**POWERTRACE IN CONTIKI OS:**

**Power trace** is an application which print the **power** consumption details of a sensor node (MOTE) A **sensor node**, also known as a **mote** (chiefly in [North America](https://en.wikipedia.org/wiki/North_America)), is a node in a [sensor network](https://en.wikipedia.org/wiki/Sensor_network) that is capable of performing some processing, gathering sensory information and communicating with other connected nodes in the network. A mote is a node but a node is not always a mote.

How to use power trace in contiki OS (COOJA)

Printing power value of hello world.

**STEPS in terminal**

Cd contiki-2.7/

Cd examples/

Gedit hello-world.c

\*\*\*\*in the code\*\*\*

PROCESS\_THREAD()

{

PROCESS\_BEGIN();

powertrace\_start(CLOCK\_SECOND\*5); //5 sec. Delay

printf(“Hello\_world\n”)

PROCESS\_END();

}

\*\*\*go to open, go to contiki-2.7, go to folder apps, go to powertrace. Open .h file

\*\*\*open terminal again, write steps\*\*\*

**STEPS in terminal:**

**Cd contiki-2.7/**

**Cd tools/**

**Cd cooja/**

**Ant run**

**\*\*\*contiki simulator starterd\*\*\***

**Steps:**

1. **New simulation named hello-world**
2. **We have network window, simulation control, notes, mote output timeline is the events.**
3. **Choose sky mote**
4. **Browse, contiki-2.7-> hello-world.c**
5. **Compile**
6. **Error, gedit Makefile**
7. **APPS+= powertrace**
8. **Compile again**
9. **Create 10 motes**
10. **From view-> enable options**
11. **Start the simulation from the simulation window**
12. **All motes print hello-world**
13. **Power data is printed in the mote output**
14. **Got to file-> save the file in user folder with default name**
15. **Stop the process**
16. **Got to open files, user folder, loglistener.c file**
17. **We have the power values**

How to use powertrace:

1. After the process\_begin(), give the command in the source file powertrace\_start()
2. Include the header file

#include “powertrace.h”

1. Change in the Makefile, in the second line

Radio consumes power in sensors. For power improve.

**LED PROGRAMMING IN CONTIKI**