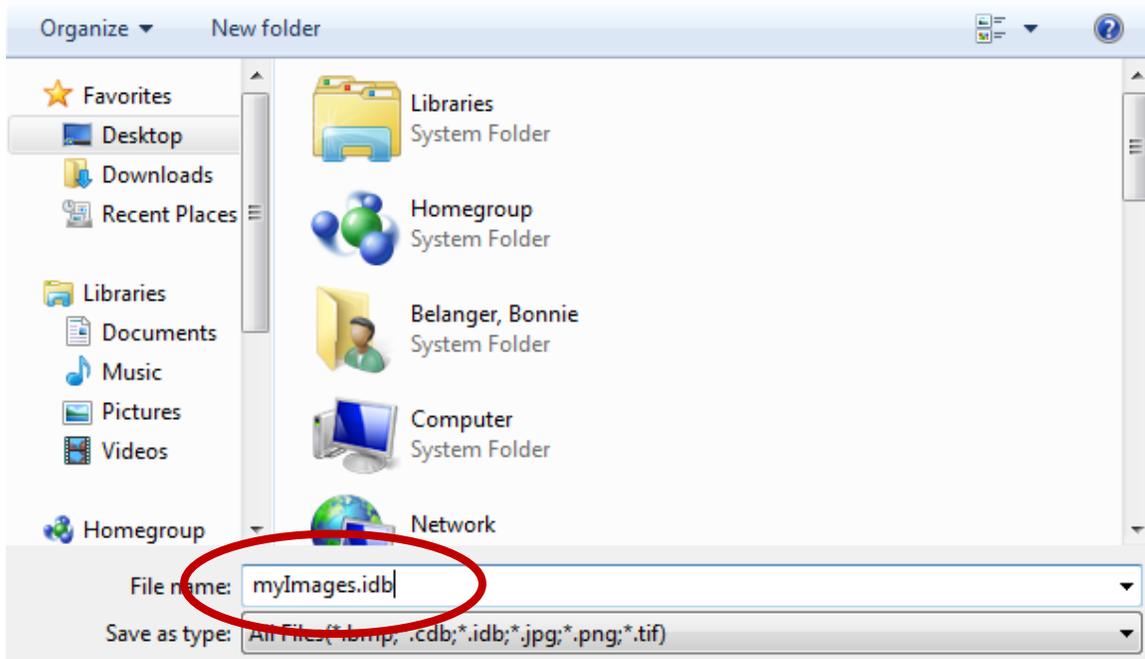
- iv. Connect the Image to the InputImage of the ImageFile tool.



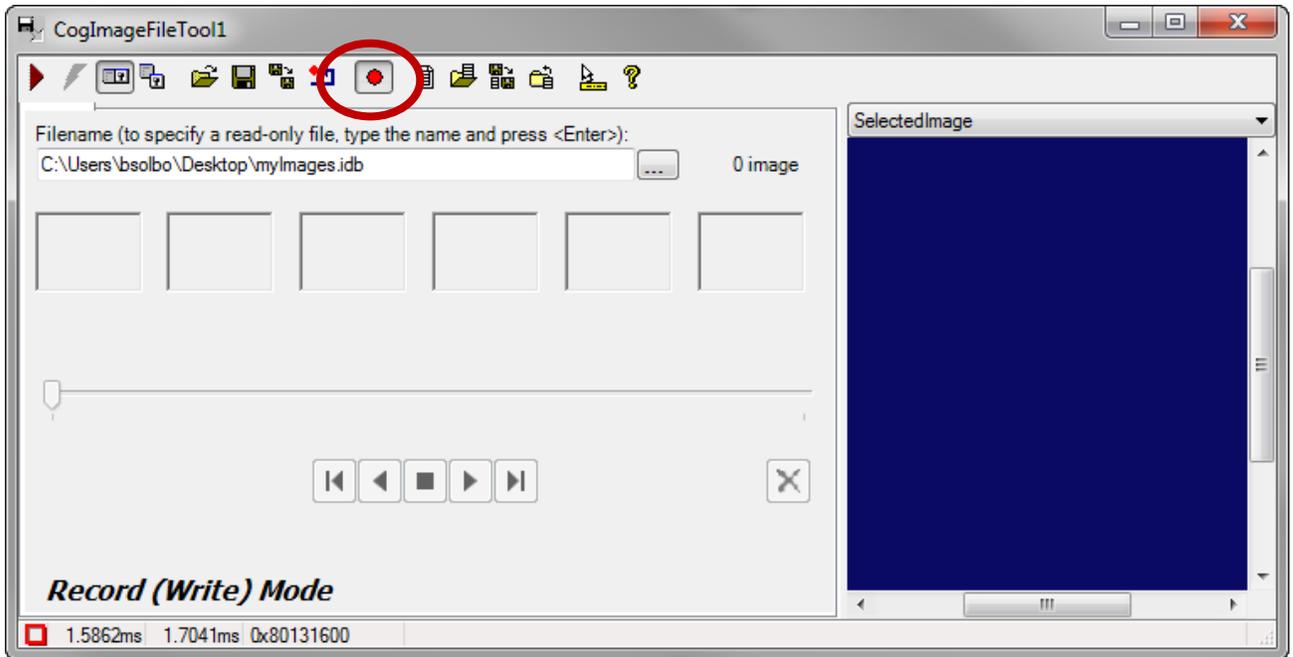
- v. Open the ImageFileTool and select New Database.



- vi. Point to your desktop and give the file a name like “myImages.idb”. Make sure you state .idb or it will make a .bmp file.



- vii. Record mode should automatically be activate, if not, put the ImageFileTool into Record mode by pressing the round red dot.



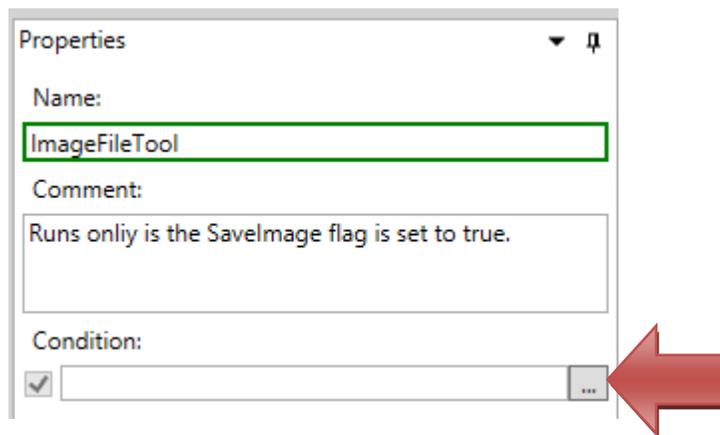
- viii. Run the Sequence a few times to get images fed into the database

## 2. Control saving through Condition

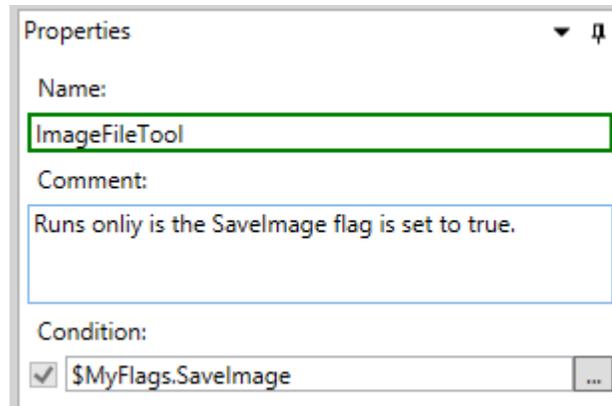
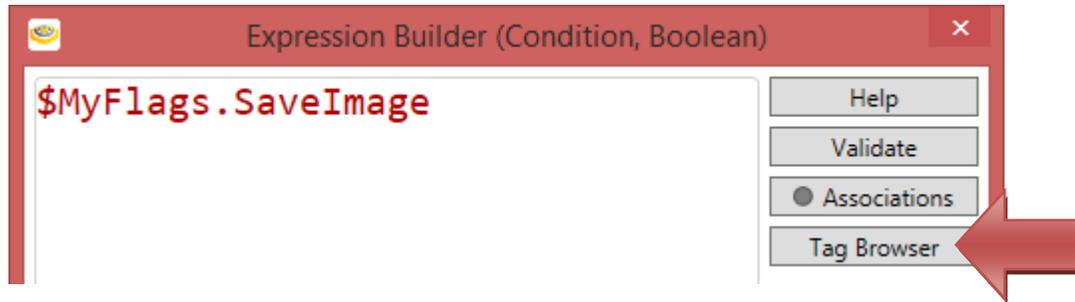
- i. Go to the Tag Manager and create a tag name “Global.SaveImage”. Leave it as Boolean and False for the default value.

MyFlags.SaveImage	Boolean	F
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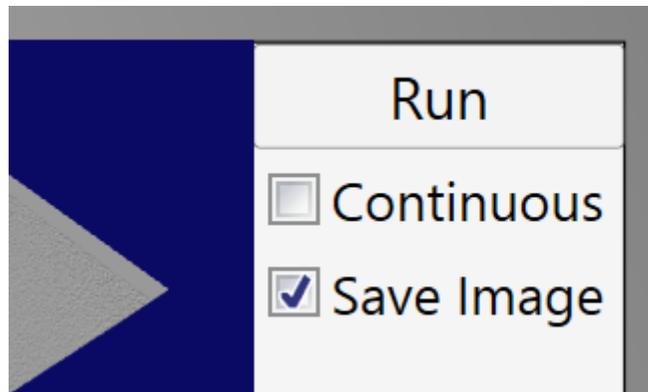
- ii. Go to the Sequence and click on the Properties of the ImageFiletool block and select Condition.



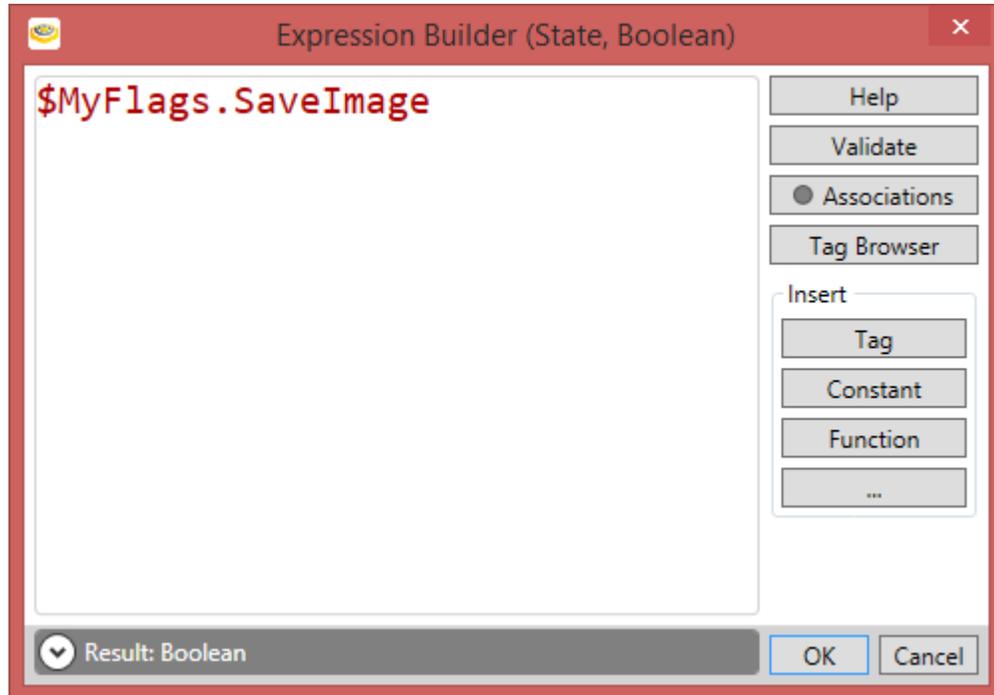
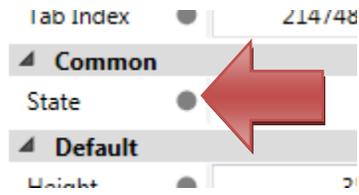
- iii. Reference the \$Global.SaveImage tag in the Expression Builder. Now the ToolBlock will only run when \$Global.SaveImage is true.



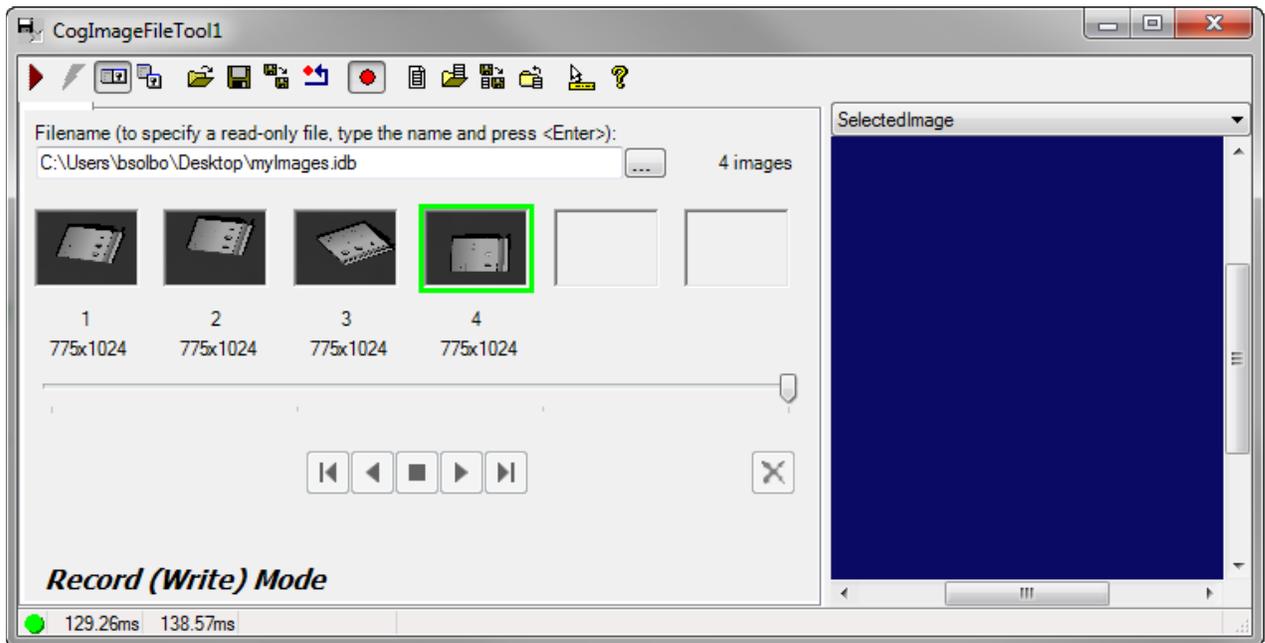
- iv. Go to the Main page of your HMI and add a checkbox and name it "Save Image"



- v. Have the “State” Property reference the \$Global.SaveImage tag.



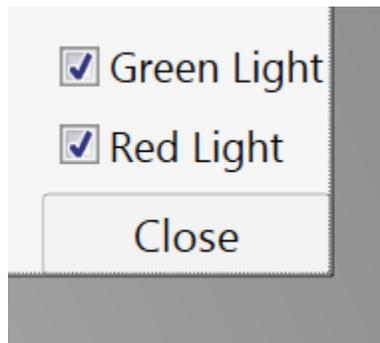
- vi. Go into Test Mode and run the application a few times with the Save Image checkbox both checked and unchecked. Go back out of Test Mode and go into the ImageFileTool block to open the CogImageFileTool to see the images saved.



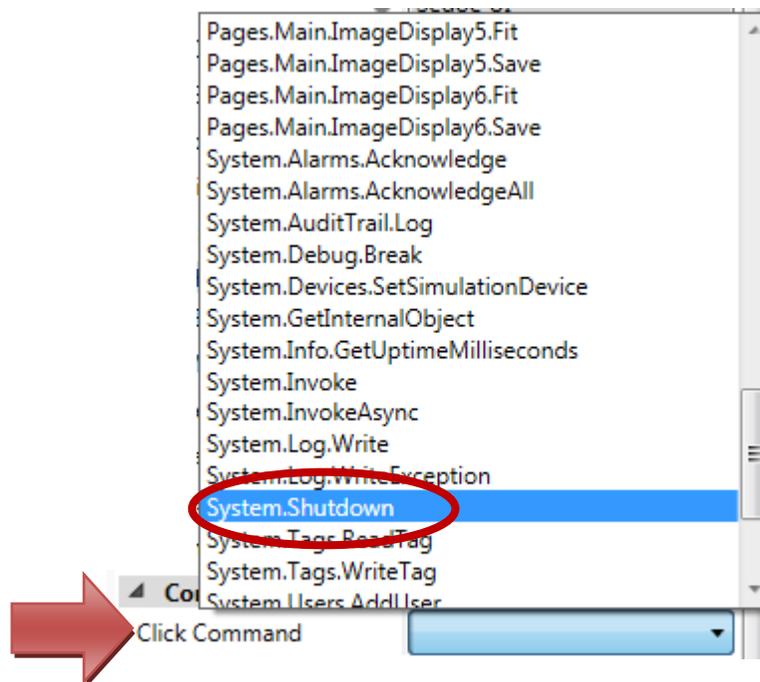
## 2. Deploy application

### 1. Add button to close application

- i. Add a button to the Main page HMI and have the text say “Close”

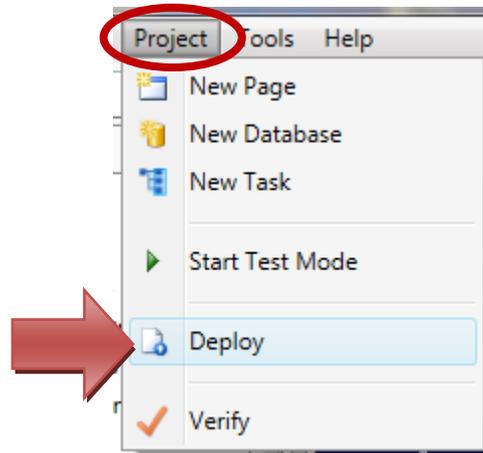


- ii. For the Click-Command, have it reference `$$System.Shutdown`

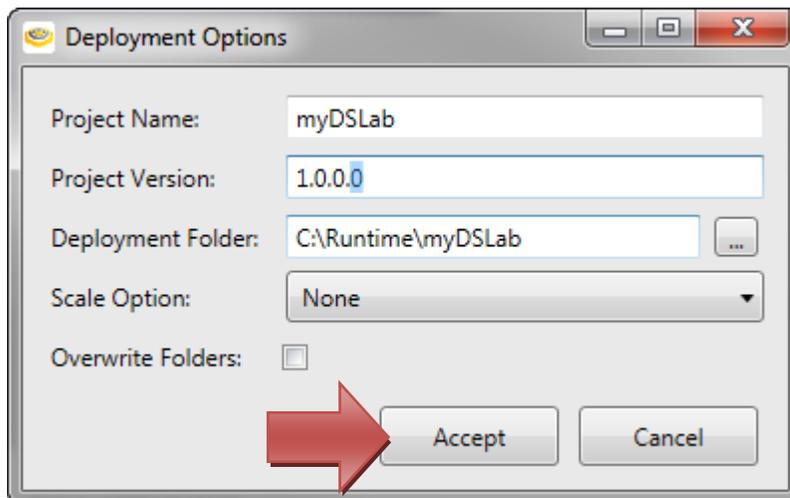


## 2. Deploy application

- i. Save the application. Then go under Project -> Deploy



- ii. State the path and name where you want to deploy it. Then press **Accept**.



- iii. Note that an .EXE of your file is on the desktop. Close down Cognex Designer and run the .EXE file.



The software interface is divided into several sections:

- Top Left:** A 3D model of a rectangular part with 'COGNEX' and 'ABC123' printed on its top surface.
- Top Right:** A 3D model of the same part on a light gray surface against a dark blue background.
- Right Panel:** A control panel with a 'Run' button at the top. Below it are two checkboxes: 'Continuous' (unchecked) and 'Save Image' (checked).
- Bottom Left:** A height profile graph with 'Height-Value' on the y-axis (ranging from 70.0 to 90.0) and 'Region-X' on the x-axis (ranging from 0.0 to 80.0). The graph shows a yellow line representing the part's profile.
- Bottom Right:** A data panel with the following information:
  - Part Present:  (green circle)
  - Score: 96 %
  - Angle: 0°
  - Height: 22mm
  - Volume: 30760mm<sup>3</sup>
  - HeightCalc: 22mm
  - Holes: 3
- Bottom Right (Controls):** Two checkboxes: 'Green Light' (checked) and 'Red Light' (checked). A 'Close' button is located at the bottom of this section.