

[OPC Application Case Studies - 01]

OPC used in for Propylene Oxide Plant

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[APPLICATION]

Propylene Oxide Plant (Chemicals)

[DESCRIPTION OF THE APPLCATION]

Binzhou Chemical Group (BCG) is one of China's top 100 chemical companies. Purified Propylene Oxide is a precursor for a wide variety of spongy materials used for seat cushion, packing, and insulation.

[EXPLANATION OF WHY OPC WAS CHOSEN]

BCG required a standards based system, enabling them to:

- select best of breed software applications
- avoid multiple drivers and parameter mapping
- eliminate the need for duplicate data entry and risk of inconsistencies associated with HMI and PLC All software had to be tightly integrated with a single common database.

[SUMMARY OF HOW OPC WAS INSTALLED & THE BENEFITS RECEIVED AS A RESULT]

BCG chose Smar's SYSTEM302 where OPC "on the inside" acts as a software backplane in which servers and clients plug-in, as opposed to a proprietary system with an appended OPC server. OPC makes the system completely integrated even though applications come from different companies in the Smar group, a third party, and involves many communication protocols.

Foundation™ Fieldbus protocol instruments communicates in unison with OPC. The interface for the Foundation™ Fieldbus protocol instruments comes with an OPC server from Smar International. Additionally, OLE complements OPC data access with configuration download, a precursor to the emerging OPC complex data access.

A LC700 controller is used for discrete control and conventional I/O. It uses the Modbus protocol and comes with an OPC server from Smar Laboratories.

Smar International's SYSCON is a client application used for configuration and maintenance of field devices and to build the control strategy. It uses OPC and OLE when working with the devices in on-line mode.

BCG selected TA-Engineering's AIMAX for Windows NT for a Human Machine Interface because of its OPC client and Chinese language. It accesses information from both OPC servers, seamlessly integrating Fieldbus and conventional controls, and mixing different protocols under the common umbrella of OPC.

Purchased price was reduced significantly. OPC gives an open system a single integrated database for all applications previously only found in costly Distributed Control Systems. Engineer work was simplified engineering by eliminating the drivers associated with previous open systems. Rich new functions enabled by OPC are leading to long term maintenance savings. The reduced engineering and implementation time resulted in earlier payback.

Source: OPC Foundation
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