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## **No Time to Waste** **Copy Configurations Feature**

We all need to have some tools to help us gain in productivity, especially in today's market where jobs are a fast track. All Neptronic BACnet controllers have a feature called "Copy Config" that enables you, via the network, to copy the configurations of a controller to one or more controllers that require the same setup. Depending on the controller model, this tool can be accessed via the controller display or the BACnet building monitoring station (BMS).

Note that even though no BMS is present on the job site, the function can still operate, as long as the BACnet network wires are connected and controllers have been properly configured (controllers must be addressed and baud rate must be the same). The good news is that by default, the controllers are set for "Auto Baud Rate" so only the addresses must be changed. You may want to refer to the BACnet Guide, which is available online, for all wiring requirements and limitations.

There are a few guidelines to respect when executing the "Copy Config";

- The controllers must be set to "Run" mode. If in program mode, the controller will not copy.
- The controllers must be of the same type. You cannot copy the configuration of an EVCB to an EFCB controller.
- The controllers must be the same model. Even though the TUCB can be used as a fan coil controller, it cannot be copied to an EFCB or TFCB series controller.
- The controllers must have the same software/application version. We cannot copy an EVCB first generation and an EVCB second generation since the BACnet objects have changed.

Note that slave addresses can be copied, but a manual verification must be done since the slave addresses do not send a result.

These are the steps required to achieve the copy configuration feature;

- Configure the master controller that will use the "copy from" function.
- Identify the controllers that require the same configuration as the master. All controllers must have a different MAC address. The "copy config" is presented as a range and works better if addresses are sequential.
- Enter start address. This excludes the master controller.
- Enter end address. The range will be from the first address to the end address.
- Execute

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If the “copy config” was launched via the display, the results appear on the screen. A result is shown for all the copied addresses and can be viewed individually using the arrow buttons. It will show if the controller copied successfully or failed. If it failed, it also provides an error code to identify why it failed;

**"copy config succeed"** - Copy config was successful.

**"copy config progrerr"** - Copy config failed because the target device is in Program Mode.

**"copy config typeerr"** - Copy config failed because the target device is not the same as the source device.

**"copy config modlerr"** - Copy config failed because the model number of the source device and the target device are not the same. For example, copying a TROB24T4XYZ1 configuration to a TRO24T4XYZ3.

**"copy config mem err"** - Copy config failed because the software/application version of the source device and the target device are not the same.

**"copy config Slave"** - The target device has a slave address, and it cannot respond to the master. Manually verify that the configuration was copied correctly or avoid using a slave address (128 - 254).

**"copy config commerr"** - Copy config failed because the target device did not respond after 3 attempts. Either the address does not exist, or there is a problem with the wiring or with noise.

When viewed via BACnet, the results appear in the “view properties” of the “Copy Cfg Result” as shown below;

Device     AI     AV     AO     MSV  
 Groups     BI     BV     BO     Other

[View Properties](#)    [Change Value](#)

| ID ▲   | Name                      | Value       | Status |
|--------|---------------------------|-------------|--------|
| AV.150 | Floating T03/T04          | 0 %         | Ready  |
| AV.151 | Cfg_Floating T03/T04Timer | 100 Seconds | Ready  |
| AV.155 | T01Pulsing                | 0 %         | Ready  |
| AV.156 | T02Pulsing                | 0 %         | Ready  |
| AV.157 | T03Pulsing                | 0 %         | Ready  |
| AV.158 | T04Pulsing                | 0 %         | Ready  |
| AV.165 | Copy Cfg Start Address    | 5 No Units  | Ready  |
| AV.166 | Copy Cfg End Address      | 10 No Units | Ready  |
| AV.167 | Copy Cfg Result           | 5 No Units  | Ready  |
| BI.1   | Digital Input1            | [0] Open    | Ready  |
| BI.2   | Digital Input2            | [0] Open    | Ready  |
| BI.3   | Digital Input3            | [0] Open    | Ready  |

In the "View Properties", you will be able to see the results. In this case, the copy configuration is still "In Progress".

| ID ▲ | Name              | Value             |
|------|-------------------|-------------------|
| 28   | Description       | In Progress       |
| 36   | Event State       | Normal            |
| 75   | Object Identifier | AV.167            |
| 77   | Object Name       | Copy Cfg Result   |
| 79   | Object Type       | Analog Value      |
| 81   | Out Of Service    | False             |
| 85   | Present Value     | 5                 |
| 103  | Reliability       | No Fault Detected |
| 111  | Status Flags      | Ready             |
| 117  | Units             | No Units          |

In this window, you can see that the Copy Config failed "Type\_Error". This result is for the address #5

| ID  | Name              | Value             |
|-----|-------------------|-------------------|
| 28  | Description       | Type_Error        |
| 36  | Event State       | Normal            |
| 75  | Object Identifier | AV.167            |
| 77  | Object Name       | Copy Cfg Result   |
| 79  | Object Type       | Analog Value      |
| 81  | Out Of Service    | False             |
| 85  | Present Value     | 5                 |
| 103 | Reliability       | No Fault Detected |
| 111 | Status Flags      | Ready             |
| 117 | Units             | No Units          |

To see the results of the Copy Config for the other addresses, you enter the desired address here.

*To have access to the results, the "Copy Config Execute" must remain at "Yes." Once verification is done, change the value back to "No."*

Below is a table to identify the "copy config" access point for each type of controllers;

| Controller Type | Access via Display | Access via BACnet |
|-----------------|--------------------|-------------------|
| TROB24T4XYZ1    | ✓                  |                   |
| EVCB series     | ✓                  | ✓                 |
| EFCB sries      | ✓                  | ✓                 |
| TFCB series     | ✓                  |                   |
| TUCB            | ✓                  | ✓                 |
| TUHB            | ✓                  | ✓                 |
| CMMB106         |                    | ✓                 |

The BACnet objects are the same for all models except for the CMMB106. The remaining controllers use the following objects;

- AV.165 Start Address
- AV.166 End Address
- BV.90 Execute Copy Config
- AV.167 Copy Config Result

Hopefully, this feature can be of use to facilitate the implementation of the controls on job sites and help speed up the delivery.