

Description

The XML Driver is built on HTTP web technology (Port 80) and it uses pages formatted in XML syntax to respond with or decoded and store. Both a client and a server are supported.

The Server side is an XML formatted response of the internal Data Array structure contained within the FieldServer, requested from a Remote Client device to the FieldServer URL.

The Client uses a HTTP GET request to a specified URL to request XML data. The driver has the ability to decode the XML response and store different Elements uniquely identified by some attribute within the Element. The data of the matching Element is stored in the FieldServer Data Arrays.

Connection Facts

| FieldServer Mode | Comments |
|------------------|--|
| Server | This mode is always enabled within the XML driver and is requested by "http://<ip address>/data_arrays.xml" where <ip address> corresponds to the Fieldserver address. |
| Client | Supports multiple client connections to different URLs, with associated decoding map descriptors linked to an active GET URL request. |

Formal Driver Type

Ethernet, Client or Server

Compatibility

| FieldServer Model | Compatible |
|-------------------|------------|
| ProtoCessor | Yes |
| ProtoCarrier | Yes |
| ProtoNode | Yes |
| ProtoAir | Yes |

| FieldServer Model | Compatible |
|--------------------------|------------|
| QuickServer FS-QS-10xx | No |
| QuickServer FS-QS-12xx | Yes |
| QuickServer FS-QS-20xx | Yes |
| QuickServer FS-QS-22xx | Yes |
| QuickServer FS-QS-3x10-F | Yes |

Connection Information

Connection Type: Ethernet

Ethernet Speeds Supported: 10Base-T, 100Base-T

Port: 80

Supported Communication Functions

NOTE: The driver does not support HTTP 1.0 encoding, only HTTP 1.1 encoding is supported.

The XML driver supports both GET and POST as a Client and Server.

A remote client device can use a HTTP GET request to retrieve the Data stored in the FieldServer Data Arrays formatted in a XML page, and POST will be used to modify a specified Data Array Element.

When the FieldServer is used to Retrieve data from a remote device, a READ operation will perform a GET to a specified URL, and a WRITE operation will perform a POST to a specified URL with the contents of the Write_Cmd parameter being used.

Server HTTP POST Operation

Data Array updates are done via POST commands, and the URL is “http://<ip address>/post.cgi”. The payload of the post should be in the following format:

DATA_ARRAY_NAME.OFFSET=VALUE

| Keyword | Description |
|-----------------|------------------------------------|
| DATA_ARRAY_NAME | FieldServer Data Array Name. |
| OFFSET | Offset into the Data Array. |
| VALUE | Numerical value of the data array. |
| Keyword | Description |

Client Read (GET) Operations Supported

The FieldServer supports Active Read command that Reads an XML URL at a regular interval.

The following parameters are configured for this purpose:

| Parameter | Description |
|-----------------------|--|
| XML-URL | Page to load on the Target Web Server. |
| Linked_Map_Descriptor | Active read command associated with that specific Map descriptor. |
| Element | XML Element needing to be stored. Below see an example: ELEMENT.CHIL_ELEMENT.GRAND_CHILD_ELEMENT.ATTRIBUTE NOTE: That if the last parameter is an Element, the Content of the Element will be stored. |
| Search_Value | A Unique attribute value that can be used to identify the ELEMENT required. |

Client Write (POST) Operations Supported

The FieldServer supports POST commands via the WRITE operation within the FieldServer. The Post command relies on two parameters:

| Parameter | Description |
|---------------|--|
| XML-URL | Page to load on the Target Web Server. |
| Write_Command | The Payload of the POST http packet. |