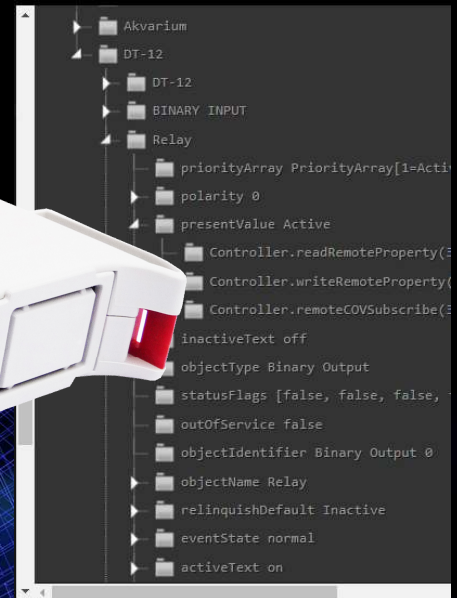


DTX-B1-MP

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.



 BACnet

- 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.

- 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.

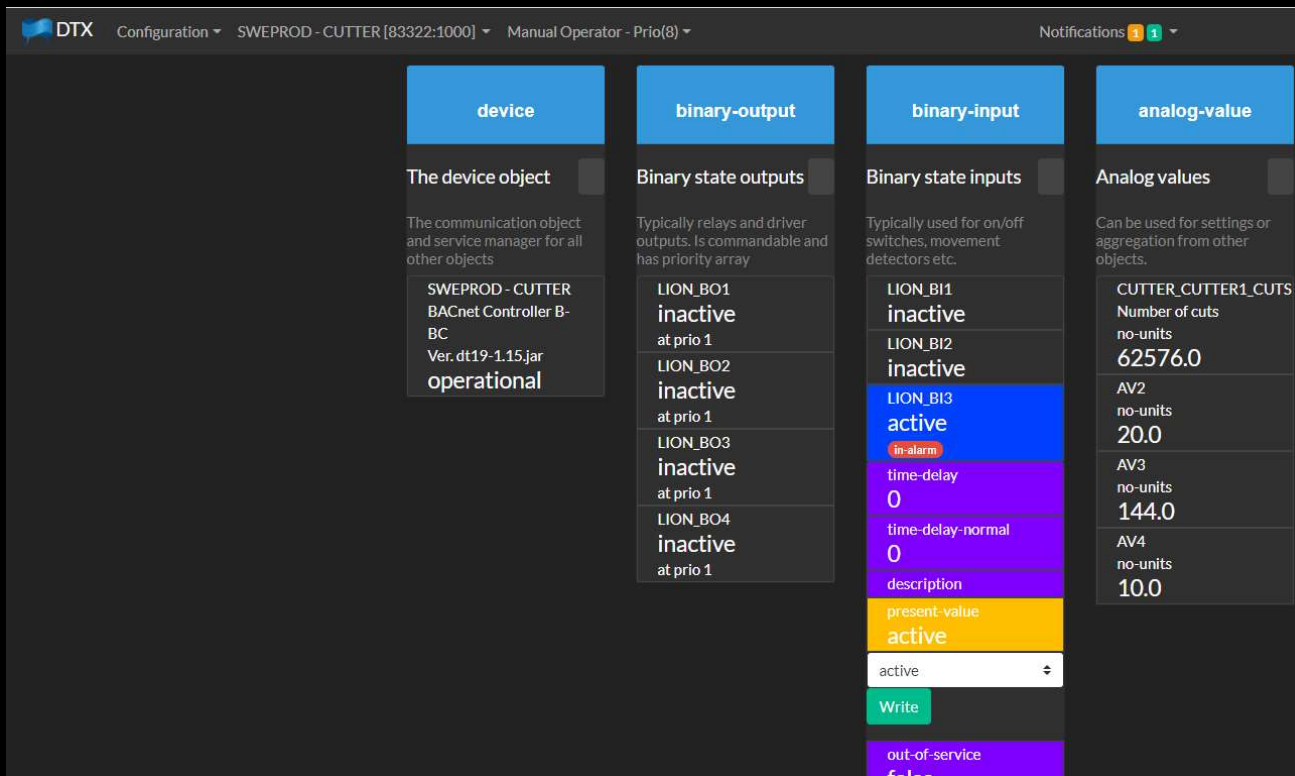
Input: 5V  0,5A



* TM MIRA from LumenRadio

DTX-B1-MP

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.



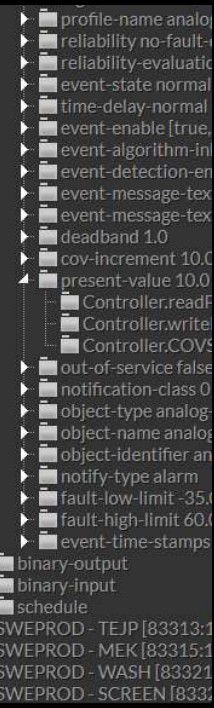
DTX Configuration SWEPROD - CUTTER [83322:1000] Manual Operator - Prio(8) Notifications 1 1

device	binary-output	binary-input	analog-value
<p>The device object</p> <p>The communication object and service manager for all other objects</p> <p>SWEPROD - CUTTER BACnet Controller B-BC Ver. dt19-1.15.jar operational</p>	<p>Binary state outputs</p> <p>Typically relays and driver outputs. Is commandable and has priority array</p> <p>LION_BO1 inactive at prio 1</p> <p>LION_BO2 inactive at prio 1</p> <p>LION_BO3 inactive at prio 1</p> <p>LION_BO4 inactive at prio 1</p>	<p>Binary state inputs</p> <p>Typically used for on/off switches, movement detectors etc.</p> <p>LION_BI1 inactive</p> <p>LION_BI2 inactive</p> <p>LION_BI3 active in-alarm</p> <p>time-delay 0</p> <p>time-delay-normal 0</p> <p>description</p> <p>present value active</p> <p>active</p> <p>Write</p> <p>out-of-service false</p>	<p>Analog values</p> <p>Can be used for settings or aggregation from other objects.</p> <p>CUTTER_CUTTER1_CUTS Number of cuts no-units 62576.0</p> <p>AV2 no-units 20.0</p> <p>AV3 no-units 144.0</p> <p>AV4 no-units 10.0</p>

DTX-B1-MP

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.

```
1340
1349
1350
1351 }
1352
1353 /**
1354  * Event when a property value is changed on a Local object
1355  */
1356 function LocalPropertyChanged(objectType,objectInstance,propertyId,oldValue,newValue){
1357
1358
1359     //Only intrested in present value props
1360     if ( propertyId === presentValue){
1361
1362         //We are listening for changes on the AV6
1363         if ( objectType === analogValue && objectInstance === 6 ){
1364             //If the controller values is above 45
1365             if ( newValue > 45 ){
1366
1367                 //writes 10 tot AV6 on device 80363
1368                 Controller.writeProperty(80363,analogValue,6,presentValue,priority_1,10.0);
1369             }
1370         }
1371     }
1372 }
1373
1374
1375
1376 /**
1377  * Callback when this controller receives a I Am notification from a remote device on the netw
1378  * @param {Number} device - Remote device that says hello
1379  */
1380 function iAmReceived(device,mac){
1381     //print("IAM received from device:" + device + " MAC:"+mac);
1382 }
```



DTX-B1-MP

The MODBUS/IP interface to BACnet is configured by scripting. DTX core provides a set of JavaScript functions to simplify the acting as MODBUS 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 MODBUS 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 function returns an array of 'true'/'false'
417     result = ModbusTCP.readCoils("192.168.1.45",502,0,1);
418     //Updates the BV0 object's presetValue with the result from the read
419     Controller.writeProperty(80363,binaryValue,1,presetValue,priority_1,result[0]);
420 }
421
422
```



- 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.

DTX-B1-MP

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