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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

- <complex-block>
- 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"

FILE	EDIT VIEW	SEARCH	LOGIC	COMMUNICA	TION	5 TOOLS	WINDOW	HELP
( <b>*</b> 5	New			Ctrl+N	0]		- 🐤 🤧	, 🔎 🚺
ີ 當	Open			Ctrl+O				
	Close							
	Save			Ctrl+S		► ► No E	Edits	🔒 Saf
C	Save As							
0	New Componer	nt		•				
6	Import Compon	ent		•		Add-On In	struction	
	Compact				101 010	Data Type.		- 1
					4	Equipment	t Phase	
4	Page Setup				톶	Equipment	t Sequence	
	Generate Repor	t			5	Program		
	Print			•	B	Routine		
•	Print Options				101 010	String Type	2	
	1 AOI_how_to.A	CD			$\sim$	Trend		
4	2 AOI84.ACD							
	3 AOI_test.ACD							
4	4 EIP v30 test.A	CD						

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

💕 Import Add-O	n Instruction				×
Look in:	鷆 HIOS 8	•	G 🤌 📂 🖽 -		
(Her	Name	*	Date modified	Туре	Size
B Bl	🗄 HIOS_RO_Stu	idio_Designer.L5X	10/2/2020 8:37 AM	Logix Designer X	110 K
Recent Places	🗄 Hirschmann_	Switch_HIOSV8_RO.L5X	4/20/2020 4:16 PM	Logix Designer X	88 K
	Hirschmann	Switch_HIOSV8_RO_LogixV24.L	8/5/2020 2:43 PM	Logix Designer X	254 K
Desktop	📑 Hirschmann_	Switch_HIOSV8_RO_V2_073020	8/3/2020 11:36 AM	Logix Designer X	254 K
Cibraries					
Computer					
Network					
	•				•
	File name:	HIOS_RO_Studio_Designer.L5X		-	Open
	Files of type:	Logix Designer XML Files (*.L5X)		•	Cancel
					Help

4. Click OK

💷 I	mport	t Configuration - HIOS_RO_Studi	o_Designer.L5X			x
¥.	<u>ж</u>	Find: Find Within: Final Name	→ ▲ ▲	Find/Replace		
Imp	oort Co	ontent:				
	-	Add-On Instructions	Configure Add-On	Instruction Properties		
		Parameters and Local Tags	Import Name:	HIOS_RO_Studio_Designer		
			Operation:	Create	] 🗅	
₹.	_	Intererences		(i) References will be imported as configured in the References folders		
	·· 👩	Errors/Warnings*	Final Name:	HIOS_RO_Studio_Designer 🗸	Properties	
			Description:	Read Data from Hirschmann HIOS Switches. This AOL will work with version 24 and higher.		
			Class:	Standard		
			Revision:	v4.0		
			Revision Note:	1. Changed to Read Only - set module		
			Vendor:			
•		4 III				
-						
_						
Re	ady					1

5. Right-click on the comm module and select "New Module"



6. Find the Switch that needs to be monitored and click "Create"

Select Module Type	8					
BRS		Clear Filte	'S		Hide Filters	*
Module Type Category Filter     Analog     CIP Motion Converter     Communication     Communications	s		Module Type Ve Advanced Energ Cognex Corporati Dialight Endress+Hauser	ndor Filters y Industries, Inc. on		*
Catalog Number C BRS50-0012-25 H	Description Hirschmann BRS50-0012-25	6		Vendor Hirschmann, a B	Category Managed Ethe	ernet S(
1 of 560 Module Types Found					Add to Fav	Porites
Close on Create				Create	Close	Help

7. Name the module and assign an IP address

New Module     General*	General				
<ul> <li>Connection"</li> <li>Module Info"</li> <li>Internet Protocol"</li> <li>Port Configuration"</li> </ul>	Type: Vendor: Parent: Name: Description:	BRS50-0012-25 Hirschmann BRS50-0012-25 Hirschmann, a Belden brand ENBT BRS50	•	Ethernet Address Private Network: IP Address: Host Name:	192.168.1. 98

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

🔜 Module Definition*							
Revision: 2 🔹 002 🚔							
Electronic Keying: Compatible Module							
Connections:							
Name	Size						
Insuit Only Connection	Input: 8	INIT					
Input Only Connection	Output: 0						
ОК	Cancel	Help					

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

RUN     OK     Energy Storage     I/O	`∥´ Offline	Path: <none></none>	ces :	後書 8 《 H H 나 가 해외 변화 10 Edits 관 Safety United 5년 《 Parvettes Add on Airmes Bit TimerCounter Input/Output Compare ComputeMeth MoveLogical FileMos	o. File/Shift S	Fequencer 1		
Controller Organizer		<b>→</b> #	×	MainProgram - MainRoutine* 🗙 🧬 Controller Tags - ADi, how_to(controller)				•
et 18				Q. (1) [1] [1] [2] [2] [2] [2] [2] [2] [2] [2] [2] [2				
Param     MainR     SafetyTask     SafetyProg     Unscheduled     Unscheduled     Ungrouped Au	eters and Lo outine gram xes	cal Tags		•		HOS_RO_Studio_Designer HOS_RO_Studio_Desig RALSWITCH Module_Imputs Get_Missisge_Al Message_Data	? ? ? ? ?	

10. Right-click on the "HIOS\_RO\_Studio\_Designer", and select "New tag"



11. Name the tag and click "Create"

				HIOS_RO_Studio_Designer	
1	New Tag		×	HIOS_RO_Studio_Desig RAILSWITCH	? ?
	Name:	A01_how_td	Create 🗸 🔻	Module_Inputs Get_Message_All Message Data	?
	Description:		Cancel		
_			Help		
		Ψ			
	Usage:	<controller></controller>			
	Туре:	Base   Connection			
	Alias For:	· · · · · · · · · · · · · · · · · · ·			
	Data Type:	HIOS_RO_Studio_Designer			
	Parameter Connection:	•			
	Scope:	AOI_how_to 🗸			
	Class:	Standard 👻			
	Eutomal	- ·· ··			

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



13. Name the tag and click "create"

ſ	New Tag		<b>—</b> ×	HIOS_RO_Studio_Designer HIOS_RO_Studio_Desig AOI_how_to
	Name:	BRS_AOI	Create 🗸 🔻	RAILSWITCH ? Module_Inputs ? Get Message All ?
	Description:		Cancel	Message_Data ?
			Help	
		-		
	Usage:	<controller></controller>		
	Туре:	Base		
	Alias For:	•		
	Data Type:	Switch_All_HIOS		
	Parameter Connection:	•		
	Scope:	AOI_how_to		
	CI			

14. For the Module\_inputs select the I.Data from the switch created in previous step

Hirschm Hirschm RAILSW Module_	ann_Switch_HIOS ann_Switch_HI 1TCH Inputs BRS50:1.1	BRS_ BRS_ A Data	Logix How_T \OI_BR	∨24 o S ▼	-(ER)	
Enter Name	Filter 👻	Show:	All Tag	IS		•
Name			-8	Data Ty	/pe	-
AOI_BRS				Switch	_AII_HIOS	
📑 🕨 BRS_Hov	v_To			Hirschr	nann_Switc	h_H
📲 🔺 BRS50:I				_027A:	BRS50_001	2_2:
BRS50	:I.ConnectionFault	ted		BOOL		
BRS50	:I.Data			DINT[8]		-
Show controlle	er tags			🗸 Shov	v standard ta	ags
📝 Show MainPro	ogram tags			🗸 Shov	v safety tags	;
Show parameters	from other progra	m:				
<none></none>			-			

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

HIOS_RO_Studie HIOS_RO_Studie RAILSWITCH Module_Inputs Get_Message_/	o_De: o_De:	signer sig AOI_how_to BRS_AOI BRS50:I.Data	₹>	
Message_Data		New Tag		
	ж	Cut Instruction	Ctrl+X	
	ŋ	Copy Instruction	Ctrl+C	
	đ	Paste	CtrI+V	
		Delete Instruction	Delete	
		Add Ladder Element	Alt+Insert	
		Edit Main Operand Descrip	otion 🕨 🕨	
		Save Instruction Defaults		
	Clear Instruction Defaults			
		Remove Force		
		Colto	Ctal. C	

16. Name the tag and click "Create"

New Tag		×	HIOS_RO_Studio_Designer
Name:	BRS_A0I_getmsg	Create 🗸 🔻	Module_Inputs BRS50:I.Data
Description:	*	Cancel	Message_Data ?
		Help	
	Ŧ		
Usage:	<controller></controller>		
Туре:	Base   Connection		
Alias For:	<b></b>		
Data Type:	MESSAGE		
Parameter Connection:			
Scope:	A0I_how_to 🗸		
Class:	Standard 🔹		
External	Read/Write		

17. Right-click on the Message\_data ?" and select "New tag"

u

HIOS_RO_Studii HIOS_RO_Studii RAILSWITCH Module_Inputs Get_Message_/ Message_Data	o_De: o_De: \ll	signer sig AOI_how_to BRS_AOI -(ER) BRS50:1.Data BRS_AOI_getmsg	-	
		New Tag		
	Ж	Cut Instruction	Ctrl+X	
	ŋ	Copy Instruction	Ctrl+C	
	Ô	Paste	CtrI+V	
		Delete Instruction	Delete	
		Add Ladder Element	Alt+Insert	
		Edit Main Operand Descripti	on 🕨 🕨	
		Save Instruction Defaults		
		Clear Instruction Defaults		
		Remove Force		
		Go To	Ctrl+G	
		Instruction Help	F1	
	<b>_</b> ±	Remove Parameter		

18. Name and click "Create"

New Tag		<b>×</b>	HIOS_RO_Studio_Designer HIOS_RO_Studio_Desig AOI_how_to
Name:	BRS_AOI_msgdata	Create 🗸 🔻	Module_Inputs BRS50:I.Data Get_Message_All BRS_AOI_getmsg
Description:		Cancel	Message_Data ?
	-		
Usage:	<controller></controller>		
Туре:	Base   Connection		
Alias For:	•		
Data Type:	SINT[300]		
Parameter Connection:	<b>.</b>		
Scope:	AOI_how_to 🗸		

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]

Message Configuration - BRS_AOI_getm	nsg	<b>×</b>	<u> </u>	HIOS_RO_Studio_Designer HIOS_RO_Studio_Desig AOI_how_to
Configuration <sup>®</sup> Communication Tag Message Type: CIP Generic				RAILSWITCH BRS_AOI Module_Inputs BRS50:I.Data Get_Message_AII BRS_AOI_getmsg Message_Data BRS_AOI_msgdata
Service Custom Type: Service 1 (Hex) Class: 1 Code: 1 Attribute: 1	Source Element:     Source Length:     (Hex)     Destination     Element:	RS_AOI_msgdata[0] 2   (Bytes) RS_AOI_msgdata[2] New Tag		

20. Go to the "Communications" tab, set the path to the switch and click  $\mathsf{OK}$ 

Message Configuration - BRS_AOI_getmsg	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
Path: BRS50 Browse	Message_Data BRS_AOI_msgdata
BRS50 Broadcast:	
Communication Method CIP DH+ Channet A' Destination Link: 0 + CIP With Source Link 0 + CIP With 0	
Source ID Source Link. B Source ID Source ID	
⊖ Enable ⊖ Enable Waiting ⊖ Start ⊖ Done Length: 0	
Frror Code:     Extended Error Code:     Timed Out •	
Error Path: Error Text:	
OK Cancel Apply Help	

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