CRESTRON HOME

- Living room:
  - 71°F: Cooling to 71°F
  - All is off

- Lake house:
  - Security system is armed away. All doors are locked, garages and gates are closed.

- Climate controls:
  - 71°F
  - 72°F Auto mode
• Major evolution of the Pyng OS
• Completely redesigned UI
  • Fully native applications
  • TSW touchscreens
• iPhone® and iPad®
  • And by the way… BACnet thermostats are already in OS 3
BACnet Thermostat Integration

- Native BACnet Thermostats built right into OS 3
- Customize the BACnet objects in the Crestron Home Setup App to match your particular installation
- To users, these will appear just like a native Crestron thermostat
- Ideal for MDUs or large homes with commercial-style HVAC systems
- Mass-deploy hundreds or thousands of MDU units by pushing out config data from the myCrestron management service.
CoolAutomation Partnership

- Native BACnet to communicate to CoolAutomation devices over BACnet IP

  CoolMasterNet

  CoolPlugs + CooLinkHub

  CooLinkBridge
Mapping Concept

- Each Element on the UI maps to a specific BACnet Object ID and Value
Getting Started

Our Goal

We are building this type of mapping that will differ for each thermostat.
BACnet and CoolMasterNet Integration

**Before you start**

- Get Crestron Home Setup app from the App Store
- Upgrade from OS 2 to OS 3
BACnet Integration

To Get Started

1. Update to OS 3
   1. Online videos to step you through that

2. CP4-R manual if you get stuck
   1. CP4-R manual covers BACnet integration
   2. CP4-R manual also covers CoolMaster integration

Download from the CP4-R product page
BACnet Integration

To discover CoolAutomation devices via BACnet

Download Yabe (Yet Another BACnet Explorer)

https://sourceforge.net/projects/yetanotherbacnetexplorer/
Important!

CoolMasterNet/CooLinkHub won’t be discovered by Crestron Home, until you turn on BACnet

- Use CoolAutomation BACnet Guidelines or Set-up utility to check if BACnet enabled, otherwise contact CoolAutomation support to enable BACnet remotely.

- BACnet guidelines are same for all CoolAutomation products

- After enabling BACnet, distribute VA’s, according BACnet Guidelines document

Note: When working with CoolMasterNet, **VA distribution can be done from touchscreen**
Click here to see how to distribute VA’s.

Note: VA’s can be distributed, only when **all** indoor units are connected.
Getting Started

Switching between Crestron Home Setup & Yabe

![Diagram showing the switching between Crestron Home Setup and Yabe.]

COOLAUTOMATION
THE INTERNET OF CLIMATE

CRESTRON HOME | OS 3
Getting Started

To get to the BACnet objects
e.g. CoolMasterNet (but same for other CoolAutomation devices)

Add CoolMasterNet to Yabe

• Press the green plus
• Then choose, “BACnet/IP over Udp”
• Click Add
Getting Started

On the Crestron Home Side

Add the BACnet thermostat to Crestron Home

- Go to the Gear menu to start configuring
- First thing we will need is the Object Id

Type in a name for the BACnet thermostat, and then click OK
Identify CoolMasterNet (BACnet thermostat)

On the BACnet Explorer Side

Using your BACnet Device Explorer, locate and click on CoolMasterNet from the Device list on the top right.
Locate and click on CoolMasterNet from the Address Space list on the bottom right
Locate and click on Object Identifier in the BACnet Property list

NOTE: in this set-up example Device ID was changed to 65. So here, Device ID was discovered as 65,
Default CoolAutomation Device ID (instance number) is 64.

On the Crestron Home Side

Back in the Crestron Home Setup window, under the Device menu, input the Instance number discovered through your BACnet device explorer as the Object id
Set the desired priority level

NOTE: All indoor units under the object id must have the same priority level.
Configure Setpoint & Room Temperature

On the BACnet Explorer Side

Identify Setpoint Configuration Values

Locate and click on CoolMasterNet from the Device list on the top right.

Locate and click on CoolMasterNet from the Address Space list on the bottom right.

From CoolMasterNet’s sub-list, locate and click on XYZ set_temp/ room_temp, where XYZ represents the indoor unit being configured.

Object Identifier in the BACnet Property list

Notate the Type and Instance values.

On the Crestron Home Side

Click on the Thermostat Setpoints menu

Set the Mode to Single

Input the Instance Number and Type discovered through your BACnet device explorer for XYZ room_temp in the Temperature field

Input the Instance Number and Type discovered through your BACnet device explorer for XYZ set_temp in the Heat Setpoint field.
Configure Fan Speed

On the BACnet Explorer Side

Locate and click on CoolMasterNet from the Device list on the top right.

CoolMasterNet's sub-list, locate and click on XYZ fan_speed, where XYZ represents the indoor unit being configured.

Locate and click on Object Identifier and State Text in the BACnet Property list.

Notate the Object Identifier, Type, and Instance values.

Notate the State Text and Object Array values.

On the Crestron Home Side

Click on the Fan Mode menu.

Set the Fan Mode to Multistate.

Input the Instance and Type discovered through your BACnet device explorer for the Dropdown Menu and Object Id field under both the in and out columns.

Input the associated State Text and Object Array values discovered through your BACnet device explorer to their corresponding fields under both the in and out columns.
Configure Thermostat (Unit) Mode

On the BACnet Explorer Side

From CoolMasterNet’s sub-list, locate and click on XYZ mode 2, where XYZ represents the indoor unit being configured.

Locate and click on Object Identifier and State Text in the BACnet Property list.

Notate the Object Identifier, Type, and Instance values.

Notate the State Text and Object Array values.

Notate the OFF Mode value, which may require scrolling, as it is often indexed within the State Text as 33.

On the Crestron Home Side

Click on the Thermostat mode menu.

Set the Thermostat Mode to Multistate.

Input the Instance and Type discovered through your BACnet device explorer for the Dropdown Menu and Object Id field under both the in and out columns.

Input the associated State Text and Object Array values discovered through your BACnet device explorer to their corresponding fields for both In and Out.
Getting Finished

Congrats!

**CoolMasterNet has now been integrated with Crestron Home!**

Return from installation mode to Home’s main page and select Climate to begin controlling and managing the units

**Test from Crestron Home**

Go back and modify the mapping if you need to
MDUs

- BACnet is ideal for MDUs or large homes with commercial-style HVAC systems
- Mass-deploy hundreds, or thousands, of MDU units by pushing out config data from the myCrestron management service.
- How to mass-deploy?
  1. Create your configuration once. Setup all of your BACnet IDs.
  2. Test on 1 system
  3. Register on myCrestron and make sure your config is backed up there.
  4. Generate Deployment Code
  5. Enter Deployment Code on N other units to pull down that same configuration