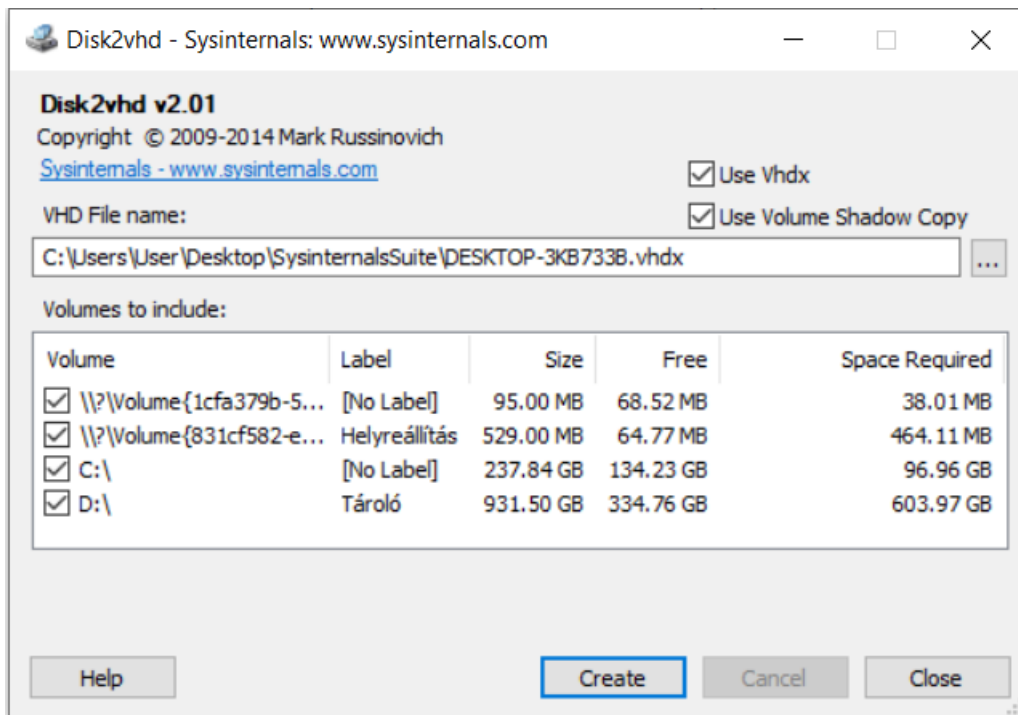
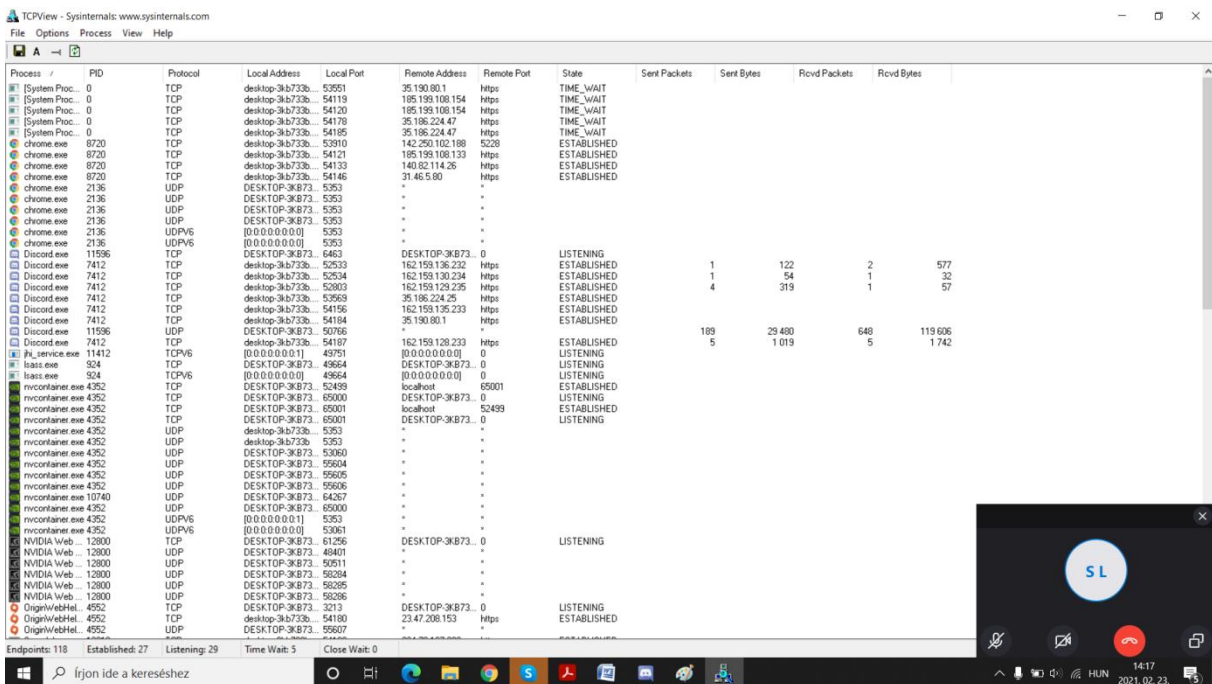


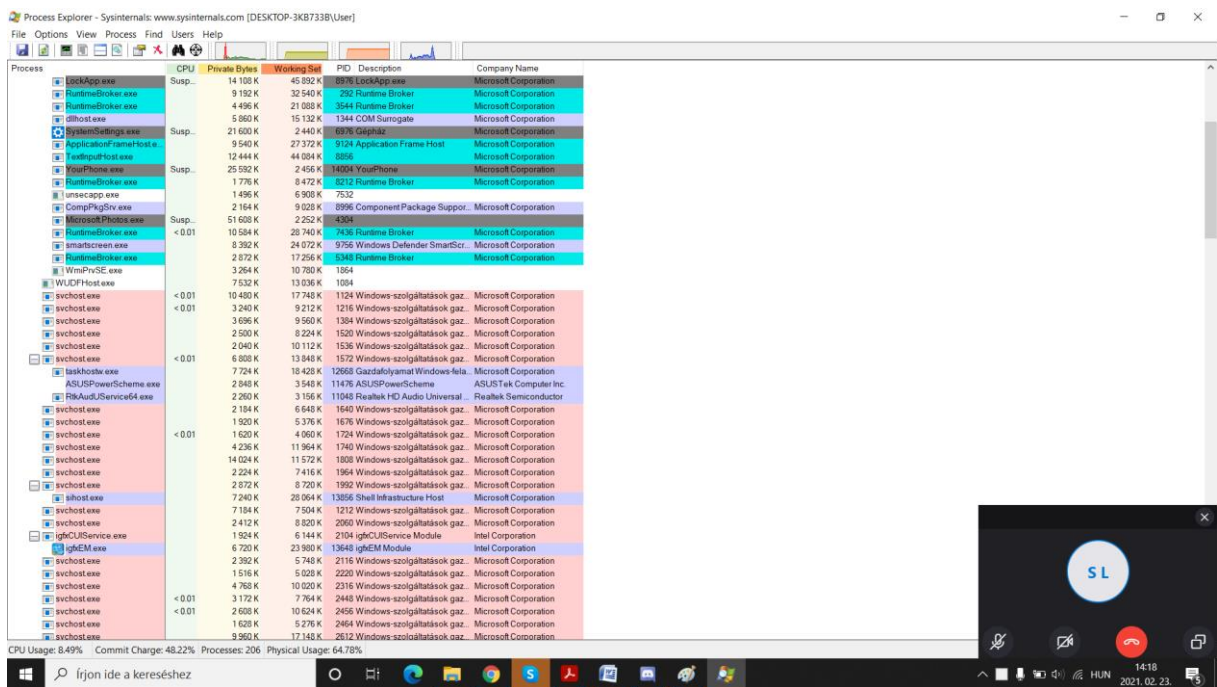
Disk2vhd megmutatja a háttér tár felosztását



TCPView megmutatja hogy mekkora adatmennyiséget kap és küld át



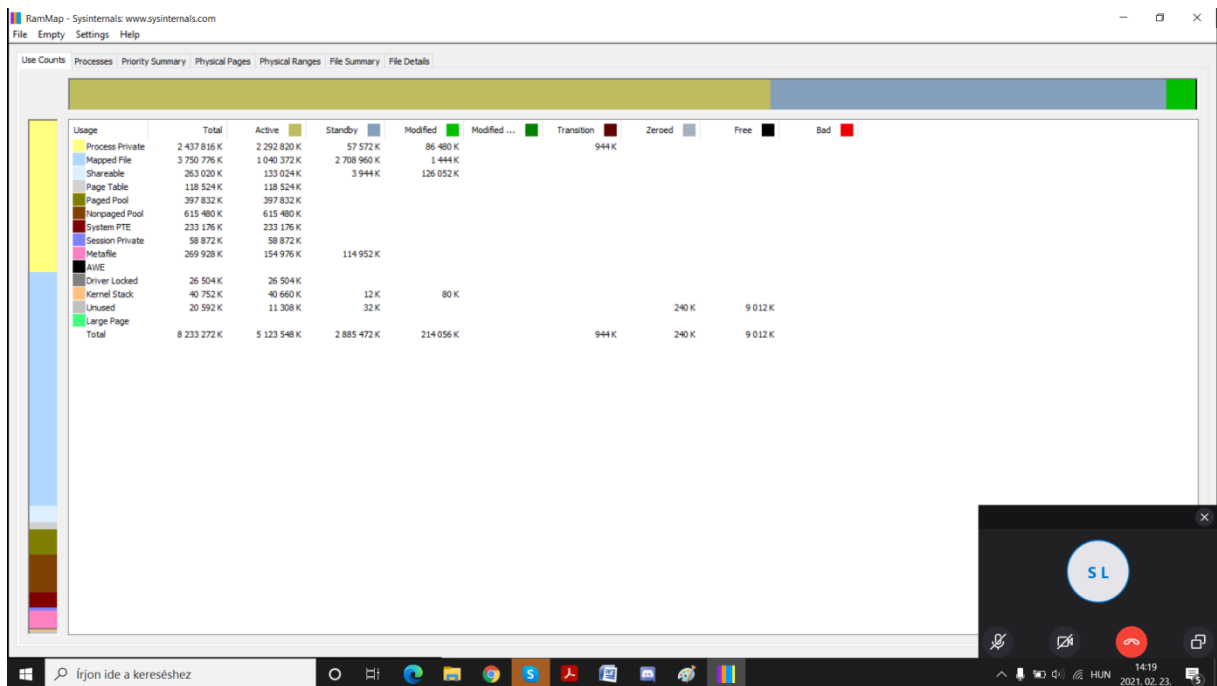
Process Explorer, Process Monitor, AutoRuns processzor állapotát nézi



The screenshot shows the Process Explorer window from Sysinternals. The 'Processes' tab is active, displaying a list of running processes. The columns include Name, CPU, Private Bytes, Working Set, PID, Description, and Company Name. Processes like LockApp.exe, RuntimeBroker.exe, SystemSettings.exe, and various Windows services (svchost.exe) are visible. The taskbar at the bottom shows the Start button, a search bar, and several pinned applications. A system tray icon for 'SL' is visible in the bottom right corner.

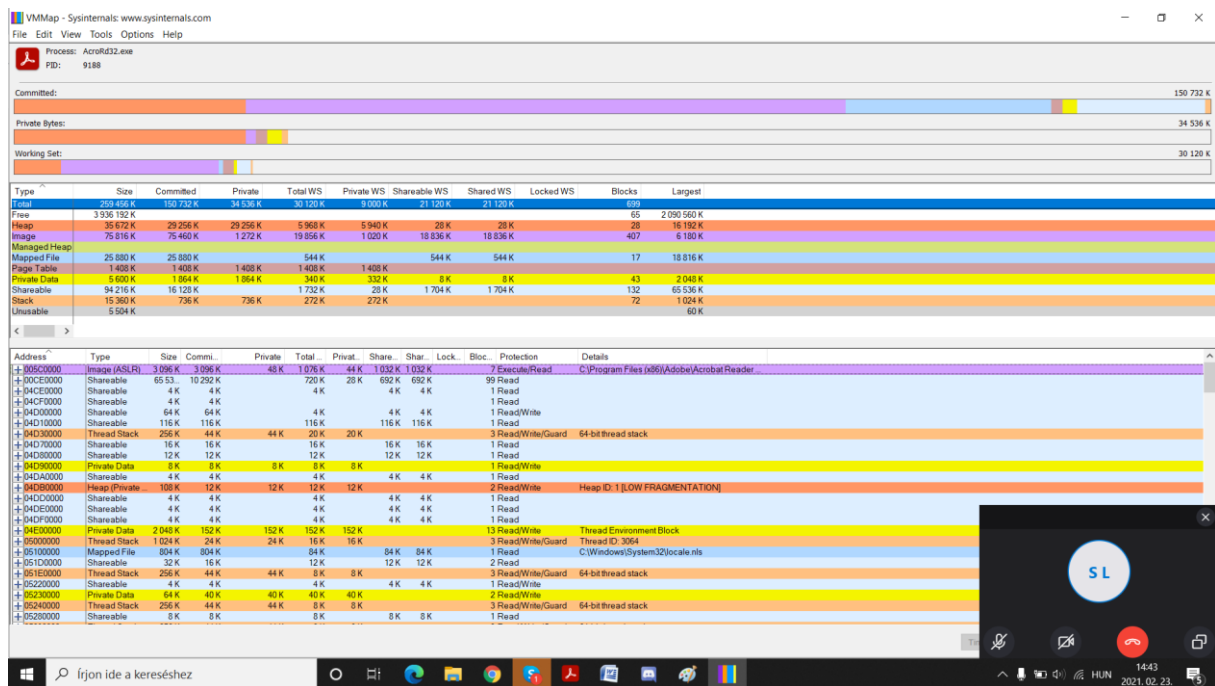
LogonSession kiírja a session logot

RAMMap a ram állapotát nézi

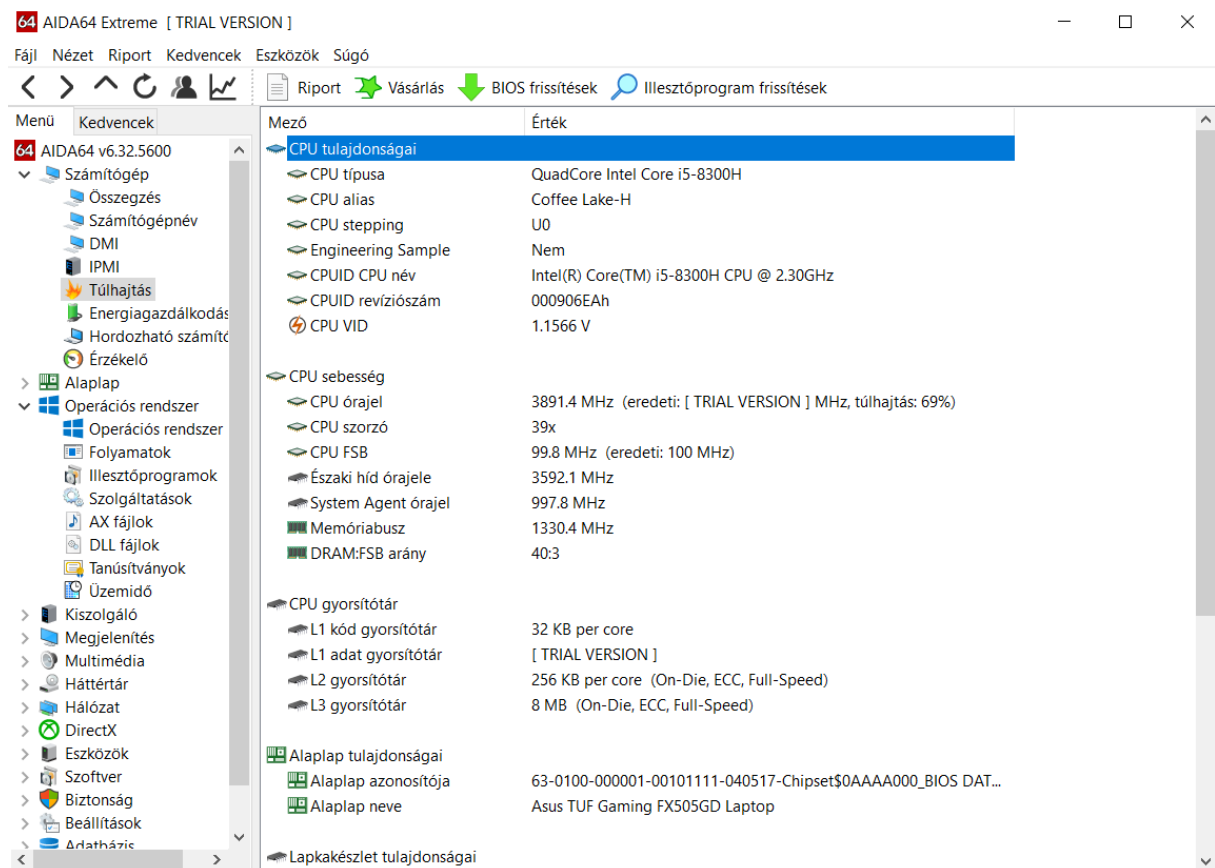


The screenshot shows the RAMMap window from Sysinternals. The 'Use Counts' tab is active, displaying a table of memory usage statistics. The table has columns for Usage, Total, Active, Standby, Modified, Modified ..., Transition, Zeroed, Free, and Bad. The 'Total' row shows 8,233,272 K of memory used. The 'Free' row shows 9,012 K of memory available. The taskbar at the bottom shows the Start button, a search bar, and several pinned applications. A system tray icon for 'SL' is visible in the bottom right corner.

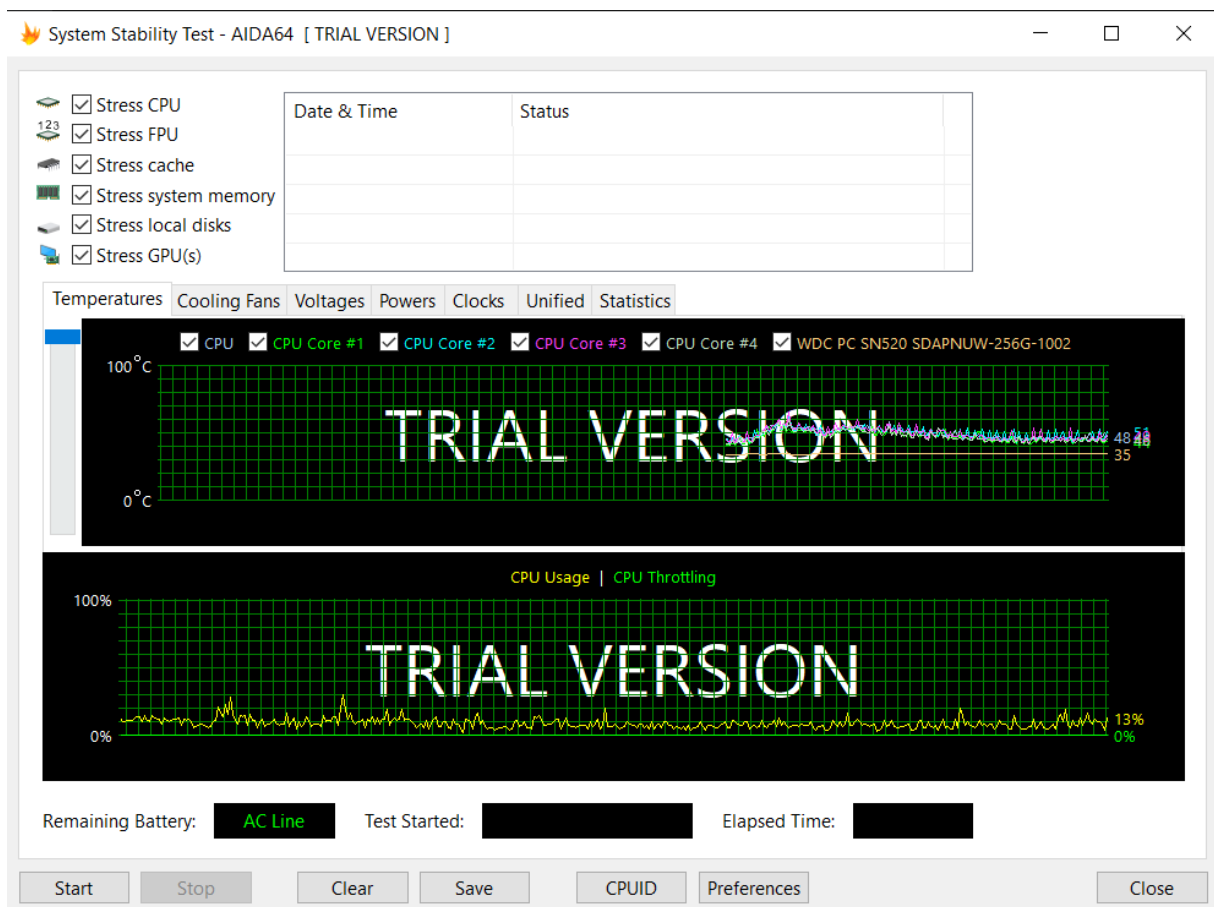
VMMAP



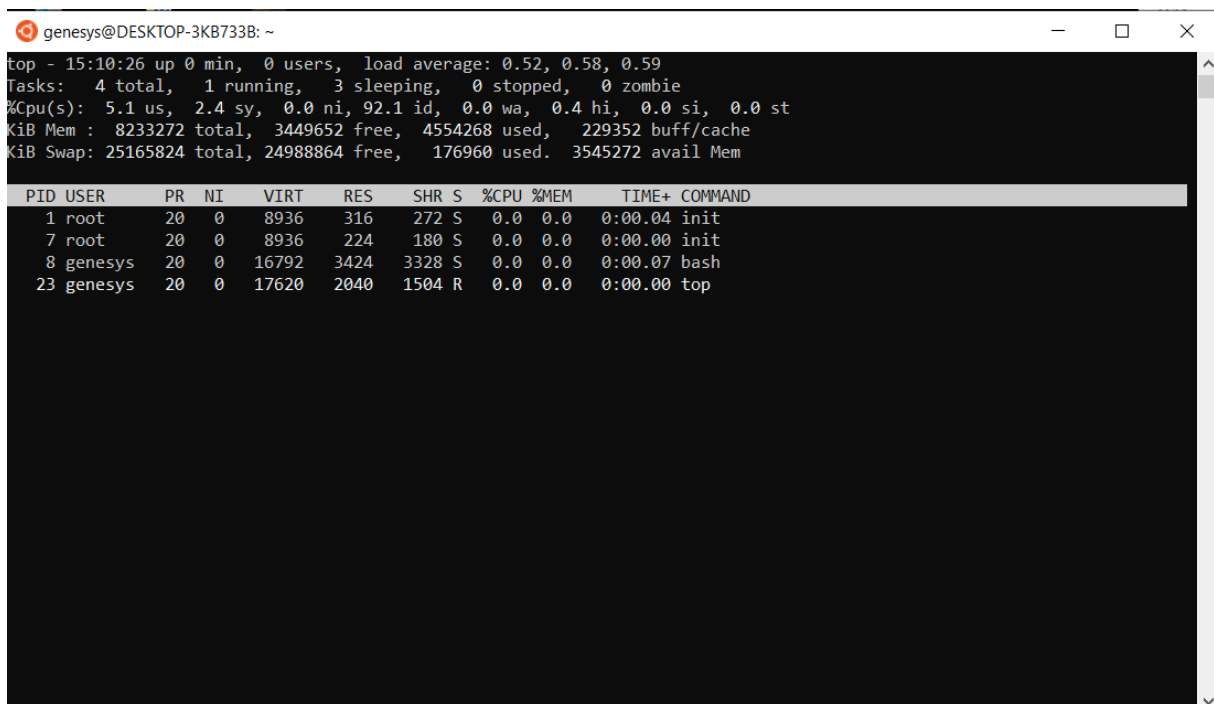
AIDA64 megmutatja a számítógép adatait



CPU GPU állapotát nézi



top processz aktivitását mutatja



vmstat -a-m

```
genesys@DESKTOP-3KB733B: ~  
See "man sudo_root" for details.  
  
genesys@DESKTOP-3KB733B:~$ sudo vmstat -a-m  
[sudo] password for genesys:  
vmstat: invalid option -- '-'  
  
Usage:  
vmstat [options] [delay [count]]  
  
Options:  
-a, --active          active/inactive memory  
-f, --forks           number of forks since boot  
-m, --slabs           slabinfo  
-n, --one-header      do not redisplay header  
-s, --stats           event counter statistics  
-d, --disk            disk statistics  
-D, --disk-sum        summarize disk statistics  
-p, --partition <dev> partition specific statistics  
-S, --unit <char>     define display unit  
-w, --wide            wide output  
-t, --timestamp       show timestamp  
  
-h, --help            display this help and exit  
-V, --version         output version information and exit  
  
For more details see vmstat(8).  
genesys@DESKTOP-3KB733B:~$
```

w felhasználó név

megmutatja hogy ki van bejelentkezve a rendszerbe

```
genesys@DESKTOP-3KB733B: ~  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
  
genesys@DESKTOP-3KB733B:~$ vmstat - [a, m]  
vmstat: failed to parse argument: '-'  
genesys@DESKTOP-3KB733B:~$ who  
genesys@DESKTOP-3KB733B:~$ w USER  
 15:11:57 up 1 min,  0 users,  load average: 0.52, 0.58, 0.59  
USER      TTY      FROM          LOGIN@  IDLE   JCPU   PCPU   WHAT  
genesys@DESKTOP-3KB733B:~$
```

uname

ps -A kiválasztja az össze processzt

```
genesys@DESKTOP-3KB733B: ~  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
  
genesys@DESKTOP-3KB733B:~$ vmstat - [a, m]  
vmstat: failed to parse argument: '-'  
genesys@DESKTOP-3KB733B:~$ who  
genesys@DESKTOP-3KB733B:~$ w USER  
15:11:57 up 1 min, 0 users, load average: 0.52, 0.58, 0.59  
USER      TTY      FROM          LOGIN@   IDLE   JCPU   PCPU WHAT  
genesys@DESKTOP-3KB733B:~$ uname  
Linux  
genesys@DESKTOP-3KB733B:~$  
genesys@DESKTOP-3KB733B:~$ ps -A  
PID TTY      TIME CMD  
  1 ?        00:00:00 init  
 25 tty1    00:00:00 init  
 26 tty1    00:00:00 bash  
 45 tty1    00:00:00 ps  
genesys@DESKTOP-3KB733B:~$
```

free megmutatja a memória és a swap által használt/ szabad területet

```
genesys@DESKTOP-3KB733B: ~  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
  
genesys@DESKTOP-3KB733B:~$ vmstat - [a, m]  
vmstat: failed to parse argument: '-'  
genesys@DESKTOP-3KB733B:~$ who  
genesys@DESKTOP-3KB733B:~$ w USER  
15:11:57 up 1 min, 0 users, load average: 0.52, 0.58, 0.59  
USER      TTY      FROM          LOGIN@   IDLE   JCPU   PCPU WHAT  
genesys@DESKTOP-3KB733B:~$ uname  
Linux  
genesys@DESKTOP-3KB733B:~$  
genesys@DESKTOP-3KB733B:~$ ps -A  
PID TTY      TIME CMD  
  1 ?        00:00:00 init  
 25 tty1    00:00:00 init  
 26 tty1    00:00:00 bash  
 45 tty1    00:00:00 ps  
genesys@DESKTOP-3KB733B:~$ free  
              total        used        free      shared  buff/cache   available  
Mem:           8233272      4568632      3435288       17720       229352     3530908  
Swap:          25165824       174736     24991088  
genesys@DESKTOP-3KB733B:~$
```

sar aktivitási adatok jelzése és összegyűjtése

```
root@DESKTOP-3KB733B: ~  
Suggested packages:  
  lm-sensors isag  
The following NEW packages will be installed:  
  libsensors4 sysstat  
0 upgraded, 2 newly installed, 0 to remove and 0 not upgraded.  
Need to get 323 kB of archives.  
After this operation, 1305 kB of additional disk space will be used.  
Do you want to continue? [Y/n] y  
Get:1 http://archive.ubuntu.com/ubuntu bionic/main amd64 libsensors4 amd64 1:3.4.0-4 [28.8 kB]  
Get:2 http://archive.ubuntu.com/ubuntu bionic/main amd64 sysstat amd64 11.6.1-1 [295 kB]  
Fetched 323 kB in 1s (613 kB/s)  
Preconfiguring packages ...  
Selecting previously unselected package libsensors4:amd64.  
(Reading database ... 28645 files and directories currently installed.)  
Preparing to unpack .../libsensors4_1%3a3.4.0-4_amd64.deb ...  
Unpacking libsensors4:amd64 (1:3.4.0-4) ...  
Selecting previously unselected package sysstat.  
Preparing to unpack .../sysstat_11.6.1-1_amd64.deb ...  
Unpacking sysstat (11.6.1-1) ...  
Processing triggers for ureadahead (0.100.0-21) ...  
Processing triggers for libc-bin (2.27-3ubuntu1) ...  
Processing triggers for systemd (237-3ubuntu10.21) ...  
Setting up libsensors4:amd64 (1:3.4.0-4) ...  
Processing triggers for man-db (2.8.3-2ubuntu0.1) ...  
Setting up sysstat (11.6.1-1) ...  
update-alternatives: using /usr/bin/sar.sysstat to provide /usr/bin/sar (sar) in auto mode  
Processing triggers for libc-bin (2.27-3ubuntu1) ...  
root@DESKTOP-3KB733B:~# sar  
Linux 4.4.0-19041-Microsoft (DESKTOP-3KB733B) 02/28/21 _x86_64_ (8 CPU)  
root@DESKTOP-3KB733B:~#
```

iostat CPU statisztika és a számítógép I/O eszközei

```
root@DESKTOP-3KB733B: ~  
The following NEW packages will be installed:  
  libsensors4 sysstat  
0 upgraded, 2 newly installed, 0 to remove and 0 not upgraded.  
Need to get 323 kB of archives.  
After this operation, 1305 kB of additional disk space will be used.  
Do you want to continue? [Y/n] y  
Get:1 http://archive.ubuntu.com/ubuntu bionic/main amd64 libsensors4 amd64 1:3.4.0-4 [28.8 kB]  
Get:2 http://archive.ubuntu.com/ubuntu bionic/main amd64 sysstat amd64 11.6.1-1 [295 kB]  
Fetched 323 kB in 1s (613 kB/s)  
Preconfiguring packages ...  
Selecting previously unselected package libsensors4:amd64.  
(Reading database ... 28645 files and directories currently installed.)  
Preparing to unpack .../libsensors4_1%3a3.4.0-4_amd64.deb ...  
Unpacking libsensors4:amd64 (1:3.4.0-4) ...  
Selecting previously unselected package sysstat.  
Preparing to unpack .../sysstat_11.6.1-1_amd64.deb ...  
Unpacking sysstat (11.6.1-1) ...  
Processing triggers for ureadahead (0.100.0-21) ...  
Processing triggers for libc-bin (2.27-3ubuntu1) ...  
Processing triggers for systemd (237-3ubuntu10.21) ...  
Setting up libsensors4:amd64 (1:3.4.0-4) ...  
Processing triggers for man-db (2.8.3-2ubuntu0.1) ...  
Setting up sysstat (11.6.1-1) ...  
update-alternatives: using /usr/bin/sar.sysstat to provide /usr/bin/sar (sar) in auto mode  
Processing triggers for libc-bin (2.27-3ubuntu1) ...  
root@DESKTOP-3KB733B:~# sar  
Linux 4.4.0-19041-Microsoft (DESKTOP-3KB733B) 02/28/21 _x86_64_ (8 CPU)  
root@DESKTOP-3KB733B:~# iostat  
Cannot find disk data  
root@DESKTOP-3KB733B:~#
```

mpstat több processzoros sz.gép esetén használják

```
root@DESKTOP-3KB733B: ~  
(Reading database ... 28645 files and directories currently installed.)  
Preparing to unpack .../libsensors4_1%3a3.4.0-4_amd64.deb ...  
Unpacking libsensors4:amd64 (1:3.4.0-4) ...  
Selecting previously unselected package sysstat.  
Preparing to unpack .../sysstat_11.6.1-1_amd64.deb ...  
Unpacking sysstat (11.6.1-1) ...  
Processing triggers for ureadahead (0.100.0-21) ...  
Processing triggers for libc-bin (2.27-3ubuntu1) ...  
Processing triggers for systemd (237-3ubuntu10.21) ...  
Setting up libsensors4:amd64 (1:3.4.0-4) ...  
Processing triggers for man-db (2.8.3-2ubuntu0.1) ...  
Setting up sysstat (11.6.1-1) ...  
update-alternatives: using /usr/bin/sar.sysstat to provide /usr/bin/sar (sar) in auto mode  
Processing triggers for libc-bin (2.27-3ubuntu1) ...  
root@DESKTOP-3KB733B:~# sar  
Linux 4.4.0-19041-Microsoft (DESKTOP-3KB733B) 02/28/21 _x86_64_ (8 CPU)  
root@DESKTOP-3KB733B:~# iostat  
Cannot find disk data  
root@DESKTOP-3KB733B:~# pmstat  
  
Command 'pmstat' not found, but can be installed with:  
  
apt install pcpt  
  
root@DESKTOP-3KB733B:~# mpstat  
Linux 4.4.0-19041-Microsoft (DESKTOP-3KB733B) 02/28/21 _x86_64_ (8 CPU)  
  
17:54:28 CPU %usr %nice %sys %iowait %irq %soft %steal %guest %gnice %idle  
17:54:28 all 4.26 0.00 1.95 0.00 0.31 0.00 0.00 0.00 0.00 93.48  
root@DESKTOP-3KB733B:~#
```

pmmap processz memória használatát jelzi

```
root@DESKTOP-3KB733B: ~  
-q, --quiet do not display header and footer  
-p, --show-path show path in the mapping  
-A, --range=<low>[,<high>] limit results to the given range  
  
-h, --help display this help and exit  
-V, --version output version information and exit  
  
For more details see pmmap(1).  
root@DESKTOP-3KB733B:~# ls /proc  
ls: cannot access 'proc': No such file or directory  
root@DESKTOP-3KB733B:~# /proc  
-bash: /proc: Is a directory  
root@DESKTOP-3KB733B:~# ls /proc  
1 473 7 893 bus cmdline filesystems loadavg mounts self sys uptime version_signature  
23 474 8 92 cgroups cpuinfo interrupts meminfo net stat tty version  
root@DESKTOP-3KB733B:~# pmmap 1  
1: /init  
000000000200000 144K r---- init  
000000000224000 4K r---- init  
000000000225000 440K r-x-- init  
000000000293000 4K r-x-- init  
000000000294000 24K rw--- init  
00000000029a000 24K rw--- [ anon ]  
00000000091e000 12K rw--- [ anon ]  
00007f45dddc0000 4K ----- [ anon ]  
00007f45dddc1000 84K rw--- [ anon ]  
00007ffff4428000 8192K rw--- [ anon ]  
00007ffff50a3000 4K r-x-- [ anon ]  
total 8936K  
root@DESKTOP-3KB733B:~#
```