

# US940 OPC Interfacing for System 800xA

Learn the fundamentals of OPC, and OPC interfaces System 800xA.



## Course type and methods

This is an instructor led course with interactive classroom discussions and associated lab exercises. Approximately 50% of the course is hands-on lab activities.

## Participant Profile

This training is targeted to system and application engineers, commissioning and maintenance personnel, service engineers and system integrators.

## Prerequisites

Students should have attended the T314 or T315 course covering 800xA core or one of the connect courses for System 800xA T320, T321, T323, T324, or T325 or have equivalent knowledge through experience. Successful completion of the above courses is required unless special permission is requested and granted by the instructor. Basic knowledge and usage of the Windows operating system is also required.

## Learning objectives

Upon completion of this course the participants will be able to:

- Find authoritative information on the OPC standards
- Explain how the seven layer OSI network protocol model applies to industrial data communications
- Explain OPC terminologies such as groups, items, properties
- Use test servers and clients to test OPC connectivity
- Apply an understanding of OPC fundamentals such as synchronous and asynchronous subscriptions to troubleshooting problems with connectivity

- Show how OPC COM objects are defined in the registry
- Configure DCOM and firewall settings to allow OPC communications
- Describe the System 800xA OPC architecture
- Interface a third party OPC server to an 800xA system
- Interface a third party OPC client to an 800xA system
- Interface third party clients and servers to Process Portal A

## Main Topics

- Network fundamentals
- OPC fundamentals
- Advanced OPC topics
- System 800xA interfacing
- System 800xA PLC Connect
- Property transfer in System 800xA
- Process Portal A OPC connections

## Course duration

The duration is 5 days

## Course outline

### Day 1

- Course information
- Network fundamentals
- OPC fundamentals
- OPC test software

### Day 2

- Advanced OPC topics  
DCOM and firewall  
connections
- Using utilities to  
troubleshoot advanced  
connectivity problems

### Day 3

- 800xA OPC architecture
- 800xA client connections

### Day 4

- Customized 800xA generic  
OPC network connections
- 800xA server connections
- PLC Connect
- Property transfer

### Day 5

- Process Portal A OPC  
connections
- Interfacing PPA and 800xA

To register contact the North America Customer Service Center  
or visit our website.

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