



## Hűtés-fűtés fokongkenti állítása az iNELS-BUS rendszerben

1. A legfrissebb fw. verzióban nem indul el automatikusan a hűtés-fűtés. Ha ez a cél, akkor „system start” eseményre el kell indítani az adott időprogramot. Célszerű késleltetve indítani (5s), hogy a rendszer megfelelően betöltsön minden komponenst mire a fűtés-hűtés indulna.

- a. funkciók létrehozása:

### Functions manager

**hc\_start**  
Heat/Cool - Start time program

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**system\_start**  
Digital - Delay switch ON  
Delay (s): 00:00:05.000

- b. bit létrehozása:

**System manager**

Timers | Counters | Heat/Cool areas | System programs | System bits | System integers

System bits

+ Add bit - Remove bit

0. [OFF] system\_start\_bit

- c. fűtés időprogram létrehozása:

**System manager**

Timers | Counters | Heat/Cool areas | System programs | System bits | System integers

Programs

- System START (Periodical)
- heat\_prog (Heat/Cool)**
- cool\_prog (Heat/Cool)

Program detail

Program type: HeatCool  
Program name: heat\_prog

Heat/Cool range

Type	Minimum	Attenuation	Normal	Comfort
Heating	Heating value: 15.0	18.0	20.0	24.0
Cooling value				

Heat/Cool program

Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday

03:00 | 06:00 | 09:00 | 12:00 | 15:00 | 18:00 | 21:00

Comfort  
Normal  
Attenuation  
Minimum

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

Alias:   
Is used:

Close





d. „hűtés” időprogram létrehozása:

The screenshot shows the 'System manager' interface. The 'Programs' list on the left includes 'System START (Periodical)', 'heat\_prog (Heat/Cool)', and 'cool\_prog (Heat/Cool)'. The 'Program detail' window for 'cool\_prog' is open, showing the following settings:

- Program type: HeatCool
- Program name: cool\_prog
- Heat/Cool range:
 

Type	Minimum	Attenuation	Normal	Comfort
Cooling	Heating value			
	Cooling value	32.0	30.0	28.0
			26.0	
- Heat/Cool program: A 24-hour schedule graph showing levels for Comfort, Normal, Attenuation, and Minimum. The Minimum level is active from 03:00 to 21:00.
- Alias: (empty)
- Is used:

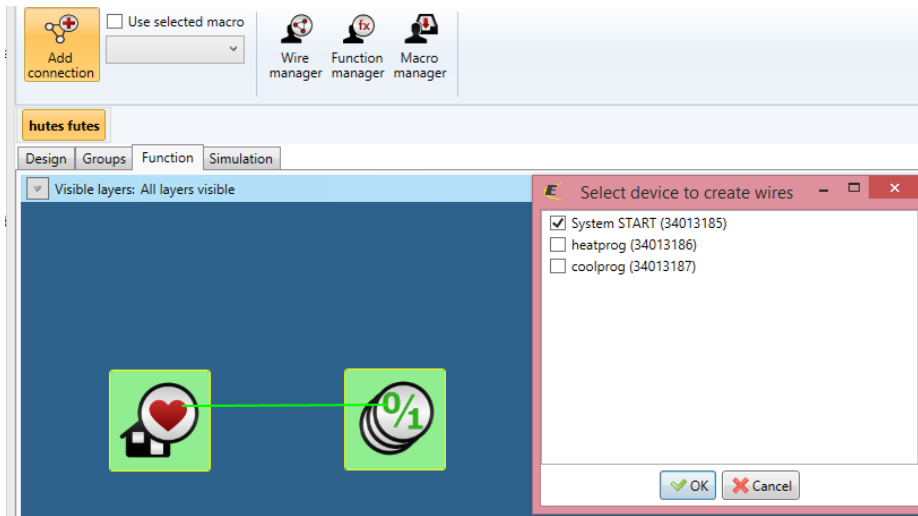
e. fűtött-hűtött helyiség létrehozása:

The screenshot shows the 'System manager' interface. The 'Heat/Cool list' on the left includes 'room\_HCA (heat\_prog.cool\_prog)'. The 'Detail' window for 'room\_HCA' is open, showing the following settings:

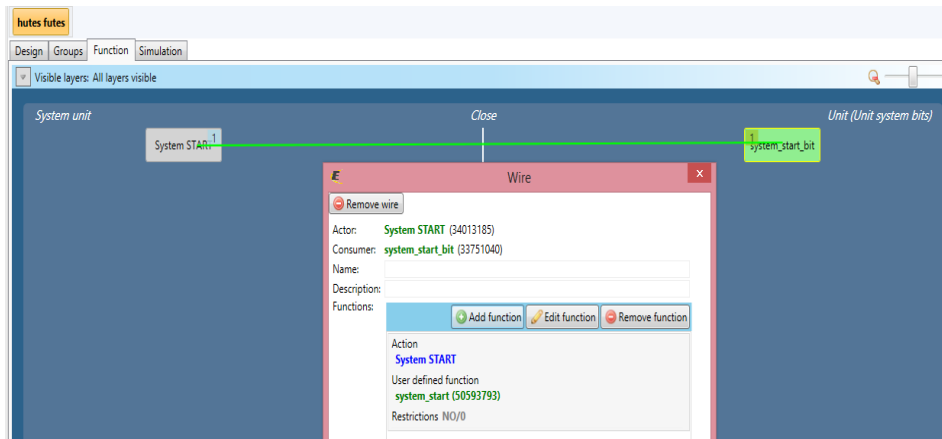
- Name: room\_HCA
- Used program: heat\_prog (selected) / cool\_prog (selected)
- Heat output: RE1 -> (000020)
- Heat supply: RE2 -> (000020)
- Cool output: RE3 -> (000020)
- Cool supply: RE4 -> (000020)
- Term sensor: Inter-Therm -> (0000)
- Controller: (empty)
- Hysteresis: 0.1
- Alias: room\_HCA
- Is used:



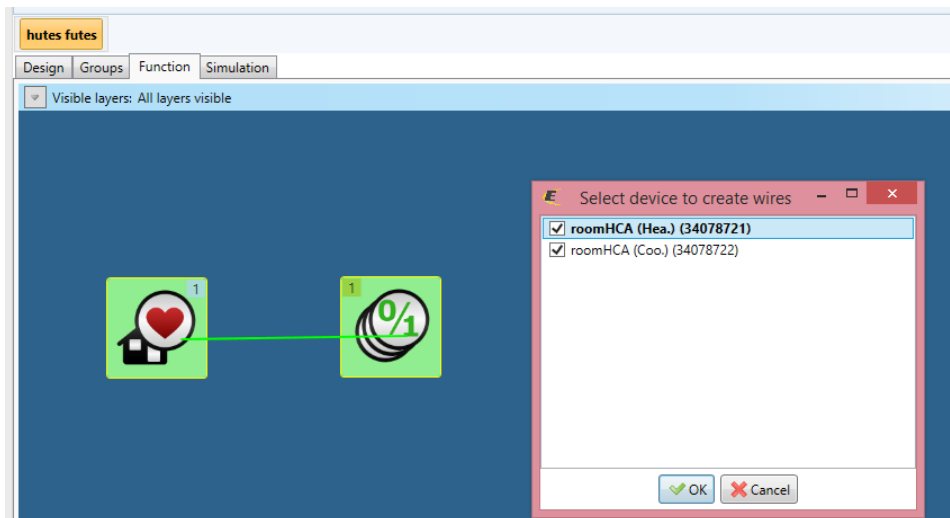
f. huzalozás:



g. huzalozás:

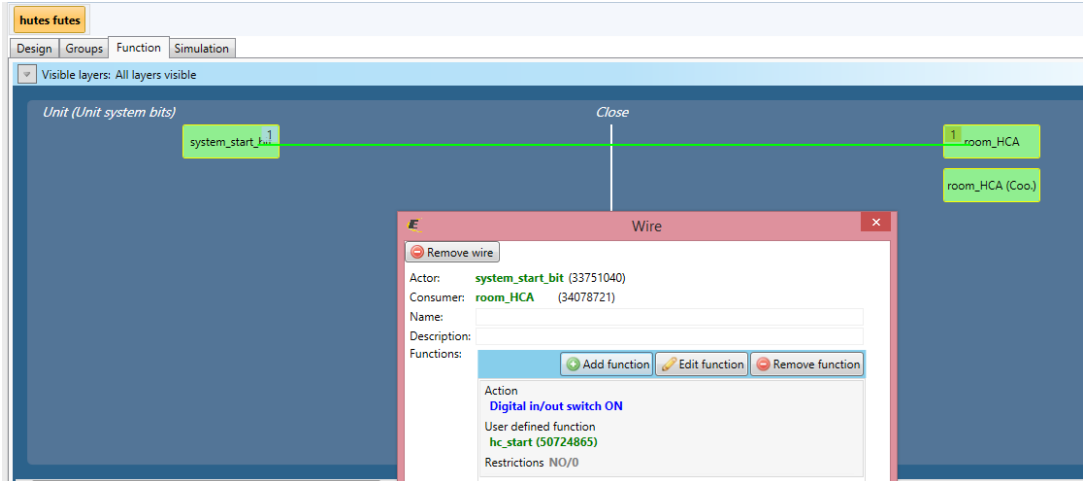


h. huzalozás:

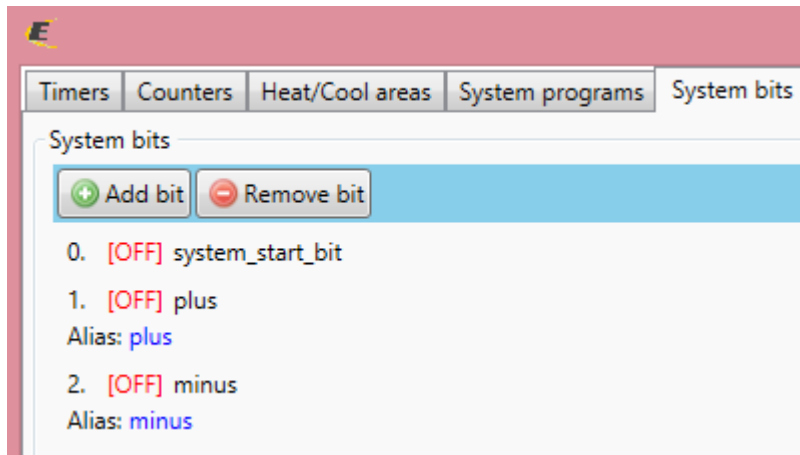




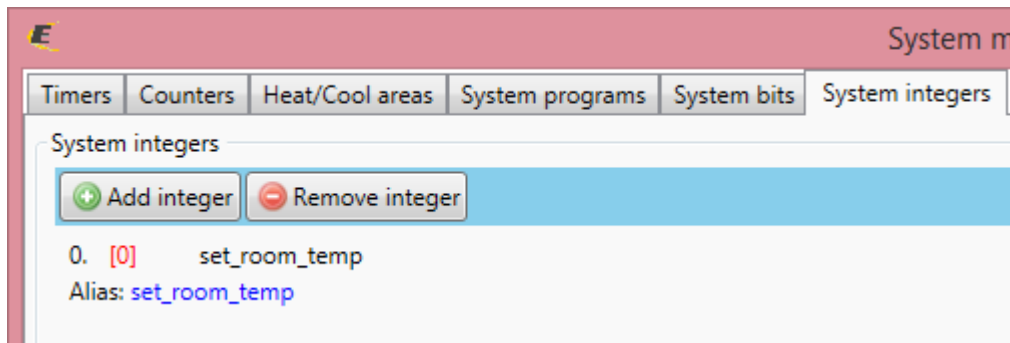
i. huzalozás:



2. Szükség van egy növelő és egy csökkentő gombra:



3. Továbbá egy számra, amelyet felhasználunk a hőfokok állítására:





4. Tegyük fel, hogy 20°C-tól 25°C-ig kérik fokonként állítani a fűtési hőmérsékletet. Ehhez létre kell hozni minden hőmérséklethez egy beállító funkciót:

### Functions manager

+

**system\_start**  
Digital - Delay switch ON  
Delay (s): 00:00:05.000

---

**H20C**  
Heat/Cool - Set Heat temperature  
Temperature: 20

---

**H21C**  
Heat/Cool - Set Heat temperature  
Temperature: 21

---

**H22C**  
Heat/Cool - Set Heat temperature  
Temperature: 22

---

**H23C**  
Heat/Cool - Set Heat temperature  
Temperature: 23

---

**H24C**  
Heat/Cool - Set Heat temperature  
Temperature: 24

---

**H25C**  
Heat/Cool - Set Heat temperature  
Temperature: 25

5. Tegyük fel, alaphelyzetben 20°C a hőmérséklet kért a megrendelő, ezt állítjuk be rendszerinduláskor:

- a. integer beállító funkció:

**int\_set\_20**  
System int - Set value  
Value (%): 20

- b. start eseményre használjuk a funkciót:

The screenshot shows a software interface with a 'hutes futes' window. It displays a 'Unit (Unit system bits)' with a 'system\_start\_bit\_1' component and a 'set\_room\_temp' component. A green wire connects them. A 'Wire' dialog box is open, showing the configuration for the 'Digital in/out switch ON' action, which calls the 'int\_set\_20' function.

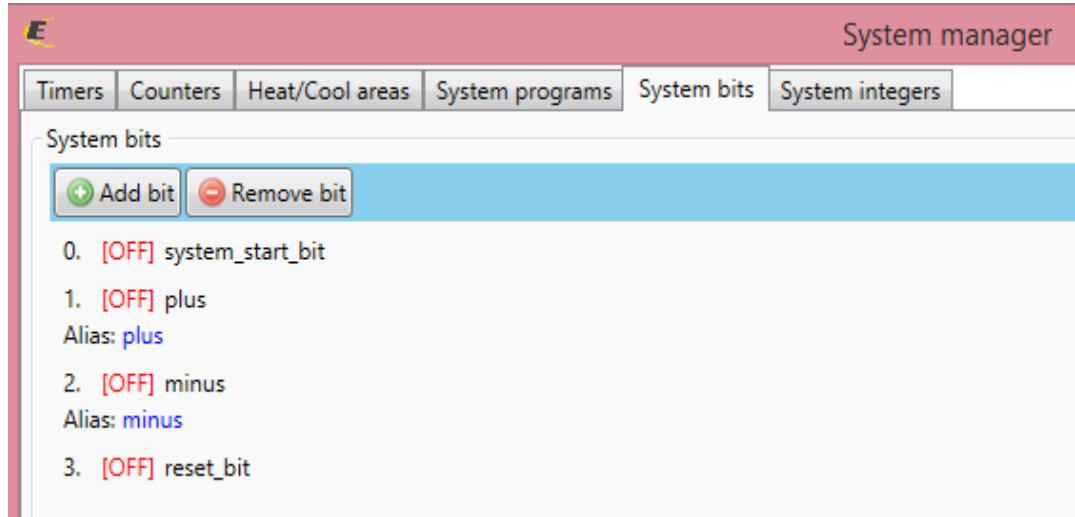


6. Huzalozzuk össze a növelő-csökkentő gombokat!

Kényelmi funkció:

Miután a felhasználó megnyomta a „növel” vagy „csökkent” gombot, akkor 1s múlva szeretnénk, ha magától kialudna, hogy ne kelljen utólag kézzel kapcsolgatni. Ehhez egy kioltó bitet használunk, egyúttal reteszeljük a +/- gombot:

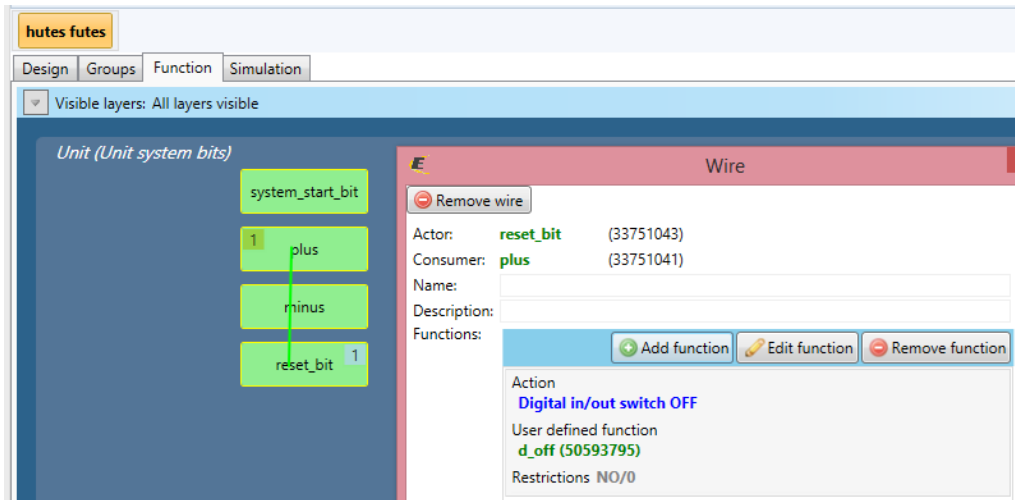
a. bit létrehozás:



b. funkciók létrehozása:



c. huzalozás:





d. huzalozás:

The screenshot shows the 'hutes futes' project in the 'Function' tab. On the left, a 'Unit (Unit system bits)' contains components: 'system\_start\_bit', 'plus' (1), 'minus' (1), and 'reset\_bit' (2). A wire connects the 'reset\_bit' component to the 'minus' input of the 'reset\_bit' component. On the right, the 'Wire' configuration panel is open, showing:
 

- Remove wire button
- Actor: **reset\_bit** (33751043)
- Consumer: **minus** (33751042)
- Name: (empty)
- Description: (empty)
- Functions: Add function, Edit function, Remove function
- Action: **Digital in/out switch OFF**
- User defined function: **d\_off (50593795)**
- Restrictions: NO/0

e. huzalozás:

The screenshot shows the 'hutes futes' project in the 'Function' tab. On the left, a 'Unit (Unit system bits)' contains components: 'system\_start\_bit', 'plus' (1), 'minus' (1), and 'reset\_bit' (2). A wire connects the 'plus' component to the 'reset\_bit' component. On the right, the 'Wire' configuration panel is open, showing:
 

- Remove wire button
- Actor: **plus** (33751041)
- Consumer: **reset\_bit** (33751043)
- Name: (empty)
- Description: (empty)
- Functions: Add function, Edit function, Remove function
- Action: **Digital in/out switch ON**
- User defined function: **reset\_buttons (50593794)**
- Restrictions: NO/0

f. huzalozás:

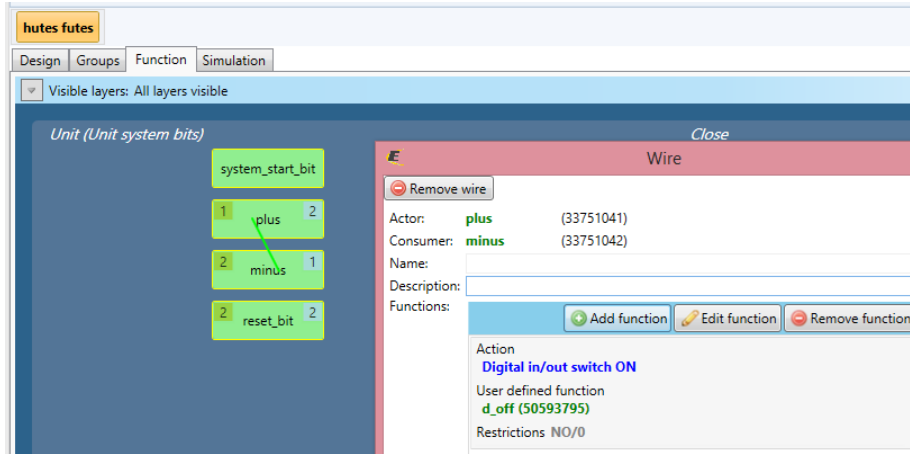
The screenshot shows the 'hutes futes' project in the 'Function' tab. On the left, a 'Unit (Unit system bits)' contains components: 'system\_start\_bit', 'plus' (1), 'minus' (1), and 'reset\_bit' (2). A wire connects the 'minus' component to the 'reset\_bit' component. On the right, the 'Wire' configuration panel is open, showing:
 

- Remove wire button
- Actor: **minus** (33751042)
- Consumer: **reset\_bit** (33751043)
- Name: (empty)
- Description: (empty)
- Functions: Add function, Edit function, Remove function
- Action: **Digital in/out switch ON**
- User defined function: **reset\_buttons (50593794)**
- Restrictions: NO/0

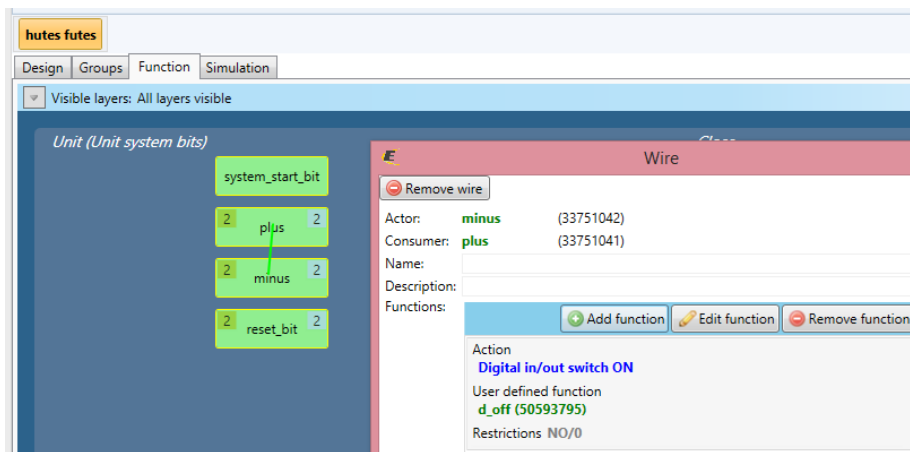




g. huzalozás:

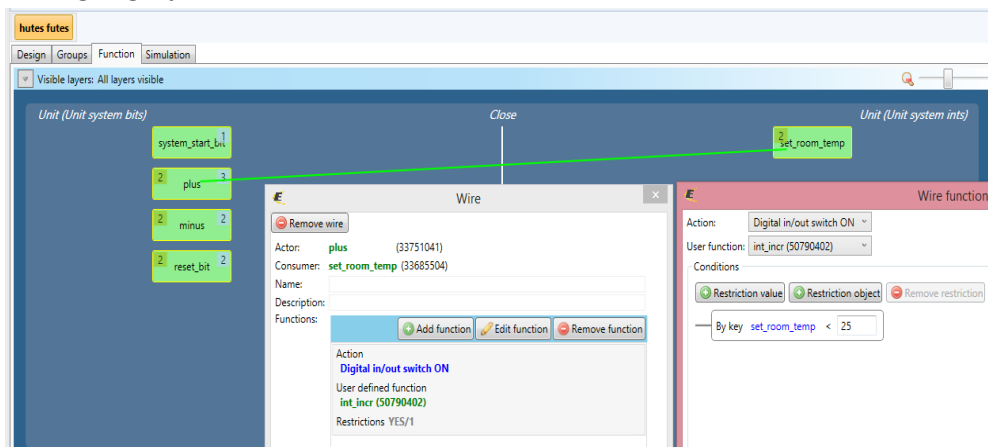


h. huzalozás:



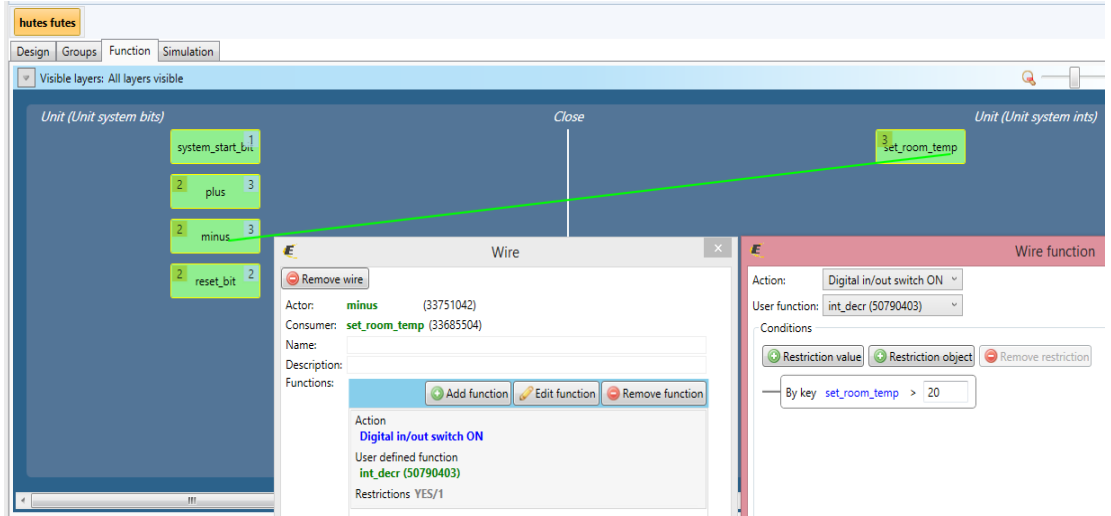
7. Állítsuk be a gombnyomásra az integer kezelését, amely az előírt hőmérsékletet jelenti:

a. 25°C-ig engedjük növelni:



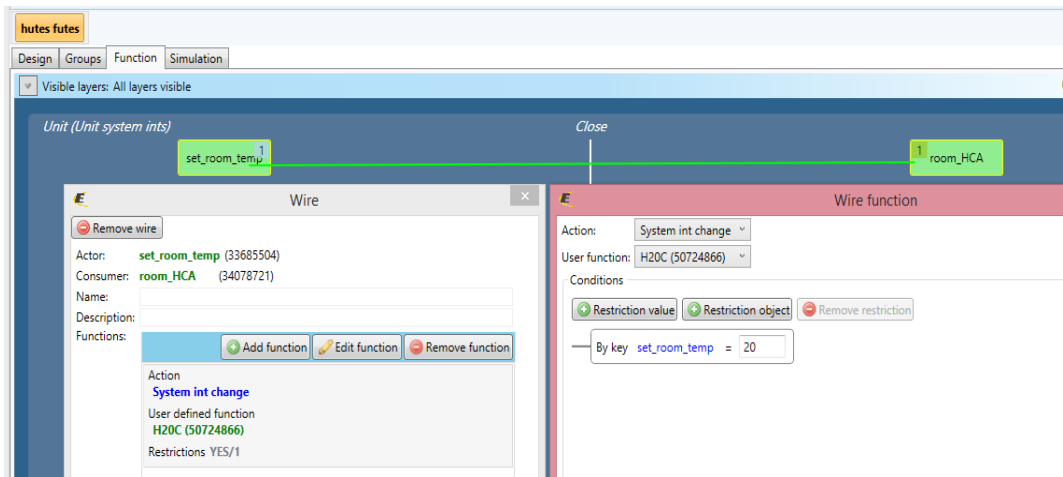


b. 20°C-ig engedjük csökkenteni:

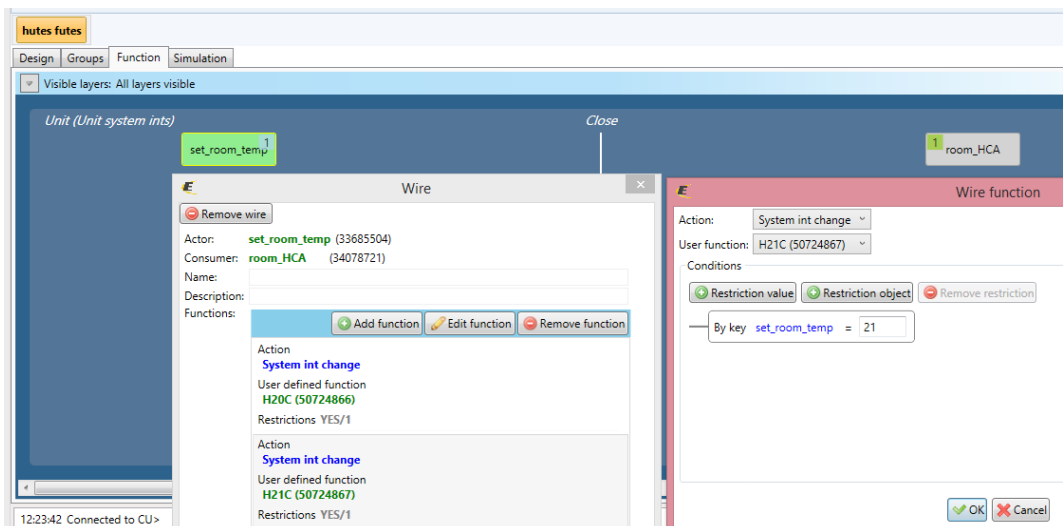


8. A hőmérsékletek tényleges állítása maradt még hátra a fűtésprogramra:

a. 20°C:



b. 21°C:





c. 22°C:

d. 23°C:

e. 24°C:





f. 25°C:

9. Exportáljuk ki az „alias” neveket a publikus/Connection Server-re!

10. Állítsuk be a felületet:

Row	Name	Type	Column	Attributes	Actions
1	hűtés-fűtés	heat control	2	hca room_HCA_HC therm room_HCA_Temperature rele_h room_HCA_RES rele_c room_HCA_2nd_RES read_only no	DOWN REMOVE
1	beállított hőn	meteostation	2	inels set_room_temp koef_mult 1 koef_add 0.0 max_disp 40 min_disp 0 decimal_digits 1 units °C	UP DOWN REMOVE
2	+	blank	1	inels plus read_only no	DOWN REMOVE
2	-	blank	2	inels minus read_only no	UP DOWN REMOVE

Készen is vagyunk!

