Console Matrix Based Visualizer User Guide

First the nodes are placed in their various locations; the home node (Node ID 255) is to be connected to the CPU using the RS232 cable. The home node is then turned on. We then run the test bed executable entitled "MANET CONSOLE APP.exe." We will wait until the executable is running then press the reset button on the home node. Once the home node properly broadcasts its presence as follows, the remaining floating nodes can then be switched on.

SERIAL PORT IS CONNECTED AND OPEN

PLEASE PRESS THE RESET BUTTON ON THE HOME NODE

Position, src=255

PLEASE BEGIN TO SWTICH ON THE FLOATING NODES

Once, we switched on the floating nodes the events and commands will be displayed on the screen (Console) as shown in the attached file below:

```
Link, src=102, dest=255, value=0.901961
Packet Sent, src=102, timestamp=3806720000, dest=104, packet size=10
Packet Sent, src=102, timestamp=3817970000, dest=104, packet size=10
Link, src=255, dest=102, value=1.000000
Begin Delivery, src=102, timestamp=3832650000
Packet Hop, addr=255, dt=1
Packet Delivery, dest=104, dt=1, data=1853340288.000000, packet size=10
Packet Sent, src=102, timestamp=3835310000, dest=104, packet size=10
Packet Sent, src=102, timestamp=3846720000, dest=104, packet size=10
Begin Delivery, src=102, timestamp=3850000000
Packet Delivery, dest=104, dt=112, data=3132799744.000000, packet size=10
Link, src=255, dest=102, value=1.000000
Packet Sent, src=102, timestamp=3861250000, dest=104, packet size=10
Begin Delivery, src=102, timestamp=3864370000
Packet Delivery, dest=104, dt=64, data=3132799744.000000, packet size=10
Begin Delivery, src=102, timestamp=3875780000
Packet Delivery, dest=104, dt=144, data=3132799744.000000, packet size=10
Packet Sent, src=102, timestamp=3878590000, dest=104, packet size=10
Link, src=255, dest=102, value=1.000000
Packet Sent, src=102, timestamp=3890000000, dest=104, packet size=10
Begin Delivery, src=102, timestamp=3893120000
Packet Hop, addr=255, dt=1
Packet Delivery, dest=104, dt=1, data=3132799744.000000, packet size=10
Packet Sent, src=102, timestamp=3904370000, dest=104, packet size=10
Begin Delivery, src=102, timestamp=3907500000
Packet Delivery, dest=104, dt=224, data=3132799744.000000, packet size=10
```

In the first line there is a link between the node (src; ID 102) and other node (dest; ID 255). The second and third lines show that each packet of size 10 Bytes is sent from source node ID 102 to the destination node ID 104 with a time stamp. The fifth line shows the status of the packet being delivered to the destination. The sixth line shows that the packet is first sent to the node ID 255 as a next hop and finally the packet is delivered to the destination ID 104 shown by line seven.