# SVX and SPX Drive Configuration to Rockwell PLC

#### Introduction

The purpose of this application note is to demonstrate how to operate an SVX drive via Ethernet/IP with a Rockwell CompactLogix PLC. The SVX drive uses the OPTCQ Ethernet/IP Option board. The drive needs to be configured with an IP address for Ethernet communications, along with the I/O Assemblies used on Ethernet/IP. This is accomplished via the keypad/display on the drive.

While this application example uses a CompactLogix controller with embedded Ethernet/IP scanner port to control and monitor the SVX drive over Ethernet/IP, any Ethernet/IP scanner may be used for this purpose, including the 1756-ENBT with a ControlLogix PLC. RSLogix5000, version 20 programming software is used to create the CompactLogix project and create the Ethernet/IP network. The CompactLogix PLC will be configured to poll the SVX drive to operate the drive and monitor drive parameters.

Beginning with version 20 of RSLogix5000, Ethernet/IP EDS files can be imported into the software tool allowing Eaton motor control products to be easily added to a project by name. It also allows the I/O assemblies to be chosen from a list for each device, making this process very straight-forward as well.

Eaton also has a software tool that will be described in more detail later in this document that creates an I/O tag file for Eaton Ethernet/IP products that can then be imported into RSLogix5000. The tags in this tag file are automatically aliased to the generic I/O tags created by RSLogix5000 for the Eaton motor control products such as the SVX drive. These descriptive tags can then be used directly in the user program for controlling and monitoring the Eaton motor control products. This tag generation software tool can be used to generate tags for up to 100 Eaton motor control products in a single spread sheet file to be imported into an RSLogix5000 project. These devices must already be included in the project.

## **Configuring the SVX Drive**

The IP addresses for the devices used in this example will be as follows:

•	SVX Drive:	192.168.1.8
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- CompactLogix PLC: 192.168.1.5
- Computer: 192.168.1.51
- Subnet mask: 255.255.255.0

Connect your computer, PLC and the SVX drive to an Ethernet switch.

To configure the IP address and I/O Assemblies for the SVX drive via its keypad/display, power the drive.

To access the Ethernet parameters and I/O assemblies from the drives keypad/display navigate to:

Expander Boards/OPTCQ/Parameters:

1. IP Part 1: 192



- 2. IP Part 2: 168
- 3. IP Part 3: 1
- 4. IP Part 4: 8
- 5. Do the same for the Subnet mast P1-4: 255.255.255.0.
- 6. Input Instance: 71
- 7. Output Instance: 21

Then navigate back to the beginning then to the following:

Parameters/Basic Parameters and configure the 2 parameters for the following:

- 1. Remote Ctl, Place: Fieldbus
- 2. Remote Ref: Fieldbus

Power cycle the drive to activate these new Ethernet parameters.

#### Change the IP Address of your Computer

To change the IP address for a computer running Windows 7, follow the procedure below:

- 1. From the Start menu, choose Control Panel. From the Control Panel, choose Network and Sharing Center.
- 2. With the computer connected to an Ethernet network, select the Local Area Connection. Unless the computer is connected to a network, this Local Area Connection will not be present.
- 3. The Local Area Connection Status window will be displayed. Select Properties.
- 4. From the window shown below, select Internet Protocol Version 4 (TCP/IPv4) to highlight it, then select Properties.

Local Area Connection Properties
Networking Authentication Sharing
Connect using:
Intel(R) 82579LM Gigabit Network Connection
Configure
This connection uses the following items:
<ul> <li>Client for Microsoft Networks</li> <li>Trend Micro LightWeight Filter Driver</li> <li>QoS Packet Scheduler</li> <li>File and Printer Sharing for Microsoft Networks</li> <li>Internet Protocol Version 6 (TCP/IPv6)</li> <li>Internet Protocol Version 4 (TCP/IPv4)</li> <li>Link-Layer Topology Discovery Mapper I/O Driver</li> <li>Link-Layer Topology Discovery Responder</li> </ul>
Description     Allows your computer to access resources on a Microsoft     network.
OK Cancel

Local Area Connection Properties	23							
Networking Authentication Sharing								
Connect using:								
Intel(R) 82579LM Gigabit Network Connection								
Configure								
This connection uses the following items:								
<ul> <li>Client for Microsoft Networks</li> <li>Trend Micro Light Weight Filter Driver</li> <li>QoS Packet Scheduler</li> <li>GoS Packet Scheduler</li> <li>File and Printer Sharing for Microsoft Networks</li> <li>Internet Protocol Version 6 (TCP/IPv6)</li> <li>Internet Protocol Version 4 (TCP/IPv4)</li> <li>Internet Protocol Version 4 (TCP/IPv4)</li> <li>Link-Layer Topology Discovery Mapper I/O Driver</li> <li>Install</li> </ul>								
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.								
OK Can	icel							

5. Per the following window, select Use the following IP Address, then enter an IP address, Subnet mask and a Default gateway if it applies.

I	nternet Protocol Version 4 (TCP/IPv4) Properties												
	General												
	You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.												
	Obtain an IP address automatically												
	O Use the following IP address:												
	IP address: 192 . 168 . 1 . 51												
	Subnet mask: 255 . 255 . 255 . 0												
	Default gateway: 192 . 168 . 1 . 1												
	Obtain DNS server address automatically												
	O Use the following DNS server addresses:												
	Preferred DNS server:												
	Alternate DNS server:												
	Validate settings upon exit												
	OK Cancel												

6. When finished, select OK and close all the windows used along the way to get to this window. Your computer's Ethernet port will now be actively using the IP address and Subnet mask you just entered.

## Creating a Project in RSLogix5000

New Controller		X
Vendor:	Allen-Bradley	
Туре:	1769-L23E-QB1 CompactLogix5323E-QB1 Controller	• ОК
Revision:	20 🗸	Cancel
	Redundancy Enabled	Help
Name:	SVX_Drive	
Description:		~
Chassis Tupe:		
0100001300.	<none></none>	<u> </u>
Slot:	0 Safety Partner Slot: <none></none>	
Create In:	C:\Program Files (x86)\Rockwell Software\RSLogix 5000\ENU\v20\Bin	Browse
Security Authority:	No Protection	•
	Use only the selected Security Authority for Authentication and	
	Autonzauon	

Create a project in RSLogix5000. Give the project a name and select the controller type, per the following:

Select OK to create the project.

#### Install EDS Files for Eaton Products into RSLogix5000

There is an Ethernet/IP EDS file for all Eaton Ethernet/IP products, compatible with RSLogix5000, version 20 or later. These files can be installed into the RSLogix5000 software via the following:

- 1. Download the EDS files for Eaton Ethernet/IP products from the following link: <u>www.eaton.com/software</u> and store them on your hard drive.
- 2. Select the Tools drop down menu in RSLogix5000

Search	Logic	Communications	Tools	Window	Help		
		0		•	<u></u> #8. #8.	<b>1</b>	<b>II</b>

3. Select EDS Hardware Installation Tool

RSLogix 5000 - PowerXL_DG1 [1769-L23E-Q	B1 20.12]* - [Mai	inProgram - N	lainRoutine*]		J X
File Edit View Search Logic Com	munications To	ools Windov	v Help		_ 8 ×
1 🖆 🖬 🍯 👗 📭 🖻 🗠 🖂		Options	· · ·	🕼 🖭 🔍 🔍 Select a Language 👻	
Offline BUN	102	Security	•		
	-6- 🍱 🐱	Document	ation <u>L</u> anguages		
N F D BAT		Import		<b>•</b> • • • • •	
NO Edits 🛋 🗖 1/0		Ement	,		
		Export		Bit A Timer/Counter A T	
Controller Organizer 👻 🕂 🗙	曲 🐘 🍯	EDS Hardw	are Installation Tool		
🖉 Controller Tags	е	Motion	•	•	•
Controller Fault Handler	u e	Custom To	ols		
Power-Up Handler	e				
E-S lasks	(End)	ControlFL4	1SH		
E- Cat Main Lask	(clid)				
A MainBoutine					
Unscheduled Programs					
Ungrouped Axes					
- Add-On Instructions					
🚊 🔄 Data Types					
User-Defined					-
🗄 🖳 Strings					-
Predefined					
Module-Defined					
- Trends					
Compact orgiv5323E-OB1 System					
1769-123E-OB1 PowerXL DG1					
1769-L23E-OB1 Ethernet Port L					
Ethernet					
# 1769-L23E-QB1 Ethernet					
Power XL PowerXL					
- CompactBus Local					
🖃 🚔 Embedded I/O					
[1] Embedded IQ16F Dis					
[2] Embedded OB16 Dis					
Expansion I/O					
· · · · · · · · · · · · · · · · · · ·					
Type Ladder Diagram (Main)					
Description					
Program MainProgram					
Number of Rungs 1					
					-
۰ ا	A MainRou	utine*			+
Launch Hardware Installation Tool				Rung () of 1 APP VFR	
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4. Follow the installation wizard, browsing for the EDS files previously saved to your hard drive.

Once the EDS files have been installed into RSLogix5000., the SVX drive can be added to an Ethernet/IP network, per the following.

#### Creating an Ethernet/IP Network in RSLogix5000

On the left portion of the project screen in RSLogix5000, under I/O Configuration right click on Ethernet and select New Module. The following screen will open:

Acalog Module Discovery Favorite	8						
Enter Search Text for Module Typ	De	lear F	Filters	5		Hide Filters	*
Module Type	Category Filters	*	V	Мо	dule Type Vendor Fil	ters	
Image: AC Drive Device         Image: CIP Motion Drive         Image: Communication			✓ ✓ ✓	Allen-Bradley Cognex Corporati Eaton Automation	on n AG (formerly Micro I	Innovation)	
Communications Adapter	,	Ŧ		Eaton Electrical		Þ	Ŧ
Catalog Number	Description				Vendor	Category	
0005_007B_0030 0005_007B_0038 0005_007B_0039 0005_007B_003A 0005_007B_003A 0005_007F_0027 0005_007F_0028 1305-ACDrive-EN1 1336E-IMPACTDrive-EN1 1336F-PLUSIIDrive-EN1 1336R-REGENBrake-EN1 1336S-PLUSDriveLG-EN1 1336S-PLUSDriveSM-EN1	SP600 SP600 ER 400V SP600 ER 200V SP600 ER 600V Liquiflo 2.0 MD60 MD65 AC Drive via 1203-EN1 AC Drive via 1203-EN1 Brake via 1203-EN1 Brake via 1203-EN1 007-600 HP Code AC Drive F05-F100 HP Code AC Drive	via 12 e via 1	203-E 1203-I	N1 EN1	Reliance Electric Reliance Electric Reliance Electric Reliance Electric Reliance Electric Reliance Electric Reliance Electric Allen-Bradley Allen-Bradley Allen-Bradley Allen-Bradley Allen-Bradley Allen-Bradley	DPI to EtherNet/ DPI to EtherNet/ DPI to EtherNet/ DPI to EtherNet/ DPI to EtherNet/ MDI to EtherNet/ MDI to EtherNet/ Drive Drive Drive Drive Drive Drive	
256 of 256 Module Types Found						Add to Favori	tes

Select the check mark to the left of Module Type Vendor Filters to remove the check mark. Then select the box to the left of Eaton Electrical in the top right section to add a check mark and the Select Module Type screen should now look like the following. Notice it is now displaying only the Eaton motor control products with EDS files installed in this software.

Module Type Category Filters       Module Type Vendor Filters         AC Drive Device       Alen-Bradley         CIP Motion Drive       Cognex Corporation         Communication       Eaton Automation AG (formerly Micro Innovation)         Communications Adapter       Eaton Electrical         Image: Catalog Number       Description         Vendor       Category         C441R       C441 Ethernet 120VAC IO         C441R       S611 Ethernet 120VAC IO         Eaton Electrical       Motor Overload         C441T       C441 Ethernet 120VAC IO         Eaton Electrical       Softstat Starter         C441T       S611 Ethernet 24VDC IO         Eaton Electrical       Motor Overload         C441U       C441 Ethernet 120VAC IO         C441U       C441 Ethernet 120VAC IO         Eaton Electrical       Softstat Starter         C441U       C441 Ethernet 120VAC IO         C441U       C441 Ethernet 120VAC IO         C441U       C441 Ethernet 120VAC IO         Eaton Electrical       General Purpose Disc         C441U       C441 Ethernet 120VAC IO         C441U       C441 Ethernet 120VAC IO         Eaton Electrical       General Purpose Disc         C441U       C441 Eth	Enter S	earch Text for Module	Type	Clear I	Filter	S		Hide Filte	ers 🛠
AC Drive Device       Allen-Bradley         CIP Motion Drive       Cognex Corporation         Communications Adapter       Eaton Automation AG (formerly Micro Innovation)         Communications Adapter       Eaton Electrical         Image: Catalog Number       Description         Vendor       Category         C441R       C441 Ethemet 120VAC IO         C441R       S611 Ethemet 120VAC IO         C441T       C441 Ethemet 120VAC IO         Eaton Electrical       Motor Overload         C441T       C441 Ethemet 24VDC IO         Eaton Electrical       Motor Overload         C441T       S611 Ethemet 24VDC IO         Eaton Electrical       Motor Overload         C441T       S611 Ethemet 24VDC IO         Eaton Electrical       Motor Overload         C441U       C441 Ethemet 120VAC IO ONLY         Eaton Electrical       General Purpose Disc         C441U       C441 Ethemet 120VAC IO         Eaton Electrical       Motor Overload         C441U       C441 Ethemet 120VAC IO         Eaton Electrical       General Purpose Disc         C441U       C441 Ethemet 120VAC IO         Eaton Electrical       Motor Overload         C441U       C441 Ethemet 24VDC IO	<b>V</b>	Module T	ype Category Filters			Мо	dule Type Vendor Fi	Iters	
Communications Adapter       Eaton Electrical         Catalog Number       Description       Vendor       Category         C441R       C441 Ethemet 120VAC IO       Eaton Electrical       Motor Overload         C441R       S611 Ethemet 120VAC IO       Eaton Electrical       Motor Overload         C441T       C441 Ethemet 120VAC IO       Eaton Electrical       Motor Overload         C441T       S611 Ethemet 24VDC IO       Eaton Electrical       Softstart Starter         C441U       C441 Ethemet 120VAC IO ONLY       Eaton Electrical       General Purpose Disc         C441U       C441 Ethemet 120VAC IO ONLY       Eaton Electrical       General Purpose Disc         C441U       C441 Ethemet 120VAC IO       Eaton Electrical       General Purpose Disc         C441U       C441 Ethemet 120VAC IO       Eaton Electrical       Softstart Starter         C441U       C441 Ethemet 120VAC IO       Eaton Electrical       General Purpose Disc         C441U       S811+ Ethemet 120VAC IO       Eaton Electrical       Softstart Starter         C441V       C441 Ethemet 24VDC IO       Eaton Electrical       Softstart Starter         C441V       C441 Ethemet 24VDC IO       Eaton Electrical       Softstart Starter         C441V       S811+ Ethemet 24VDC IO       Eaton Electrical </th <th></th> <th>C Drive Device IP Motion Drive communication</th> <th></th> <th></th> <th></th> <th>Allen-Bradley Cognex Corporati Eaton Automation</th> <th>on 1 AG (formerly Micro</th> <th>Innovation)</th> <th></th>		C Drive Device IP Motion Drive communication				Allen-Bradley Cognex Corporati Eaton Automation	on 1 AG (formerly Micro	Innovation)	
✓ Catalog Number         Description         Vendor         Category           C441R         C441 Ethemet 120VAC IO         Eaton Electrical         Motor Overload           C441R         S611 Ethemet 120VAC IO         Eaton Electrical         Softstart Starter           C441R         S611 Ethemet 120VAC IO         Eaton Electrical         Softstart Starter           C441T         C441 Ethemet 24VDC IO         Eaton Electrical         Motor Overload           C441T         S611 Ethemet 24VDC IO         Eaton Electrical         Softstart Starter           C441U         C441 Ethemet 120VAC IO ONLY         Eaton Electrical         General Purpose Disc           C441U         C440 Ethemet 120VAC IO         Eaton Electrical         Motor Overload           C441U         S811+ Ethemet 120VAC IO         Eaton Electrical         Softstart Starter           C441V         C441 Ethemet 24VDC IO ONLY         Eaton Electrical         Softstart Starter           C441U         S811+ Ethemet 24VDC IO ONLY         Eaton Electrical         General Purpose Disc           C441V         C441 Ethemet 24VDC IO         Eaton Electrical         General Purpose Disc           C441V         S811+ Ethemet 24VDC IO         Eaton Electrical         General Purpose Disc           C441V         S811+ Ethemet 24VDC IO	<	ommunications Adapte	r III	т. Р	•	Eaton Electrical	III		* •
C441RC441 Ethemet 120VAC IOEaton ElectricalMotor OverloadC441RS611 Ethemet 120VAC IOEaton ElectricalSoftstart StarterC441TC441 Ethemet 24VDC IOEaton ElectricalMotor OverloadC441TS611 Ethemet 24VDC IOEaton ElectricalSoftstart StarterC441UC441 Ethemet 120VAC IO ONLYEaton ElectricalSoftstart StarterC441UC441 Ethemet 120VAC IO ONLYEaton ElectricalGeneral Purpose DiscC441UC440 Ethemet 120VAC IOEaton ElectricalMotor OverloadC441US811+ Ethemet 120VAC IOEaton ElectricalSoftstart StarterC441VC441 Ethemet 24VDC IO ONLYEaton ElectricalGeneral Purpose DiscC441VS811+ Ethemet 24VDC IO ONLYEaton ElectricalGeneral Purpose DiscC441VS811+ Ethemet 24VDC IOEaton ElectricalSoftstart StarterC441VS811+ Ethemet 24VDC IOEaton ElectricalMotor OverloadC441VS811+ Ethemet 24VDC IOEaton ElectricalSoftstart StarterPower XLPower XLPower XLEaton ElectricalAC Drive Device	<b>•</b> (	Catalog Number	Description				Vendor	Category	
SVX/SPX9000 9000X OPTCQ Eaton Electrical AC Drive Device	C44 C44 C44 C44 C44 C44 C44 C44 C44 C44	41R 41R 41T 41T 41T 41U 41U 41U 41U 41V 41V 41V 41V 41V 41V 41V X/SPX9000	C441 Ethemet 120VAC IO S611 Ethemet 120VAC IO C441 Ethemet 24VDC IO S611 Ethemet 24VDC IO C441 Ethemet 120VAC IO C440 Ethemet 120VAC IO S811+ Ethemet 120VAC IO C440 Ethemet 24VDC IO C440 Ethemet 24VDC IO S811+ Ethemet 24VDC IO S811+ Ethemet 24VDC IO Power XL 9000X OPTCQ	ONLY D DNLY			Eaton Electrical Eaton Electrical	Motor Overlo Softstart Star Motor Overlo Softstart Star General Purp Motor Overlo Softstart Star General Purp Motor Overlo Softstart Star AC Drive De AC Drive De	bad tter bad tter bose Disc bad tter vose Disc bad tter vice vice

For this example, we will select the SVX drive, then select the Create button. Give the drive a name and an IP address. The Name must not exceed 10 characters to work with the Tag Creation Tool later. This name is used in the Tag Creation Tool for this particular device. It must be entered exactly the same in the Tag Creation Tool as it is entered here. We will use SVX for the name for this example.

Next, select the Change... button on this Module Properties screen to open the Module Definition screen as follows:

ſ		Module Definition	n						23
	Re	vision:	3	•	5 🌲	-			
	Ele	ctronic Keying:	Compa	atible Mod	ule	•			
	Co	nnections:							
		Name			Size		Tag Su	ffix	
		Use Only 1		Input:	0	CINT	4	SVX:I1	
L		Connection	nnection		0	SINT		<none></none>	
		Select a connectio	on 🗸						
ľ									
Ľ									
1									
						ОК		Cancel	Help

Since SVX drives have even numbers of bytes for the I/O assemblies, data type INT can be used for them. Change SINT to INT. This allows parameters such as motor speed, motor current, voltage and so on that are 16-bit word values to be displayed and entered as 16-bit values that are not split into 2 byte tags. Then click in the white space next to the words: Use Only 1 Connection to reveal all the I/O assembly pairs supported by the SVX drive as follows:

	Module Definition	1*						×
<u>R</u> e	vision:	3	•	5 🌲				
Ele	ctronic <u>K</u> eying:	Compa	atible Mod	ule	•	·		
<u>C</u> or	nnections:							
	Name			Size		Tag Su	ffix	
	Use Only 1 Connecti		Input:	0	INT	4	SVX:I1	
			Output:	0		1	<none></none>	
	Use Only 1 Conne	ction		-				
Asm 21 OT - 71 TO Asm 23 OT - 73 TO								
Asm 25 OT - 75 TO								
	Asm 101 OT - 127	TO						
	Asm 111 01 - 127	10						
					ОК		Cancel He	lp
		Module Definition Revision: Electronic Keying: Connections: Use Only 1 Conne Use Only 1 Conne Asm 21 OT - 71 T Asm 23 OT - 73 T Asm 25 OT - 75 T Asm 101 OT - 127 Asm 111 OT - 127	Module Definition*          Revision:       3         Electronic Keying:       Compared Structure         Connections:       Name         Use Only 1 Connection       Use Only 1 Connection         Asm 21 OT - 71 TO       Asm 23 OT - 73 TO         Asm 25 OT - 75 TO       Asm 101 OT - 127 TO         Asm 111 OT - 127 TO	Module Definition*          Revision:       3         Electronic Keying:       Compatible Mod         Connections:       Input:         Use Only 1 Connection       Input:         Use Only 1 Connection       Output:         Use Only 1 Connection       Asm 23 OT - 71 TO         Asm 25 OT - 75 TO       Asm 101 OT - 127 TO         Asm 111 OT - 127 TO       Asm 111 OT - 127 TO	Module Definition*         Revision:       3       5 €         Electronic Keying:       Compatible Module         Connections:       Input:       0         Use Only 1 Connection       Input:       0         Use Only 1 Connection       Output:       0         Use Only 1 Connection       Asm 23 OT - 71 TO       Asm 25 OT - 75 TO         Asm 101 OT - 127 TO       Asm 111 OT - 127 TO	Module Definition*         Revision:       3       5         Electronic Keying:       Compatible Module       •         Connections:       Input:       0         Use Only 1 Connection       Input:       0         Use Only 1 Connection       Output:       0         Asm 23 OT - 73 TO       Asm 25 OT - 75 TO         Asm 101 OT - 127 TO       Asm 111 OT - 127 TO	Module Definition*         Revision:       3       5 ⊕         Electronic Keying:       Compatible Module          Connections:       Size       Tag Su         Use Only 1 Connection       Input:       0       INT       1         Use Only 1 Connection       Output:       0       INT       1         Use Only 1 Connection       Asm 23 OT - 73 TO       Asm 25 OT - 75 TO       Asm 101 OT - 127 TO         Asm 111 OT - 127 TO       Asm 111 OT - 127 TO       OK	Module Definition*         Revision:       3       5         Electronic Keying:       Compatible Module       •         Connections:       •       Tag Suffix         Vise Only 1 Connection       Input:       0       INT       1       SVX:11         Use Only 1 Connection       Input:       0       INT       1       SVX:11         Use Only 1 Connection       Asm 23 0T - 71 TO       Asm 25 0T - 75 TO       Asm 101 0T - 127 TO         Asm 111 0T - 127 TO       OK       Cancel       He

For this example, Input Assembly 71 and Output Assembly 21 are chosen. Each assembly is 4 bytes, or 2 words (INTs). The data layouts for the Input and Output Assembly are as follows. They're shown in bytes, but will be 2 INTs in RSLogix5000 for each assembly.

Assembly	y Instance 71	(Default)												
Instance 71	nstance 71 (Input)/Length = 4 Bytes													
Byte	Bit7	Bit6	Bit5	Bit4	Bit3	Bit 2	Bit 1	Bit 0						
0	AtReference	RefFromNet	CtrlFromNet	Ready	Running2	Running1	Warning	Faulted						
1	Drive state, see Page 24													
2	Speed actual (low byte), RPM													
3				Speed ac	tual (high byte), RPN	1								

The data layout for the Output Assembly is as follows:

Assemb	olγ Instance	21 (Default)							
Instance 2	21 (Output)/Len	gth = 4 Bytes							
Byte	Bit7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	BitO	
0	—	NetRef	NetCtrl	—	—	FaultReset	RunRev	RunFwd	
1	—	—	—	—	—	—	—	—	
2				Speed ref	erence (low byte), F	RPM			
3				Speed refe	erence (high byte), F	RPM			

This allows the drive to be controlled to Run in either direction and at a speed from 0-100.00% (0-10,000). The NetCtrl and NetRef bits (5 and 6) in the first word must be set prior to operating the drive via the network. The tags imported from the Tag Generation Tool will be bits aliased to the generic tags created for the first integer for both input and output data, with the same tag names as shown above. The Speed actual and Speed reference will be 16-bit values representing the actual speed and speed reference in the input and output data. Tags with these names will also be created then imported from the Tag Generation Tool and aliased to the generic 16-bit integer tags created by RSLogix5000. This will be more apparent later in this application note when the CSV file is imported into the RSLogix5000 project.

The Module Definition window will look like the following:

	Module Definition*							83
<u>R</u> e	evision: 3		•	5 🌲	_			
Ele	ectronic <u>K</u> eying:	ompa	atible Mod	lule		·		
<u>C</u> o	nnections:							
	Name			Size		Tag Su	ffix	
A	Input:	2	INT	1	SVX:I1			
	ASII121 01 - 71 10	10	Output:	2		<b>'</b>	SVX:01	
	Select a connection	•						
								_
					ОК		Cancel Help	

Select OK, then Yes for the information screen.

RSLogix 5	5000
▲	These changes will cause module data types and properties to change. Data will be set to default values unless it can be recovered from the existing module properties. Verify module properties before Applying changes. Change module definition?
	Yes No

Then select OK for the Module Properties screen for the SVX drive.

New Module			23
General* Conn	ection* Module Info* Internet Protocol*		
Type:	SVX/SPX9000 9000X OPTCQ		
Vendor:	Eaton Electrical		
Parent:	LocalENB		
Name:	SVX Ether	net Address	
Description:		Address:	]
- Module Defin	ition		
Revision:	3.5		
Electronic Ke	ying: Compatible Module		
Connections	Asm 21 OT - 71 TO		
	Change		
Status: Creating		OK Cancel Help	

And close the Select Module Type window.

Enter Search Text for Mode	ule Type	Clear Filter	s	Hide Filters 🛠
Module           AC Drive Device           CIP Motion Drive           Communication           Communications Ada	e Type Category Filters		Module Type Vendor Fi Allen-Bradley Cognex Corporation Eaton Automation AG (formerly Micro Eaton Electrical	Innovation)
•		•		4
<ul> <li>Catalog Number</li> <li>C441R</li> <li>C441R</li> <li>C441T</li> <li>C441U</li> <li>C441U</li> <li>C441U</li> <li>C441U</li> <li>C441V</li> <li>C441V</li> <li>C441V</li> <li>C441V</li> <li>C441V</li> <li>SVX/SPX9000</li> </ul>	Description C441 Ethemet 120VAC I S611 Ethemet 120VAC I C441 Ethemet 24VDC IC C441 Ethemet 24VDC IC C441 Ethemet 120VAC I C440 Ethemet 120VAC I C440 Ethemet 120VAC IC C441 Ethemet 24VDC IC C440 Ethemet 24VDC IC S811+ Ethemet 24VDC IC S811+ Ethemet 24VDC IC S811+ Ethemet 24VDC IC S811+ Ethemet 24VDC IC	0 0 ) ) 0 ONLY 0 0 ONLY ) 0	Vendor Eaton Electrical Eaton Electrical	Category Motor Overload Softstart Starter Motor Overload Softstart Starter General Purpose Disc Motor Overload Softstart Starter General Purpose Disc Motor Overload Softstart Starter AC Drive Device AC Drive Device
•				•

The SVX Drive will then appear under the Ethernet/IP master on the lower left portion of the project as follows:



Next double click the 1769-L23E-QB1 Ethernet Port LocalENB located directly above the SVX drive. Set the IP address for this port from its Properties screen as shown below.

💷 Module Prop	perties Report: Controller:1 (1769-L23E-QB1 Ethernet Port 20.11)	83
General Con	nection RSNetWorx Module Info Port Configuration Port Diagnostics	
Type: Vendor: Parent: Name: Description:	1769-L23E-QB1 Ethernet Port 10/100 Mbps Ethernet Port on CompactLogix5323E-QB1 Allen-Bradley Controller LocalENB IP Address: 192 . 168 . 1 . 5 Host Name:	
Slot:	1 Major Revision: 20	
Status: Offline	OK Cancel Apply Help	]

Click OK to save and close this screen.

Double click Controller Tags near the top of the Controller Organizer to open the Controller Tags window.



There will be 2 INT tags of input and output data created for the SVX drive per the following:

	{}	{}		_0044:SVXSPX9000_76270E88:I:0
-SVX:I1.ConnectionFaulted	0		Decimal	BOOL
	{}	{}	Decimal	INT[2]
	0		Decimal	INT
	0		Decimal	INT
⊡-SVX:01	{}	{}		_0044:SVXSPX9000_7377BDB4:0:0
	{}	{}	Decimal	INT[2]
	0		Decimal	INT
	0		Decimal	INT

These are generic tags with the name previously entered into its Ethernet/IP Properties used to identify the tags. This same name. in this case SVX must also be used for this device in the Tag Generation tool to uniquely identify it.

## Creating CSV file for SVX Drive's I/O with Eaton's Tag Creation Tool

The Tag Creation Tool and a user manual for it can be found at the following link:

#### www.eaton.com/software

Once downloaded, double click its icon. The splash screen will open for a few seconds, then the following window will be displayed.

Select the Product to Configure	
C441R C441 120Vac I/O C441T C441 24Vdc I/O C441R S611 120Vac I/O C441T S611 24Vdc I/O C441U C440 120Vac I/O C441V C440 24Vdc I/O C441V S811+ 120Vac I/O C441V S811+ 24Vdc I/O C441V S811+ 24Vdc I/O C441V I/O 120Vac I/O C441V I/O 24Vdc I/O	
DG1	Eaton Ethernet Configurator

Ethernet/IP slave devices can be added to a network in RSLogix5000 by importing and using EDS files for each device or by using a Generic Ethernet Device selection. Since all Eaton Ethernet/IP products have a current EDS file and since we installed the EDS file for the SVX drive earlier and used it, we will select Yes to the question: Is an EDS File Being Used?.

Then select the SVX/SPX 9000 9000X OPTCQ drive from the list and enter a quantity of 1 when the next window appears. Then select the I/O pair of your choice, 21/71 is used for this example.

A Browse for Folder window will then be displayed. Browse for a folder where you want to save the CSV Tag file this tool will generate. Also, provide a name for that file when the next window appears.

You will then be prompted for a Module Device Name. It is very important that the name you provided for this device in RSLogix5000 is used. The name cannot exceed 10 characters. If the name you provided for this device in RSLogix5000 was longer than 10 characters, you must go back and change it before continuing with this tool. The name used for this example is SVX.

You will then be prompted if you wish to add additional products. Select No for this example, but this tool supports up to 100 Eaton Ethernet/IP slave devices per CSV file. If more are needed, the tool may be executed again to include those devices in another CSV file, which can also be imported into the same RSLogix5000 project.

### Importing CSV File created for SVX Drive using the Tag Creation Tool

While viewing the Controller Tags in RSLogix5000, select the Tools drop down menu, then select Import/Tags and Logic Comments.

RSLogix 5000 - SVX [1769-L23E-QB1 20.11]*	- [Controller Tag	s - SVX(controller)]							
File Edit View Search Logic Comr	munications To	ols Window Help							- 8 ×
		<u>O</u> ptions <u>S</u> ecurity ▶	R 🛛 🖉 🔍 G	Select a Lang	uage	- 🧶			
Offline 📴 RUN		Documentation Languages		- ₩					
No Forces									
No Edits 🚔 🔲 1/0		Import	Tags and Log	lic Comments					
		Export •	<u>C</u> omponent.						
Controller Organizer - 4 X	Scope: 🐧 🎒	EDS Hardware Installation Tool				•	Y. Enter Name Filter		•
Controller SVX	Name	Motion •	🗄 🛆 Value	<ul> <li>Force Mas</li> </ul>	k 🗲 St	ityle	Data Type	Description	<u>^</u>
Controller Fault Handler	±-Loca			}	{}		AB:Embedded_IQ16F:C:0		
Power-Up Handler	+ Loca	Custom Tools		}	<i>{}</i>		AB:Embedded_IQ16F:I:0		
🖃 🚔 Tasks	🛨 Loca 🗾	ControlELASH		}	{}		AB:Embedded_0B16:C:0		
🖨 😽 MainTask	+ Loca	Co <u>n</u> don Expiri		}	{}		AB:Embedded_0B16:I:0		
🗄 🚔 MainProgram	+ Local:2:0			}	{}		AB:Embedded_0B16:0:0		
Unscheduled Programs	=-SVX:I1			}	{}		_0044:SVXSPX9000_76270E88:I:0		
🚊 🔄 Motion Groups	SVX:11	.ConnectionFaulted		0	De	ecimal	BOOL		
Ungrouped Axes	E-SVX:11	.Data		}	{} De	ecimal	INT[2]		
- Add-On Instructions	+ SVX	(11.Data[0]		0	De	ecimal	INT		
😑 🔄 Data Types	+-SVX	CI1.Data[1]		0	De	ecimal	INT		
User-Defined	=-\$VX:01		·	}	{}		_0044:SVXSPX9000_7377BDB4:0:0		
Add On Defined	- SVX:01	1.Data		}	{} De	ecimal	INT[2]		
Predefined	+ SVX	(:01.Data[0]		0	De	ecimal	INT		
Module-Defined	±-svx	(01.Data[1]		0	De	ecimal	INT		
VO Configuration     VO Configuration     ToopactLogiS323E-QB1 System     Di 1769-L23E-QB1 System     Toop-L23E-QB1 Ethernet Port Li     Syx/SPX9000 Syx     Syx/SPX9000 Syx     UO CompactLogiSU Local     CompactLogiSU Local     Di Embedded I/O     U1 Embedded IQ16F Dis									E
Impart tags and logic comments into the open p	Monitor      oroject	r Tags / Edit Tags /			•	0.5			7:41 AM
	<u> </u>					• •		- 48- G. 111 (Ø	AT AN

Browse for the CSV file previously created with the Tag Generation Tool, then select the Import button. The descriptive tags for the SVX drive will be imported and aliased to the generic I/O tags for the drive. The tags are linked by the name given the SVX drive in both software tools. The descriptive tags shown below for the SVX drive can now be used in the PLC program. No tags need to be manually entered into RSLogix5000 for any Eaton Ethernet/IP products.

#### Optional: Use I/O Assembly Pair 101/127 for the SVX Drive

If the application requires monitoring more data from the SVX drive than status bits and actual speed, using I/O assemblies 101 and 127 will allow for monitoring 8 additional parameters, such as Motor Torque, Motor Current, Motor Voltage, Motor Power and more. A list of these parameters with a unique ID number for each of them can be found in Chapter 6 of Publication MN04004001E, the 9000X AF Drives Application Manual.

The SVX drive must be configured for these I/O Assemblies. Where to find this in the drive's Keypad/display is described earlier in this paper.

Note: In order to us these I/O assemblies and configure the drive to monitor additional parameters, the Multi-Purpose Control Application must be used.

The default ID numbers set in the drive for **FB Data Out1 Sel** through **FB Data Out8 Sel** are 1-8. These ID numbers are referenced to the following parameters on page 6-5 of the above referenced Application Manual.

- 1: Output Frequency in Hz
- 2: Motor Speed in rpm
- 3: Motor Current in amps
- 4: Motor Torque in %
- 5: Motor Power in %
- 6: Motor Voltage in volts
- 7: DC-bus Voltage in volts
- 8: Unit Temperature in degrees C

These can be modified using the drive's keypad/display as follows:

Parameters / Fieldbus / Navigate to FB Data Out1 Sel through FB Data Out8 Sel

These 8 parameters can be modified to any of the ID numbers linked to specific parameters in Chapter 6 of the Application Manual.

# Using I/O Assembly pair 101/127 in RSLogix5000

In the RSLogix5000 project created earlier in this paper, right click on Ethernet in the Controller Organizer on the left and choose New Module, per the following:

8 RSLogix 5000 - SVX [1769-L23E-QB1 20.11]*	* - [Controller Tags - SVX(controller)]	Million House Bar			X
File Edit View Search Logic Comr	munications Tools Window Help			-	Ξ×
1 📽 🖬 🎂 X 🖻 💼 🗠 🖂	- 🚑 🕰 🛅 📝	📑 🔍 🔍 Select a Language 👻	<b>&gt;</b>		
Offline □ + □ RUN No Forces → □ OK No Edits ■ □ I/O Controller Organizer → ╄ X □ - ⓒ Controller SVX	Path Cronne>     P		Y. Enter Mana Filter	Dunister	•
Controller Tags Controller Tags Controller Fault Handler Controller Sault Handler Controller Controller Controller Handler Controller Controller	Name        5(*)           +         Local1C           +         Local2C           +         Local2C           +         Local2C           +         Local2C	Value         Income Mask         Style           ()         ()         ()           ()         ()         ()           ()         ()         ()           ()         ()         ()           ()         ()         ()           ()         ()         ()	Dist Type AB:Embedded_01016F:C:0 AB:Embedded_01016F:C:0 AB:Embedded_01616:0 AB:Embedded_01616:0 AB:Embedded_01616:0		
Bus Size	San Ctrl+V >				E.
۲ (III ) ا	Monitor Tags / Edit Tags /	•			•
Create a module				_	
			• 🖂 🚷 🥥 🖶 🛱 🏹 🕗 🚺	🥑 🔛 📴 .atl 🍖 8:31 A	AM

#### The following window will open:

Enter Search Text for Module	Clear Filt	ers	Hide Filters 🛠
Module Ty	pe Category Filters	Module Type Vendor F	ilters 🔺
AC Drive Device     CIP Motion Drive     Communication     Communications Adapted		Allen-Bradley     Cognex Corporation     Eaton Automation AG (formerly Micro     Faton Flectrical	Innovation)
<			•
Catalog Number	Description	Vendor	Category ^
0005_007B_0030 0005_007B_0038 0005_007B_0039 0005_007B_003A 0005_007B_0060 0005_007F_0027 0005_007F_0028 1305-ACDrive-EN1 1336E-IMPACTDrive-EN1 1336F-PLUSIIDrive-EN1 1336S-PLUSDriveLG-EN1 1336S-PLUSDriveLG-EN1	SP600           SP600 ER 400V           SP600 ER 200V           SP600 ER 600V           Liquiflo 2.0           MD60           MD65           AC Drive via 1203-EN1           AC Drive via 1203-EN1           AC Drive via 1203-EN1           Brake via 1203-EN1           007-600 HP Code AC Drive via 1203           F05-F100 HP Code AC Drive via 1203	Reliance Electric Reliance Electric Reliance Electric Reliance Electric Reliance Electric Reliance Electric Reliance Electric Allen-Bradley Allen-Bradley Allen-Bradley Allen-Bradley 3-EN1 Allen-Bradley	DPI to EtherNet/I DPI to EtherNet/I DPI to EtherNet/I DPI to EtherNet/I DPI to EtherNet/I MDI to EtherNet/I MDI to EtherNet/I Drive Drive Drive Drive Drive Drive
256 of 256 Module Types Four	d		Add to Favorites

De-select the check mark to the left of Module Type Vendor Filters, then select to add a check mark to the left of Eaton Electrical and the window should look like the following:

Enter Search Text fo	r Module Type	Clear Filters	s	Hide Filters 🕱
<b>V</b>	Module Type Category Filters	<u> </u>	Module Type Vendor F	ilters
AC Drive Devic     CIP Motion Driv     Communication	ve ve		Allen-Bradley Cognex Corporation Eaton Automation AG (formerly Micro	E Innovation)
Communication	s Adapter	- 7	Eaton Electrical	
•				•
<ul> <li>Catalog Numb</li> </ul>	er Description		Vendor	Category
C441R C441R C441T C441T C441U C441U C441U C441U C441V C441V C441V C441V C441V SVX/SPX9000	C441 Ethemet 120VA S611 Ethemet 120VA C441 Ethemet 24VDC S611 Ethemet 24VDC C441 Ethemet 120VA C440 Ethemet 120VA S811+ Ethemet 120VA C441 Ethemet 24VDC C440 Ethemet 24VDC S811+ Ethemet 24VD S811+ Ethemet 24VD Power XL 9000X OPTCQ	C 10 C 10 C 10 C 10 ONLY C 10 ONLY AC 10 C 10 ONLY I 0 C 10	Eaton Electrical Eaton Electrical	Motor Overload Softstart Starter Motor Overload Softstart Starter General Purpose Disc Motor Overload Softstart Starter General Purpose Disc Motor Overload Softstart Starter AC Drive Device AC Drive Device
•		III		•

New Module	۲ <u>ــــــــــــــــــــــــــــــــــــ</u>
General Connection Module Info Internet P	otocol
Type: SVX/SPX9000 9000X OPTCG	
Vendor: Eaton Electrical	
Parent: LocalENB	
Name:	Ethernet Address
Description:	Private Network: 192.168.1.
	IP Address:
	O Host Name:
	-
Module Definition	
Revision: 3.5	
Electronic Keying: Compatible Module	
Connections: Use Only 1 Connection	
	Change
Status: Creating	OK Cancel Help

Select the SVX drive and then click the Create button to open the New Module window as follows:

Enter the same name for this device as used in the Tag Generation Tool. SVX is used for this example. Modify the IP address then select the Change... button to open the following window:

	23
Revision: 3 - 5	
Electronic Keying: Compatible Module	
Connections:	
Name Size Tag Suffix	
Use Only 1 Input: 0 CINT 1 I1	
Connection Output: 0 SINT I <none></none>	
Select a connection	
OK Cancel He	lp

Change SINT to INT for the data type, then click in the white space in the area to the right of the words: Use Only 1 Connection to reveal the I/O Assembly pair choices as follows:

1		Module Definition*						×	J
	<u>R</u> e Ele	vision: 3 ctronic <u>K</u> eying: C	ompa	▼ atible Mod	5 🖨	-	•		
	Cor	nnections:							
		Name			Size		Tag Su	ffix	
		Use Only 1 Connecti		Input:	0	INIT	4	11	
				Output:	0		'	<none></none>	I
		Use Only 1 Connecti Asm 21 OT - 71 TO Asm 23 OT - 73 TO Asm 25 OT - 75 TO Asm 101 OT - 127 T Asm 111 OT - 127 T	ion O O						
						OK		Cancel Help	

Select Asm 101 OT – 127 TO as shown. This window should now look like the following:

Module Definition*					23				
Revision: 3 - 5 -									
Electronic Keying: Compatible Module									
Connections:									
Name		Size		Tag Su	ffix				
Ann 101 OT 127 TO	Input:	10	NT	1	11				
Asin 101 01 - 127 10	Output:	4			01				
Select a connection 👻		-							
_									
			ОК		Cancel Help				

Note that the size of the input data is 10 words. The first word contains the status bits. The second word is the actual speed and the next 8 words are the 8 additional parameters we previously configured in the drive keypad with for FB Data Out1 Sel through FB Data Out8 Sel. For more information refer to the OPTCQ Option Card User Manual, publication MN04002005E.

The Input Assembly layout is as follows:

Byte	Bit7	Bit6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	BitO			
0	Status Word (low byte)										
1	Status Word (high byte)										
2	Speed Actual (low byte) in % of maximum speed										
3	Speed Actual (high byte) in % of maximum speed										
4	Process Data Out 1 (low byte)										
5	Process Data Out 1 (high byte)										
6	Process Data Out 2 (low byte)										
7	Process Data Out 2 (high byte)										
8				Process	Data Out 3 (low by	rte)					
9				Process	Data Out 3 (high by	/te)					
10				Process	Data Out 4 (low by	rte)					
11				Process	Data Out 4 (high by	/te)					
12				Process	Data Out 5 (low by	rte)					
13				Process	Data Out 5 (high by	/te)					
14				Process	Data Out 6 (low by	rte)					
15				Process	Data Out 6 (high by	/te)					
16				Process	Data Out 7 (low by	rte)					
17				Process	Data Out 7 (high by	/te)					
18				Process	Data Out 8 (low by	rte)					
19				Process	Data Out 8 (high by	/te)					

Output Assembly Layout is as follows:

Byte	Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit 1	Bit O		
0	—	NetRef	NetCtrl	—	—	FaultReset	RunRev	RunFwd		
1	_									
2	FBSpeed reference (low byte), RPM									
3	FBSpeed reference (high byte), RPM									
4	FBProcessDiataIn1(low byte)									
5	FBProcessDataIn1(high byte)									
6				FBProc	essDataIn2(low byt	e)				
7	FBProcessDataIn2(high byte)									

While this data is shown in bytes, it will be in 16-bit integers (INTs) in the Controller Tags area in RSLogix5000, because we configured the connection for INTs rather than SINTs. This makes viewing and displaying the data easier, without the need to use additional logic to put 2 bytes together into a word for each parameter.

Click OK to close the Module Definition window. The select Yes to the following popup:

RSLogix 5	000
▲	These changes will cause module data types and properties to change. Data will be set to default values unless it can be recovered from the existing module properties. Verify module properties before Applying changes.
	Change module definition?
	Yes No

The Module Definition window should now look like the following:

New Module	1. Doc. 17 m				22
General* Conne	ction* Module Info* Internet Protoco	×			
Type:	SVX/SPX9000 9000X OPTCQ				
Vendor:	Eaton Electrical				
Parent:	LocalENB				
Name:	SVX		Ethernet Address		
Description:		*	Private Network:	192.168.1. 8	
			O IP Address:		
			○ Host Name:		
		~			
Module Definit	ion				
Revision:	3.5				
Electronic Key	ring: Compatible Module				
Connections:	Asm 101 OT - 127 TO				
	_				
		Change			
Status: Creating			ОК	Cancel	Help

Select OK to close and save this New Module window. Then select the Close button to close the Select Module Type window.

Double click the Controller Tags in the Controller Organizer per the following to open the Controller tags screen.



The generic tags created for the SVX drive for I/O Assemblies 101/127 are shown below:

	{}	{}		_0044:SVXSPX9000_7E5A1DEB:I:0
-SVX:I1.ConnectionFaulted	0		Decimal	BOOL
⊡-SVX:I1.Data	{}	{}	Decimal	INT[10]
	0		Decimal	INT
	0		Decimal	INT
	0		Decimal	INT
±-SVX:I1.Data[3]	0		Decimal	INT
	0		Decimal	INT
	0		Decimal	INT
	0		Decimal	INT
	0		Decimal	INT
	0		Decimal	INT
	0		Decimal	INT
⊡-SVX:01	{}	{}		_0044:SVXSPX9000_A52E5EA9:0:0
- SVX:01.Data	{}	{}	Decimal	INT[4]
	0		Decimal	INT
	0		Decimal	INT
	0		Decimal	INT
	0		Decimal	INT

#### Creating CSV file for SVX Drive's I/O with Eaton's Tag Creation Tool

The Tag Creation Tool and a user manual for it can be found at the following link:

www.eaton.com/software

Once downloaded, double click its icon. The splash screen will open for a few seconds, then the following window will be displayed.

Select the Product to Configure	
C441R C441 120Vac I/O C441T C441 24Vdc I/O C441R S611 120Vac I/O C441T S611 24Vdc I/O C441U C440 120Vac I/O C441V C440 24Vdc I/O C441V S811+ 120Vac I/O C441V S811+ 24Vdc I/O C441V I/O 120Vac I/O C441V I/O 24Vdc I/O SVX/SPX 9000 9000X OPTCO DG1	Eaton Ethernet Configurator
	Yes No

Ethernet/IP slave devices can be added to a network in RSLogix5000 by importing and using EDS files for each device or by using a Generic Ethernet Device selection. Since all Eaton Ethernet/IP products have a current EDS file and since we installed the EDS file for the SVX drive earlier and used it, we will select Yes to the question: Is an EDS File Being Used?.

Then select the SVX/SPX 9000 9000X OPTCQ drive from the list and enter a quantity of 1 when the next window appears. Then select the I/O pair of your choice, 101/127 is used for this example.

A Browse for Folder window will then be displayed. Browse for a folder where you want to save the CSV Tag file this tool will generate. Also, provide a name for that file when the next window appears.

You will then be prompted for a Module Device Name. It is very important that the name you provided for this device in RSLogix5000 is used. The name cannot exceed 10 characters. If the name you provided for this device in RSLogix5000 was longer than 10 characters, you must go back and change it before continuing with this tool. The name used for this example is SVX.

You will then be prompted if you wish to add additional products. Select No for this example, but this tool supports up to 100 Eaton Ethernet/IP slave devices per CSV file. If more are needed, the tool may be executed again to include those devices in another CSV file, which can also be imported into the same RSLogix5000 project.

#### Importing CSV File created for SVX Drive using the Tag Creation Tool

While viewing the Controller Tags in RSLogix5000, select the Tools drop down menu, then select Import/Tags and Logic Comments.

If is is void         State         Control State         State         State         State         State         State         State         State	RSLogix 5000 - SVX [1769-L23E-QB1 20.11]*	- [Controller	Tags - SVX(controller)]	-	ALC: NO.	Strengt Start	-		_ 0 <u>×</u>	
Utility       Control table in the set property in the set of any segue.       Image: Sector of any segue.         Utility       Image: Sector of any segue.       Image: Sector of any segue.       Image: Sector of any segue.         Utility       Image: Sector of any segue.         Utility       Image: Sector of any segue.         Image: Sector of any segue.       Image: Sector of any segue.       Image: Sector of any segue.       Image: Sector of any segue.       Image: Sector of any segue.         Image: Sector of any segue.       Image: Sector of any segue.       Image: Sector of any segue.       Image: Sector of any segue.       Image: Sector of any segue.       Image: Sector of any segue.         Image: Sector of any segue.       Image: Sector of any segue.       Image: Sector of any segue.       Image: Sector of any segue.       Image: Sector of any segue.         Image: Sector of any segue.       Image: Sector of any segue.       Image: Sector of any segue.       Image: Sector of any segue.       Image: Sector of any segue.       Image: Sector of any segue.         Image: Sector of any segue.       Image: Sector of any segue.       Image: Sector of any segue.       Image: Sector of any segue.       Image: Sector of any segue.         I	File Edit View Search Logic Com	munications	Tools Window Help							×
Image:			Options					0		-
Utility         I is No.         I is No.         I is No.         I is No.           No Edd         I is No.         I is No.         I is No.         I is No.           No Edd         I is No.         I is No.         I is No.         I is No.           No Edd         I is No.         I is No.         I is No.         I is No.           I is No.         I is No.         I is No.         I is No.         I is No.           I is No.         I is No.         I is No.         I is No.         I is No.           I is No.         I is No.         I is No.         I is No.         I is No.           I is No.         I is No.         I is No.         I is No.         I is No.         I is No.           I is No.         I is No.         I is No.         I is No.         I is No.         I is No.           I is No.         I is No.         I is No.         I is No.         I is No.         I is No.         I is No.         I is No.         I is No.         I is No.         I is No.         I is No.         I is No.         I is No.         I is No.         I is No.         I is No.         I is No.         I is No.         I is No.         I is No.         I is No.         I is No.         I is No.         I is No.			Security	2	🛛 च च 🖉	elect a Language	-	<b>&gt;</b>		
No Force       If the method is provided in the second of th	Offline 🛛 🗸 🗐 RUN		Desumentation Languages			2				
Be Edit       Find       Tage and Loge Component.         Experiment       Experiment       Component.         Construction 7       Experiment       Experiment       Outponent.         Construction 7       Experiment       Experiment       Experiment       Experiment       Experiment         Experiment 7       Experiment 7       Experiment       Experimant <thexperimant< th=""> <th< td=""><td>No Forces</td><td></td><td>Documentation Languages</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<></thexperimant<>	No Forces		Documentation Languages							
Control Face     Control     Contro	No Edits	•	Import >		Tags and Logic Con	nments				
Controler Style         Up to a file Hardwee Installation Tool         V . Controler Style                Controler Style              Second File Style		- D -	Export +		Component					
Controller Takit       Neme       Melon       ECC Value       Force Mask       Splp       Das Type       Description         Controller Takit       Neme       Melon       ECC Value       Force Mask       Splp       Das Type       Description         Main Takit       Controller Takit       Controller Takit       Controller Takit       Controller Takit       Ald Encodedde, Diffe D         Main Takit       South       Controller Takit       Controller Takit       Controller Takit       Ald Encodedde, Diffe D         Main Takit       South       Controller Takit       Controller Takit       Ald Encodedde, Diffe D         Main Takit       South       Controller Takit       Controller Takit       Ald Controller South       Ald Controller South       Ald Controller South       Encodedde, Diffe D         Main Takit       South David       Controller South       Controller South       Encodedde, Diffe D       Encodedde, Diffe D         Main Takit       South David       Controller South       Encodedde, Diffe D       Encodedde, Diffe D       Encodedde, Diffe D         Main Takit       South David       Encodedde, Diffe D       Encodedde, Diffe D       Encodedde, Diffe D       Encodedde, Diffe D         Main Takit       South David       Encodedde, Diffe D       Encodedde, Diffe D       <	Controller Organizer 🗸 🕂 🗙	Scorer #	EDS Hardware Installation Tool	Ē				- 🗸 Enter Name Filter.		-
• I Do Portuge Instantario         • El Diverse Unit and ended anded and ended and ended and end	Controller SVX	Scope. B				<b>F W I A</b>	0.1			
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Browse for the CSV file previously created with the Tag Generation Tool, then select the Import button. The descriptive tags for the SVX drive will be imported and aliased to the generic I/O tags for the drive. The tags are linked by the name given the SVX drive in both software tools. The descriptive tags shown below for the SVX drive can now be used in the PLC program. No tags need to be manually entered into RSLogix5000 for any Eaton Ethernet/IP products.

#### References

- 1. The SVX drive user manual is Publication MN04001004E
- 2. The SVX Ethernet user manual for the OPTCQ Option Board is Publication MN04002005E
- 3. The 9000X AF Drives Application Manual is Publication MN04004001E

## **Additional Help**

In the US or Canada: please contact the Technical Resource Center at 1-877-ETN-CARE or 1-877-326-2273 option 2, option 6.

All other supporting documentation is located on the Eaton web site at www.eaton.com/Drives





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