# DTX-B1-MP

DAVITOR DTX-B1-MP Multi Protocol provides a protocol translation mechanism between BACnet/IP and a range of protocols. Currently supported protocols are MODBUS/IP, HTTP REST API, BLE5 Mesh and MIRA*. The mechanism for translation consists of a script engine. The scripts are written in JavaScript directly in the development IDE, installed on the device and accessible via a web interface.
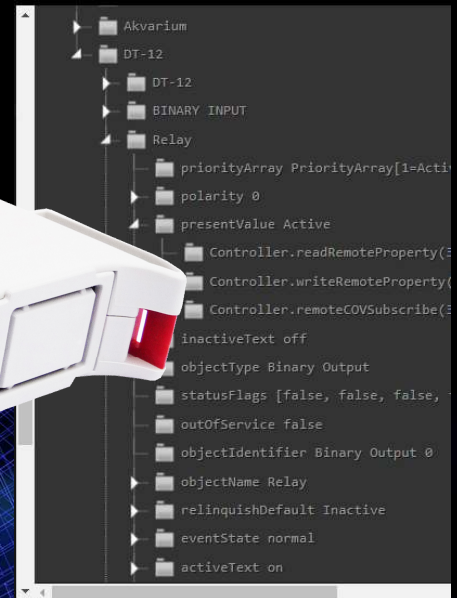
• Cloud Connector to Davitor Advantage Services for secure Internet access to the BACnet network via www.davitor.com

• Built in web site builder where simple SCADA and operational pages can be created for the automation management and supervision.

• Remote management capability for configuration, programming, management and service via Davitor Advantage Services.

Input: 5V ▬ ▬ ▬ ▬ 0,5A   CE 🗑 RoHS 2011/65/EU

- DTX Core Runtime
- BACnet/IP Advanced Application Controller. Rev 19
- Graphical BACnet Browser.
- Instant activation of changes, no deploy times.
- All tools on board, no additional software needed.
- Easy provisioning of BACnet objects in configuration mode.
- Two possibilities of storage, built in JSON database and SQL database integration.
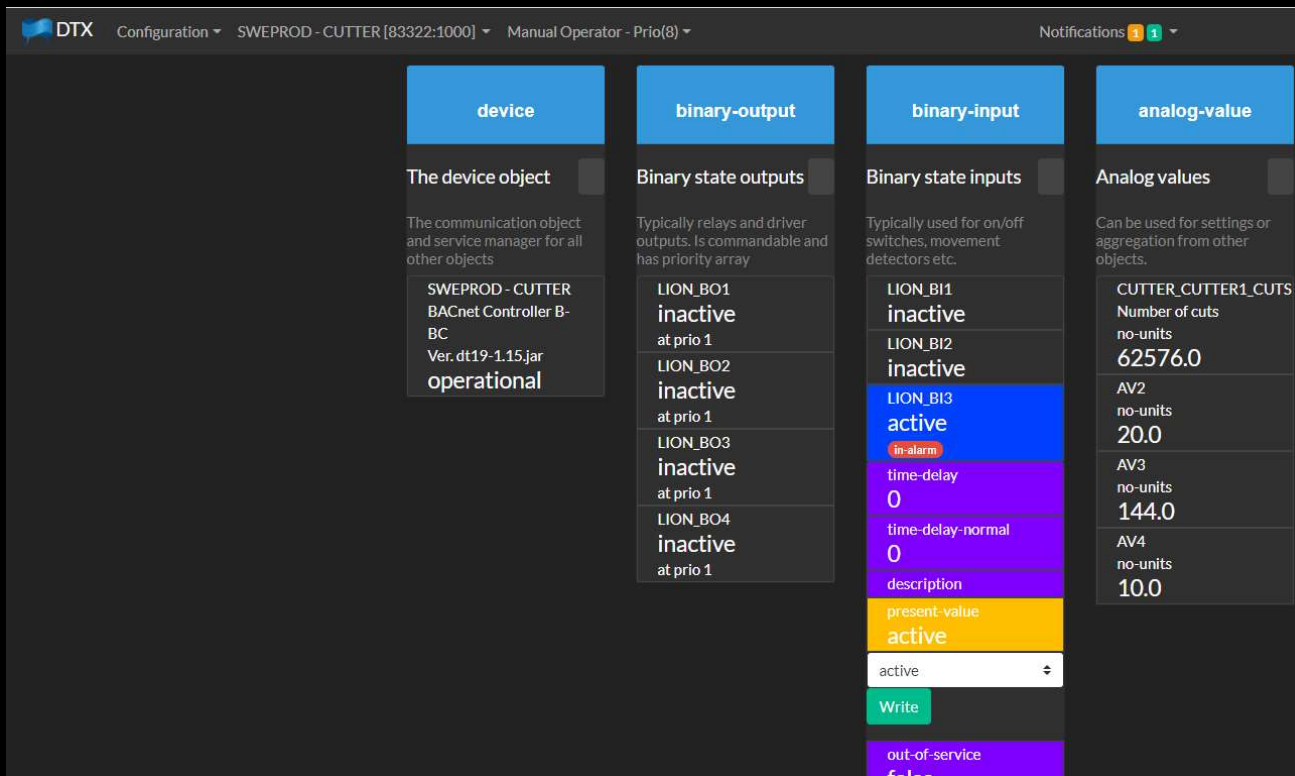- DIN-mount.

* TM MIRA from LumenRadio

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BACnet

Akvarium
DT-12
 DT-12
 BINARY INPUT
 Relay
   priorityArray PriorityArray[1=Acti
   polarity 0
   presentValue Active
     Controller.readRemoteProperty(
     Controller.writeRemoteProperty(
     Controller.remoteCOVSubscribe(
   inactiveText off
   objectType Binary Output
   statusFlags [false, false, false,
   outOfService false
   objectIdentifier Binary Output 0
   objectName Relay
   relinquishDefault Inactive
   eventState normal
   activeText on

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DTX-B1-MP has a responsive page for provision of not only the local BACnet device but the whole BACnet network. All devices found on the network is present in a dropdown. Any alarms or events in the network can be managed and acknowledged from this page.
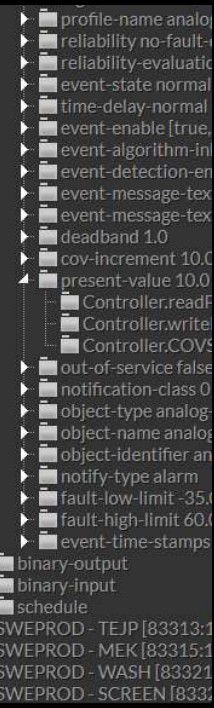
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DTX-B1-MP utilize JavaScript for the mappings and binding between downstream protocols and the BACnet stack. Some protocols are directly translated where other protocols needs more hands on script programming. Pre defined calls to the BACnet stack can be dragged from the network tree browser into the code. New BACnet objects is added directly in the browser tree.

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The MODBUS/IP interface to BACnet is configured by scripting. DTX core provides a set of JavaScript functions to simplify the acting as MOBUS Master when reading and writing to multiple MODBUS Slaves.

```
405
406    //Start job
407    //Executes function readModbusSlave() every 60sec after 10sec startup delay
408    Controller.startJob('modbusJob1Name',10,60,'readModbusSlave');
409
410    /**
411     * Reads MOBUS Slave coils and update BACnet stack
412     */
413    function readModbusSlave(){
414
415        //Reads 1 coil at address 0 from slave 192.168.1.45:502
416        //The fuction returns an array of 'true'/'fales'
417        result = ModbusTCP.readCoils("192.168.1.45",502,0,1);
418        //Updates the BV0 object's presetValue witht he result from the read
419        Controller.writeProperty(80363,binaryValue,1,presetValue,priority_1,result[0]);
420    }
421
```

• Supports MODBUS TCP/UDP/RTU over TCP

• Multi threaded access to unlimited numbers of MODBUS slaves.

• Pre defined functions for all MODBUS functions such as Coil, DiscreteInputs and range of register R/W

• Polling of MODBUS register is made by setting up scheduler (se example above) either as fixed continuous interval or specific time and dates according to CRONTAB standard.

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The radio interface towards mesh networks such as MIRA and BLE5 devices is automatically provisioned and mapped to BACnet objects*.
Mesh topology network are designed for high reliability, scalability and security. It can be used for a wide range of applications such as sensors and actuators.

•Linked or stretched implementations such as street lighting.

• Radio mesh object appears as BACnet objects automatically based on the remote node configuration and type.

*Requires a specific software on the radio mesh nodes provided by Davitor

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