

open62541

Open Source OPC UA

Product Sheet



Full Featured



Open Source



Portable C99

open62541 is an open source and free implementation of OPC UA (OPC Unified Architecture) written in the common subset of the C99 and C++98 languages. The library provides the necessary tools to implement dedicated OPC UA clients and servers, or to integrate OPC UA-based communication into existing applications. The open62541 library is platform independent. All platform-specific functionality is implemented via exchangeable plugins.

The SDK is licensed under the Mozilla Public License v2.0 (MPLv2). This allows the open62541 library to be combined and distributed with any proprietary software. Only changes to the open62541 library itself need to be licensed under the MPLv2 when copied and distributed. The open62541 project is maintained by Fraunhofer IOSB and many automation companies are active contributors and users.



Product Features

Server

- Support for all OPC UA services (except the Query service – not implemented by any SDK)
- Support for generating information models and types from standard XML definitions (Nodeset Compiler)
- Highly configurable with default plugins e.g. for encryption (OpenSSL, mbedTLS), access control, historizing, logging
- Support for editing nodes and references at runtime
- Support for subscriptions (data-change and event notifications)

Client

- Support for all OPC UA services
- Support for asynchronous service requests
- Background handling of subscriptions

PubSub

- PubSub message encoding (binary and JSON)
- Transport over UDP-multicast, Ethernet, MQTT
- Runtime configuration via the information model

Professional Services

Community (Free Tier)

- Open Source development (Issues, Pull Requests)
- Support on Github and the Mailing List
- Regular community call for the coordination of ongoing development

Professional

- Long term support for past releases
- Access to certification artifacts
- Security Patch Management (Coordinated Vulnerability Disclosure)
- Access to developer training material (videos and slides)
- Included developer-days/year for fast-tracked Open Source development

Enterprise

- Assistance in certification efforts using open62541
- Backporting of requested features to past release families
- On-Site Developer Training for open62541
- Included developer-days/year for fast-tracked Open Source development

open62541 Plugin API

Customization and Integration of Server/Client/PubSub into an overall application.
Access Control, Crypto (OpenSSL, mbedTLS), Information Model Storage, Historical Data, Network EventLoop

open62541 Server SDK

Service Implementation
Namespace Zero
Application Information Model

open62541 Client SDK

Service Calls
Subscription Handling
Async API

open62541 PubSub SDK

UDP, MQTT, Ethernet Runtime
Configuration in Information Model
Encryption (SKS possible)

open62541 Core Stack

OPC UA DataType Handling, Encoding (Binary, JSON), SecureChannel

open62541 Architecture Integration

Processor Architecture, Clock, Networking, etc.

Contact

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