TRB245 BACnet

The information in this page is updated in accordance with firmware version **TRB2_R_00.07.06.10**.

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Contents

Summary

BACnet is a communication protocol for building automation and control (BAC) networks that use the ASHRAE, ANSI, and ISO 16484-5 standards protocol.

This manual page provides an overview of the BACnet functionality in TRB245 devices.

Note: BACnet is additional software that can be installed from the **System → [Package Manager](#)** page.

General Configuration

Field	Value	Description
Enable	off | on; default: **off**	Enables BACnet router function.
Enable BBMD	off | on; default: **off**	Enables BACnet broadcast management function.
BBMD interface	network interface; default: **eth0**	Specifies interface for BBMD function. IP address of this interface should be reachable from WAN.
Port forward	off | on; default: **off**	Creates port forward firewall rule to make application port in LAN reachable from selected BBMD interface.
Force gateway	off | on; default: **off**	Adds configured gateway IP address and port to BBMD packages sent.
Gateway address	ip4; default: **none**	Gateway IP address.
Gateway port	integer [1..65535]; default: **none**	Gateway port number.

BIP Configuration

Communications in BACnet over IP (**BIP**) rely upon the protocol rules of IP and Ethernet.

Field	Value	Description
BIP port	integer [1..65535]; default: **47808**	BIP UDP port.

MSTP Configuration

MSTP is most commonly used to connect field devices to controllers / routers / control applications. The physical layer uses RS485 which allows up to 31 devices to be installed on a single network.

Field	Value	Description
MSTP MAC	integer [0..127]; default: **13**	Router MSTP MAC address.
MSTP MAC max	integer [1..127]; default: **127**	Maximum client address in the MSTP network.
Baud rate	300 | 600 | 1200 | 2400 | 4800 | 9600 | 19200 | 38400 | 57600 | 115200 | 230400| 460800 | 921600 | 1000000 | 3000000; default: **38400**	Serial data transmission rate (in bits per second).
Parity	Even | Odd | Mark | Space | None; default: **None**	In serial transmission, parity is a method of detecting errors. An extra data bit is sent with each data character, arranged so that the number of 1 bits in each character, including the parity bit, is always odd or always even. If a byte is received with the wrong number of 1s, then it must have been corrupted. However, an even number of errors can pass the parity check. • **None** (**N**) - no parity method is used. • **Odd** (**O**) - the parity bit is set so that the number of "logical ones (1s)" has to be odd. • **Even** (**E**) - the parity bit is set so that the number of "logical ones (1s)" has to be even. • **Space** (**S**) - the parity bit will always be a binary 0. • **Mark** (**M**) - the parity bit will always be a binary 1.
Data bits	7 | 8; default: **8**	Number of data bits for each character.
Stop bits	1 | 2; default: **1**	Stop bits sent at the end of every character allow the receiving signal hardware to detect the end of a character and to resynchronise with the character stream. Electronic devices usually use one stop bit. Two stop bits are required if slow electromechanical devices are used..