

Babel Buster[®]
IP/XM



CONTROL SOLUTIONS, INC.
MINNESOTA

*Put Modbus devices on a
BACnet IP network*



Control Solutions' Babel Buster IP/XM is a BACnet IP slave (server) device that functions as a Modbus RTU master and/or Modbus TCP client (master). A large number of BACnet objects gives you flexibility in mapping Modbus registers to any combination of BACnet objects. Packed Modbus registers may be parsed to multiple BACnet objects when reading. Multiple BACnet objects may be packed into a single Modbus register when writing. All standard Modbus register types are supported.

Value objects will poll their assigned Modbus register at the interval you specify. The content of the Modbus register will be given as the Present Value of the BACnet object when read. The Modbus register is written each time the BACnet Value object is written. The Value object corresponds well the the Modbus Holding register.

Input objects will poll their assigned Modbus register at the interval you specify, and provide the Modbus data as the Present Value when read. Commandable Output objects are used to write Modbus registers, and will update the Modbus device each time BACnet is updated.

Babel Buster IP/XM Object Summary

- 300 Analog Input Objects
- 100 Analog Output Objects, Commandable
- 100 Analog Value Objects

- 300 Binary Input Objects
- 100 Binary Output Objects, Commandable
- 100 Binary Value Objects

- 300 Multi-State Input Objects
- 100 Multi-State Output Objects, Commandable
- 100 Multi-State Value Objects

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651-426-4410 · 800-872-8613

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Built-In Web Server for Configuration and Diagnostics



Read/Write any standard Modbus Register
as a BACnet Property Value

FEATURES

- Read/Write any standard Modbus register via BACnet objects
 - 300 Input objects each of types AI, BI, MSI
 - 100 Output objects each of types AO, BO, MSO
 - 100 Value objects each of types AV, BV, MSV
- BACnet slave is Modbus RTU master
- BACnet slave is also Modbus TCP client (master)
- Bidirectional communication between BACnet and Modbus
- Supports Modbus “coils”, input registers, holding registers
- Single or double Modbus registers, signed, unsigned, IEEE 754
- Modbus register mapping configured via web interface
- Modbus registers may be scaled (x10, x100, x0.1, x0.01, etc.)
- Modbus (master) polling interval configurable per point
- Commandable BACnet objects implement priority array
- EIA-485 transceiver for Modbus RTU
- 10/100BaseT Ethernet for BACnet IP and Modbus TCP
- Powered by 10-30VDC or 12-24VAC 50/60 Hz
- Power Consumption: 0.1A @ 24VDC
- DIN rail mounting, 100mm H x 70mm W x 60mm D
- Pluggable screw terminal block for power & RTU network
- Operating temperature -40°C to +85°C; Humidity 5% to 90%

BACnet Protocol Implementation Conformance Statement (Abbreviated)

Date: 11 April 2008

Vendor Name: Control Solutions, Inc.

Product Name: Babel Buster IP/XM

Product Model Number: BBIPXM

Applications Software Version: 1.01

Firmware Revision: 1.01

BACnet Protocol Revision: 2

Product Description: Network gateway allowing Modbus RTU and TCP slave devices to be accessed via BACnet IP as a BACnet slave.

BACnet Standardized Device Profile (Annex L):

- ▶ BACnet Smart Sensor (B-SS)
- ▶ BACnet Smart Actuator (B-SA)

List all BACnet Interoperability Building Blocks Supported (Annex K):

*DS-RP-B, DS-RPM-B, DS-WP-B, DS-COV-B, DS-COVP-B,
DM-DDB-B, DM-DOB-B, DM-RD-B*

Segmentation Capability: (None)

Standard Object Types Supported:

Object types: AI, AO, AV, BI, BO, BV, MSI, MSO, MSV, DEV (all static)

See additional documentation for optional & proprietary properties.

Data Link Layer Options:

- ▶ BACnet IP (Annex J)

Device Address Binding:

Is static device binding supported? No

Networking Options: (None)

Character Sets Supported: ANSI X3.4

If this product is a communication gateway, describe the types of non-BACnet equipment/networks(s) that the gateway supports:

Modbus RTU and/or Modbus TCP slaves/servers (BACnet slave device functions as Modbus RTU or TCP master)

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