OPC UA C++ Development Toolkits for Linux

Fast Time-to-Market for OPC UA Clients and Servers

- OPC UA Communication Integration in Linux-based Automation Environments
- Comprehensive Functionality Provided by Libraries
- Optimal Total Costs of Ownership Through All-In-One License Model

**Typical Applications**

**ERP**

**Operating Systems**
Windows, Linux, Solaris, ...

**Programming Languages**
C++, C#

**Typical Applications**

**HMI, DCS, SCADA, Controller, Historian, Aggregator**

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**Typical Applications**

**PLC, Device, M2M**

**Operating Systems**
Embedded Linux, VxWorks, Embedded Windows, ...

**Programming Languages**
ANSI C, C++

**Complete Solution Addressing All Customer Requirements**

- Comprehensive set of building blocks offering encapsulation and easy-to-use functionality required for implementing OPC UA Clients and Servers for Linux environment
- Modular design to scale OPC UA functionality according to actual requirements
- Wide range of available functionality, including Extended Security, Data Access, Complex Data, Events, Alarms & Conditions and Historical Access
- Integrated security concepts allowing safe remote data transfer actively addressing modern security threats
- Applicable for time-critical control tasks as well as for complex automation projects
- OPC UA Servers and Clients capable to move data and information between factory floor and enterprise level

**Comprehensive Scope of Delivery for Easy and Fast Development**

- Optimized Application Programming Interface (API) and easy to understand documentation
- Complimentary how-to example applications, step by step tutorials, complex test and simulation clients and servers for a lean getting started with OPC UA development

**Investment Security Through Innovative License Model**

- Implementation according latest OPC UA Client respectively OPC UA Server specifications
- Free migration to upcoming OPC UA Development Toolkit versions thanks to toolkit software and 3 years’ right to updates to future versions
- Technology proven by use in Softing’s OPC Server and middleware products

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OPC UA C++ Development Toolkits for Linux

Technical Data

<table>
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<th>Category</th>
<th>Details</th>
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<tr>
<td>OPC Specifications</td>
<td>OPC Unified Architecture V1.03</td>
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<tr>
<td>OPC Roles</td>
<td>OPC UA Client, OPC UA Server</td>
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<tr>
<td>OPC UA Client Profiles</td>
<td>Core Characteristics, Data Access, Complex Data, Base Eventing, Methods, Audit, Historical Access, Alarms and Conditions, Query, Redundancy</td>
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<tr>
<td>OPC UA Server Profiles</td>
<td>Core Characteristics, Data Access, Complex Data, Base Eventing, Methods, Audit, Historical Access, Alarms and Conditions</td>
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<tr>
<td>OPC UA Transport</td>
<td>OPC UA TCP transport; UA Binary Encoding, UA Secure Conversation</td>
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<tr>
<td>HTTPS transport</td>
<td>UA Binary Encoding</td>
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<tr>
<td>OPC UA Security</td>
<td>Security policy: Basic256Sha256/Basic256/Basic128Rsa15/None</td>
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<tr>
<td>Authentication</td>
<td>anonymous/user name and password/user certificate</td>
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<tr>
<td>Full compliance</td>
<td>to OPC UA 1.03 specification</td>
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<tr>
<td>OPC UA Modelling</td>
<td>Model designer as helper tool for address space configuration for OPC UA Servers</td>
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<tr>
<td>Programming Interface*</td>
<td>C++</td>
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<tr>
<td>Development Environment*</td>
<td>GCC (version 4, 5, 6)</td>
</tr>
<tr>
<td>Development Operating Systems*</td>
<td>Any Linux system               (tested on Ubuntu 14, 16 and on Scientific Linux 5.5)</td>
</tr>
<tr>
<td>Target Operating Systems*</td>
<td>Any Linux system</td>
</tr>
<tr>
<td>Compliance/Certification</td>
<td>OPC Foundation certification for Server, regularly tested at OPC Foundation interoperability workshops</td>
</tr>
<tr>
<td>Support Tools</td>
<td>Comprehensive programming examples and tutorials, complex test and simulation OPC UA Server and Client applications, generic technology test and demonstration Client and Server tools</td>
</tr>
<tr>
<td>Trial Version</td>
<td>Trial toolkit assemblies contain complete functionality. Limitation to 90-minute runtime period applies.</td>
</tr>
<tr>
<td>Licensing</td>
<td>Trial and evaluation license, single seat developer license (binary and source code version) Applications integrating licensed toolkit libraries can be deployed in unlimited number of copies.</td>
</tr>
</tbody>
</table>

* Binary support for embedded systems is available on request and usually accompanied by a small integration project. Known to work on several Linux distributions as well as on Solaris and QNX, expected to be easily ported to other Unix-based platforms

Scope of Delivery

<table>
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<tr>
<th>Component</th>
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<tr>
<td>Software</td>
<td>Installation package on Softing OPC Toolkits DVD-ROM, installation package available for download</td>
</tr>
<tr>
<td>Support</td>
<td>Dedicated support team</td>
</tr>
<tr>
<td>Documentation</td>
<td>Reference Manual in English in CHM format as part of installation package</td>
</tr>
</tbody>
</table>

Order Numbers

- LMA-DD-035131: Service and Support Contract for OPC UA C++ Client Toolkit for Linux, 3 years minimum period, based on yearly fee, including single seat developer license WRL-DD-035131, binary format
- WRL-DD-035131: OPC UA C++ Client Toolkit for Linux, single seat developer license, binary format, available only in combination with LMA-DD-035131
- LMA-DD-035132: Service and Support Contract for OPC UA C++ Server Toolkit for Linux, 3 years minimum period, based on yearly fee, including single seat developer license WRL-DD-035132, binary format
- WRL-DD-035132: OPC UA C++ Server Toolkit for Linux, single seat developer license, binary format, available only in combination with LMA-DD-035132
- LMA-DD-035231: Service and Support Contract for OPC UA C++ Client Toolkit for Linux, 3 years minimum period, based on yearly fee, including single seat developer license WQL-DD-035231, source format
- WQL-DD-035231: OPC UA C++ Client Toolkit for Linux, single seat developer license, source format, available only in combination with LMA-DD-035231
- LMA-DD-035232: Service and Support Contract for OPC UA C++ Server Toolkit for Linux, 3 years minimum period, based on yearly fee, including single seat developer license WQL-DD-035232, source format
- WQL-DD-035232: OPC UA C++ Server Toolkit for Linux, single seat developer license, source format, available only in combination with LMA-DD-035232
- LEA-DD-030300: Site License extension for OPC Development Toolkits
- SIA-DD-030400: OPC Toolkit integration services

Additional Products and Services

- OPC-ENTW-TAG: OPC Engineering / Consulting / Compliance Assistance
- TRA-OPC-UA: OPC UA Introductory Training for Decision Makers and Technical Leaders
- LRL-DY-134501: dataFEED OPC Suite, Version 4.01 and higher

Your local Softing contact:

https://industrial.softing.com