Using Collect-View Tool in Contiki-OS

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Outline

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Collect-View Overview





Collect-View

- Collect-View is a Java based Application in Contiki-OS for sensor visualization
- Involves a Mote acting as a SINK and other Motes acting as Sources
- Sources send important parameters to SINK
- Uses Graphical User Interface for visualizing parameters



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Programming Collect-view on Tmote Sky

- Uploading the shell files onto Motes (need more than one)
 Go to:examples/collect [code: collect-view-shell.c]
- Connect the Sky motes and make sure they are connected on the Virtual Machine and perform the operations on terminal

```
make TARGET=sky savetarget
```

to check which mote is connected to which USB port:

```
make sky-motelist
```

for mote on /dev/ttyUSB0 :

```
make MOTE=1 collect-view-shell.upload
```

for mote on /dev/ttyUSB1:

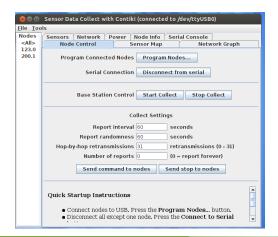
```
$ make MOTE=2 collect-view-shell.upload
```

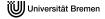


Collect-View tool

to open the **Collect-View** tool go to : *tools/collect-view* and in terminal:

ant. run





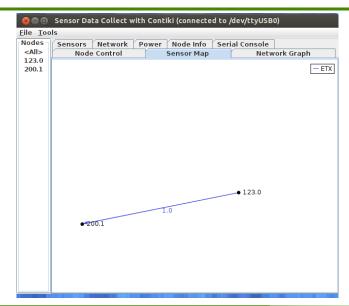


Collect-View tool

- close this one. go to: tools/collect-view/dist and add the following in terminal to determine which mote will be SINK
 - \$ java -jar collect-view-jar /dev/ttyUSB0
- The tool opens again, click on **Tools** menu and click on "Run Init Script"
- supply power to other sensor nodes (preferable when not connected to same Computer)
- click on the Node Control tab and click on Start Collect button
- click on other tabs to see the various features

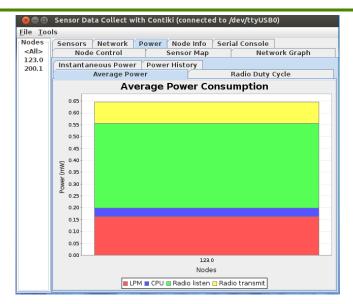


Collect-View Tool Tabs





Collect-View Tool Tabs





Programming using GUI

When programming in a group do the following:

- Follow the original steps of burning the shell code on the motes (on Individual PC)
- decide on who gets to be SINK and other needs to be source
- The SINK node needs to configure the following:
 - Open the Collect-View app from tools/collect-view and use ant run
 - 2. Press the "Program Nodes"
 - 3. Press "Connect to Serial" button
 - To collect data : Press "Send Collect"
 - 5. To change the frequency of data collection: set the various values and press "Send Command to Nodes"



