

OPC UA Development Training

In-house Training done by Technosoftware GmbH

Price List March 2018





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Day 1

Part	Description
1	Welcome Workshop Contents
2	Introduction History of OPC, OPC Overview <ul style="list-style-type: none">- History OPC Classic and OPC UA- Compare OPC Classic and OPC UA
3	OPC Unified Architecture Introduction in the technology and how it works <ul style="list-style-type: none">- What is OPC UA? Why replace Classic OPC?- The OPC UA „Vision“. The goals of OPC UA.- The OPC UA specification- Advantages of OPC UA- Compatibility, Certification- How OPC UA works
	Lunch
4	OPC UA Administration Configuration, Commissioning and Troubleshooting <ul style="list-style-type: none">- Compatibility- Certificates Handling and Security- Administration- Discovery Server- Troubleshooting
5	OPC UA Practical Training Training with several OPC UA Clients and Servers, Client and Server Gateways <ul style="list-style-type: none">- Application and Certificate Handling with the UA Configuration Tool- Unified Automation Client against Embedded Device- Unified Automation Client against Matrikon Server- Playing with Client and Server Gateways
6	Summary, Discussion



Day 2

Part	Description
7	OPC UA Development Introduction, Use of <ul style="list-style-type: none">▪ Profiles in General▪ Data Access Profile▪ Alarms & Conditions Profile▪ Historical Access Profile
8	OPC UA Client Development Introduction into client related OPC UA topics <ul style="list-style-type: none">▪ Data Access Profile▪ Alarms & Conditions Profile▪ Historical Access Profile
	Lunch
9	OPC UA Client Development Practical Training Training with C# (.NET 4.6.1, .NET Standard) <ul style="list-style-type: none">▪ Read/Write Data synchronously and asynchronously▪ Subscribing to Events▪ Getting historical data and events▪ Use of Methods▪ Examples about coding using Visual Studio 2017
9	OPC UA Client Development Practical Training <ul style="list-style-type: none">▪ Implement a real client getting data from a Simulation device
10	Summary, Discussion



Day 3

Part	Description
11	OPC UA Server Development Introduction into server related OPC UA topics <ul style="list-style-type: none">▪ Data Access Profile▪ Alarms & Conditions Profile▪ Historical Access Profile▪ Nanoserver, Microserver, Embedded, Standard▪ Tools to develop the address space
	Lunch
12	OPC UA Server Development Practical Training Training with C# (.NET 4.6.1, .NET Standard) <ul style="list-style-type: none">▪ Creating address space▪ Providing real-time data▪ Providing simple events and alarms▪ Storing and providing historical data
12	OPC UA Server Development Practical Training <ul style="list-style-type: none">▪ Implement a real server providing data from a Simulation device
13	Summary, Discussion



In-house Training

Technosoftware GmbH offers on-site training for companies looking to train groups of employees in the OPC Technology while minimizing costs. Technosoftware GmbH offers customized training for classic OPC specifications like OPC Data Access and OPC Alarms&Events but also for the OPC Unified Architecture. Whether you need to implement an OPC Server or OPC Client or just need to integrate OPC technology in your projects – Technosoftware GmbH can offer a customized training package. Whether you are an automation professional, IT personnel, integrator, engineer, operator or just someone who is responsible for data connectivity within process control and manufacturing, Technosoftware GmbH delivers the right training package, from beginner to advance group training.

Customized Training: Training can be slightly customized or fully customized to meet the needs of your operation. If you are already using specific vendor hardware and / or software, Technosoftware GmbH can incorporate these vendor details into the training package.

Confidential Training: Unlike public sessions where participants can't talk about confidential projects, on-site training enables groups to open up and dive into the details of current problems and upcoming projects. The confidential atmosphere significantly increases the value participants receive from on-site training.

Lower Training Costs: Sending groups of employees off-site can increase training costs when allocating funds to travel, lodging and meals. On-site training significantly reduces the overall cost of employee training because the Technosoftware professional instructor comes to your facility to train.

Instruction at the Right Level: Technosoftware GmbH will perform a pre-assessment to match the course content with the needs of your company. If your group already knows the basics, we'll provide a brief overview and quickly move into more advanced and relevant topics.

When should a company consider on-site training? Maybe you have an up-coming project, scheduled downtime in the next months or a group of employees who need to understand the latest in data connectivity standards. In any of these cases, on-site training can get your group of automation professionals up to speed and ready to handle projects knowledgeably and efficiently.

The price for an in-house training is calculated based on the following positions. The price includes the training and the training material. The infrastructure for the execution of the training is provided by the customer.

Products that have successfully completed certification testing are awarded the Certification logo.

OPC UA In-House Training	Price EUR
Base price per day The base price includes 4 participants	2000.-
Additional participants Price per day and participant starting with 5th participant	300.-
Travel costs based on time and type Travel time is calculated with 50,00 €/hour, ticket cost for train, flight and hotel are calculated, kilometers are calculated with 50ct per driven kilometer	

(1) All prices exclude tax.



Price and Ordering Information ...

Technosoftware GmbH products are available only under the following conditions:

1. **GENERAL TERMS AND CONDITIONS (GTC) WHICH APPLY TO ALL DELIVERIES FROM TECHNOSOFTWARE GMBH**
<https://technosoftware.com/documents/Technosoftware-GTC.pdf>.
2. **SOFTWARE LICENSE AGREEMENT (SLA) WHICH APPLY TO ALL PRODUCT PURCHASES FROM TECHNOSOFTWARE GMBH**
https://technosoftware.com/documents/Technosoftware_SLA.pdf.
3. Price information on this page is valid for all countries. **Price excluding VAT. Applicable VAT may be added.**
4. All Editions without Maintenance are only available via Online Shop Orders.
5. Product and Price Information are subject to change without notice.
6. Price Information are only valid for offline purchase directly from Technosoftware GmbH.
7. Payment is via Bank Transfer to Technosoftware GmbH's bank account.
8. **Delivery is always after payment is received.**
9. Delivery is via Email and Download link to the end-user after payment is received.

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Why Technosoftware GmbH?...

➤ Professionalism

Technosoftware GmbH is, measured by the number of employees, truly not a big company. However, when it comes to flexibility, service quality, and adherence to schedules and reliability, we are surely a great company which can compete against the so called leaders in the industry. And this is THE crucial point for our customers.

➤ Continuous progress

Lifelong learning and continuing education is, especially in the information technology, essential for future success. Concerning our customers, we will constantly be accepting new challenges and exceeding their requirements again and again. We will continue to do everything to fulfill the needs of our customers and to meet our own standards.

➤ High Quality of Work

We reach this by a small, competent and dynamic team of coworkers, which apart from the satisfaction of the customer; take care of a high quality of work. We concern the steps necessary for it together with consideration of the customers' requirements.

➤ Support

We support you in all phases - consultation, direction of the project, analysis, architecture & design, implementation, test and maintenance. You decide on the integration of our coworkers in your project; for an entire project or for selected phases.

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