Connectivity Guide

Using Allen-Bradley DF1 driver to Connect to RSLogix5000 Controller Serial Port

April, 2018

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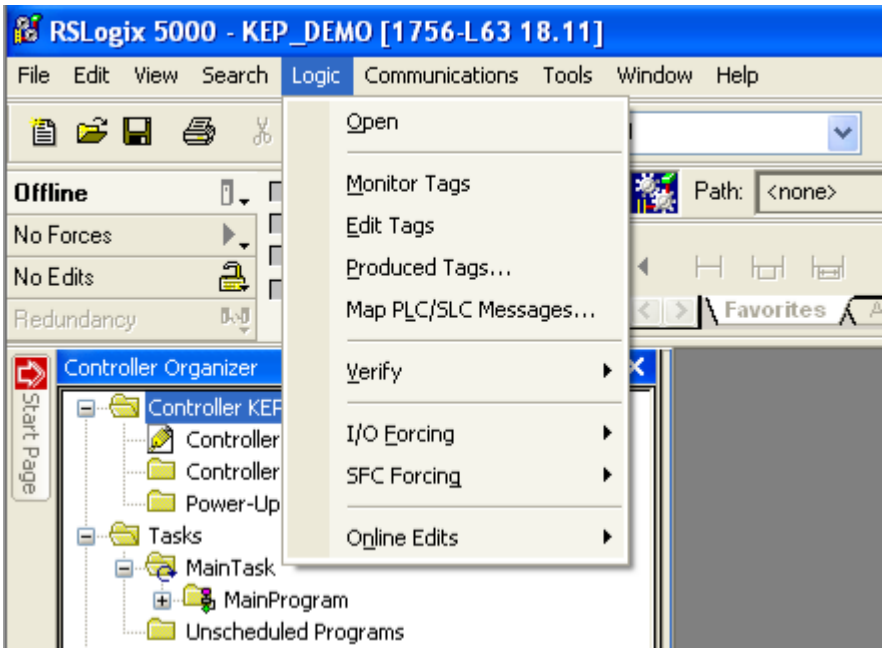
1. Introduction

The Allen-Bradley DF1 driver for ThingWorx® Kepware® Server can connect to the serial port of an RSLogix5000 family controller.

2. Enabling Communications with an RSLogix5000 Controller

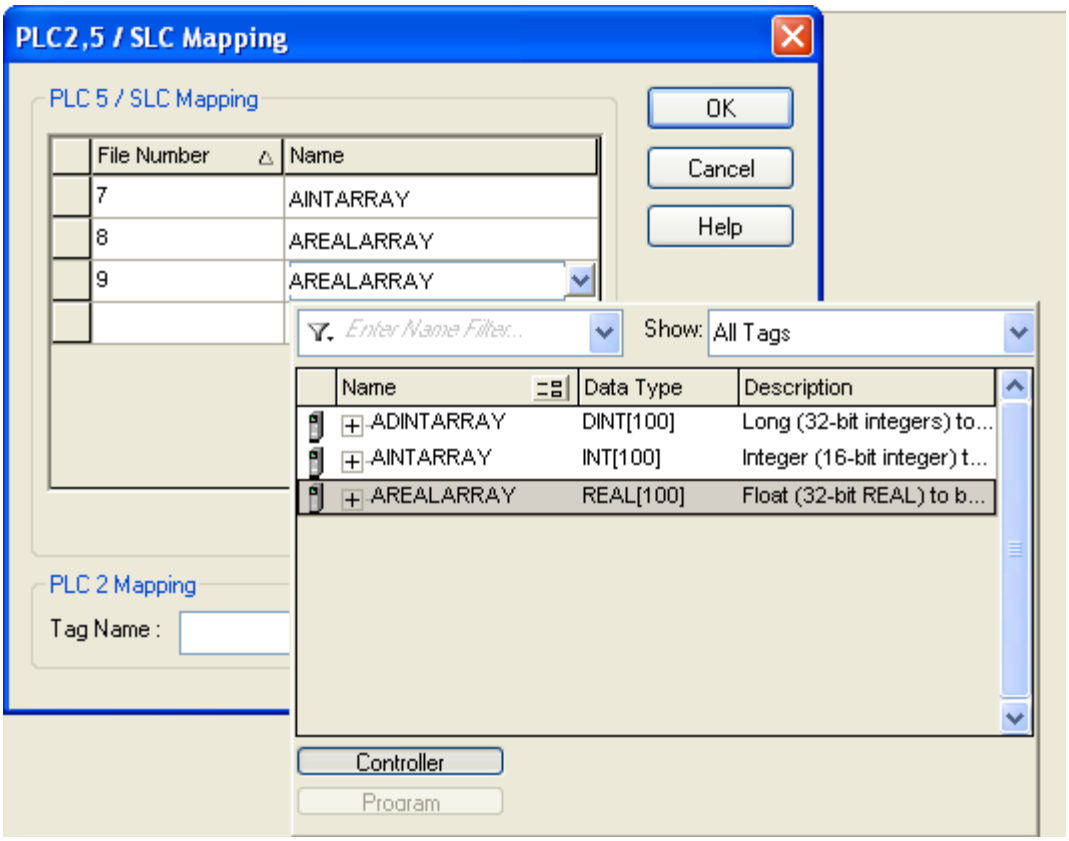
The RSLogix5000 controller tags must be mapped to the PLC/SLC data tables in RSLogix5000. For more information, refer to the instructions below.

1. In the RSLogix5000 controller's development software, select **Logic** | **Map PLC/SLC Messages**.

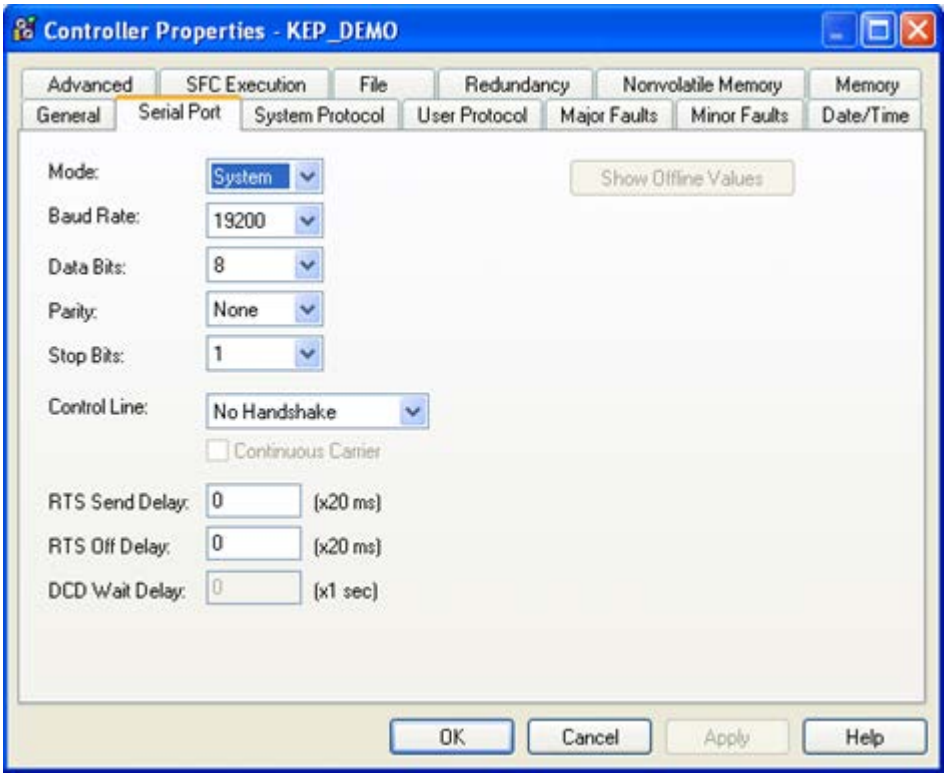


2. In **PLC2,5 / SLC Mapping**, indicate the File Number to be referenced by non-RSLogix5000 controllers with the matching RSLogix5000 controller tags available in the dropdown menu. Once finished, click **OK**.

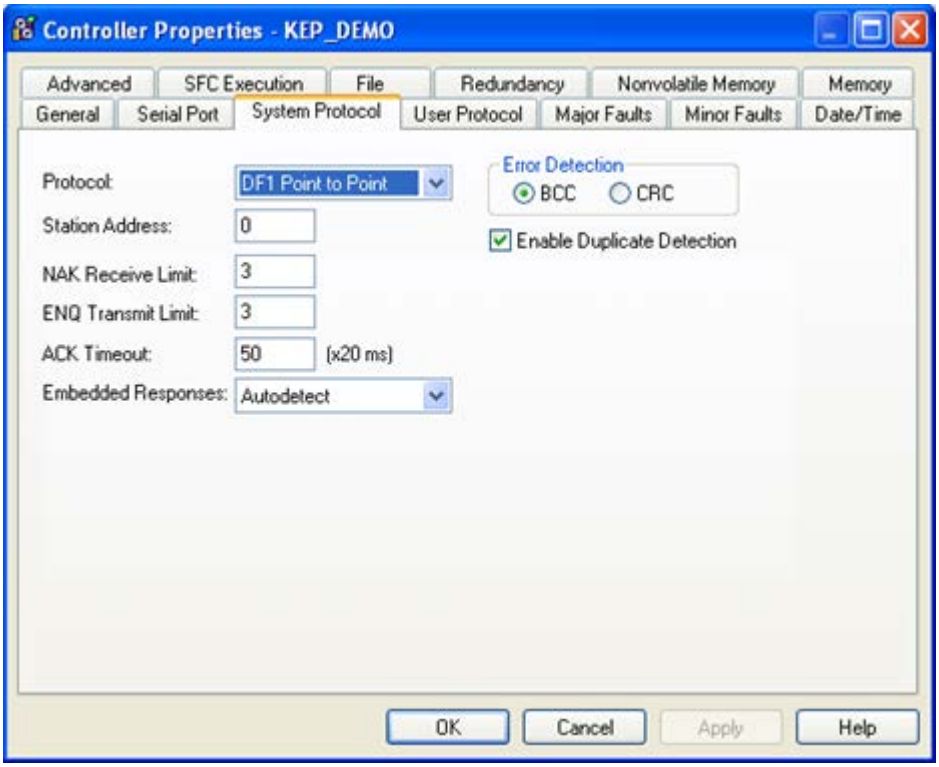
Note: In the example below, File Number 7 (or N7:0) is mapped to RSLogix5000 controller tag AINTARRAY, therefore the N7:0 to N7:99 data table elements will be mapped to the RSLogix5000 controller tags AINTARRAY[0] to AINTARRAY[99].



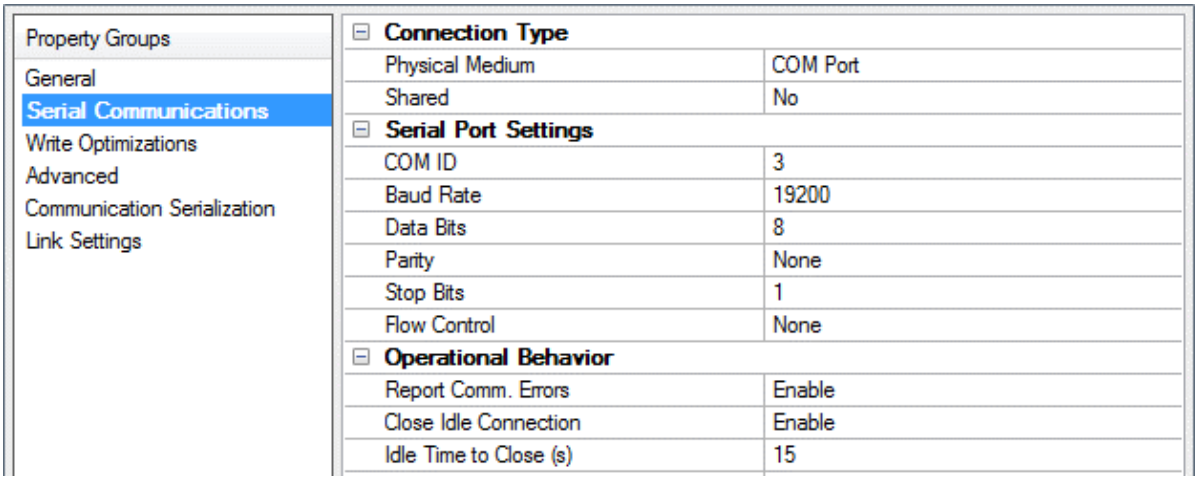
3. Next, ensure that the serial settings in the RSLogix5000 controller match the serial settings in the Allen-Bradley DF1 driver. In RSLogix5000, these settings are located in **Controller Properties** | **Serial Port**.



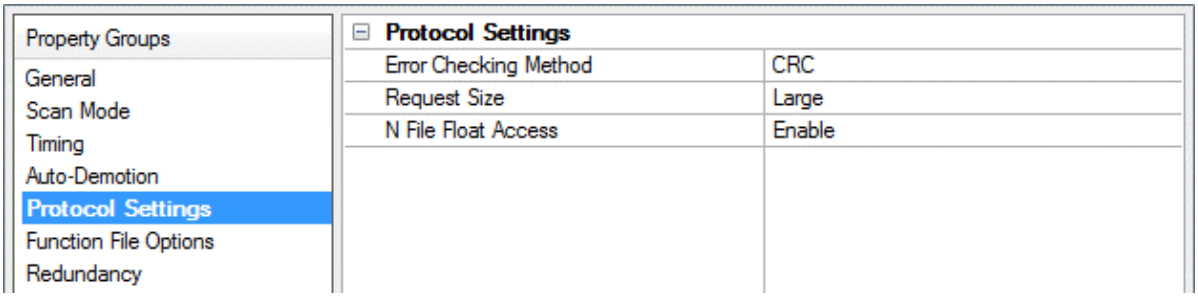
4. On the **System Protocol** tab, verify the **Error Detection** setting and click **OK**.



5. In the Allen-Bradley DF1 driver, open **Channel Properties** and then select the **Communications** tab. In **Serial Port Settings**, ensure that the values match what is set in the controller, then click **OK**.

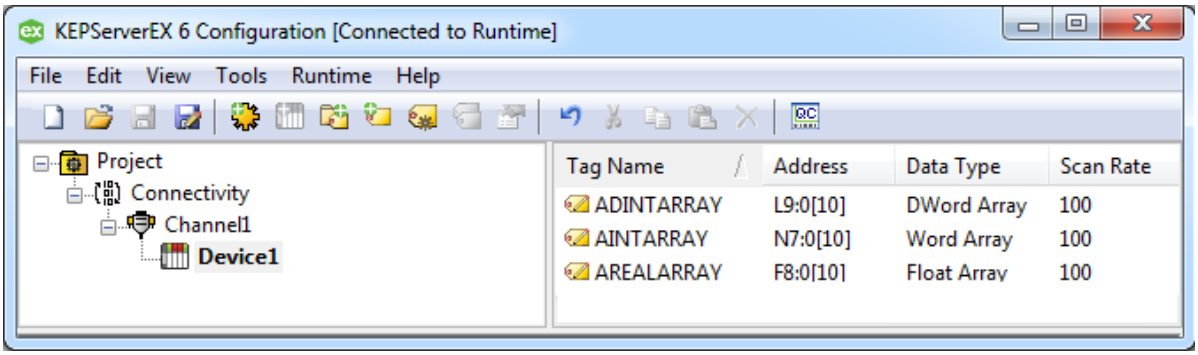


6. Next, open **Device Properties** and select **Protocol Settings**. Ensure that the **Error Checking Method** matches the **Error Detection** setting in the controller, then click **OK**.



7. Next, add the tags to ThingWorx Kepware Server.

Note: Only the MicroLogix device model supports L data types, which are 32 bit data types equivalent to the DINT data type used in the RSLogix5000 controller.



3. Conclusion

At this point, Allen-Bradley DF1 driver for KEPServerEX should be able to communicate with the RSLogix5000 family controller configured with PLC 2,5 / SLC mapping. Verify connectivity using the OPC Quick Client, which should indicate a value of "Good" quality. Please note that a null-modem serial adapter may be required for testing.