

# Technical Note



## Converting from J1939R to the J1939R/B router.

**Document Code:** TN-Convert-J1939R-into-J1939R/B

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### Purpose of Tech Note:

The purpose of this Tech Note is to show how to migrate from a J1939R router to the J1939R/B router. Discuss the differences between the units and provide the steps necessary for the new gateway to use the old configuration for a seamless migration.

The J1939R/B has all the functionalities as its predecessor, additionally it supports the following: Modbus protocol, Device Level Ring (DLR) and CIP originator for EtherNet/IP applications.

The hardware and power consumption are quite different, please look at the below screen capture where the functionalities and hardware specifications are highlighted.

## A-J1939R vs A-J1939R/B



#### A-J1939R

- The J1939 Router enables data exchange between SAE J1939 devices and Logix controller via EtherNet/IP.
  - Direct-to-Tag Technology
  - Generates Logix Tags and UDTs in L5X
  - Built-Packet Analyzer
  - PGN browsing and Auto Scaling to Engineering units

#### Hardware Specification:

- Dimensions: 101.0 x 22.5 x 120.0 mm
- Power: Input 10 – 28V DC
  - Current: 70mA@24v
- Power Consumption: 1.7W
- J1939 Connector: 5-way terminal, 5.08mm pitch



#### Support A-J1939R functionalities

##### + Added features:

- Modbus TCP Client/Server
- Modbus RTU Client/Server
- EtherNet/IP Originator
- Device Level Ring (DLR)
- Network Time Protocol (NTP)

#### Hardware Specification:

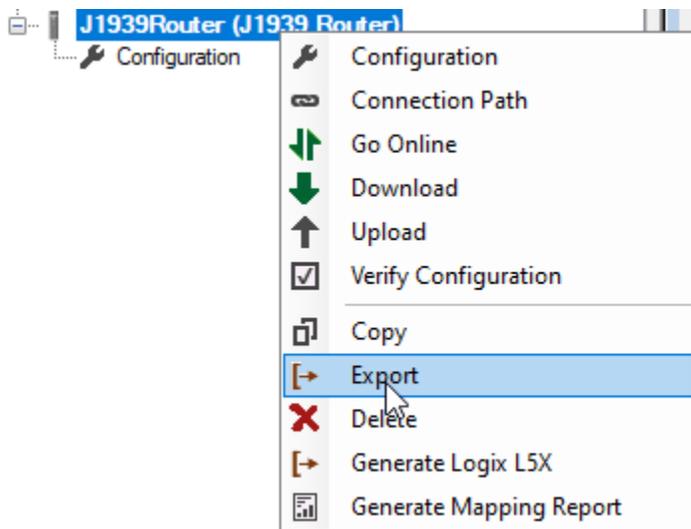
- Dimensions: **116.0 x 34.0 x 151.0 mm**
- Power: Input 10 – 32V DC
  - Current: **85mA @ 24V**
- Power Consumption: **2.2W (Max)**
- J1939 Connector: 5-way terminal 5.08mm pitch

**Steps on how to use the configuration from the old J1939R to the new J1939R/B**

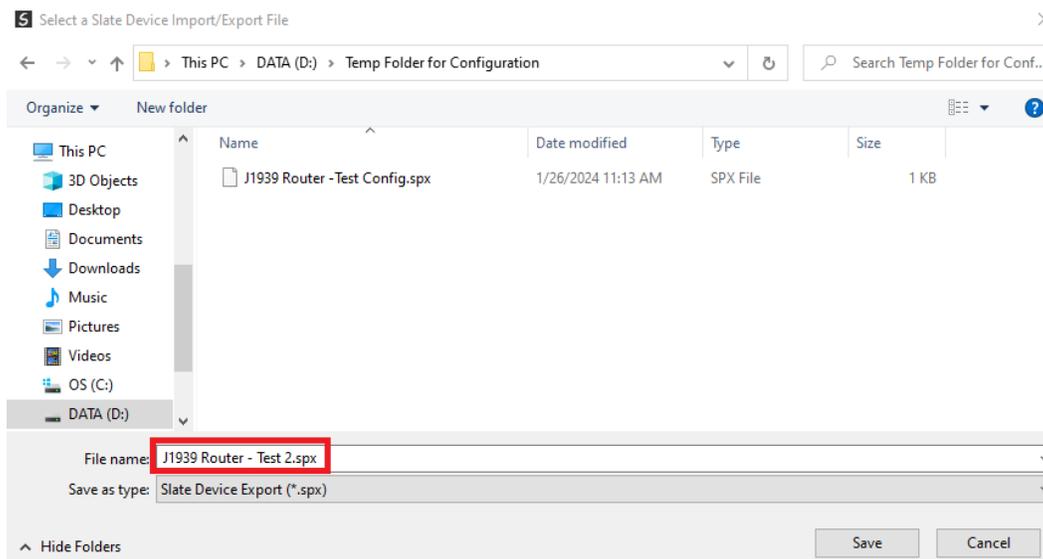
There are two ways to convert the configuration from a J1939R to the J1939R/B gateway. The first is by exporting the configuration and the second is via a saved project, we will go in detail on both.

**A - Exporting the configuration**

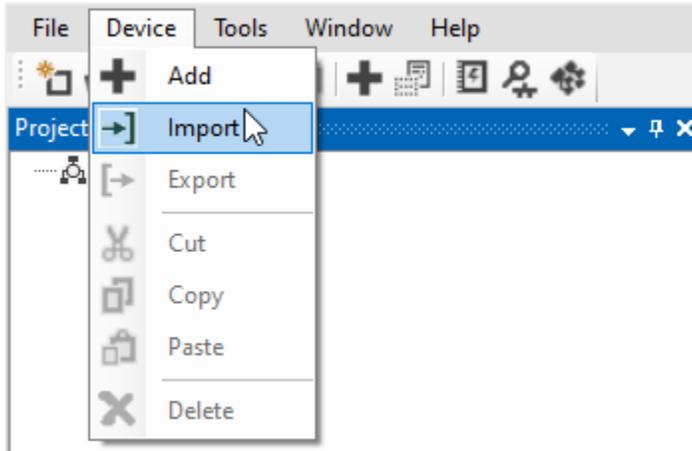
- 1) Save your configuration by exporting from Slate application.



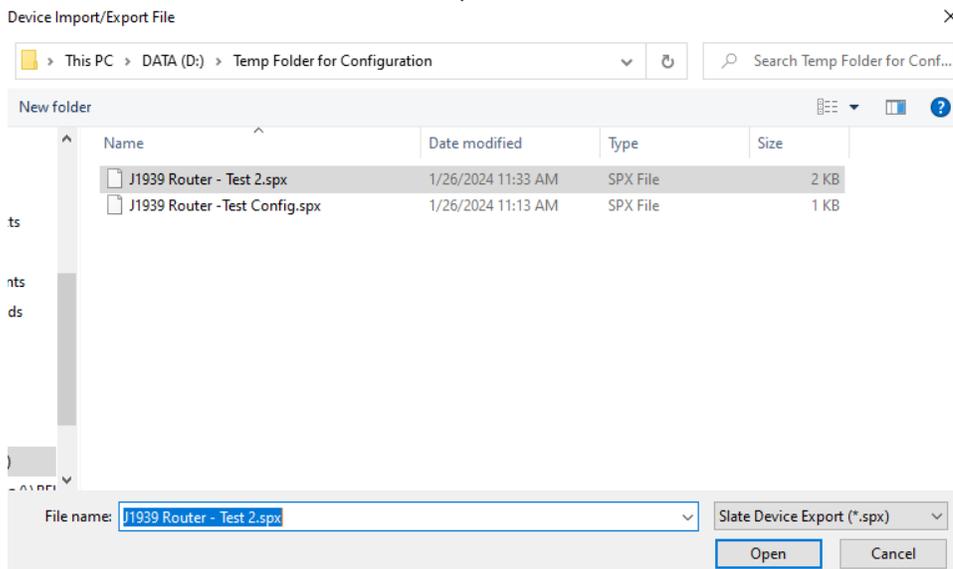
- 2) Give a name to the .spx file



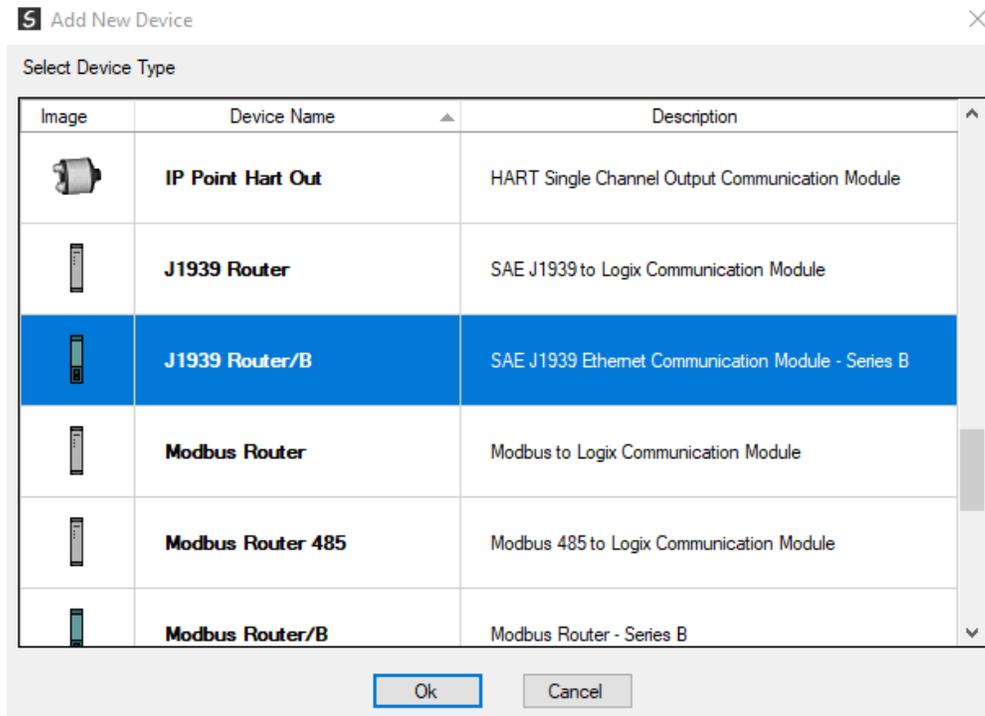
3) Import the Saved configuration onto a new project by going to the Device Tab



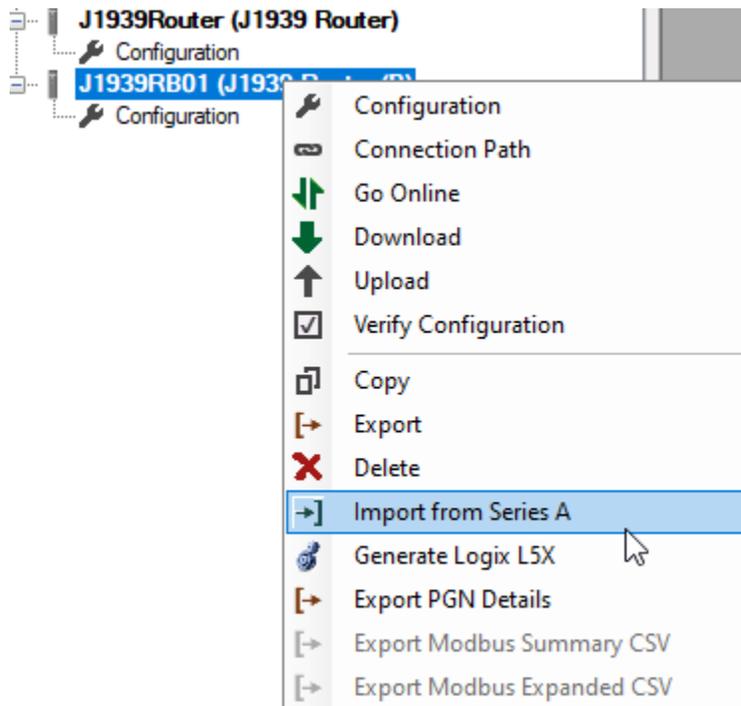
4) Choose the saved file and select to Open the file.



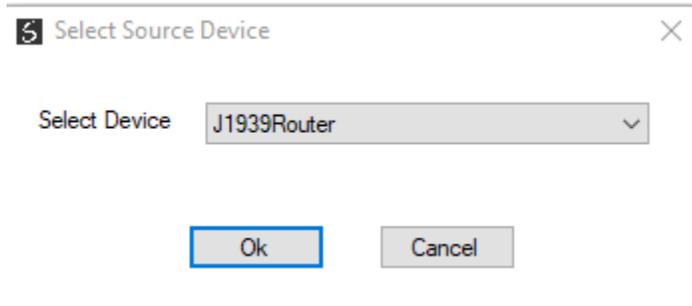
5) Add the J1939R/B to the project



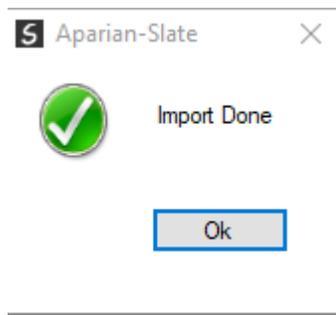
6) Right-click on the recently added module and select the import from Series A option.



- 7) Press Ok button at the following Prompt

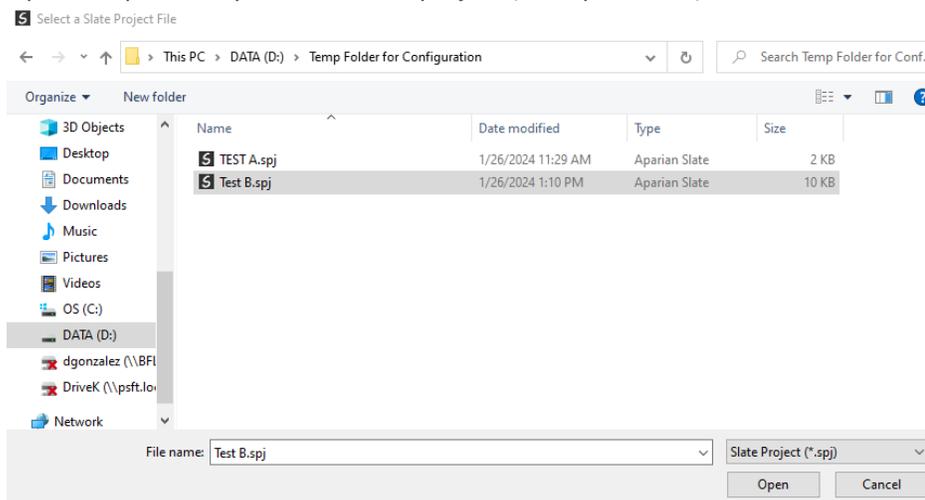


- 8) A successful import will show Import Done as displayed below, the configuration parameter from the old router will be now available in the new product.

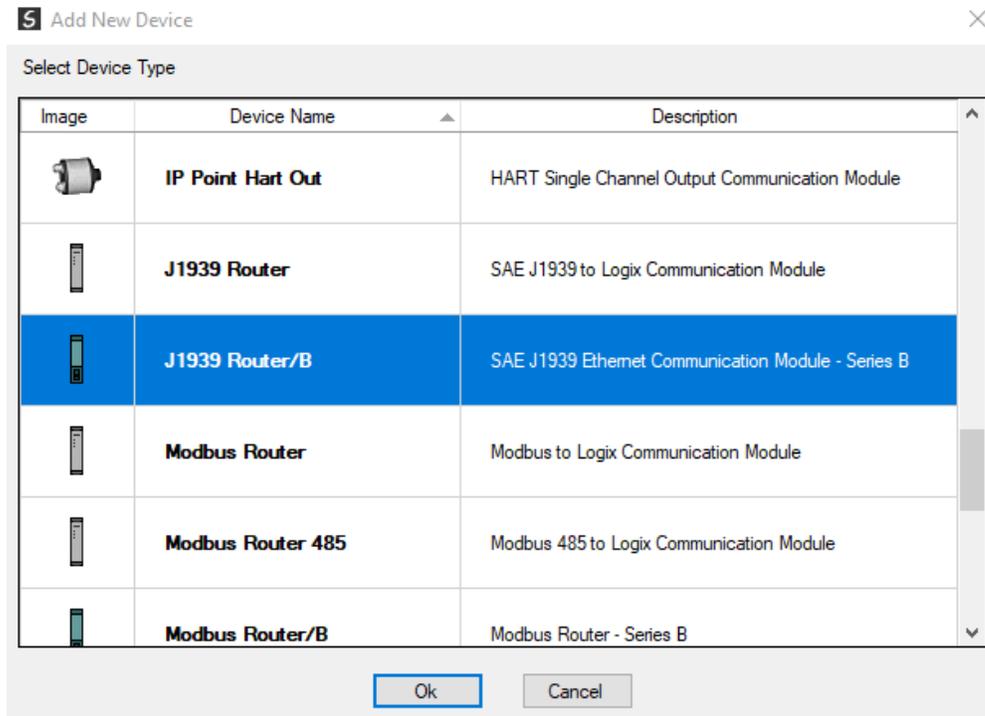


## B – Converting using a Saved project

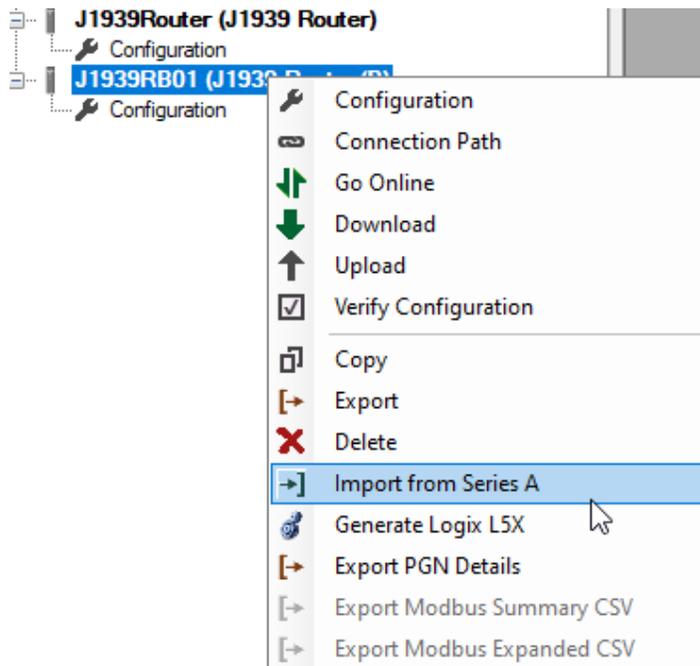
- 1) Open the previously Saved J1939R project (example Test B)



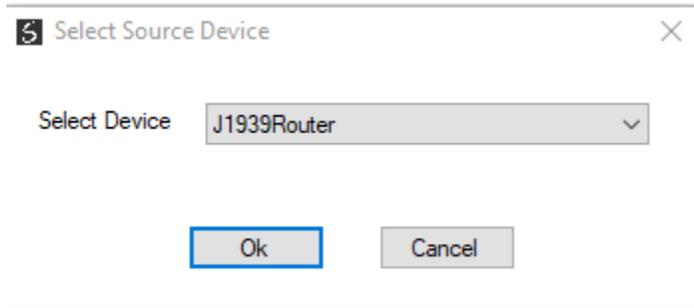
2) Add the J1939R/B to the project



3) Right-click on the recently added module and select the import from Series A option.



- 4) Press Ok button at the following Prompt



- 5) A successful import will show Import Done as display below, the configuration parameter from the old router will be now available for downloading to the J1939R/B.

