



GE VERNOVA

Proficiency® Software & Services

Automation Software

DNP3 – OPC DRIVER

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OVERVIEW

The DNP3 – OPC Driver from GE Digital natively supports iFIX and CIMPLICITY HMI/SCADA systems and is a fully compliant OPC server. It provides master server communications to DNP3 slave devices.

The DNP3 driver enables the secure-by-design transfer of data to and from field devices using the DNP 3.0 protocol. It will enable you to automatically connect, control and manage devices with SCADA systems.

GENERAL SPECIFICATIONS

- Supports DNP3 Level 3 for both requests and responses
- IP UDP & TCP
- Serial (300-57600 baud), including flow control
- Radio support including PTT control; pre- and post-transmission delay setting
- Configurable retries and timeouts
- Sequence of Events
- Report by exception
- Supports DNP3 levels 1, 2, 3
- Up to 200 channels & 1,000 devices
- Supports fast recovery of SOE data after a comms failure

DEVICES & CHANNELS

- Separate configuration of devices and channels
- Each device can be associated with one or more channels
- Automatic failover when multiple channels available

SEQUENCE OF EVENTS

- SOE Level 3 time mode, supporting Local and UTC
- Every SOE detected and written to the SOE log file, time stamped to 1msec using time captured by the I/O device
- Includes time synchronization

MOMENTARY CHANGE DETECT

- Momentary changes (e.g. closed> open>closed) can be latched between OPC read requests to allow the HMI to alarm momentary changes.
- Momentary changes reported using time captured by the I/O device for display in the HMI alarm system.
- Configuration

- "On the fly" configuration without requiring system restart

LOGGING

- Separate SOE log file
- Communications monitoring in configuration window and to file
- Logging of raw binary data (data link) and decrypted data (application layer)
- Comprehensive statistics for both devices and channels
- All statistics available as standard HMI database tags

PROVEN CAPABILITIES / EXPERIENCE

The DNP3 – OPC Driver from GE Digital is based on more than two decades of experience with DNP3-based communications, custom development, and global sales.

DNP3 is an important standard for SCADA communications. However, despite its wide acceptance and use, DNP3 can be a challenge to implement. Many organizations do not want to employ and maintain DNP3 expertise in-house for the occasional times that DNP3 specialist skills are required.

This is where the DNP3 – OPC Driver from GE Digital comes in. The first turn key DNP3 based system with this driver was implemented in 1995, a time when the protocol was not widely used. The developers have been implementing systems using DNP3 communications continuously ever since. The team has experienced and solved all possible variations and combinations of serial, IP and the widest range of media, including radio.

This DNP3 software is already used around the globe, broadening expertise with the protocol even further.

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GE Vernova's Proficy Software & Services empowers teams, illuminating the path to a greener, more profitable future. Our proven industrial software accelerates innovation, enables connected workers, and operationalizes sustainability. We're driving measurable progress for over 20,000 diverse customers around the world. The Proficy portfolio includes cloud-based and on-prem HMI/SCADA, MES, industrial data management and analytics. Our software solves the toughest industrial challenges and is used in applications such as discrete, hybrid, and continuous manufacturing; utilities automation; metro transit; and much more. Proficy offers architecture flexibility including single machines, remote substations, and complex, distributed networks that span multiple factories and geographies.

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