

```

1 #Create Simulator
2 set ns [new Simulator]
3 #Open Trace and NAM Trace File
4 set ntrace [open prog2.tr w]
5 $ns trace-all $ntrace
6 set namfile [open prog2.nam w]
7 $ns namtrace-all $namfile
8
9 #Finish Procedure
10 proc Finish {} {
11     global ns ntrace namfile
12     #Dump all trace data and close the files
13     $ns flush-trace
14     close $ntrace
15     close $namfile
16     #Execute the nam animation file
17     exec nam prog2.nam &
18     exit 0
19 }
20
21 $ns color 1 Blue
22 $ns color 2 Red
23
24 #Create four nodes
25 set n0 [$ns node]
26 set n1 [$ns node]
27 set n2 [$ns node]
28 set n3 [$ns node]
29
30 #Create links between the nodes
31 $ns duplex-link $n0 $n2 2Mb 10ms DropTail
32 $ns duplex-link $n1 $n2 2Mb 10ms DropTail
33 $ns simplex-link $n2 $n3 1Mb 10ms DropTail
34 $ns simplex-link $n3 $n2 1Mb 10ms DropTail
35
36 #Set queue size and Monitor the queue
37 $ns queue-limit $n0 $n2 10
38 $ns simplex-link-op $n0 $n2 queuePos 0.5
39
40 #Set TCP Connection between n0 and n3
41 set tcp0 [new Agent/TCP]
42 $ns attach-agent $n0 $tcp0
43
44 set sink0 [new Agent/TCPSink]
45 $ns attach-agent $n3 $sink0
46 $ns connect $tcp0 $sink0
47 $tcp0 set fid_ 1
48
49 #Attach FTP Application over TCP
50 set ftp0 [new Application/FTP]
51 $ftp0 attach-agent $tcp0
52 $ftp0 set type_ FTP
53
54 #Set TCP Connection between n1 and n3
55 set tcp1 [new Agent/TCP]
56 $ns attach-agent $n1 $tcp1
57 set sink1 [new Agent/TCPSink]
58 $ns attach-agent $n3 $sink1
59 $ns connect $tcp1 $sink1
60 $tcp1 set fid_ 2
61
62 #Attach Telnet Application over UDP
63 set telnet [new Application/Telnet]
64 $telnet attach-agent $tcp1
65 $telnet set type_ Telnet
66
67 #Schedule Events
68 $ns at 0.5 "$telnet start"
69 $ns at 0.5 "$ftp0 start"
70 $ns at 24.5 "$telnet stop"
71 $ns at 24.5 "$ftp0 stop"
72 $ns at 25.0 "Finish"
73
74 $ns run
75
76

```