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ILX56-PBS

Installing Logix v20 and Below

January 29, 2024

TECHNICAL NOTE

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ILX56-PBS Installing Logix v20 and Below Technical Note
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January 29, 2024

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1 Studio 5000 Configuration

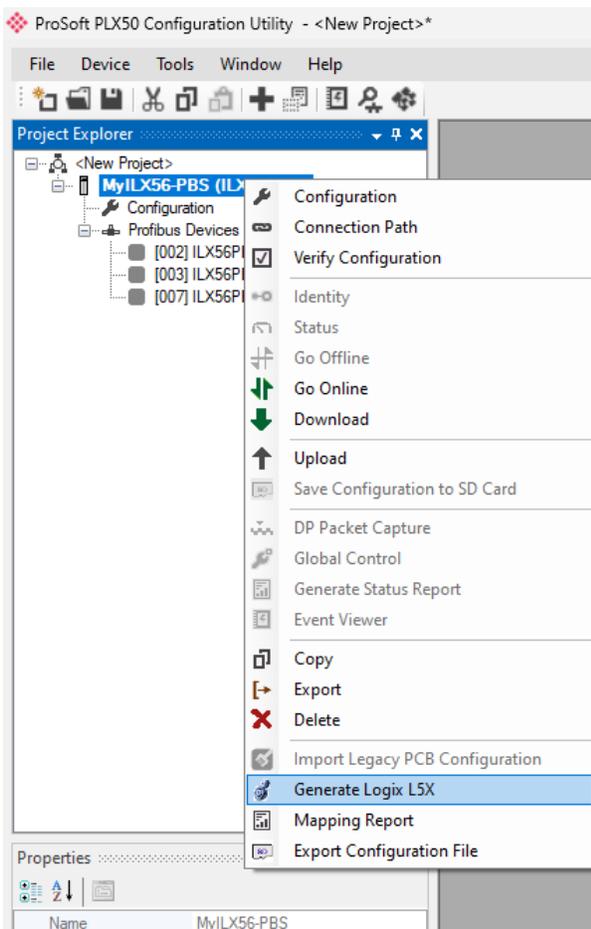
The ILX56-PBS can be integrated with Logix controllers using a **Generic 1756 Module** profile.

Note: When Studio 5000 v20 and below is used, the ILX56-PBS can only utilize a single I/O connection.

1.1.1 Generating the Logix .L5X File

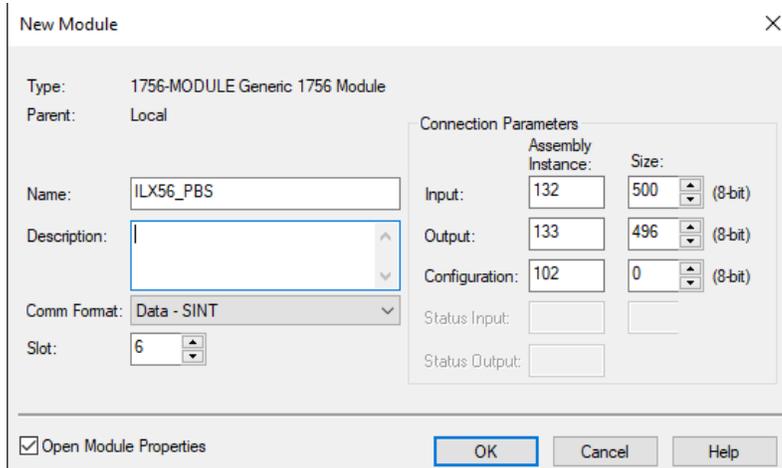
The PLX50 Configuration Utility can generate a Logix .L5X file of the ILX56-PBS project.

In the ILX56-PBS project, right-click on the **ILX56-PBS** icon and select **GENERATE LOGIX L5X**. Then save the .L5X file.

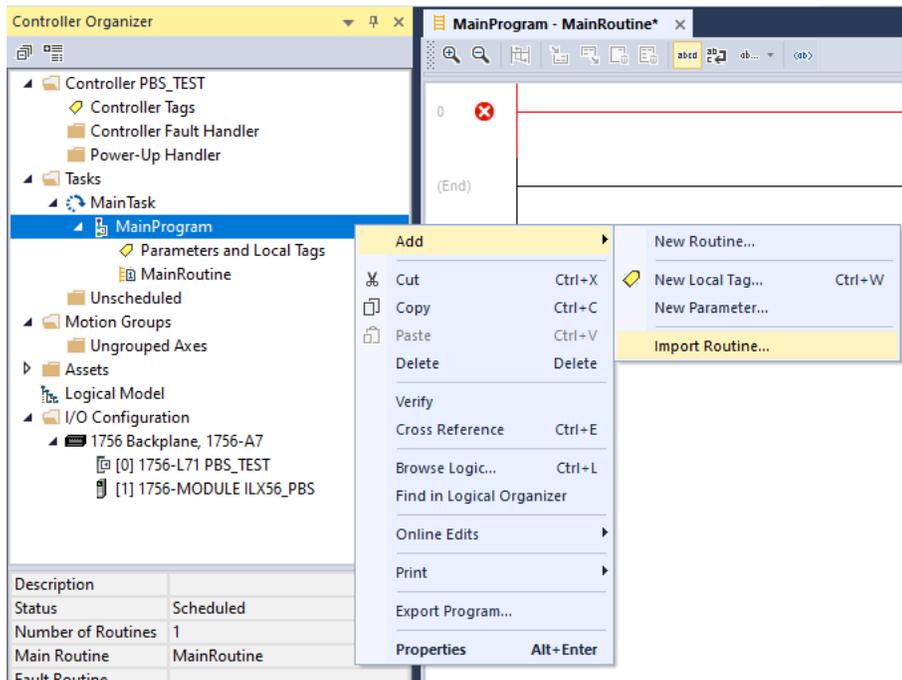


1.1.2 Importing the ILX56-PBS .L5X File

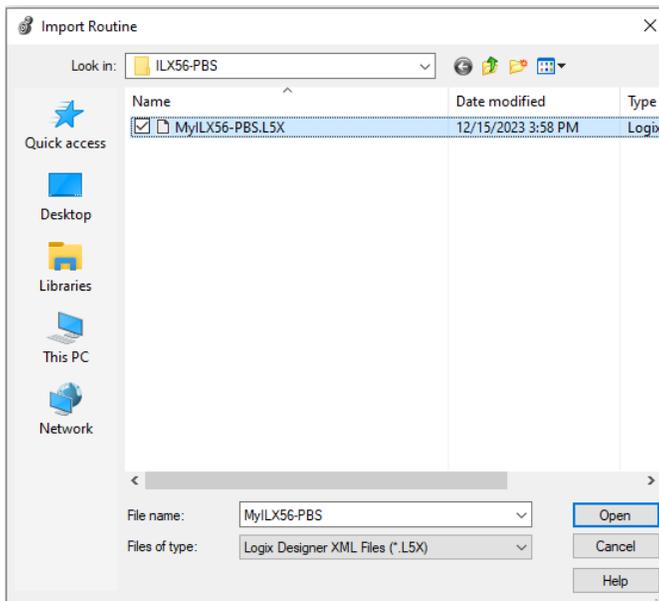
- 1 In a new or existing Studio 5000 (v20 and below) project, add a **GENERIC 1756 MODULE** to the I/O tree using the following *Connection Parameters*:



- 2 In Studio 5000, right-click on the **MAINPROGRAM** routine. Then select **ADD > IMPORT ROUTINE**.

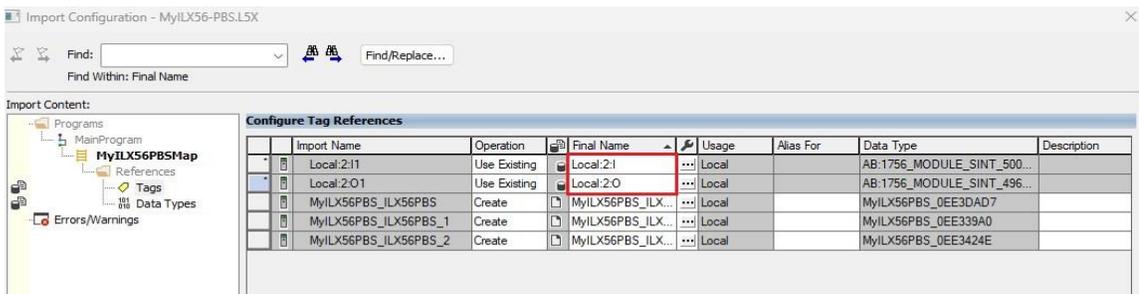


- 3 In the *Import Routine* dialog, navigate to and select the exported ILX56-PBS .L5X file. Then click **OPEN**.



- 4 In the *Import Configuration* dialog, click on the **TAGS** icon. In the *Final Name* column, change the *Local:x:I* and *Local:x:O* text to reflect the ILX56-PBS ControlLogix slot location. Then click **OK**.

The following example shows the ILX56-PBS in slot 2.



- 5 From a scheduled routine, add a JSR to the newly imported ILX56-PBS routine.

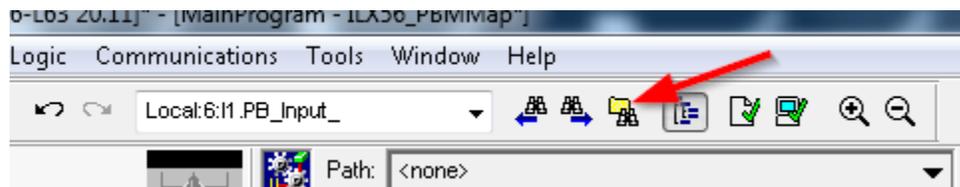


- 6 At the top of the ILX56-PBS routine, right-click on an empty rung, and select **IMPORT RUNG** and import the *ILX56PBS_ImportRung_tagsFor_V20.L5X* file.

Note: If the **Local:<slot>** does not match the actual ILX56-PBS slot number, there will be errors on each rung. Once the **Local:<slot>** is corrected, these errors will go away.



- 7 Within the ILX56-PBS routine, click on the **FIND ALL** button then click on the **REPLACE** button to open the *Replace With* field.



- 8 In the example, the ILX56-PBS is in slot 2. Be sure to change this to reflect the ILX56-PBS slot number.

Find What: Local:2:O.PB_Input_
Replace With: Local:2:O.Data[
Find What: Local:2:I.PB_Output_
Replace With: Local:2:I.Data[

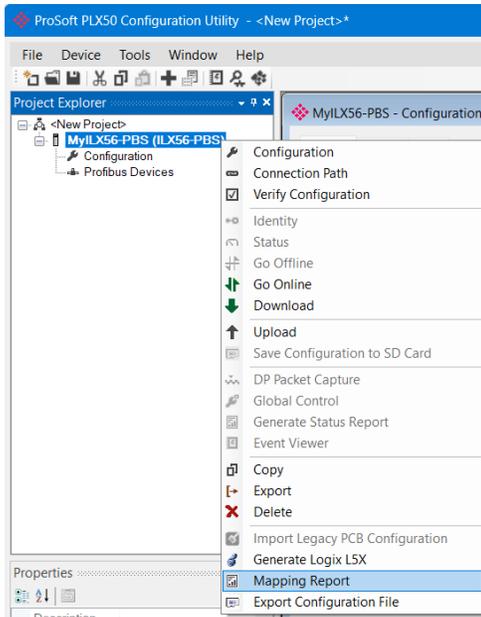
Modifications may be needed in the *Find What* field to “I1” and “O1” for the Input/Output designation. For example, **Find What:** Local:2:I1.PB_Output_

The number of search/replace instances found should equal the number of PROFIBUS slaves.

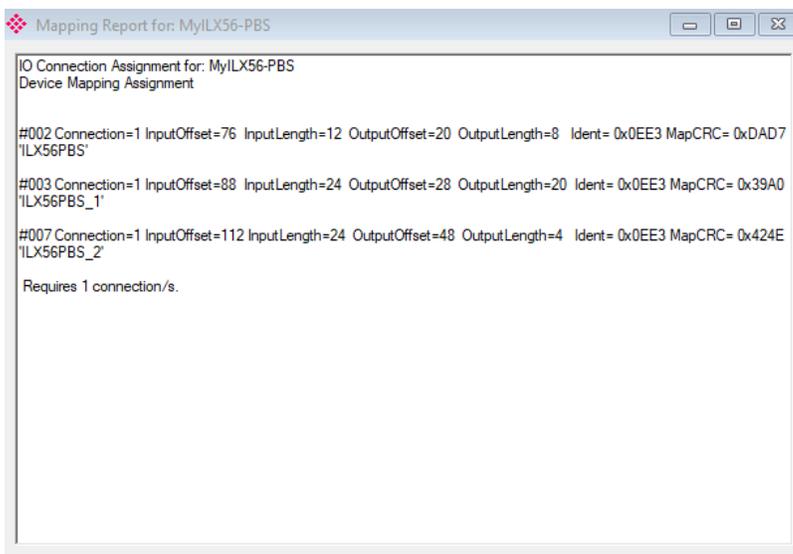
1.1.3 Mapping Report

The imported rungs for each PROFIBUS slave node must be updated to reflect the specific device mapping assignments. The *Mapping Report* contains the I/O Connection and Device Mapping Assignments for the ILX56-PBS project.

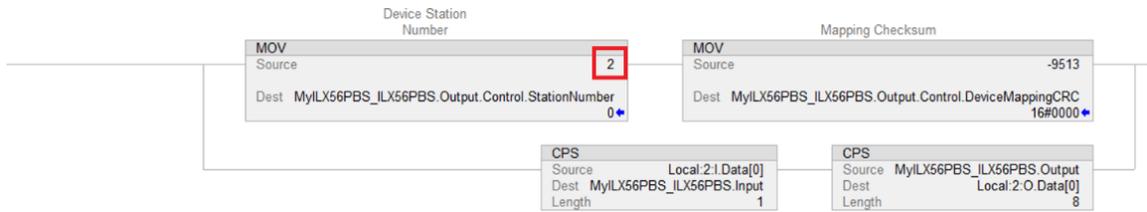
- 1 Within the PLX50CU, right-click on the module and select **MAPPING REPORT** to open the *Mapping Report* dialog.



- 2 In the *Mapping Report* example below, the PROFIBUS slave nodes are listed as: **#002**, **#003**, and **#007**.

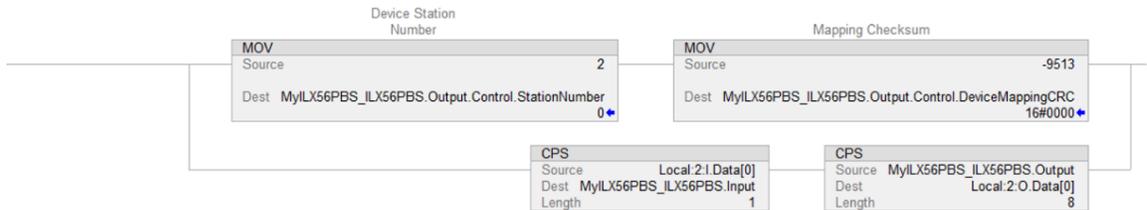


- Each PROFIBUS DP node has its own rung in the imported routine. The PROFIBUS DP node number can be identified in the *Source* of the first **MOV** instruction.

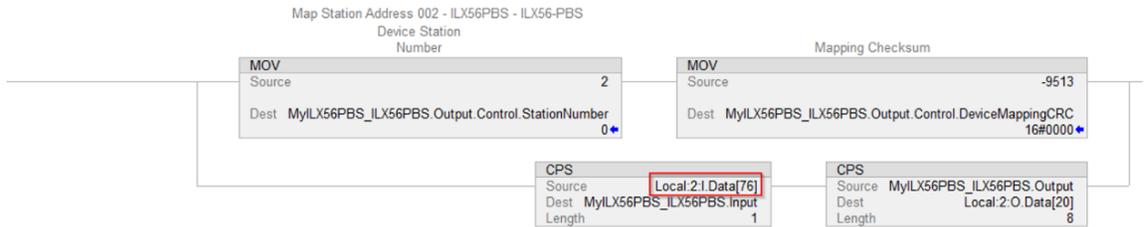


- For each node rung, modify the **CPS** instruction *Source* and *Destination* values to reflect the *InputOffset* and *OutputOffset* values in the Mapping Report.

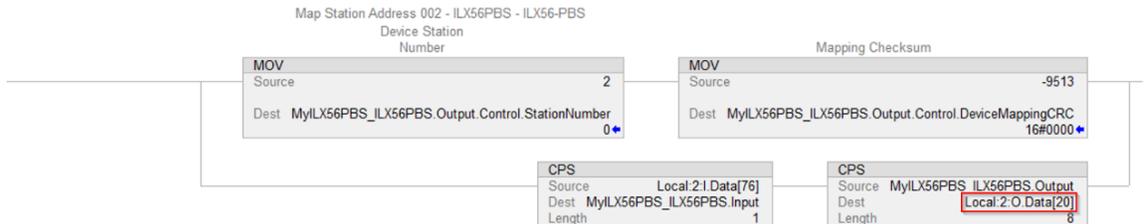
Example: The following is the original rung for node 2 after the Search/Replace.



- Modify the *Source* location in the first **CPS** instruction to match the *InputOffset* value in the Mapping Report.



- Modify the *Dest* value in the second **CPS** instruction to match the *OutputOffset* value in the Mapping Report.



- Repeat Steps 4 to 6 for each node rung.
- Save the .L5X file and download to the processor when ready.

2 Support, Service, and Warranty

2.1 Contacting Technical Support

ProSoft Technology, Inc. is committed to providing the most efficient and effective support possible. Before calling, please gather the following information to assist in expediting this process:

- 1 Product Version Number
- 2 System architecture
- 3 Network details

If the issue is hardware related, we will also need information regarding:

- 1 Module configuration and associated ladder files, if any
- 2 Module operation and any unusual behavior
- 3 Configuration/Debug status information
- 4 LED patterns
- 5 Details about the interfaced serial, Ethernet or Fieldbus devices

Note: For technical support calls within the United States, ProSoft Technology's 24/7 after-hours phone support is available for urgent plant-down issues.

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