

Matrikon OPC UA server for CODESYS

Release 02.04.17



Scope

OPC UA has established itself as a key technology in the Industry 4.0 & IIoT landscape. The OPC Foundation, rich from years of experience in industrial automation, started the OPC Unified Architecture work group in 2004 and issued the first specifications in 2007 (IEC 62541). OPC UA does not just remove the limitations of the standard COM/DCOM based technology, it adds all the features necessary in our upcoming new era of smart manufacturing. OPC UA is not just a communication protocol or an interface, it is a technology, a framework, describing and transporting information in a secure, reliable and flexible manner. MatrikonOPC, a Honeywell company, has been a major player in the OPC technology for years and one of the first companies to certify the Embedded OPC UA server, now used by hundreds of manufacturers.

Target Applications

- Factory Automation
- Process Automation
- Energy production and distribution
- Building Automation
- Mobile Automation

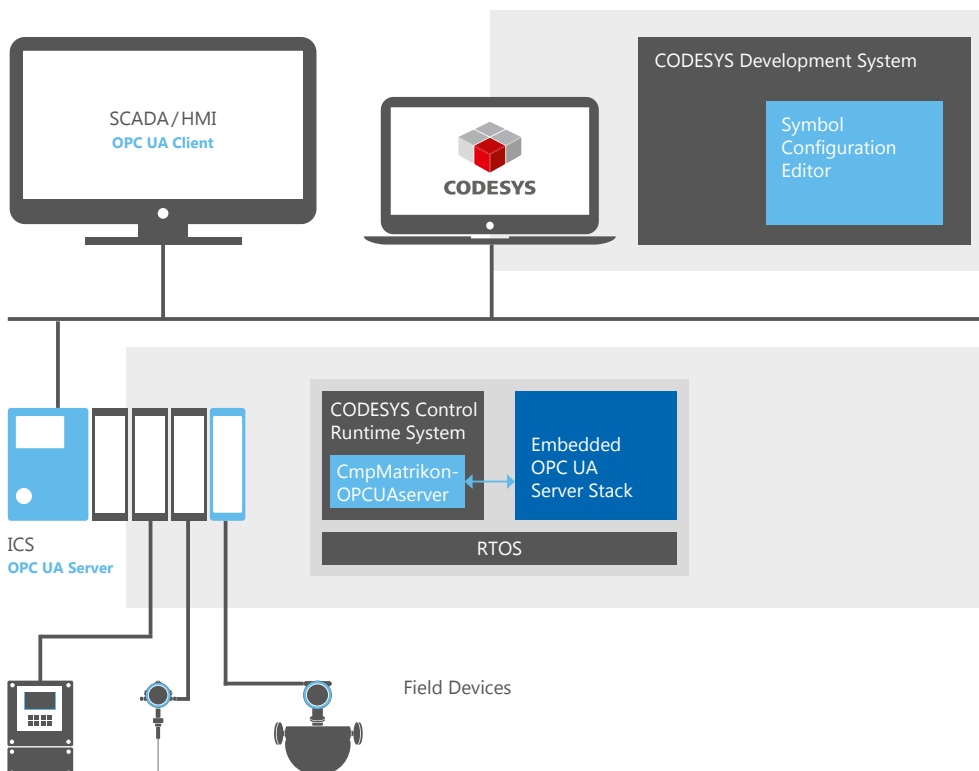
Functionality

The ICS includes the CODESYS Control Runtime System and is programmed using the CODESYS Development System.

Supporting OPC UA requires the integration of the Matrikon OPC UA Server stack, delivered as SDK.

The interfacing with the CODESYS Control Runtime System is done with one additional runtime component (CmpMatrikonOPCUAserver).

The configuration of tags to be accessed over OPC UA is done in the CODESYS Symbol Configuration Editor.



Integration of the OPC UA server.

Features and benefits

Platform independence

The server can run with any version of the CODESYS Control runtime system, installed on embedded systems or under a multitask environment.

Complete scalability

With a footprint as low as 100 kB, the server can be configured to run on all your devices ⇒ Same technology across your product line

Rapid implementation

Clear documentation, evaluation kits available, integration services through BE.services help you get a prototype within days

Easy configuration

Tags that need to be made available over OPC UA can be configured using the CODESYS Symbol Configuration Editor ⇒ no need for a separate tool

Expertise for support and development

BE.services can be contracted for development, extension or integration services ⇒ time and cost saving through 3rd party expertise

Highly reliable

Tested on major platforms, optimized and OPC Foundation certified SDK

Engagement model

One stop shopping, support and optional integration services.

How to get?

| Product | Manufacturer | Part Number | Sales Contact |
|-----------------------------|--|-------------|----------------------|
| Matrikon Flex OPC UA SDK | Matrikon www.matrikonopc.com | 0230201 | info@be-services.net |
| Matrikon OPC UA for CODESYS | BE.services GmbH www.be-services.net | 0230221 | info@be-services.net |

Software Package includes

- Matrikon Flex OPC UA SDK
- Interface to CODESYS as Runtime System Component

Technical data

| General system requirements | | | Performance data | | | |
|--|---------------------|--|-----------------------------------|--------------------------|-------------------------|----------|
| OPC UA Server Stack size | Minimum Recommended | 512kB Flash/100kB RAM 1MB Flash/2MB RAM | Test | Conditions | Hardware | CPU Load |
| Supported CPUs | | X86, ARM, ARM Cortex, PowerPC (32 Bit processors and higher) Others on demand | 100 continuously changing tags | Sampling/reporting 100ms | ARM Cortex-M4 168MHz | 12.50 % |
| Supported operating systems | | no OS (Bare metal) or RTOS | 1.000 continuously changing tags | Sampling/reporting 100ms | ARM Cortex-A8 1GHz | 31.00 % |
| | | | 50.000 continuously changing tags | Sampling every 1s | Intel i7 (1 core) | 10.00 % |
| Supported data types | | | | | | |
| All IEC data types including complex ones (arrays, structures) | | | | | | |

Featured Manufacturers



Support

Please contact info@be-services.net