

# OPC XML Data Access 1.01 Client

## OPC XML Data Access 1.01 Client communication protocol

[Protocol specification](#)  
[Communication line configuration](#)  
[Protocol configuration on the communication station](#)  
[I/O tag configuration](#)  
[Literature](#)  
[Changes and modifications](#)  
[Document revisions](#)

### 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 <i>Subscribe</i> and <i>Write</i> requests. If set to YES, the server will return verbose error description.	NO
Request option ReturnDiagnosticInfo	Parameter of <i>Subscribe</i> and <i>Write</i> 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 <i>Subscribe</i> and <i>Write</i> requests. If set to YES, the server will return the timestamp for each <i>Item</i> .	YES
Request option ReturnItemPath	Parameter of <i>Subscribe</i> and <i>Write</i> requests. If set to YES, the server will return <i>ItemPath</i> (a path to <i>Item</i> within <i>Namespace</i> ) for each <i>Item</i> .	NO
Request option ReturnItemName	Parameter of <i>Subscribe</i> and <i>Write</i> requests. If set to YES, the server will return <i>ItemName</i> (a fully qualified identifier of <i>Item</i> ) for each <i>Item</i> .	NO
Request option ReturnValuesOnReply	Parameter of <i>Subscribe</i> and <i>Write</i> requests. If set to YES, the server will return values of all <i>Items</i> in reply to <i>Subscribe</i> and value of <i>Item</i> in reply to <i>Write</i> as if the client had performed a <i>Read</i> request directly after the <i>Write</i> 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 <i>Item</i> in <i>Subscribe</i> 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](#)