**COOJA SIMULATOR**

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**Step 1 :** Go to the Location contiki-ng/tools/cooja/ with commands

**Cd contiki-ng**

**Cd tools**

**Cd cooja**

**Step 2 :** Run the **cooja** simulator with

**ant run**

This allows cooja simulator to run and the build messages will be shown on the terminal.

The cooja simulator window opens up.

**Step 3 :** Create a **new simulation** by clicking file menu present in **Files** Tab.

**Step 4 :** Click on **Motes** tab, and create **Sky mote** as

**Add motes -> Create new mote type -> Sky mote**

In the window opened, give the file name, and for **Contiki process/Firmware** browse the file **ipv6-hooks.c**. Select the same.

Click on **compile** button and create the motes by clicking on **create** button.

**Step 5 :** In the motes window opened, enter the number of motes you want to create. ( Here mote refers to the node in the network). Keep all other options as they are.

The motes are shown on the Networks section.

**Step 6 :** Configure the motes. i. e. set the motes as server and client.

To do this, right click on any mote, select **mote tools for Sky3**, and select **Serial Socket (CLIENT)** if you want to set that mote as client or select **Serial Socket(SERVER)** to make the mote as server.

**Step 7** : **Serial Socket Server and Client** windows appear.

Make the **client port number** same as that of the server.

Start the Server by clicking **Start** button in **Serial Socket Server** window, start the client by following the same in Serial.

Connect the client and server by clicking **connect** button in the client window. It shows the **connected** message in green color.

Step 8 : Start the connection by clicking **start** button in **Simulation control** window.

We can check the output in **Mote Output** Window.

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For this, the whole proess remains the same, only following steps change.

**Step 4** : Upload two files for udp client and udp server.

Create one mote for client and upload udp client file for it. Which is present in,

**contiki-ng ->examples->rpl-udp**

Upload **udp-client.c** for client and configure this mote as client as given in **Step 6** above.

Create One more mote and upload **udp-server.c** file for it with above procedure and configure this mote as the server.

**Step 5** : Create only one mote for client and one mote for Server.