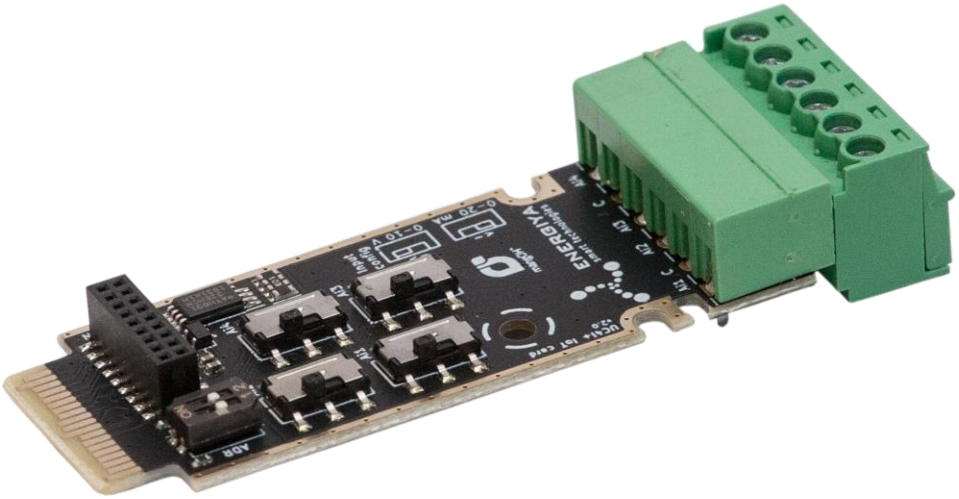
Universal Converter +

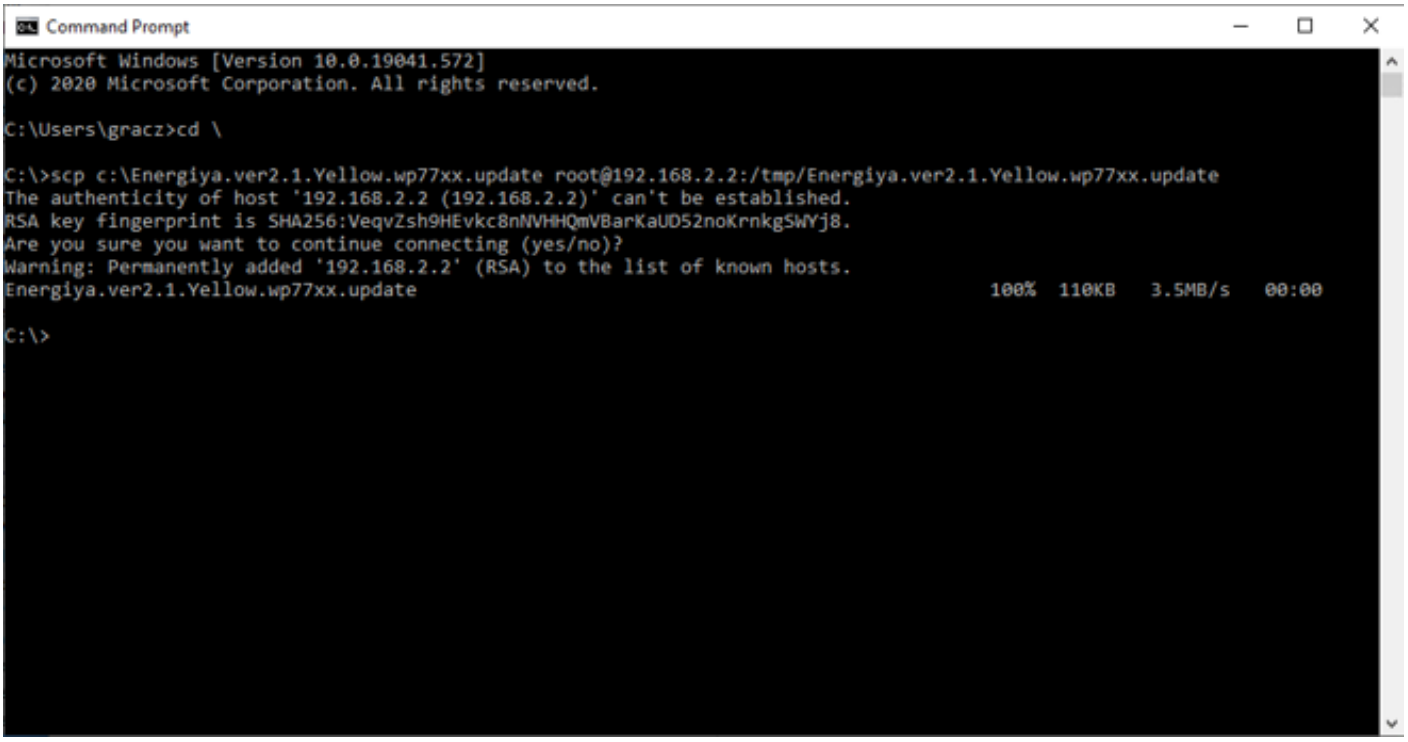
Octave integration



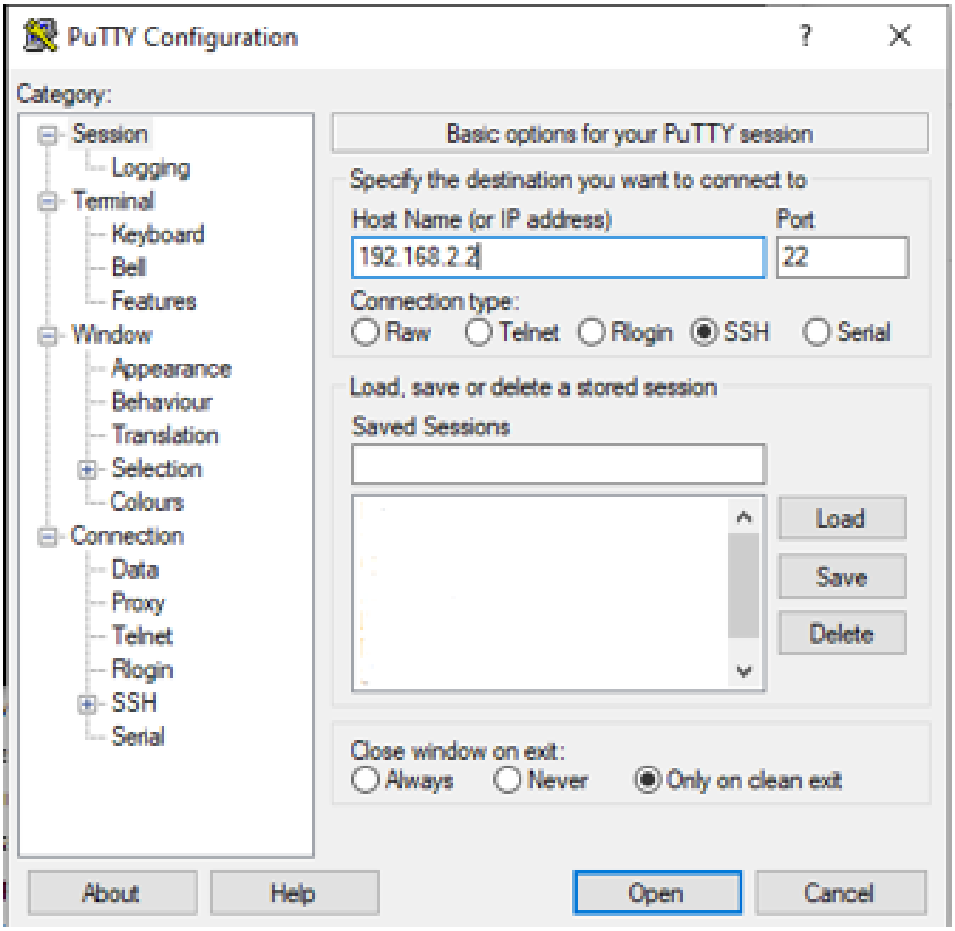
Octave™

Octave installation process

1) **Download the file for your unit (Octave FX30 / Octave mangOH Red / Octave mangOH Yellow) from energiya.pl website.**
2) **Unzip downloaded file and copy to folder C:\.**
3) **If you are Windows user, please install drivers for your unit from: mangoh.io/getting-started website or official SierraWireless website: source.sierrawireless.com/resources/.**
4) **Run cmd (Command Prompt) on your Windows or open Terminal on your Linux.**
5) **Type the correct path and file name:**
   scp c:\<*file_name*>.update root@192.168.2.2:/tmp/<*file_name*>.update **,**
   for example:
   scp c:*Energiya.ver2.2.Yellow.wp77xx.20.04*.update root@192.168.2.2:/tmp/ *Energiya.ver2.2.Yellow.wp77xx.update* **.**

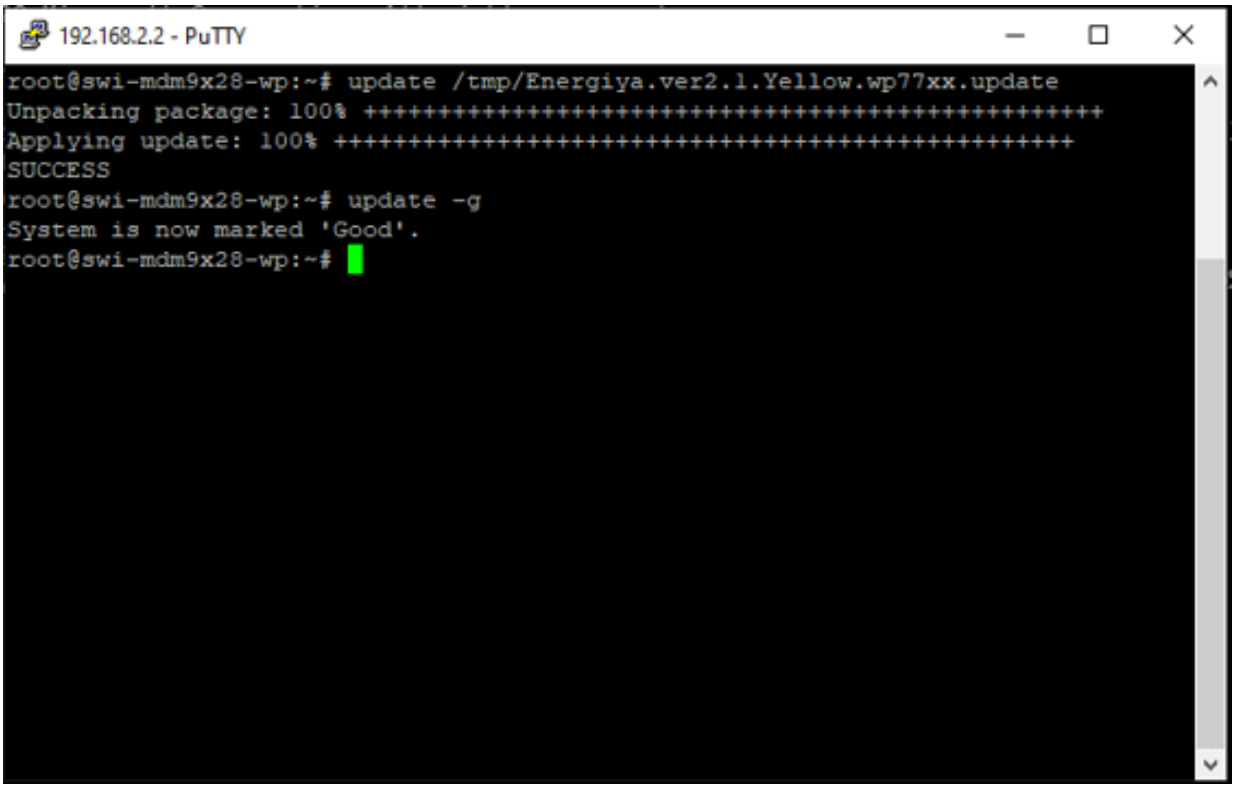


6) **The program is on your unit now:**
   a) **if you are Linux user: open the Terminal and type** *ssh root@192.168.2.2*,
   b) **if you are Windows user: use PuTTY, type IP** *192.168.2.2*, **port** *22*, **connection type** *SSH* **and press** *Open*. **Example below:**



7) **Type command in terminal:**
update /tmp/*<file_name>*.update **,**
for example:
update /tmp/*Energiya.ver2.2.Yellow.wp77xx.20.04.*update **.**

8) **Mark system as 'good' by typing** update -g**.**



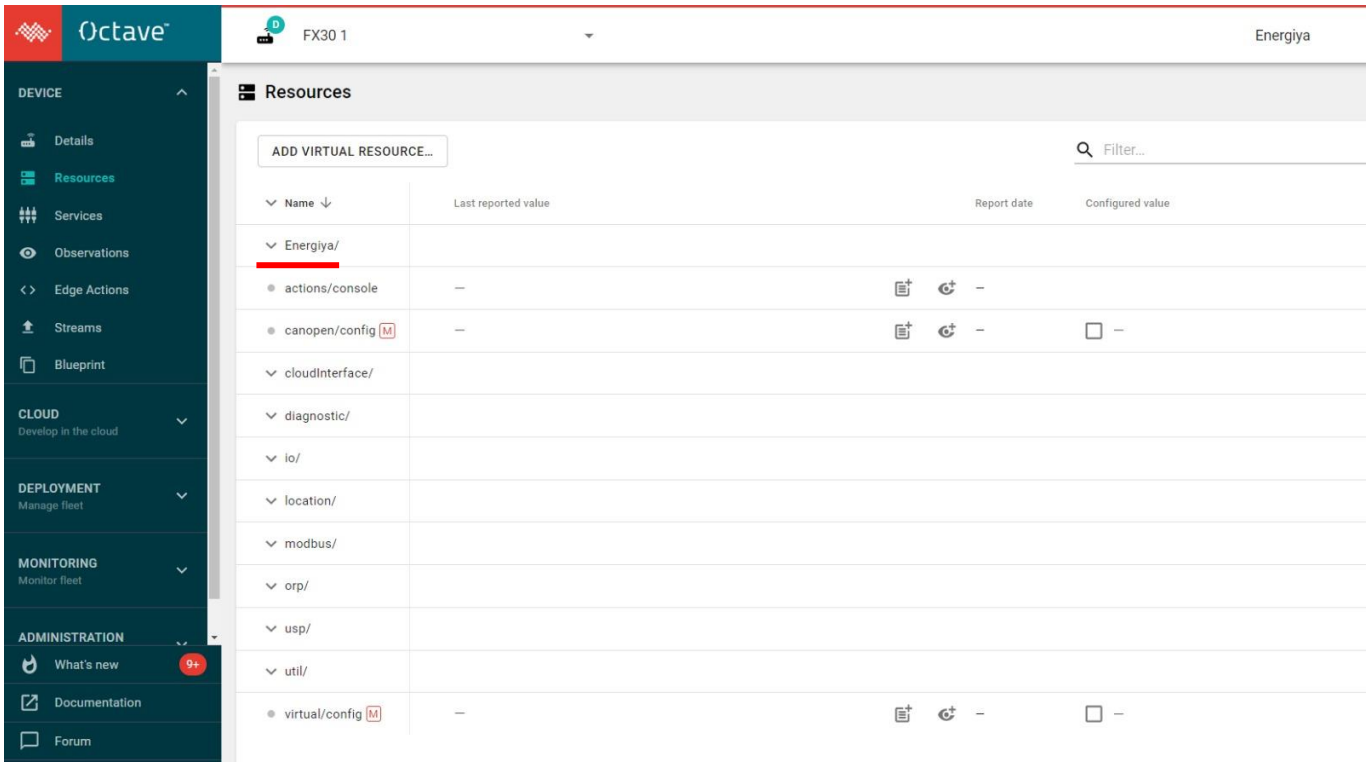
9) **App is installed. You have to insert Energiya IoT card and reset the device.**

10) **All resources will appear on your Octave.**
Please watch demo video on our YT channel: https://youtu.be/SJqTIvSgu_c
All IoT documentation is available on our website: https://energiya.pl/produkty/

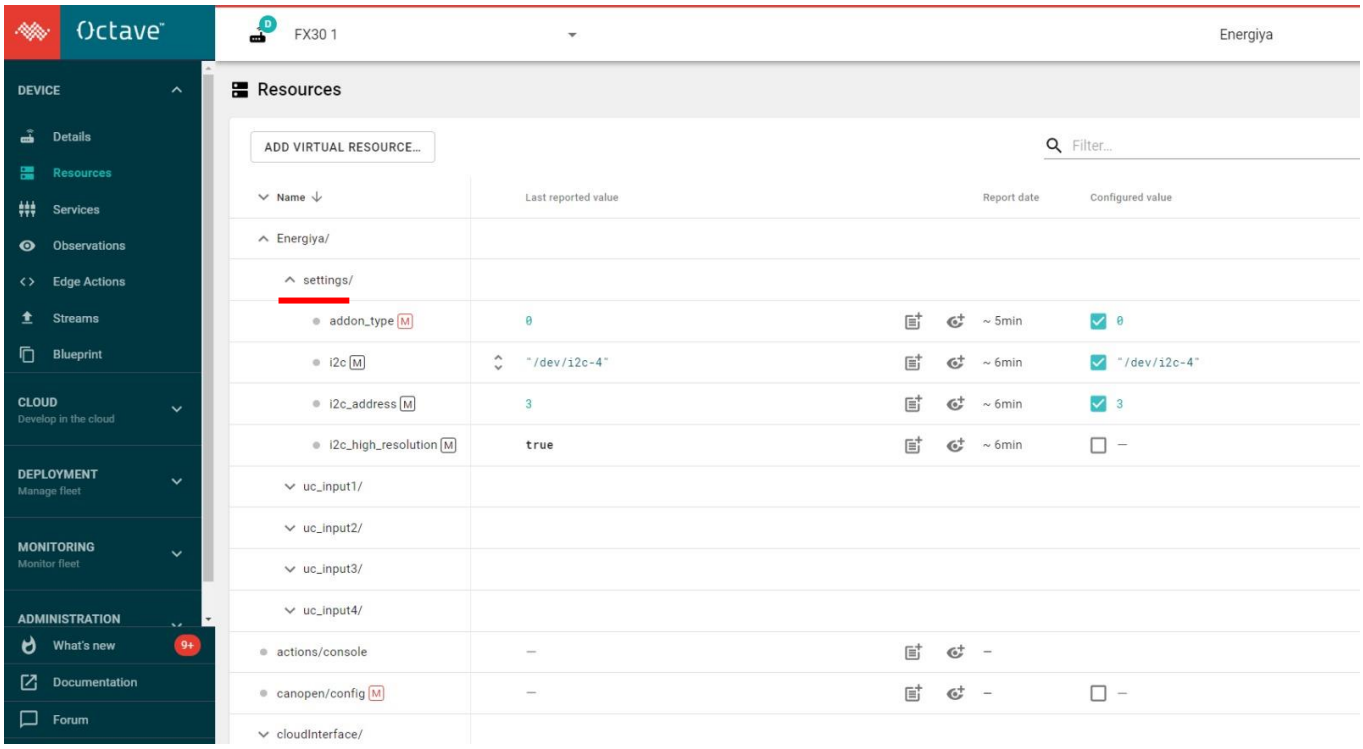
Octave configuration procedure

1) **Insert Universal Converter IoT card to FX30/FX30S device.**
2) **Install / start Energiya software.**

After two initial steps Energiya will appear in Octave:



When Energiya → settings is expanded, below options will appear:



addon_type – value 0 : no addON,
value 1 : 4 inputs addON,
value 2 : 4 outputs addON,
value 3 : 2 inputs 2 outputs addON,
value 4 : 8 inputs addON.

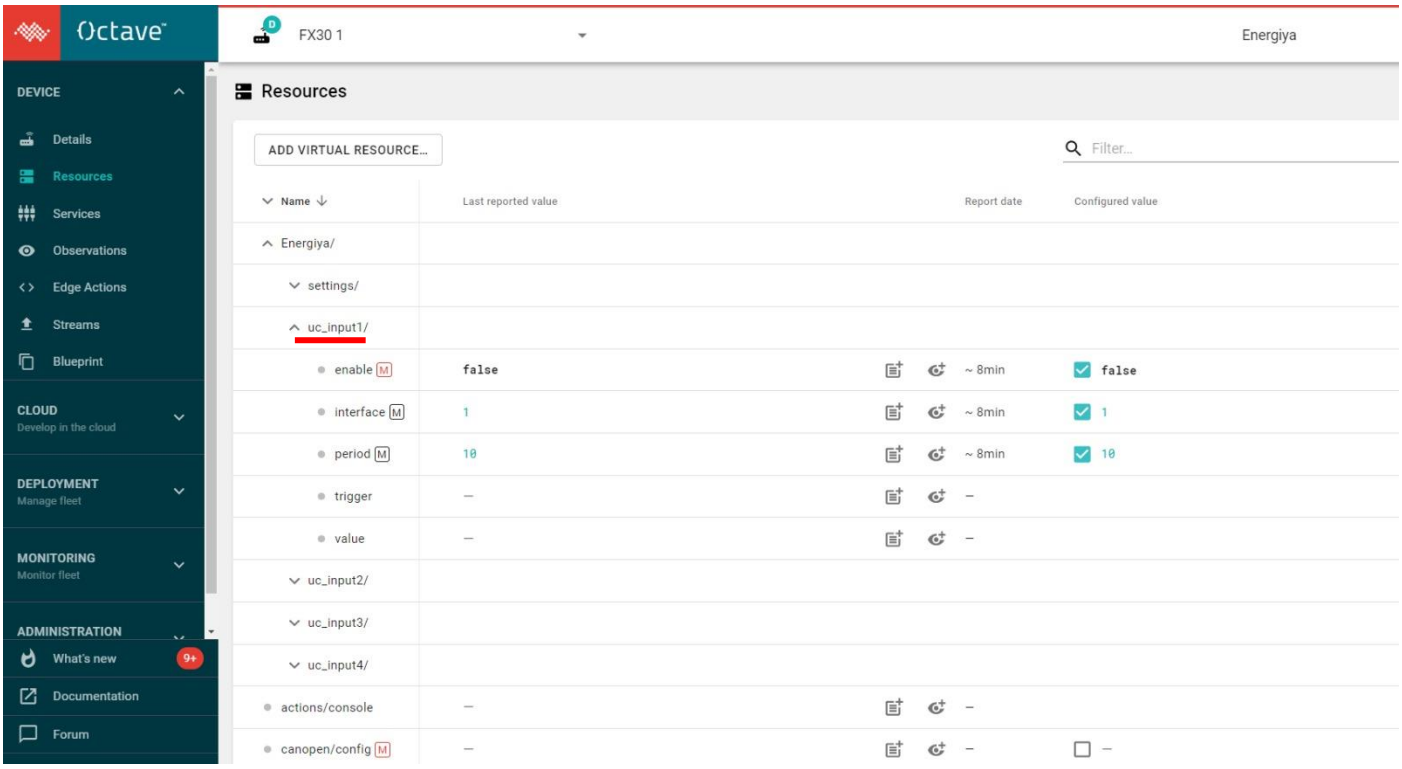
i2c – file descriptor.

i2c_address – value 0 : I^2C address 0x68,
value 1 : I^2C address 0x6C,
value 2 : I^2C address 0x6A,
value 3 : I^2C address 0x6E.

i2c_address – value true : 15 SPS (16 bit resolution),
value false : 240 SPS (12 bit resolution).

3) Inputs details are under uc_input1, uc_input2, uc_input3, uc_input4.

When Energiya → uc_input**n** is expanded, below options will appear:



enable – value true : makes the input enabled,
value false : makes the input disabled.

interface – value 0 : 0-20 mA,
value 1 : 4-20 mA,
value 2 : 0-10 V.

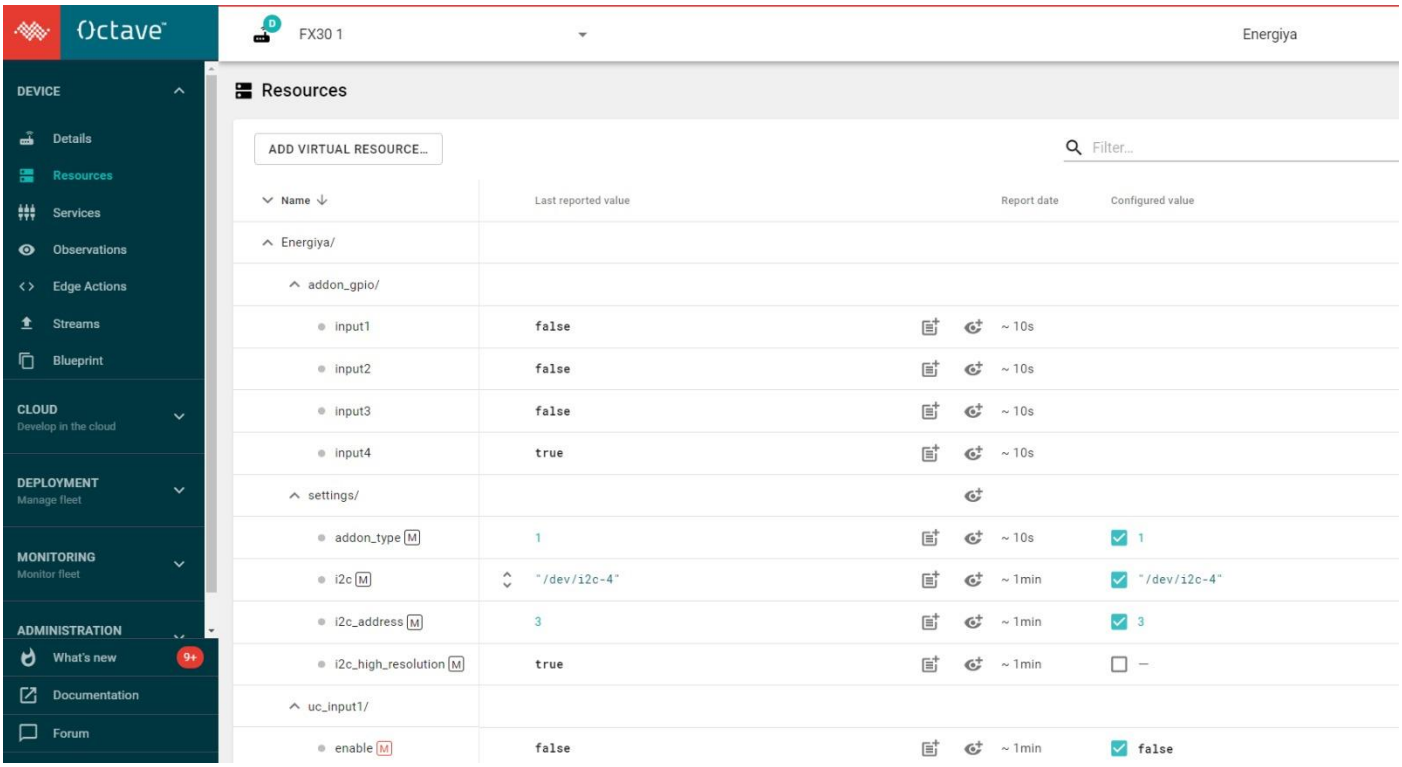
period – sets measure interval in seconds (set 0 to disable period).

trigger – triggers measurement.

value – result of measurement in percents:
- – 0-20 mA : from 0 mA (0%) to 20 mA (100%)
- – 4-20 mA : from 4 mA (0%) to 20 mA (100%)
- – 0-10 V : from 0 V (0%) to 10 V (100%)

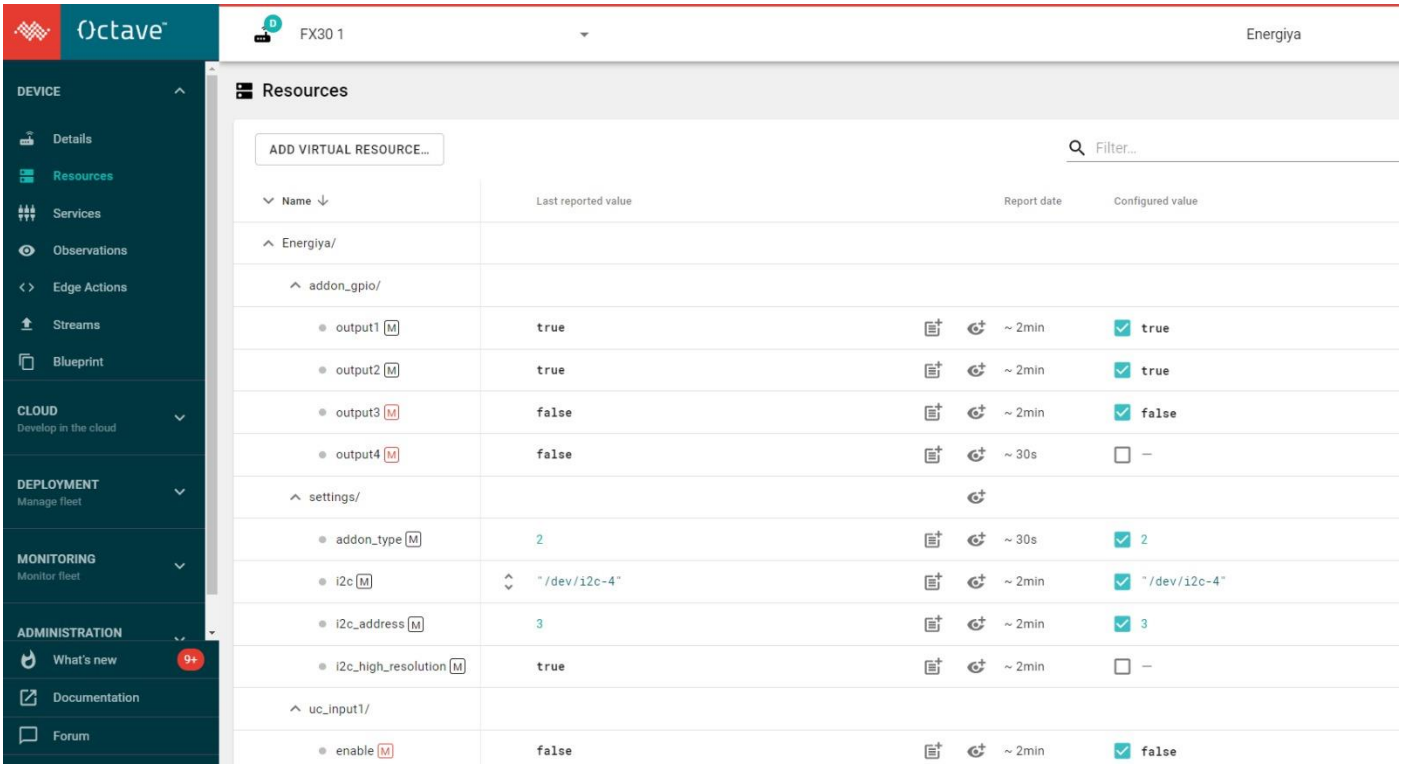
4) AddONs are chosen in settings in addon_type option:

- When addon_type = **0** is set, no addon is connected, no additional resources will be created (addon_gpio)
- When addon_type = **1** is set, resources for addON 4i (4 input) are created (addon_gpio)



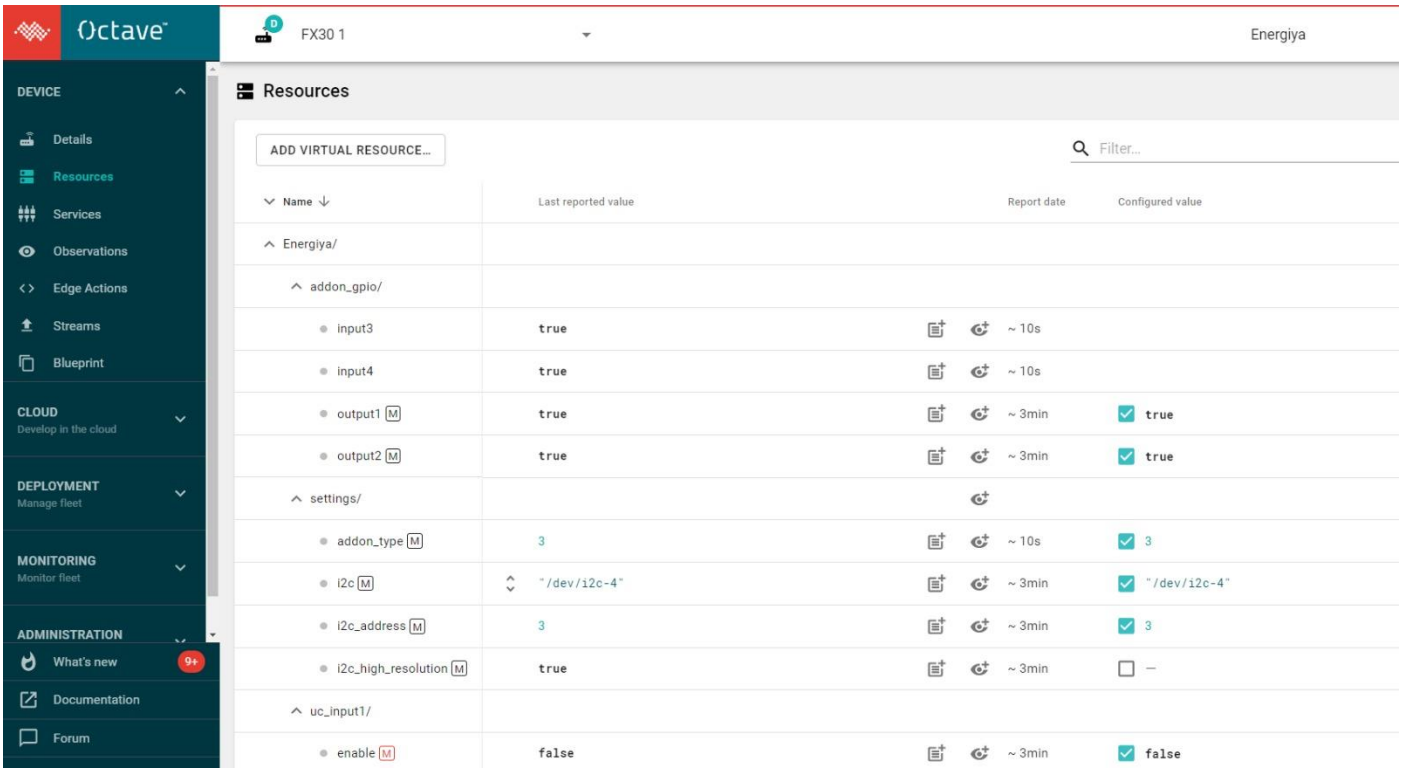
input**n** – shows status of GPIO**n**.

- When addon_type = **2** is set, resources for addON 4o (4 output) are created (addon_gpio)



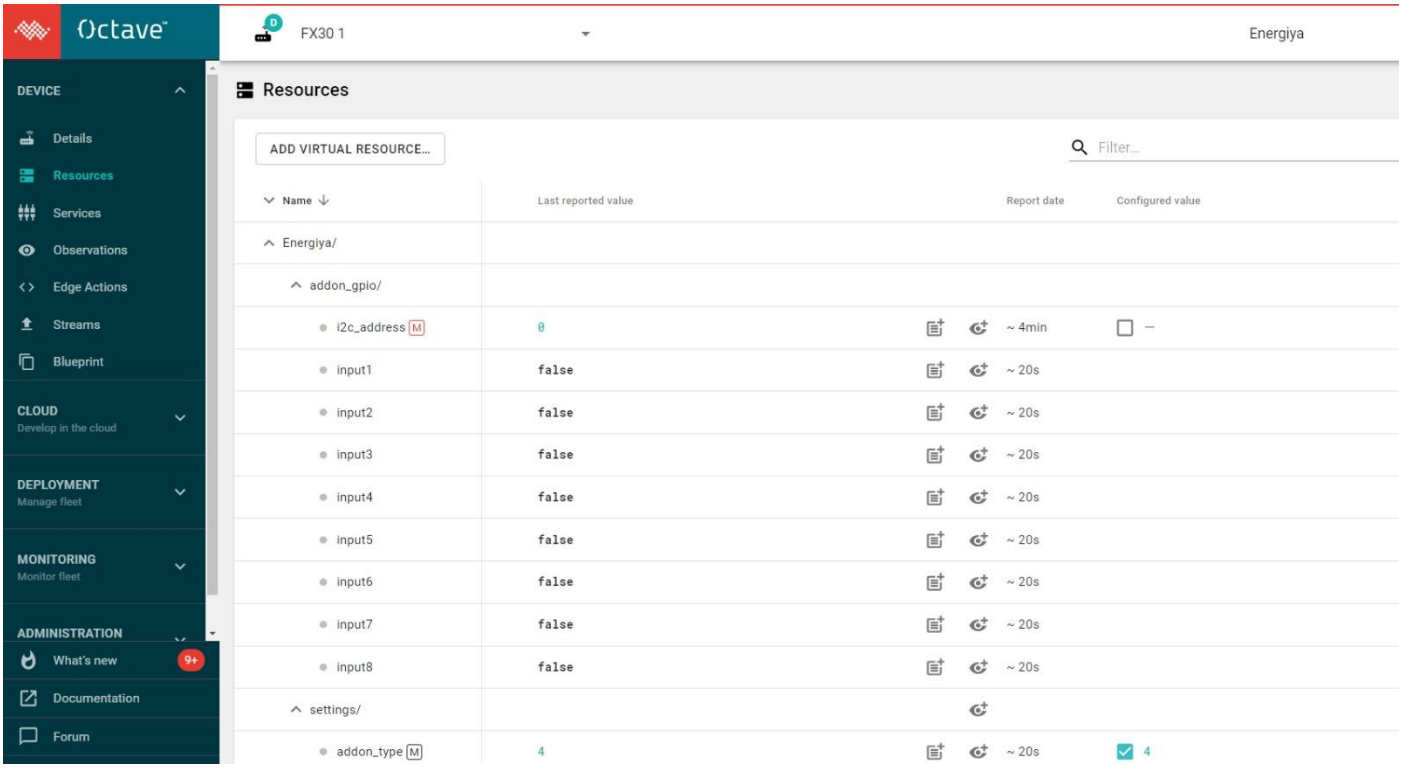
output**n** – set or clear GPIO**n.**

- When addon_type = **3** is set, resources for addON 2i2o (2 input / 2 output) are created (addon_gpio)



input**n** – shows status of GPIO**n**.
output**n** – set or clear GPIO**n.**

- When addon_type = **4** is set, resources for addON 8i (8 input) are created (addon_gpio)



i2c_address – value 0 : I²C address 0x23,
value 1 : I²C address 0x21,
value 2 : I²C address 0x22,
value 3 : I²C address 0x20.

input**n** – shows status of INPUT**n.**