CBM/CBT Firmware v7.6.7

Summary

This upgrade resolves an identified **CBT-STAT** communications issue and adds a number of enhancements.

Background

American Auto-Matrix received a field report indicating an issue with continuous operation of the **CBT-STAT**. This was immediately investigated and a fix identified. With the release of that fix an opportunity has been taken to deliver a number of enhancements, and to fix several other known issues.

Instructions

Installation of the firmware can be performed through a BACnet File Transfer to the controller using the NB-Pro software. It Is strongly recommended that a backup of the controller be secured prior to updating any controller firmware.

1. Perform a Device Discovery to locate the target devices.
2. Go to the *Utilities > Upload/Download* menu.
3. Select the controller you wish to upgrade the firmware for in the *Device* dropdown menu.
4. In the *Programs* list, select the "Application Firmware" region.
5. Click the *Download-->* button to select the firmware file.
6. Once the firmware file has been selected, the firmware download will begin with the status displayed in the *Progress* bar.
7. Upon completion, additional controllers can be updated by repeating steps 3-6.
8. Close the Upload/Download window and perform a Device Discovery to verify that all controllers are communicating. If a controller does not respond, it may be necessary to plug directly into the unit via a serial cable and reload the firmware through terminal mode.

The included PRO files are used to organize the BACnet Objects when a controller is viewed in the NB-Pro software. In order to use the updated PRO files, simply copy them to the Engineering Units folder of your NB-Pro installation (Default location *C:\Program Files (x86)\American Auto-Matrix\NBPro\Engineering Units*).

Features

This release fixes an issue whereby all **CBT-STAT**s will lose comms after 49.71 days of continuous operations.

If upgrading to v7.6.7 is **not** an immediate option, it is possible to work around this issue by sending a BACnet reset command to the attached controller (i.e. write a value of 1 to the Device Object's proprietary property 53843) every 30-40 days until the controller's firmware can be upgraded. For example to send the reset using **NB-Pro**:

1. Open **NB-Pro**.

2. Select Discovery > Locate Devices

3. In the Device List in the top left-hand panel, select the device object for the controller connected to the **CBT-STAT**. This will display all of the properties of the device in the Properties List in the right-hand panel.

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4. Scroll down to property no. 53843 (in **NB-Pro** this has the label "Reset/Reboot the Controller (53843)") and select it.

5. In the `Property Details` box under the `Properties List` , select the value `1 – Reset Controller` from the drop-down list.
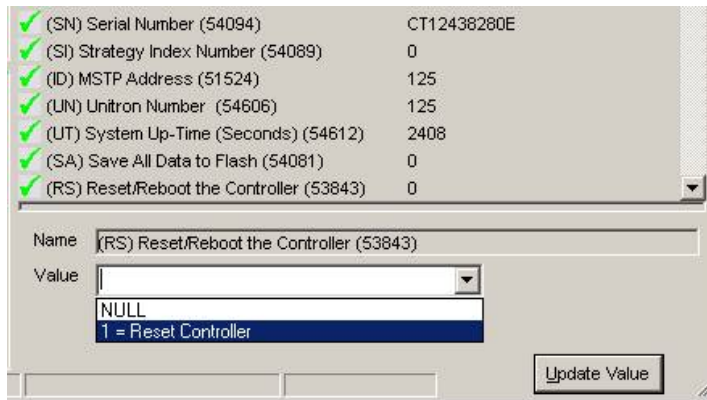
6. Click the `Update Value` button

Enhancements

- `Uniput Extract` module now detects 24 V AC

- The speed of Priority Array calculations for **CBM** has been increased

- Clear All Priority Arrays functionality added. This variable is directly accessible in all BACnet objects supporting priority arrays and can also be accessed within a strategy using a 3rd-party block targeted at the local device.

Resolved issues

CBM&CBT

- `Meter` module now clears the `Meter Counter` (pulse count) analog input after the count `Period` expires

- Analog points configured as 10 V Reference (point 9) and 13 V PSU (point 17) are now properly reflected in the strategy

- `Meter` module now responds correctly to the external sync, so that the internal time is ignored once a point is connected to the sync input

- Backup and Restore issue resolved whereby if there were a block numbered 1024 it could be deleted during the Backup and Restore procedure

- UniPuts that are configured as analog inputs now operate even when not exposed on BACnet

- Reply Postpone response problem with COV resolved

- Changing the Device instance via BACnet no longer requires the reset button to be pressed in order to sync properly

- BACnet Schedule: next-transition-state (52819) now updates automatically following a midnight transition

- Strategy no longer starts servicing before BACnet has been initialized

- Exponential filter behaviour has been made more consistent between Universal Inputs and UniPut

CBM

- The **CEC** `Clear keypad` command now wipes the user keypad programs on **CBM** controllers

- An issue with the Optimizer block on **CBM** controllers, where BACnet schedules were failing to pass on/off times to Unitron schedules, has been resolved

- On **CBM** controllers an issue has been fixed where UniPut no. 24 did not function when configured as an input

- **CBM**s can no longer be converted from BACnet to Unitron

- Fieldbus errors no longer disrupt **CBM** serial keypad comms

CBT

- **CBT-STAT** no longer loses comms after 49.71 days

- **CBT-STAT** now establishes reliable communications with the controller within 10 seconds of boot time

- **CBT12iVAV** Default Strategy no longer shows warnings during a successful boot

- BO relinquish-default on **CBT** controllers is now saved automatically

- Points `P5L3` and `P5L7` have been renamed to "`Active`" and "`Inactive`" as their previous labels were misleading

- Point `P4L2` "`Forward`" and "`Reverse`" labels have been reversed to match actual controller behaviour

- Latch modules in a **CBT** strategy are now initialized on boot in order to ensure they don't incorrectly start in the "latched" state after a power cycle

Customer Impact

Any customer affected by any of the listed issues, or wishing to avail of the listed enhancements should upgrade to this firmware version.

NOTE: All customers using **CBT-STAT** should upgrade to this version of **CBT** firmware as soon as possible.

If it is not practical to upgrade quickly, then a BACnet reset command to the attached controller (i.e. write a value of 1 to the Device Object's proprietary property 53843) every 30-40 days.