

The missing link between your business and your machines

Nerve Blue is an industrial software platform that enables machine builders to deliver data and offer services to customers from machines installed anywhere in the world. Using Nerve Blue, machine builders can reduce system complexity and cost, improve machine performance, and offer innovative new services to customers. Nerve Blue enables you to:

Collect, store and analyze machine data

- ✓ Real-time data access from PLC and IO infrastructure
- ✓ Time-series database integrated in device software and in the Management System
- ✓ Datapath functionality for manipulating and distributing data between different systems
- ✓ Local and web-based user interface for data visualization

Consolidate multiple functions on one device

- ✓ Virtualized environment running Windows or Linux virtual machines
- ✓ Support for lightweight Docker containers
- ✓ Soft PLC (CODESYS®)
- ✓ Converge hardware based functions in software

Manage and deploy software

- ✓ Central repository for containers, VM and CODESYS® programs
- ✓ Simultaneous deployment of workloads to multiple devices and locations
- ✓ User management for device and software configuration
- ✓ Local and web-based user interface for software management

Nerve Blue Software

One-time license per Nerve Device

Qualified Nerve Device

One-time purchase

Connectivity & Management

Yearly fee per active Nerve Device

Delivery Model

- VM and container hosting
- Local UI
- Time-Series Database
- Local data processing
- Real-time data manipulation
- Soft PLC

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- MFN 100
- Kontron KBOX A-150/250
- Qualification of other Nerve Devices available on request

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- VM and container deployment
- Data streaming to the cloud
- Cloud interfaces
- Global device management
- OTA patches and bugfixes

Software Features

Base System	Debian 10 (Linux Kernel 4.19.0)
Hypervisor	Xen 4.11
OS Support	Linux and Windows (as virtual machine)
System Management	Management System available on premise and/or cloud based Deployable as Linux Docker with browser-based GUI View status of connected Nerve Devices Secure onboarding of new Nerve Devices
Workload Management	Remote management of virtual machines, containers and CODESYS® programs (workloads) Assignment of device resources to workloads Selective application deployment to prevent user error Workloads accessible from the external network
Soft PLC	CODESYS® 3.5 (PROFINET Master/Slave, EtherCAT, Modbus TCP/IP) Hosted as real-time virtual machine to ensure isolation from interference High speed control (e.g. 1 ms cycle time achievable with Intel Atom E3940) High performance connection of the application to the datapath
Database	Timescale Time-Series Database
Datapath	OPC UA Client/Server and OPC UA PubSub Integration of analytics through containers or virtual machines
Cloud Protocols	MQTT / JSON
User Management	Role-based access control to Management System