OPC XML Data Access 1.01 Client

OPC XML Data Access 1.01 Client communication protocol

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Protocol specification

Protocol OPC XML DA is a transitive protokolom between protocols OPC Data Access Client and OPC Unified Architecture Data Access Client.
An improvement to OPC Data Access Client is a transition to platform-independent communication (using XML data format and SOAP-Web Services over HTTP protocol).
The latest from OPC protocol family is the protocol OPC Unified Architecture Data Access Client which maintains platform independence and optimizes performance by replacing XML / SOAP communications with binary encoding and by eliminating HTTP protocol.

Communication line configuration

Communication line category: HTTP client
URL: URL address of OPC XML server in form http://host[:port][/path[?query]], e.g. *http://172.16.0.1* or *http://myopcserver.domain:8080/opcxml*
Proxy: IP address or name of optional proxy server. If entered, KOM process will connect to proxy server instead of host listed in parameter *URL*.
User: optional name for authentication on proxy server (support for authentication has not been implemented).
Password: optional password for authentication on proxy server (support for authentication has not been implemented).

Protocol line parameters

Parameter	Meaning	Unit	Default value
Debug Responses Parsing	Enable debug messages at the OPC XML server response level.	YES/NO	NO
Debug Http I/O Data	Turn on debug messages at HTTP communication level.	YES/NO	YES
Debug Http Responses	Turn on debug messages with headers and body of HTTP response.	YES/NO	NO
Debug Received Values	Turn on debug messages with received values.	YES/NO	YES

Protocol configuration on the communication station

- Communication protocol: **OPC XML Data Access 1.01 Client**.
- Station address: unused.

Station protocol parameters

Table 1

Full name	Description	Default value
Request option ReturnErrorText	Parameter of *Subscribe* and *Write* requests. If set to YES, the server will return verbose error description.	NO
Request option ReturnDiagnosticInfo	Parameter of *Subscribe* and *Write* requests. If set to YES, the server will return verbose server specific diagnostic information to provide additional information relative to item specific errors.	NO
Request option ReturnItemTime	Parameter of *Subscribe* and *Write* requests. If set to YES, the server will return the timestamp for each *Item*.	YES
Request option ReturnItemPath	Parameter of *Subscribe* and *Write* requests. If set to YES, the server will return *ItemPath* (a path to *Item* within *Namespace*) for each *Item*.	NO
Request option ReturnItemName	Parameter of *Subscribe* and *Write* requests. If set to YES, the server will return *ItemName* (a fully qualified identifier of *Item*) for each *Item*.	NO
Request option ReturnValuesOnReply	Parameter of *Subscribe* and *Write* requests. If set to YES, the server will return values of all *Items* in reply to *Subscribe* and value of *Item* in reply to *Write* as if the client had performed a *Read* request directly after the *Write* request.	YES

I/O tag configuration

I/O tag configuration dialog window is used for setting the monitored objects.

Object address setting

Name	Meaning
Item Name	Unique text identifier of Data in OPC XML server.
Subscribe	If the setting is checked, the KOM process uses this *Item* in *Subscribe* request to query the value of the object. This setting can be unchecked for objects that are not supposed to be read (e.g. write-only I/O tags or objects that have been removed from the communication).

Literature

OPCconnect.com manuals can be obtained from http://www.opcconnect.com/xml.php

Changes and modifications

- May 12, 2017 - creating the document

Document revisions

- Ver. 1.0 – May 12, 2017

Related pages:

Communication protocols