Convia

Description

The Convia driver uses XML syntax to communicate with the Convia Global Gateway device. As a Client the Convia driver reads specified data points from the Convia gateway and stores the data in the FieldServer Data Arrays. The Client driver achieves this by using XML element and attribute syntax. As a Server the Convia driver allows the Convia Global Gateway to use the FieldServer XML Schema syntax to read data from the FieldServer Data Arrays.

Connection Facts

FieldServer Mode	Nodes	Comments
Client	20	The Convia driver places no restriction on how many Global Gateways can be accessed. For practical reasons, this number should be kept to approximately 20.
Server	1	The FieldServer as a Server device will appear as a single Server device to the Convia Global gateway.

Formal Driver Type

Ethernet, Client or Server

Compatibility

FieldServer Model	Compatible		FieldServer Model	Compatible
ProtoCessor	No		QuickServer FS-QS-10xx	No
ProtoCarrier	No		QuickServer FS-QS-12xx	Yes
ProtoNode	No		QuickServer FS-QS-20xx	Yes
ProtoAir	No		QuickServer FS-QS-22xx	Yes
			QuickServer FS-QS-3x10-F	Yes

Connection Information

Connection Type: Ethernet

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

NOTE: Not all FieldServer models support 100BaseT. Consult the appropriate instruction manual for details of the Ethernet speed supported by specific hardware.

Devices Tested

Device	Tested (Factory, Site)
Global Gateway 5200	Factory and Site

Communication Functions

The Convia driver supports the GET and POST commands on the Client and Server side to send and receive XML data.

Data Types Supported

Data Format	Description
Float	Support Data Arrays with floating point format
Bit	Support Data Arrays with binary format

Read Operations Supported

Server Side:

The FieldServer XML schema provides for the ability to read any number of Data Array elements. A single Data Array, or multiple Data Arrays can be requested. This is performed by issuing the HTTP GET command with the Data Array name, offset and length.

Example: To read the Data Array called DA_AI_01 and the Data_Array DA_BI_01.

HTTP GET Command:

```
data_arrays.xml?NAME=DA_AI_01:10.4&NAME=DA_BI_01
```

XML Response:

```
<data_arrays XML_VERSION="1.00a" BRIDGE_TITLE="Convia example config">
<data_array NAME="DA_AI_01" FORMAT="FLOAT" LENGTH="10" INDEX="1" MAX_INDEX="4">
<data OFFSET="4" DATA_AGE=45.34s STATUS="0">4.32 12.56 12.45</data>
</data_array>
<data_array NAME=DA_BI_01 FORMAT="BIT" INDEX="1" MAX_INDEX="3">
<data OFFSET="0" DATA_AGE=23.34s>1 0 1 0 1 1</data>
</data_array>
</data_arrays>
```

Client Side:

When the Convia driver is configured as a Client, the XML tag to read is specified using the Element or the Attribute that must be read.

Write Operations Supported

Server Side:

HTTP POST Parameters

```
NAME=da_ai_01&OFFSET=0&VALUE=21
```

XML Response

If write succeded:

```
<HTML><BODY>Done</BODY></HTML>\n
```

If write failed:

```
<HTML><BODY>ERROR:Invalid Parameters for Command </BODY></HTML>\n
```

Client Side:

The Convia driver allows for a specified string to be send to the Convia Global Gateway to perform a write operation. In the example below the tscontrol command is executed to set the dimmer value based on a Data Array entry.

```
/cgi-bin/tscontrol?Command=Control&What=DIM&Value=<DA_VOL_01:0>&dataitem=<DA_ID_01:0>
```