Usage MLS/160A with Docker

Install on RMG/938

- HowTo install docker on RMG/938

```
apt update
apt install ca-certificates docker-ce
apt install rmg938-app-docker
```

- Download docker images

```
docker pull eclipse-mosquitto:openssl
docker pull ssvembeddedde/pydslog2mqtt:0.1.0
docker pull nodered/node-red:latest
```

- Start MQTT broker

```
mkdir -m 777 /media/data/tt_mosquitto
cat > /media/data/tt_mosquitto/mosquitto.conf <<EOF
persistence false
allow_anonymous true
log_dest none
listener 1883
EOF

docker run -d -p 1883:1883 -v
/media/data/tt_mosquitto/mosquitto.conf:/mosquitto/config/mosquitto.conf --
name tt_mosquitto eclipse-mosquitto:openssl
```

- Start pydslog2mqtt
    - Find MQTT broker ip

```
docker inspect tt_mosquitto | grep "IPAddress"
```

    - Find serial port where sensor is connected to (here /dev/ttyS2) and start container

```
docker run -d --name tt_pydslog2mqtt --device /dev/ttyS2:/dev/ttyS0 -e
"MQTT_URL=172.17.0.2:1883" ssvembeddedde/pydslog2mqtt:0.1.0
```

- Start Node-RED docker

```
mkdir -m 777 /media/data/tt_nodered

docker run -d -p 1880:1880 -v /media/data/tt_nodered:/data --name tt_nodered
nodered/node-red:latest
```

Install on RaspberryPi, Linux

HowTo install docker

```
https://phoenixnap.com/kb/docker-on-raspberry-pi
```

Start manualy

- Download docker images

```
docker pull eclipse-mosquitto:openssl
docker pull ssvembeddedde/pydslog2mqtt:0.1.0
docker pull nodered/node-red:latest
```

- Start MQTT broker
    - Create a simple mosquitto configuration and start container

```
mkdir -m 777 ~/work/tt_mosquitto
cat > ~/work/tt_mosquitto/mosquitto.conf <<EOF
persistence false
allow_anonymous true
log_dest none
listener 1883
EOF

docker run -d -p 1883:1883 -v
~/work/tt_mosquitto/mosquitto.conf:/mosquitto/config/mosquitto.conf --name
tt_mosquitto eclipse-mosquitto:openssl
```

- Start pydslog2mqtt
    - Find MQTT broker ip

```
docker inspect tt_mosquitto | grep "IPAddress"
```

    - Find serial port where sensor is connected to (here /dev/ttyUSB0) and start container

```
docker run -d --name tt_pydslog2mqtt --device /dev/ttyUSB0:/dev/ttyS0 -e
"MQTT_URL=172.17.0.2:1883" ssvembeddedde/pydslog2mqtt:0.1.0
```

- Start Node-RED docker

```
mkdir -m 777 ~/work/tt_mosquitto/tt_nodered

docker run -d -p 1880:1880 -v ~/work/tt_mosquitto/tt_nodered:/data --name
tt_nodered nodered/node-red:latest
```

Start with docker-compose

ToDo

Use sensor

- Open installed Node-RED
- Install over `Manage palette` `node-red-contrib-pydslog2mqtt` node
- Example flow to use:

```
[{"id":"efda7b2a.7aeec8","type":"pydslog","z":"32efee25.3783c2","name":"","topic":
"","device":"mls160a","freq":512,"channels":
["ACCX","ACCY","ACCZ"],"broker":"b77e05b.0db3bf8","x":480,"y":80,"wires":
[["f986f0c5.4ddac"]]},
{"id":"6d8ce15f.9c41c","type":"inject","z":"32efee25.3783c2","name":"","props":
[{"p":"payload"},
{"p":"topic","vt":"str"}],"repeat":"","crontab":"","once":false,"onceDelay":0.1,"t
opic":"","payload":"start","payloadType":"str","x":270,"y":80,"wires":
[["efda7b2a.7aeec8"]]},
{"id":"a4f5f5c9.b15b18","type":"inject","z":"32efee25.3783c2","name":"","props":
[{"p":"payload"},
{"p":"topic","vt":"str"}],"repeat":"","crontab":"","once":false,"onceDelay":0.1,"t
opic":"","payload":"stop","payloadType":"str","x":270,"y":140,"wires":
[["efda7b2a.7aeec8"]]},
{"id":"f986f0c5.4ddac","type":"debug","z":"32efee25.3783c2","name":"","active":fal
se,"tosidebar":true,"console":false,"tostatus":false,"complete":"false","statusVal
":"","statusType":"auto","x":670,"y":120,"wires":[]},
{"id":"b77e05b.0db3bf8","type":"mqtt-
broker","name":"","broker":"172.17.0.2","port":"1883","clientid":"","usetls":false
,"compatmode":false,"keepalive":"60","cleansession":true,"birthTopic":"","birthQos
":"0","birthPayload":"","closeTopic":"","closeQos":"0","closePayload":"","willTopi
c":"","willQos":"0","willPayload":""}]
```