

SBSx Vision Sensor commissioning with ALLEN-BRADLEY controller

This Application Note gives detailed procedure to Integrate SBSx-Vision Sensor with Allen-Bradley controller in EtherNet-IP network. Also example-project which explain to read QR Code Data by controller command.

SBSI
SBSC

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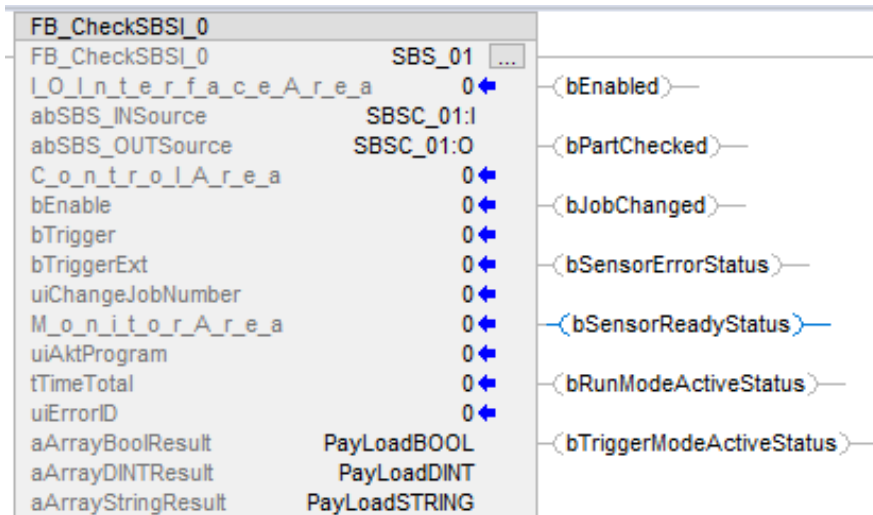
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1 Introduction

The main roll of this application note is to establish communication between vision sensor and Allen-Bradley controller through EtherNet-IP network. The below function block is used to give sensor trigger command, job number change, know the active job number, know error ID, know sensor working mode & to read/write values in sensor.

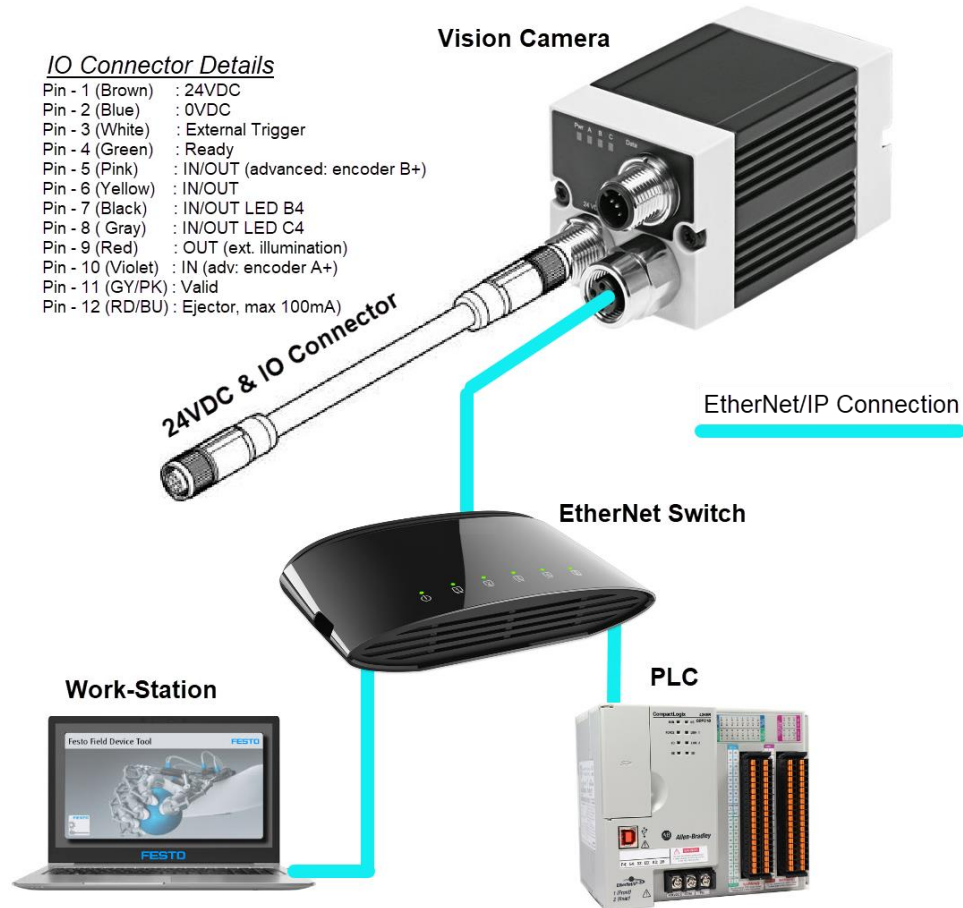


1.1 Hardware & Software Requirements

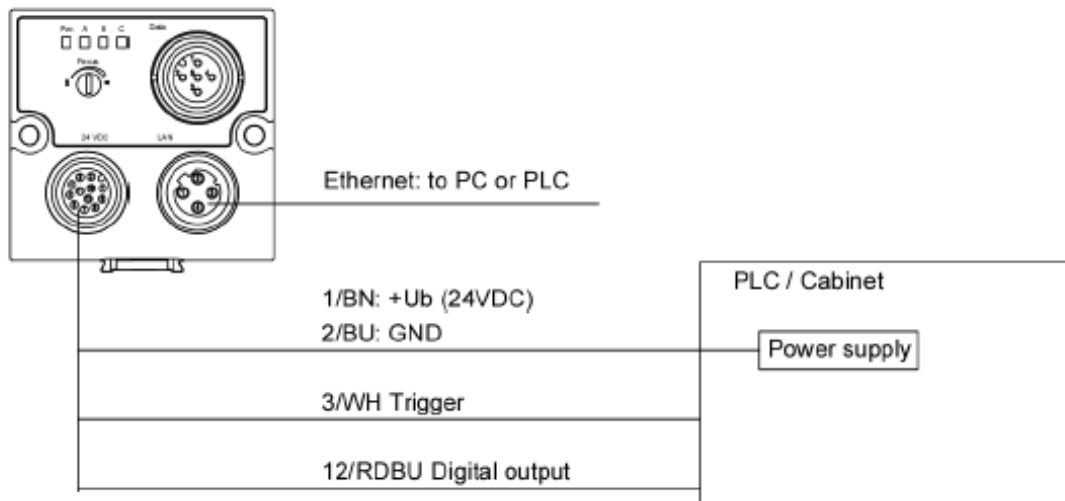
Device Name	Version	Device Type
SBSC Vision Sensor	1.23.2.2	Hardware
Ethernet Connection Cable	NEBC-D12G4-ES-1-S-R3G4-ET	Hardware
USB Cable	9300-USBCBL-ABHR2 SERA	Hardware
Power & IO Connection Cable	NEBS-M12G12-KS-5-LE2	Hardware
Allen-Bradley PLC	Version Free	Hardware
Vision Sensor Device Manager	1.23.2.2	Software
BootP-DHCP Tool	Version Free	Software
AB Studio 5000	Version Free	Software

Table 1.1: Hardware & Software Requirements

1.2 Communication Architecture



1.3 External Connection Details

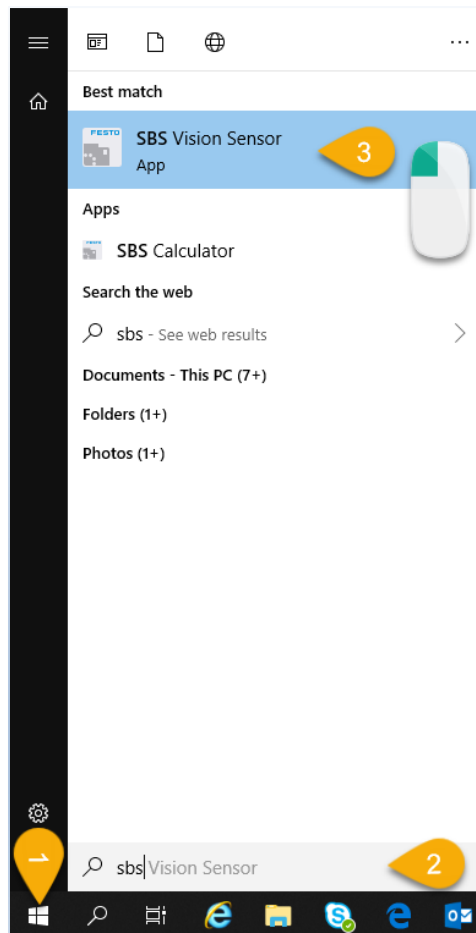


2 Hardware Configuration

2.1 SBSC Sensor IP Address Configuration

Before hardware configuration of vision sensor make sure user has done the hardware wiring connection as shown in chapter - 1.2.

Step – 1

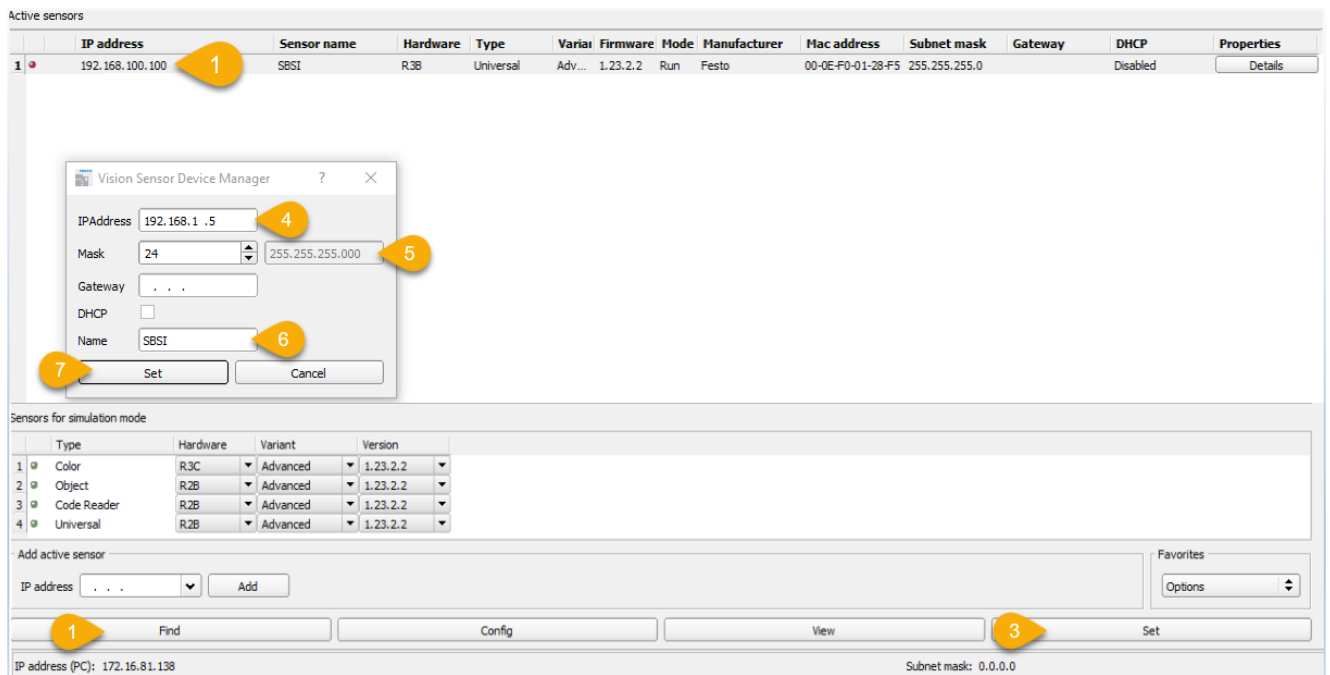


1. Select **“Windows Start Button”**.
2. Type **“SBS”** on search box if the software is installed in PC it visible as shown in step – 3.
3. Select **“SBS Vision Sensor”** software from start menu.



Note

- User can also reach SBS Vision Sensor software in windows from Start > Festo Software > SBS Vision Sensor

Step -2

1. Select **“Find”** button from tail bar to refresh the connected device list.
2. Select correct sensor by verifying **“MAC”** address of the device.
3. Select **“Set”** button from tail bar to set the IP address of the device.
4. Type the IP address of the device in **“IP Address”** field.
5. Type the mask value in **“mask address”** tab. Ex 24 = 255.255.255.0
6. Enter the **“name of the device”**.
7. Select **“Set”** button to confirm & set the configured values.

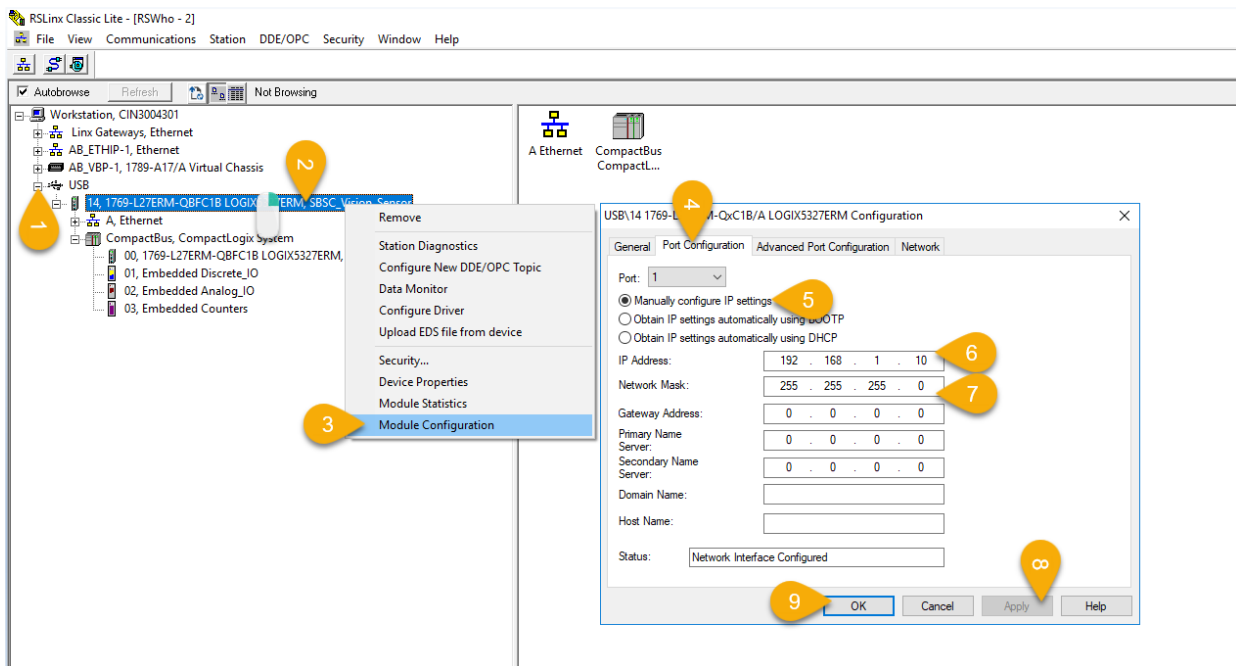
2.2 IP Address Configuration for Allen-Bradley Controller Through USB Cable

Before making the IP address configuration in Allen-Bradley controller make sure user has connected USB serial cable between PLC & PC. Once communication connection done, Open RSLinx software from Strat Window > Rockwell Automation Software > RSLinx.



Note

- This chapter explains IP address configuration of Allen-Bradley PLC via USB Serial cable. If USB cable not available user can also try to configure IP address via BootP-DHCP Tool by using MAC address with Ethernet cable as Shown in Chapter 2.3.



1. Expand the “**USB driver**” folder by clicking plus symbol of the folder.
2. Select the right controller and right click.
3. Select “**Module Configuration**” from right click menu.
4. Select “**Port Configuration**” tab from newly opened configuration window.
5. Select “**Manually configure IP settings**” to enable static IP mode in controller.
6. Enter the new “**IP address**” to the controller.
7. Enter the “**Subnet mask**” to the controller.
8. Click “**Apply**” to confirm the configuration.
9. Click “**OK**” to close the configuration window.



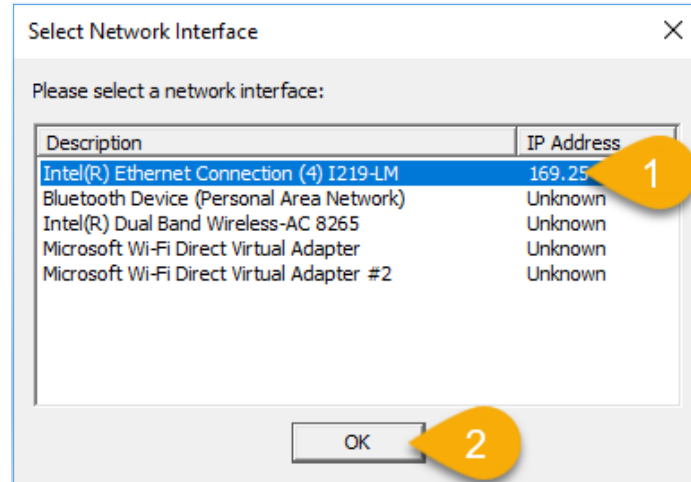
Note

- After IP address configuration power restart the controller to ensure static IP mode is enabled & to ensure correct IP address is assigned.

2.3 IP Address Configuration for Allen-Bradley Controller Through EtherNet Cable

This step gives detailed explanation about IP address configuration of Allen-Bradley PLC through BootP-DHCP Tool by using LAN cable. This method of IP configuration will be used when Bootp or DHCP option are enabled in PLC communication settings. Note the MAC ID of the PLC before starting of IP configuration process. The MAC ID of this sample code PLC is E4:90:69:BE:BF:5C.

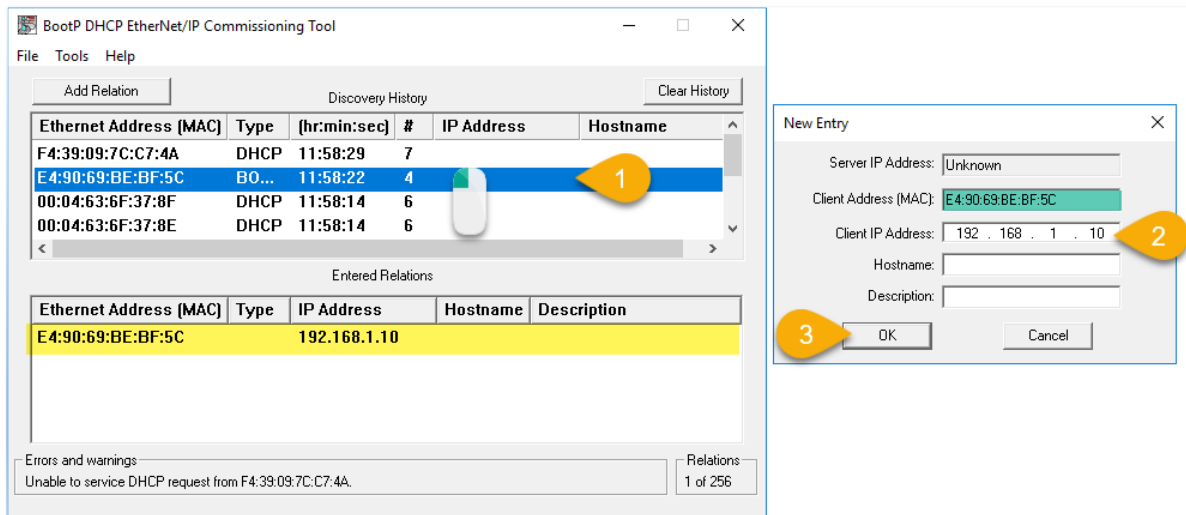
Step -1



Open IP Configuration software from Windows Start > Rockwell Software Tool > BootP-DHCP Tool.

1. Select Network Interface Adapter card. Here selection was done for PC local LAN connection .
2. Select “OK” to conform the selection.

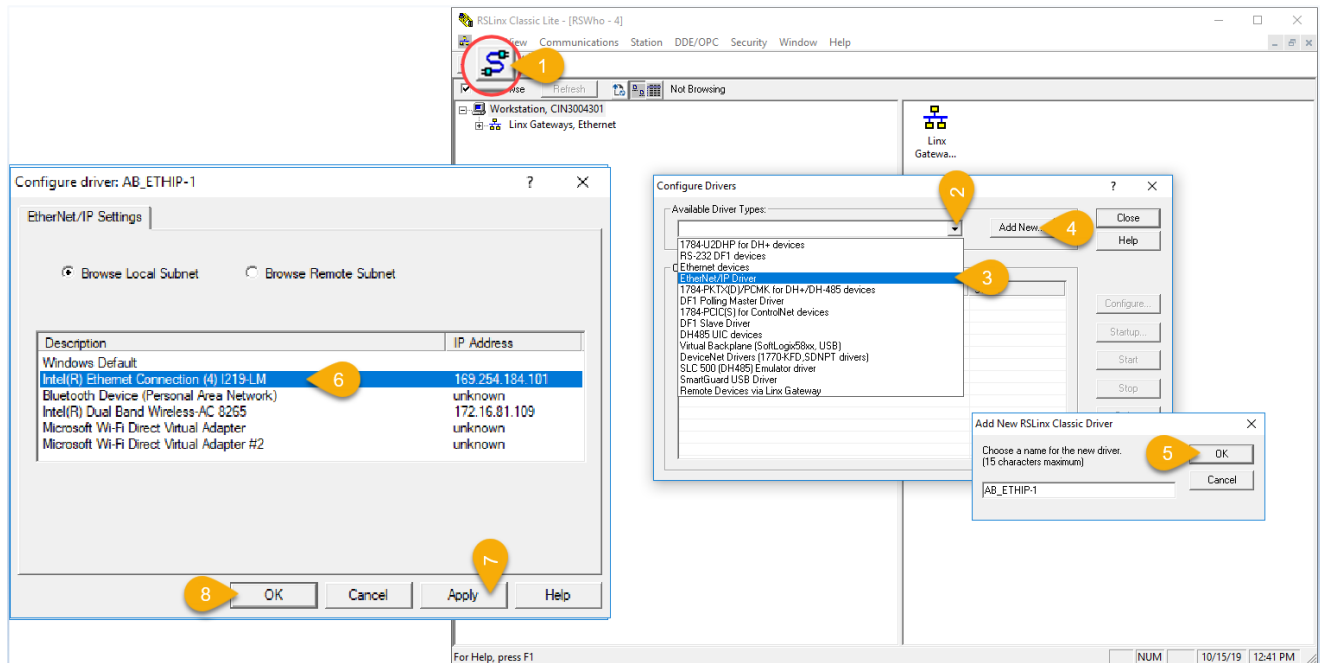
Step - 2



1. Select “**MAC address**” of the user PLC witch noted initially.
2. Enter the new IP address of the PLC. Note, PLC IP address series must be same series as vision sensors IP.
3. Select “OK” button to confirm the new IP address.

**Note**

- Once IP address is conformed as highlighted in yellow color new IP address and its respective MAC ID will update in Entered Relations window.
- At this point only IP address is assigned for PLC, But still the PLC communication setting is in BootP mode. It leads PLC to automatically erase its IP address during power restart. So Step-4 is important to avoid this situation.

Step – 3

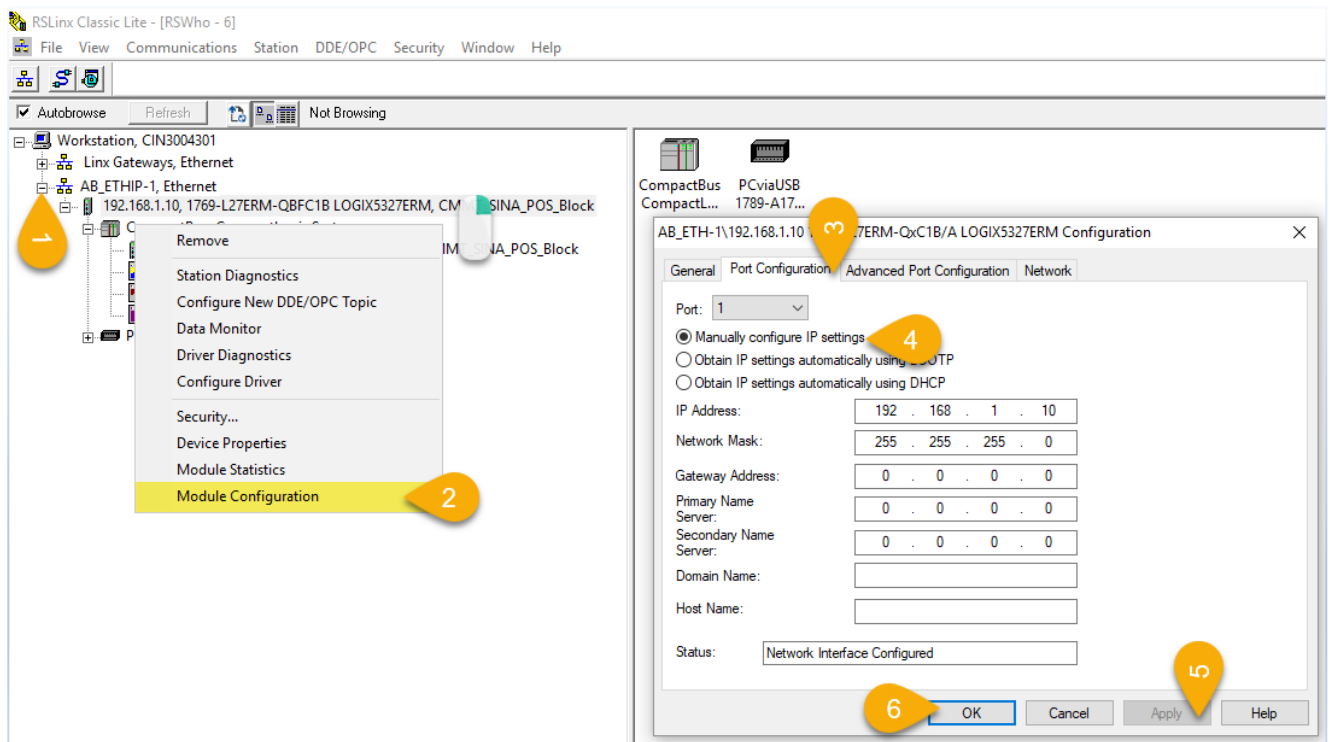
It's important to configure a drive in RSLinx software to establish the connection with PLC. Open the RSLinx software from Windows Start > Rockwell Software > RSLinx.

1. Select **"Configure Drives"** symbol from tool bar.
2. Click Drives **drop-down menu** from configure driver's window.
3. Select **"Ethernet/IP Drive"** from drop-down list.
4. Click **"Add New"** button from configure driver's window.
5. Click **"OK"** button with default name.
6. Select **EtherNet interface card**. Here selection is done for local LAN port by selecting **"Intel(R) Ethernet Connection (4) I219-LM"**.
7. Click **"Apply"** button to confirm the configuration.
8. Click **"OK"** button to confirm and close the configuration.

**Note**

- Make sure IP series of user work station must be same series as like PLC IP address series.

Step – 4



This step will describe to change PLC EtherNet/IP port setting from BOOTP mode to Static IP mode.

1. Open the drive folder witch created in previous step by clicking on plus symbol.
2. Select PLC Icon and right click to select **“Module Configuration”** option.
3. Select **“Port configuration”** tab from newly opened configuration window.
4. Select **“Manual configuration IP settings”** to enable static IP mode.
5. Click **“Apply”** button to confirm the changes.
6. Click **“OK”** to confirm and close the pop-up window.

PLC communication settings are done at this stage. Ensure once static IP mode is activated by restarting PLC.

3 Software Configuration

3.1 Vision Sensor Device Manager Configuration

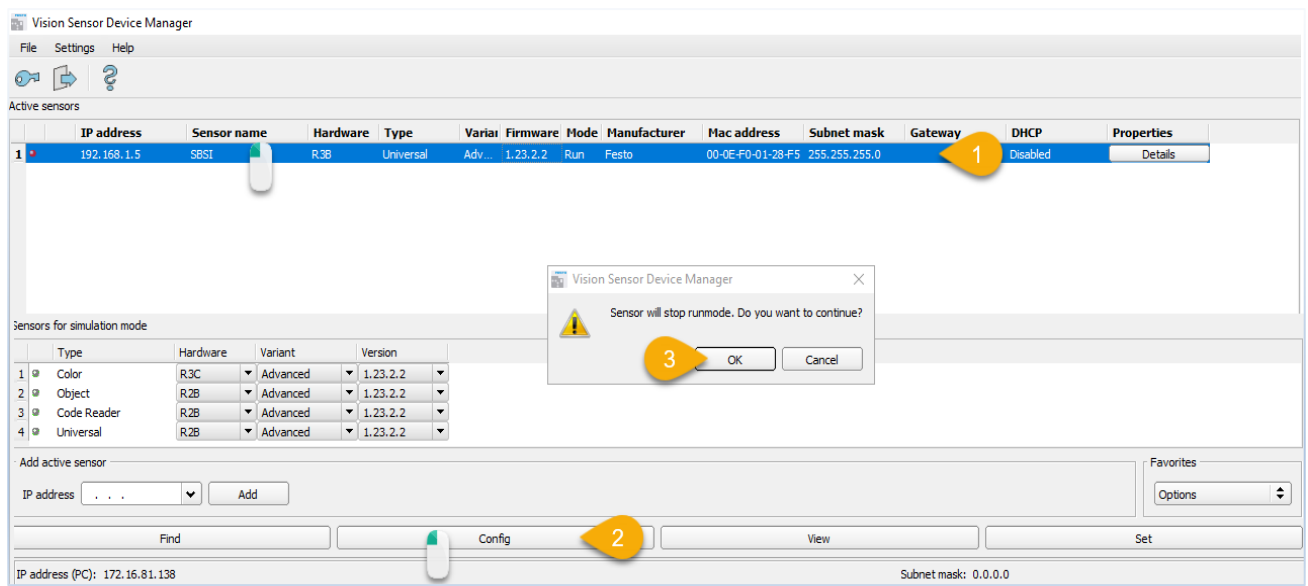
This chapter explains about vision sensor application configuration in “Vision Sensor Device Manager” tool. For an example here we have explained to read QR code data through camera.



Note

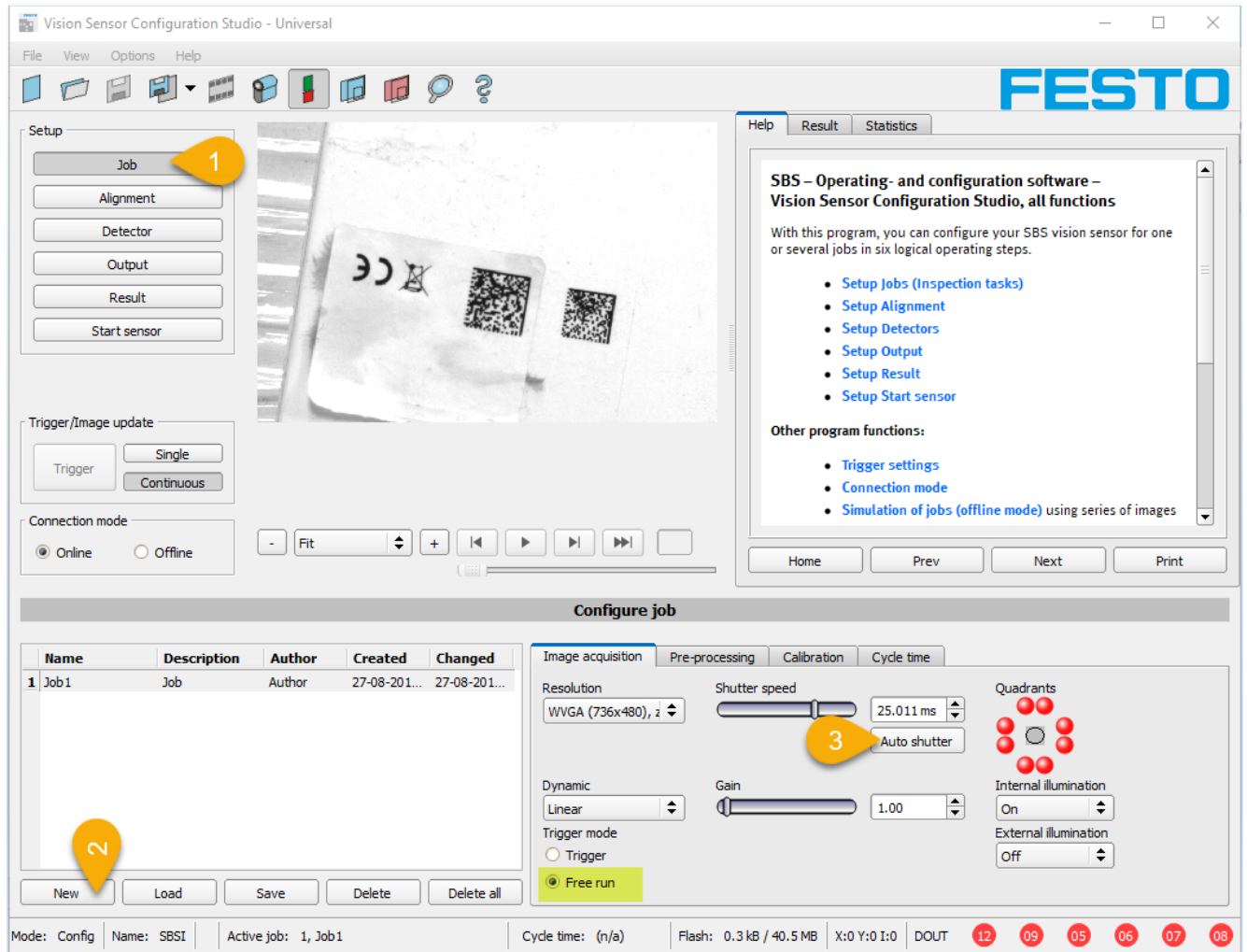
- For more information about other application configuration details like quality check & pattern match please refer SBSC user manual on Festo’s website.

Step – 1



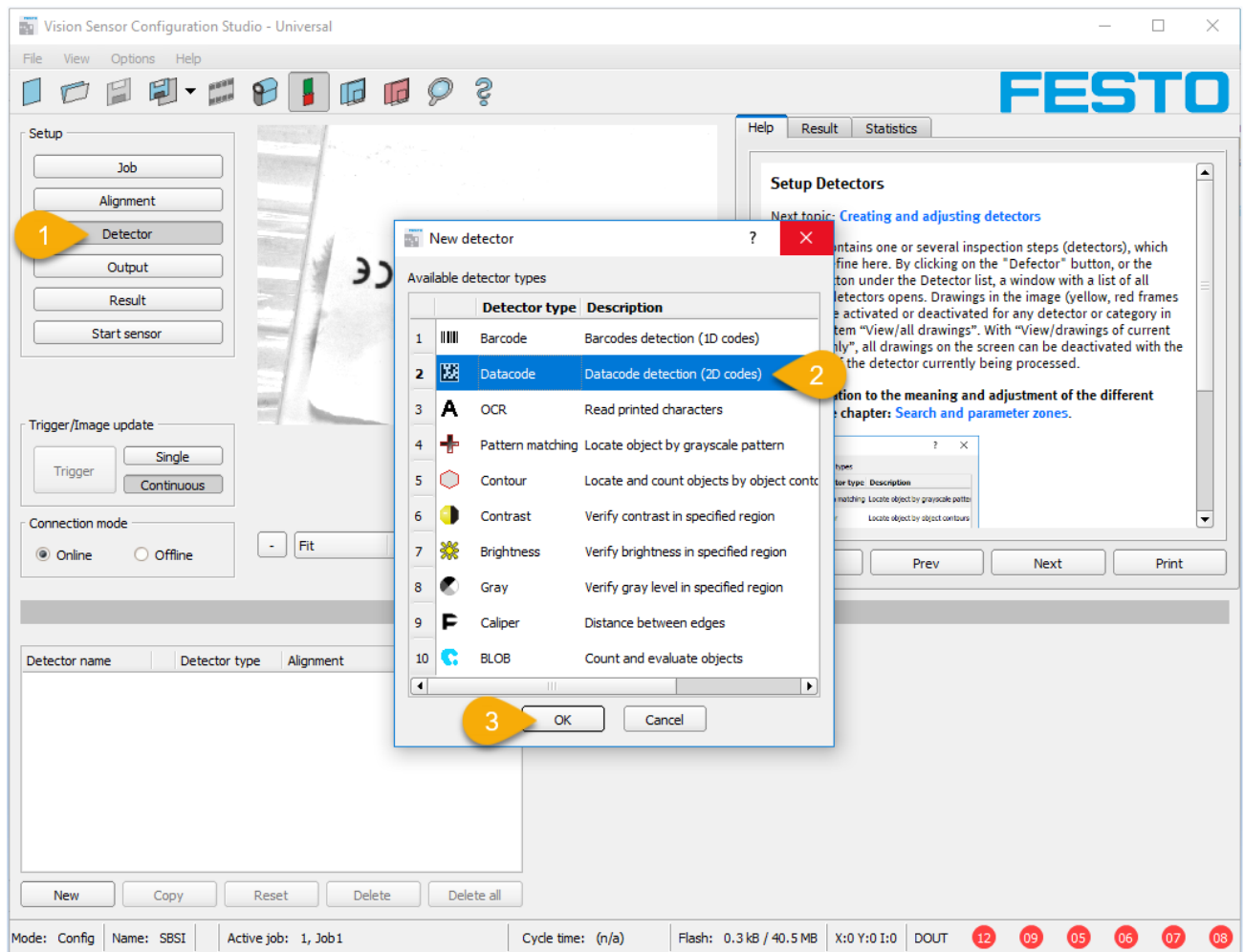
Open “Vision Sensor Device Manger” as said in chapter – 2.1 and user can see window as show above picture.

1. Select the sensor from device list.
2. Click “**Config**” button form bar.
3. Select “**OK**” button from pop-up dialog box to start configuration mode.

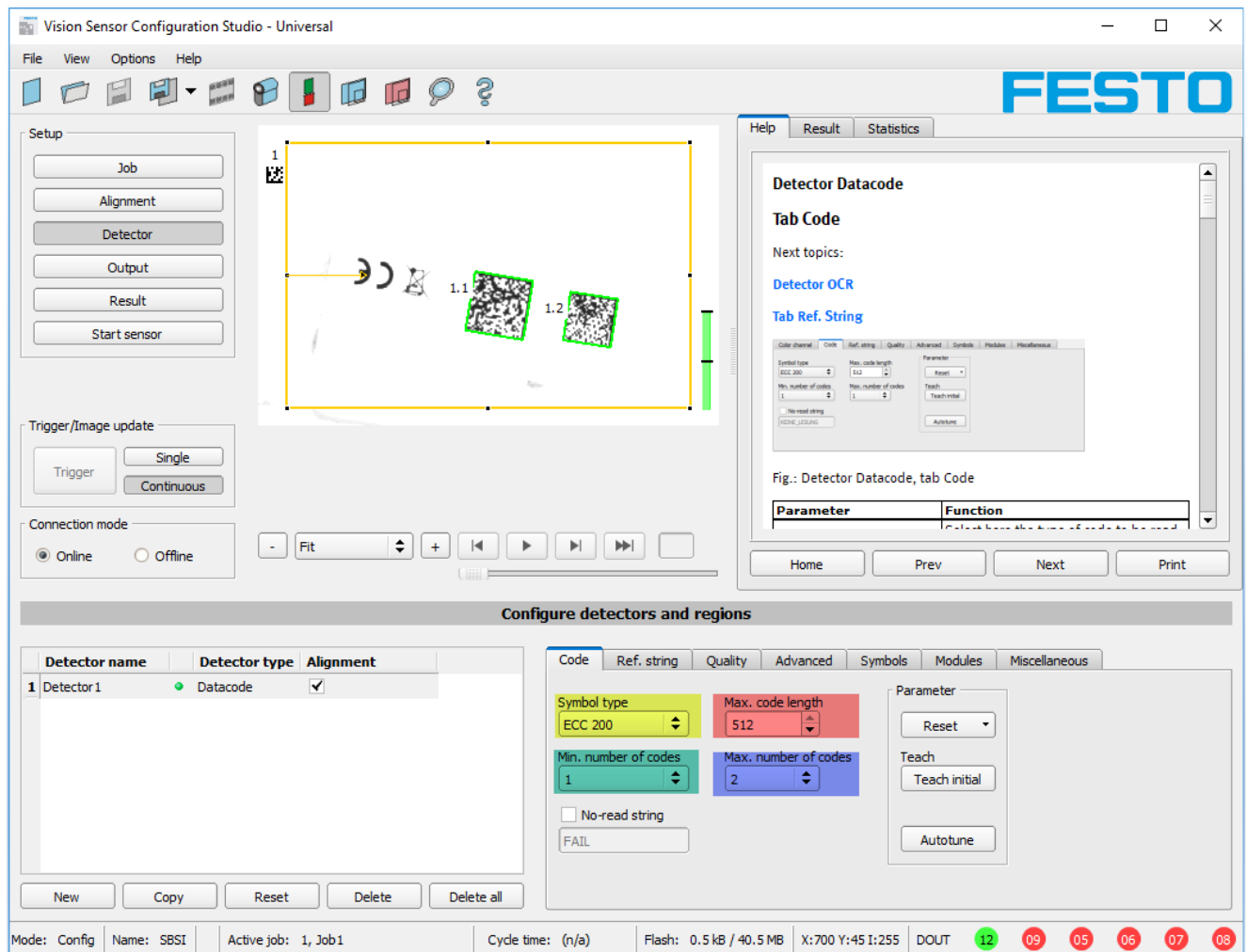
Step – 2

1. Select “**Job**” button to view job property window.
2. Click “**New**” button to create new job in sensor. (Maximum 255 different jobs are possible)
3. Click “**Auto Shutter**” button to auto tune the shutter speed.

After above points user need to adjust the focus lens dial for sharpen the picture & adjust the aperture dial for good amount of light in picture.

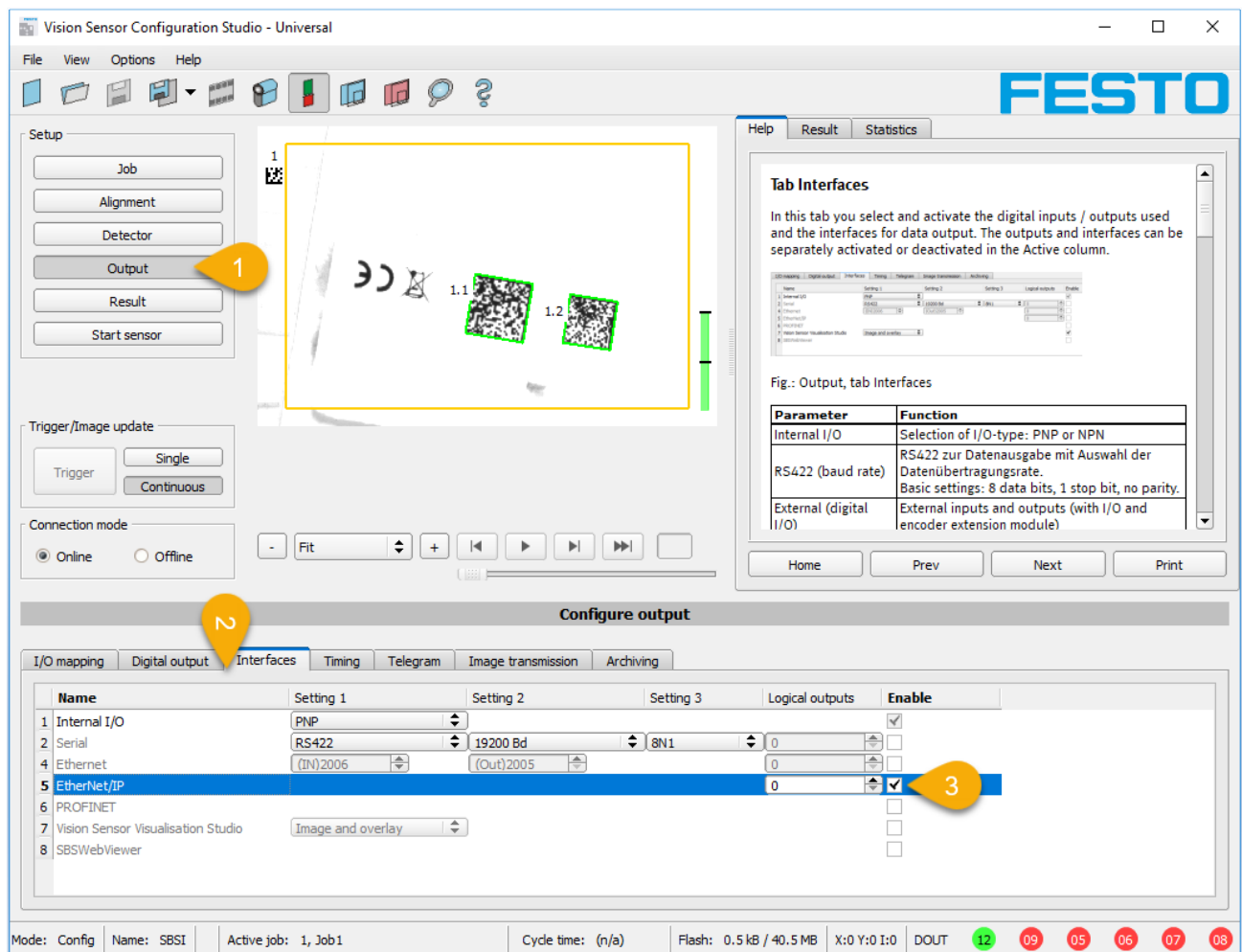
Step – 3

1. Select **"Detector"** from setup menu.
2. Select **"Datacode"** from New Detector menu.
3. Click **"OK"** to confirm the selection.

Step – 4

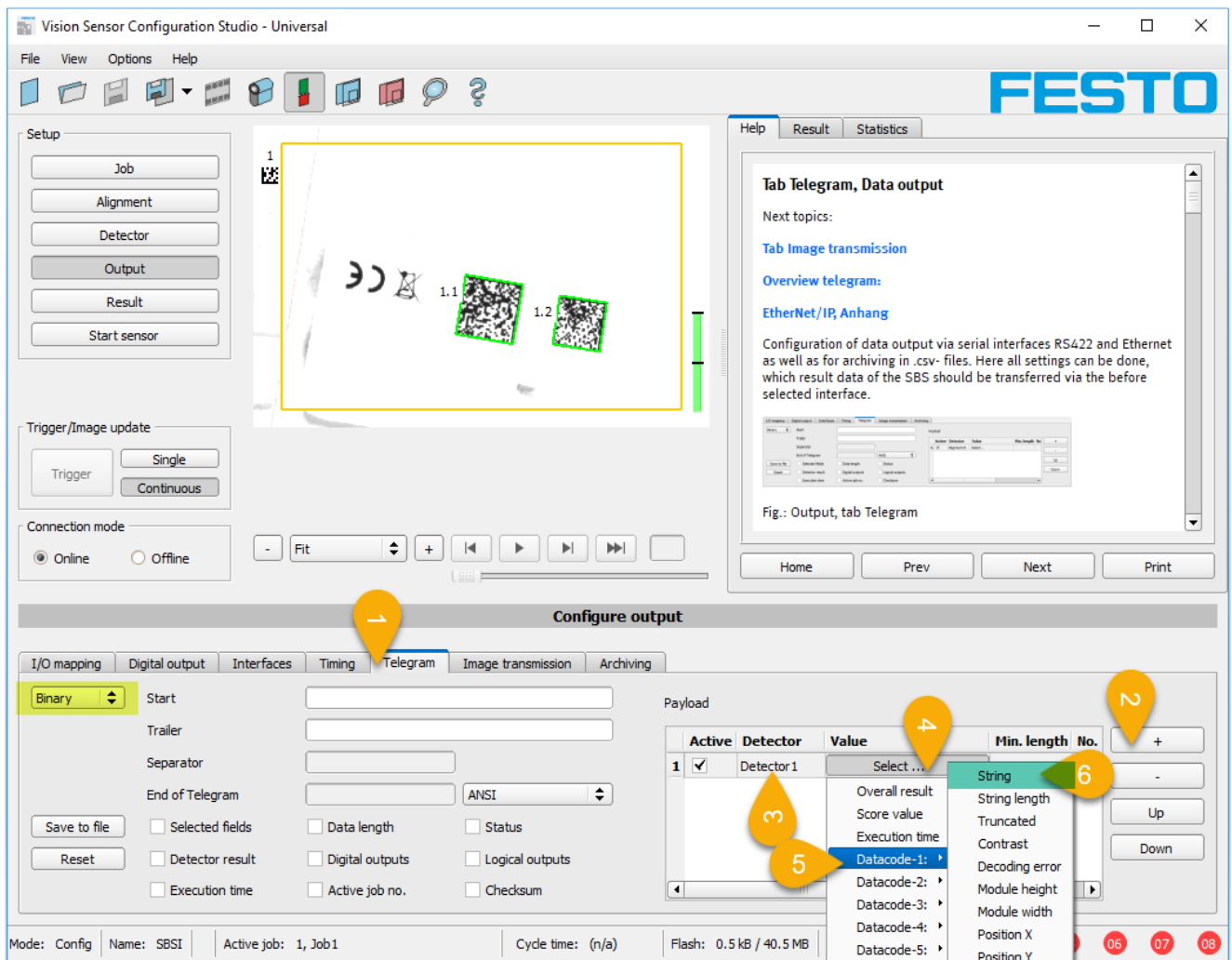
Once detector is selected detectors configuration parameters will be available in bottom left corner of the configuration tool.

Yellow colour highlights the QR code type selection, Red colour highlights maximum length of reading characters, Green colour highlights minimum number of read QR code & Blue colour highlights maximum number of QR code to read.

Step – 5

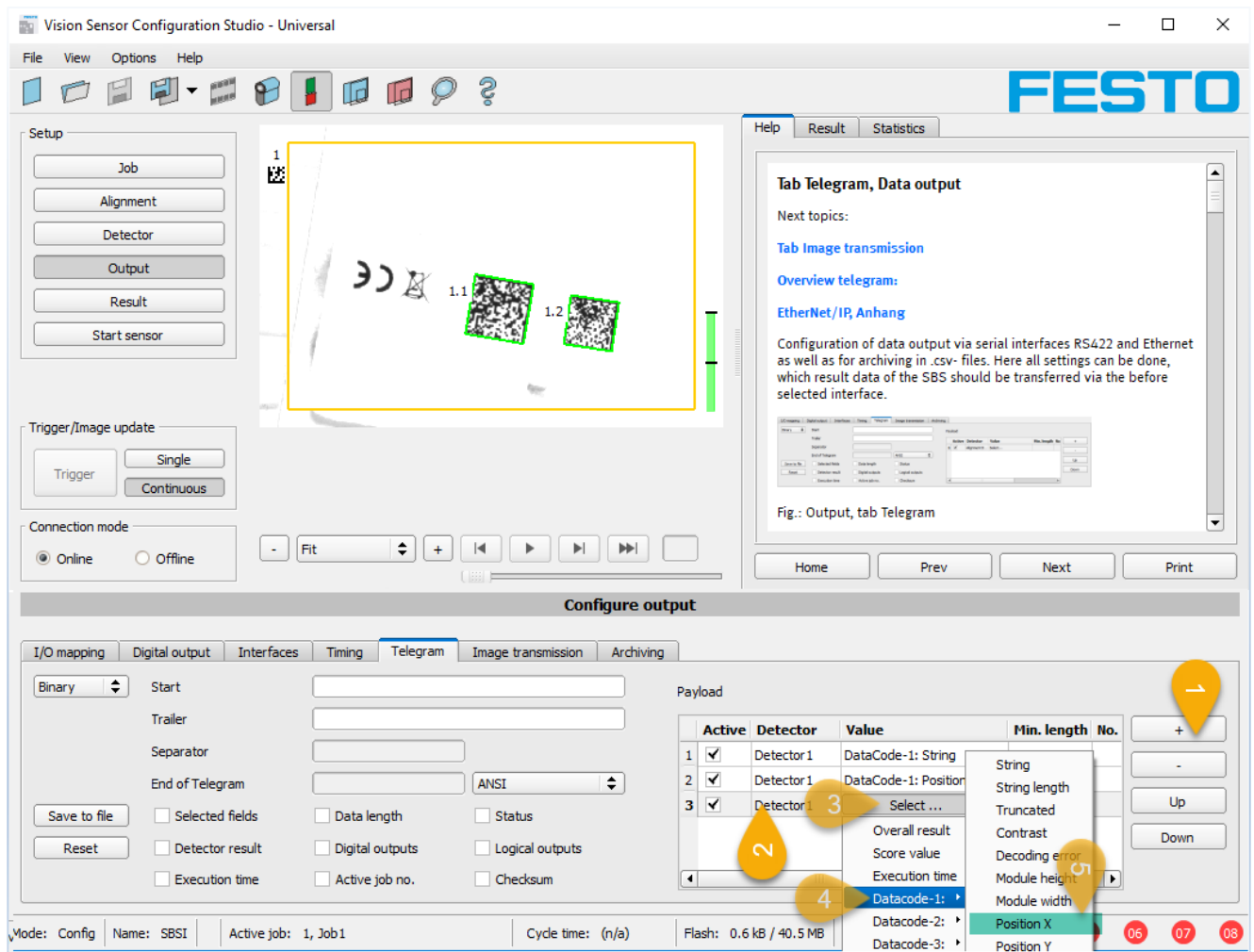
Output setup tab is used to configure the IO's function, Interface protocol & telegram payload data of the sensor.

1. Select **"Output"** button from setup menu.
2. Select **"Interface"** tab from Output configuration tabs to configure protocol type.
3. Enable **"EtherNet /IP"** to communicate sensor with Allen-Bradley controllers.

Step – 6

Here we going to take look on how to configure payload data . Payload define the content of data which has to be transferred to the PLC. As per our example here we are adding the string data of the detector in payload.

1. Select **“Telegram”** tab from output configuration menu. In this step make sure the format of the telegram must be in **“Binary”** as highlighted in yellow colour.
2. Click **“Plus symbol (+)”** button to add the variables.
3. Select Detector
4. Tap the value tab to open the selected detectors elements.
5. Select variable to open sub element drop-down list of selected detectors elements drop-down menu. The QR String is located under the Datacode-1 -> String Value
6. Select the sub element of the detector. As per this example Datacode-1.
7. Select the variable of selected element. As per this example string.

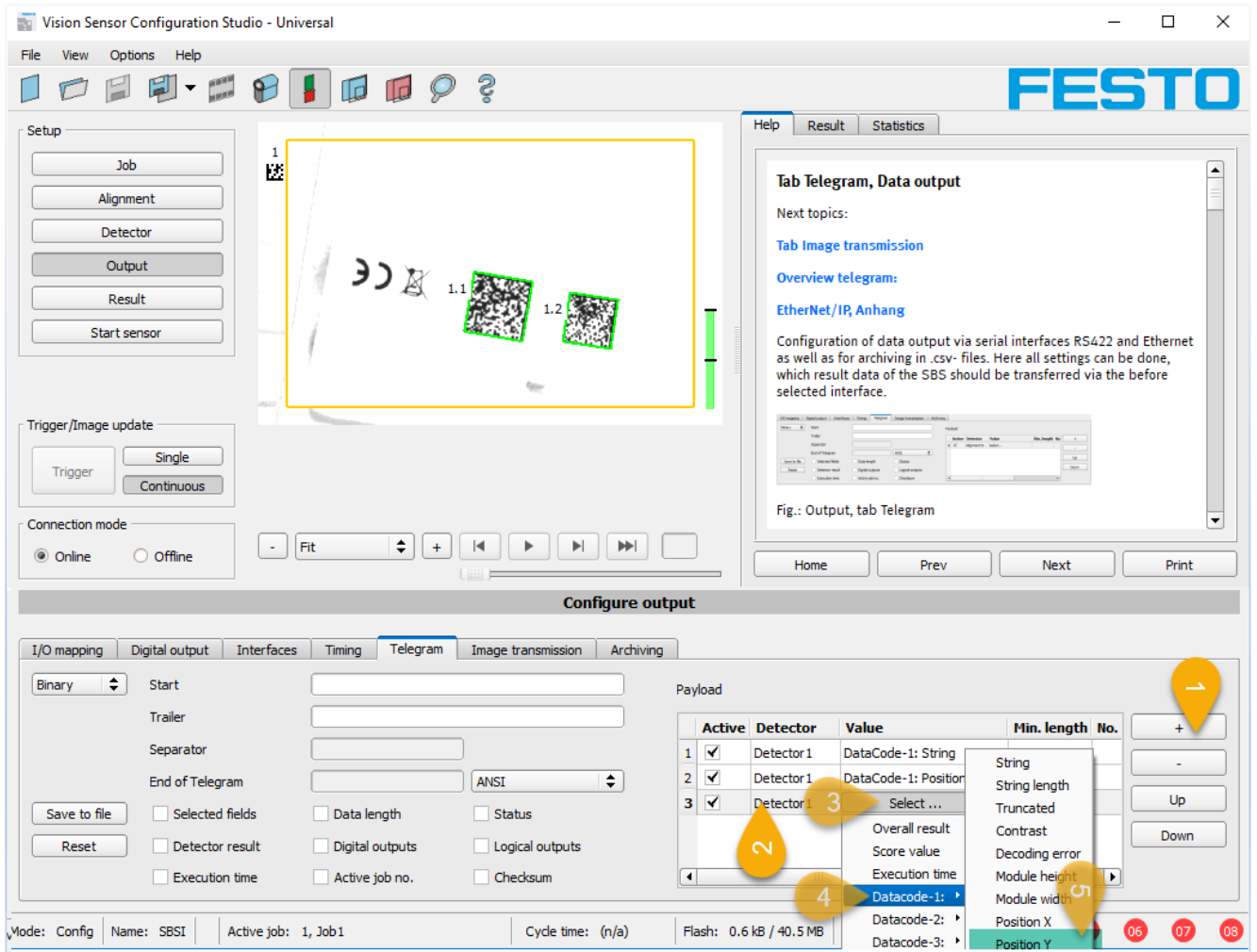
Step – 7

This step describe to add detectors Position - X value in payload.

1. Click **“Plus symbol (+)”** button to add the variables.
2. Select Detector
3. Tap the value tab to open the selected detectors elements.
4. Select variable to open sub element drop-down list. The Position-X is located under the Datacode-1 -> Position-X.
5. Select the sub element of the detector. As per this example Datacode-1.
6. Select the variable of selected element. As per this example Position-X.

**Note**

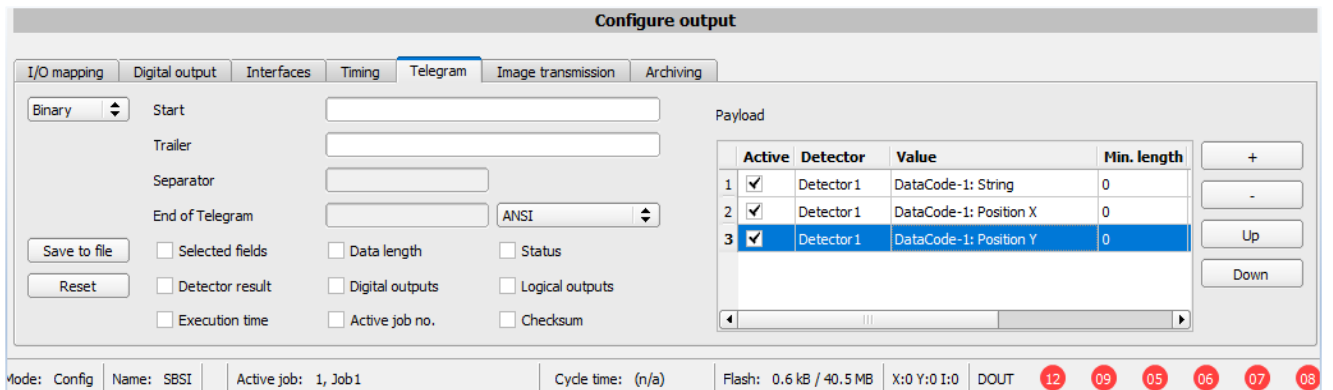
- Position – X & Y elements refers the X & Y coordinates of Data Matrix code .

Step – 8

This step describe to add detectors Position - Y value in payload.

1. Click **“Plus symbol (+)”** button to add the variables.
2. Select Detector
3. Tap the value tab to open the selected detectors elements.
4. Select variable to open sub element drop-down list. The Position-Y is located under the Datacode-1 -> Position-Y.
5. Select the sub element of the detector. As per this example Datacode-1.
6. Select the variable of selected element. As per this example Position-Y.

After completion of payload configuration it looks like below.



**Note**

- The payload for Ethernet/IP is limited to 8 different STRING results, 50 different DINT results & 32 BOOL results. Based on data type & configured list number results will be reflected in aArrayStringResult, aArrayDINTResult & aArrayBoolResult arrays in AOI.

Step – 10

The screenshot shows the Vision Sensor Configuration Studio - Universal software interface. The main window displays a camera view with two detected objects labeled 1.1 and 1.2. The 'Setup' panel on the left includes buttons for Job, Alignment, Detector, Output, Result, and Start sensor. The 'Trigger/Image' panel shows 'Single' and 'Continuous' modes, with 'Continuous' highlighted by a red circle. The 'Results/statistics' panel on the right shows the 'Setup Result' text and a 'Results' table. The 'Statistics' panel on the far right displays various metrics.

Results/statistics

Results

Detector	Score	Time	Detector type
1 Detector1	100.0	n/a	Datacode

Decoded results

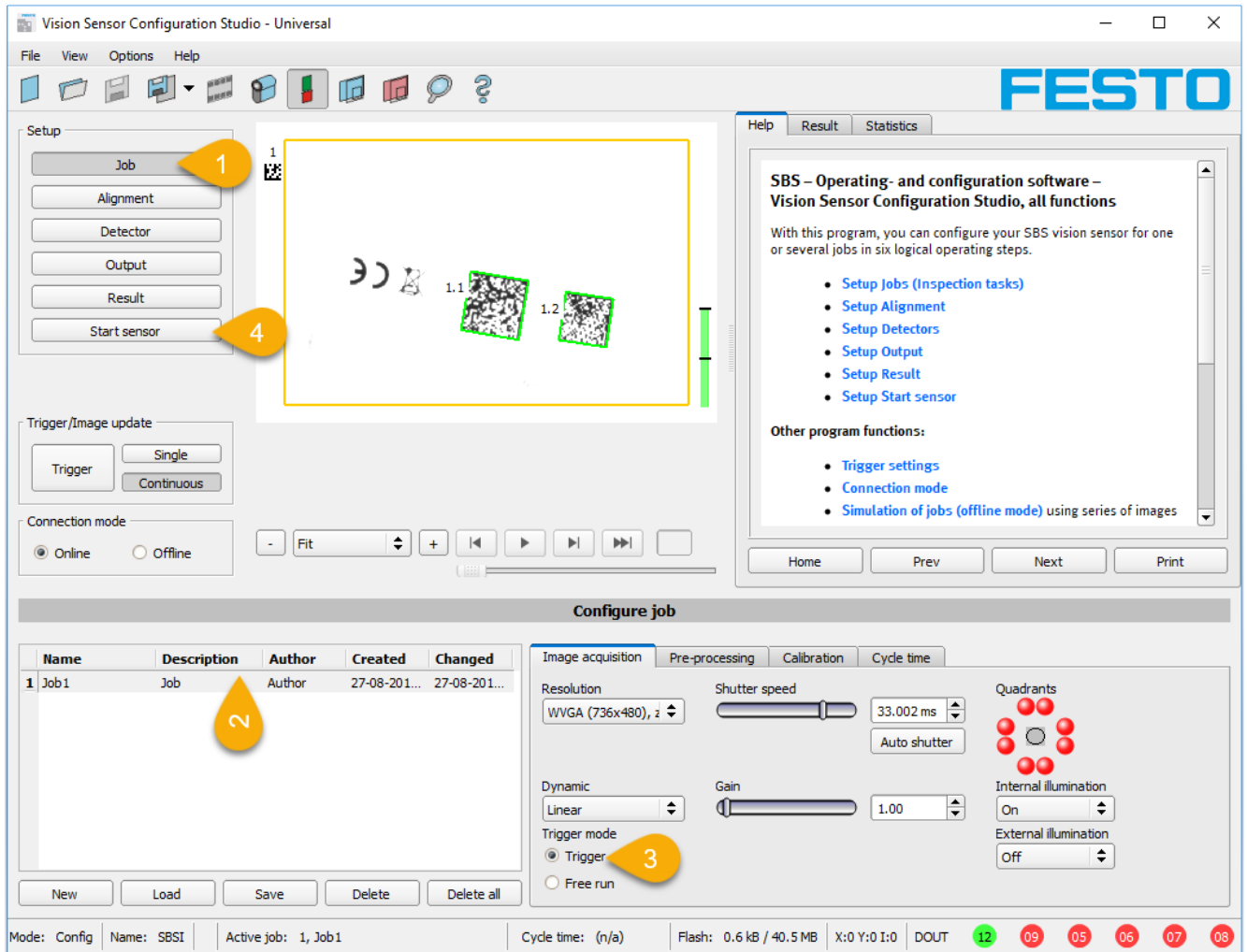
	Decoded string	Truncated	String length
1.1	AA00001K0000090725AA041...		58
1.2	AA0000265000094027AA000...		58

Statistics

Count	34400	Reset
Pass	26561	77.21%
Fail	7839	22.79%
Minimum execution time	n/a	
Maximum execution time	n/a	
Average execution time	n/a	

Mode: Config Name: SBSI Active job: 1, Job1 Cycle time: (n/a) Flash: 0.6 kB / 40.5 MB X:0 Y:0 I:0 DOUT 12 09 05 06 07 08

From the result tab user can see the output result for configured detectors as highlighted in green & blue colours. Here user can test result for different sample objects. Make sure sensor must be in continuous trigger mode while performing this test.

Step – 11

Once user satisfied in the test results of sensor then sensor need to change from configuration mode to run mode. Follow the below steps to change the mode of the sensor.

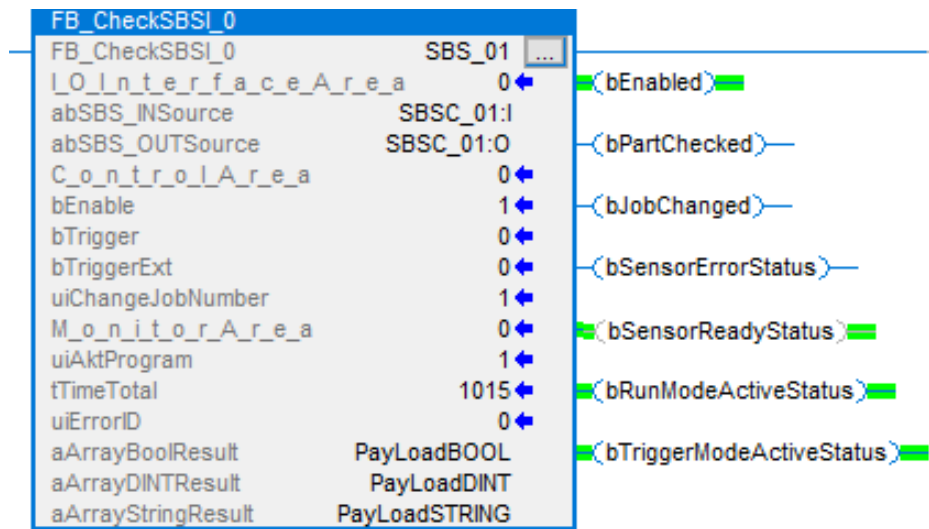
1. Click **“Job”** in setup menu.
2. Select a job as shown in picture.
3. Change the sensor from Free run to **“Trigger mode”** as shown in image.
4. Start the sensor from configure mode to run mode by clicking **“Start sensor”** button from setup.

**Note**

- EtherNet/IP communication will be active only if sensor is started.

3.2 Allen-Bradley Studio-5000 Configuration

This chapter will detail about Add-On Instruction IN/Out tag details, Trigger command to sensor & Change active job.



3.2.1 IO Interface Area

Interface Area Tags	Data Type	Function Description
abSBS_INSource	AB:ETHERNET_MODULE_SINT_444Bytes:I:0	Feedback Data Tags of Sensor. (Data Read from Sensor to Controller)
abSBS_OUTSource	AB:ETHERNET_MODULE_SINT_344Bytes:O:0	Command Data Tags to Sensor. (Data Write from Controller to Sensor)

3.2.2 Control Area

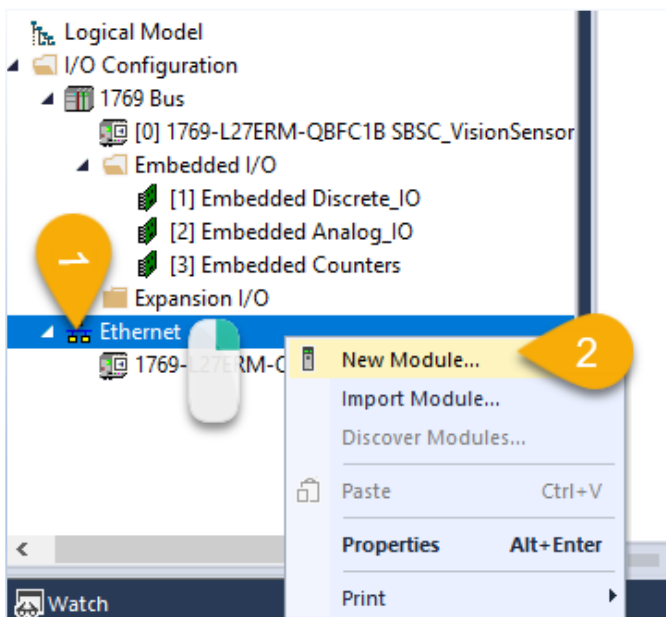
Control Area Tags	Data Type	Function Description
bEnable	BOOL	True - AOI Enable.
bTrigger	BOOL	TRUE - Rising Edge Trigger Camera
bTriggerExt	BOOL	TRUE - Only External Command Pass to Sensor No Command Goes from Controller
uiChangeJobNumber	SINT	1..x Select Active Job

3.2.3 Monitor Area Tags

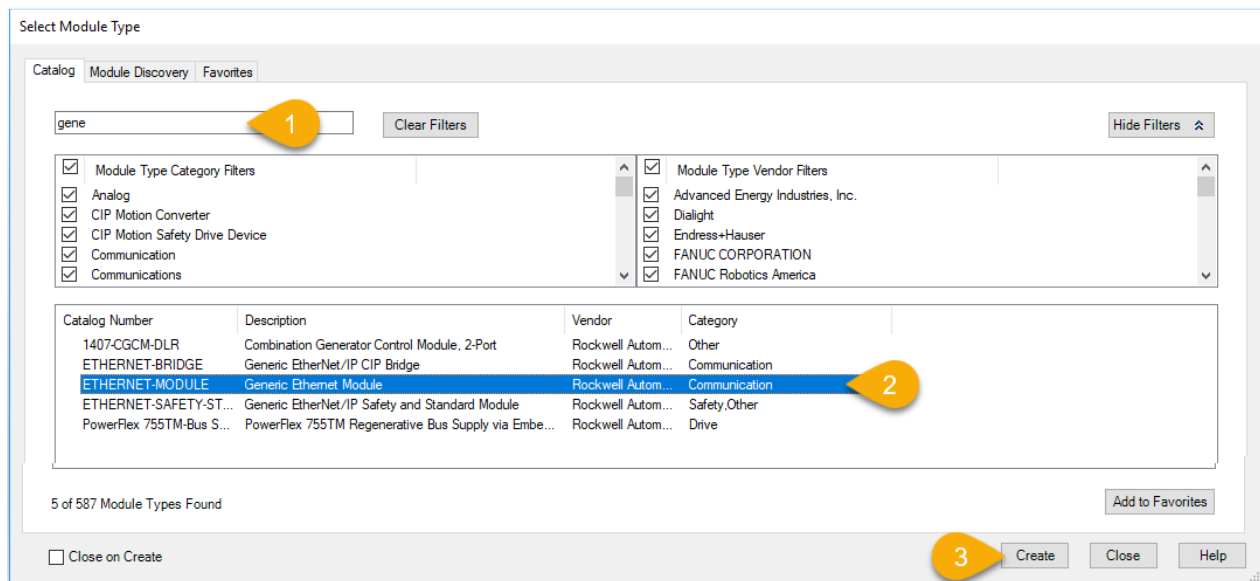
Monitor Area Tag Name	Data Type	Function Description
bEnabled	BOOL	True - AOI Enabled False – AOI Disabled
bPartChecked	BOOL	True - Part Checking Completed Successfully . Tag Maintain ON Condition until Trigger Command is in ON Condition.
bJobChanged	BOOL	True - Job Change Request Completed Successfully. Tag will be in ON State for Only One Scan Cycle.
uiAktProgram	INT	Active Job Number Feedback Value
tTimeTotal	DINT	Execution Time Feedback from Sensor
uiErrorID	INT	Error ID Number Feedback From Sensor
bSensorErrorStatus	BOOL	True - Sensor in Error State False – No Error.
bSensorReradyStatus	BOOL	True - Sensor Ready State Feedback False – Sensor Not Ready
bRunModeActiveStatus	BOOL	True - Sensor in Run Mode Feedback False – Sensor Not Run Mode Feedback
bTriggerModeActiveStatus	BOOL	True - Sensor Trigger Mode Active Feedback False - Sensor Trigger Mode Not Active Feedback
aArrayBoolResult	Array of BOOL (32)	Configured BOOL Result Array
aArrayDINTResult	Array of DINT (50)	Configured DINT Result Array
aArrayStringResult	Array of STRING (10)	Configured STRING Result Array

3.2.4 Add EtherNet Interface Module

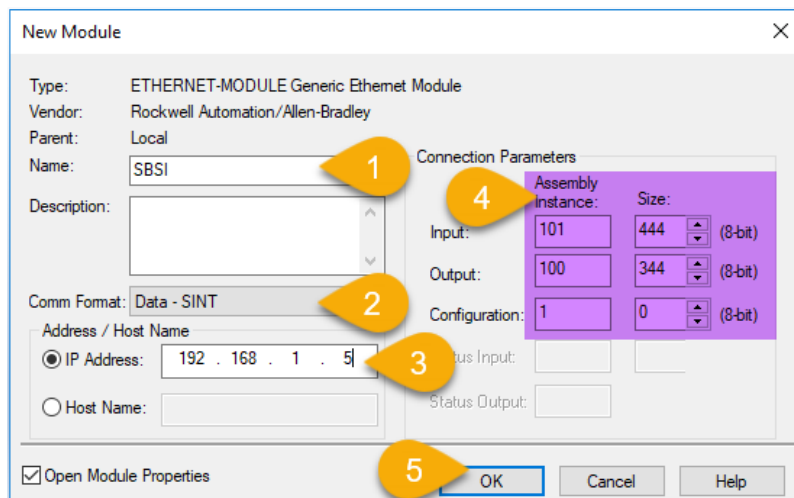
Step – 1



1. Expand the “**Ethernet**” folder from project organization menu & Right click.
2. From right click menu select “**New Module**”.

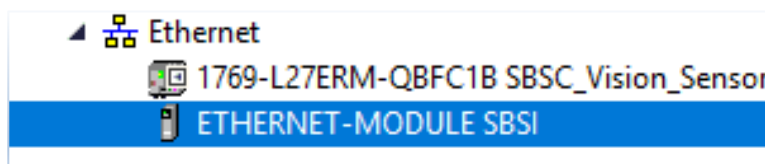
Step - 2

1. Search for **"Generic Ethernet Module"** in search box.
2. Select **"Ethernet-Module"** from Search result.
3. Click **"Create"** button.

Step – 3

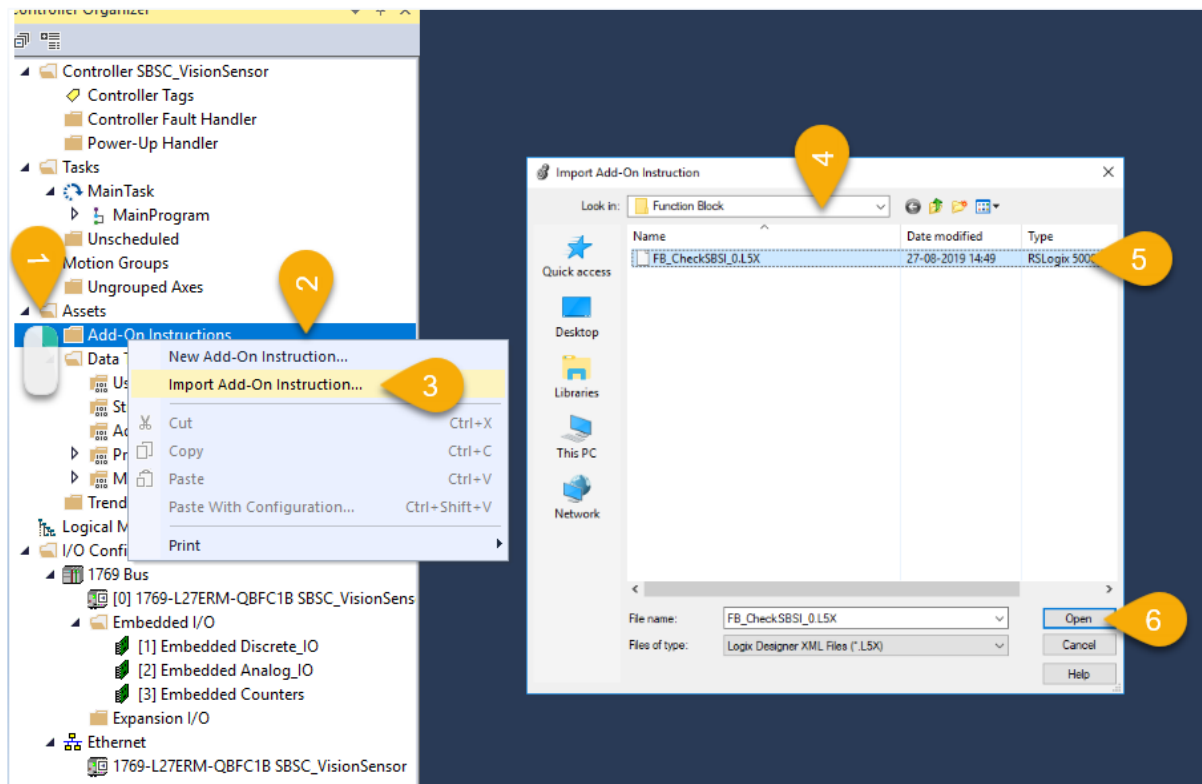
1. Enter the **name of the module**.
2. Select **"SINT"** data type in command format menu.
3. Enter the **IP Address** of sensor as configured in chapter – 2.1.
4. Enter the values as highlighted in blue. Further information can be found in the manual.
5. Click **"OK"** button.

Once all above configuration are done user will find a new module in Ethernet folder as shown in below.

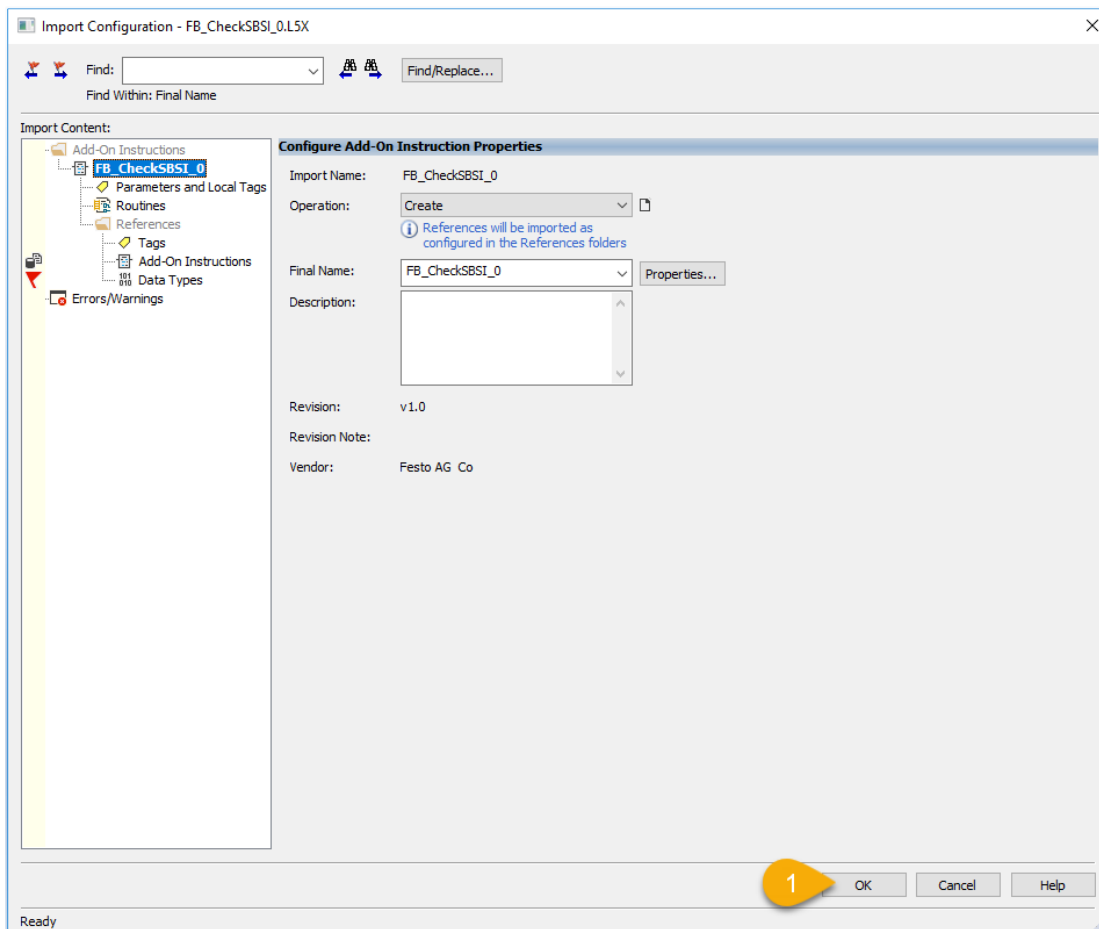


3.2.5 Import Add-On Instruction to Project & Add in Program

This chapter describe how to import SBSI AOI in to project. If user not using this block with exists running project create new project before start follow the steps.

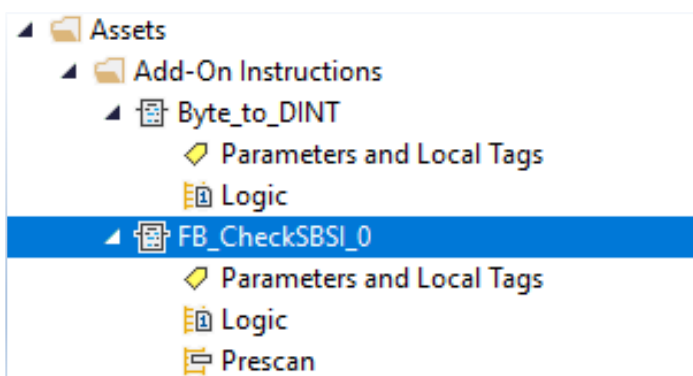


1. Expand **"Assets folder"** from project organization menu.
2. Select **"Add-On Instruction"** folder in assets.
3. Select **"Import Add-On Instruction"** from right click menu.
4. Brows Function Block **.L5x** file saved folder location in PC.
5. Select AOI Import file **FB_CheckSBSI.L5x**.
6. Click **"Open"** from Import window.

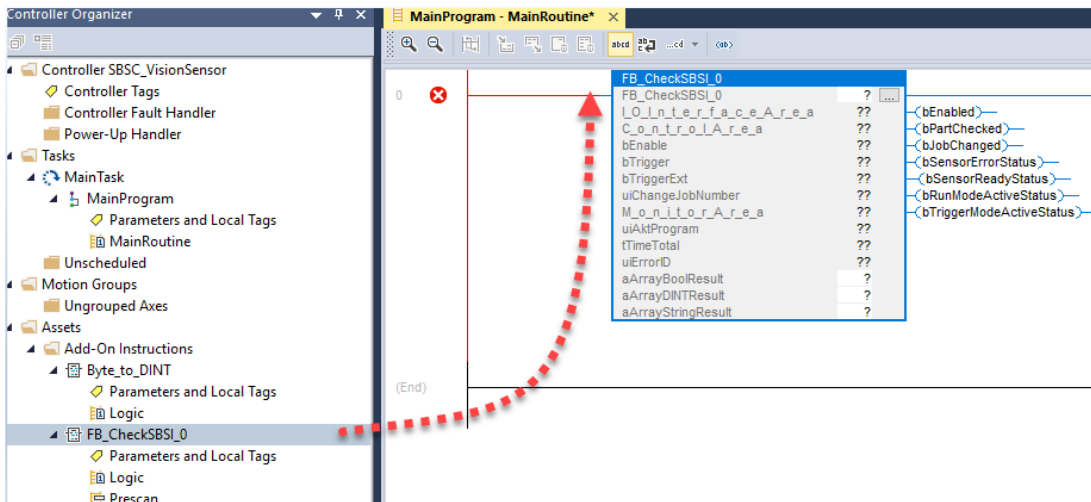
Step – 2

1. Click **“OK”** button from Import Configuration window to confirm importation.

Once Import process completed user will find two new AOI's in Add-on Instruction folder. **“FB_CheckSBSI_0”** is main AOI & **“Byte_to_DINT”** is a sub-block.

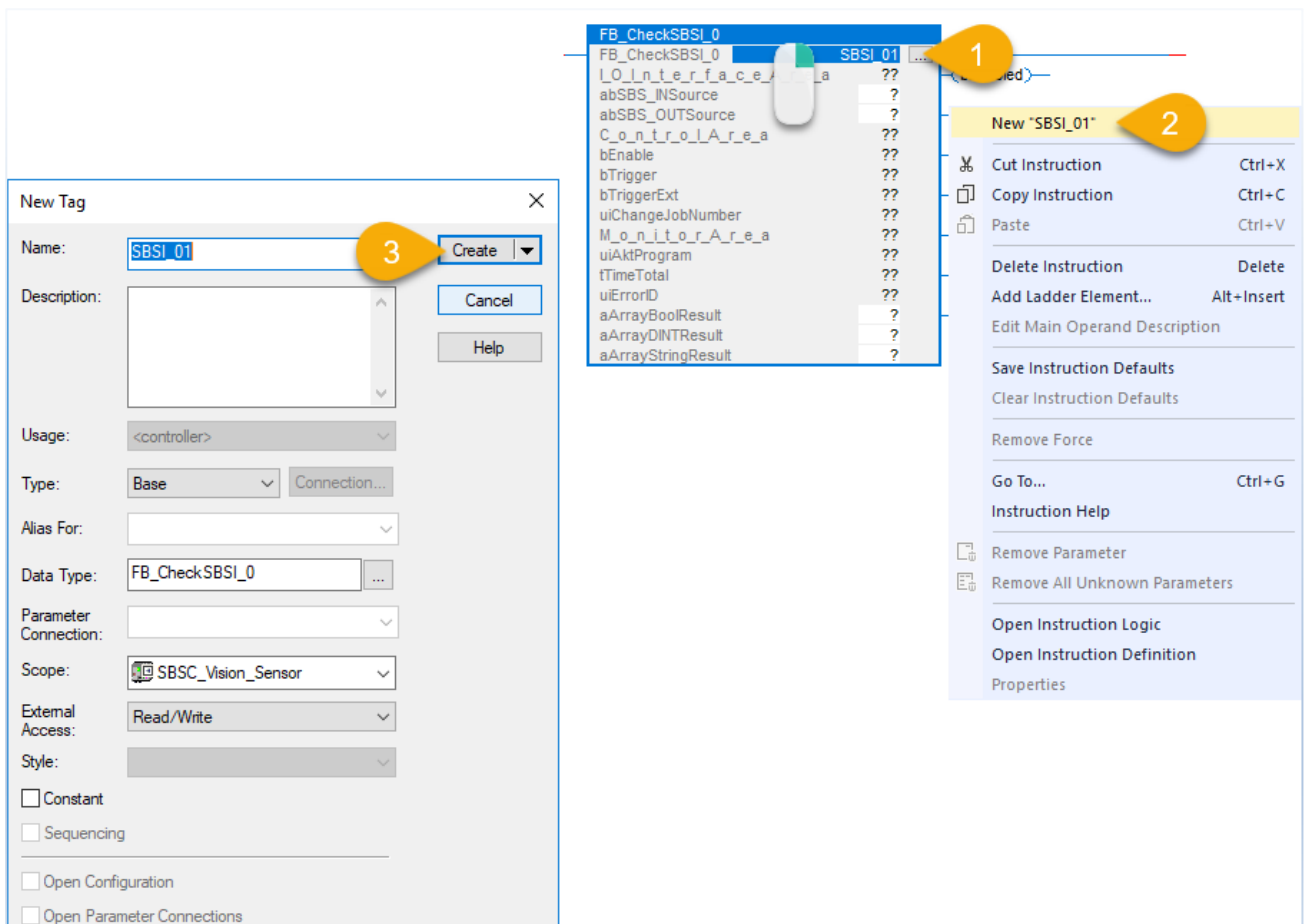


Step – 3

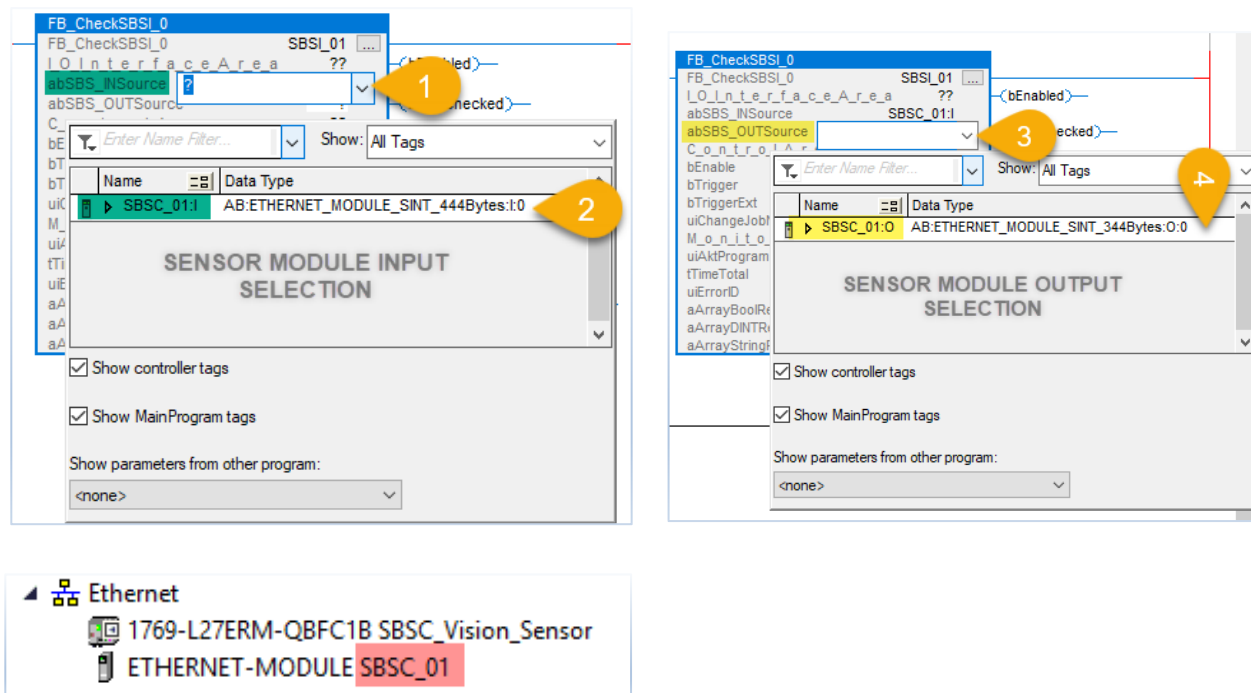


Drag and drop the AOI “FB_CheckSBSI_0” from project organization menu to program rung as shown in above picture.

Step – 4



1. Enter the tag name of the AOI as shown above.
2. Right click the tag name and select “New option with entered tag name” from right click menu or select tag and press shortcut key “Ctrl+W” to create new tag.
3. Select “Create” from new tag window.

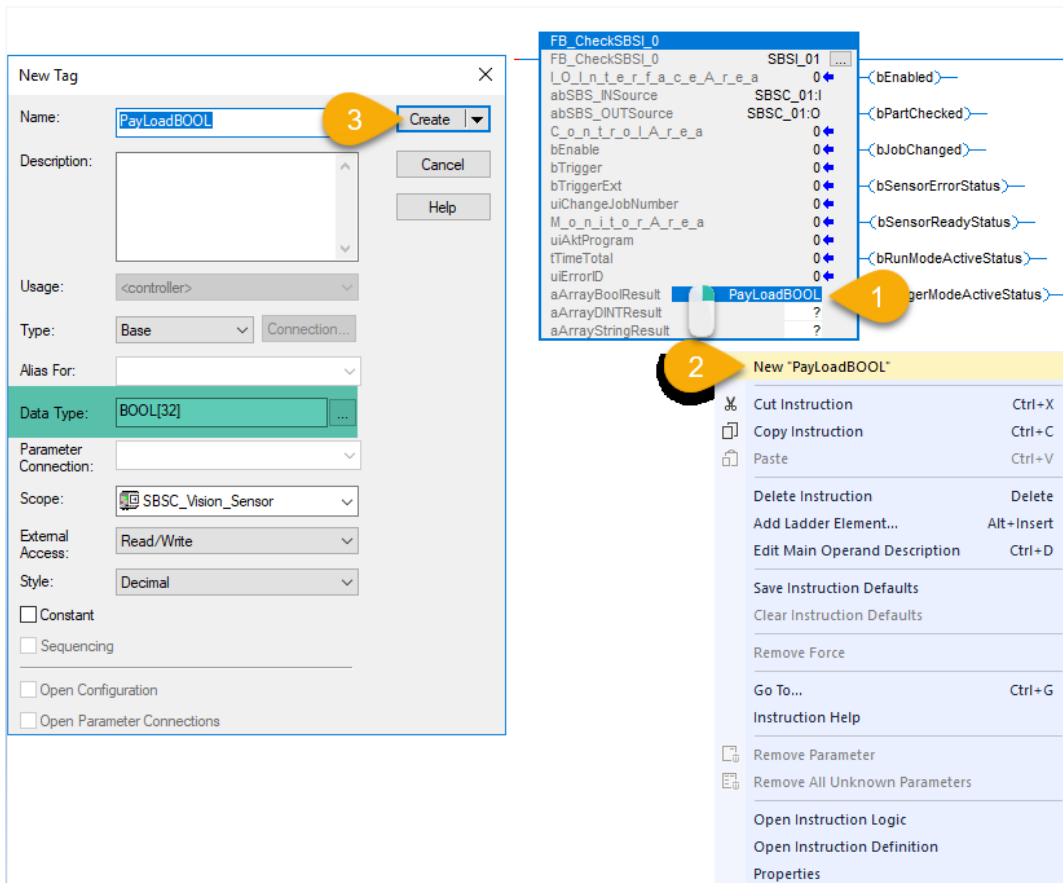
Step – 5

This step will describe about how sensor module Input & Output tags are interfacing with FB_CheckSBSI_0 AOI. The name of the input & Output tag's will display in variable table as per Ethernet module sensor name configuration. Sensor name of this sample project is highlighted in red colour on above picture.

1. Select the drop-down menu of “**abSBS_INSource**” where highlighted in green colour.
2. Select the correct Input tag from the drop-down list with respective to its AOI.
3. Select the drop-down menu of “**abSBS_OUTSource**” where highlighted in yellow colour.
4. Select the correct Output tag from the drop-down list with respective to its AOI.

**Note**

- When using more than one sensor's in a project, multiple tag's will be listed in variables table. so choose right tag for right AOI.

Step – 6

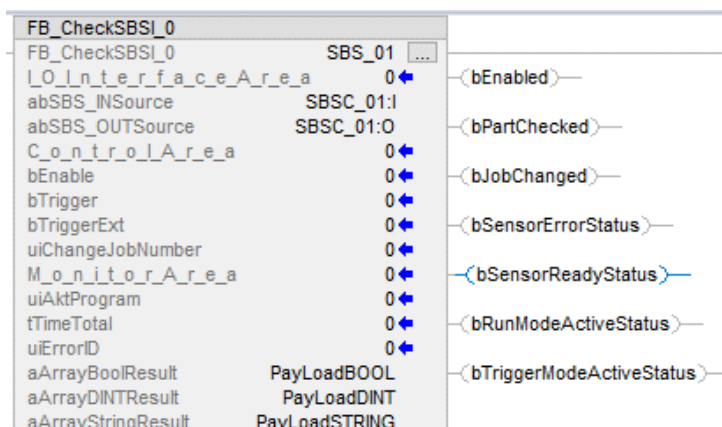
This step describes about result tags interface with AOI. Result interface tags of AOI are **aArrayBoolResult**, **aArrayDINTResult** & **aArrayStringResult**.

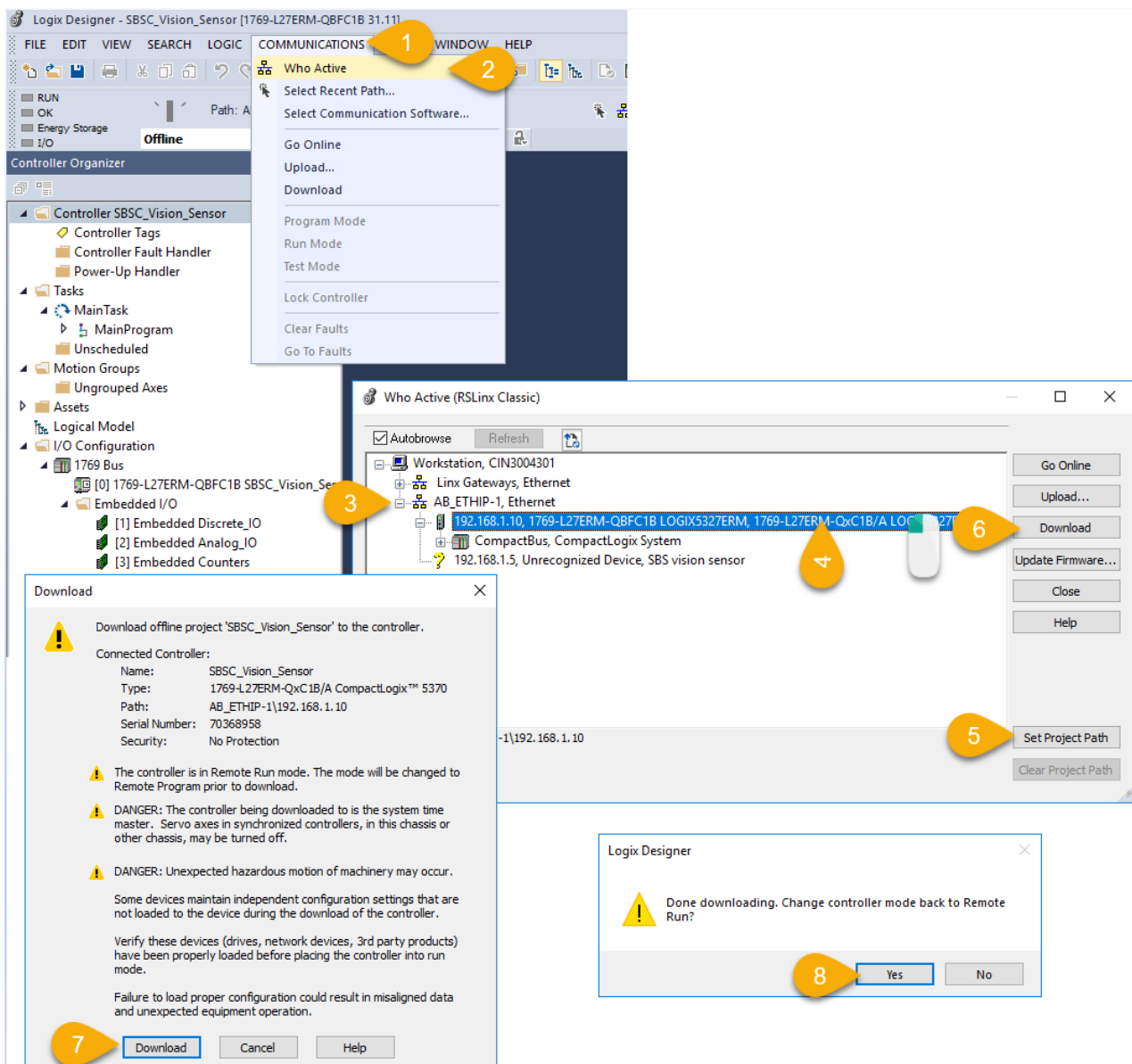
1. Enter the name of the Bool result array and right click.
2. Select the “New option with entered tag name” from right click menu.
3. Select “Create” button from new tag configuration window.

**Note**

- The data type of the new tag will be automatically assigned by writing the variable name and using the New function.
- Select the Scope of the tags. Here selection is done for controller (SBSC_Vision_Sensor) so tags are accessible for all program tasks .
- Repeat the same step for create interface tags for “aArrayDINTResult” & “aArrayStringResult”.

After assigning all the interfacing tags the AOI looks like below image.



Step – 7

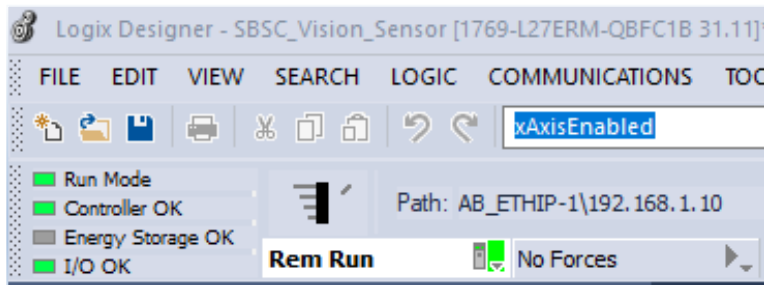
This step will describe how to download program from Studio 5000 to PLC & Take PLC online.

**Note**

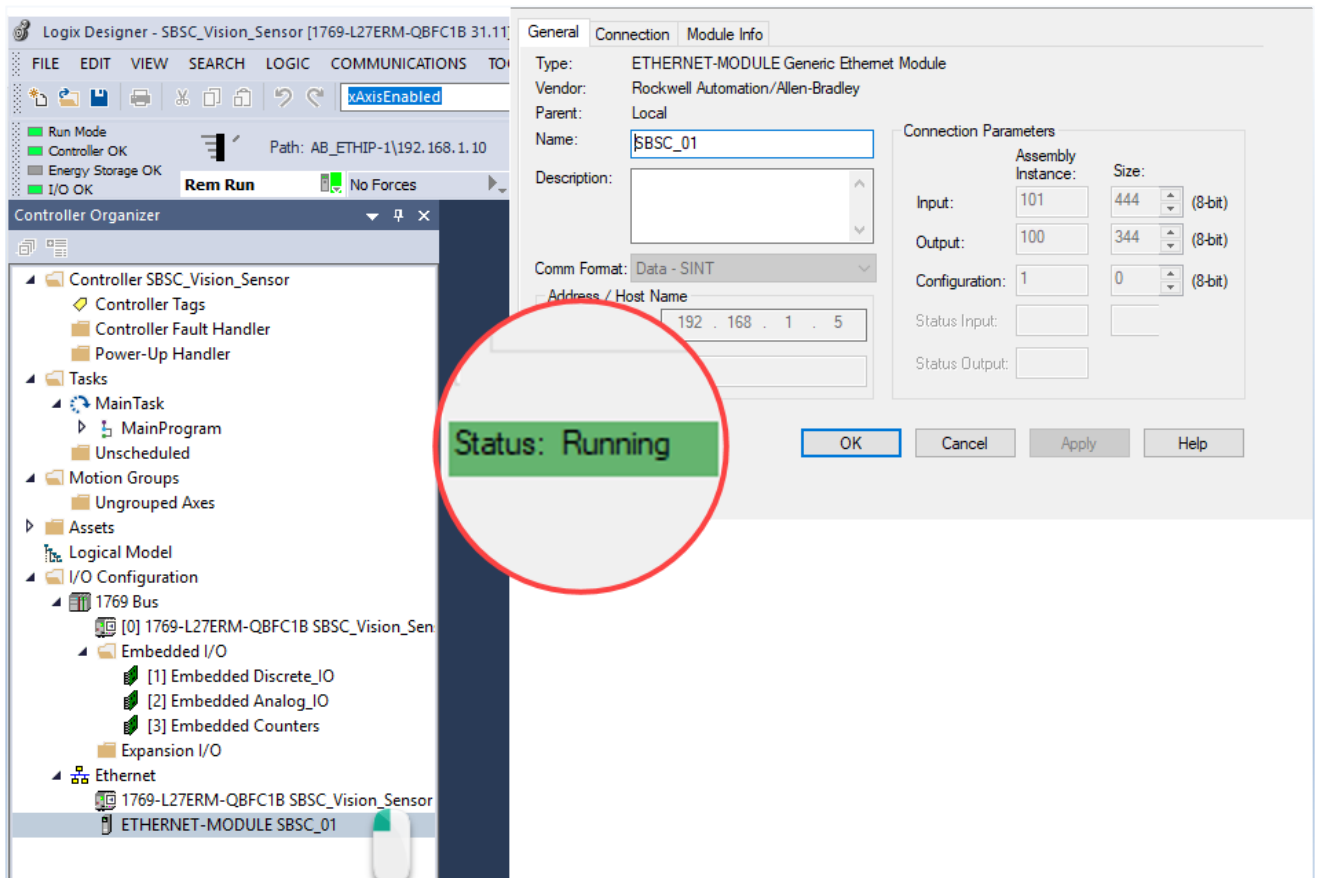
- Before download process make sure the PLC hardware connections are as shown chapter - 1.2 & IP address configurations are as per Chapter - 2.2.

1. Tap **“COMMUNICATIONS”** option from tool bar.
2. Select **“Who Active”** option from communications menu.
3. Select Ethernet driver witch created on chapter – 2.3 in step – 3.
4. Select the PLC with respective to its **IP address**. As per this project IP address of PLC is 192.168.1.10.
5. Set the selected PLC address path as default path of this project. It’s an optional step user can also skip this point and jump to next.
6. Select **“Download”** button to open download pop-up window.
7. Again select **“Download”** button from download window & wait until download completion.
8. After download completed Logix Designer window will open for user decision selection. Here select **“Yes”** option to change the PLC from Program mode to Run mode. At this point PLC will be Online with Studio-5000 tool.

After successful download completion of program PLC status indication in Studio-5000 will be look like below.



Step – 8



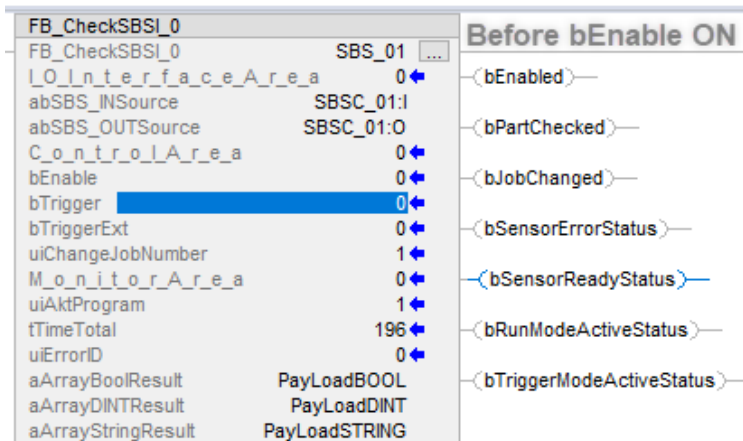
This step describes about to check the communication status between PLC & sensor. Open the Ethernet folder from Project Organization menu & double click the module. Check the status of the Ethernet module is Running as like green colour highlight in above figure. If the ethernet module is in error check below points.

- Check the physical cable connection between controller and sensor
- Check both controller & sensor are in same IP series.
- Check Input & Output Assembly size are same as like above picture.
- Check sensors correct IP address is given in ethernet module IP address field.

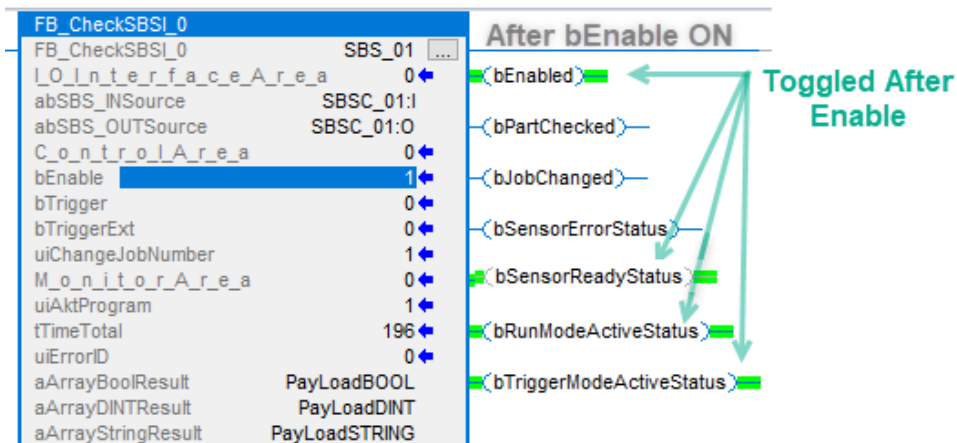
4 SAMPLE CODE

This chapter will describe about sample program of SBSI AOI to pass the trigger command, to change the active job number & to clear the error in sensor. Before start reading the sample code open the sample code project located in the ZIP file.

4.1 Enable AOI



Before “bEnable ON”: No Feedback signals form AOI. When no enable command AOI stops update the feedback signals & stops issuing commands to sensor.



After “bEnable ON”: Feedback signals bEnabled, bSensorReadyStatus, bRunModeActiveStatus & bTriggerModeActiveStatus are toggled from 0 → 1. Now AOI is communicating with sensor for read & write data.

4.2 Change Job Number



Note

- At least two jobs must be configured on the vision sensor for job change to work. If no job is configured, this will result in an error.

Before New Job Change Request:

Before JOB Change

Job Change Request & Feedback as JOB Number - 1

Results/statistics

Results

Detector	Score	Time	Detector type
1 Detector1	100.0	105ms	Datocode

Decoded results

Decoded string	Truncated	String length	Q1	C
1.1 AA00001K0000...		58	n/a	n

Statistics

Count	1	Reset
Pass	1	100.00%
Fail	0	0.00%
Minimum execution time	199ms	
Maximum execution time	199ms	
Average execution time	199ms	

Mode: Run Name: SBSI Active job: 1, Job1 Cycle time: 199 ms Flash: 1.0 kB / 40.5 MB X:730 Y:453 I:129 DOUT 12 09 05 06 07 08

Present active job number is 1 in both request & response tags (uiChangeJobNumber / uiAktProgram) of FB_CheckSBSI_0 AOI & Vision Sensor Configuration Studio software as well. Next we going to request via AOI to change the job number from 1 to 2 & make sure the sensor must be in Run mode & AOI “bEnable” bit high to change job number.

After New Job Change Request:

After JOB Change

New Job Number Request Changed as 2 & Response of Job Number Changed from 1 -> 2

Tag Name	Value	Status
FB_CheckSBSI_0	SBS_01	
IO_Interface_Area	0	
abSBS_INSource	SBSC_01:I	
abSBS_OUTSource	SBSC_01:O	
Control_Area	0	
bEnable	1	
bTrigger	0	
bTriggerExt	0	
uiChangeJobNumber	2	
Monitor_Area	0	
uiAktProgram	2	
tTimeTotal	63	
uiErrorID	0	
aArrayBoolResult	PayloadBOOL	
aArrayDINTResult	PayloadDINT	
aArrayStringResult	PayloadSTRING	

(bEnabled) ☒
 (bPartChecked) ☒
 (bJobChanged) ☒
 (bSensorErrorStatus) ☒
 (bSensorReadyStatus) ☒
 (bRunModeActiveStatus) ☒
 (bTriggerModeActiveStatus) ☒

Setup

Job
Alignment
Detector
Output
Result
Stop sensor

Trigger/Image update

Trigger Single
Continuous

Connection mode

Online Offline

Results/statistics

Results

Detector	Score	Time	Detector type
1 Detector1	40.7	1ms	Gray

Statistics

Count: 1
Pass: 0 (0.00%)
Fail: 1 (100.00%)
Minimum execution time: 63ms
Maximum execution time: 63ms
Average execution time: 63ms

Mode: Run Name: SBSI Active job: 2, Job2 Cycle time: 63 ms Flash: 1.0 KB / 40.5 MB X:0 Y:0 I:0 DOUT 12 09 05 06 07 08

Move the new job number in “uiChangeJobNumber” tag. Once the new job number is changed “bJobchanged” bit will ON for one scan cycle & active job number will update in “uiAktProgram” tag. Also user can see Active job number changed from 1 -> 2 in Vision Sensor Configuration Studio Tool (Right Side Picture).

4.3 Pass Trigger Command

Before Pass Trigger Command:

FB_CheckSBSI_0

FB_CheckSBSI_0	SBS_01	...
LO_Interface_Area	0	←
abSBS_INSource	SBSC_01:I	
abSBS_OUTSource	SBSC_01:O	
ControlArea	0	←
bEnable	1	←
bTrigger	0	←
bTriggerExt	0	←
uiChangeJobNumber	1	←
MonitorArea	0	←
uiAktProgram	1	←
tTimeTotal	721	←
uiErrorID	0	←
aArrayBoolResult	PayloadBOOL	
aArrayDINTResult	PayloadDINT	
aArrayStringResult	PayloadSTRING	

Before Trigger

- (bEnabled) ■
- (bPartChecked) —
- (bJobChanged) —
- (bSensorErrorStatus) —
- (bSensorReadyStatus) ■
- (bRunModeActiveStatus) ■
- (bTriggerModeActiveStatus) ■

PAYLOAD CONFIGURATION IN SBSI TOOL					
Payload					
	Active	Detector	Value	Min. length	No. of results
1	☒	Detector1	DataCode-1: String	0	
2	☒	Detector1	DataCode-2: String	0	
3	☒	Detector1	DataCode-1: Position X	0	
4	☒	Detector1	DataCode-1: Position Y	0	

Results/statistics

Results

Detector	Score	Time	Detector type
1 Detector1	-1.0	627ms	Datacode

Decoded results

Decoded string	Truncated	String length	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9
RESULT UPDATED IN SENSOR TOOL											

Statistics

Count	1	Reset
Pass	0	0.00%
Fail	1	100.00%
Minimum execution time	721ms	
Maximum execution time	721ms	
Average execution time	721ms	

Mode: Run Name: SBSI Active job: 1, Job1 Cycle time: 721 ms Flash: 1.1 kB / 40.5 MB X:0 Y:0 I:0 DOUT 12 09 05 06 07 08

Logix Designer - SBSC_Vision_Sensor in SBSC_Vision_SensorV0.1.ACD [1769-L27ERM-QBFC1B 31.11]*

FILE EDIT VIEW SEARCH LOGIC COMMUNICATIONS TOOLS WINDOW HELP

Path: AB_ETHIP-1\192.168.1.10

Controller Organizer

Controller Tags - SBSC_Vision_Sensor(controller)

Scope: SBSC_Vision_Se Show: All Tags

Name	Value	Data Type
Local:2:O		{...} AB:Embedded_AnalogIO1:O:0
Local:1:C		{...} AB:Embedded_DiscretelO1:C:0
Local:1:I		{...} AB:Embedded_DiscretelO1:I:0
Local:1:O		{...} AB:Embedded_DiscretelO1:O:0
Local:3:C		{...} AB:Embedded_HSC1:C:0
Local:3:I		{...} AB:Embedded_HSC1:I:0
Local:3:O		{...} AB:Embedded_HSC1:O:0
SBSC_01:C		{...} AB:ETHERNET_MODULE:C:0
SBSC_01:O		{...} AB:ETHERNET_MODULE_SINT_344Bytes:O:0
SBSC_01:I		{...} AB:ETHERNET_MODULE_SINT_444Bytes:I:0
Bool_Payload		{...} BOOL[32]
i_Reset	0	BOOL
PayLoadBOOL		{...} BOOL[32]
TestBOOL	0	BOOL
TriggerHand	0	BOOL
INT_Payload		{...} DINT[50]
PayLoadDINT		{...} DINT[50]
SBS_01		{...} FB_CheckSBSI_0
SBSI_01		{...} FB_CheckSBSI_0
TestSINT	113	SINT
JobNO	1	SINT
PayLoadSTRING	RESULT UPDATED IN PLC TOOL	{...} STRING[10]
PayLoadSTRING[0]	""	STRING
PayLoadSTRING[1]	""	STRING
PayLoadSTRING[2]	""	STRING
PayLoadSTRING[3]	""	STRING
PayLoadSTRING[4]	""	STRING
PayLoadSTRING[5]	""	STRING
PayLoadSTRING[6]	""	STRING
PayLoadSTRING[7]	""	STRING
PayLoadSTRING[8]	""	STRING
PayLoadSTRING[9]	""	STRING

Before trigger command all the result tags are in null value. Payload configured for read two QR code data & XY coordinate position.

