

```
set val(stop) 25.0; #time of simulator end
```

```
#create ns object
```

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

```
#open the ns trace file
```

```
set tracefile [open p2.tr w];
```

```
$ns trace-all $tracefile;
```

```
#open the nam file
```

```
set namfile [open p2.nam w];
```

```
$ns namtrace-all $namfile;
```

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

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

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

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

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

```
set n5 [$ns node]
```

```
set n6 [$ns node]
```

```
#create labels for nodes
```

```
$n0 label "UDP SOURCE";
```

```
$n1 label "ONE"
```

```
$n2 label "TWO"
```

```
$n3 label "THREE"
```

```
$n4 label "FOUR"
```

```
$n5 label "FIVE"
```

```
$n6 label "UDP DESTINATION"
```

```
#give shapes to nodes
```

```
$n0 shape hexagon;
```

```
$n1 shape circle;
```

```
$n2 shape square;
```

```
$n3 shape square;
```

```
$n4 shape square;  
$n5 shape square;  
$n6 shape circle;
```

```
#give colors to nodes  
$n0 color red;  
$n1 color blue;  
$n2 color blue;  
$n3 color blue;  
$n4 color blue;  
$n5 color blue;  
$n6 color black;
```

```
set lan [ $ns newLan "$n0 $n1 $n2 $n3 $n4 $n5 $n6" 1.0Mb 40ms LL  
Queue|DropTail Mac|802_3 Channel ];
```

```
#setup 1 UDP connection  
set udp1 [new Agent/UDP];  
$ns attach-agent $n0 $udp1;  
$udp1 set packetSize_ 1000;
```

```
set null2 [new Agent/Null];  
$ns attach-agent $n6 $null2;
```

```
#connect source to destination  
$ns connect $udp1 $null2;
```

```
#setup cbr application over udp connection
```

```
set cbr1 [new Application/Traffic/CBR];  
$cbr1 attach-agent $udp1;
```

```
#set interval  
$cbr1 set interval_ 0.1;
```

```
#assign flow id  
$ns color 1 red;
```

```
$udp1 set fid_ 1;
```

```
$ns at 0.1 "$cbr1 start";  
$ns at 24.9 "$cbr1 stop";
```

```
#define a procedure
```

```
proc finish {} {  
    global ns tracefile namfile;  
    $ns flush-trace;  
    close $tracefile;  
    close $namfile;  
    exec nam p2.nam &;  
    exit 0;  
}
```

```
$ns at $val(stop) "finish";  
$ns run
```