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AX-S4 MMS: Access For...MMS

IEC 61850 Interface for Windows Applications

Description

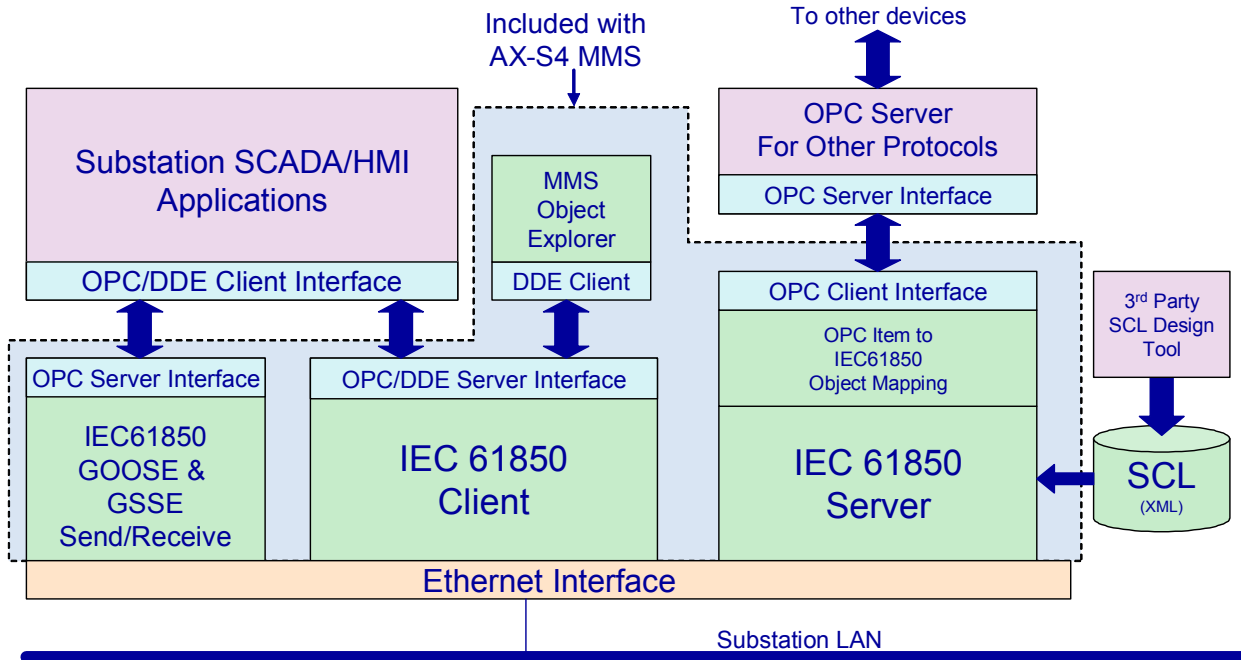
AX-S4 MMS (pronounced "access for MMS") provides access to real-time data via IEC61850 for any Windows™ compatible application supporting the OLE for Process Control (OPC) and Dynamic Data Exchange (DDE) interfaces. AX-S4 MMS gives you a high-level interface to real-time data that lowers your integration cost by providing you everything needed to interface IEC 61850, UCA®2, or MMS data with applications on the Windows platform in a single easy-to-use package. AX-S4 MMS provides "plug-in" access to Ethernet based devices supporting the IEC 61850 protocols for any OPC or DDE enabled client application such as SCADA/HMI and real-time data historians like the OSIsoft™ PI system.



Key Features

- Single package provides everything needed to interface IEC 61850 data with Windows based applications:
 - IEC 61850 Client using OPC 3.0 server Data Access and DDE interfaces supports ACSI functions of IEC 61850.
 - IEC 61850 GOOSE/GSSE publisher and subscriber using OPC server Data Access interface.
 - IEC 61850 Server using an OPC 3.0 client interface enables implementation of IEC 61850 servers, data concentrators and gateways without separate hardware and software components.
 - Interactive MMS Object Explorer for point & click access to network objects.
- IEC 61850 client functions supports all ACSI services via the OPC and DDE interfaces including buffered and unbuffered reporting, controls, logs, settings, GOOSE/GSSE, files, and self-descriptions.
- Runs over standard Ethernet adapters supporting TCP/IP transport protocols including support for IEC61850 parts 6-1, 7-2, 7-3, 7-4, and 8-1 including the Abstract Communication Service Interface (ACSI), GOOSE, and GSSE.
- Automatically maps IEC 61850 time stamps and quality flags to OPC time stamps and quality flags to minimize special processing by OPC clients.
- Flexible reporting options enables standard OPC clients to subscribe to and receive data via IEC 61850 reports.
- Supports MMS Variable services via OPC and DDE. MMS Journal, Domain, Program Invocation and File services are supported via DDE interface.
- Data point definitions are extracted directly from devices or via SCL file simplifying setup and reducing errors.
- No predetermined limits on the number of data points or remote devices that can be accessed.

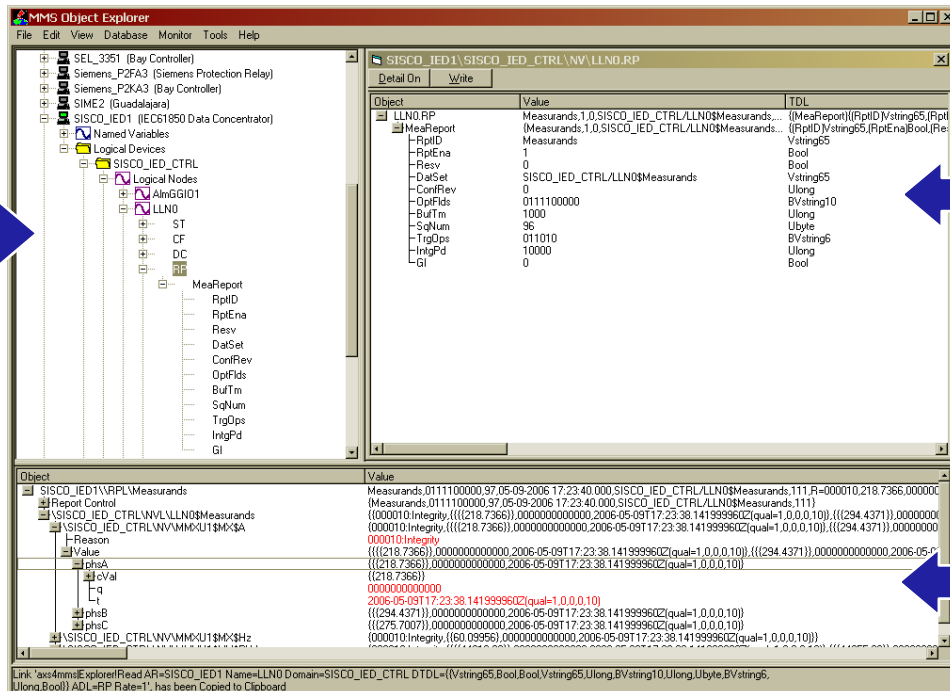
AX-S4 MMS Architecture



AX-S4 MMS Object Explorer

Object Pane

Shows a tree diagram of Remote Nodes (servers) and all of the IEC 61850 objects defined in these servers. The object definitions are retrieved directly from the device itself. **No local configuration of remote objects is necessary.**



Detail Pane

Displays and allows you to change the value of a selected MMS or IEC61850 object. Clicking on an object in the Object Pane will show the details of it here.

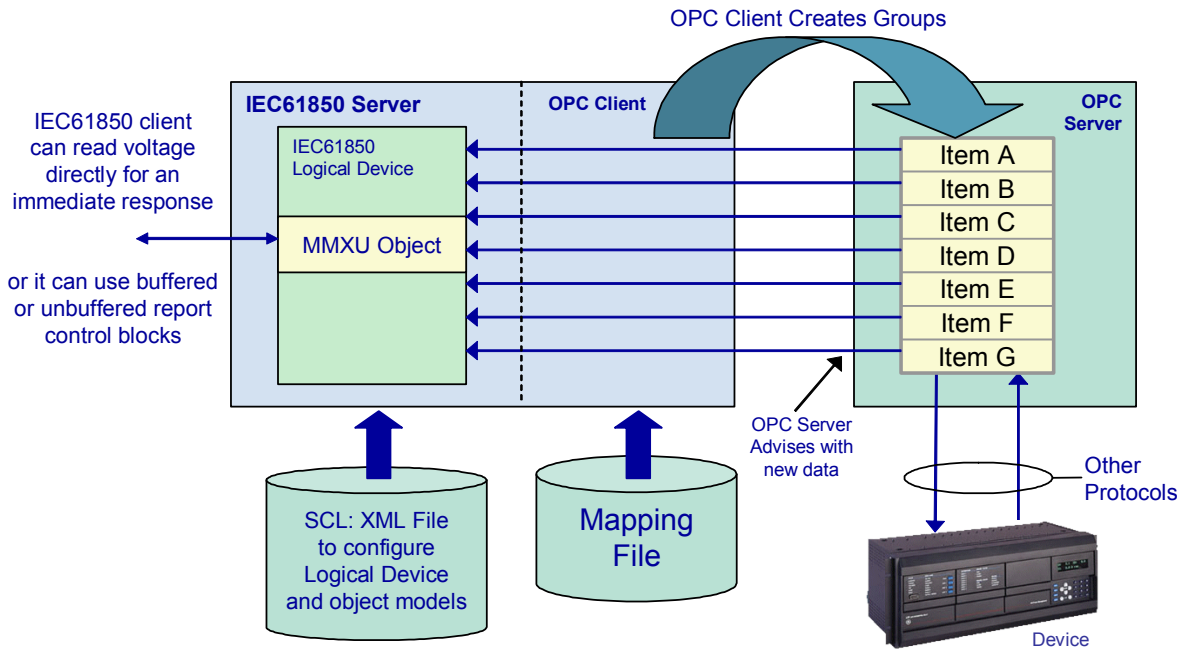
Monitor Pane

Monitors the values of specific objects including IEC 61850 reports. To monitor an object, drag it here from the Object Pane.

Status Line

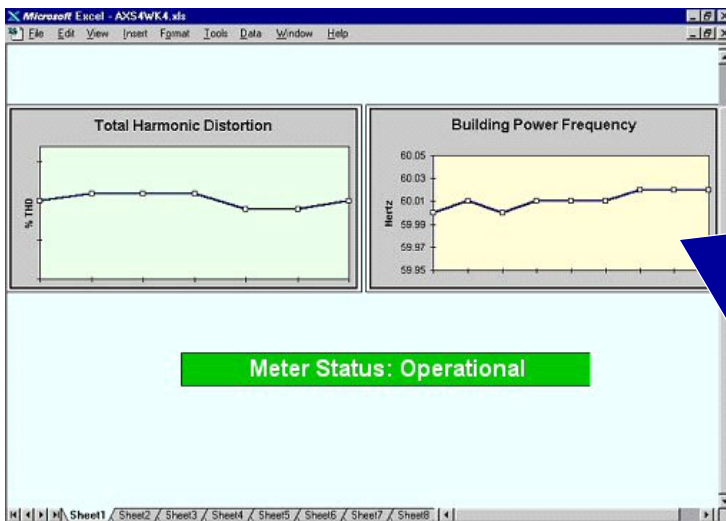
Displays current activity.

AX-S4 MMS - IEC 61850 Server Architecture



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AX-S4 MMS Object Explorer (Clipboard Function)



AX-S4 MMS brings real-time data integration to the desktop for virtually all Windows compatible applications including Microsoft Office® programs.

Object Explorer

Database Monitor Tools Help

Circuit_Monitor\WV\Frequency

Name: Frequency

Address: 1001

DDE: =Circuit_Monitor Name=Frequency

Object	Value	TDL
Frequency	6000	Short

Object

Object	Value
Circuit_Monitor\WV\Frequency	6000
Circuit_Monitor\WV\THD_Phase_...	37

Link "axs4mms\Explorer\Read AR=Circuit_Monitor Name=Frequency"; Copied to Clipboard

DDE-Advise "Hot-Links" can be established using the Windows Clipboard **without any programming**. Bring up the object in the MMS Object Explorer and select Edit|Copy. Then, go to your favorite application and select Edit|PasteLink. You now have a hot-link!

AX-S4 MMS Technical Information

Other Features

- All configuration and remote point definitions are stored in an ODBC compatible database.
- Reporting tool provided for listing device and object definitions. Use of ODBC allows for even more flexible reporting capability using third-party tools.
- MMS Object Explorer allows for storage and retrieval of predetermined monitor sets.
- File transfer utility is included and is accessible via MMS Object Explorer menus.
- Can be used with 3rd party test scripting tools to build a flexible test environment for IEC 61850 devices.
- Extensive logging capabilities for troubleshooting.
- Can be run as a Windows service.
- Extensively tested for compatibility with many IEC 61850, UCA2, and MMS devices from different suppliers.

System Specifications:

- Operating System: Windows 2000/XP/2003
Network Interface: IEEE Ethernet or Wireless adapter
Network Protocols: TCP/IP and Ethernet Ethernet
Recommended Mem: ≥512MB RAM, 100MB Disk

Part Numbers:

- Development License: AXS4MMS-132-095-DEV
Run-Time Package: AXS4MMS-132-095-PAK

AX-S4 MMS Run-Time Package Includes:

- AX-S4 MMS Software
- Printed and Electronic Documentation

AX-S4 MMS Development License Includes:

- All the above plus:
 - One year support and maintenance

Other SISCO Products:

- **AX-S4 ICCP:** OPC server for the Intercontrol Center Communications Protocol (ICCP) per IEC60870-6 TASE.2.
- **MMS-EASE Lite:** IEC 61850 and ICCP-TASE.2 source code for embedded systems.
- **COMTRADE Utility for PI:** Historization of COMTRADE data for the OSIsoft PI historian.
- **Utility Integration Bus:** Model driven application integration for using IEC 61970/61968 and SOA middleware.

NOTES: 1) Specifications presented herein are thought to be accurate at the time of publication but are subject to change without notice. 2) All company names, product names, trademarks and registered trademarks are trademarks of their respective companies. 3) AX-S4 MMS is available through SISCO directly and OEMs and distributors worldwide. Contact SISCO for the location of your representative.

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