Setra CEMS Helpful Procedures:

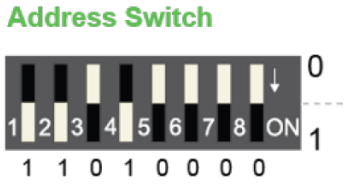
SRH Configuration of BACnet Objects using YABE

Why this needs to happen?

- It is what we call a "Local" matter. This means the installer has to take owner ship of addressing it correctly. BACnet doesn't have an auto negotiate feature.
- As the manufacturer, there is no way we can guarantee that the addresses would be unique in all systems. It would also put undo strain on the production cell.

How to change the MAC Address on SRH

1. Remove the unit's faceplate.
2. You will see an address switch (pictured below).



Example: Slave address set to 11 (= 0000 1011 binary).

3. Use table below to guide you in reprogramming the MAC addresses. Be mindful of what other devices are set to. These need to be unique throughout your BACnet network.

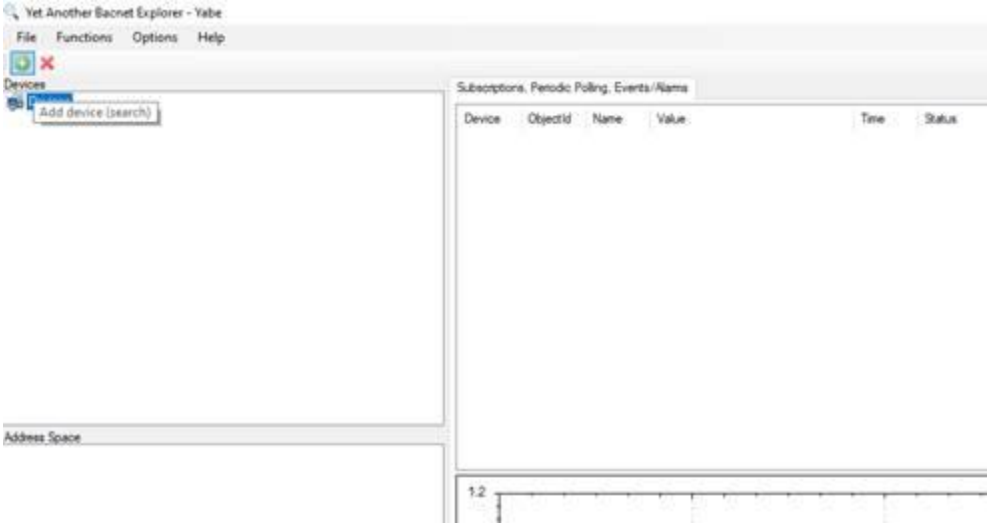
dec	binary	dec	binary	dec	binary	dec	binary
0	00000000	32	00100000	64	01000000	96	01100000
1	00000001	33	00100001	65	01000001	97	01100001
2	00000010	34	00100010	66	01000010	98	01100010
3	00000011	35	00100011	67	01000011	99	01100011
4	00000100	36	00100100	68	01000100	100	01100100
5	00000101	37	00100101	69	01000101	101	01100101
6	00000110	38	00100110	70	01000110	102	01100110
7	00000111	39	00100111	71	01000111	103	01100111
8	00001000	40	00101000	72	01001000	104	01101000
9	00001001	41	00101001	73	01001001	105	01101001
10	00001010	42	00101010	74	01001010	106	01101010
11	00001011	43	00101011	75	01001011	107	01101011
12	00001100	44	00101100	76	01001100	108	01101100
13	00001101	45	00101101	77	01001101	109	01101101
14	00001110	46	00101110	78	01001110	110	01101110
15	00001111	47	00101111	79	01001111	111	01101111
16	00010000	48	00110000	80	01010000	112	01110000
17	00010001	49	00110001	81	01010001	113	01110001
18	00010010	50	00110010	82	01010010	114	01110010
19	00010011	51	00110011	83	01010011	115	01110011
20	00010100	52	00110100	84	01010100	116	01110100
21	00010101	53	00110101	85	01010101	117	01110101
22	00010110	54	00110110	86	01010110	118	01110110
23	00010111	55	00110111	87	01010111	119	01110111
24	00011000	56	00111000	88	01011000	120	01111000
25	00011001	57	00111001	89	01011001	121	01111001
26	00011010	58	00111010	90	01011010	122	01111010
27	00011011	59	00111011	91	01011011	123	01111011
28	00011100	60	00111100	92	01011100	124	01111100
29	00011101	61	00111101	93	01011101	125	01111101
30	00011110	62	00111110	94	01011110	126	01111110
31	00011111	63	00111111	95	01011111	127	01111111

4. Once programmed, add faceplate back on

How to change BACnet objects using YABE

IMPORTANT NOTE:
You need to work with one SRH online at a time because the SRHs are defaulted to the same values and would cause a network conflict. This is also due to the fact that they are daisy chained. The communication wiring is in series.
It might work to just disconnect the MS/TP network (A/B) wiring from the SRH instead of the voltage.

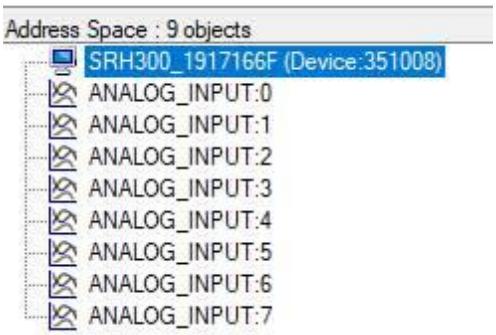
1. Open YABE
2. Click the Add Device button:



3. Chose the correct BACnet communication mode
4. Navigate to and click the SRH in your tree of Devices:

Changing Device Instance and/or Baud Rate

1. Navigate to and click the Device Object under the Address Space



2. Navigate to and expand the Object Identifier in the BACnet Property

Properties

Bacnet Property	
512 - Proprietary	38400-8n1
Apdu Timeout	3000
Application Software Version	1.8
Database Revision	1
Description	SRH300D
Device Address Binding	
Firmware Revision	1.8
Location	USA
Max Apdu Length Accepted	480
Max Info Frames	1
Max Master	127
Model Name	SRH300D
Number Of Apdu Retries	3
Object Identifier	OBJECT_DEVICE:351008
Instance	**351008**
Type	**OBJECT_DEVICE**
Object List	Object[] Array
Object Name	SRH300_1917166F
Object Type	8 : Object Device
Protocol Object Types Supported	10000000100000000000000000000000000000000000000000000000
Protocol Revision	10
Protocol Services Supported	00000000000010110100100000001000011000000
Protocol Version	1
Segmentation Supported	3 : None
System Status	0 : Operational
Vendor Identifier	351
Vendor Name	SETRA SYSTEMS

3. Change the instance to whatever you would like it to be as long as it is unique in the ENTIRE system

Changing Baud Rate

1. Navigate to 512 – Proprietary
    a. It is important to have all BACnet devices on the same Baud Rate
2. For changing the RS485 communication parameters it is relevant to observe the character string format
3. The character string consists of following parts:

    a. Baud rate (9600, 19200, 38400, 57600, 76800, 115200)
    b. “-“
    c. Number of data bits (7, 8) 4. Parity (no, even, odd)
    d. Number of stop bits (1, 2)
4. Example: Change parameters to: Baud = 76800, 8 data bits, no parity, 1 stop bit: Write a string value of “76800-8n1”