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OPC At OSIssoft

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Ongoing OPC growth

- *Over 1000 sites using OPC Interface*
- *Compliance tests*
- *Interoperability Conferences*
- *DA 3.0 – Complex Data*
- *Plug and Play*

New Tools and Functionality

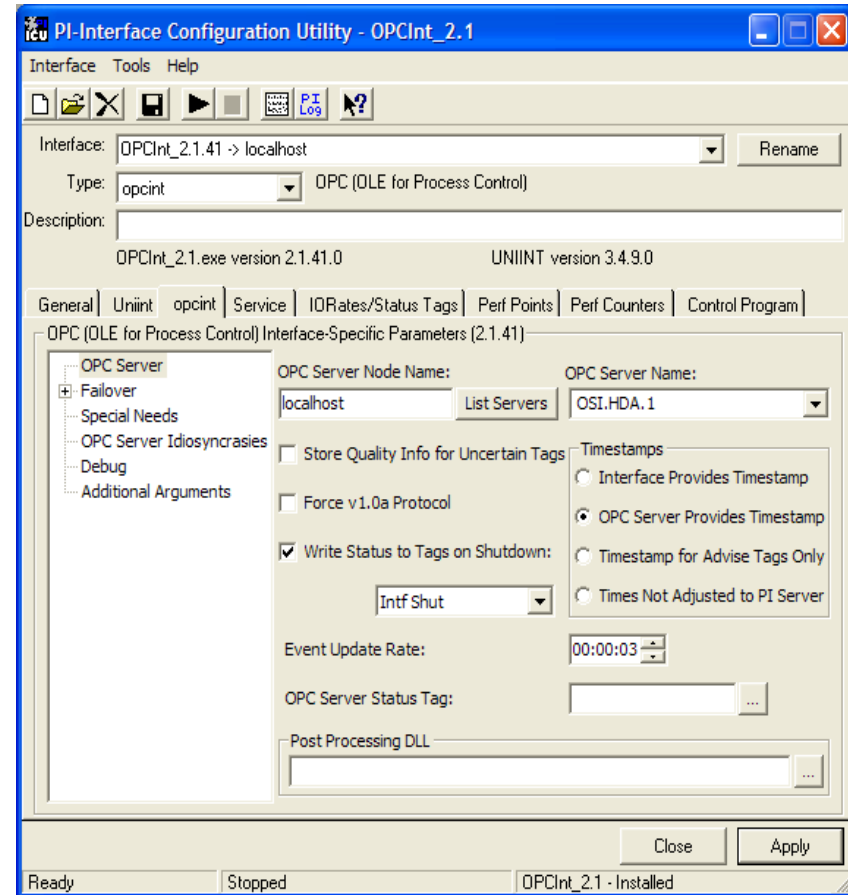
- *ICU (Interface Configuration Utility)*
- *Tag Configurator*
- *APS (Auto Point Sync)*
- *Interface Failover flexibility*
- *OPC server for PI*

Coming Attractions

- *Alarms and Events Interface*
- *OPC COM Connector*
- *History recovery for OPC Interface*

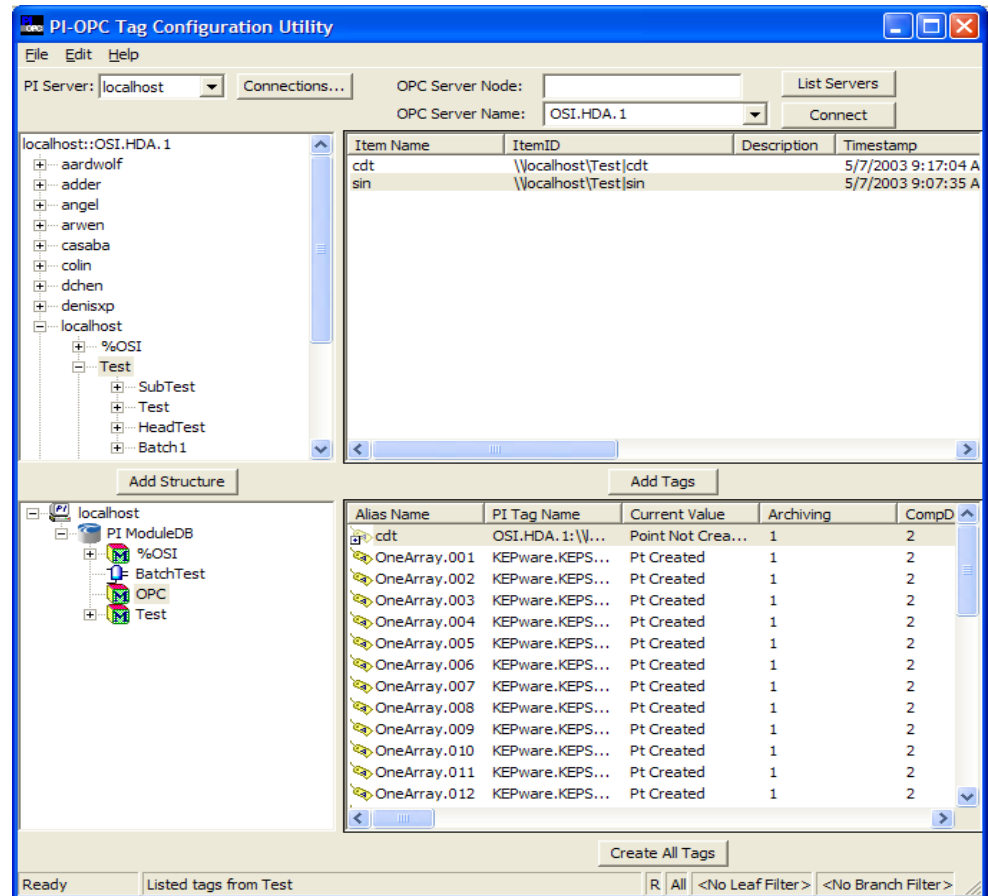
PI-OPC Interface ICU

- *GUI Configuration Tool*
- *Easy to Configure*



PI-OPC Tag Configuration Utility

- *Create existing OPC points in PI*
- *Adds OPC structure to Module DB and Creates Aliases*
- *Does not update PI points*



PI-OPC Interface APS (Auto Point Sync) Connector

- *Create existing OPC points in PI*
- *Update existing PI Points with current OPC settings*
- *Automatically scan for new OPC points as they are created on the OPC server*



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Interface Failover

- *Expanded Cluster configurations*
 - *Multiple Watchdog configurations*
 - *Some server-specific failover triggers*
 - *Coming soon – History Recovery*
- Beta date Sept 15*

HDA COM Connector

- *Access any Historical Data Access or Data Access Item as PI tag*
- *Beta Release Aug 15*

OPC Server for PI

- *Data Access and Historical Data Access Server*
- *PI-MDB properties and aliases are OPC Items*
- *DA 1.0a and 2.05a, HDA 1.2 standards*
- *PI_HDATool joins PI_OPCTool for diagnostic and ad-hoc use*

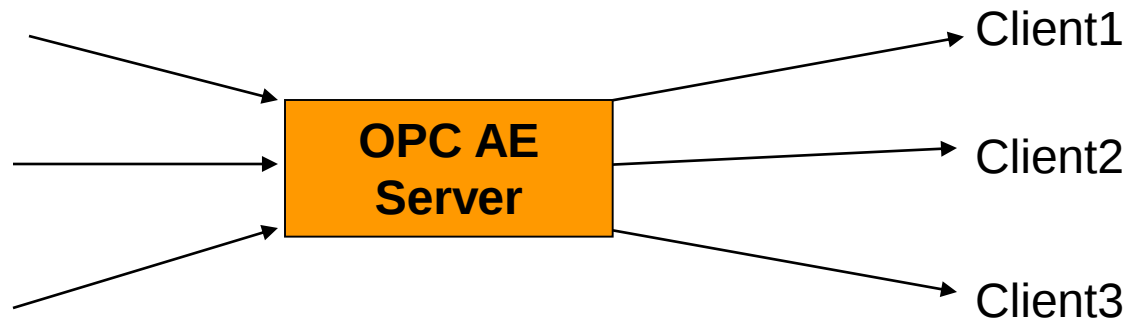
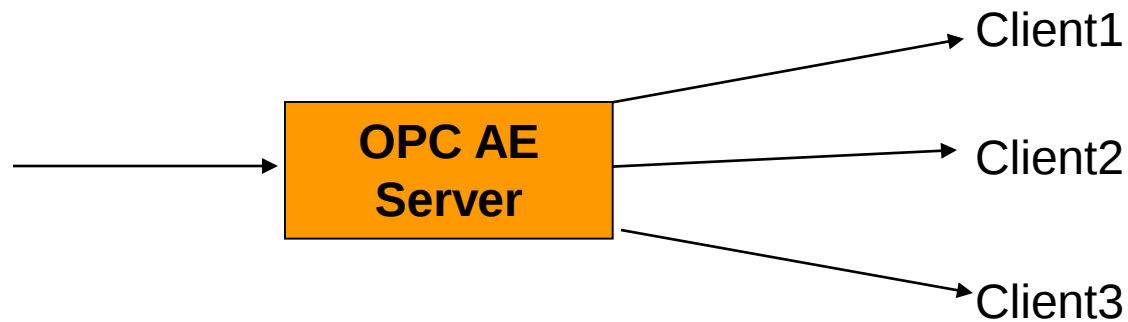
PI-OPC Alarm and Events

- *OPCFoundation Alarm and Events Specification*
- *Goals of the PI-OPC AE Interface*
- *Interface Configuration*
- *Interface Output*
- *Summary*
- *Announcements*

OPC Alarms and Events

- *Version 1.10 October 2002*
- *Types of OPC AE servers supported*

Server Models



3 Types of Events

- *Condition-related*
- *Tracking -related*
- *Simple*

Condition-related

- *Represent transitions into or out of the states represented by the conditions and sub-conditions.*

Example

Tag FIC1001 transitioning into LevelAlarm condition and HighAlarm sub-condition.

Tracking-related

- *Represent occurrences which involve the interaction by a client with a object on the OPC AE server.*

Example

A control change by the user of the setpoint of tag FIC1001

Simple

- *Events that don't fit into the preceding event categories*

Example:

Notification of a component failure within the system/device represented by the OPC AE server

Goals of PI-OPC AE Interface

- *Allow PI access to OPC alarm and events data through OPC compliant AE servers.*
- *Set standard for future alarm/events interfaces.*



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Requirements of AE Interface

- *Windows OS (NT, 2K, XP)*
- *PI-UDS version 3.4 or higher*
- *PI-SDK version 1.3.1 or higher*



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Interface attributes

- *ExDesc – Specify the optional parameters for Severity and Quality.
SY QY*
- *Instrument Tag – Specifies the OPC AE server source. FIC1001*
- *Location2 - Specifies whether the optional vendor specific attributes are to be archived.*

Interface attributes cont'd

- *Locations3 -specify the event-type.*
 - *Simple - 0*
 - *Tracking-related -1*
 - *Condition-related – 2*
- *Userint1 – Specifies the size of the vendor specific attribute array*

Interface Output

- *Condition-related*
 - *Sub-Conditions – stored in a digital state set. (See Digital States)*
 - *Message – stored in the annotation*
 - *ActorID – stored in the annotation*
 - *Vendor specific (optional) – (VS(1);...VS(n);) – annotation*
 - *Quality – PI tag*
 - *Severity – PI tag*

Interface Output

- *Tracking-related*
 - *EventCategory*
 - *Severity*
 - *Message*
 - *OperatorID*



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Interface Output

- *Simple*
 - *EventCategory*
 - *Severity*
 - *Message*
 - *Vendor specific (optional) – VS(1); ...VS(n);*

Summary

- *OPCFoundation Version 1.10*
 - *Types – Condition-related, Tracking-related and Simple.*
- *Goals of the PI-OPC AE Interface*
 - *Allow PI access to OPC alarm and events data through OPC compliant AE servers.*
 - *Set the standard for all future alarm and events interfaces.*

Summary cont'd

- *Interface Configuration*
 - *ExDesc, InstrumentTag, Location2, Location3, Userint1*
- *Interface Output*
 - *Simple - Stored in string*
 - *Tracking-related – Stored in string*
 - *Condition-related – Sub-condition stored in digital tag - Attributes stored in tag annotation*

Announcements

- *Beta - June 2003*
- *Release - October 2003*



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RTIPPM

*Leverage existing assets and
systems for improved agility,
productivity and profitability*