OPC UA Apps

Enhanced data flexibility and interoperability in Industry 4.0 applications

- → OPC UA client/server data connections to MQTT applications
- → Bidirectional data transfer to and from an MQTT broker
- → Support for common security methods such as authentication and encryption
- → Web user interface for effortless configuration

Data bridges between OPC UA and MQTT

The two platform-independent netFIELD App containers 'OPC UA Server' and 'OPC UA Adapter' are software gateways that enable a transparent data exchange between applications that are using the two different messaging protocols MQTT and OPC UA as data interfaces.

On the primary side, both containers function as MQTT clients. The "OPC UA Server" app makes the IoT data acquired with other netFIELD apps available as an OPC UA server. This allows customers to retrieve the data with an OPC UA client. Conversely, the 'OPC UA Adapter' acts as an OPC UA client on the secondary side, aggregating configurable data objects from one or more OPC UA servers, and publishing them to an MQTT broker as topics through the MQTT client.

Generally, Hilscher's netFIELD Apps use MQTT as the preferred IoT messaging protocol for exchanging their data with other applications. With the provision of the two OPC UA converter containers, it is now possible to enhance netFIELD Apps with an OPC UA data interface. This offers greater flexibility and interoperability in industrial environments when there is a need for OPC UA data-driven decision-making processes in IIoT application scenarios such as predictive maintenance, improved manufacturing efficiency, general cost savings, and higher product quality in production processes.

→ netFIELD OPC UA Apps
Hotline: +49 (0) 6190 9907-90
www.hilscher.com

Product information

Technical Data

General

Software type
Container

Repositories
https://hub.docker.com/repository/docker/hilscherautomation/netfield-app-opc-ua-server

Hardware requirements

Processor architecture
x64, ARM32, ARM64

Container size
350 MB, unpacked

Memory requirements
Minimum 200 MB

Data interface
Ethernet

Software requirements

Operating system
Linux

Container runtime environment
Required, e.g., Docker

Runtime properties

Inbound protocol	OPC UA Server App: MQTT (as a client) OPC UA Adapter: OPC UA Client
Outbound protocol	OPC UA Server App: OPC UA Server OPC UA Adapter: MQTT (as a client)

Product overview	Part number	Beschreibung
NFA-OPS-OTP	1917.065	netFIELD App OPC UA Server
NFA-OPC-OTP	1917.059	netFIELD App OPC UA Adapter

Related products

Product overview	Part number	Description
NFX8M-D2-N32-010	1918.010	netFIELD Compact X8M - ARM computer platform for containerized applications
NFX86-D8-N128-021	1918.021	netFIELD Unity - x64 Edge computing platform
NFX86-D8-N128-022	1918.022	netFIELD Unity Pro - x64 Edge computing platform with Industrial Ethernet expansion
NFA-MBU-OTP	1917.066	netFIELD App Modbus to MQTT Adapter, floating license includes all updates within 1 year of license activation
NFA-PNT-OTP	1917.057	netFIELD App PROFINET Tap, floating license includes all updates within 1 year of license activation
NFA-ECT-OTP	1917.058	netFIELD App EtherCAT Tap, floating license includes all updates within 1 year of license activation
NFA-PND-OTP	1917.054	netFIELD App PROFINET Device, floating license includes all updates within 1 year after license activation
NFA-OPA-OTP	1917.061	netFIELD App OPC UA IO-Link Adapter, floating license includes all updates within 1 year of license activation

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Note: All technical data may be changed without further notice.