

```
set ns [new Simulator]
```

```
$ns color 1 Blue
```

```
$ns color 2 Red
```

```
set nf [open out.nam w]
```

```
$ns namtrace-all $nf
```

```
set nt [open out.tr w]
```

```
$ns trace-all $nt
```

```
proc finish {} {
```

```
    global ns nf nt
```

```
    $ns flush-trace
```

```
    close $nf
```

```
    close $nt
```

```
    exec nam out.nam &
```

```
    exit 0
```

```
}
```

```
set n0 [$ns node]
```

```
set n1 [$ns node]
```

```
set n2 [$ns node]
```

```
set n3 [$ns node]
```

```
set n4 [$ns node]
```

```
$ns duplex-link $n0 $n3 2Mb 10ms DropTail
```

```
$ns duplex-link $n1 $n3 2Mb 10ms DropTail
```

```
$ns duplex-link $n3 $n2 1Mb 10ms DropTail
```

```
$ns duplex-link $n3 $n4 1Mb 10ms DropTail
```

```
$ns queue-limit $n3 $n2 10
```

```
$ns queue-limit $n3 $n4 10
```

```
$ns duplex-link-op $n0 $n3 orient right-down
```

```
$ns duplex-link-op $n1 $n3 orient right-up
```

```
$ns duplex-link-op $n3 $n2 orient right-up
```

```
$ns duplex-link-op $n3 $n4 orient right-down
```

```
$ns duplex-link-op $n3 $n2 queuePos 0.5
```

```
$ns duplex-link-op $n3 $n4 queuePos 0.5
```

```
set tcp [new Agent/TCP]
```

```
$tcp set class_ 2
```

```
$ns attach-agent $n0 $tcp
```

```
set sink [new Agent/TCPSink]
```

```
$ns attach-agent $n2 $sink
```

```
$ns connect $tcp $sink  
$tcp set fid_ 1
```

```
set tcp1 [new Agent/TCP]  
$tcp1 set class_ 2  
$ns attach-agent $n1 $tcp1  
set sink1 [new Agent/TCPSink]  
$ns attach-agent $n4 $sink1  
$ns connect $tcp1 $sink1  
$tcp1 set fid_ 2
```

```
set ftp [new Application/FTP]  
$ftp attach-agent $tcp  
$ftp set type_ FTP
```

```
set ftp1 [new Application/FTP]  
$ftp1 attach-agent $tcp1  
$ftp1 set type_ FTP
```

```
$ns at 0.1 "$ftp start"  
$ns at 2 "$ftp stop"  
$ns at 0.2 "$ftp1 start"  
$ns at 2 "$ftp1 stop"  
$ns at 2.1 "finish"
```

```
$ns run
```