

OPC DAY FINLAND 2019

6.-7.11.2019 @ EXPO AND CONVENTION CENTRE MESSUKESKUS HELSINKI

#OPCUA #OPCDAY #OPCDAYFINLAND #AUTOMAATIO

Getting Started with OPC UA

Pyy Grönholm, Prosys OPC Ltd

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FINNISH SOCIETY OF AUTOMATION
SUOMEN AUTOMAATIOSEURA RY



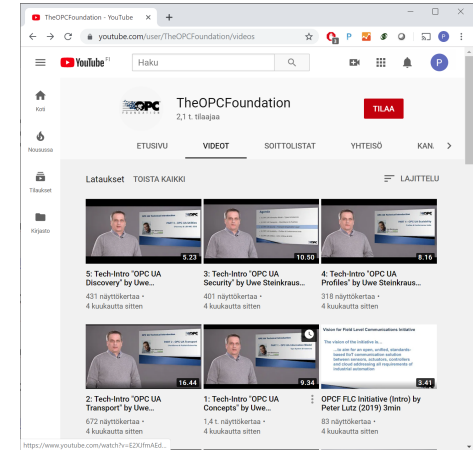
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Getting started - Learn

VIDEOS

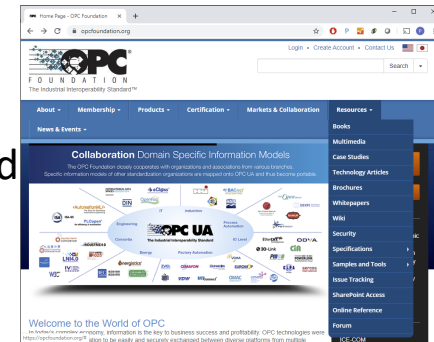
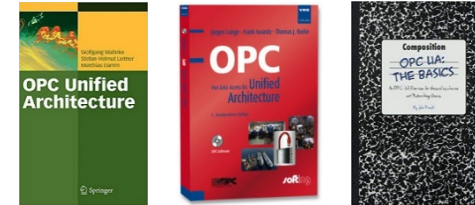
- OPC Foundation youtube channel
 - <https://www.youtube.com/user/TheOPCFoundation/videos>
 - Especially "Getting started", "Tech Intro" and "Certification and Compliance" videos
 - Also videos about SAP, Azure connectivity, FLC etc.
- Finnish Society of Automation youtube channel
 - <https://www.youtube.com/channel/UCzkP4miVM9-vmDotXb7IfxQ/videos>
 - You can find videos of the presentations held at the previous OPC Day Finland events



Getting started - Learn

LITERATURE

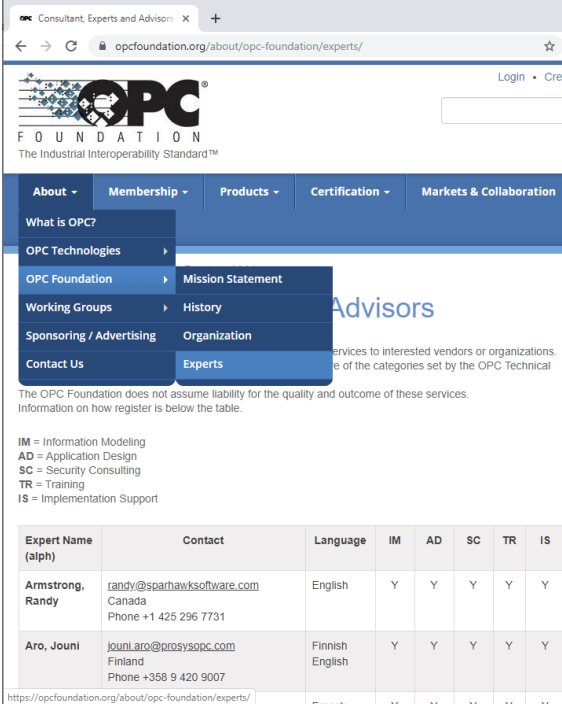
- There are a couple of books available in eg. Amazon. Especially ones to recommend are:
 - OPC Unified Architecture by Mahnke, Leitner and Damm
 - OPC: From Data Access to Unified Architecture by Lange, Iwanitz and Burke
 - OPC UA: The Basics by Rinaldi
- A lot of further information including white papers, case studies and OPC UA SPECIFICATIONS are available at OPC Foundation website RESOURCES section. www.opcfoundation.org



Getting started - Learn

WORKSHOPS & TRAINING

- The real quick start for OPC UA is participating to OPC UA Workshops.
- There are multiple companies arranging regularly open workshop. For example:
 - Prosys OPC
 - Unified Automation
- Companies that arrange public workshops typically also offer customized customer specific workshops as well
- OPC Foundation has listed credited experts on the Expert section of their web site. Training providers (TR) are marked separately
 - <https://opcfoundation.org/about/opc-foundation/experts/>



The screenshot shows the OPC Foundation website with the 'Experts' section highlighted in the navigation menu. The page title is 'Advisors'. Below the navigation menu, there is a table of experts. The table has columns for Expert Name (alpha), Contact, Language, IM, AD, SC, TR, and IS. Two experts are listed: Armstrong, Randy and Aro, Jouni. The URL in the browser address bar is <https://opcfoundation.org/about/opc-foundation/experts/>.

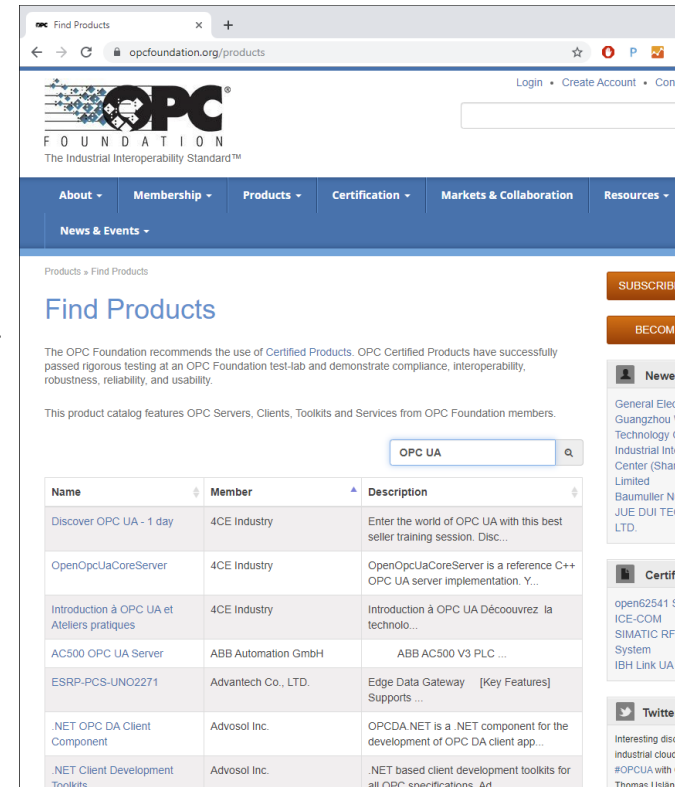
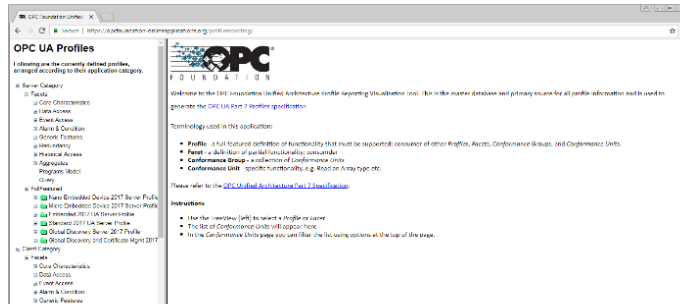
Expert Name (alpha)	Contact	Language	IM	AD	SC	TR	IS
Armstrong, Randy	randy@spartanhawksoftware.com Canada Phone +1 425 296 7731	English	Y	Y	Y	Y	Y
Aro, Jouni	jouni.aro@prosysopc.com Finland Phone +358 9 420 9007	Finnish English	Y	Y	Y	Y	Y

Getting started - Use

SOFTWARE & HARDWARE WITH OPC UA SUPPORT

OPC Foundation product catalog

- The first place to check for OPC UA products both certified and non-certified is the OPC Foundation website products catalog.
- Use search tool to find relevant products
- Check the supported profiles and facets from vendor before buying.
 - <https://apps.opcfoundation.org/ProfileReporting/>



21.11.2019



Getting started - Use

FREE TEST TOOLS

OPC Foundation

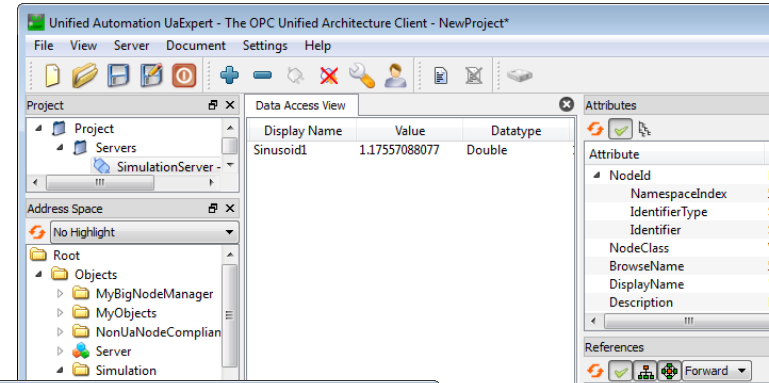
- Samples included in the '.NET Legacy' project
- [Github.com/opcfoundation](https://github.com/opcfoundation)

Unified Automation

- UaExpert
- Demo Servers
- unified-automation.com

Proslys OPC

- UA Browser
- UA Simulation Server
- proslyopc.com



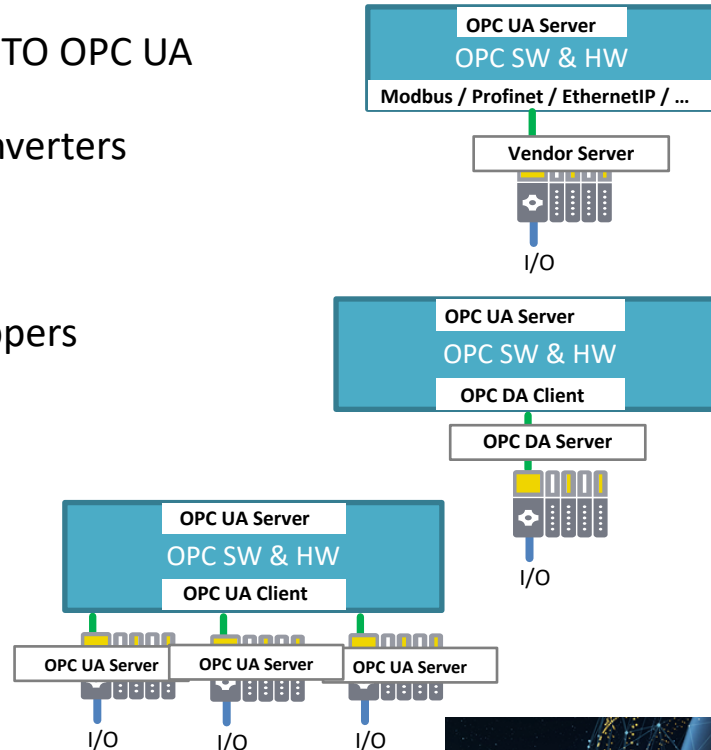
Getting started - Use

CONVERTING BROWNFIELD TO OPC UA

Vendor specific protocol converters

OPC Classic to OPC UA Wrappers

OPC UA Aggregation Server



Solutions e.g.
offered by

IBHsoftec

SIEMENS

kepware®

optimize!
softing

HMS

PROSYS OPC



Matrikon

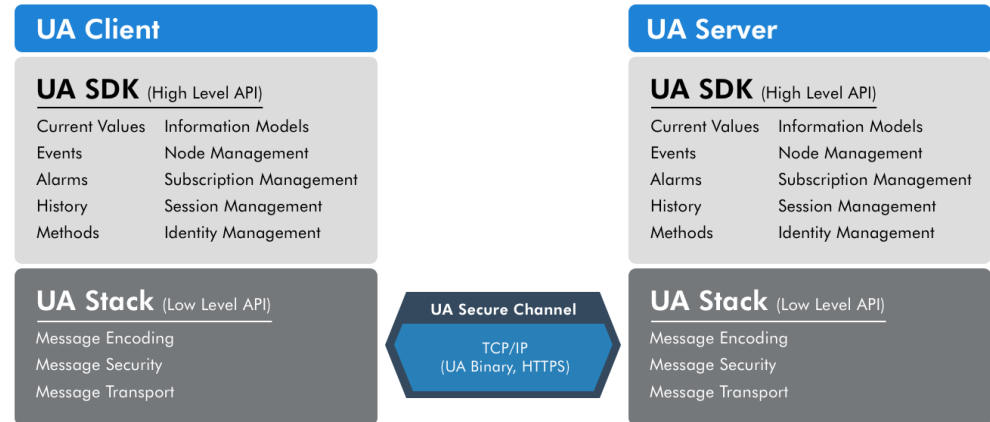
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Unified Automation

Getting started - Develop

OPC UA Programming Model

- Stacks provide interoperable OPC UA communication
- Software Development Kits (SDKs) provide standard implementation of OPC UA functionality
- Your application code comes on top



Getting started - Develop

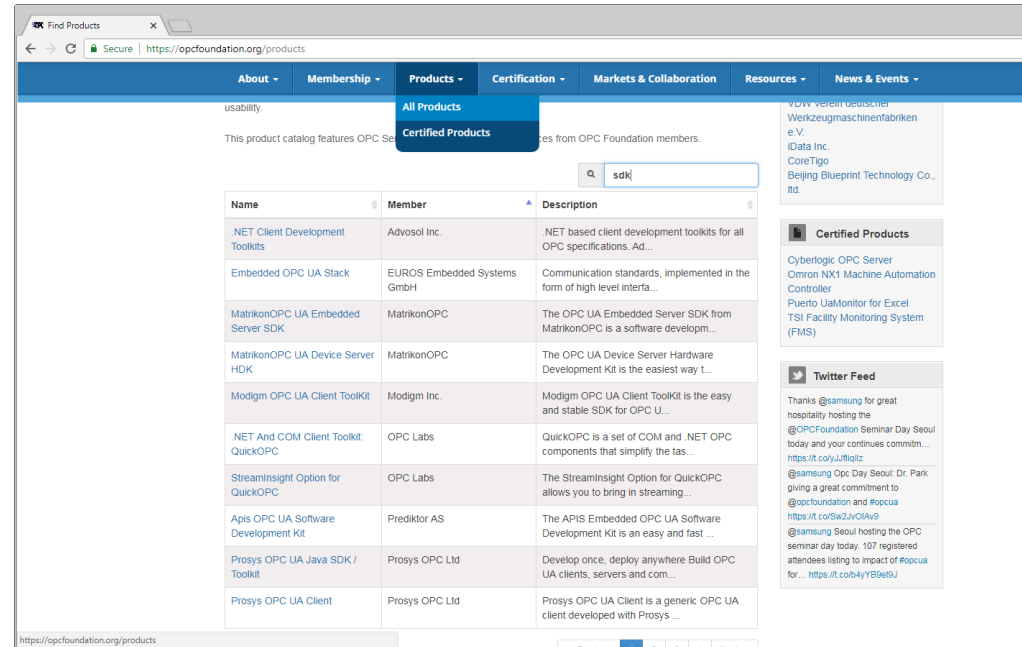
OPC UA Stacks

- github.com/opcfoundation
 - .NET Standard
 - .NET Legacy
 - Java Legacy
 - AnsiC Legacy
- Dual License:
 - GPL (GNU Public License) v2: [non-commercial use](#)
 - RCL (Reciprocal Community License): [commercial use](#)
 - OPC Foundation members
 - SDK customers
- SDK vendors provide their own stacks for Java and AnsiC

Getting started - Develop

Commercial OPC UA SDK

- Java
 - Prosys OPC
- .NET
 - Unified Automation
 - Softing
 - OPC Labs (Client)
- C/C++
 - Unified Automation
 - Softing
 - Matrikon OPC (Server)



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NOVEMBER 6.-7.11.2019 #OPCUA #OPCDAY #OPCDAYFINLAND #AUTOMAATIO



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Thank you!



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