BAS Protocol Support implemented by Peak⁺ Controllers

The Peak⁺ Master controllers implement a BACnet IP or Modbus TCP server that allows a Building Management System to retrieve operational information on the Peak⁺ equipment installed on the site's HVAC systems. Each master controller is communicating with between 0 and 8 clients and provides the data listed below for itself and each of its clients.

The Master provides the following data points as Analog inputs to the BAS with the following instance numbers:

AV Index #	BACnet Point Name	Units	Channel
0	Outdoor Relative Humidity	%	Master
1	Outdoor Ambient Temp	°F	Master
2	System Water Pressure	psi	Master
3	Sensor Data Storage Rate	Hz	Master
4	Internal excitation voltage	Volts	Master

The Master and any clients associated with the master also provide the following data points for each channel that is controlled, again as Analog input:

AV Index #	BACnet Point Name	Units	Channel
5	Channel 1 Condenser Liquid Temp	°F	1
6	Channel 1 Condenser Air Temp	°F	1
7	Channel 1 Compressor Power	Watts	1
8	Channel 1 Cumulative Spray Time	Seconds	1
9	Channel 2 Condenser Liquid Temp	°F	2
10	Channel 2 Condenser Air Temp	°F	2
11	Channel 2 Compressor Power	Watts	2
12	Channel 2 Cumulative Spray Time	Seconds	2

Each Master or Client can control 2 independent spray channels and the BACnet point names reflect which controller channel is represented. All the channels are assigned a unique number starting with 1 for all channels managed by a given Master. This unique number is used to create the instance numbers for the BAS points and is used in place of the # in the above tables. Peak⁺ will provide a mapping of the BAS AV Index # numbers for all the points and the HVAC systems that they are attached to.

The BACnet implementation supports a BACnet IP interface with a default UDP port of BAC0 (47808) and an IP address of 192.168.86.209.

The Modbus implementation supports a Modbus IP interface with a default TCP port of 502 and the IP address is defined during integration. Endianness is also configurable.

These can be customized to fit the customer's specific needs. Contact Peak⁺ to request desired changes.