

NetAnalyser User Manual

Note: Task1, Task2, ExtraCredit files each stores different version of the the NetAnalyser program. This is an overall manual for all three versions. Exclusive features/functions in some versions will be pointed out during the instruction.

OPERATION SYSTEM: MacOS

OPERATION INSTRUCTION:

How to start the program ?

1. Use terminal to locate to the outer file. Eg."cd Desktop/2018212906_MAC"
2. Input "javac {file name}/NetAnalyser.java" to the command line
 - Note: file name should be among {Task1, Task2, ExtraCredit}
3. Input "java {file name}/NetAnalyser"+"n" to assign a max number of probes available in the program. ("n" part is only for Task2 and ExtraCredit)
 - Note: n is optional and should be a number between 10-20 (both inclusive).

3.1 If you input more than one piece of string(there's space in between), you will see a returned line:(Only for Task2 and ExtraCredit)

```
wangyunkun@wangyunkundeMacBook-Pro src % java ExtraCredit/NetAnalyser 18 19
invalid args format
```

3.2 If you input a non numeric string, you will see a returned line:(Only for Task2 and ExtraCredit)

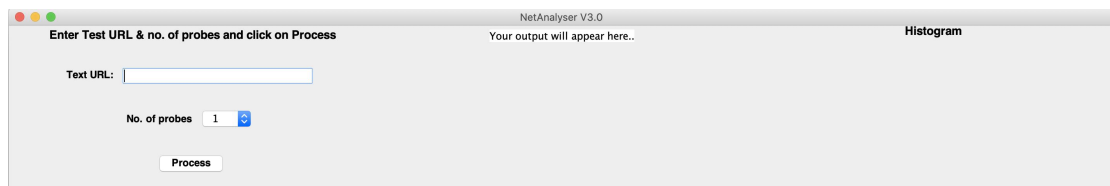
```
wangyunkun@wangyunkundeMacBook-Pro src % java ExtraCredit/NetAnalyser ab
the input should be numeric string
```

3.3 If your input number is not in the range of 10-20, you will see a returned line:(Only for Task2 and ExtraCredit)

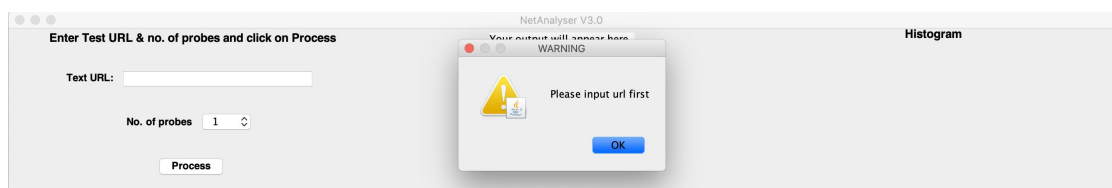
```
wangyunkun@wangyunkundeMacBook-Pro src % java ExtraCredit/NetAnalyser 21
max number is out of range, you should input a number from 10 to 20
```

How to use the program?

1. You should see the following window after starting the program.
 - The window has three panels, the left panel is for your input, the middle and right ones are for presenting the outcomes of your PING query.

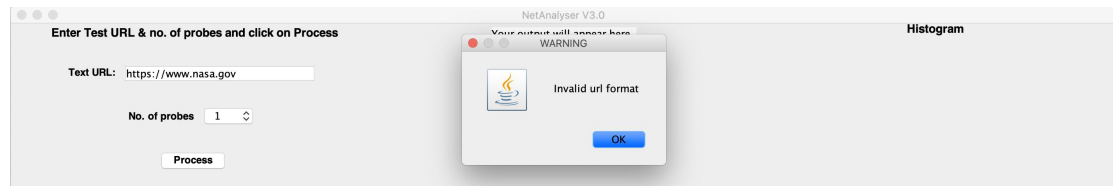


2. Input a valid url in the text field
 - 2.1 if you do skip STEP 2 and execute STEP 4, you will see the following window:(Only for ExtraCredit)



2.2 If your url format is invalid, you will see following window and the query will not be sent:(Only for ExtraCredit)

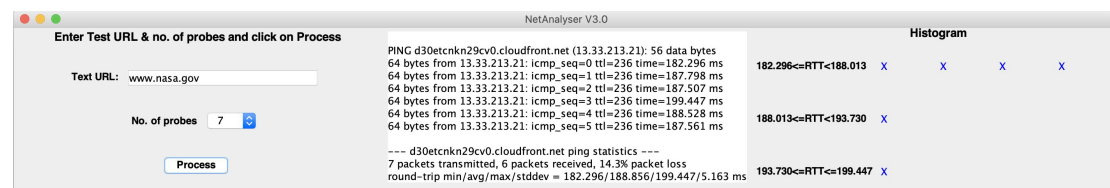
Note: Both DOMAIN and IP formats are accepted. (Your domain should not include any protocol, port and path.)



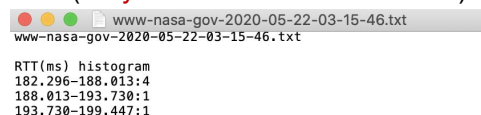
3. Choose a number of probes in the selection box. If you don't choose, it will be a default value '1' as it shows in the selection box.

4. Click the process button to run the PING query and the outcomes will be shown like follows:

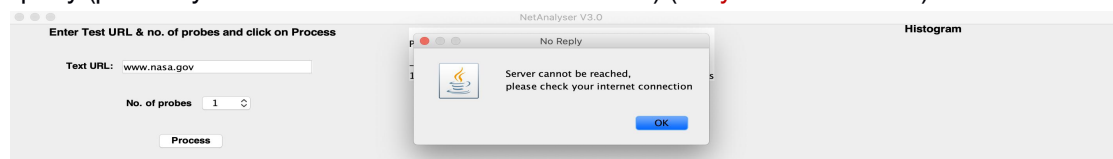
- The middle panel will print out the raw outputs of the PING query.(not editable)
- The right panel will divide the received packages into three RTT intervals according to their time value. The program will keep three decimal places for each interval's endpoints. Each blue mark "X" represents one received package whose RTT is in range of this row's interval.



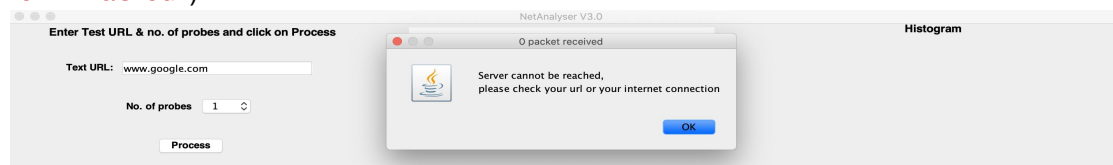
4.1 Each process event will generate a txt file in the current path(ie. 2018212906 file). The file records histogram outcomes, and the file name records the query url and time:(Only for Task2 and ExtraCredit)



4.2 if the program doesn't receive any output from the terminal after sending PING query (probably because of bad internet connection):(Only for ExtraCredit)



4.3 if no packets is received (probably because of a non-exist or blocked url): (Only for ExtraCredit)



5.You can repeat STEP 2,3,4 to send another PING query.

6.Click the close button on the top left corner to cease the program.