

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

CONTROL SOLUTIONS' BABEL BUSTER BB2-3020

is a bindable LonWorks® node that functions as a client or server on a BACnet MS/TP network. A large number of data objects gives you flexibility in mapping BACnet 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.

Data objects associated with Network Variable Outputs will poll their assigned BACnet object at the interval you specify, and provide the BACnet data to the LonWorks network as an NV update.

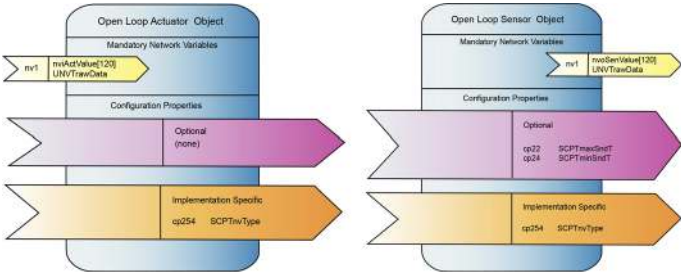
Data objects associated with Network Variable Inputs will receive their data from the LonWorks network as an NV update. The received data will be written to the assigned BACnet objects periodically or upon NV update (user selected).

The BB2-3020 is most often used as a BACnet client, but it can operate as a server. This makes it possible to put LonWorks devices on a BACnet network (but does still require binding and network commissioning with LonMaker or equivalent).

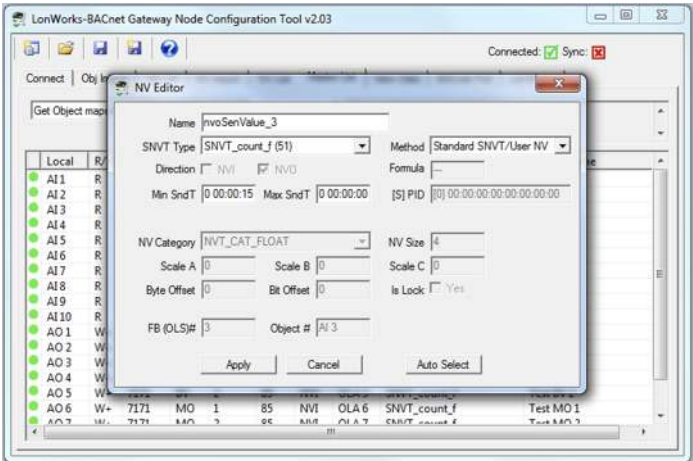
The BB2-3020 provides a “pool” of 300 objects which may be allocated by the user to the object types desired. Any mix of Analog, Binary, and Multi-state Input, Output, and Value objects may be allocated. Output objects are commandable and include the standard priority array found in commandable BACnet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

BABEL BUSTER BB2-3020 FEATURES

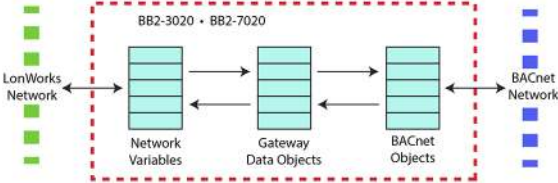
- Read/Write standard BACnet objects via LonWorks® NV's
 - 300 Data objects accessible as standard BACnet objects
 - 120 Network Variable Inputs
 - 120 Network Variable Outputs
- Supports structured network variables
- Free topology LonWorks network
- Based on FT 5000, no installation credits required
- 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
- Operation as BACnet server also possible, 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% non-condensing
- FCC, CE Mark
- Listed to UL 916 and (Canadian) C22.2 No. 205-M1983



The LonWorks Network Variables (NV's) contained within the Babel Buster gateway are configured as standard sensor and actuator function blocks with user changeable network variable types. Each variable has been allocated the maximum of 31 bytes of memory, meaning any known LonWorks variable type (including UNVTs) can be used. The NV's are bound to other nodes on the LonWorks network using LonMaker or other comparable network management tool.



The Gateway Node Configuration Tool is the most user friendly LonWorks gateway configuration tool to date. 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.



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.

Import BACnet object lists formatted as CSV files. Create your object list using any standard spreadsheet program, save as CSV, then import. The tool will then automatically create and assign network variables. Next, you export an XIF file representing your device. The XIF includes all configuration property file data and is ready to import into LonMaker.

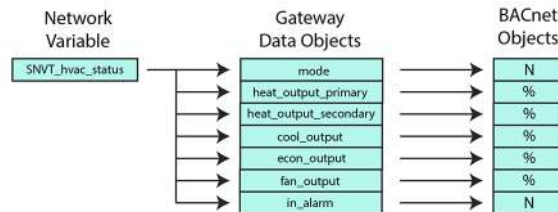
You can also import an XIF file of a LonWorks device you want to provide BACnet access to. The tool will automatically assign BACnet objects, which is especially useful if the gateway will be a BACnet server.

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.

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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.



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