CACA

Directories

capture : TinyOS program which measures link quality and ratio of the capture effect.

capture\_vs : C++ program which includes MST, maxKcut algorithms.

result : TinyOS program which can induces the result of CACA.

sf : utility code which runs the Serial Forwarder program.

Preparation

1. Move ‘capture’, ‘result’, ‘sf’ directories to the linux.

2. Move ‘capture\_vs’ directory to the windows.

Process

\* In all steps, if you modified TinyOS programs than type “make telosb”

1. Upload ‘capture’ to the Indriya testbed and run.

2. Modify the ‘arg’ variable in the ‘sf.c’ to ‘all’.

3. Modify the ‘cnt’, ‘index’ variables to proper values.(‘cnt' means how many SerialForwarder you want to run and less than 50 is runnable. ‘index’ means the first index of the node you want to run in ‘arg’.)

4. Modify the ‘index’ variable in the ‘TestSerial.java’ to proper value.

5. Type ‘java TestSerial.java’ in the ‘capture’ directory.(repeat 3~5 until all nodes are completed.)

6. Move result file ‘out.txt’ to the ‘capture\_vs’ and rename it to ‘data.txt’

7. Change the value of the variable ‘state’ in ‘capture\_vs’ program to 1.

8. Run the ‘capture\_vs’ program.

9. Copy and paste the contents of the ‘channel.txt’ into ‘Capture.nc’ of the ‘result’ program.

10. Copy and paste the contents of the ‘index.txt’ into ‘TestSerial.java’ of the ‘result’ program and ‘sf.c’

11. Upload ‘result’ to the Indiya testbed and run.

12. repeat 3~5 until all nodes are completed.

12. Move result file ‘out.txt’ to the ‘capture\_vs’.

12 Change the value of the variable ‘state’ in ‘capture\_vs’ program to 0.

13. Run the ‘capture\_vs’ program.

14. You can see the transmission rate of each nodes in the ‘packet.txt’ file.