Configuring the DXM for EtherNet/IP

EtherNet/IP™ Configuration

The DXM is defined from the factory to send/receive register data from the Gateway and the first 16 Nodes with an EtherNet/IP™[1] host.

To expand the number devices going to Ethernet/IP, change the **Devices in system** parameter in the DX80 Gateway (default setting is 8) to 32. To change this value:

1. Launch the the DX80 Configuration Software.
2. In the menu bar, go to **Device** > **Connection Settings** and select **Serial** or **Ethernet DXM**.
3. In the **Configuration** > **Device Configuration** screen, click on the arrow next to the Gateway to expand and display the Gateway's parameters.
4. In the **System** section, use the **Devices in system** drop-down list to make your selection.

This allows the user to maximize the use of the EtherNet/IP buffer to 28 devices.

EDS (Electronic Data Sheet) files allow users of the EtherNet/IP protocol to easily add a Banner DXM device to the PLC. Download the EDS files from the Banner website.
- DXM EDS Configuration File (for PLCs) (p/n *b_4205242*)
- DXM EIP Config File for DXM Controller with Internal Gateway (Models: DXM1xx-BxR1, DXM1xx-BxR3, and DXM1xx-BxCxR1) (p/n *194730*)

Download an Existing Configuration from the DXM

If you have an existing configuration file, save the XML file locally as a back-up on your computer.

1. Apply power to the DXM.
2. Connect an ethernet or USB cable between your computer and the DXM.
3. Launch the DXM Configuration Software v4 and select your DXM model.
4. On the **Device** > **Connection Settings** menu, select one of the following:
    - Select **TCP/IP** as the connection type and enter the **IP Address** of the DXM Controller; or
    - Select **Serial** as the connection type and select the appropriate **Comm port**
5. On the menu bar, select **Device** > **Get XML configuration from DXM** to download the XML configuration file.
6. Save the XML file locally on your computer.

Configuring the Controller

Use the DXM Configuration Software to define the **Protocol conversion** for each local register to be **EIP Originator -> DXM** or **EIP DXM -> Originator** from the **Edit Register** or **Modify Multiple Register** screens.
- Define a DXM local register as **EIP Originator -> DXM** when the host PLC (Originator) will send data to the DXM local register (DXM).
- Define a DXM local register as **EIP DXM -> Originator** when that register data will be sent from the DXM (DXM) to the host PLC (Originator).

Configure the Local Registers to Export Data to a PLC

1. On the DXM Configuration Software: Go to the **Local Registers** screen.
2. Select the register(s) that will be exported to a Host PLC.

    A maximum of 228 registers can be read or written with Ethernet/IP.
3. In the **Storage/Connectivity** section, select **EIP DXM -> Originator** from the **Protocol conversion** drop-down list.

    To change a block of continuous local registers, use the **Modify Multiple Registers** screen.

Configure the Local Registers to Import Data from a PLC

1. On the DXM Configuration Software: Go to the **Local Registers** screen.
2. Select the register(s) that will be imported from a Host PLC.

    A maximum of 228 registers can be read or written with Ethernet/IP.
3. In the **Storage/Connectivity** section, select **EIP Originator -> DXM** from the **Protocol conversion** drop-down list.

    To change a block of continuous local registers, use the **Modify Multiple Registers** screen.

---

[1] EttherNet/IP is a trademark of Rockwell Automation.

To view the EIP Input and Output registers, go to the **Tools** > **Protocol Conversion** screen. You may also export the register map to a CSV file.

Save and Upload the Configuration File

After making any changes to the DXM configuration, you must save the configuration files to your computer, then upload it to the DXM.

Changes to the XML file are not automatically saved. Any adjustments require that the file be manually saved before exiting the tool and/or before sending the XML file to the DXM.

1. Save the XML configuration file to your hard drive by going to the **File** > **Save As** menu.
2. Go to the **Device** > **Send XML Configuration to DXM** menu.
   - If the Application Status indicator is red, close and restart the DXM Configuration Tool, unplug and re-plug in the USB cable and reconnect the DXM to the software.
   - If the Application Status indicator is green, the file upload is complete.
   - If the Application Status indicator is yellow, the file transfer is in progress.

   The DXM reboots and begins running the new configuration.