ERROR MESSAGE

```
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py
Error: you must run either in server or client mode
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -s -c
Error: you must run either in server or client mode
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -c -s
Error: you must run either in server or client mode
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -t 10
Error: you must run either in server or client mode
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -s -b 10.0.0
Error: invalid IP address
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -c -I 10.0.0
Error: invalid IP address
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -s -p 1023
Error: port number must be between 1024 and 65535
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -s -p 65536
Error: port number must be between 1024 and 65535
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -s -p 100FA
Error: port number must be an integer
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -s -f GB
Error: invalid format specified
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -c -f GB
Error: invalid format specified
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -c -f AA
Error: invalid format specified
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -c -t -10
Error: time must be greater than 0
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -c -t 10A
Error: time must be an integer
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -c -n 10GB
Error: invalid number of bytes
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -c -n 10G
Error: invalid number of bytes
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -c -P 0
Error: number of parallel connections must be between 1 and 5
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -c -P 6
Error: number of parallel connections must be between 1 and 5
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -c -P 2a
Error: number of parallel connections must be an integer
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -c -t 10 -i -2
Error: interval must be greater than 0
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -c -t 10 -i l
Error: interval must be an integer
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -s -n 100MB
Error: invalid flags for server mode
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -s -P 2 -t 100
Error: invalid flags for server mode
```

```
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -s -b
usage: simpleperf.py [-h] [-s] [-c] [-b BIND] [-I SERVERIP] [-p PORT] [-f FORMAT] [-t TIME]
                     [-n NUM_BYTES] [-P NUM_CONN] [-i INTERVAL]
simpleperf.py: error: argument -b/--bind: expected one argument
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -s -p
usage: simpleperf.py [-h] [-s] [-c] [-b BIND] [-I SERVERIP] [-p PORT] [-f FORMAT] [-t TIME]
                     [-n NUM_BYTES] [-P NUM_CONN] [-i INTERVAL]
simpleperf.py: error: argument -p/--port: expected one argument
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -s -f
usage: simpleperf.py [-h] [-s] [-c] [-b BIND] [-I SERVERIP] [-p PORT] [-f FORMAT] [-t TIME]
                     [-n NUM_BYTES] [-P NUM_CONN] [-i INTERVAL]
simpleperf.py: error: argument -f/--format: expected one argument
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -s -b 10.0.0.1 -p 8088 -f
usage: simpleperf.py [-h] [-s] [-c] [-b BIND] [-I SERVERIP] [-p PORT] [-f FORMAT] [-t TIME]
                     [-n NUM_BYTES] [-P NUM_CONN] [-i INTERVAL]
simpleperf.py: error: argument -f/--format: expected one argument
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -c -I
usage: simpleperf.py [-h] [-s] [-c] [-b BIND] [-I SERVERIP] [-p PORT] [-f FORMAT] [-t TIME]
                     [-n NUM_BYTES] [-P NUM_CONN] [-i INTERVAL]
simpleperf.py: error: argument -I/--serverip: expected one argument
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -c -p
usage: simpleperf.py [-h] [-s] [-c] [-b BIND] [-I SERVERIP] [-p PORT] [-f FORMAT] [-t TIME]
                     [-n NUM_BYTES] [-P NUM_CONN] [-i INTERVAL]
simpleperf.py: error: argument -p/--port: expected one argument
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -c -t
usage: simpleperf.py [-h] [-s] [-c] [-b BIND] [-I SERVERIP] [-p PORT] [-f FORMAT] [-t TIME]
                     [-n NUM_BYTES] [-P NUM_CONN] [-i INTERVAL]
simpleperf.py: error: argument -t/--time: expected one argument
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -c -f
usage: simpleperf.py [-h] [-s] [-c] [-b BIND] [-I SERVERIP] [-p PORT] [-f FORMAT] [-t TIME]
                     [-n NUM_BYTES] [-P NUM_CONN] [-i INTERVAL]
simpleperf.py: error: argument -f/--format: expected one argument
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -c -n
usage: simpleperf.py [-h] [-s] [-c] [-b BIND] [-I SERVERIP] [-p PORT] [-f FORMAT] [-t TIME]
                     [-n NUM_BYTES] [-P NUM_CONN] [-i INTERVAL]
simpleperf.py: error: argument -n/--num_bytes: expected one argument
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -c -P
usage: simpleperf.py [-h] [-s] [-c] [-b BIND] [-I SERVERIP] [-p PORT] [-f FORMAT] [-t TIME]
                     [-n NUM_BYTES] [-P NUM_CONN] [-i INTERVAL]
simpleperf.py: error: argument -P/--num_conn: expected one argument
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -c -i
usage: simpleperf.py [-h] [-s] [-c] [-b BIND] [-I SERVERIP] [-p PORT] [-f FORMAT] [-t TIME]
                     [-n NUM_BYTES] [-P NUM_CONN] [-i INTERVAL]
simpleperf.py: error: argument -i/--interval: expected one argument
```

VALID TESTS


```
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -s -f MB
---------------------------------------------
A simpleperf server is listening on port 8088
---------------------------------------------

A simpleperf client with 127.0.0.1:49926 is connected with 127.0.0.1:8088

ID              Interval        Received        Rate

127.0.0.1:49926 0.0 - 20.0     2141 MB         856.53 Mbps
```

```
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -c -t 20 -i 4
---------------------------------------------
A simpleperf client connecting to server 127.0.0.1, port 8088
---------------------------------------------

Client ip 127.0.0.1:49926 connected with server 127.0.0.1 port 8088

ID              Interval        Transfer        Bandwidth

127.0.0.1:49926 0.0 - 4.0      417 MB          834.19 Mbps
127.0.0.1:49926 4.0 - 8.0      440 MB          880.67 Mbps
127.0.0.1:49926 8.0 - 12.0     434 MB          867.58 Mbps
127.0.0.1:49926 12.0 - 16.0    420 MB          840.44 Mbps
127.0.0.1:49926 16.0 - 20.0    430 MB          860.05 Mbps

---------------------------------------------

127.0.0.1:49926 0.0 - 20.0     2141 MB         856.54 Mbps

vm@vm-VirtualBox:/media/windows$
```

```
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -s -f KB
---------------------------------------------
A simpleperf server is listening on port 8088
---------------------------------------------

A simpleperf client with 127.0.0.1:48762 is connected with 127.0.0.1:8088

ID              Interval        Received        Rate

127.0.0.1:48762 0.0 - 25.0      2380467 KB      761.70 Mbps
```

```
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -c
---------------------------------------------------------
A simpleperf client connecting to server 127.0.0.1, port 8088
---------------------------------------------------------

Client ip 127.0.0.1:48762 connected with server 127.0.0.1 port 8088

ID              Interval        Transfer        Bandwidth

127.0.0.1:48762 0.0 - 1.0       97 MB           775.99 Mbps
127.0.0.1:48762 1.0 - 2.0       78 MB           622.56 Mbps
127.0.0.1:48762 2.0 - 3.0       99 MB           790.49 Mbps
127.0.0.1:48762 3.0 - 4.0       103 MB          820.01 Mbps
127.0.0.1:48762 4.0 - 5.0       98 MB           780.70 Mbps
127.0.0.1:48762 5.0 - 6.0       99 MB           789.33 Mbps
127.0.0.1:48762 6.0 - 7.0       102 MB          814.85 Mbps
127.0.0.1:48762 7.0 - 8.0       95 MB           757.39 Mbps
127.0.0.1:48762 8.0 - 9.0       95 MB           759.12 Mbps
127.0.0.1:48762 9.0 - 10.0      99 MB           795.68 Mbps
127.0.0.1:48762 10.0 - 11.0     93 MB           742.79 Mbps
127.0.0.1:48762 11.0 - 12.0     86 MB           686.71 Mbps
127.0.0.1:48762 12.0 - 13.0     90 MB           721.30 Mbps
127.0.0.1:48762 13.0 - 14.0     94 MB           754.42 Mbps
127.0.0.1:48762 14.0 - 15.0     95 MB           758.66 Mbps
127.0.0.1:48762 15.0 - 16.0     99 MB           791.36 Mbps
127.0.0.1:48762 16.0 - 17.0     97 MB           773.24 Mbps
127.0.0.1:48762 17.0 - 18.0     95 MB           761.03 Mbps
127.0.0.1:48762 18.0 - 19.0     99 MB           795.14 Mbps
127.0.0.1:48762 19.0 - 20.0     95 MB           761.06 Mbps
127.0.0.1:48762 20.0 - 21.0     95 MB           761.56 Mbps
127.0.0.1:48762 21.0 - 22.0     101 MB          809.14 Mbps
127.0.0.1:48762 22.0 - 23.0     95 MB           763.85 Mbps
127.0.0.1:48762 23.0 - 24.0     92 MB           734.86 Mbps
127.0.0.1:48762 24.0 - 25.0     90 MB           722.50 Mbps
---------------------------------------------------------

127.0.0.1:48762 0.0 - 25.0      2380 MB         761.70 Mbps

vm@vm-VirtualBox:/media/windows$
```

```
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -s -f KB
---------------------------------------------
A simpleperf server is listening on port 8088
---------------------------------------------

A simpleperf client with 127.0.0.1:44838 is connected with 127.0.0.1:8088

ID              Interval        Received        Rate

127.0.0.1:44838 0.0 - 5.0       440793 KB       705.08 Mbps
```

```
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -c -t 5
---------------------------------------------------------
A simpleperf client connecting to server 127.0.0.1, port 8088
---------------------------------------------------------

Client ip 127.0.0.1:44838 connected with server 127.0.0.1 port 8088

ID              Interval        Transfer        Bandwidth

127.0.0.1:44838 0.0 - 1.0       91 MB           731.45 Mbps
127.0.0.1:44838 1.0 - 2.0       88 MB           700.16 Mbps
127.0.0.1:44838 2.0 - 3.0       78 MB           625.24 Mbps
127.0.0.1:44838 3.0 - 4.0       91 MB           726.68 Mbps
127.0.0.1:44838 4.0 - 5.0       93 MB           742.82 Mbps
---------------------------------------------------------

127.0.0.1:44838 0.0 - 5.0       441 MB          705.15 Mbps

vm@vm-VirtualBox:/media/windows$
```

```
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -s
---------------------------------------------
A simpleperf server is listening on port 8088
---------------------------------------------

A simpleperf client with 127.0.0.1:39998 is connected with 127.0.0.1:8088

ID              Interval        Received        Rate

127.0.0.1:39998 0.0 - 25.0      2610 MB         833.47 Mbps
```

```
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -c -i 5
---------------------------------------------------------
A simpleperf client connecting to server 127.0.0.1, port 8088
---------------------------------------------------------

Client ip 127.0.0.1:39998 connected with server 127.0.0.1 port 8088

ID              Interval        Transfer        Bandwidth

127.0.0.1:39998 0.0 - 5.0       494 MB          790.25 Mbps
127.0.0.1:39998 5.0 - 10.0      518 MB          829.59 Mbps
127.0.0.1:39998 10.0 - 15.0     538 MB          860.84 Mbps
127.0.0.1:39998 15.0 - 20.0     533 MB          852.51 Mbps
127.0.0.1:39998 20.0 - 25.0     526 MB          842.33 Mbps
---------------------------------------------------------

127.0.0.1:39998 0.0 - 25.0      2610 MB         833.49 Mbps

vm@vm-VirtualBox:/media/windows$
```

```
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -s -f MB
---------------------------------------------
A simpleperf server is listening on port 8088
---------------------------------------------

A simpleperf client with 127.0.0.1:33184 is connected with 127.0.0.1:8088

ID              Interval        Received        Rate

127.0.0.1:33184 0.0 - 1.1       100 MB          711.17 Mbps
```

```
vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -c -n 100MB -f KB
---------------------------------------------------------
A simpleperf client connecting to server 127.0.0.1, port 8088
---------------------------------------------------------

Client ip 127.0.0.1:33184 connected with server 127.0.0.1 port 8088

ID              Interval        Transfer        Bandwidth

127.0.0.1:33184 0.0 - 1.1       100000 KB       711.37 Mbps

vm@vm-VirtualBox:/media/windows$
```

```
vm@vm-VirtualBox: /media/windows

vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -s -f B
---------------------------------------
A simpleperf server is listening on port 8088
---------------------------------------

A simpleperf client with 127.0.0.1:55780 is connected with 127.0.0.1:8088

ID              Interval       Received      Rate

127.0.0.1:55780 0.0 - 1.2     100000000 B   695.30 Mbps
```

```
vm@vm-VirtualBox: /media/windows

vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -c -n 100000KB -f MB
---------------------------------------
A simpleperf client connecting to server 127.0.0.1, port 8088
---------------------------------------

Client ip 127.0.0.1:55780 connected with server 127.0.0.1 port 8088

ID              Interval       Transfer      Bandwidth

127.0.0.1:55780 0.0 - 1.2     100 MB        695.50 Mbps

vm@vm-VirtualBox:/media/windows$
```

```
vm@vm-VirtualBox: /media/windows

vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -s
---------------------------------------
A simpleperf server is listening on port 8088
---------------------------------------

A simpleperf client with 127.0.0.1:52224 is connected with 127.0.0.1:8088
A simpleperf client with 127.0.0.1:52234 is connected with 127.0.0.1:8088

ID              Interval       Received      Rate

127.0.0.1:52224 0.0 - 15.0    788 MB        420.09 Mbps
127.0.0.1:52234 0.0 - 15.0    788 MB        420.34 Mbps
```

```
vm@vm-VirtualBox: /media/windows

vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -c -P 2 -t 15
---------------------------------------
A simpleperf client connecting to server 127.0.0.1, port 8088
---------------------------------------

Client ip 127.0.0.1:52224 connected with server 127.0.0.1 port 8088
Client ip 127.0.0.1:52234 connected with server 127.0.0.1 port 8088

ID              Interval       Transfer      Bandwidth

127.0.0.1:52224 0.0 - 15.0    788 MB        420.12 Mbps
127.0.0.1:52234 0.0 - 15.0    788 MB        420.40 Mbps

vm@vm-VirtualBox:/media/windows$
```

```
vm@vm-VirtualBox: /media/windows

vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -s
---------------------------------------
A simpleperf server is listening on port 8088
---------------------------------------

A simpleperf client with 127.0.0.1:36930 is connected with 127.0.0.1:8088
A simpleperf client with 127.0.0.1:36946 is connected with 127.0.0.1:8088
A simpleperf client with 127.0.0.1:36954 is connected with 127.0.0.1:8088
A simpleperf client with 127.0.0.1:36964 is connected with 127.0.0.1:8088
A simpleperf client with 127.0.0.1:36966 is connected with 127.0.0.1:8088

ID              Interval       Received      Rate

127.0.0.1:36930 0.0 - 100.0   2177 MB       174.19 Mbps
127.0.0.1:36946 0.0 - 100.0   2226 MB       178.09 Mbps
127.0.0.1:36964 0.0 - 100.0   2164 MB       173.09 Mbps
127.0.0.1:36954 0.0 - 100.1   2199 MB       175.83 Mbps
127.0.0.1:36966 0.0 - 100.1   2191 MB       175.22 Mbps
```

```
vm@vm-VirtualBox: /media/windows

vm@vm-VirtualBox:/media/windows$ python3 simpleperf.py -c -P 5 -t 100
---------------------------------------
A simpleperf client connecting to server 127.0.0.1, port 8088
---------------------------------------

Client ip 127.0.0.1:36930 connected with server 127.0.0.1 port 8088
Client ip 127.0.0.1:36946 connected with server 127.0.0.1 port 8088
Client ip 127.0.0.1:36954 connected with server 127.0.0.1 port 8088
Client ip 127.0.0.1:36964 connected with server 127.0.0.1 port 8088
Client ip 127.0.0.1:36966 connected with server 127.0.0.1 port 8088

ID              Interval       Transfer      Bandwidth

127.0.0.1:36930 0.0 - 100.0   2177 MB       174.19 Mbps
127.0.0.1:36946 0.0 - 100.0   2226 MB       178.10 Mbps
127.0.0.1:36964 0.0 - 100.0   2164 MB       173.13 Mbps
127.0.0.1:36954 0.0 - 100.0   2199 MB       175.85 Mbps
127.0.0.1:36966 0.0 - 100.0   2191 MB       175.25 Mbps

vm@vm-VirtualBox:/media/windows$
```