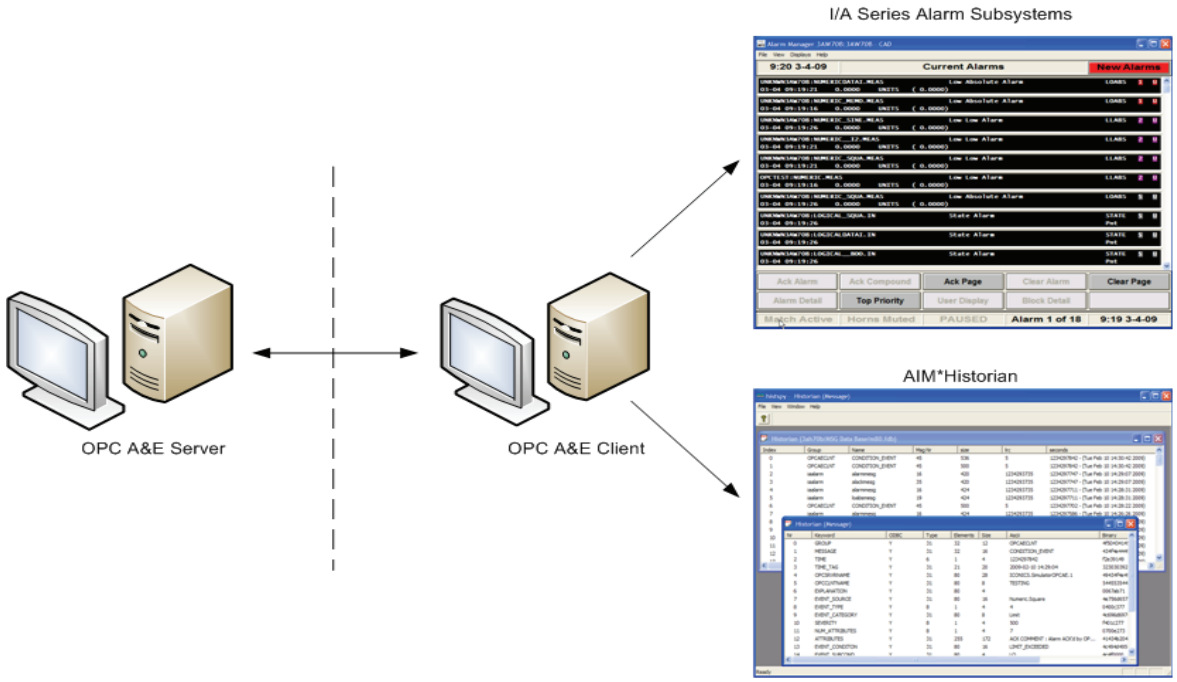
OPC® Alarm and Events (A&E) Client Software



OVERVIEW

The OPC® Alarm and Events (A&E) Client software is a tool used to integrate selected OPC Alarm and Event messages into the I/A Series® System.

The OPC Alarm and Event messages generated from an OPC Server may be represented in the I/A Series System as standard I/A Series alarm messages. As standard alarms they may be sent to standard alarm destinations. For example, alarm messages may be sent to FoxAlert Alarm Manager, Foxboro Control Software (FCS) Alarm Provider, AIM* Historian, FoxPage, and printers.

This support includes alarm acknowledgement if supported by the OPC A&E Server. The OPC Server Event “tag names” are translated to acceptable I/A Series tag names, and all relevant OPC alarm fields are translated to their I/A Series equivalents.

The OPC A&E Client software provides limited support for redundant operation.

See Figure 3, Figure 4, and Figure 5 for OPC A&E Client equipment and data flow configurations.

PRODUCT FEATURES

The OPC A&E Client product consists of a configurator (Figure 1) and a runtime message handler instance. The configurator assists with alarm and event message configuration.

The configurator is used to:

- Identify the OPC Alarm and Events Server.
- Determine the available OPC alarm and event messages.
- Define generic rules regarding the mapping of the OPC Event Category/Conditions/Subconditions to the I/A Series System messages.
- Install/Remove an OPC A&E Client runtime instance.

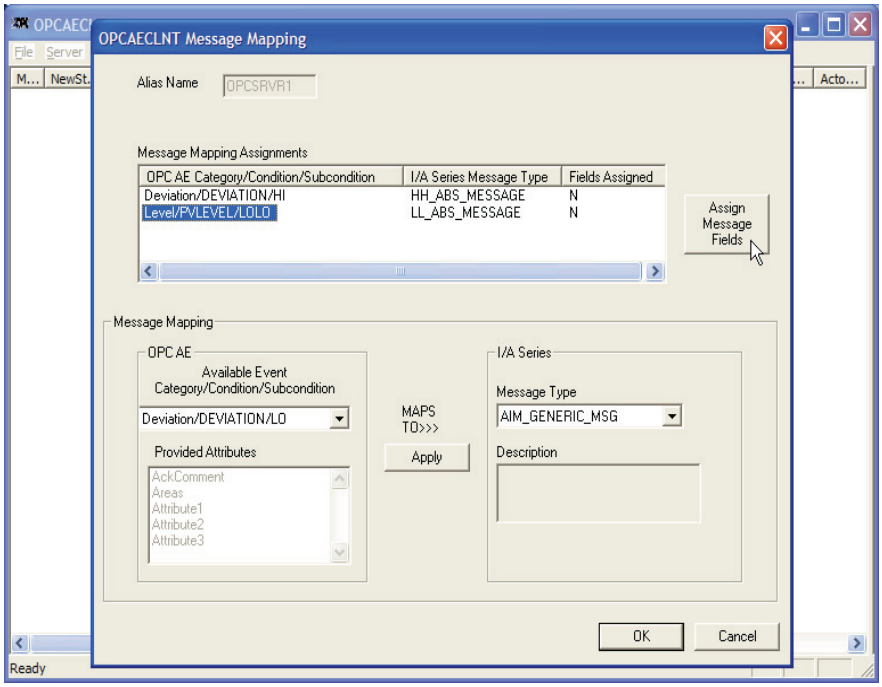


Figure 1. OPC Alarm and Events Client Configurator

The OPC A&E Client runtime instance communicates with a single OPC Alarm and Events Server and handles the configured Alarm Events.

The I/A Series Current Alarm Display in Figure 2 illustrates configured OPC Alarm Events being processed as I/A Series alarms.

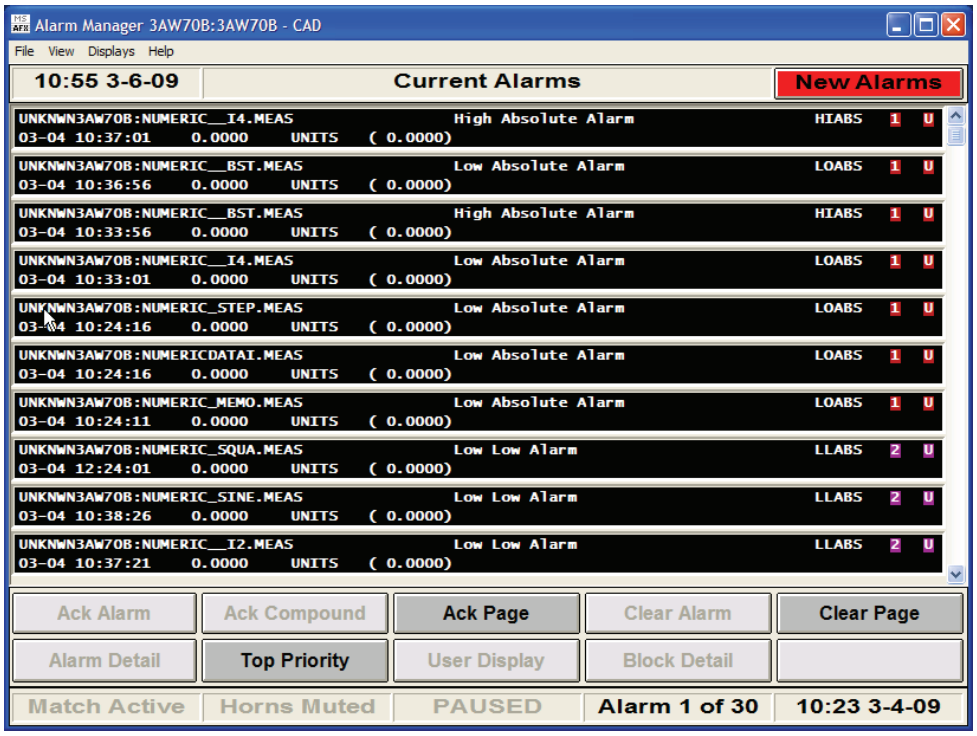


Figure 2. I/A Series Current Alarm Display

ASSUMPTIONS AND LIMITATIONS

- The OPC A&E Client product can send messages to any APRINT destination, e.g., WPs, Historians, FoxPage, FCS Alarm Provider in APRINT mode, etc.
- The OPC A&E Client software does not emulate the Message Delivery Service used by the I/A Series Message Manager and the FCS Alarm Provider in Message Manager mode.
- The messages that the OPC A&E Client software passes to the I/A Series Alarm System are not limited to Version 8.1.1 or later I/A Series workstations as destinations. Specifically, a Version 6.x or 7.x Nodebus workstation could display and acknowledge alarms received from the OPC A&E Client running Version 8.1.1 I/A Series software.
- The OPC A&E Client product requires an AIM*Historian instance configured on the same AW for diagnostic messages and native format OPC Alarm and Event messages storage. The FCS Alarm Repository cannot be used to replace AIM* Historian for this service.
- The OPC A&E Client software supports a limited form of redundancy. Two instances may be run; each associated with different I/A Series Object Manager (OM) variable tag names. Each instance will send its alarms and messages to the same destinations. Current Alarm Display (CAD) alarm filters must be used so that only one alarm is shown. Operator intervention is required to switch to the other set.
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EQUIPMENT CONFIGURATIONS AND DATA FLOW

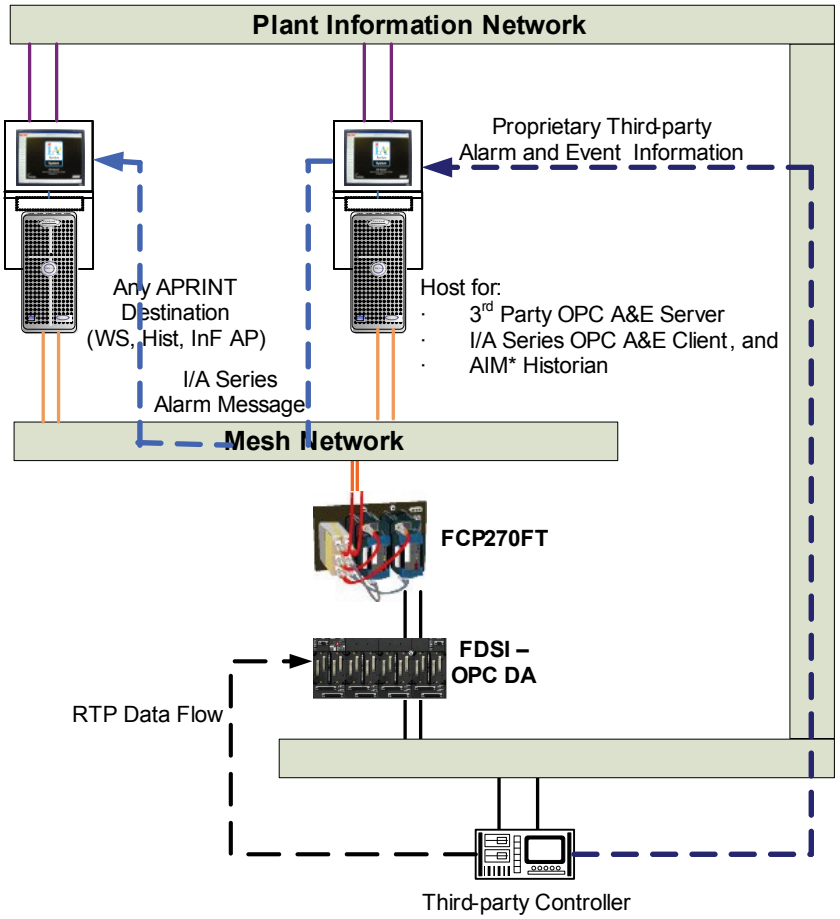

Figure 3. OPC A&E - Server and Client on the same AW70

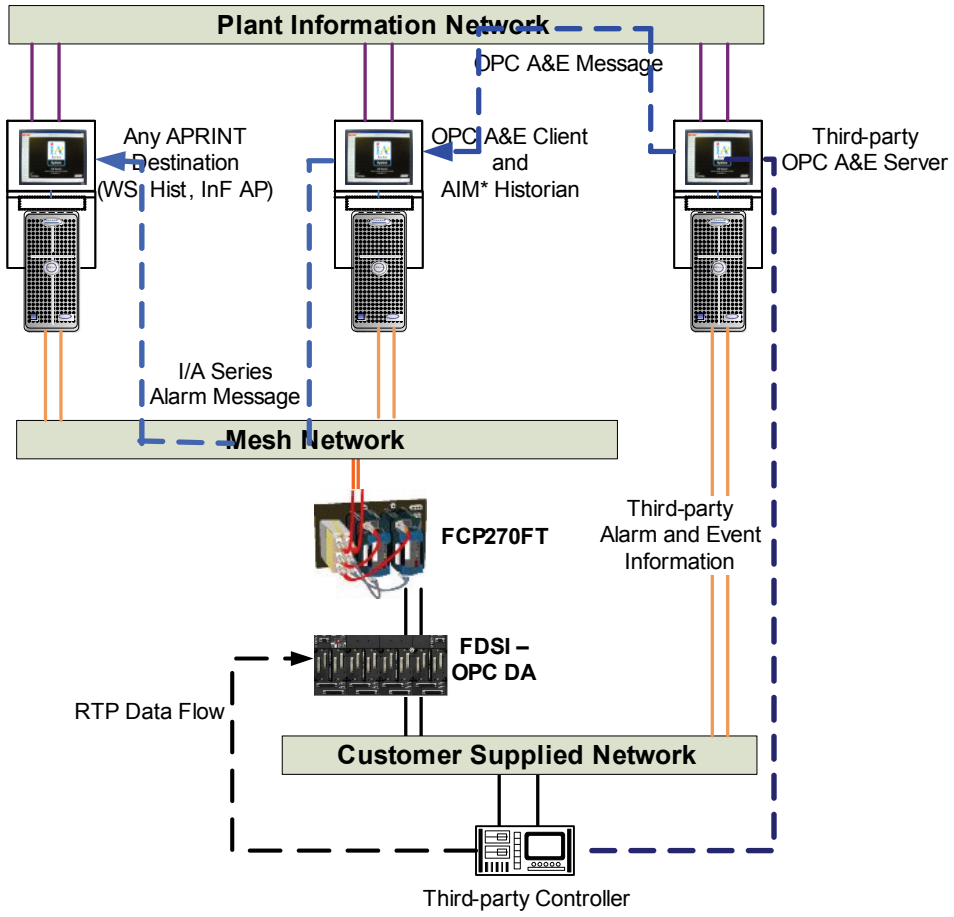

Figure 4. OPC A&E - Server and Client on Different Machines

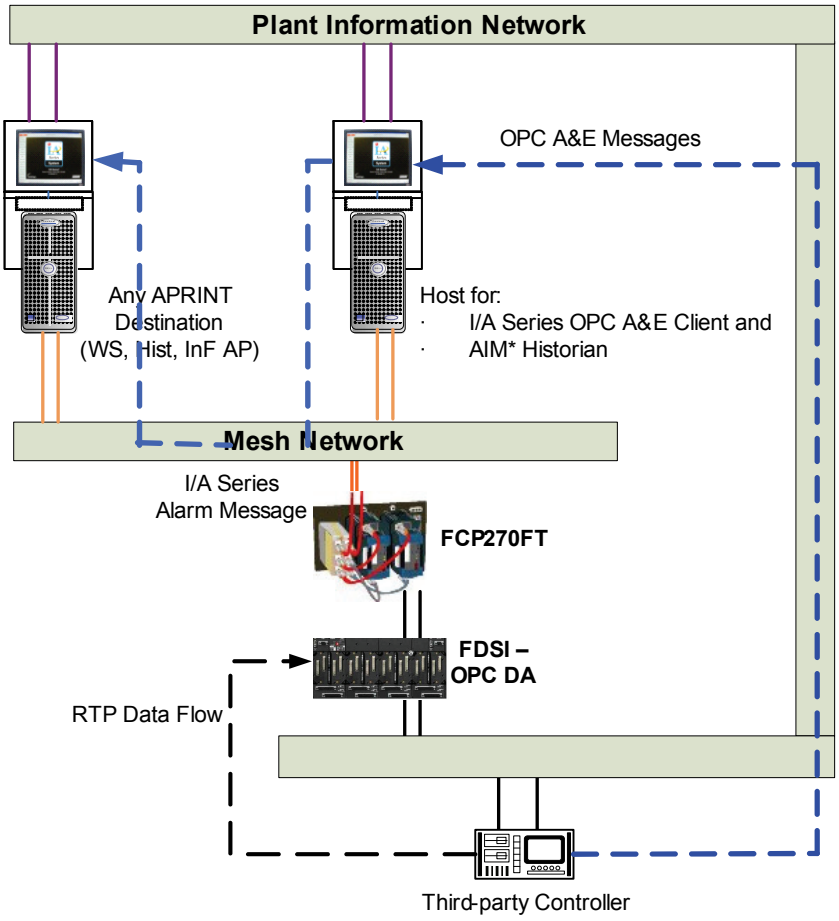

Figure 5. OPC A&E Third Party Device with Embedded Server

REQUIREMENTS

- AW70 workstation running I/A Series software Version 8.1.1 or later on The MESH control network. Earlier versions of the I/A Series software cannot host the OPC A&E Client. However, the OPC A&E Client can send messages to alarm destinations that are Nodebus based.
- FoxAPI software installed, configured and running.
- AIM*AT™ software Version 3.2.4 or later, installed and configured with an instance running on the workstation where the OPC A&E Client software will be installed. AIM* Historian is licensed by real-time points recorded. Therefore, if AIM* Historian is already licensed for use on the system, the OPC A&E Client required AIM* Historian instance does not require a new AIM* Historian license because it records messages and not real-time points. If AIM* Historian is not already licensed, purchase the smallest AIM* license available.
- The I/A Series workstation may require resource resizing.
- The DCOM settings may require adjustments to the authentication level.
- OPC A&E specification v1.1 is supported.

ORDERING INFORMATION

The OPC A&E Client software is licensed per AW70. The OPC A&E Client license permits the use of as many instances on the AW70 as the machine will support.

- Q0303AR - OPC A&E Client Software
- Q0303AS - OPC A&E Client Software Upgrade

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