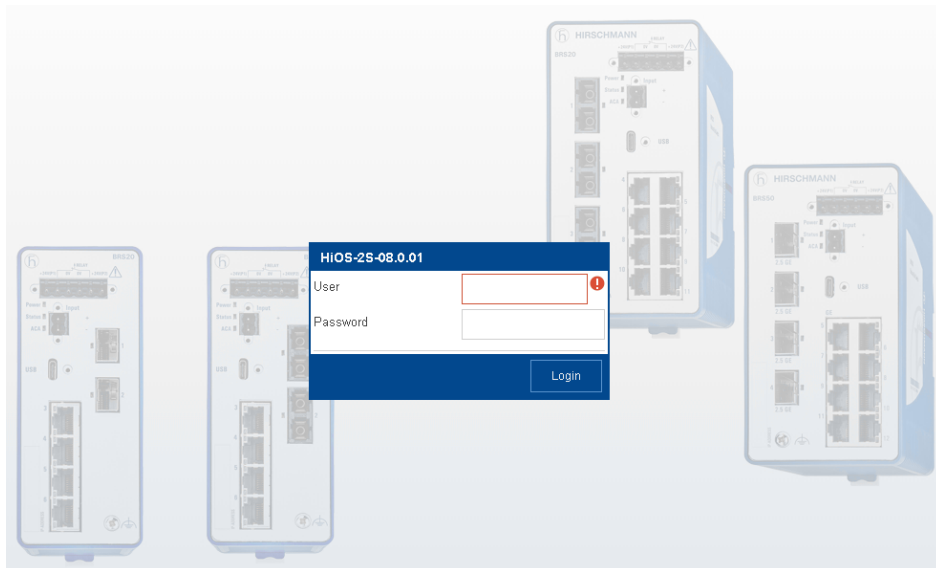## HiOS: Importing and Configuring the EthernetIP AOI

John M - 2021-01-26 - HiOS

This guide is designed to assist in the importing and the configuration of the AOI for HiOS switches in Studio 5000.

Switch Configuration and EDS file

1. Login to the switch

2. Go to the "Advanced" menu, turn on ENIP operation, click the check mark to write the change. Click on the hamburger button at the bottom of the page and click to download the EDS file. This will need to be done for the different models of switches being monitored.

Rockwell Software configuration

1. Use the RSlinx EDS hardware Installation tool and add the EDS file downloaded from the switch(es).

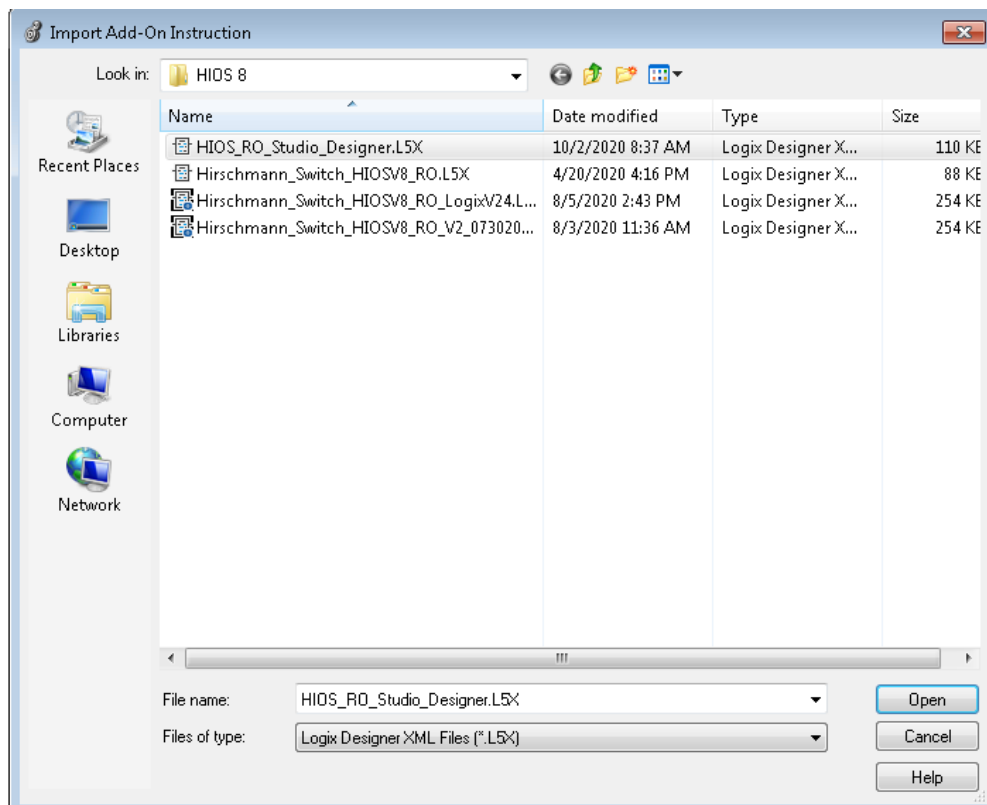   **Note:** If needed there is a how to guide to assist with adding the EDS file

2. In the Studio 5000 PLC program, go to "File", "Import Component", and "Add-on
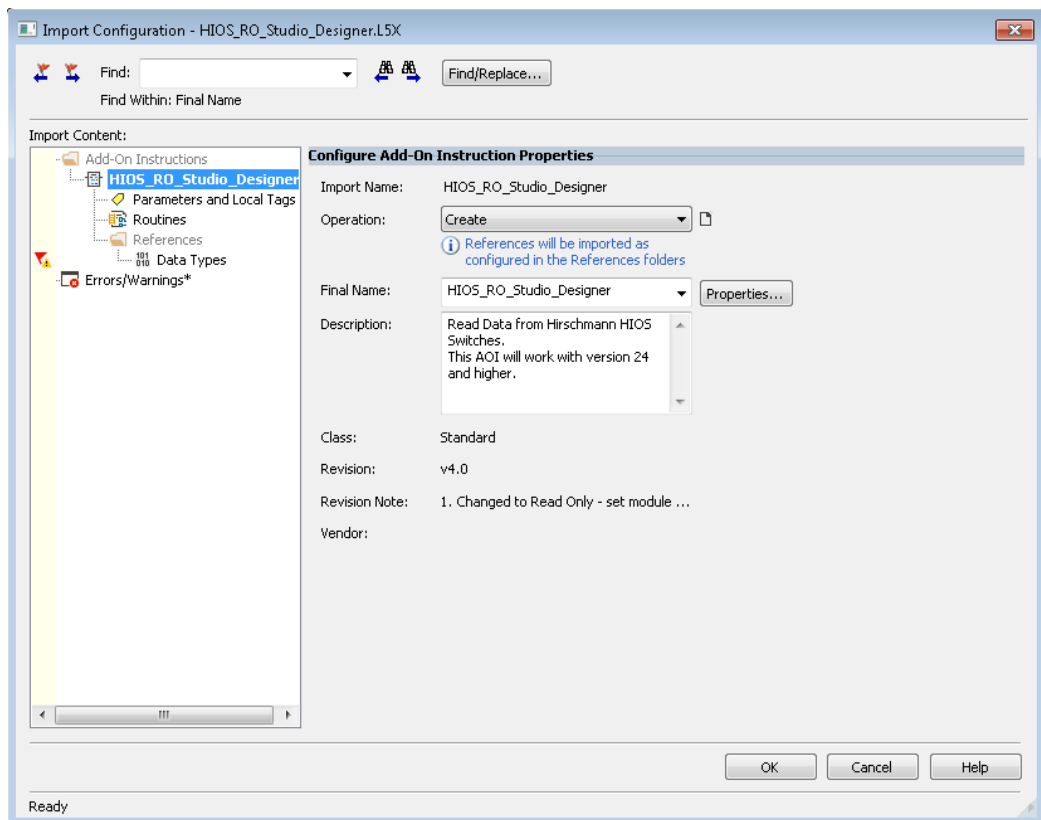
Instruction"

3. Browse to the AOI file (see related content), click to highlight it and click the "Open" button

4. Click OK

5. Right-click on the comm module and select "New Module"
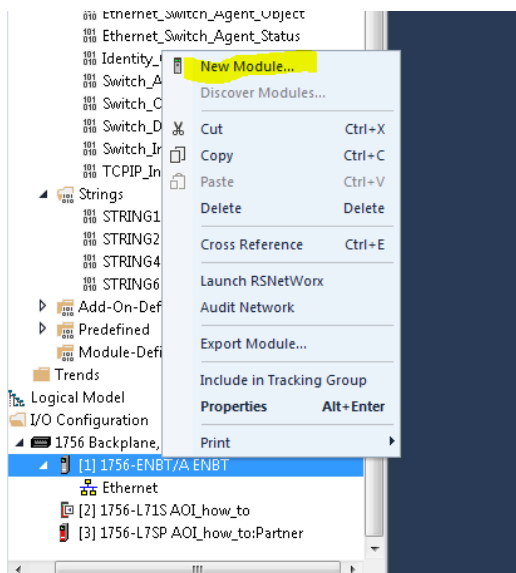
6. Find the Switch that needs to be monitored and click "Create"

7. Name the module and assign an IP address

8. Click the change button, change to "Input only" and "DINT", click OK, and OK again

9. Open the main routine, go to "Add-On" and click on the "HIOS RO add-on"

10. Right-click on the "HIOS_RO_Studio_Designer", and select "New tag"

11. Name the tag and click "Create"

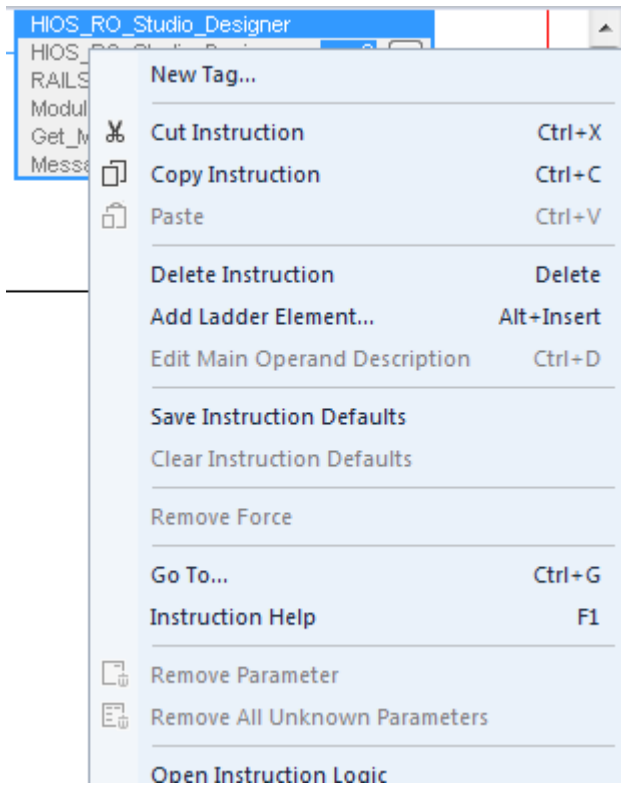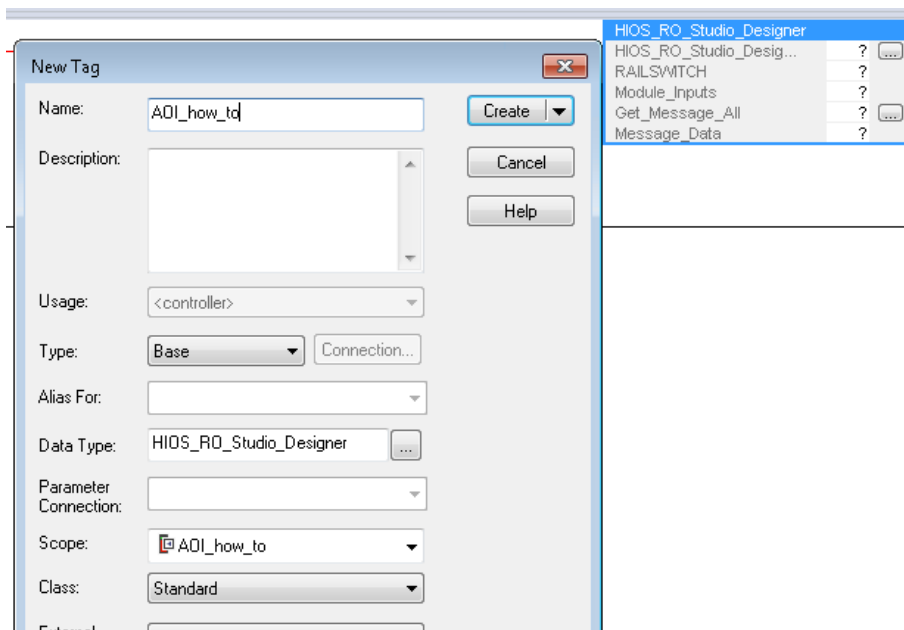12. Right-click on the Railswitch and select "New tag"

HIOS_RO_Studio_Designer
HIOS_RO_Studio_Desig... AOI_how_to [...]
RAILSWITCH
Module_Inputs
Get_Message_A
Message_Data

New Tag...

✂ Cut Instruction   Ctrl+X

🗋 Copy Instruction   Ctrl+C

📋 Paste   Ctrl+V

Delete Instruction   Delete

Add Ladder Element...   Alt+Insert

Edit Main Operand Description   ▶

Save Instruction Defaults

Clear Instruction Defaults

Remove Force

Go To...   Ctrl+G

Instruction Help   F1

13. Name the tag and click "create"

New Tag

Name: BRS_AOI

Description:

Usage: <controller>

Type: Base   Connection...

Alias For:

Data Type: Switch_All_HIOS   [...]

Parameter
Connection:

Scope: AOI_how_to

Create
Cancel
Help

HIOS_RO_Studio_Designer
HIOS_RO_Studio_Desig... AOI_how_to [...]
RAILSWITCH   ?
Module_Inputs   ?
Get_Message_All   ? [...]
Message_Data   ?

14. For the Module_inputs select the I.Data from the switch created in previous step

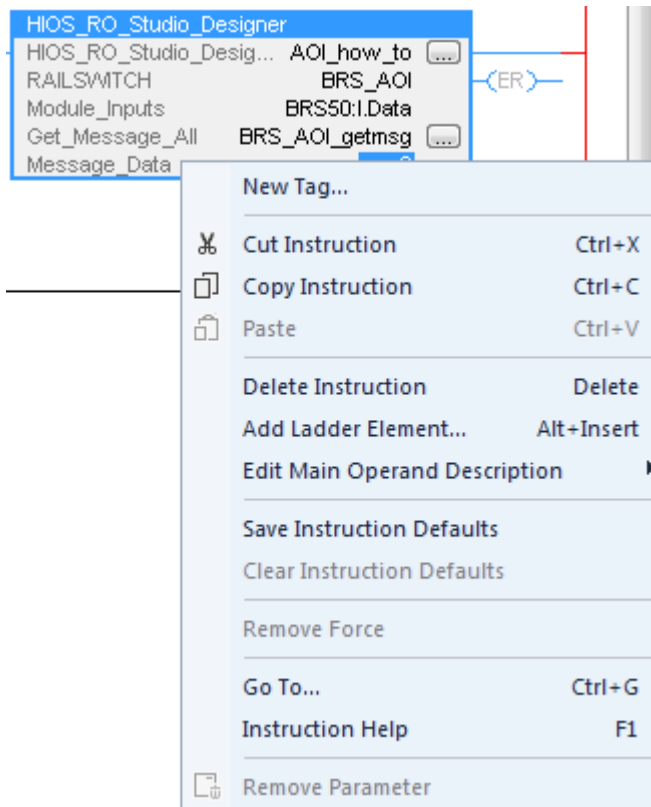15. Right-click on the "Get Message All ?" and select "New tag"

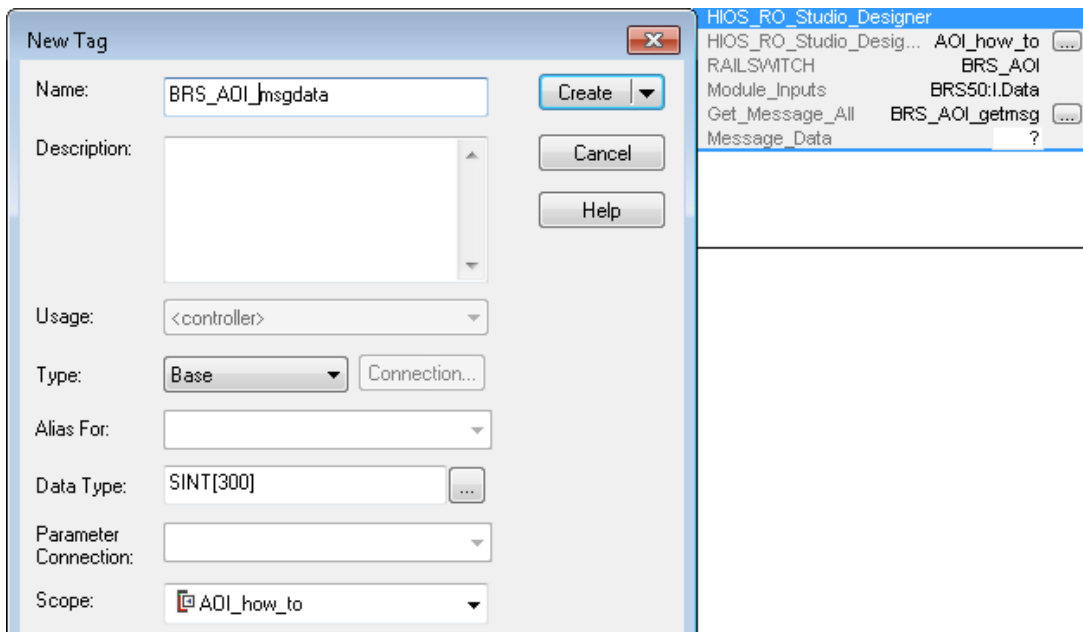16. Name the tag and click "Create"

"

17. Right-click on the Message_data ?" and select "New tag"
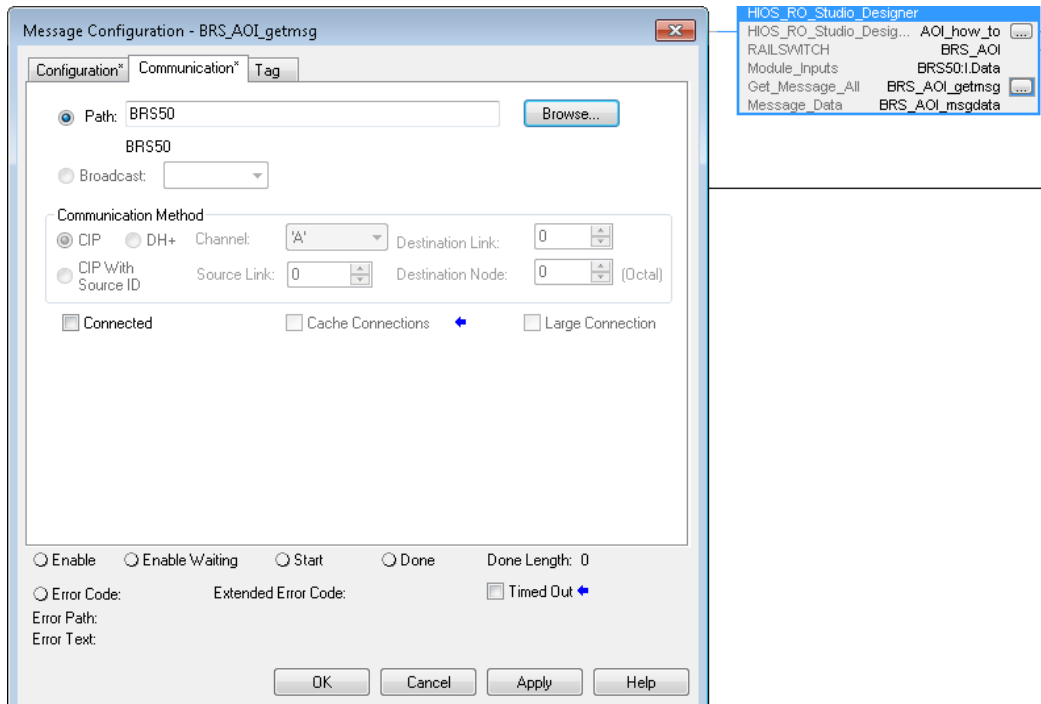

18. Name and click "Create"

19. Click on the "Get_Message_all" config box and set the service code, class, Instance, and attribute to 1. Also set the Source element to the "msgdata[0] tag" created in a previous step. The "source length" is set to 2 and the "Destination element" is the msgdata[2]

20. Go to the "Communications" tab, set the path to the switch and click OK

Message Configuration - BRS_AOI_getmsg

Configuration* | Communication* | Tag

Path: BRS50   Browse...
BRS50

Broadcast:

Communication Method
CIP   DH+   Channel: 'A'   Destination Link: 0
CIP With   Source Link: 0   Destination Node: 0   (Octal)
Source ID

Connected   Cache Connections ←   Large Connection

Enable   Enable Waiting   Start   Done   Done Length: 0
Error Code: Extended Error Code: Timed Out ←
Error Path:
Error Text:

OK   Cancel   Apply   Help

HIOS_RO_Studio_Designer
HIOS_RO_Studio_Desig... AOI_how_to [...]
RAILSWITCH   BRS_AOI
Module_Inputs   BRS50:I.Data
Get_Message_All   BRS_AOI_getmsg [...]
Message_Data   BRS_AOI_msgdata

21. Make sure the tags are populated and the configuration is now complete.