

Lenze i550

Actuator Speed AOI

Documentation

Setup Process Software Manual EN

Lenze

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About this Documentation

This document describes the Add-On Instruction (AOI) *i550_ActuatorSpeed*, which is intended to be used within RSLogix 5000 to allow control of a Lenze i550 drive using EtherNet/IP communication. It covers the installation, integration, and use of the *i550_ActuatorSpeed* AOI. This includes required drive settings, installing the i550 Device Description (EDS) and AOI file into RSLogix 5000, implementing the AOI in a project, and controlling the drive with the AOI. The document was written for use with the following software versions:

Software	From version
Lenze >>Easy Starter<<	V 1.16
Allen Bradley >>RSLogix 5000<<	20.01
Allen Bradley >>RSLinx Classic<<	-----
AOI file	V 3.0
EDS file	Lenze_IOFW51AGXX_V1-20181107.eds

Document History:

Version	Notes	Author	Date
Beta	Beta Initial Release	Spadarzewski, R	01/01/17
V1.0	Revision of Initial Release	Spadarzewski, R Straus, C	02/13/17
V1.1	Update for Issues seen with new EDS files	Bingham, D	11/08/18
V1.2	Addition of new sections and change of AOI name	Ball,D	8/12/2019

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1 Setup

1.1 Communication Setup

The following sections describe the setup and installment of the necessary files for the Actuator Speed AOI with an i550 inverter and an Allen Bradley controller. The files needed in the process are:

- Lenze_IOFW51AGXX_V1-20181107.eds
- i550_ActuatorSpeed_v3.0.L5X

1.1 Communication Setup

Before working in RSLogix 5000 make sure the following configurations have been made:

- 1) Assign IP addresses (via BootP or diagnostic cable): make sure all devices have IP addresses in the same range and that the computer's network IP address is static. The IP address of the i550 can be configured via BootP or Easy Starter using a diagnostic USB cable. Without this, communication between devices will not be possible. See Appendix 4.4 for more information on configuring IP addresses using Easy Starter.
- 2) Configure for network control
 - a. 0x2860:01 (P201:01) = 05 – Default Setpoint Source (network)
 - b. 0x2631:01 (P400:01) = 01 – Enable (true)
 - c. 0x2631:02 (P400:02) = 01 – Run (true)
 - d. 0x2631:37 (P400:37) = 01 – Activate network control
- 3) Set motor data from the Settings tab of EASY Starter or from Group 3 of the Parameter List. See the i500 manual for more information.
- 4) Set Accel/Decel, QSP decel
 - a. 0x2917:00 (P220:00) – Acceleration Time 1
 - b. 0x2918:00 (P221:00) – Deceleration Time 1
 - c. 0x291C:00 (P225:00) – Quick stop decel. time

Configuration from the network via explicit messaging is also possible. Please see Section 3 of this document for more information.

1 Setup

1.2 RSLinx Classic

1.2 RSLinx Classic

RSLogix 5000 uses RSLinx Classic to set up the communication path with the controller and any other devices. Because of this, the communication path must be first set up in RSLinx Classic before we can work in RSLogix 5000. To do this, use the following steps:

- 1) Open RSLinx Classic.
- 2) Once opened select *Communications* and then *Configure Drivers* (Figure 1).

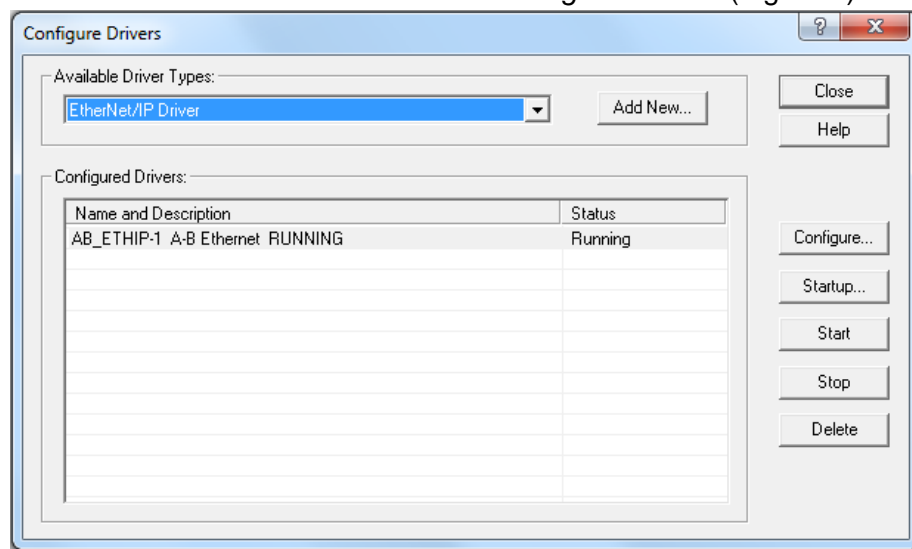


Figure 1: RSLinx Classic configure drivers

- 3) Here is where new and old drivers can be added or deleted as necessary.
- 4) To add a new driver, select the communication type (typically Ethernet/IP) and then select *Add New*.
- 5) Add a name if desired and click *OK*. Then it is going to ask for the proper Network connection (Figure 2). Make sure to select the connection that you have already configured with the proper IP address.

1 Setup

1.2 RS Linx Classic

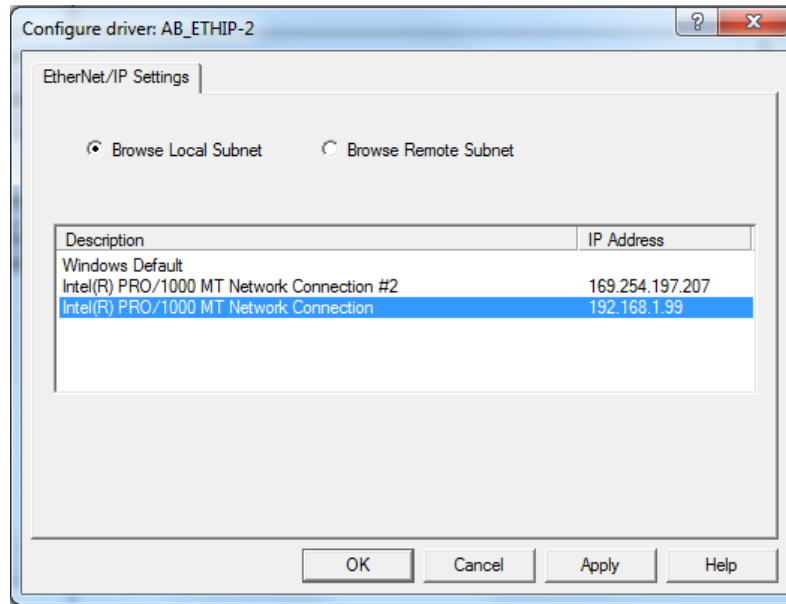


Figure 2: Network selection

5) Hit *apply* and then *OK*.

Now you should be able to see all the devices that are connected and using similar IP addresses. You are now ready to open RSLogix 5000.

1 Setup

1.3 Communication Setup

1.3.1 EDS Installation in RSLogix 5000

1.3 RSLogix 5000

Now you are ready to work in RSLogix 5000. Open it and create a new project with the controller you are intending to use. Make sure to select the correct *Type* and *Revision* as well as assign a *Name* to your controller (Figure 3).

The 'New Controller' dialog box is shown with the following fields and values:

- Vendor: Allen-Bradley
- Type: 1769-L35E CompactLogix5335E Controller
- Revision: 20
- Name: CompactLogix_drive
- Description: (empty)
- Chassis Type: <none>
- Slot: 0
- Safety Partner Slot: <none>
- Create In: C:\RSLogix 5000\Projects
- Security Authority: No Protection

Buttons: OK, Cancel, Help, Browse...

Figure 3: New Controller

1.3.1 EDS Installation in RSLogix 5000

In order to add the i550 drive to the Ethernet/IP network in your RSLogix 5000 project, install the EDS or Device Description file.

- 1) Download the latest Ethernet/IP EDS file from the Software Downloads portion of the Lenze website (www.Lenze.com). It will be contained in a zip file *Ethernet_IP_EDS_V3_0.zip*. The EDS File for the i550 Lenze drive is *Lenze_IOFW51AGXX_V1-20170307.eds*.
- 2) To install the EDS file into RSLogix 5000, use the EDS Hardware Installation Tool. Follow Figure 4 - Figure 8 below.

1 Setup

1.3.1 EDS Installation in RSLogix 5000

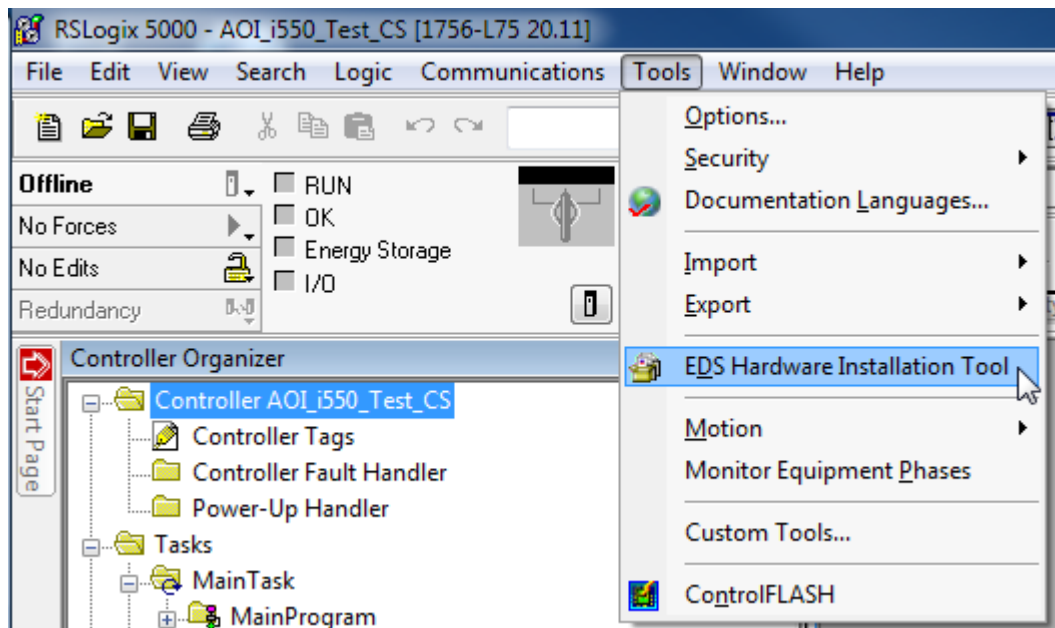


Figure 4: EDS Hardware Installation Tool



Figure 5: Begin EDS Wizard

1 Setup

1.3.1 EDS Installation in RSLogix 5000



Figure 6: Register an EDS file

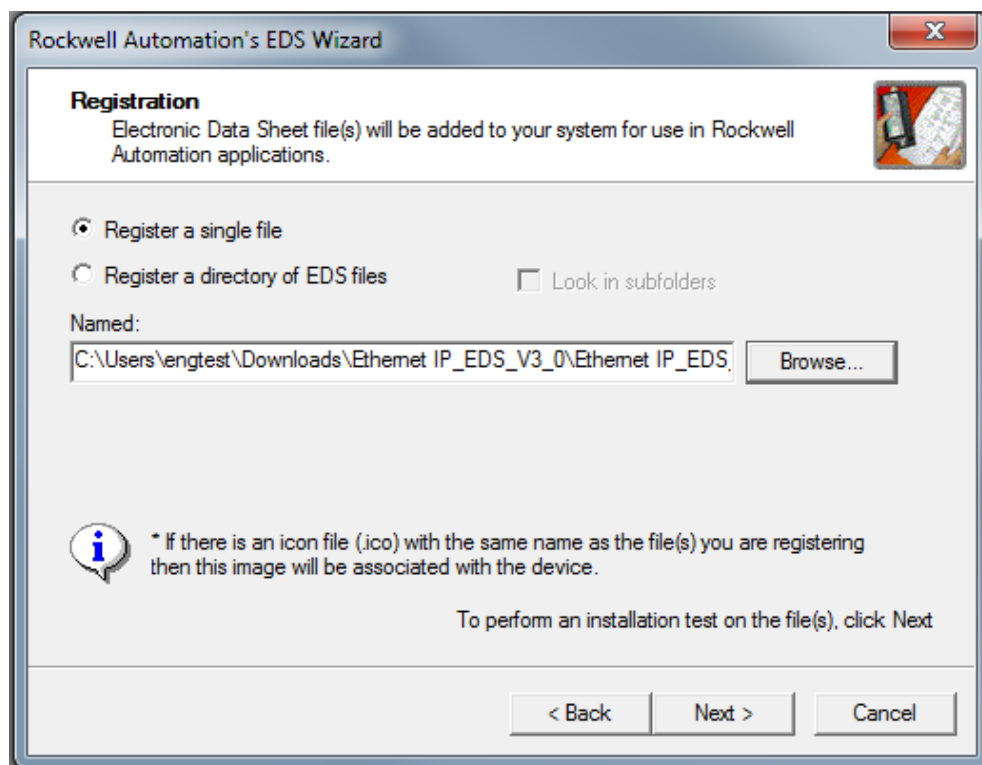


Figure 7: Browse for the *Lenze_IOFW51AGXX_V1-20170307.eds* file

1 Setup

1.3.1 EDS Installation in RSLogix 5000

1.3.2 Add i550 Drive to Project and Required Settings for AOI Control

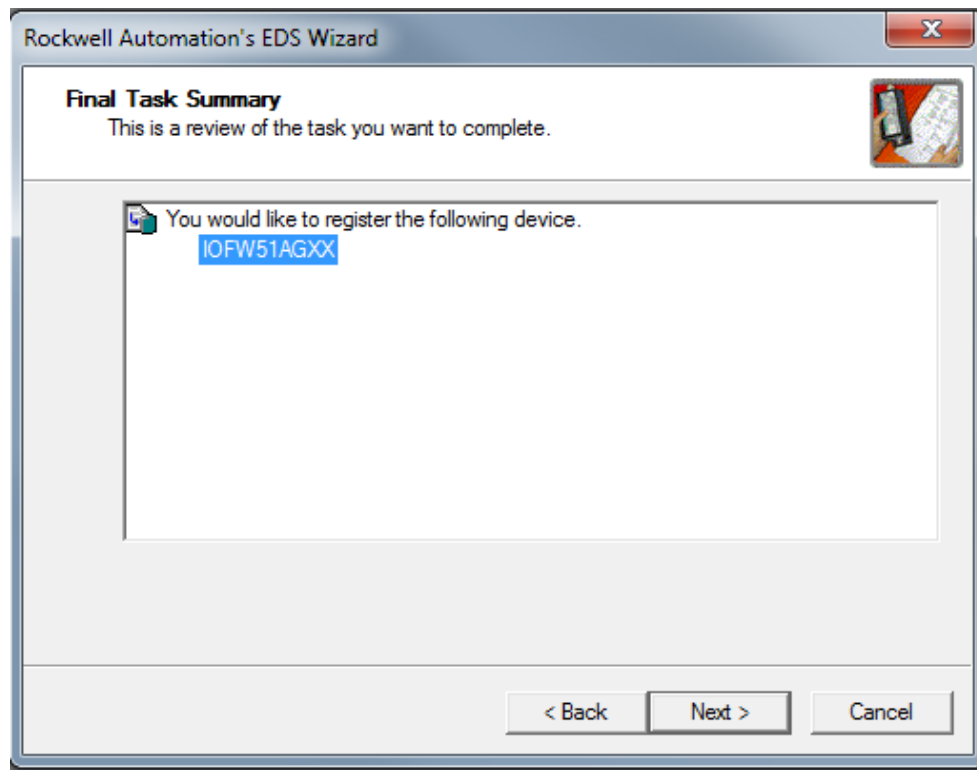


Figure 8: Confirm registration

You are now ready to add your i550 to your project.

NOTE: If there is a newer edition of the EDS file, consult Section 3 of this document, *EDS File Revisions*, on how to properly implement it. Otherwise you will get a “false data type” error.

1.3.2 Add i550 Drive to Project and Required Settings for AOI Control

- 1) Add i550 drive as New Module to the Ethernet network. Select catalog number 2017-03-07-i550 from module list (Figures 9, 10).

1 Setup

1.3.2 Add i550 Drive to Project and Required Settings for AOI Control

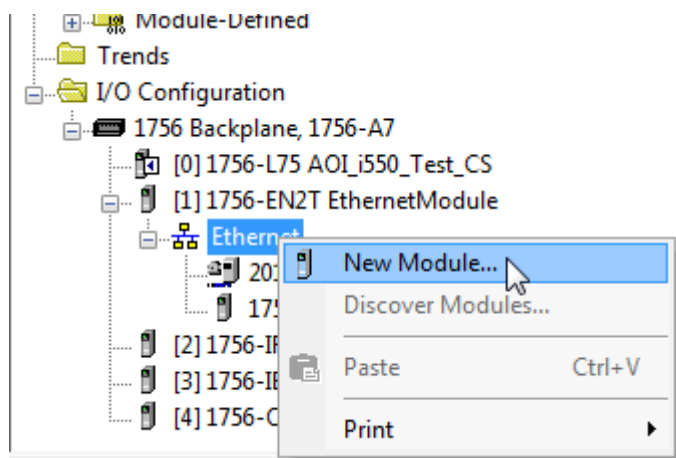


Figure 9: New Module

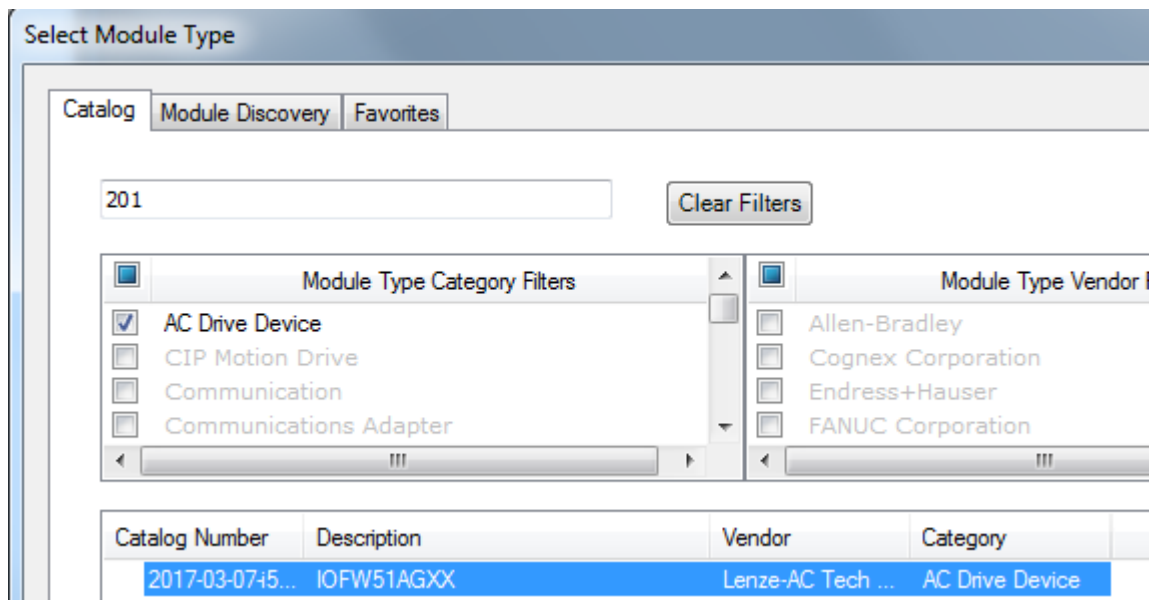


Figure 10: Select device 2017-03-07-i550

- 2) Click "Create" and enter the following settings for the i550 drive:
 - a. Name
 - b. IP address
 - c. Custom I/O connection (bold indicates a change from default). See Figures 11 - 14.
 - i. Input Configuration: 29, 32, 35, **40**
 - ii. Output Configuration: 60, 63, 67
 - iii. Use type **"INT"** instead of "SINT"

1 Setup

1.3.2 Add i550 Drive to Project and Required Settings for AOI Control

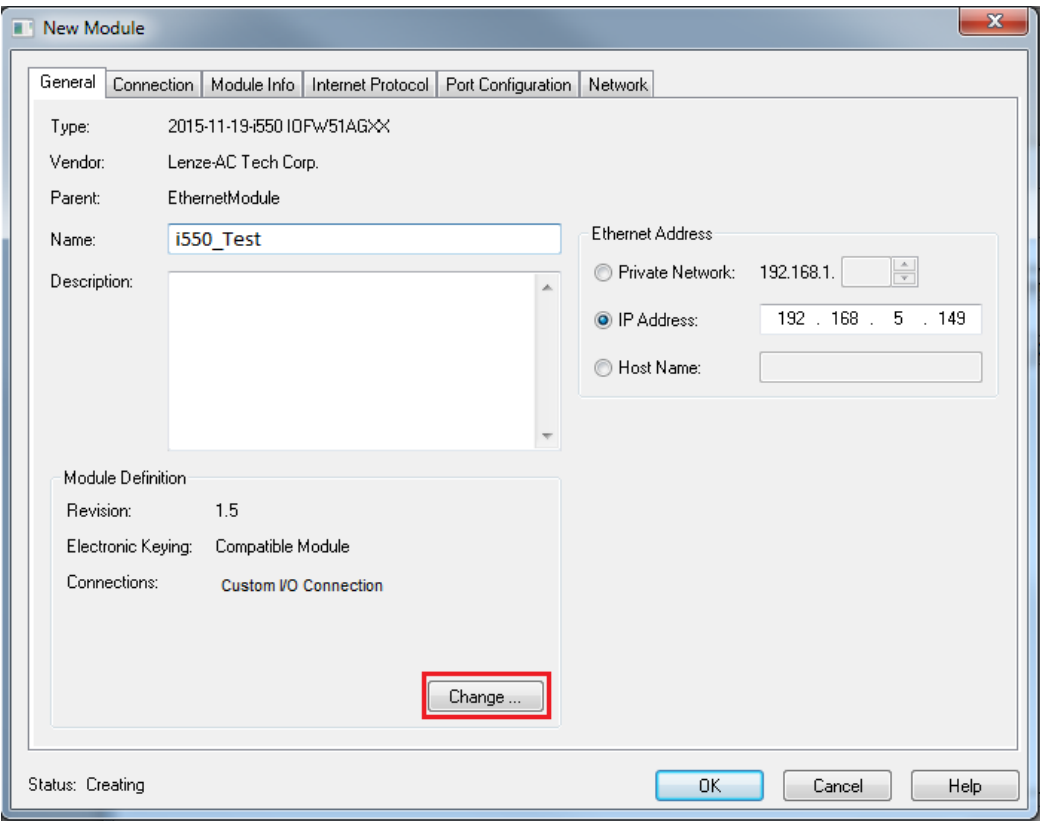


Figure 11: New Module Settings

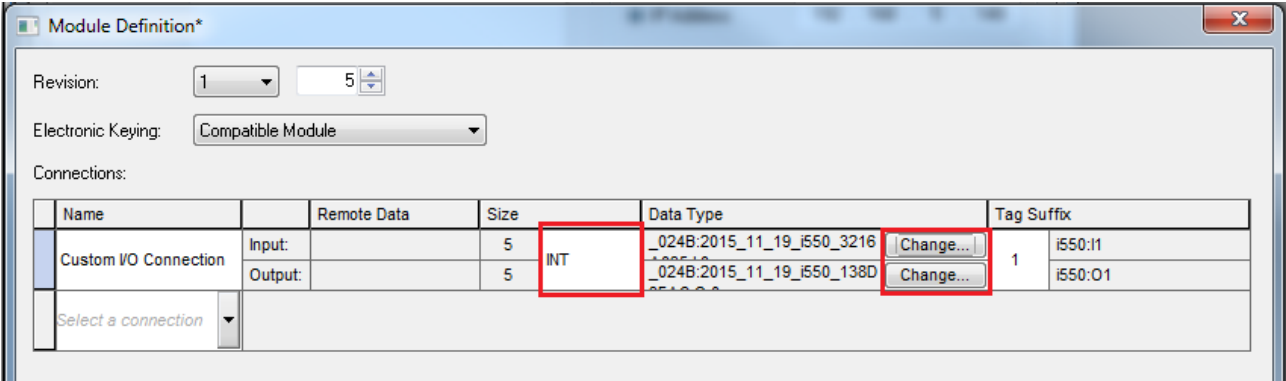


Figure 12: Custom I/O Connection settings

1 Setup

1.3.2 Add i550 Drive to Project and Required Settings for AOI Control

1.3.3 Install Add-On Instruction (AOI) to Project

Connection: Custom I/O Connection

Data Type: _024B:2015_11_19_i550_7FDE013E:I:0

Members:

Parameter Name	Member Name
Connection Faulted	
29 - 400C/1 AC Drv Stat Word	
32 - 400C/4 Actual Speed RPM	
35 - 400C/7 Actual Torque Scaled	
40 - 603F/0 Current Fault	
0 - <ignore>	
0 - <ignore>	

Figure 13: Input settings

Connection: Custom I/O Connection

Data Type: _024B:2015_11_19_i550_138D3EAC:O:0

Members:

Parameter Name	Member Name
60 - 400B/1 AC Drv Ctrl Word	
63 - 400B/4 Net Spd Stpnt RPM	
67 - 400B/8 Net Torque Stpnt	
0 - <ignore>	
0 - <ignore>	
0 - <ignore>	

Figure 14: Output settings

1.3.3 Install Add-On Instruction (AOI) to Project

- 1) Insert i550_ActuatorSpeed Add-On Instruction (AOI) into project from file. See Figures 15, 16. Note: It is only necessary to insert this once per project.

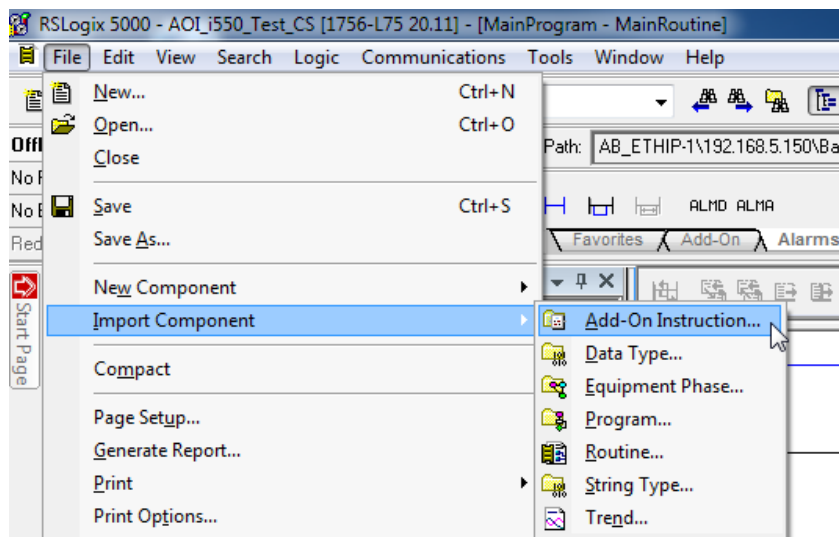


Figure 15: Insert Add-On Instruction

1 Setup

1.3.3 Install Add-On Instruction (AOI) to Project

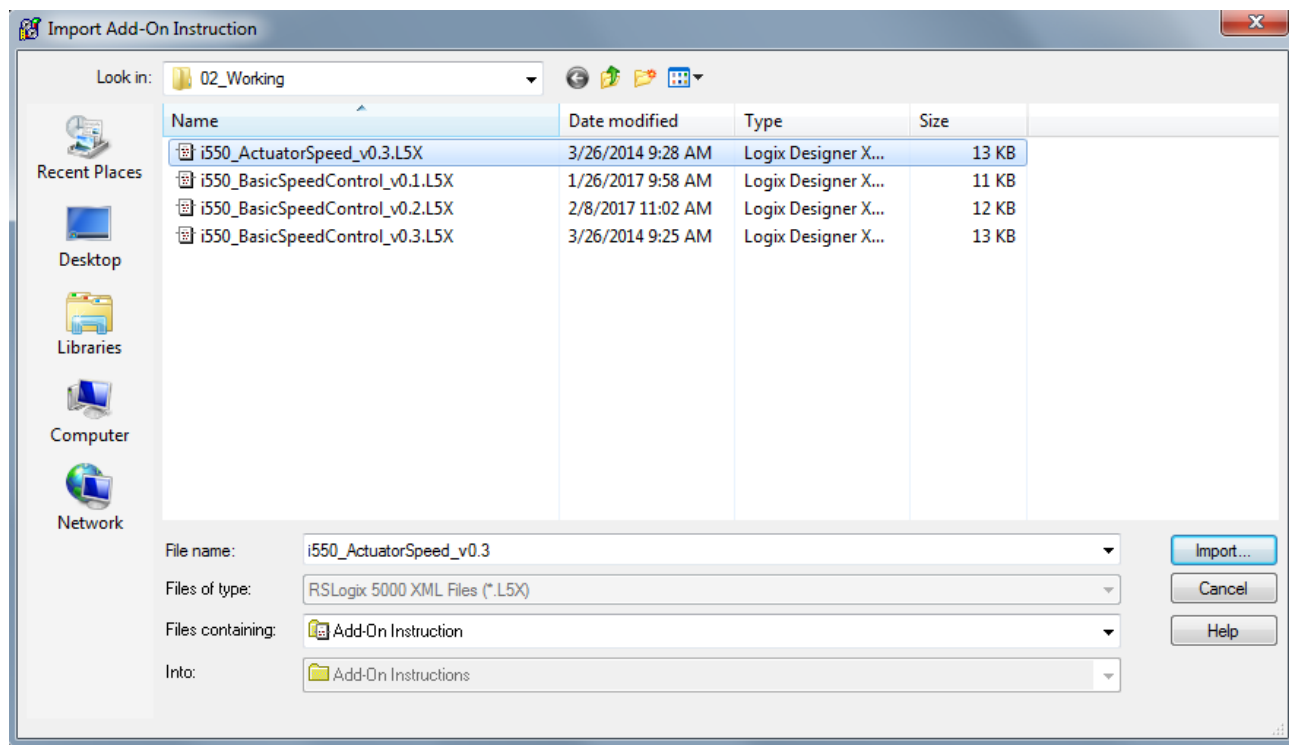


Figure 16: Browse for file *i550_ActuatorSpeed_v0.3.L5X*

2) Define a tag as the *i550_ActuatorSpeed* AOI type (Figure17, Figure18).

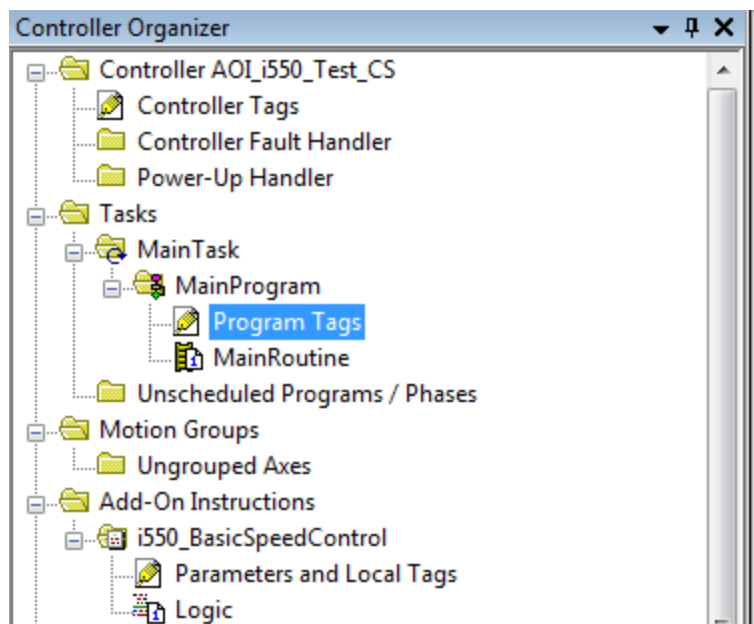


Figure 17: Program Tags

Name	Alias For	Base Tag	Data Type
+ i550_drive			i550_Actuator_Speed

Figure 18: Create tag of type *i550_ActuatorSpeed*

2 Using the Add-On Instruction and Referencing the i550

2.1 Connecting the AOI to the i550 drive

2.1 Connecting the AOI to the i550 drive

Add *i550_ActuatorSpeed* AOI to your program and assign your *i550_ActuatorSpeed* Tag to the AOI (Figure 19). Next attach drive tags to the *i550_Drive_Control_Output* tag and the *i550_Drive_State_Input* tag. This can be done by clicking on the drop down menu at the “?” and then selecting the correct tag in the *Show* drop down window. (Figure 20) *Note: Use tag based on the name given to your i550 when it was added to the project.*

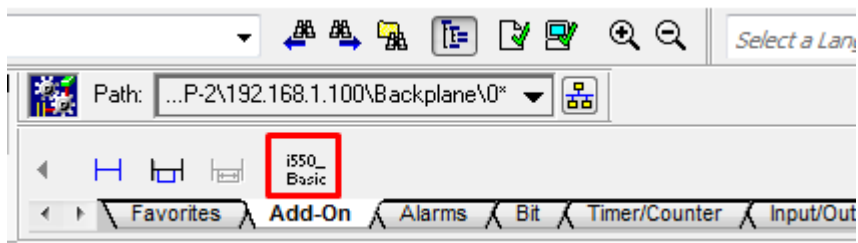


Figure 19: Adding the AOI into code

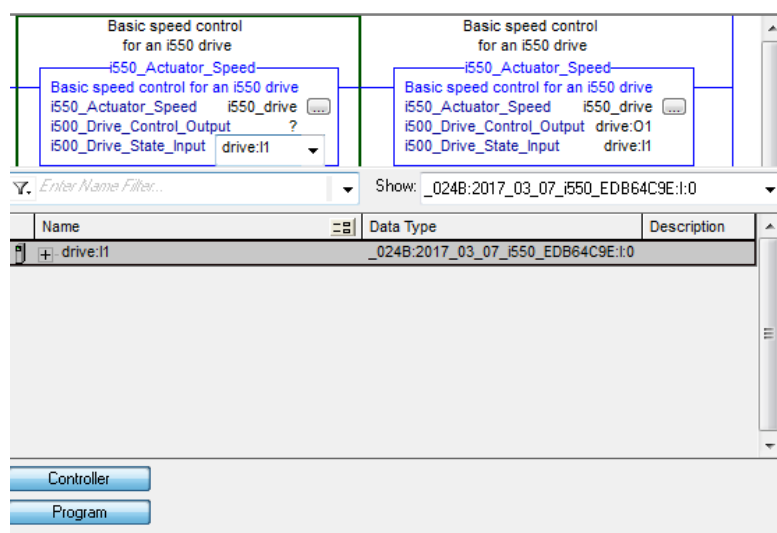


Figure 20: Basic Speed Control AOI tags

2 Using the Add-On Instruction and Referencing the i550

2.2 Controlling the i550 AOI ladder control

2.2 Controlling the i550 AOI ladder control

Control the drive by modifying the *i550_ActuatorSpeed* tags (referenced by the Tag *i550_Drive* in Figure 18). The state can also be read from this tag.

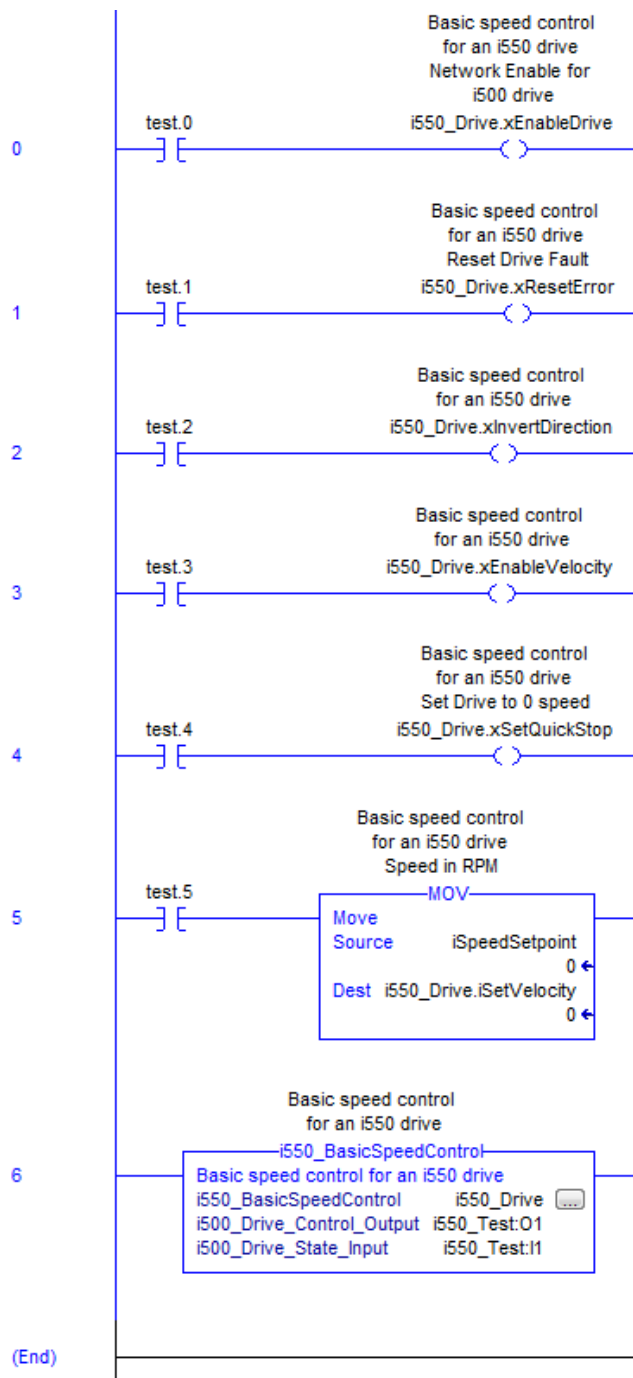


Figure 21: Example i550 AOI control

2 Using the Add-On Instruction and Referencing the i550

2.3 Editing i550 AOI properties

The user can also write values to the inputs of the AOI through the Properties window. This method is best used to write values to parameters that will remain constant throughout the program, for example the Set Velocity or the Direction if the machine will always be running at the same speed in the same direction. It can also be used to send initial values to the drive. Please note, any time the parameters of the AOI are directly assigned in the ladder logic (e.g. rungs 0-5 in Figure 21 above) it will overwrite the settings made in the Properties window.

To open the Properties window for the AOI, follow Figure22 Figure23.

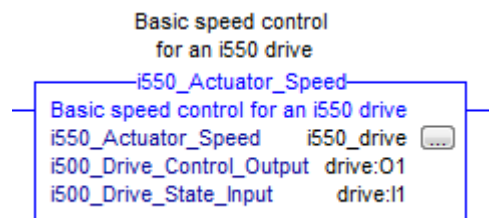


Figure 22: Click to open Properties window

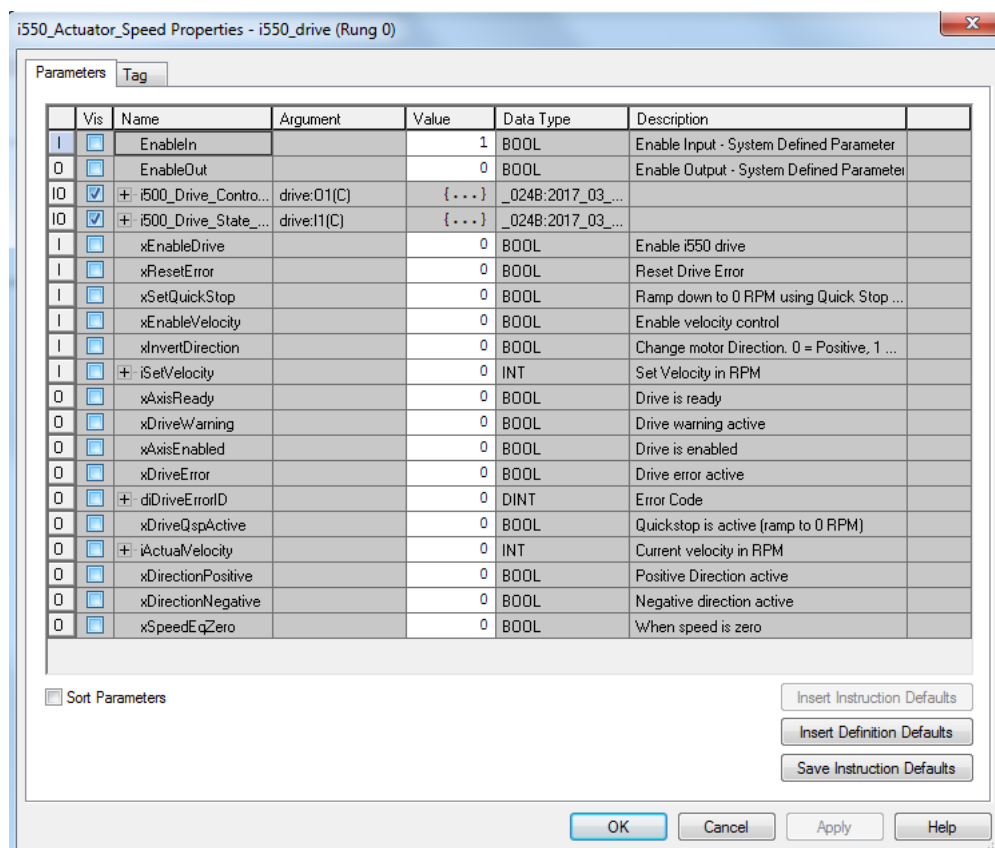


Figure 23: AOI Properties window

2 Using the Add-On Instruction and Referencing the i550

2.4 List of AOI inputs and outputs

2.4 List of AOI inputs and outputs

Inputs

Identifier Data type	Information/possible settings
xEnableDrive BOOL	Enable Drive
xResetError BOOL	Reset Drive Error
xSetQuickStop BOOL	Ramp down to 0 RPM using Quick Stop Decel. Time (0x291C or P225)
xEnableVelocity BOOL	Enable velocity control
xInvertDirection BOOL	Change motor Direction. 0 = Positive, 1 = Negative
iSetVelocity INT	Set Velocity in RPM

Outputs

Identifier Data type	Value/meaning
xAxisReady BOOL	Drive is ready
xAxisEnabled BOOL	Drive is enabled
xDriveWarning BOOL	Drive warning active
xDriveError BOOL	Drive error active
diDriveErrorID DINT	Error Code. See i550 Commissioning Manual Appendix for full list and descriptions of error codes, available at www.Lenze.com
xDriveQspActive BOOL	Quickstop is active (ramp to 0 RPM)
iActualVelocity INT	Current velocity in RPM
xDirectionPositive BOOL	Positive Direction active
xDirectionNegative BOOL	Negative direction active
xSpeedEqZero BOOL	When speed is zero

In/out

Identifier Data type	Value/meaning
i550_Drive_Control_Output	Connects to drive tag, allows the AOI to control the drive
i550_Drive_State_Input	Connects to the drive tag, allows the AOI to see the state of the drive

3 EDS File Revisions

When Lenze updates the EDS files, this can cause the PDU description to change, generating errors in the AOI block, because the EDS file revision date is embedded in the RSLOGICS PDU.

The AOI Data type becomes linked to the EDS file. The below picture shows what happens when the EDS file has changed for the i550, but the Data Type is linked to the date on the EDS.

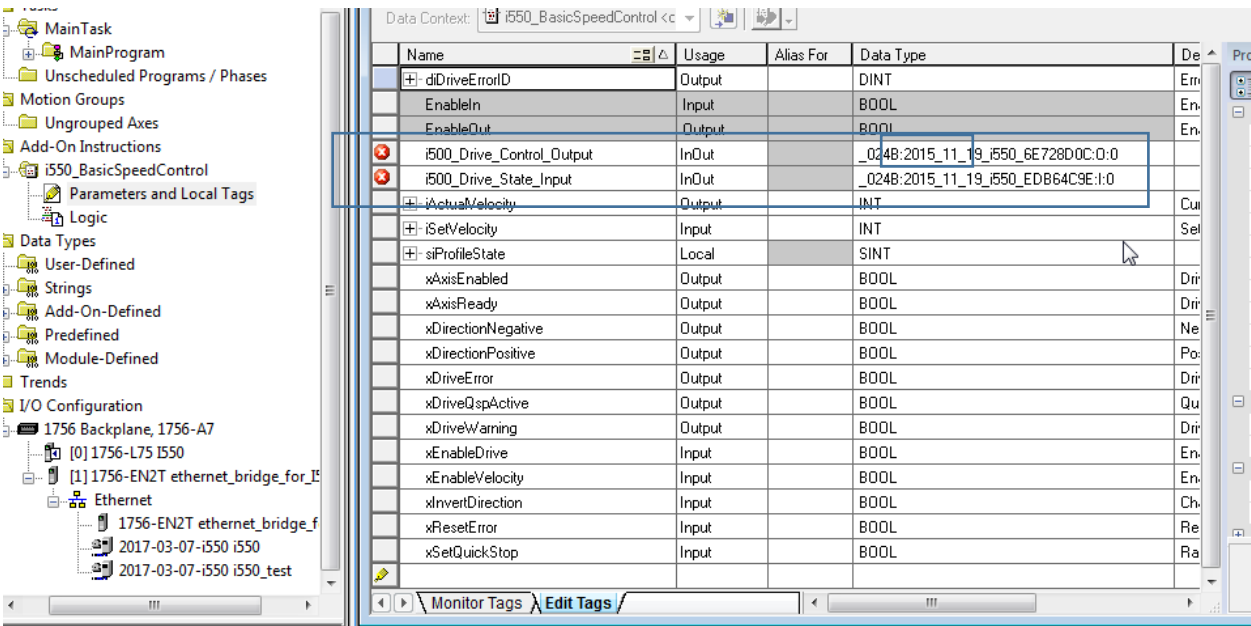


Figure 24: EDS file error

The AOI Reference can be changed either by directly editing the DataType of the AOI, by changing the embedded date to the correct date from the new EDS file

	i500_Drive_Control_Output	InOut		_024B:2015_11_19_i550_6E728D0C:0:0
	i500_Drive_State_Input	InOut		_024B:2015_11_19_i550_EDB64C9E:I:0
	i500_Drive_Control_Output	InOut		_024B:2015_11_19_i550_6E728D0C:0:0
	i500_Drive_State_Input	InOut		_024B:2015_11_19_i550_EDB64C9E:I:0
	i500_Drive_Control_Output	InOut		_024B:2017_03_07_i550_6E728D0C:0:0
	i500_Drive_State_Input	InOut		_024B:2015_11_19_i550_EDB64C9E:I:0
	i500_Drive_Control_Output	InOut		_024B:2017_03_07_i550_6E728D0C:0:0
	i500_Drive_State_Input	InOut		_024B:2015_11_19_i550_EDB64C9E:I:0
	i500_Drive_Control_Output	InOut		_024B:2017_03_07_i550_6E728D0C:0:0
	i500_Drive_State_Input	InOut		_024B:2017_03_07_i550_EDB64C9E:I:0

Figure 25: EDS date change

3 EDS File Revisions

You can determine the change, by inspecting the data type defined in the EDS file,

*Note the change buttons are used to inspect the data type, not to change the Data Type Name.

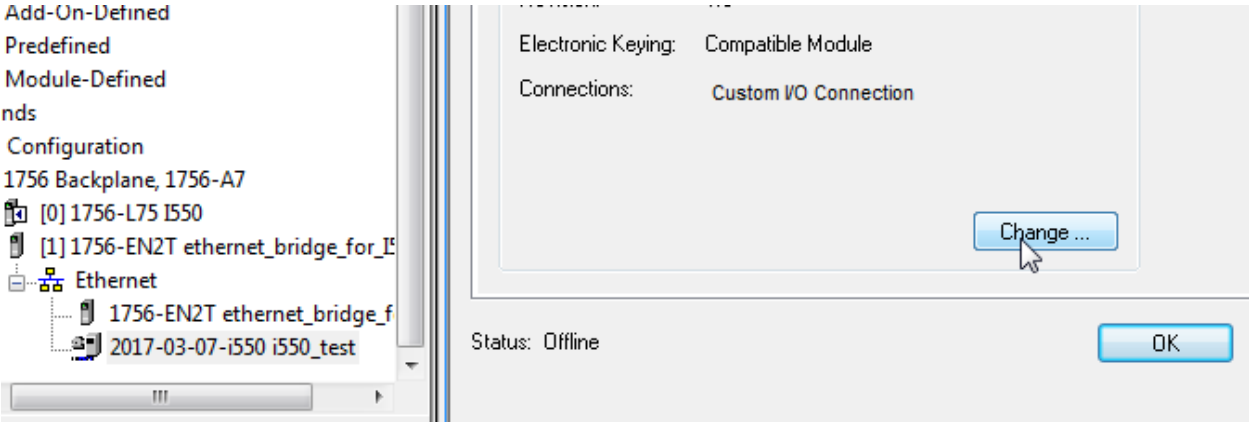


Figure 26: Data Type change 1

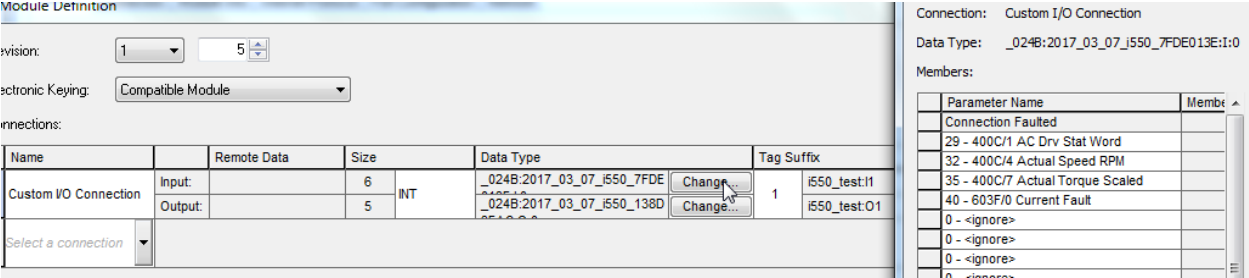


Figure 27: Data Type change 2

4 Appendix

4.1 Setting i550 Network Parameters with Explicit Messaging

4.1 Setting i550 Network Parameters with Explicit Messaging

The parameters of the i550 drive can be programmed remotely from your Allen-Bradley controller using Explicit Messaging. In RSLogix 5000, the MSG instruction is used for explicit messaging. Make the following configuration to write a parameter value to the i550 drive using Ethernet/IP explicit messaging:

Message Type = CIP Generic

Class = 6e (Hex)

Attribute = parameter's subindex number (or 1 if no subindex)

Service Code = 10 (Parameter Write)

Instance = the parameter's index number in the drive

Source Element = the variable in the PLC used as the source of the data for a write

For a write of a parameter value set the source length = the length of the drive parameter (in bytes).

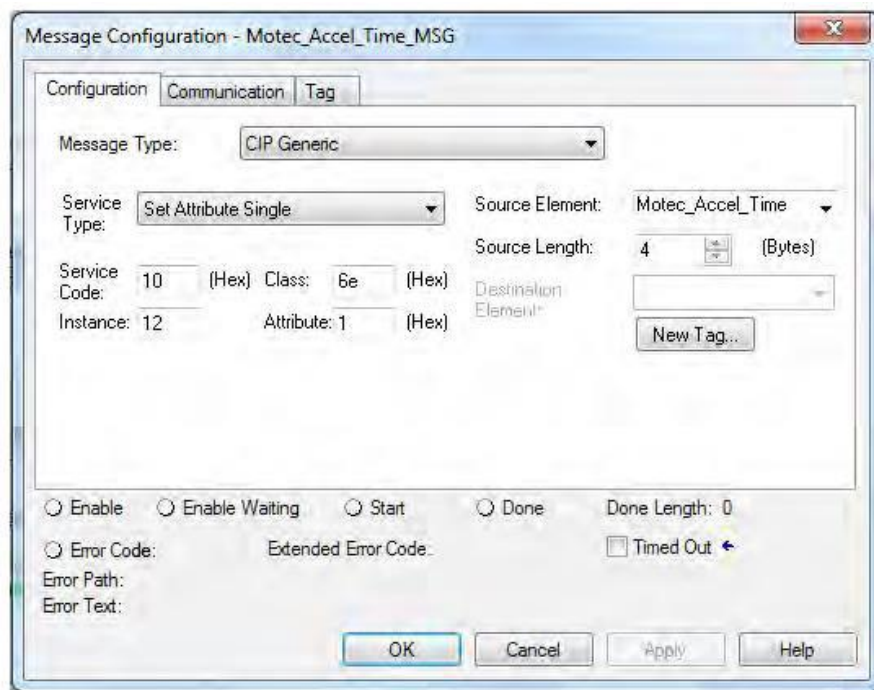


Figure 28: Message Configuration

Next, the path will need to be set to route the message out the controller's Ethernet port to the IP address of the drive. In the Communication tab of the window in Figure 28, browse for the i550 drive and click OK.

For a list of index and subcode numbers for several key i550 parameters, including those necessary for network control, see the Table 1 below.

4 Appendix

4.1 Setting i550 Network Parameters with Explicit Messaging

Table 1: Common Parameter Indices and Subcodes for use with Message Instructions

Parameter	Index		Subcode	Notes
P400:37 Activate network control	16#2631	dec. 9777	37	Set to [1] for constant TRUE
P400:1 Enable Inverter	16#2631	dec. 9777	1	Set to [1] for constant TRUE
P400:2 Run	16#2631	dec. 9777	2	Set to [1] for constant TRUE
P201:1 Default setpoint source	16#2860	dec. 10336	1	Set to [05] (Network)
P208:1 Rated mains voltage	16#2540	dec. 9536	1	230 V [0], 400 V [1], 480 V [2]
P320:4 Motor rated speed	16#2C01	dec. 11265	4	In RPM
P323:0 Motor rated current	16#6075	dec. 24693	0	In mA
P320:5 Motor rated frequency	16#2C01	dec. 11265	5	In 1/10 Hz
P220:0 Acceleration time 1	16#2917	dec. 10519	0	In 1/10 s
P221:0 Deceleration time 1	16#2918	dec. 10520	0	In 1/10 s
P225:0 Quick stop decel. time	16#291C	dec. 10524	0	In 1/10 s

4 Appendix

4.2 Sequencing Explicit Messages

4.2 Sequencing Explicit Messages

There is a limit to the number of CIP connections the drive and the PLC can concurrently support. Because of this, we recommend limiting the number of simultaneous messages, especially in systems with multiple slave devices. Below is an example of how to sequence messages to parameterize the i550 drive. This is one method to minimize the CIP connections being used.



Figure 29: Sequential Message instructions

4 Appendix

4.3 Creating an Explicit Message Handler AOI

4.3.1 Description of the Message Handler

This AOI is made to send values to several i550 drive parameters. All these parameters are listed directly on the AOI after inserting into the ladder logic routine, and the values can be directly typed in there. Values can also be assigned from the logic (either from values or from other tags), as shown in Rung 1 of the example code below (Figure 30). These assignments will take priority over any typed directly into the AOI.

In order to execute the parameter settings for the i550, the i550ExplicitMSGHandler requires a TRUE signal at the input *xSend* of the AOI. At this signal, one by one the AOI will assign values for the Message Instance, Attribute, and Source Length, as well as output *Value_Out*, for each i550 parameter. These values will change 11 times in total, for the 11 parameters that are being sent. The values are passed through the *MSG_Out* tag to the external Message instruction that is linked to the AOI (*ExpMessageTest* in this case). When all 11 messages have been sent, the *xDone* output bit of the AOI will change to TRUE. The AOI will only send the messages one single time, and requires a new FALSE to TRUE edge signal at the *xSend* input to execute again. See sections **Error! Reference source not found.** for the creation of this AOI.

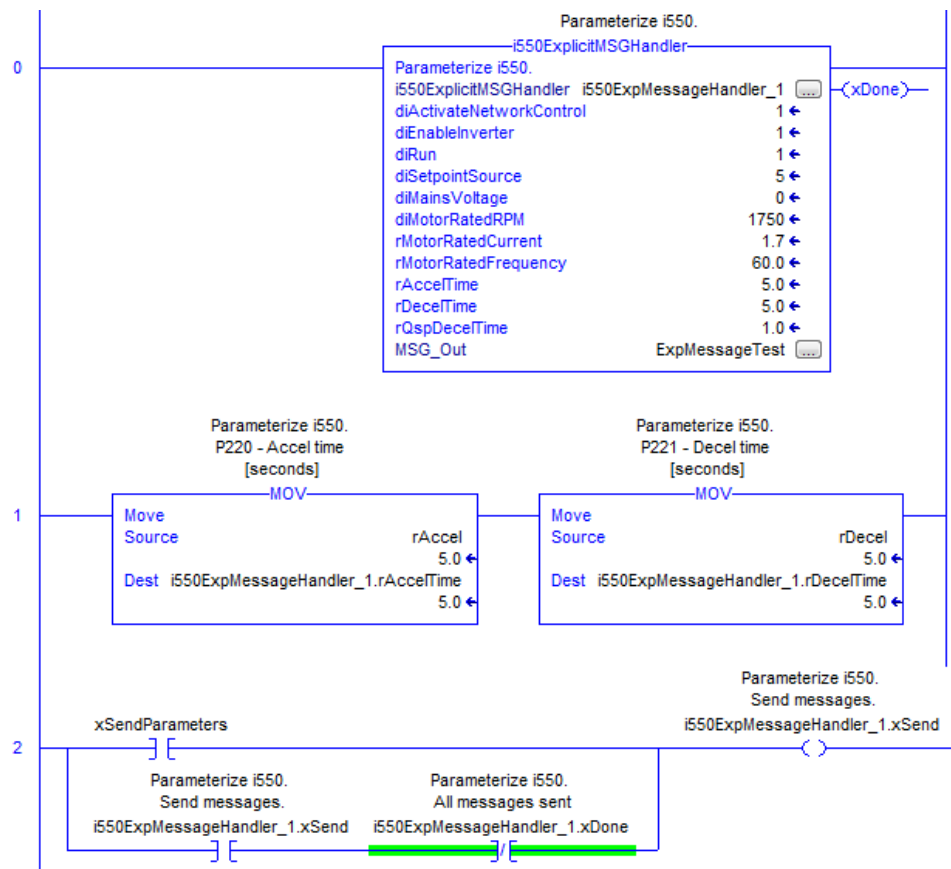


Figure 30: Example ladder logic for i550ExplicitMSGHandler

4 Appendix

4.3.2 Defining the Message Handler

4.3.2 Defining the Message Handler

Another way to parameterize the drive is to create a new Add-On Instruction (AOI) to handle the explicit messages. Here is an example AOI called i550ExplicitMSGHandler, which will allow the user to quickly write to several important i550 parameters, including those required for network control as discussed in this document.

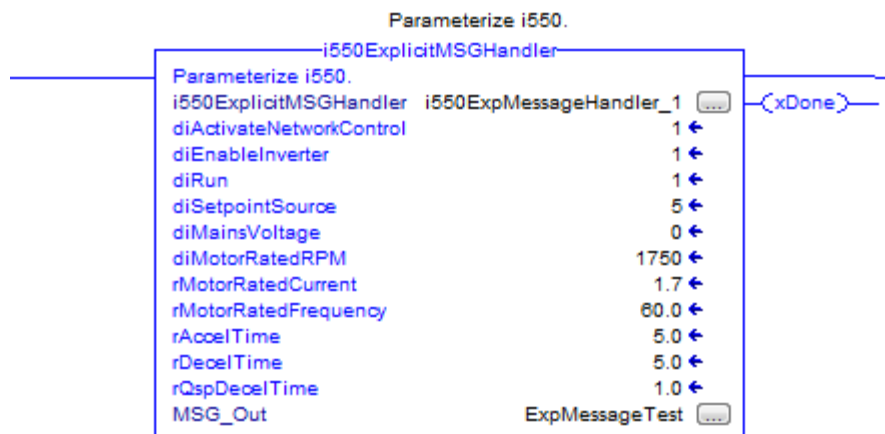


Figure 31: i550ExplicitMSGHandler

First, define the Add-On Instruction and create the following tags for it in the Definition window (Figure32).

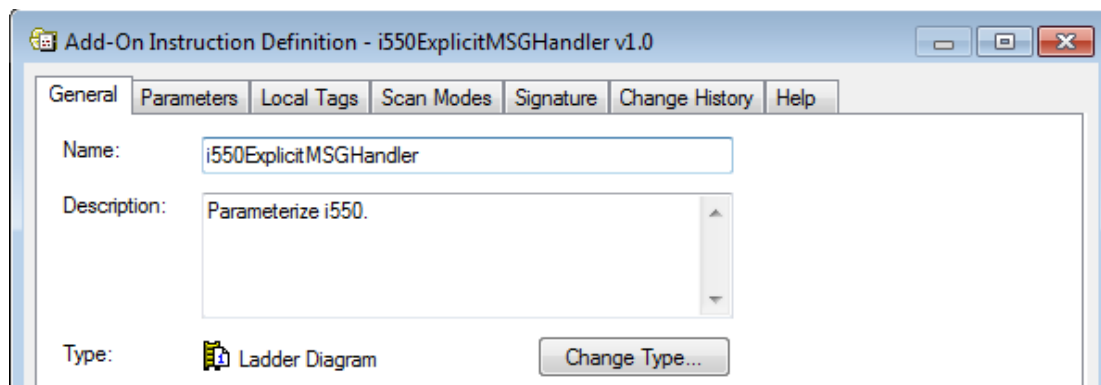


Figure 32: i550ExplicitMSGHandler Definition

4 Appendix

4.3.2 Defining the Message Handler

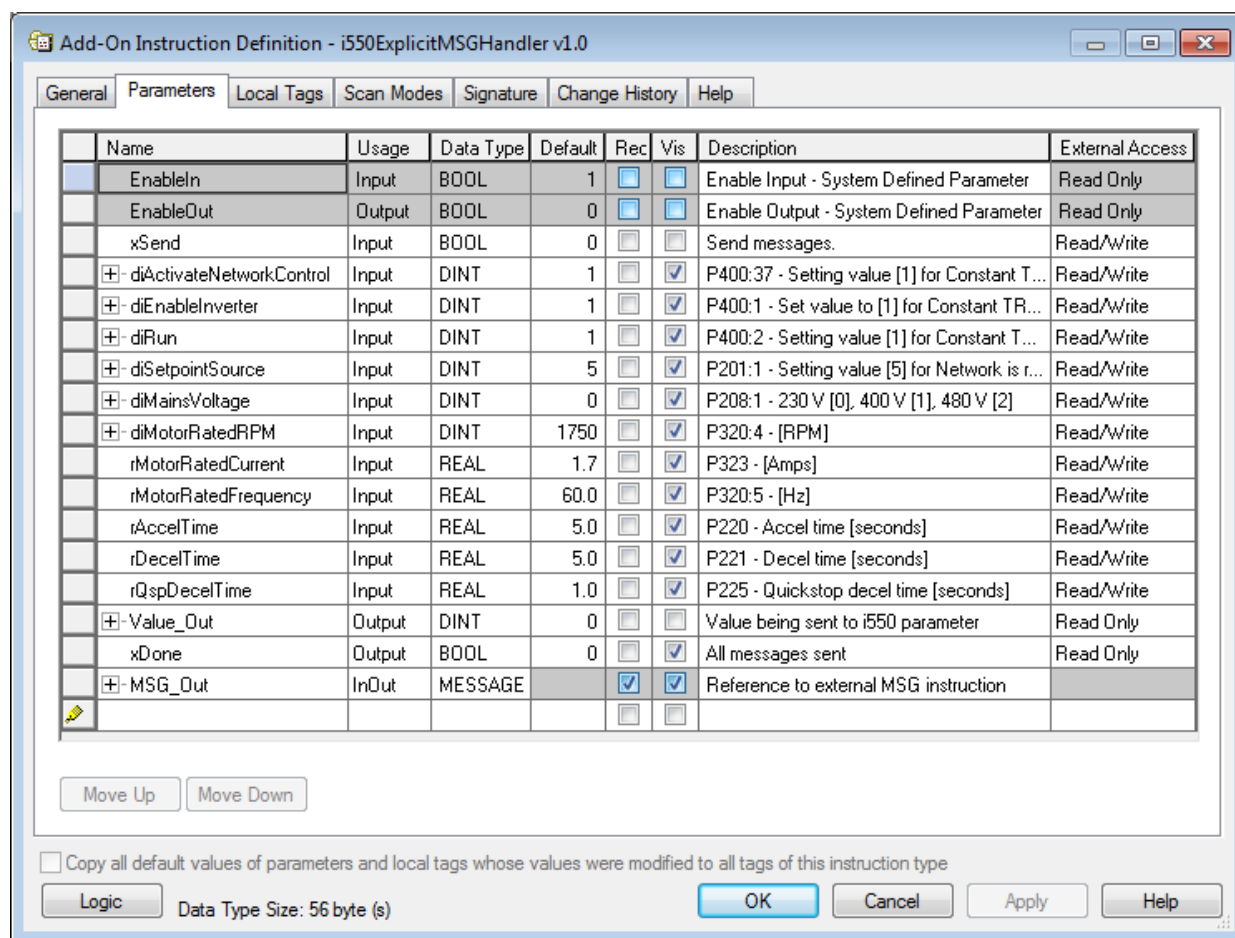


Figure 33: i550ExplicitMSGHandler Definition

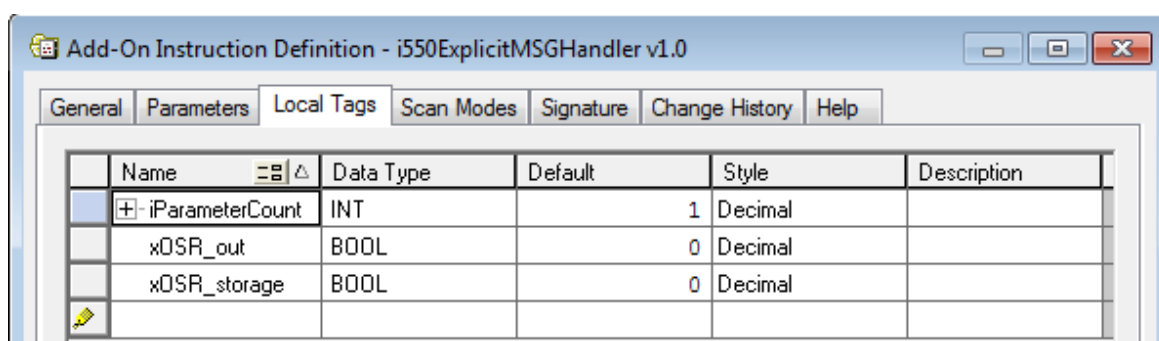


Figure 34: i550ExplicitMSGHandler Definition

4 Appendix

4.3.2 Defining the Message Handler

This AOI must be used in conjunction with an instance of a MESSAGE type instruction external to the AOI. Create a Controller Tag of type MESSAGE, and create a Controller Tag of type i550ExplicitMSGHandler (Figure 35).

Scope: AOI_i550_Test_I Show: All Tags Y. Enter Name Filter.


	Name	Alias For	Base Tag	Data Type	Description	External Access
	[-] ExpMessageTest			MESSAGE		Read/Write
	[-] i550ExpMessageHandler_1			i550ExplicitMSGHandler	Parameterize i550.	Read/Write
						

Figure 35: Controller Tags for i550ExplicitMSGHandler

Insert the AOI into your ladder logic routine and assign the two tags created in Figure 34 to the *i550ExplicitMSGHandler* and *MSG_Out* fields. Configure all settings of the Message as shown (Figure 36, Figure 37), and set the Source Element to the *Value_Out* parameter of the i550ExplicitMSGHandler AOI (Figure 37). In this example, *i550ExpMessageHandler_1.Value_Out* is selected. Please also select the i550 drive from the Communication tab of the Configuration window.

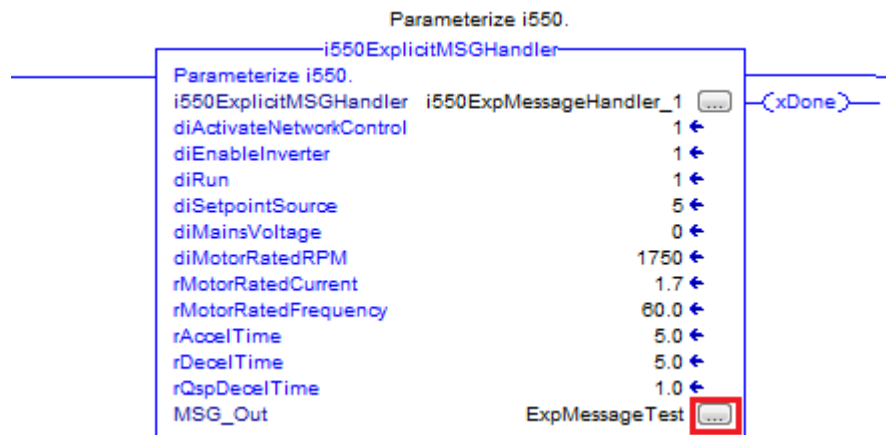


Figure 36: Click to configure external MESSAGE

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4.3.2 Defining the Message Handler

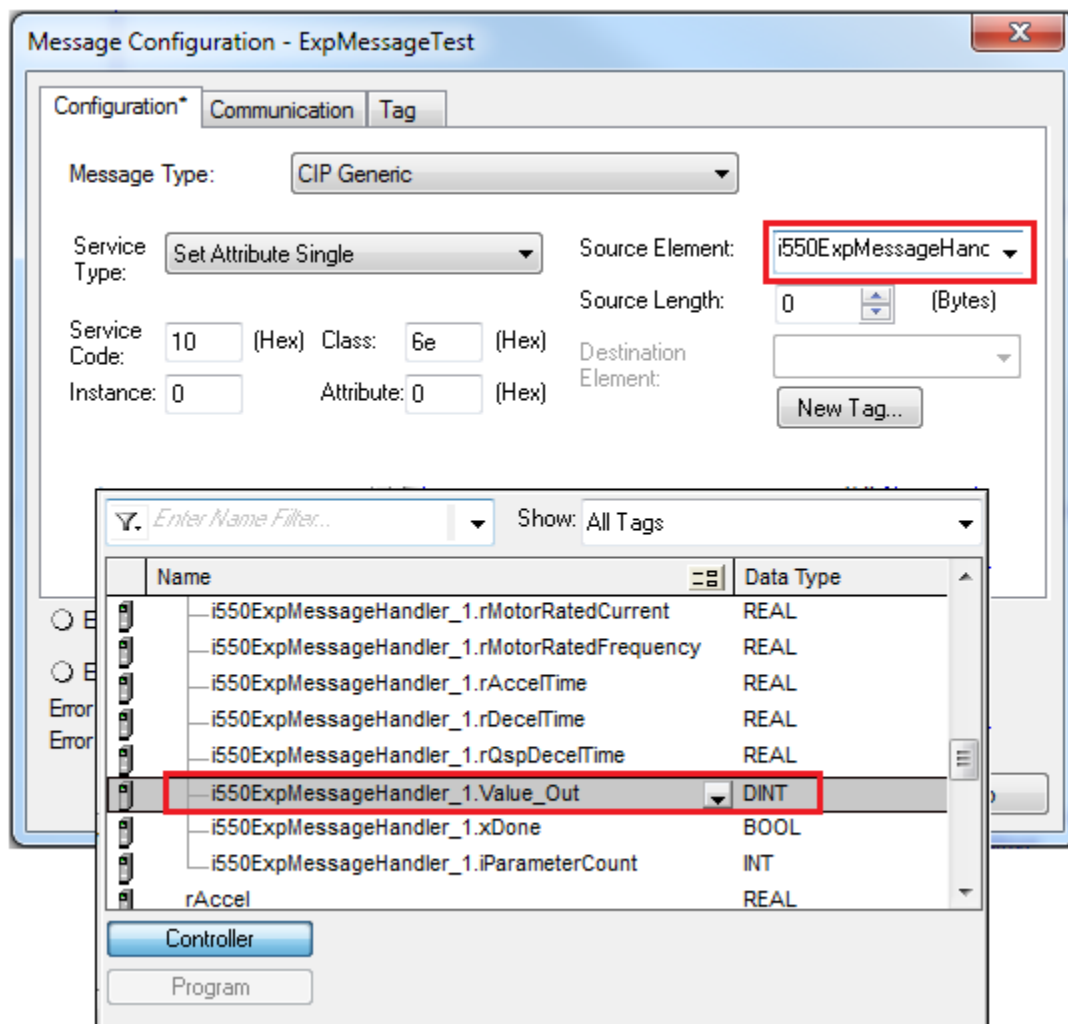


Figure 37: Configure the MESSAGE

4 Appendix

4.3.3 List of AOI Inputs and Outputs (Message Handler)

4.3.3 List of AOI Inputs and Outputs (Message Handler)

Inputs

Identifier	Data type	Information/possible settings
xSend	BOOL	Send messages.
diActivateNetworkControl	DINT	P400:37 – Setting value [1] for Constant TRUE is required for network control.
diEnableInverter	DINT	P400:1 – Set value to [1] for Constant TRUE. This bypasses the need for a hardware enable signal.
diRun	DINT	P400:2 – Setting value [1] for Constant TRUE is recommended for network control.
diSetpointSource	DINT	P201:1 – Setting value [5] for Network is required for network control.
diMainsVoltage	DINT	P208:1 – 230 V [0], 400 V [1], 480 V [2]
diMotorRatedRPM	DINT	P320:4 – [RPM]
rMotorRatedCurrent	REAL	P323 – [Amps]
rMotorRatedFrequency	REAL	P320:5 – [Hz]
rAccelTime	REAL	P220 – Accel time [seconds]
rDecelTime	REAL	P221 – Decel time [seconds]
rQspDecelTime	REAL	P225 – Quickstop decel time [seconds]

Outputs

Identifier	Data type	Value/meaning
Value_Out	BOOL	Value being sent to i550 parameter
xDone	BOOL	All messages sent.

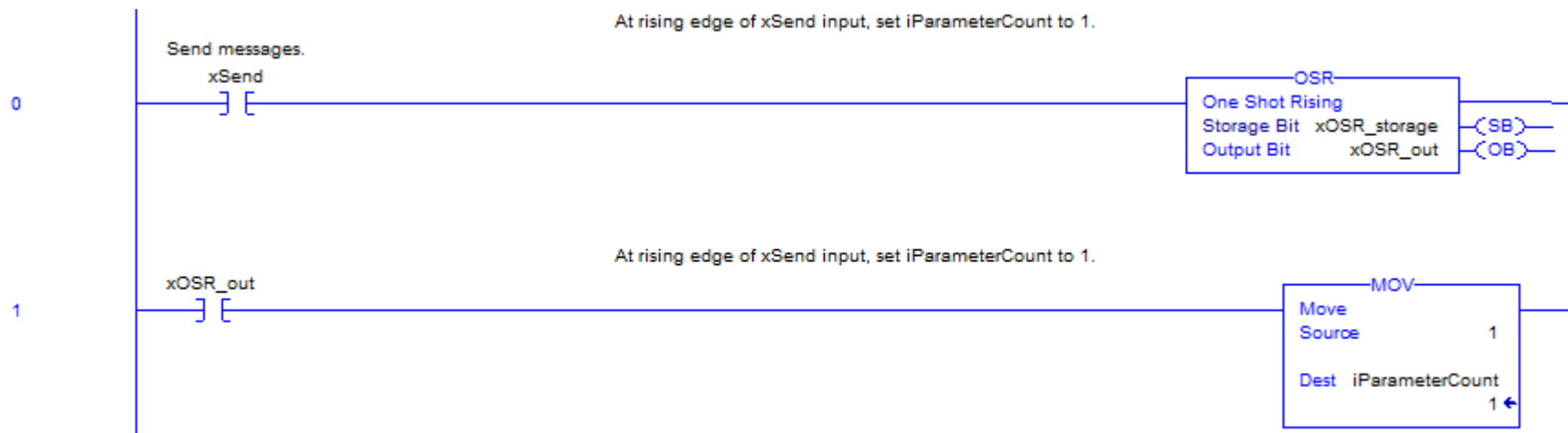
In/out

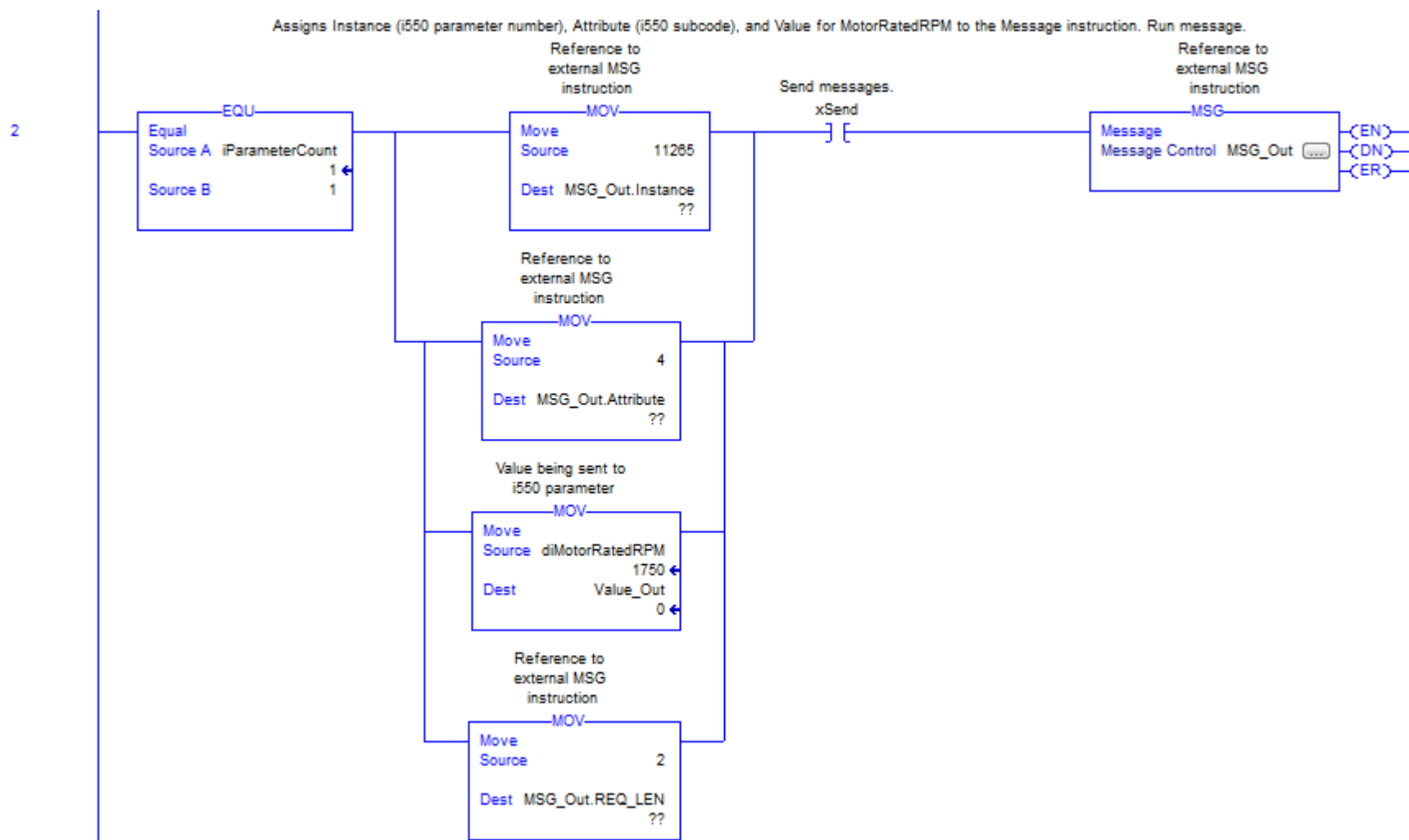
Identifier	Data type	Value/meaning
MSG_Out	MESSAGE	Reference to external MSG instruction

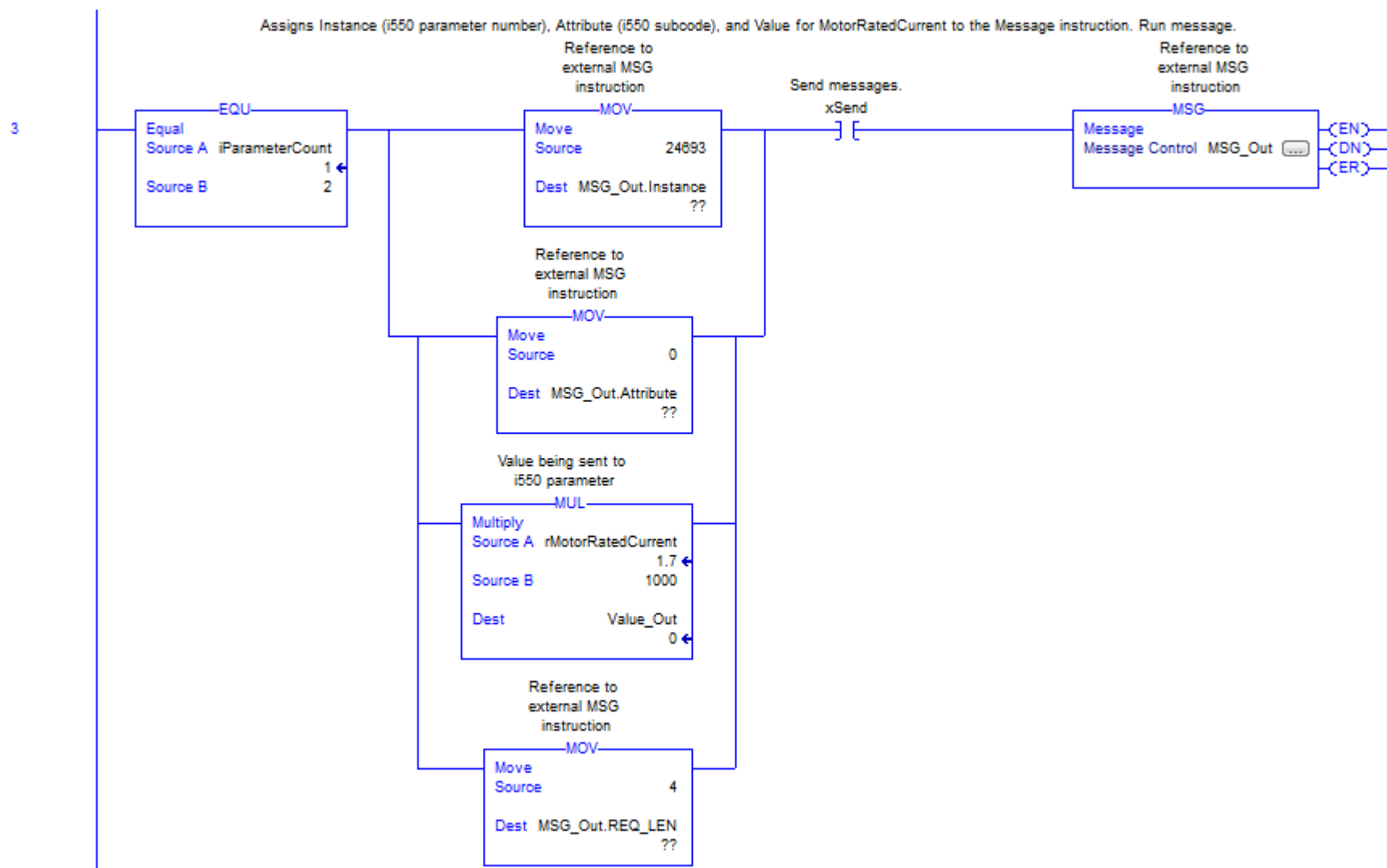
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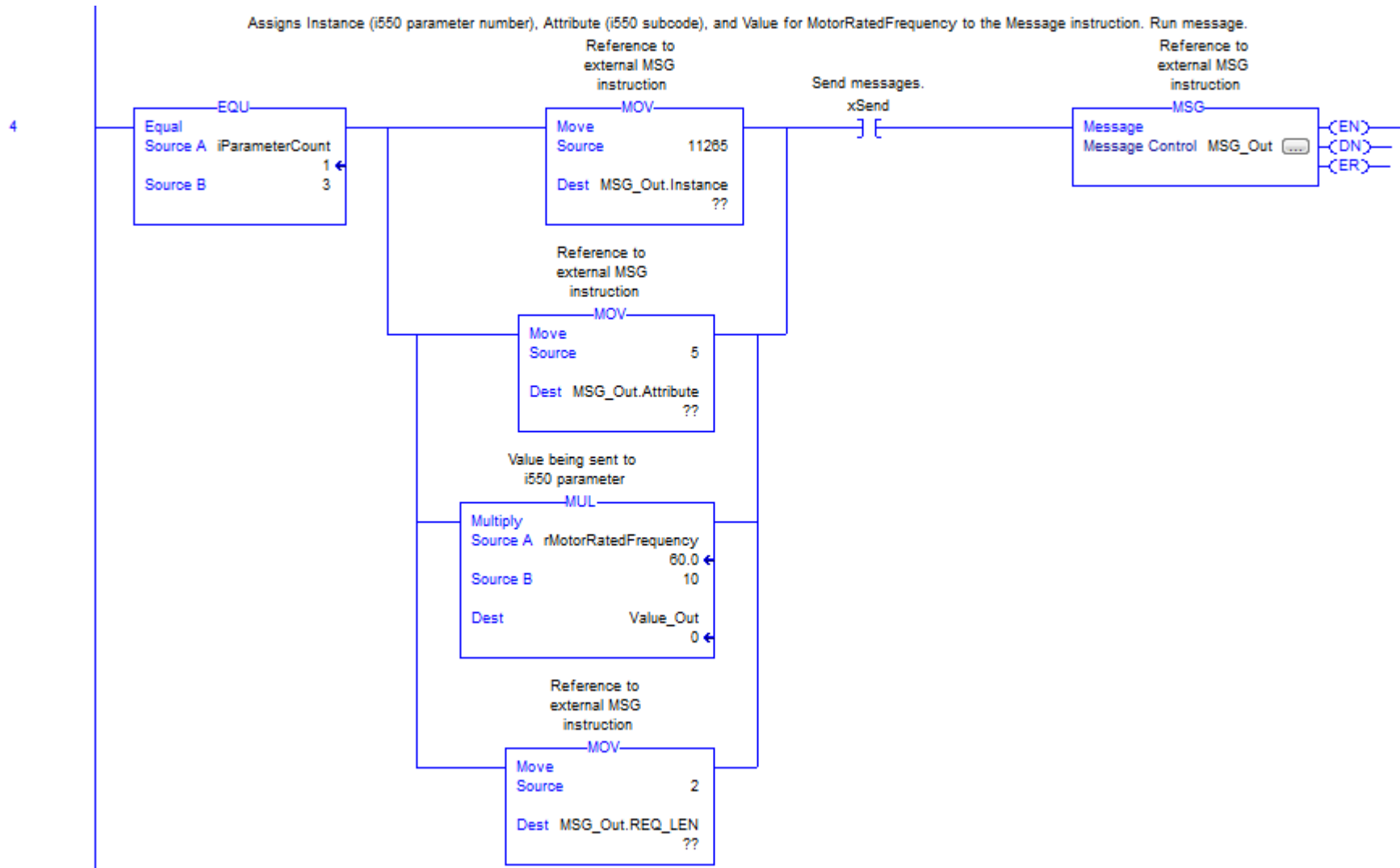
4.3.4 i550 Explicit MSG Handler Internal Logic

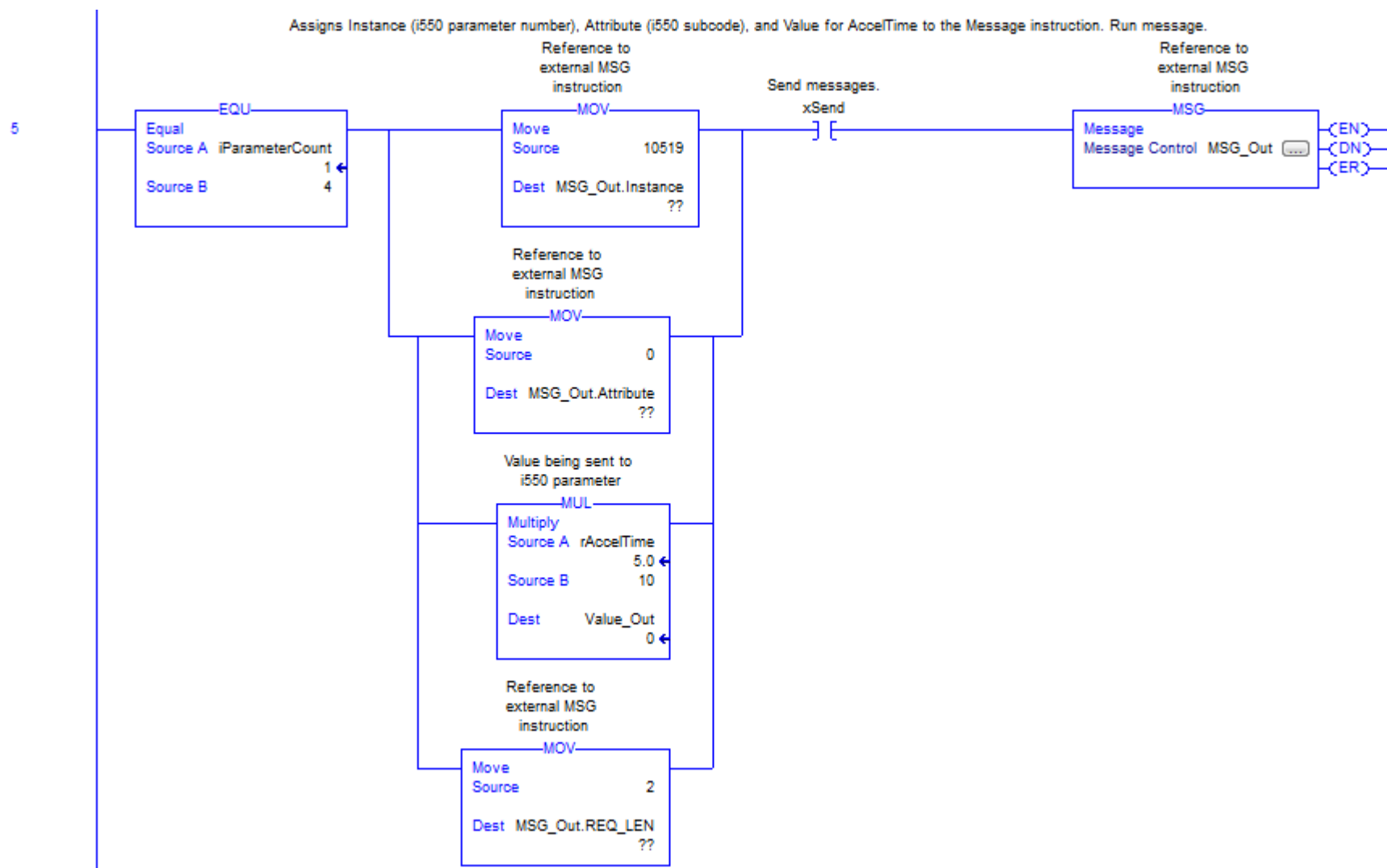
4.3.4 i550ExplicitMSGHandler Internal Logic

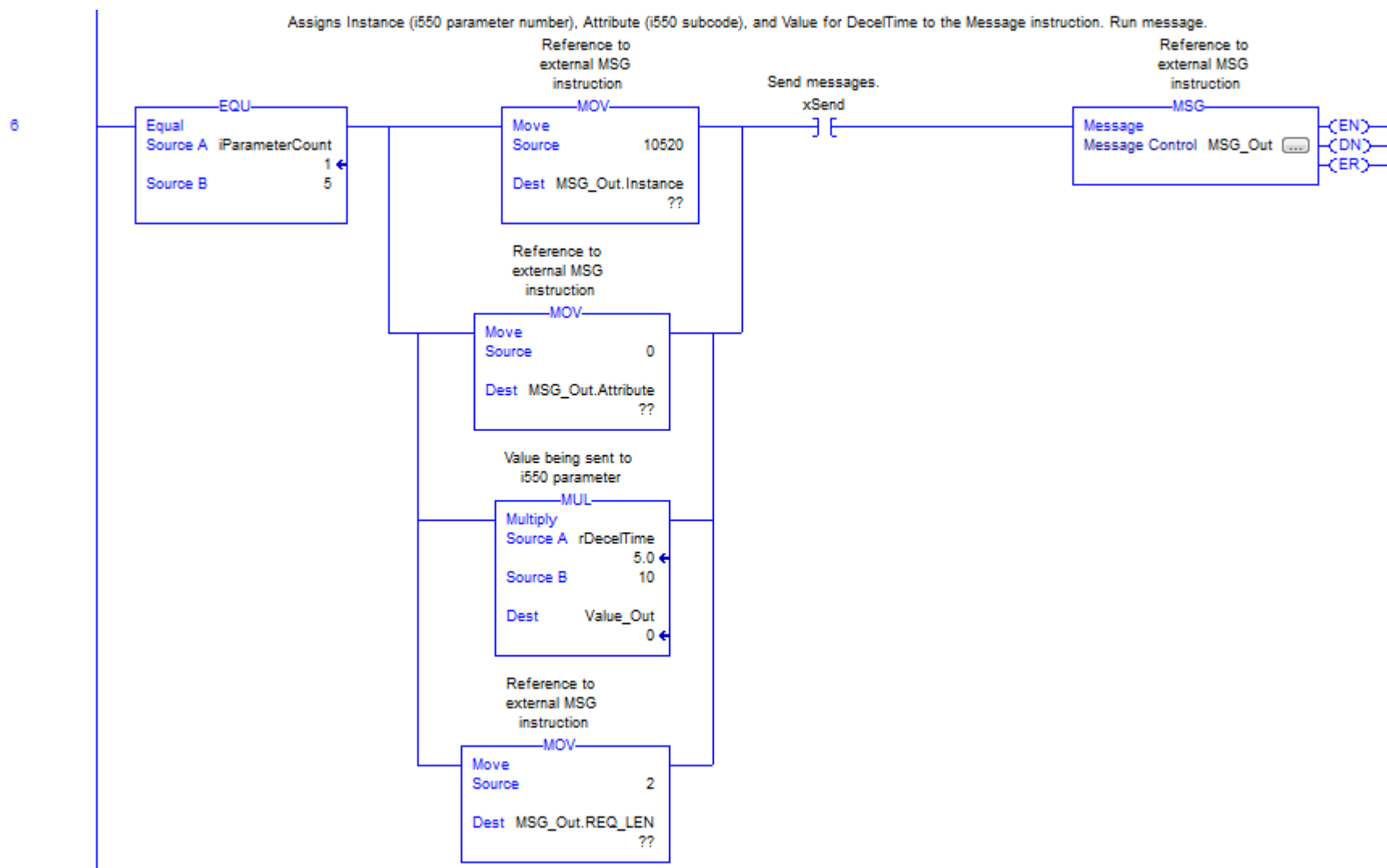


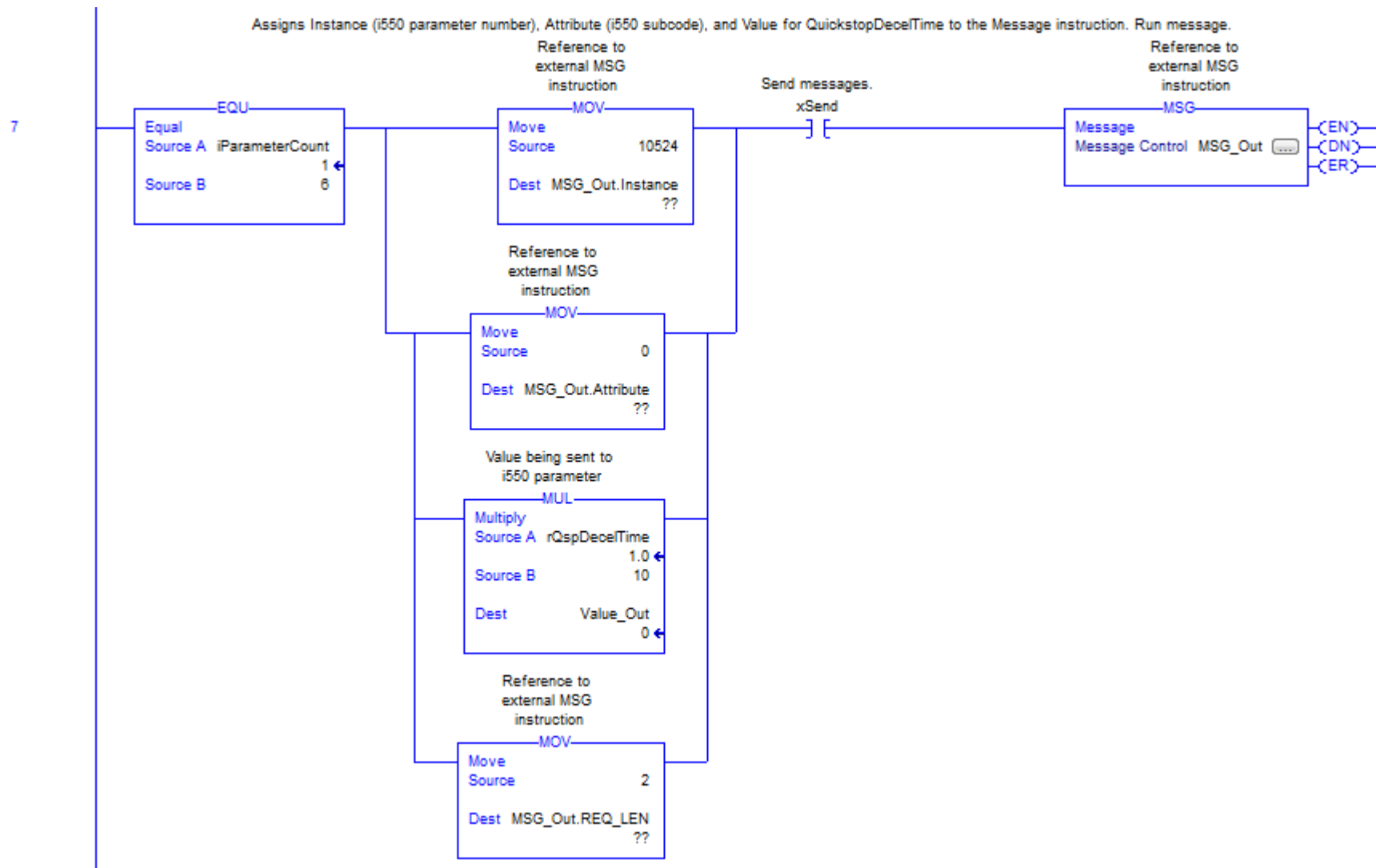


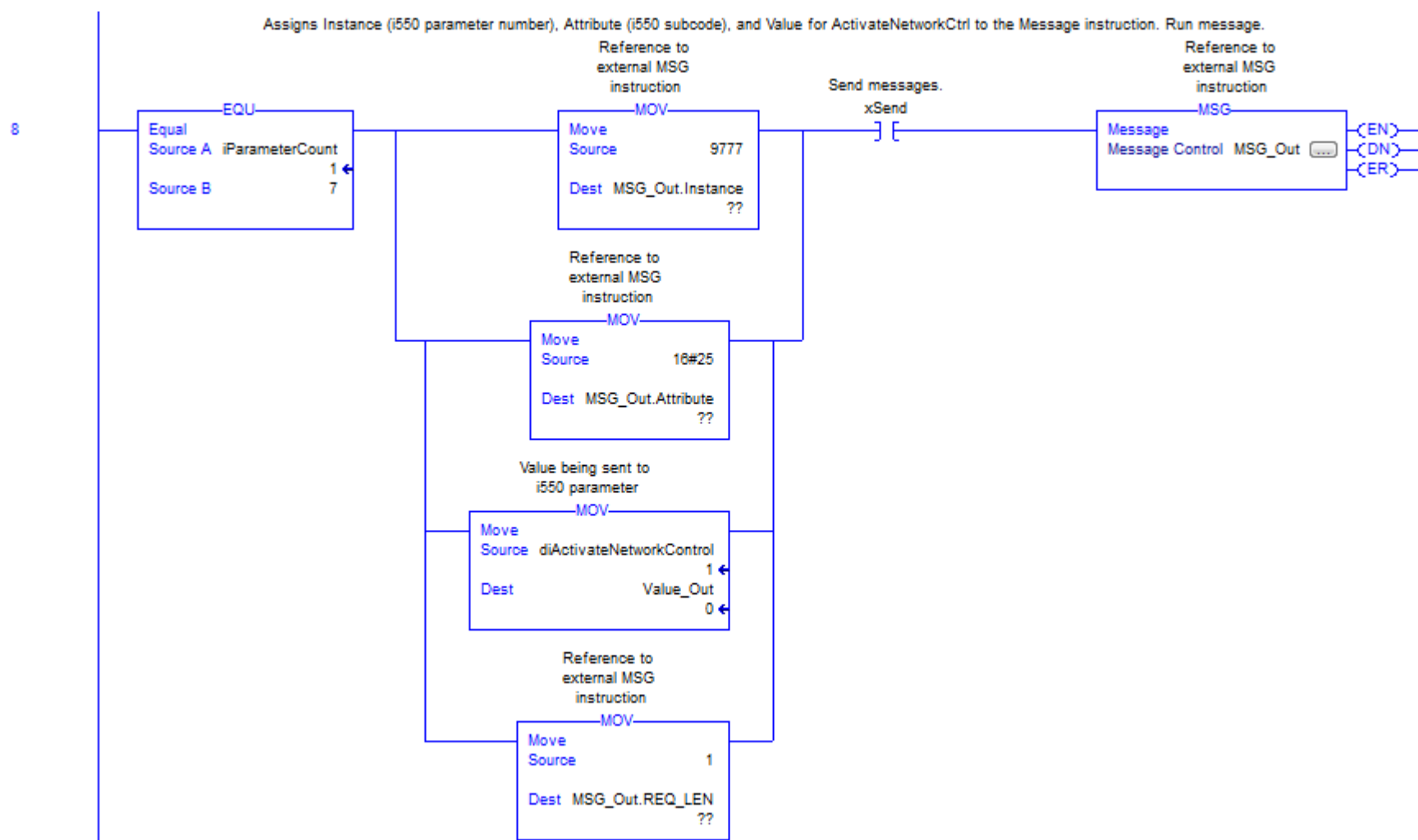


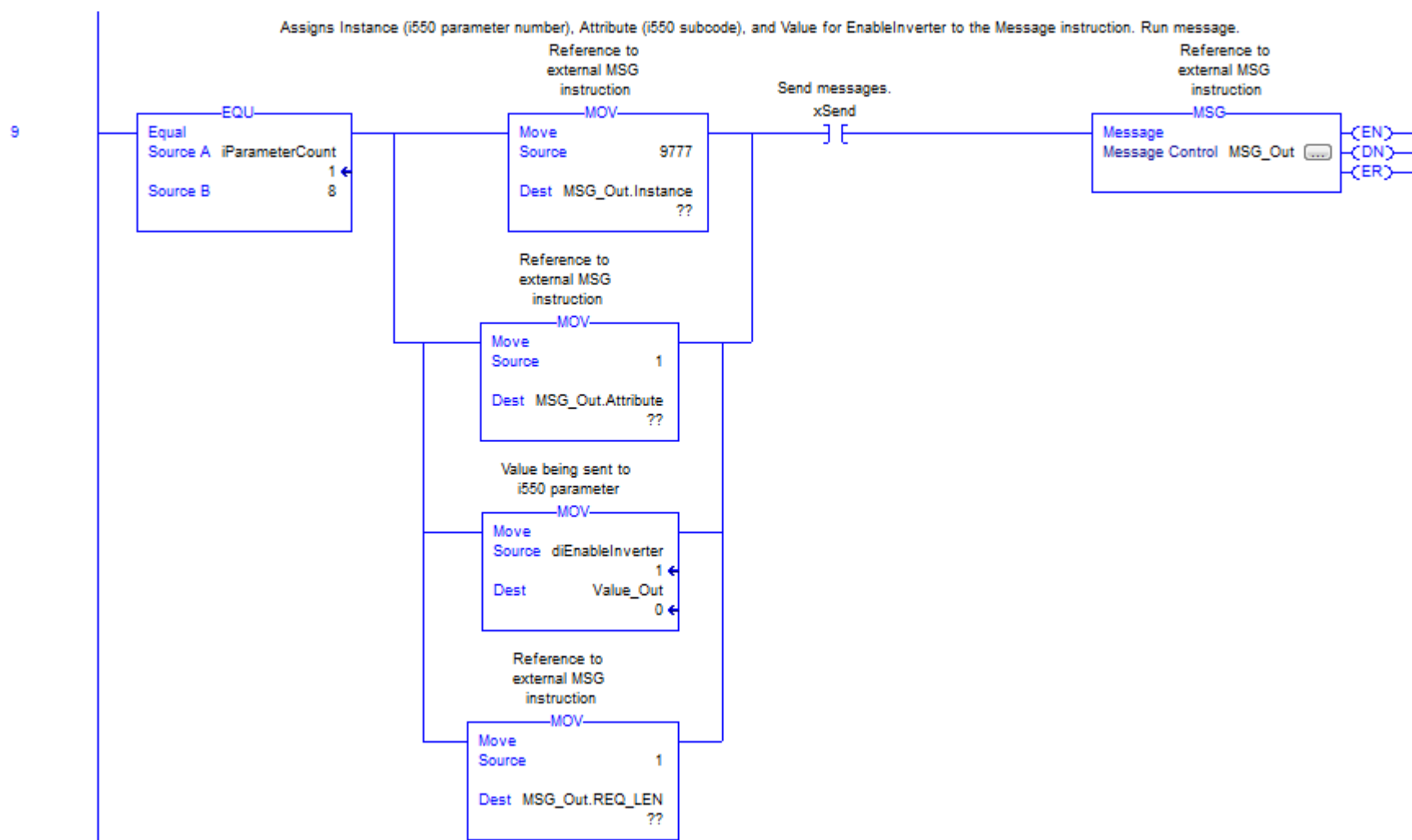


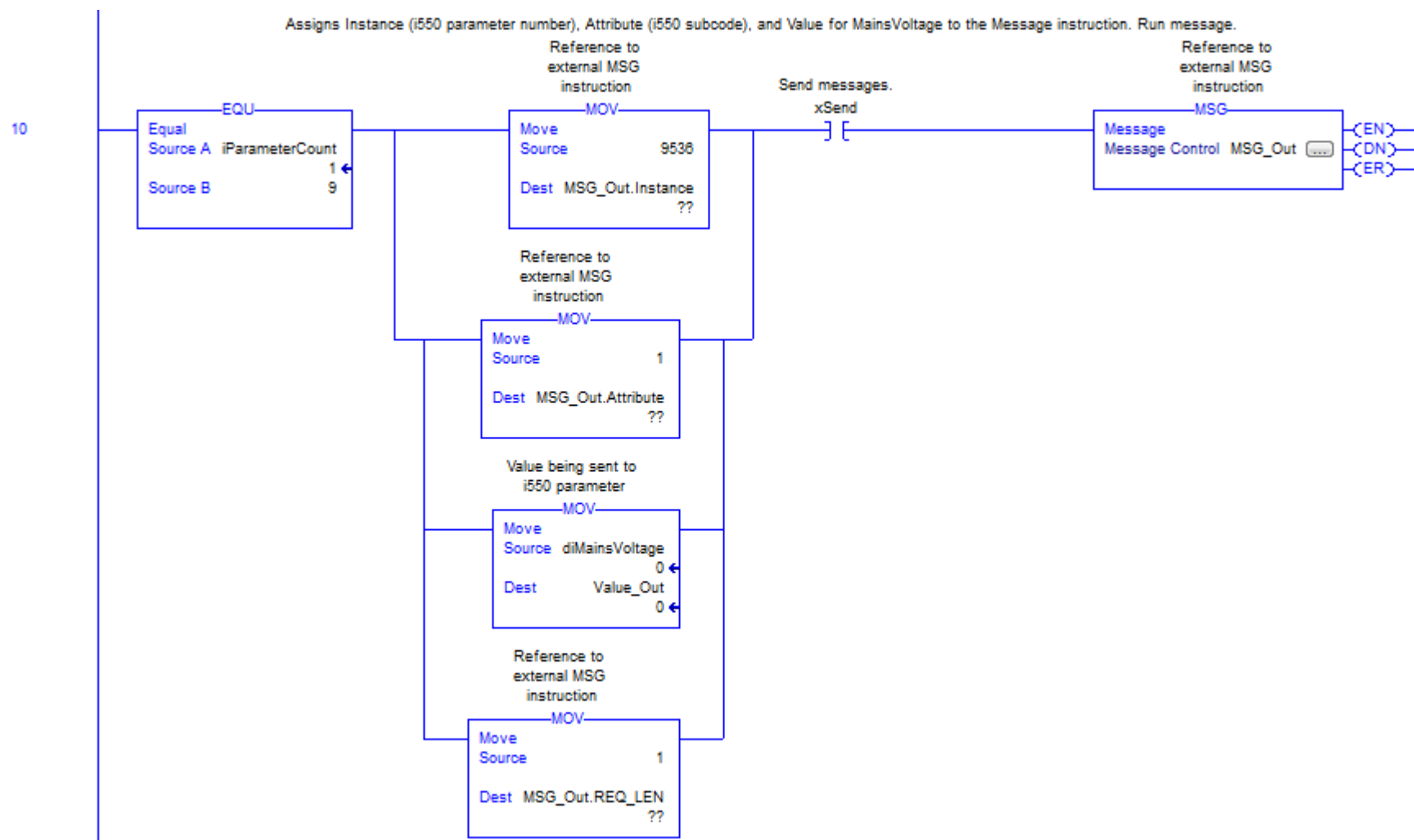


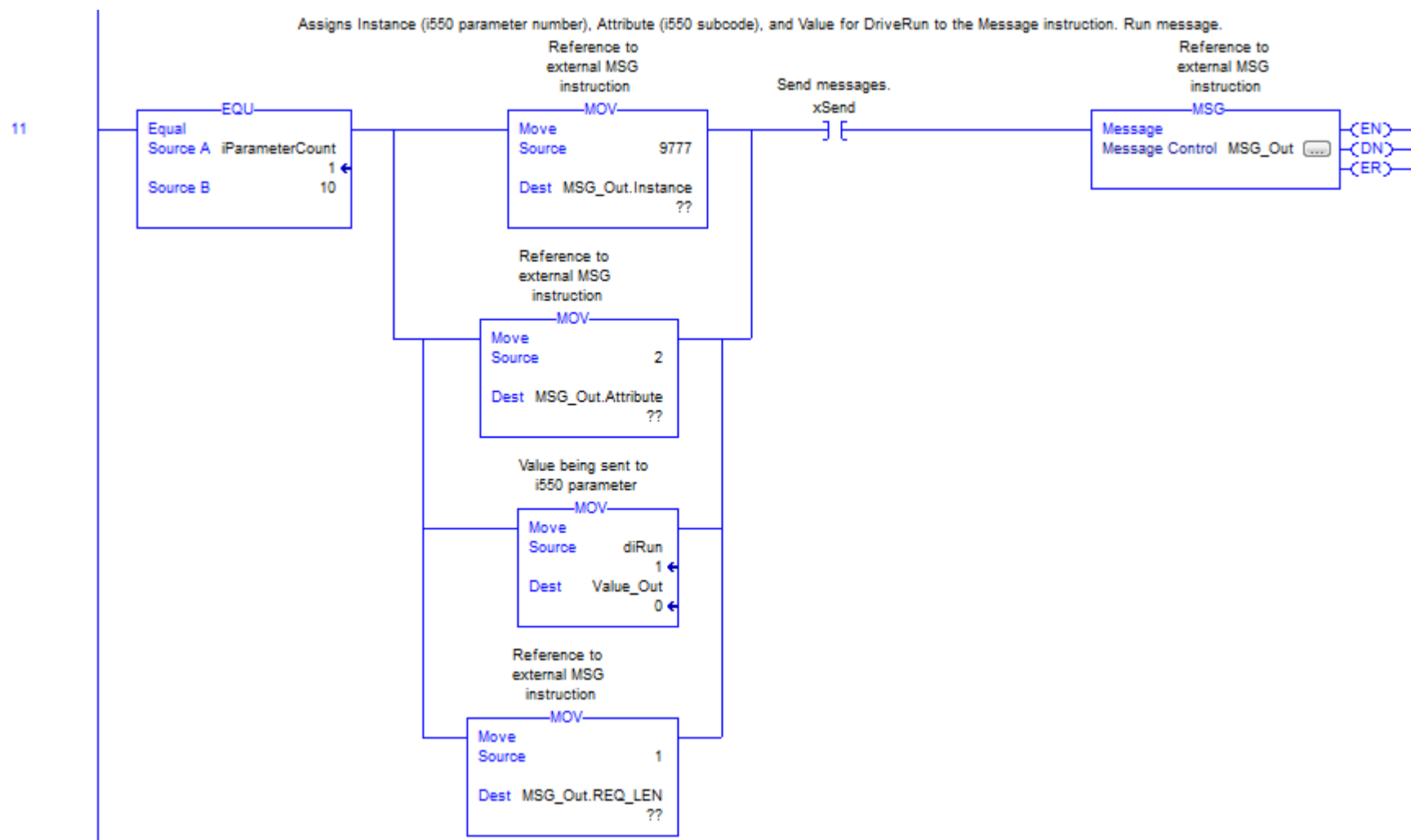


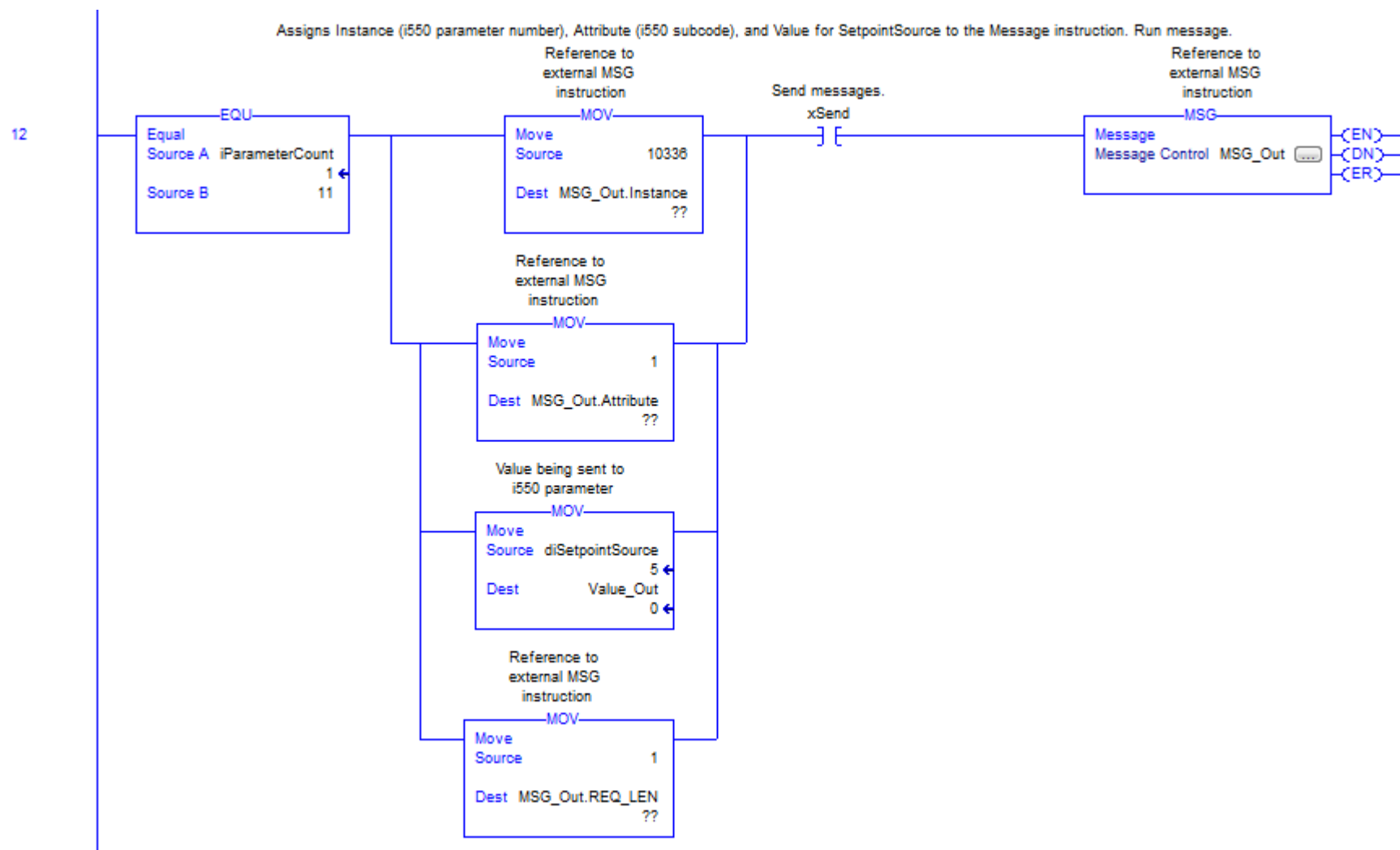


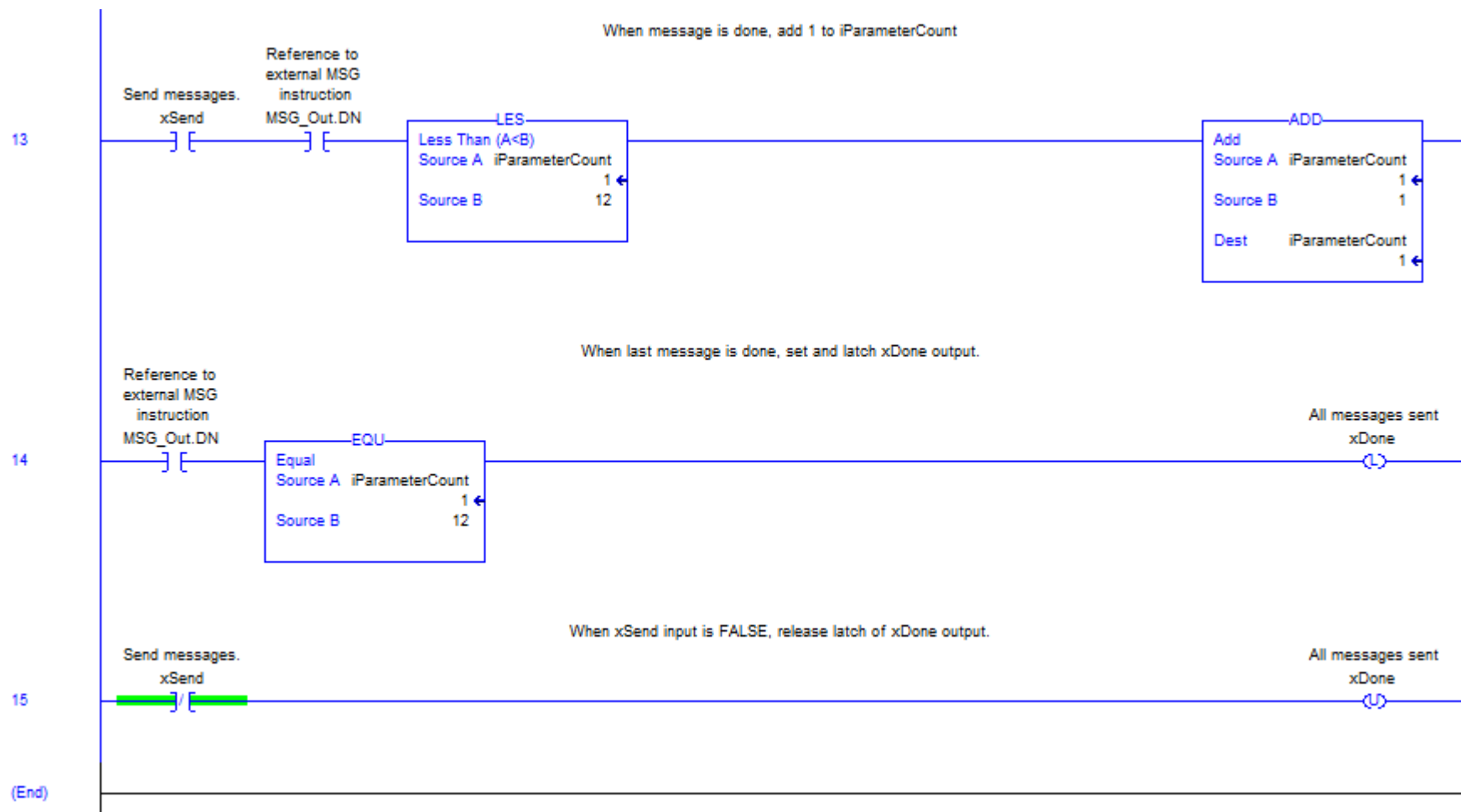












4 Appendix

4.4 Configuring IP addresses using Easy Starter

4.4.1 Setting up the Hardware

4.4.2 Configuring IP addresses

4.4.1 Setting up the hardware

Although there are several different ways the components can be set up, the following is perhaps the most efficient and simplest.

- 1) First make sure the computer is disconnected from LAN Network (otherwise the Network IP address will be dynamic and will not be able to communicate with the drive or controller)
- 2) Connect the computer to the drive and the drive to the controller using Ethernet cables.
- 3) Then connect the drive to the computer a second time using the USB keypad and cable from the drive. This is to enable communication for Easy Starter on the actual computer.



Figure 39: Wiring Layout

4.4.2 Configuring IP addresses

In order for the drive and controller to communicate via Ethernet/IP to the computer, the computer must have a constant IP address in the same range as both drive and controller.

- 1) Make sure you know the IP address of the controller. This is typically found somewhere on the controller itself.
- 2) Next the IP address of the drive can be found and modified if necessary in Easy Starter under the parameter's tab in *Ethernet/IP settings*. See Note for more info.
- 3) To configure the Network IP address on the computer:
 - (a) Open *Network and Sharing Center*.
 - (b) Select *Change adapter settings* on the right
 - (c) Double click the network and open its properties
 - (d) Double click *(TCP/IPv4)*. Here is where you are able to change the network's IP address (Figure 40). Change it to be within the same range as the drive and controller. Example:
 - (i) Drive: 192.168.1.11
 - (ii) Controller: 192.168.1.100
 - (iii) Network: 192.168.1.(1-250)

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4.4.2 Configuring IP addresses

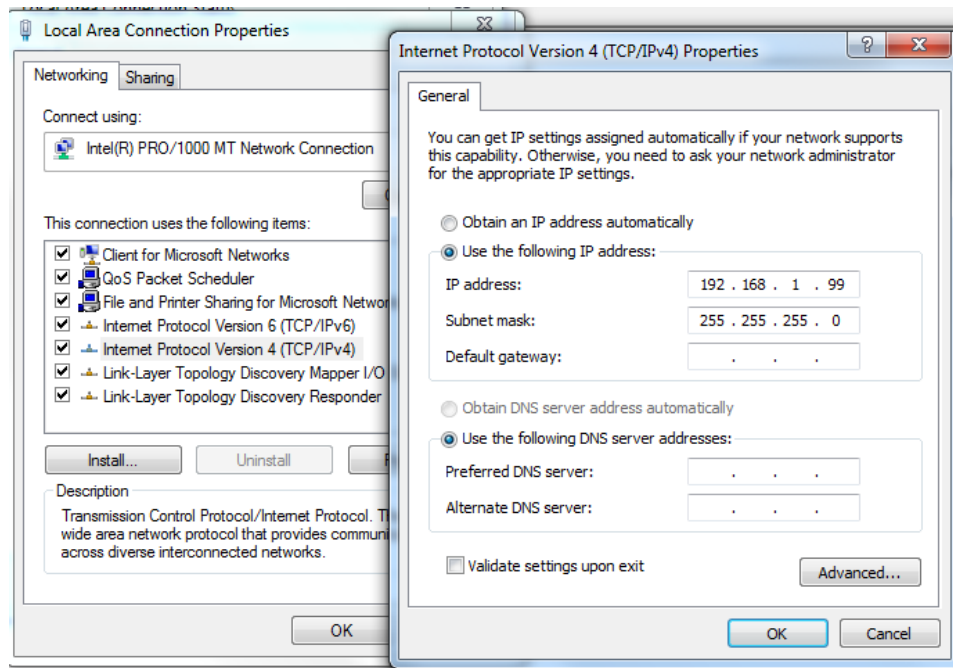


Figure 40: Network IP address

- 4) Finally, make sure in Easy Starter in *Settings* under *Overview\Fieldbus – EtherNet/IP*, that the IP address is correct, that the *IP configuration* is set to *Stored IP [0]* and that *Activate network control* is set to *Constant TRUE [1]* (Figure 41).

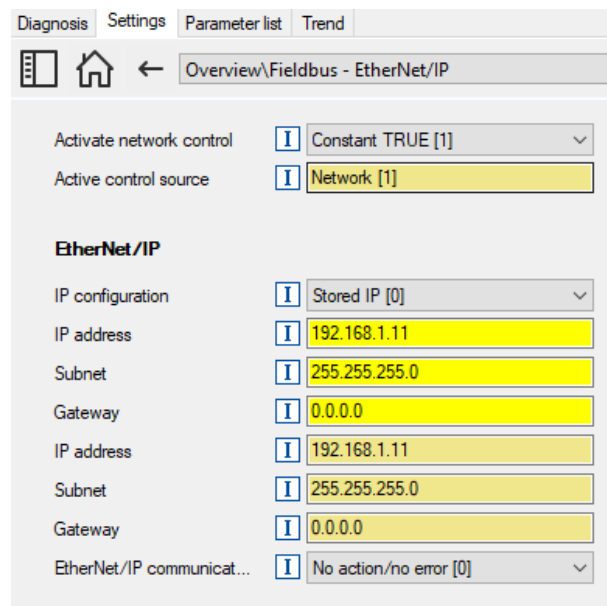


Figure 41: Activate Network Control

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4.4.2 Configuring IP addresses

- 5) Note on how to change the IP address of the drive.
- Open Easy Starter and connect the drive (Image 42).

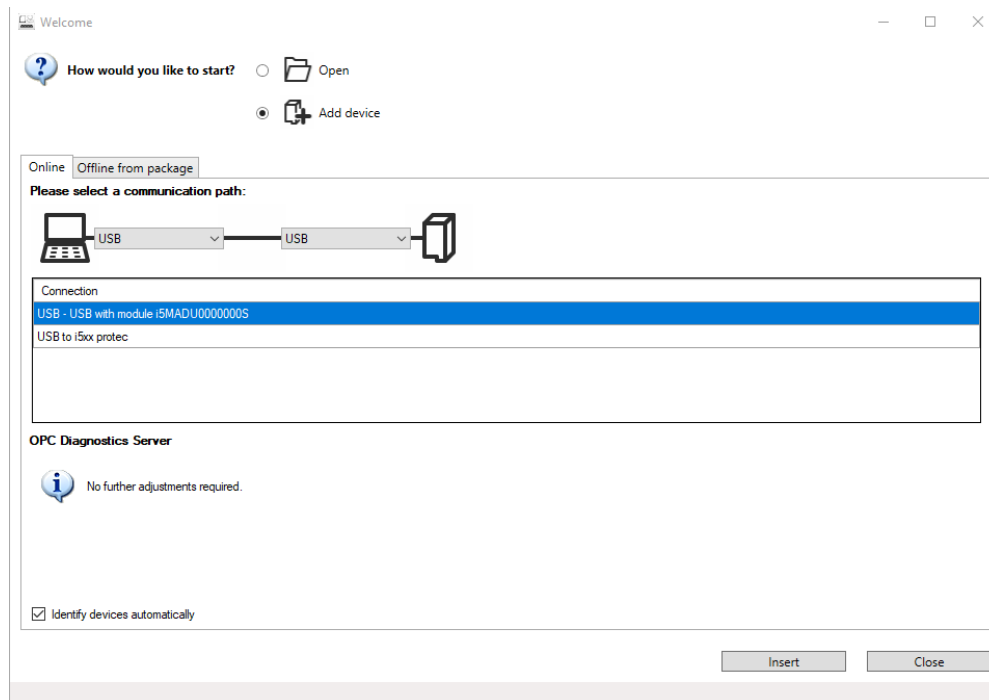
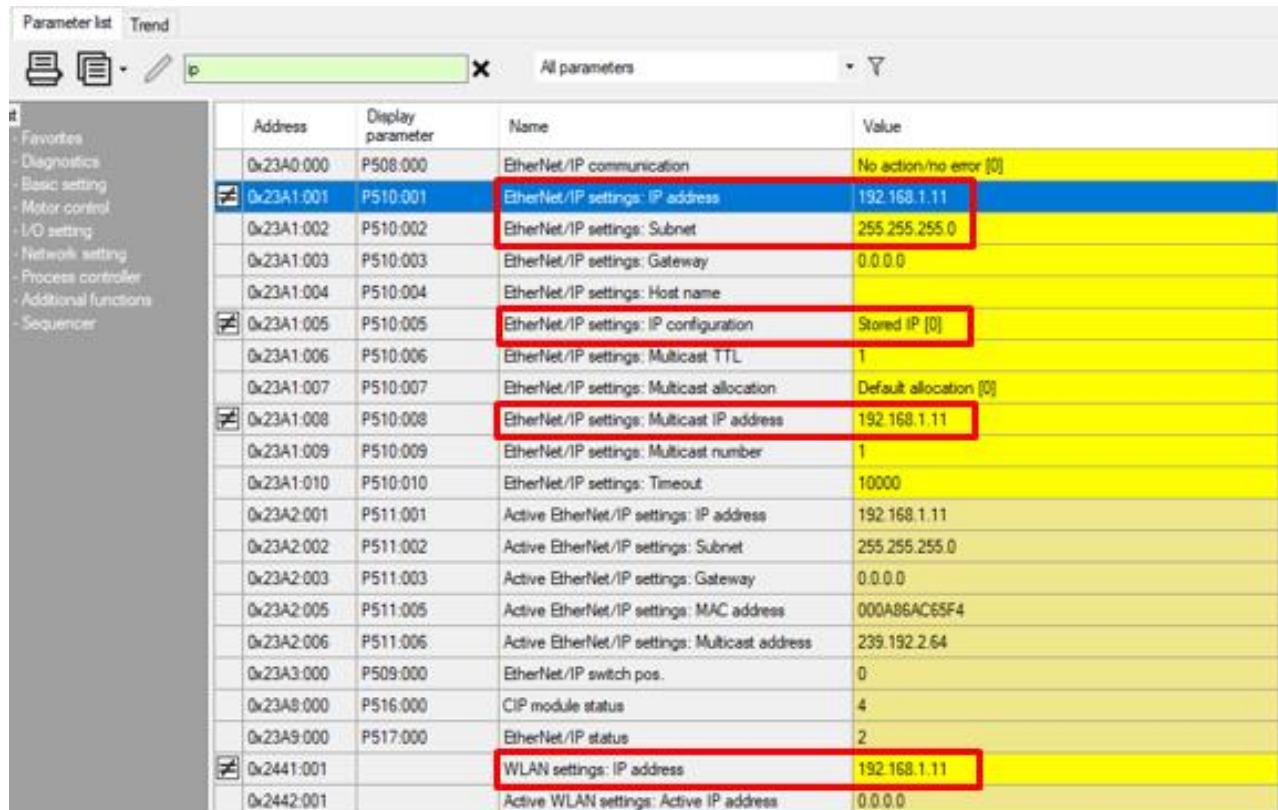


Figure 42: Connecting drive in Easy Starter

- Once the drive is connected and opened in Easy Starter, open the parameters tab. Then in the search bar type "IP". Up will come all the settings related to the IP address of the drive (Figure 43). Change the following settings if desired/needed:
 - EtherNet/IP settings: IP address = (desired IP address)
 - EtherNet/IP setting: IP configuration = Stored IP [0]
 - EtherNet/IP settings: Multicast IP address = (desired IP address)
 - WLAN settings: IP address = (desired IP address)

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4.4.2 Configuring IP addresses



Address	Display parameter	Name	Value
0x23A0:000	P508:000	EtherNet/IP communication	No action/no error [0]
0x23A1:001	P510:001	EtherNet/IP settings: IP address	192.168.1.11
0x23A1:002	P510:002	EtherNet/IP settings: Subnet	255.255.255.0
0x23A1:003	P510:003	EtherNet/IP settings: Gateway	0.0.0.0
0x23A1:004	P510:004	EtherNet/IP settings: Host name	
0x23A1:005	P510:005	EtherNet/IP settings: IP configuration	Stored IP [0]
0x23A1:006	P510:006	EtherNet/IP settings: Multicast TTL	1
0x23A1:007	P510:007	EtherNet/IP settings: Multicast allocation	Default allocation [0]
0x23A1:008	P510:008	EtherNet/IP settings: Multicast IP address	192.168.1.11
0x23A1:009	P510:009	EtherNet/IP settings: Multicast number	1
0x23A1:010	P510:010	EtherNet/IP settings: Timeout	10000
0x23A2:001	P511:001	Active EtherNet/IP settings: IP address	192.168.1.11
0x23A2:002	P511:002	Active EtherNet/IP settings: Subnet	255.255.255.0
0x23A2:003	P511:003	Active EtherNet/IP settings: Gateway	0.0.0.0
0x23A2:005	P511:005	Active EtherNet/IP settings: MAC address	000A86AC65F4
0x23A2:006	P511:006	Active EtherNet/IP settings: Multicast address	239.192.2.64
0x23A3:000	P509:000	EtherNet/IP switch pos.	0
0x23A8:000	P516:000	CIP module status	4
0x23A9:000	P517:000	EtherNet/IP status	2
0x2441:001		WLAN settings: IP address	192.168.1.11
0x2442:001		Active WLAN settings: Active IP address	0.0.0.0

Figure 43: Easy Starter EtherNet/IP settings

- c. Make sure to restart Easy Starter after saving the changes to verify that they were properly stored.

All the devices should now be able to properly communicate with each other and should be ready for Allen Bradley's software.

NOTES:

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