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

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>– Course information</td>
<td>– Advanced OPC topics DCOM and firewall</td>
<td>– 800xA OPC architecture</td>
<td>– Customized 800xA generic OPC network</td>
</tr>
<tr>
<td>– Network fundamentals</td>
<td>connections</td>
<td>– 800xA client connections</td>
<td>connections</td>
</tr>
<tr>
<td>– OPC fundamentals</td>
<td>– Using utilities to troubleshoot advanced connectivity problems</td>
<td>– 800xA server connections</td>
<td>– PLC Connect</td>
</tr>
<tr>
<td>– OPC test software</td>
<td></td>
<td>– Property transfer</td>
<td></td>
</tr>
</tbody>
</table>

### Day 5

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

---

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

**North America Customer Service Center**
29801 Euclid Avenue
Wickliffe OH 44092 1832, USA
Tel: 1 800 HELP 365 (1 800 435 7365)
Outside USA/Canada: +1 440 585 7804
Option 2, then 4 for training
Fax: +1 919 666 1388
E-mail: abbuniversity@us.abb.com
Web: www.abb.us/abbuniversity

© 2017 ABB Inc.
ABB reserves the right to change specifications without notice.
3BUS095125A