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Notes

1) I was able to run this on Windows XP 32 bit Home Edition, Ubuntu Linux 9.10, have not tested on Vista/Win 7.

2) The latest version of Java needs to be installed, you can get it here: www.java.com

3) The "stats_load_4000-0.42.txt.zip" file is not included since it was too big for the UMBC email client. I will attempt to send it to your respective emails through my Gmail account.

Unpacking SimulationApp.zip

1) After unzipping, you should see these files:
    a.
        - Simulation.jar
    b.
        - ZoneNodeLocation.txt,
        - BuildData.txt
        - Colors.txt
        - EdgeData.xml
        - FileLocation.txt
        - NodeData.xml
        - test.xml
        - ZoneEdgeLocation.txt
        - ZoneNodeLocation.txt

    These files are used by the application and should not be altered.

2) Double click on “Simulation.jar” to start the application.

Data Details

Fig. 1
(Correlation between bar graphs and data fields on right)

1) The bar graphs for Edge Node correspond to the data fields on the right frame of the application.

2) The "0.1" data corresponds to the wavelength-usage-ratio of each edge between nodes.

3) Clicking on "Edge Node 10" in this instance will bring up a new window showing the detailed statistical data for the data fields.

4) Clicking on the wavelength data will bring up a window for that edge that shows the bw-usage-ratio. Shown below:

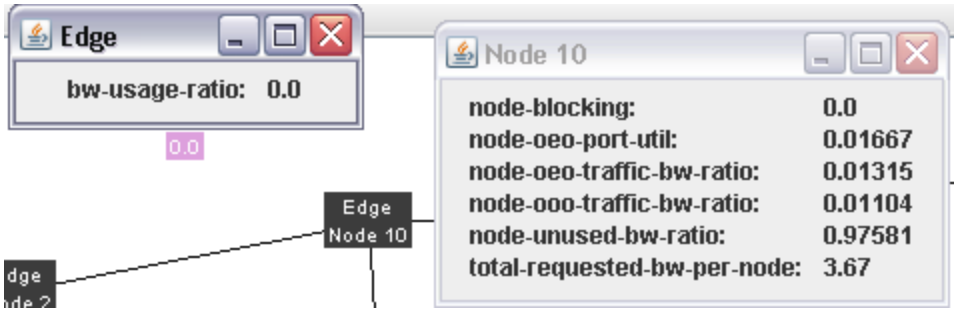

Fig. 2
(Results of clicking on "Edge Node 10" and "0.0")

Usage Information

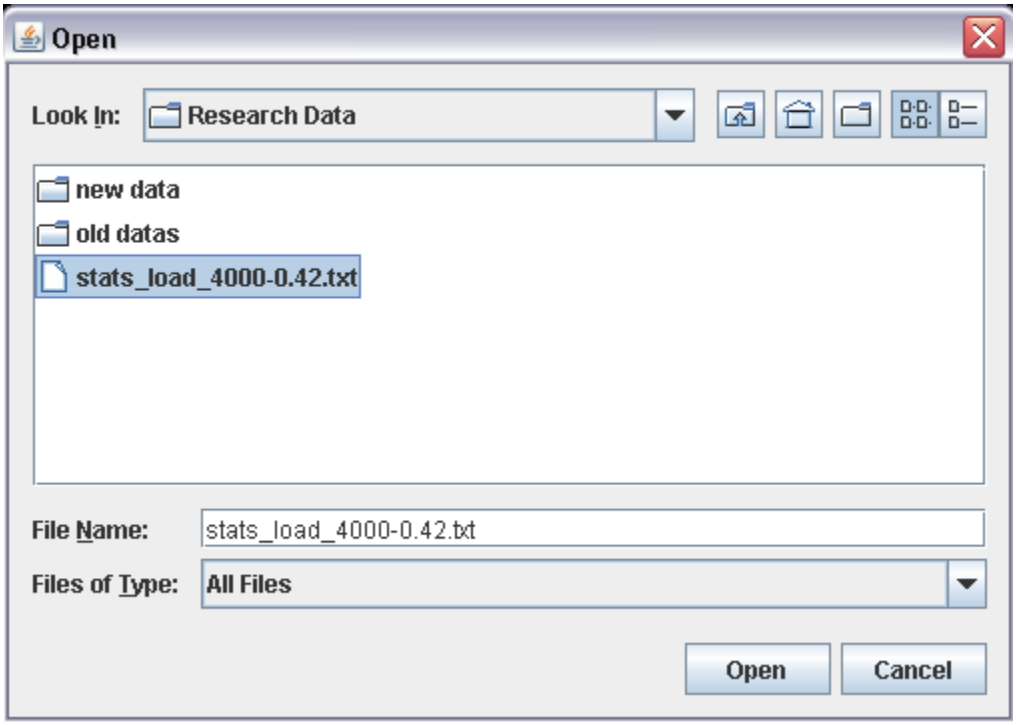

Fig. 3
(First screen shown, used to locate data file location.)

i) When the user runs the application, this screen will be shown and the user should locate the data file; which is "stats_load_4000-0.42.txt" in this example.

ii) After the first run, it will save the location of the data file so that in future runs, the user can just click "Cancel" if they wish to use the same data file

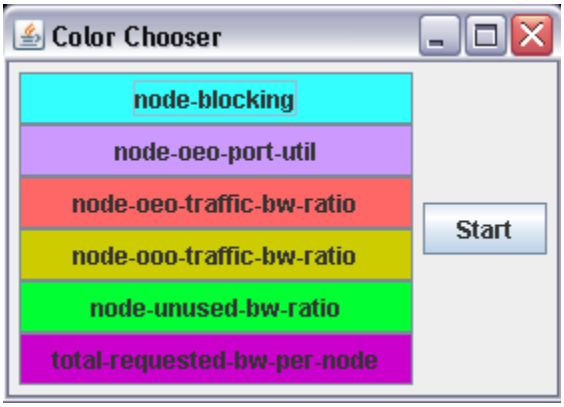

Fig. 4

(Second screen; choosing color for graphs)

i) Allows user to change color of the graphs by clicking on the respective buttons of the data. Clicking "Start" initiates program.

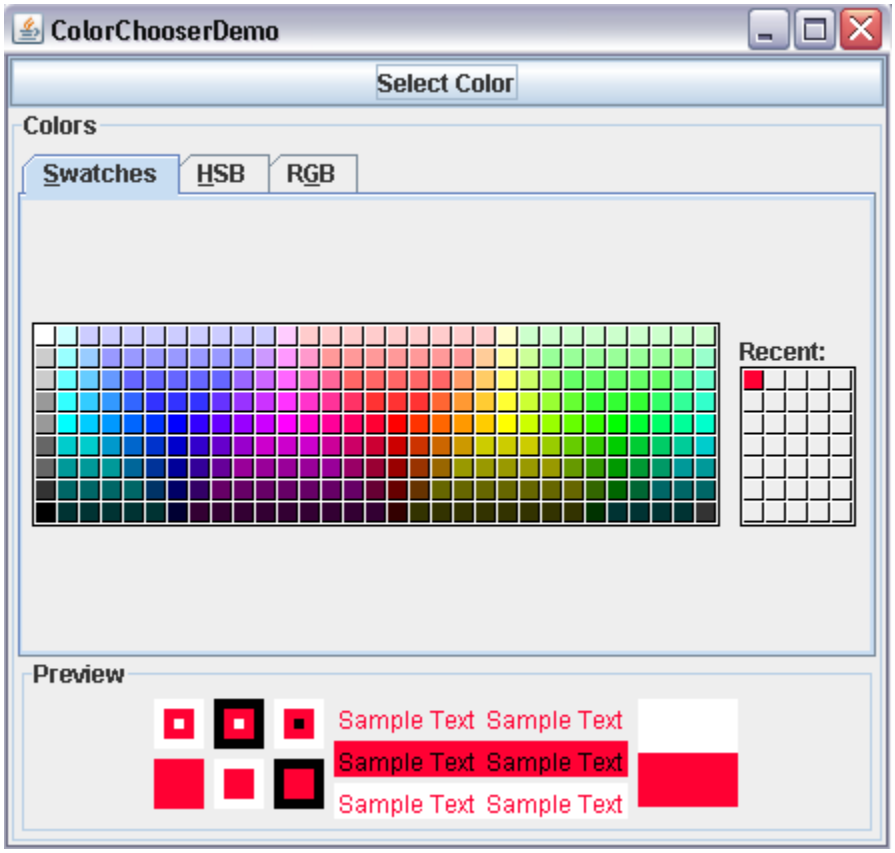

Fig. 5

(Third screen; specifies color)

ii) After the user clicks the button of a specific data field, this window is show to allow user to change the color.

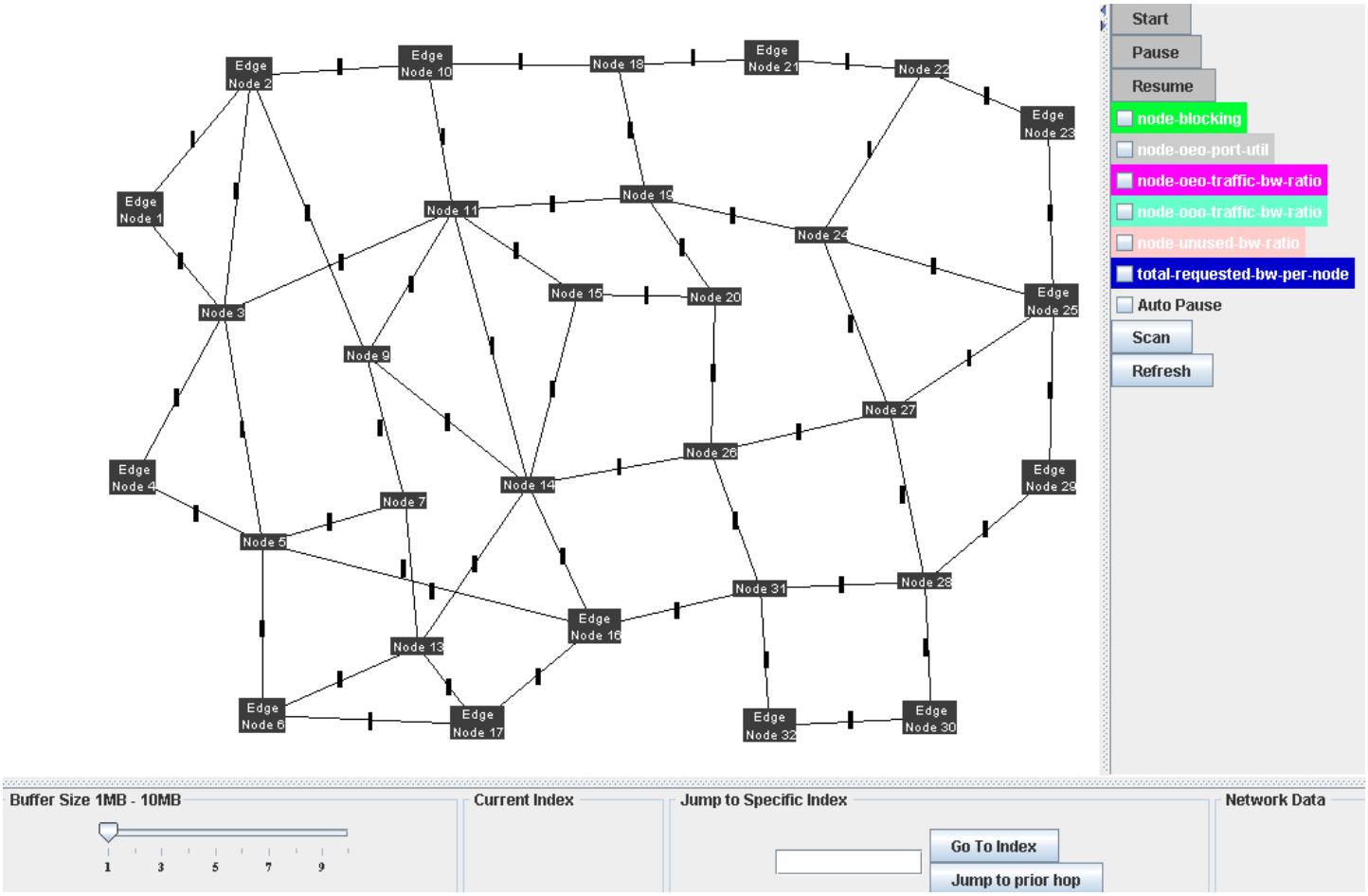

Fig. 6
(Main application)

i) The main application is split into three:
   a. Left side shows the network plot
   b. Bottom and right side implements functions that act on the display of data.

ii) Top buttons:
   a. "Start" initiates the application. "Pause" pauses and "Resume" continues the display of dynamic data after pausing.

iii) Checkboxes:
   a. The checkboxes next to each data field allows the user to decide whether to show the corresponding data graph of the data of each node.

iv) Auto Pause:
   a. Checking "Auto Pause" allows the application to pause when blocking is detected among the Edge Nodes.
   b. A pop window will appear detailing which nodes have blocking.

v) Scan:
   a. Goes back from the current index and prints a list of indexes with their blocking information.

vi) Refresh:
   a. Loops through all nodes and changes colors corresponding to node-blocking.

vii) Buffer Size
   a. Controls how much data is read, the bigger the buffer size, the quicker the simulation will finish running.

viii) Current Index:
   a. Shows the current index of data being read.

ix) Jump To Specific Index:
   a. Jump to the index specified and display the data.

x) Jump to prior hop:
   a. Jumps back to the index before the current read.

xi) Network Data:
   a. Displays current network load and network blocking data and other information.