Industrial Automation Yaskawa MP2000iec Controller
Tech Note 40

Abstract

This document describes how to configure the Crimson® driver for the Yaskawa MP2000iec Controller connected via Ethernet.

Products:

CR1000 HMI / CR3000 HMI / Graphite® HMI / Graphite Controller / PTV / Data Station Plus

Use Case / Problem Solved

How to establish communication and access the various data types present in the Yaskawa MP2000iec controller.

Required Software:

Crimson 3.0 or Crimson 3.1

Required Firmware:

Crimson 3.0, Build 252 or higher; Crimson 3.1, All Builds

Configure Ethernet in Crimson

1. Referencing Figure 1, go to the Navigation Pane and enable the Ethernet port in the Communications section of Crimson by navigating to Communications > Network > Ethernet1 (or Ethernet 2), as shown in Figure 1. The Communications - Network window is displayed.
2. Specify the IP Address, Network Mask, and Gateway, as applicable.

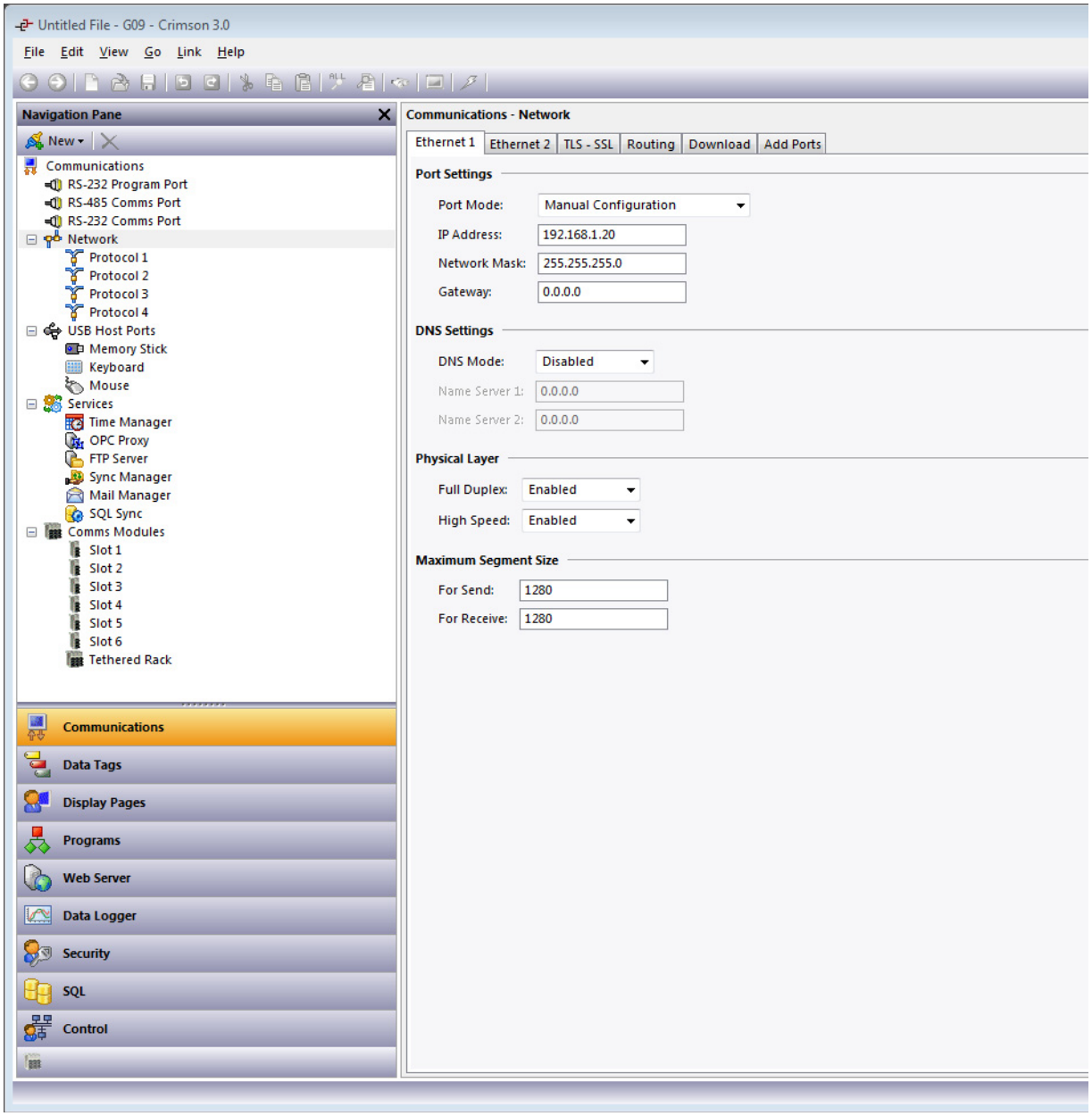

Figure 1.

3. From the Navigation Pane, select Protocol 1; the Driver Picker for Ethernet Port popup is displayed, as shown in Figure 2.
4. Select the Yaskawa TCP/IP MP2000iec driver from the popup and click *OK*.

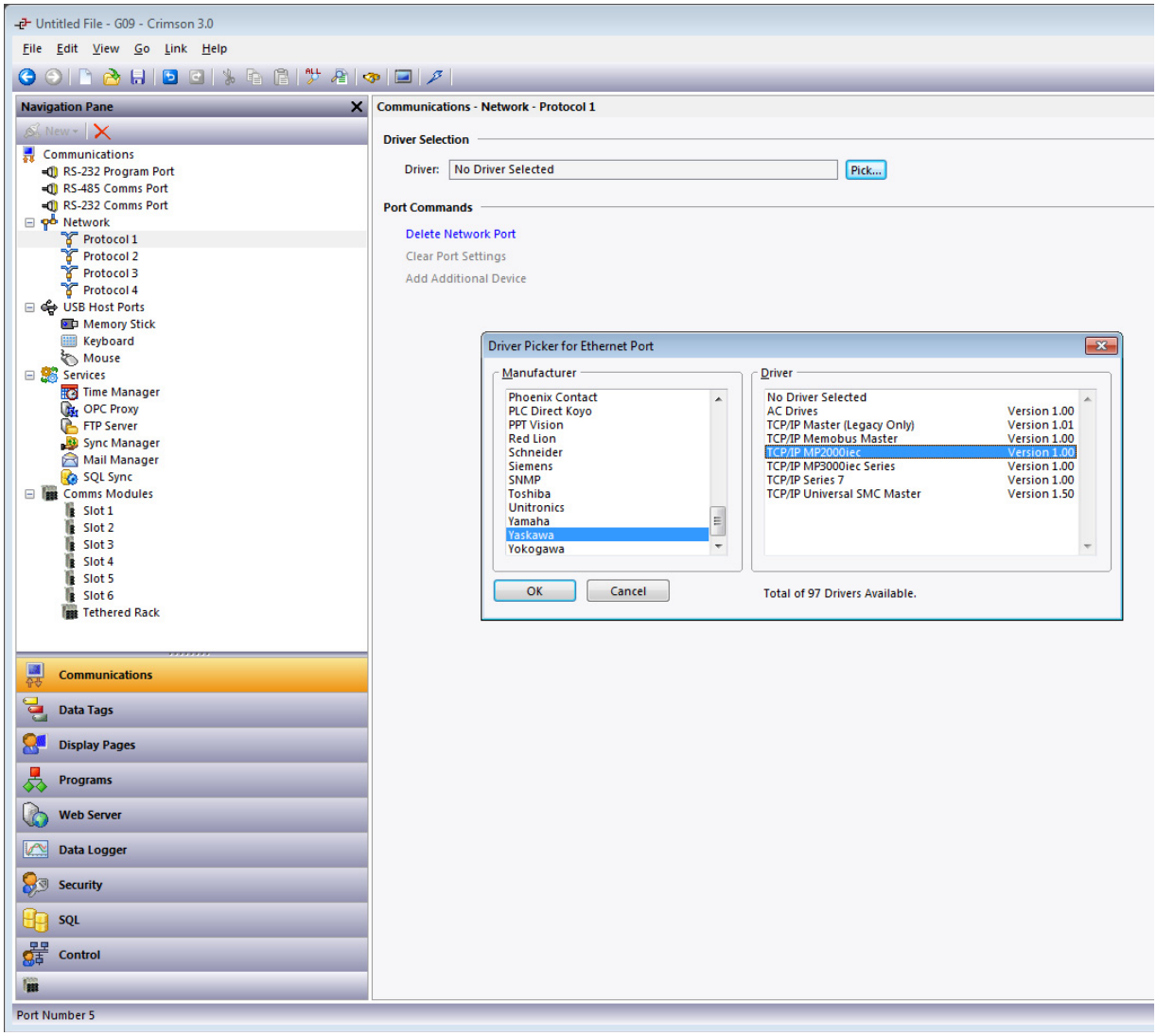

Figure 2.

5. A new device called “MP1” is created in the Navigation Pane, as shown in Figure 3.
6. Click on MP1, which displays the popup specifying the communications settings for the newly-created device, as shown in Figure 3.

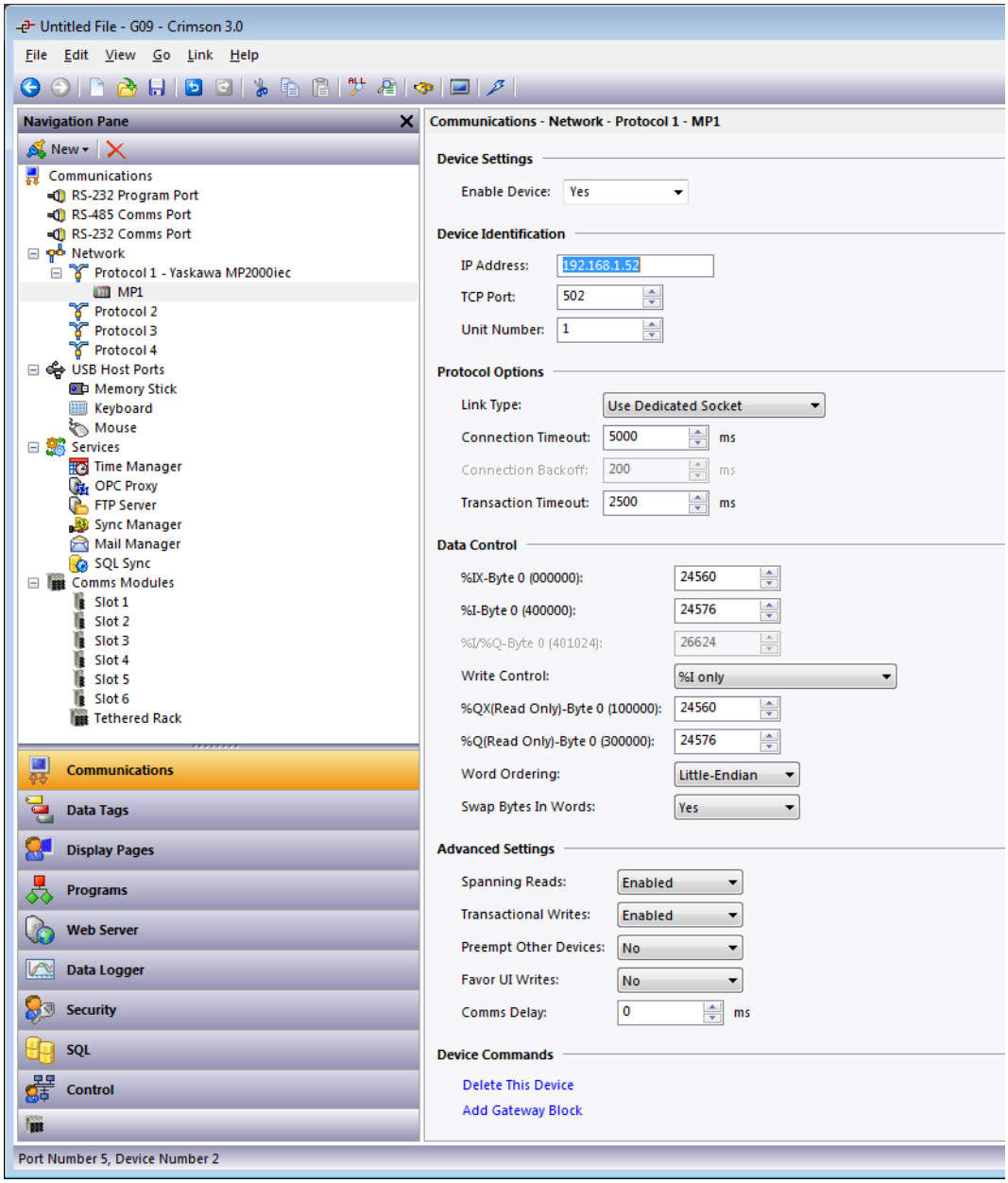

Figure 3.

7. Ensure that the Unit Number and Data Control values correspond to those required by the MP2000iec Controller. (Refer to Yaskawa MP2000iec Controller documentation for specific values, as necessary.)

8. Create a new Flag tag from the Navigation Pane, as shown in Figure 4.
9. Select the new tag, Tag1, and select the Data tab and change the Source from *Internal* to *MP1*. The parameters popup is displayed, as shown in Figure 4.
10. The example shown in the parameters popup lists all available data types, with the IX input bit option (Input Bit/Memory Location) selected. Select *OK* after making the data type selection.

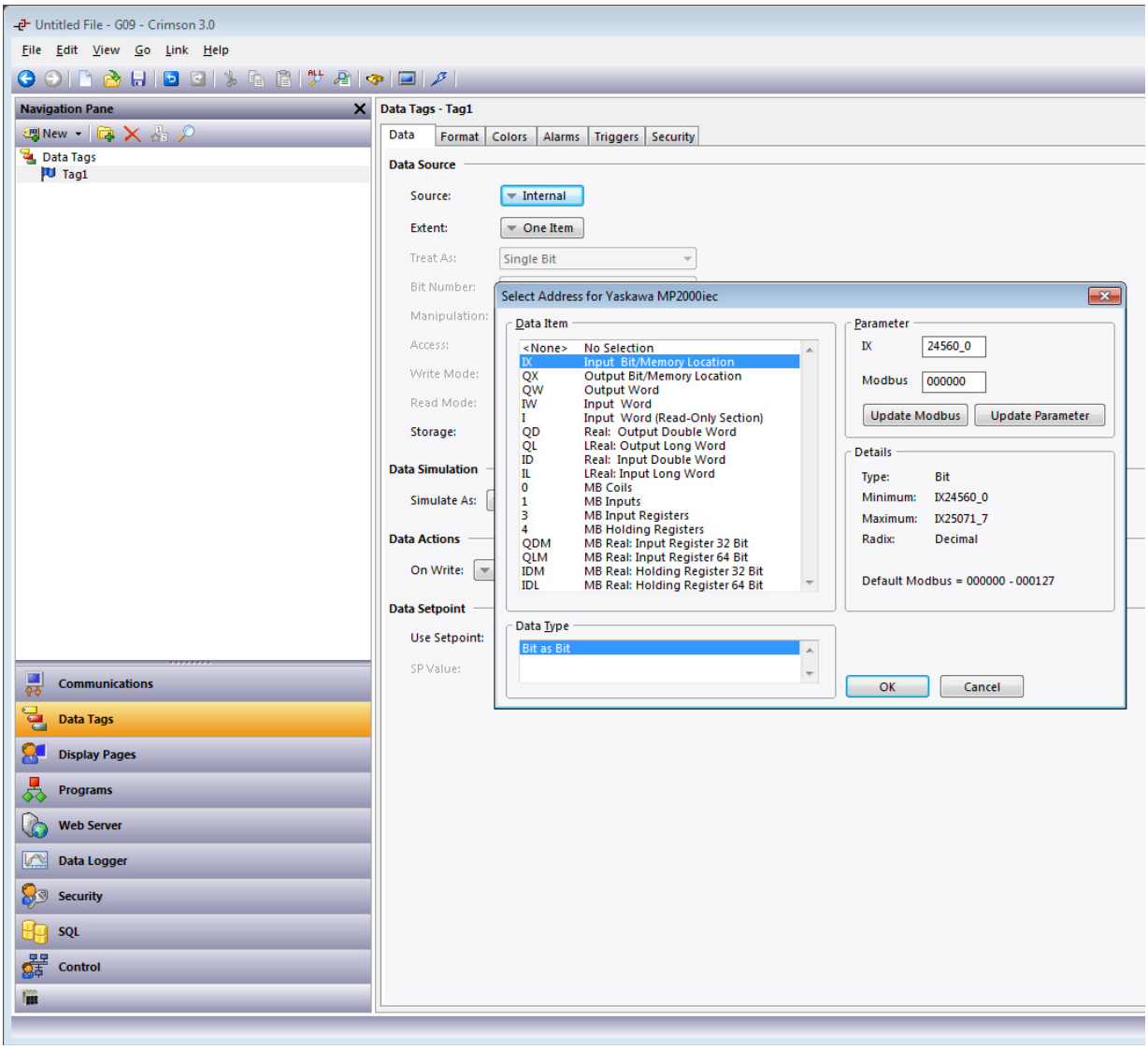

Figure 4.

11. With reference to the Parameter heading within the popup, the upper line contains the prefix corresponding to the item just selected from the Data Item list (IX in this example). To its right is the IEC address, if an IEC item is selected; or the Modbus address, if a Modbus item is selected. The middle line contains the equivalent Modbus address in an entry box. The lower line contains the *Update Modbus* and *Update Parameter* buttons. When selected, the *Update Modbus* button converts the upper address to the equivalent Modbus address (as specified in the middle line). When selected, the *Update Parameter* button converts the middle Modbus address to the appropriate value for the upper line. When *Update Parameter* is selected, if the Modbus value does not equate to a suitable value, the minimum value will be selected, instead.

    NOTE: For an IEC value in the upper field, a Word address must be an even number from the start of the IEC parameter selected. Modbus addresses are consecutive.

12. A Long, or 32-Bit Real must be a multiple of 4 from the start of the block. Modbus addresses are even numbers.
13. An LReal (64-Bit Real) must be a multiple of 8 from the start of the block. Modbus addresses are multiples of 4 from the start of the Modbus block.

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