

# Running MeshKit

## Stopping the Network Manager

Before bringing up a batman or 80211s node, you must stop the network manager with the command `sudo stop network-manager`. (To restart the network manager, execute `sudo start network-manager`.) Execute `iwconfig` to determine what the name of your wireless card is.

## Managing Batman Nodes.

- To bring up a batman node, execute

```
cd ~/MeshKit/src/mesh-setup/batman-advanced
sudo ./batman_start.sh <wlanX> <desired-ip-address>
```

- To remove a batman node, execute

```
cd ~/MeshKit/src/mesh-setup/batman-advanced
sudo ./batman_stop.sh <wlanX>
```

## Managing 80211s Nodes

- To create and enable an 80211s node, execute

```
sudo ifconfig <wlanX> down
sudo iw <wlanX> interface add <meshX> type mp mesh_id <network_id>
sudo iw <meshX> set channel <channel_number>
sudo ifconfig <meshX> <ip_address>
```

- To disable an 80211s node, execute

```
sudo ifconfig <meshX> down
```

- To enable an 80211s node, execute

```
sudo ifconfig <meshX> up
```

- To remove an 80211s node, execute

```
sudo iw <meshX> del
```

## Starting the Monitor

```
cd MeshKit/build
```

```
sudo ./Monitor
```

Note: In the graph in the GUI shown in the Monitor, the node with ip address 0 indicates the Monitor node (regardless of its real ip address).

## Running Heartbeat

```
cd MeshKit/src/heartbeat-sender/  
python heartbeat.py
```

The options for the script are:

Options:

- h, --help            - This usage
- v, --verbose        - Set verbosity level

Sender Options:

- o, --ocu            - IP address of OCU on mesh  
                              (default=127.0.0.1)
- P, --period        - Period between sending (default=1second)
- hbport            - Port to send/recv heartbeats on  
                              (default=8123)
- i, --interface    - Wireless Interface to monitor neighbors of  
                              (default=wlan3)
- t, --ttl            - Multicast TTL (default=1)
- T, --timeout       - Timeout nodes that have active\_tx longer  
                              than this (0=disabled) (default=0)
- B, --batman        - Use heartbeat over batman (default=False)

Receiver Options:

- H, --host           - Host to bind to on receive  
                              (default=127.0.0.1)
- p, --port           - Port to listen on (default=8888)

## Running C&C

```
cd MeshKit/src/heartbeat-sender/  
python CCRresponse.py
```