Babel Buster 2
LonWorks-BACnet Network Gateway
Model BB2-3020-NB

CONTROL SOLUTIONS, INC.
MINNESOTA

Put LonWorks® devices on a BACnet MS/TP network!

Control Solutions' **Babel Buster BB2-3020-NB**

is a BACnet client/server used to connect LonWorks devices to a BACnet network without binding or LonWorks network management outside of the gateway's own capabilities. A large number of data objects gives you flexibility in mapping BACnt objects to scalar or structured LonWorks network variables. Multiple data objects may be mapped a single structured LonWorks network variable. Input, Output, and Value objects are supported for BACnet Analog, Binary, and Multi-state object types.
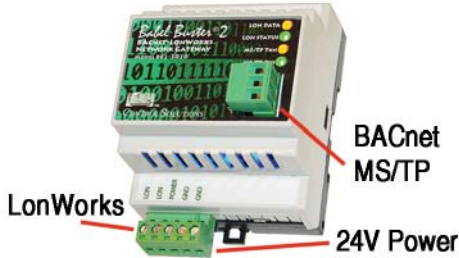
The LonWorks network variables will be polled periodically to read LonWorks data, or updated upon change in value (or periodically if chosen) to write LonWorks data. Data read from LonWorks will be placed into BACnet Input or Value objects. Data written to BACnet Output or Value objects will be written to LonWorks network variables.

The BB2-3020-NB is most often used as a BACnet server, providing LonWorks data to BACnet clients such as a building management system. The BB2-3020-NB can also be configured as a BACnet client, automatically reading and writing BACnet objects in other BACnet devices to share LonWorks data.

The BB2-3020-NB provides a "pool" of 300 objects which may be allocated by the user to the object types desired. Any mix of Analog, Binary, and Multi-state Input, Output, and Value objects may be allocated. Output objects are commandable and include the standard priority array found in commandable BACnet objects.

Babel Buster BB2-3020-NB FEATURES

- Read/Write LonWorks® NV's via standard BACnet objects
  - 300 Data objects accessible as standard BACnet objects
  - Access up to 300 LonWorks Network Variables
- Supports structured network variables
- Free topology LonWorks network
- No LonWorks network management tools required
- 32-bit ARM co-processor for greater processing power
- Bidirectional communication between LonWorks and BACnet
- Supports up to 300 BACnet data objects, plus Device object
  - Analog Input, Analog Output, Analog Value
  - Binary Input, Binary Output, Binary Value
  - Multi-state Input, Multi-state Output, Multi-state Value
- BACnet client polling interval configurable per point
- Operates as BACnet server by default, user selectable
- USB connection directly to PC for configuration
- Configuration software provided at no extra charge
- Internal flash card for simplified firmware updates
- Hardened EIA-485 transceiver for BACnet MS/TP
- MS/TP baud rates: 9600 to 76800
- Powered by 12-24V DC/AC 50/60 Hz
- Power Consumption: 0.1A @ 24VDC
- DIN rail mounting, 100mm H x 70mm W x 60mm D
- Pluggable screw terminal blocks
- Operating temperature, standard -25°C to +85°C
- Operating temperature, extended -40°C to +85°C
- Humidity 5% to 90%
- FCC, CE Mark
- Listed to UL 916 and (Canadian) C22.2 No. 205-M1983

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Control Solutions, Inc.
Minnesota

BACnet MS/TP
LonWorks
24V Power

The BB2-3020-NB can poll up to 300 LonWorks network variables, each having up to 31 bytes of data. The BB2-3020-NB provides up to 300 BACnet objects which are used to exchange data with the LonWorks network variables.
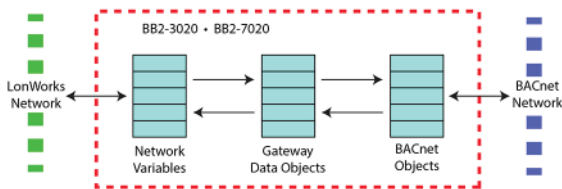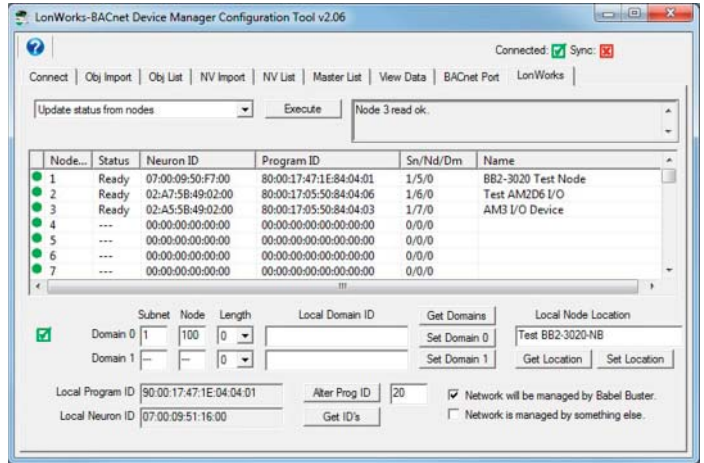
Many LonWorks network variables are a single data value, such as temperature. However, many other LonWorks network variables are 'structured', meaning a single variable contains several related data values such as in the HVAC status variable. BACnet objects, on the other hand, always contain exactly one and only one data value. This means a single structured LonWorks variable cannot be translated to a single BACnet object. The single structured LonWorks network variable must be translated to or from multiple BACnet objects.

The method of making structured LonWorks data available to BACnet involves intermediary data 'objects' in the Babel Buster gateway. The LonWorks network variable input data structure is dispersed to multiple data objects. These data objects are, in turn, made accessible as BACnet objects after appropriate data scaling and reformatting.

The process is reversed for structured network variable outputs, with multiple data objects (BACnet objects) collected up and formatted into a single LonWorks structured variable.
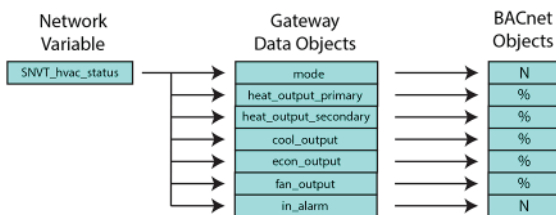
The Device Manager Configuration Tool is a user friendly LonWorks gateway configuration that runs on your PC. Connect the gateway to your laptop via a USB cable - no need for any adapters or "dongles", and no need to have a functional network on either side of the gateway for initial setup.

The Device Manager Configuration Tool can import XIF files that define the network variables in the LonWorks device to be connected. The configuration tool also has the ability to import the XIF (program interface) information directly from the LonWorks device in most cases.

The Device Manager Configuration Tool will save your configuration to an XML file as backup, and to replicate the same configuration in additional devices with a simple file download.

Visit CSIMN.COM for
- **Full details**
- **User Guides & Software Downloads**

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