

Connecting to a FieldServer EtherNet/IP Adapter with a “Logix” PLC

Introduction

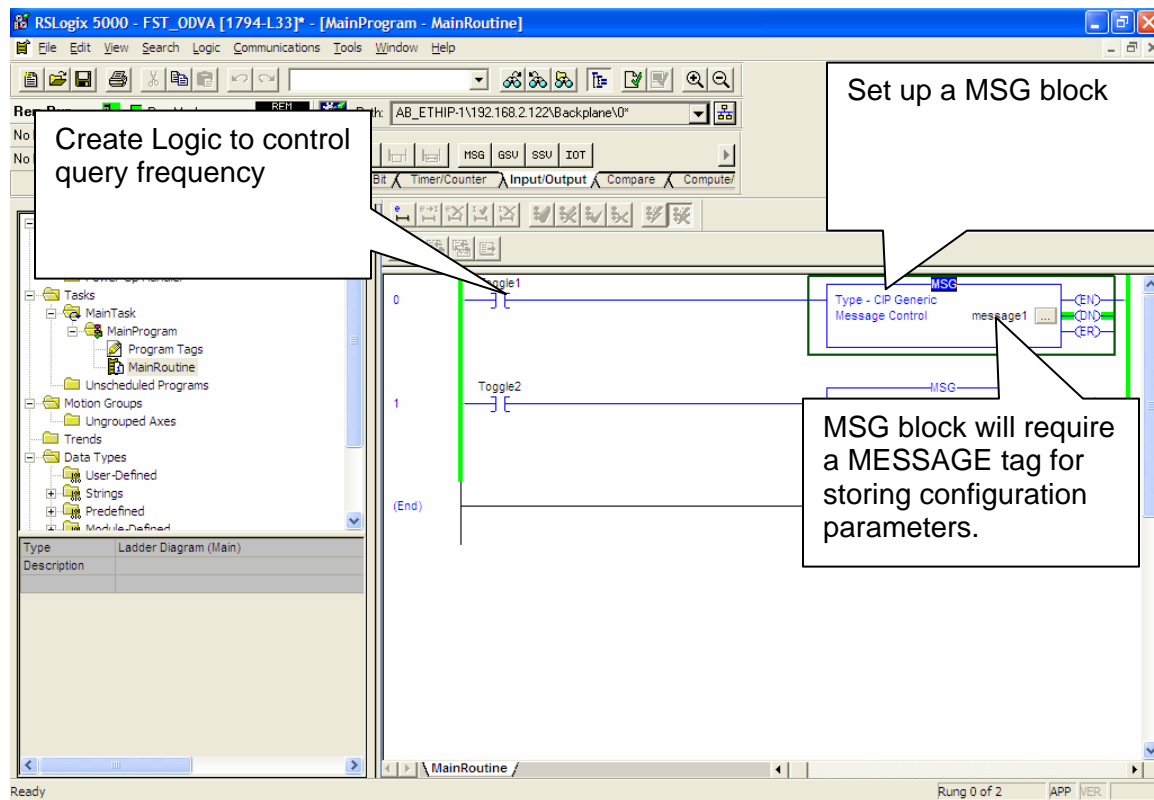
When configuring the FieldServer as an EtherNet/IP adapter, communications with the Scanner PLC is achieved using the “Unconnected messaging” feature. This allows the Scanner to communicate with the FieldServer Adapter without needing to set up the FieldServer as a Generic Ethernet device in the PLC. The steps that follow show how this can be done.

Note that this application note assumes that the Scanner PLC hardware is installed and correctly configured.

Steps for configuring the FieldServer Adapter in RSLogix

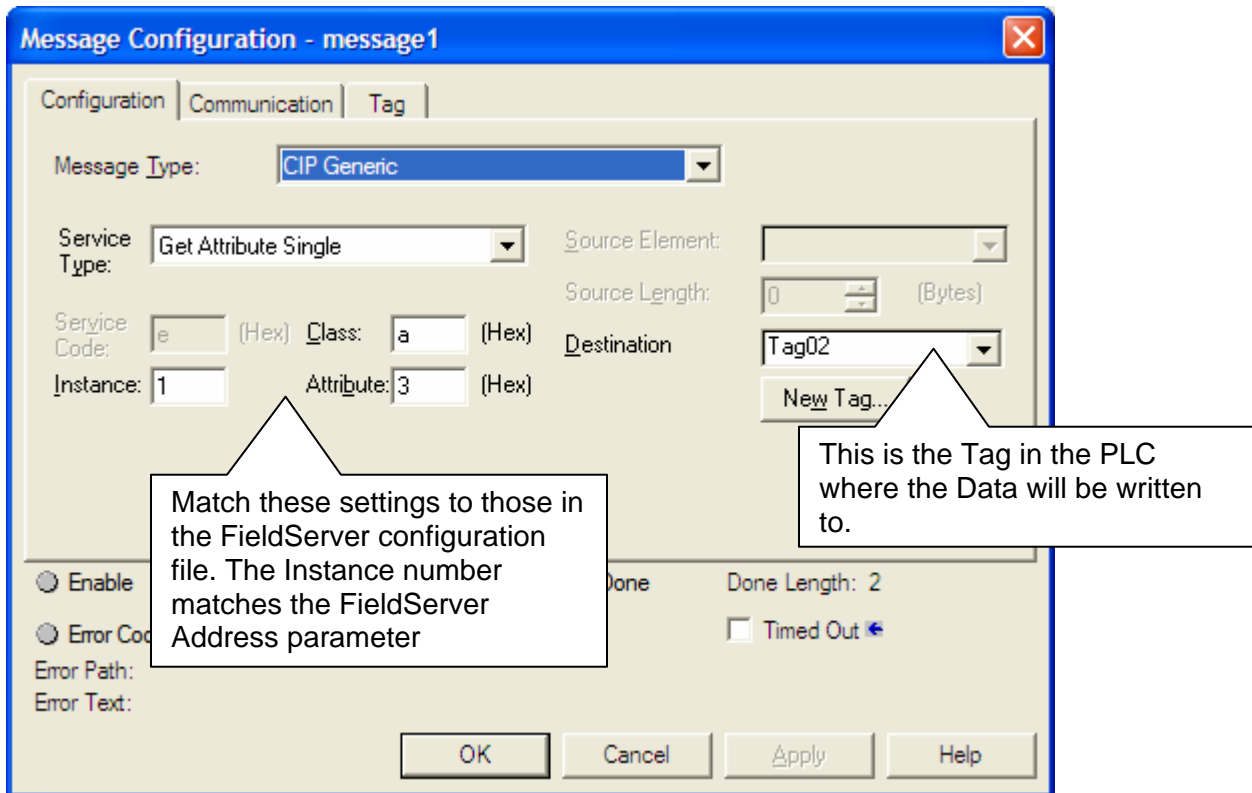
Step 1: Create a message block in the program logic

The first step is to pull a message block into the program Logic. In order to do this, a Message tag must be available for the Message block. Additionally, it will be necessary to insert logic to control the frequency at which the message block will query the FieldServer Adapter.



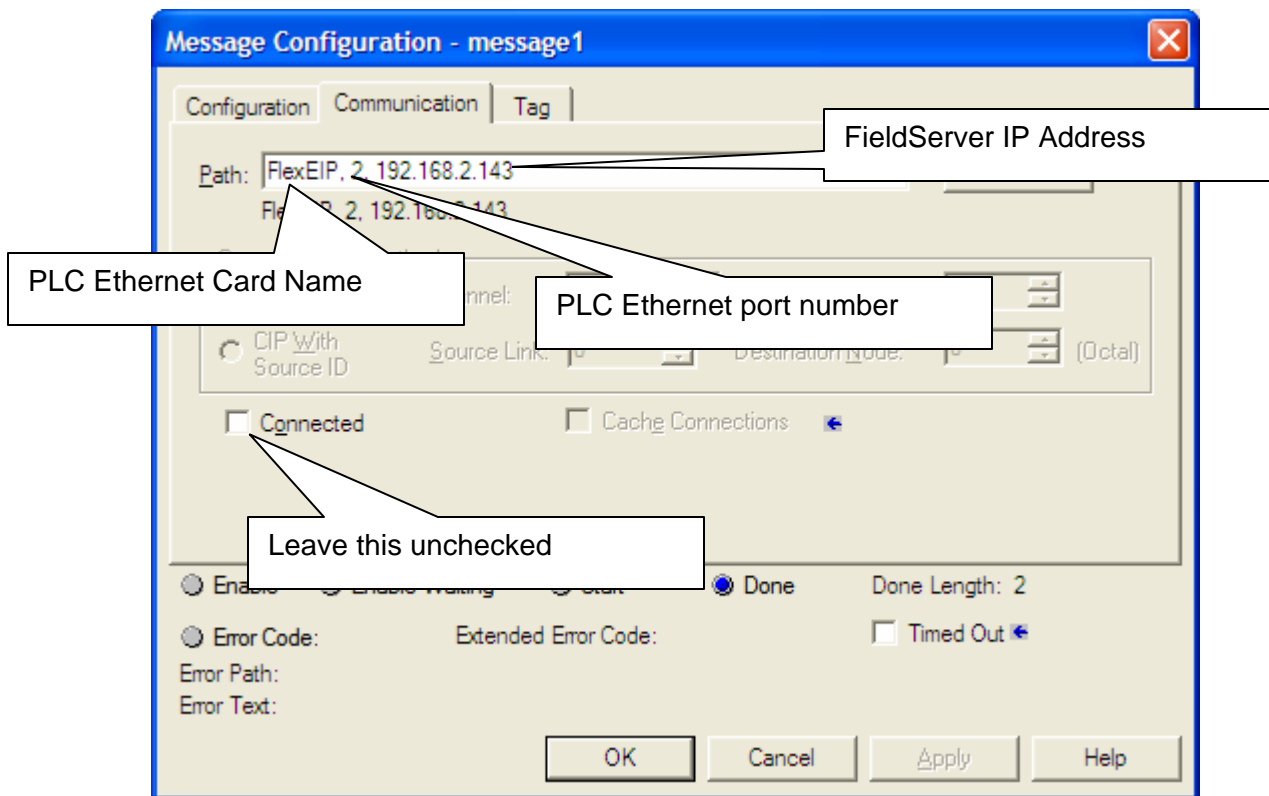
Step 2: Configure the Message block Configuration Tab

By clicking on the “...” button in the message block, the configuration window will open. Configure the Message Type as “CIP Generic”, and use the “Get Attribute Single” Service type. Select the required Class/Attribute and Instance of the Data point being polled, and choose a destination tag in the PLC to which it needs to be stored. Note the Class and Attribute needs to match the Class and Attribute parameters in the FieldServer configuration file, and the Instance will match the Address parameter in the FieldServer configuration file.



Step 3: Configure the Message block Communications Tab

Knowing the communications path to the FieldServer from the PLC is usually the trickiest part of the communication. Usually with “Logix” PLC’s, this takes the form of “PLC Ethernet Card”, “PLC Ethernet port”, “FieldServer IP Address”. Note that it is also important to leave the “Connected” checkbox unchecked.



Step 4: Configure the FieldServer

Follow the guidelines in the Driver Supplement for the FieldServer EtherNet/IP Driver Manual for configuring the FieldServer as an EtherNet/IP Server. In particular, make sure that the following Map Descriptor parameters are selected:

EIP_CON_TYPE: **UNCONNECTED**
EIP_CLASS: Match with Message block.
EIP_ATTRIBUTE: Match with Message block
ADDRESS: Match with Message block (Instance parameter)
EIP_SERVICE: GET_ATTRIB

Example:

```
Map_Descriptors
Map_Descriptor_Name , Data_Array_Name, Data_Array_Offset, Function, EIP_CON_TYP, Node_Name, EIP_CLASS, Address, EIP_ATTRIBUTE,
EIP_SERVICE , Length
SMD_Sentry01_01      , Sentry01_01      , 0      , Server , UNCONNECTED , EIP_01      , 10      , 1      , 3
```

Supplementary Notes

Writing to the FieldServer Adapter

- 1) Create a new message block in the PLC
- 2) Follow the steps above, but in Step 2 choose the “Set Attribute Single” Service Type, and in step 4 set EIP_SERVICE to “SET_ATTRIB”

Selecting the Object Class and Attribute

Object Class and Attribute refer to standard EtherNet/IP terminology for data objects. The FieldServer EtherNet/IP data fact sheet contains a breakdown of supported classes and their corresponding attributes. Before setting up this communication link, it is recommended that this Data Fact sheet is read in order that the appropriate class and attribute are selected.

Revision History

Date	Doc Rev	Format	Resp	Comment
7/20/04	1.00aA		GFM	Created