

Compile & Run:

```
adamhh@adamhh-VirtualBox:~/a3submission$ ls
procReport  procReport.tar.gz
adamhh@adamhh-VirtualBox:~/a3submission$ cd procReport/
adamhh@adamhh-VirtualBox:~/a3submission/procReport$ ls
Makefile  procReport.c
adamhh@adamhh-VirtualBox:~/a3submission/procReport$ make
make -C /lib/modules/5.8.0-44-generic/build M=/home/adamhh/a3submission/procReport modules
make[1]: Entering directory '/usr/src/linux-headers-5.8.0-44-generic'
  CC [M]  /home/adamhh/a3submission/procReport/procReport.o
  MODPOST /home/adamhh/a3submission/procReport/Module.symvers
  CC [M]  /home/adamhh/a3submission/procReport/procReport.mod.o
  LD [M]  /home/adamhh/a3submission/procReport/procReport.ko
make[1]: Leaving directory '/usr/src/linux-headers-5.8.0-44-generic'
adamhh@adamhh-VirtualBox:~/a3submission/procReport$ cat /proc/proc_report
PROCESS REPORT:
proc_id,proc_name,contig_pages,noncontig_pages,total_pages
691,VBoxService,0,1012,1012
708,ModemManager,0,2696,2696
712,unattended-upgr,0,5826,5826
716,gdm3,0,2153,2153
731,gdm-session-wor,0,2339,2339
761,whoopsie,0,3931,3931
767,kerneloops,0,605,605
770,kerneloops,0,620,620
821,systemd,0,2629,2629
822,(sd-pan),0,1385,1385
829,pulseaudio,0,4907,4907
831,tracker-miner-f,0,6383,6383
834,gnome-keyring-d,0,2175,2175
839,dbus-daemon,0,1377,1377
840,gdm-x-session,0,1612,1612
843,Xorg,0,18048,18048
844,rtkit-daemon,0,824,824
851,gvfsd,0,1967,1967
866,gvfsd-fuse,0,1685,1685
871,gvfs-udisks2-vo,0,2484,2484
878,gvfs-goa-volume,0,1886,1886
882,goa-daemon,0,12906,12906
903,goa-identity-se,0,2394,2394
909,gvfs-mtp-volume,0,1605,1605
```

914,gvfs-gphoto2-vo,0,1810,1810  
918,gvfs-afc-volume,0,2269,2269  
925,upowerd,0,2395,2395  
928,gnome-session-b,0,3523,3523  
1007,VBoxClient,0,207,207  
1008,VBoxClient,0,10797,10797  
1017,VBoxClient,0,223,223  
1018,VBoxClient,0,868,868  
1024,VBoxClient,0,231,231  
1025,VBoxClient,0,888,888  
1032,VBoxClient,0,224,224  
1033,VBoxClient,0,992,992  
1041,ssh-agent,0,397,397  
1078,at-spi-bus-laun,0,1716,1716  
1083,dbus-daemon,0,1140,1140  
1106,gnome-session-c,0,1298,1298  
1113,gnome-session-b,0,3977,3977  
1127,gnome-shell,0,79846,79846  
1165,at-spi2-registr,0,1980,1980  
1171,ibus-daemon,0,2078,2078  
1176,ibus-dconf,0,1792,1792  
1177,ibus-extension-,0,7431,7431  
1181,ibus-x11,0,6047,6047  
1184,ibus-portal,0,1842,1842  
1194,xdg-permission-,0,1522,1522  
1198,gnome-shell-cal,0,5181,5181  
1205,evolution-sourc,0,8476,8476  
1213,dconf-service,0,1413,1413  
1220,evolution-calen,0,7857,7857  
1236,evolution-addre,0,7548,7548  
1254,gjs,0,6678,6678  
1264,gvfsd-trash,0,2271,2271  
1272,gsd-a11y-settin,0,1689,1689  
1273,gsd-color,1,6337,6338  
1274,gsd-datetime,0,4106,4106  
1275,gsd-housekeepin,0,2030,2030

```

1277,gsd-keyboard,0,6120,6120
1278,gsd-media-keys,0,6868,6868
1279,gsd-power,0,6362,6362
1280,gsd-print-notif,0,2814,2814
1283,gsd-rfkill,0,1688,1688
1289,gsd-screensaver,0,1530,1530
1290,gsd-sharing,0,2706,2706
1293,gsd-smartcard,1,2517,2518
1295,gsd-sound,0,2427,2427
1302,gsd-usb-protect,0,1822,1822
1309,gsd-wacom,0,6019,6019
1319,gsd-wwan,0,2114,2114
1324,gsd-xsettings,0,6402,6402
1342,evolution-alarm,0,14875,14875
1361,gsd-disk-utilit,0,1737,1737
1402,colord,0,3593,3593
1418,gsd-printer,0,3727,3727
1429,snap-store,0,53744,53744
1436,ibus-engine-sim,0,1823,1823
1449,xdg-document-po,0,1666,1666
1953,gvfsd-metadata,0,1590,1590
2079,loop10,0,0,0
2101,snappy,0,7462,7462
2327,update-notifier,0,6863,6863
4723,kworker/2:1,0,0,0
7131,gvfsd-network,0,2229,2229
7145,gvfsd-dnssd,0,2139,2139
13996,kworker/0:0,0,0,0
13998,kworker/3:0,0,0,0
20397,kworker/dying,0,0,0
25485,kworker/3:1,0,0,0
25518,fwupd,0,13956,13956
25541,cupsd,0,2297,2297
25544,cups-browsed,0,3225,3225
31314,nautilus,0,18396,18396
31349,kworker/2:2,0,0,0
31350,kworker/0:2,0,0,0

31356,kworker/dying,0,0,0
31358,kworker/1:5,0,0,0
32672,gedit,0,14613,14613
32695,kworker/u8:2,0,0,0
33145,gnome-terminal-,0,12428,12428
33573,kworker/u8:0,0,0,0
33604,bash,0,1258,1258
34026,cc1,0,1152,1152
34027,cat,0,728,728
34028,systemd-udevd,0,1241,1241
TOTALS,,2,492659,492661
adamhh@adamhh-VirtualBox:~/a3submission/procReport$ █

```

dmesg:

```
adamhh@adamhh-VirtualBox:~/a3submission/procReport$ dmesg
[ 6569.765003] Shared Clipboard: Converting VBox formats 0x2 to 'UTF8_STRING' for X11 (idxFmtX11=1, fmtX11=3) failed, rc=VERR_NOT_SUPPORTED
[ 6569.766274] Shared Clipboard: Converting VBox formats 0x2 to 'INVALID' for X11 (idxFmtX11=0, fmtX11=0) failed, rc=VERR_NOT_SUPPORTED
[ 6569.767451] Shared Clipboard: Converting VBox formats 0x2 to 'STRING' for X11 (idxFmtX11=4, fmtX11=2) failed, rc=VERR_NOT_SUPPORTED
[ 6609.538669] procReport: performing cleanup of module
[ 6624.553261] PROCESS REPORT:
[ 6624.553262] proc_id,proc_name,contig_pages,noncontig_pages,total_pages
[ 6624.553264] 669,dbus,0,1734,1734
[ 6624.553265] 674,cups-browsed,0,3206,3206
[ 6624.553266] 691,VBoxService,0,1010,1010
[ 6624.553268] 708,ModemManager,0,2696,2696
[ 6624.553269] 712,unattended-upgr,0,5826,5826
[ 6624.553270] 716,gdm3,0,2153,2153
[ 6624.553271] 731,gdm-session-wor,0,2339,2339
[ 6624.553272] 761,whoopsie,0,3931,3931
[ 6624.553273] 767,kernelevents,0,605,605
[ 6624.553274] 770,kernelevents,0,620,620
[ 6624.553275] 821,systemd,0,2629,2629
[ 6624.553277] 822,(sd-pam),0,1385,1385
[ 6624.553278] 829,pulseaudio,0,4890,4890
[ 6624.553279] 831,tracker-miner-f,0,6379,6379
[ 6624.553280] 834,gnome-keyring-d,0,2165,2165
[ 6624.553281] 839,dbus-daemon,0,1377,1377
[ 6624.553282] 840,gdm-x-session,0,1612,1612
[ 6624.553283] 843,Xorg,0,18217,18217
[ 6624.553284] 844,rtkit-daemon,0,824,824
[ 6624.553285] 851,gvfsd,0,1963,1963
[ 6624.553286] 866,gvfsd-fuse,0,1685,1685
[ 6624.553288] 871,gvfs-udisks2-vo,0,2484,2484
[ 6624.553289] 878,gvfs-goa-volume,0,1882,1882
[ 6624.553290] 882,goa-daemon,0,12906,12906
[ 6624.553291] 903,goa-identity-se,0,2394,2394
[ 6624.553292] 909,gvfs-mtp-volume,0,1603,1603
[ 6624.553293] 914,gvfs-gphoto2-vo,0,1808,1808
[ 6624.553294] 918,gvfs-afc-volume,0,2268,2268
[ 6624.553295] 925,upowerd,0,2394,2394
[ 6624.553296] 928,gnome-session-b,0,3523,3523
```

```
6624.553297] 1007,VBoxClient,0,207,207
6624.553298] 1008,VBoxClient,0,1154,1154
6624.553299] 1017,VBoxClient,0,223,223
6624.553300] 1018,VBoxClient,0,868,868
6624.553301] 1024,VBoxClient,0,231,231
6624.553302] 1025,VBoxClient,0,888,888
6624.553303] 1032,VBoxClient,0,224,224
6624.553305] 1033,VBoxClient,0,992,992
6624.553306] 1041,ssh-agent,0,397,397
6624.553307] 1078,at-spi-bus-laun,0,1716,1716
6624.553308] 1083,dbus-daemon,0,1140,1140
6624.553309] 1106,gnome-session-c,0,1298,1298
6624.553310] 1113,gnome-session-b,0,3976,3976
6624.553311] 1127,gnome-shell,0,79800,79800
6624.553312] 1165,at-spi2-registr,0,1980,1980
6624.553313] 1171,ibus-daemon,0,2078,2078
6624.553314] 1176,ibus-dconf,0,1792,1792
6624.553315] 1177,ibus-extension-,0,7431,7431
6624.553316] 1181,ibus-x11,0,6047,6047
6624.553317] 1184,ibus-portal,0,1838,1838
6624.553318] 1194,xdg-permission-,0,1522,1522
6624.553320] 1198,gnome-shell-cal,0,5181,5181
6624.553321] 1205,evolution-sourc,0,8476,8476
6624.553322] 1213,dconf-service,0,1411,1411
6624.553323] 1220,evolution-calen,0,7855,7855
6624.553324] 1236,evolution-addre,0,7548,7548
6624.553325] 1254,gjs,0,6677,6677
6624.553326] 1264,gvfsd-trash,0,2263,2263
6624.553327] 1272,gsd-a11y-settin,0,1688,1688
6624.553328] 1273,gsd-color,1,6337,6338
6624.553329] 1274,gsd-datetime,0,4105,4105
6624.553330] 1275,gsd-housekeepin,0,2030,2030
6624.553331] 1277,gsd-keyboard,0,6119,6119
6624.553332] 1278,gsd-media-keys,0,6865,6865
6624.553333] 1279,gsd-power,0,6361,6361
6624.553334] 1280,gsd-print-notif,0,2814,2814
6624.553335] 1283,gsd-rfkill,0,1688,1688
6624.553336] 1289,gsd-screensaver,0,1530,1530
6624.553337] 1290,gsd-sharing,0,2706,2706
6624.553338] 1293,gsd-smartcard,1,2517,2518
```

```

6624.553344] 1324,gsd-xsettings,0,6402,6402
6624.553345] 1342,evolution-alarm,0,14873,14873
6624.553346] 1361,gsd-disk-utilit,0,1737,1737
6624.553347] 1402,colord,0,3593,3593
6624.553348] 1418,gsd-printer,0,3727,3727
6624.553349] 1429,snap-store,0,53744,53744
6624.553350] 1436,ibus-engine-sim,0,1823,1823
6624.553351] 1449,xdg-document-po,0,1661,1661
6624.553352] 1560,fwupd,0,5894,5894
6624.553353] 1953,gvfsd-metadata,0,1588,1588
6624.553354] 2079,loop10,0,0,0
6624.553355] 2101,snapd,0,7440,7440
6624.553356] 2327,update-notifier,0,6864,6864
6624.553358] 2986,chrome,0,50323,50323
6624.553359] 2993,cats,0,414,414
6624.553360] 2994,cats,0,429,429
6624.553361] 2997,chrome,0,13364,13364
6624.553362] 2998,chrome,0,13548,13548
6624.553363] 2999,nacl_helper,0,1078,1078
6624.553364] 3002,chrome,0,3690,3690
6624.553365] 3022,chrome,0,35201,35201
6624.553366] 3026,chrome,0,20240,20240
6624.553367] 3046,chrome,0,8754,8754
6624.553368] 3530,chrome,1,31619,31620
6624.553369] 3607,chrome,0,22813,22813
6624.553370] 3621,chrome,0,13465,13465
6624.553371] 4723,kworker/2:1,0,0,0
6624.553372] 7118,kworker/1:2,0,0,0
6624.553373] 7120,gedit,0,16298,16298
6624.553374] 7131,gvfsd-network,0,2213,2213
6624.553375] 7145,gvfsd-dnssd,0,2139,2139
6624.553376] 8086,kworker/1:0,0,0,0
6624.553377] 10404,kworker/0:2,0,0,0
6624.553378] 11240,kworker/3:1,0,0,0
6624.553379] 11251,kworker/u8:2,0,0,0
6624.553381] 11259,kworker/2:2,0,0,0
6624.553382] 11673,kworker/u8:1,0,0,0
6624.553383] 12116,kworker/1:1,0,0,0
6624.553384] 12153,gnome-terminal-,0,12344,12344
6624.553385] 12161,bash,0,1282,1282

6624.553386] 12582,kworker/u8:0,0,0,0
6624.553387] 12585,systemd-udevd,0,1241,1241
6624.553388] 12587,sudo,0,1148,1148
6624.553389] 12588,insmod,0,727,727
6624.553390] TOTALS,,3,672536,672539
6635.944927] Shared Clipboard: Converting VBox formats 0x2 to 'text/plain;charset=utf-8' for X11 (idxFmtX11=3, fmtX11=3) failed, rc=VERR_NOT
6635.946210] Shared Clipboard: Converting VBox formats 0x2 to 'UTF8_STRING' for X11 (idxFmtX11=1, fmtX11=3) failed, rc=VE
RR_NOT_SUPPORTED
6635.949941] Shared Clipboard: Converting VBox formats 0x2 to 'INVALID' for X11 (idxFmtX11=0, fmtX11=0) failed, rc=VERR_N
OT_SUPPORTED
6635.951214] Shared Clipboard: Converting VBox formats 0x2 to 'STRING' for X11 (idxFmtX11=4, fmtX11=2) failed, rc=VERR_NO

```