

Operációs rendszerek BSc

4. Gyak.

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Készítette:

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Mérnök Informatikus

CVVJZ4

Miskolc, 2022

1. Linux OS-n futtassa a következő parancsokat, vizsgálja meg milyen szolgáltatásokat biztosít, írja le egy-egy mondattal.

```
File Edit View Search Terminal Help
Terminal
bereznai@lab101-05 ~$ free
              total        used        free      shared  buff/cache   available
Mem:           3841688      1182832      1201660       250712       1457988       2113768
Swap:              0              0      4990972

bereznai@lab101-05 ~$ iostat
The program 'iostat' is currently not installed. To run 'iostat' please ask your administrator to install the package 'sysstat'
bereznai@lab101-05 ~$ sysstat
sysstat: command not found
bereznai@lab101-05 ~$ sar
The program 'sar' is currently not installed. To run 'sar' please ask your administrator to install the package 'sysstat'
bereznai@lab101-05 ~$ mpstat
The program 'mpstat' is currently not installed. To run 'mpstat' please ask your administrator to install the package 'sysstat'
bereznai@lab101-05 ~$ pmmap

Usage:
  pmmap [options] PID [PID ...]

Options:
  -x, --extended          show details
  -X                      show even more details
  -C, --read-rc            WARNING: format changes according to /proc/PID/smmaps
                        show everything the kernel provides
  -C, --read-rc-from=<file> read the rc from file
  -n, --create-rc          create new default rc
  -n, --create-rc-to=<file> create new rc to file
                        NOTE: pid arguments are not allowed with -n, -N
  -d, --device            show the device format
  -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).
bereznai@lab101-05 ~$ pmmap -x
pmmap: argument missing
bereznai@lab101-05 ~$ pmmap -X
pmmap: argument missing
bereznai@lab101-05 ~$ pmmap -c
pmmap: argument missing
bereznai@lab101-05 ~$
```

```
File Edit View Search Terminal Help
Terminal
bereznai@lab101-05 ~$ free
              total        used        free      shared  buff/cache   available
Mem:           3841688      1182832      1201660       250712       1457988       2113768
Swap:              0              0      4990972

bereznai@lab101-05 ~$
```

```
Terminal
File Edit View Search Terminal Help
bercznai@lab101-05 ~$ # vestat 3
bercznai@lab101-05 ~$ vmstat -s
procs .....memory.....swap.....io.....system.....cpu.....
r b swpd free inact active si so bi bo cs us sy id wa st
0 0 0 134408 667988 1597380 0 0 338 74 149 407 4 1 86 0 0
bercznai@lab101-05 ~$
```

```
Terminal
File Edit View Search Terminal Help
unconfined 1 0 9180 6158 5835 6163 0 80 0 - 661144 futex_? 00:00:00 JS Watchdog
unconfined 1 0 9180 6158 5835 6164 0 80 0 - 661144 futex_? 00:00:00 JS Helper
unconfined 1 0 9180 6158 5835 6165 0 80 0 - 661144 futex_? 00:00:00 JS Helper
unconfined 1 0 9180 6158 5835 6166 0 80 0 - 661144 futex_? 00:00:00 JS Helper
unconfined 1 0 9180 6158 5835 6167 0 80 0 - 661144 futex_? 00:00:00 JS Helper
unconfined 1 0 9180 6158 5835 6168 0 80 0 - 661144 poll_s? 00:00:00 Socket Thread
unconfined 1 0 9180 6158 5835 6170 0 80 0 - 661144 futex_? 00:00:00 Timer
unconfined 1 0 9180 6158 5835 6171 0 80 0 - 661144 futex_? 00:00:00 DOM File
unconfined 1 0 9180 6158 5835 6172 0 80 0 - 661144 futex_? 00:00:00 Worker Launcher
unconfined 1 0 9180 6158 5835 6173 0 80 0 - 661144 futex_? 00:00:00 PaintThread
unconfined 1 0 9180 6158 5835 6176 0 80 0 - 661144 futex_? 00:00:00 ImageIO
unconfined 1 0 9180 6158 5835 6177 0 80 0 - 661144 futex_? 00:00:00 ImageIO
unconfined 1 0 9180 6158 5835 6178 0 80 0 - 661144 futex_? 00:00:00 ImageIO-geChild
unconfined 1 0 9180 6158 5835 6179 0 80 0 - 661144 futex_? 00:00:00 RenwidChild
unconfined 1 0 9180 6158 5835 6180 0 80 0 - 661144 futex_? 00:00:00 AudioIPC
unconfined 1 0 9180 6158 5835 6181 0 49 - - 661144 futex_? 00:00:00 AudioIPC
unconfined 1 0 9180 6158 5835 6182 0 80 0 - 661144 futex_? 00:00:00 ProcessHangMon
unconfined 1 0 9180 6158 5835 6183 0 80 0 - 661144 futex_? 00:00:00 ProfilerChild
unconfined 1 0 9180 6158 5835 6355 0 80 0 - 661144 futex_? 00:00:00 HTML5 Parser
unconfined 1 0 9180 6158 5835 6356 0 80 0 - 661144 futex_? 00:00:00 StyleThread#0
unconfined 1 0 9180 6158 5835 6357 0 80 0 - 661144 futex_? 00:00:00 StyleThread#1
unconfined 1 0 9180 6158 5835 6358 0 80 0 - 661144 futex_? 00:00:00 StyleThread#2
unconfined 1 0 9180 6158 5835 6359 0 80 0 - 661144 futex_? 00:00:00 ImageIO-geChild
unconfined 0 0 9180 6276 1 6276 0 80 0 - 107865 poll_s? 00:00:00 gvsd-network
unconfined 1 0 9180 6276 1 6279 0 80 0 - 107865 poll_s? 00:00:00 gmain
unconfined 1 0 9180 6276 1 6280 0 80 0 - 107865 poll_s? 00:00:00 gbus
unconfined 0 0 9180 6302 1 6302 0 80 0 - 98014 poll_s? 00:00:00 dconf worker
unconfined 1 0 9180 6302 1 6305 0 80 0 - 98014 poll_s? 00:00:00 gvsd-dnssd
unconfined 1 0 9180 6302 1 6306 0 80 0 - 98014 poll_s? 00:00:00 gmain
unconfined 4 0 9180 6328 5835 6328 0 80 0 - 633585 poll_s? 00:00:00 WebSockets
unconfined 1 0 9180 6328 5835 6333 0 80 0 - 633585 poll_s? 00:00:00 ChromeThread
unconfined 1 0 9180 6328 5835 6334 0 80 0 - 633585 futex_? 00:00:00 JS Watchdog
unconfined 1 0 9180 6328 5835 6335 0 80 0 - 633585 futex_? 00:00:00 JS Helper
unconfined 1 0 9180 6328 5835 6336 0 80 0 - 633585 futex_? 00:00:00 JS Helper
unconfined 1 0 9180 6328 5835 6337 0 80 0 - 633585 futex_? 00:00:00 JS Helper
unconfined 1 0 9180 6328 5835 6338 0 80 0 - 633585 futex_? 00:00:00 JS Helper
unconfined 1 0 9180 6328 5835 6339 0 80 0 - 633585 poll_s? 00:00:00 Socket Thread
unconfined 1 0 9180 6328 5835 6340 0 80 0 - 633585 futex_? 00:00:00 Timer
unconfined 1 0 9180 6328 5835 6341 0 80 0 - 633585 futex_? 00:00:00 DOM File
unconfined 1 0 9180 6328 5835 6342 0 80 0 - 633585 futex_? 00:00:00 Worker Launcher
unconfined 1 0 9180 6328 5835 6343 0 80 0 - 633585 futex_? 00:00:00 PaintThread
unconfined 1 0 9180 6328 5835 6344 0 80 0 - 633585 futex_? 00:00:00 ImageIO-geChild
unconfined 1 0 9180 6328 5835 6345 0 80 0 - 633585 futex_? 00:00:00 ImageIO
unconfined 1 0 9180 6328 5835 6349 0 80 0 - 633585 futex_? 00:00:00 ImageIO-geChild
unconfined 1 0 9180 6328 5835 6350 0 80 0 - 633585 futex_? 00:00:00 RenwidChild
unconfined 1 0 9180 6328 5835 6351 0 49 - - 633585 futex_? 00:00:00 AudioIPC
unconfined 1 0 9180 6328 5835 6352 0 49 - - 633585 futex_? 00:00:00 AudioIPC
unconfined 1 0 9180 6328 5835 6353 0 80 0 - 633585 futex_? 00:00:00 ProcessHangMon
unconfined 1 0 9180 6328 5835 6354 0 80 0 - 633585 futex_? 00:00:00 ProfilerChild
unconfined 1 0 0 6468 2 6468 0 80 0 - 0 - 7 00:00:00 kworker/2:1
unconfined 1 0 0 6559 2 6559 0 80 0 - 0 - 7 00:00:00 kworker/2:1
unconfined 1 0 0 6566 2 6566 0 80 0 - 0 - 7 00:00:00 kworker/u6:1
unconfined 1 0 0 6568 0 6568 0 60 -20 - 0 - 7 00:00:00 kworker/2:0H
unconfined 1 0 0 6591 2 6591 0 60 -20 - 0 - 7 00:00:00 kworker/2:1H
unconfined 0 0 9180 6606 5127 6606 0 80 0 - 141071 poll_s? 00:00:01 mate-terminal
unconfined 1 0 9180 6606 5127 6609 0 80 0 - 141071 poll_s? 00:00:00 gmain
unconfined 1 0 9180 6606 5127 6611 0 80 0 - 141071 poll_s? 00:00:00 gbus
unconfined 0 0 9180 6611 6606 6612 0 80 0 - 3632 wait pts/0 00:00:00 bash
unconfined 1 0 0 6742 2 6742 0 80 0 - 0 - 7 00:00:00 kworker/2:0
unconfined 1 0 0 6781 2 6781 0 60 -20 - 0 - 7 00:00:00 kworker/2:0H
unconfined 1 0 0 6814 2 6814 0 80 0 - 0 - 7 00:00:00 kworker/u6:0
unconfined 1 0 0 6873 2 6873 0 80 0 - 0 - 7 00:00:00 kworker/0:2
unconfined 4 0 9180 6914 6613 6914 0 80 0 - 7615 pts/0 00:00:00 ps
bercznai@lab101-05 ~$
```

```
File Edit View Search Terminal Help
# W 9:00 6032 6013 0 00
bercznai@lab101-05 ~$ clear
bercznai@lab101-05 ~$ ps -A|f
F S UID PID PPID C PRI NI ADDR SZ WCHAN STIME TTY TIME CMD
1 S root 1 0 0 0 0 - 0 - 30064 - 16:04 ? 00:00:00 /sbin/init
1 S root 2 0 0 0 0 - 0 - 16:04 ? 00:00:00 [kthreadd]
1 S root 3 2 0 0 0 - 0 - 16:04 ? 00:00:00 [ksftirqd/0]
1 S root 5 2 0 0 -20 0 - 16:04 ? 00:00:00 [kworker/0:0m]
1 S root 7 2 0 0 0 0 - 16:04 ? 00:00:00 [rcu_sched]
1 S root 8 2 0 0 -40 0 - 16:04 ? 00:00:00 [rcu_bh]
1 S root 9 2 0 0 -40 0 - 16:04 ? 00:00:00 [migration/0]
1 S root 10 2 0 -40 - 0 - 16:04 ? 00:00:00 [watchdog/0]
1 S root 12 2 0 0 0 - 0 - 16:04 ? 00:00:00 [watchdog/1]
1 S root 13 2 0 0 0 - 0 - 16:04 ? 00:00:00 [migration/1]
1 S root 15 2 0 0 -20 0 - 16:04 ? 00:00:00 [ksftirqd/1]
1 S root 15 2 0 0 -20 0 - 16:04 ? 00:00:00 [kworker/1:0m]
1 S root 16 2 0 -40 - 0 - 16:04 ? 00:00:00 [watchdog/2]
1 S root 17 2 0 0 0 - 0 - 16:04 ? 00:00:00 [migration/2]
1 S root 18 2 0 0 0 0 - 16:04 ? 00:00:00 [ksftirqd/2]
1 S root 21 2 0 0 0 - 0 - 16:04 ? 00:00:00 [watchdog/3]
1 S root 22 2 0 -40 - 0 - 16:04 ? 00:00:00 [migration/3]
1 S root 23 2 0 0 0 0 - 16:04 ? 00:00:00 [ksftirqd/3]
1 S root 26 2 0 0 -20 0 - 16:04 ? 00:00:00 [kdevtmpfs]
1 S root 27 2 0 0 -20 0 - 16:04 ? 00:00:00 [netns]
1 S root 28 2 0 0 -20 0 - 16:04 ? 00:00:00 [perf]
1 S root 29 2 0 0 0 0 - 16:04 ? 00:00:00 [khungtaskd]
1 S root 30 2 0 0 -20 0 - 16:04 ? 00:00:00 [writeback]
1 S root 31 2 0 0 5 1 - 16:04 ? 00:00:00 [ksmd]
1 S root 32 2 0 0 99 10 - 16:04 ? 00:00:00 [khugepaged]
1 S root 33 2 0 0 0 0 - 16:04 ? 00:00:00 [crypto]
1 S root 34 2 0 0 0 -20 0 - 16:04 ? 00:00:00 [kintegrityd]
1 S root 35 2 0 0 0 -20 0 - 16:04 ? 00:00:00 [bioaset]
1 S root 36 2 0 0 0 -20 0 - 16:04 ? 00:00:00 [kblockd]
1 S root 37 2 0 0 0 -20 0 - 16:04 ? 00:00:00 [ata_sff]
1 S root 38 2 0 0 0 -20 0 - 16:04 ? 00:00:00 [md]
1 S root 39 2 0 0 0 -20 0 - 16:04 ? 00:00:00 [devfreq_wq]
1 S root 44 2 0 0 0 0 - 16:04 ? 00:00:00 [kswapd0]
1 S root 45 2 0 0 0 0 - 16:04 ? 00:00:00 [vstat]
1 S root 46 2 0 0 0 0 - 16:04 ? 00:00:00 [fsmnotify_mark]
1 S root 47 2 0 0 0 0 - 16:04 ? 00:00:00 [ecryptfs-kthrea]
1 S root 63 2 0 0 0 -20 0 - 16:04 ? 00:00:00 [kthrottd]
1 S root 64 2 0 0 0 -20 0 - 16:04 ? 00:00:00 [acpi_thermal_pm]
1 S root 65 2 0 0 0 -20 0 - 16:04 ? 00:00:00 [bioaset]
1 S root 66 2 0 0 0 -20 0 - 16:04 ? 00:00:00 [bioaset]
1 S root 67 2 0 0 0 -20 0 - 16:04 ? 00:00:00 [bioaset]
1 S root 68 2 0 0 0 -20 0 - 16:04 ? 00:00:00 [bioaset]
1 S root 69 2 0 0 0 -20 0 - 16:04 ? 00:00:00 [bioaset]
1 S root 70 2 0 0 0 -20 0 - 16:04 ? 00:00:00 [bioaset]
1 S root 71 2 0 0 0 -20 0 - 16:04 ? 00:00:00 [bioaset]
1 S root 72 2 0 0 0 -20 0 - 16:04 ? 00:00:00 [bioaset]
1 S root 73 2 0 0 0 0 - 16:04 ? 00:00:00 [scsi_ah_0]
1 S root 74 2 0 0 0 -20 0 - 16:04 ? 00:00:00 [scsi_lwf_0]
1 S root 75 2 0 0 0 0 - 16:04 ? 00:00:00 [scsi_ah_1]
1 S root 76 2 0 0 0 -20 0 - 16:04 ? 00:00:00 [scsi_lwf_1]
1 S root 78 2 0 0 0 -20 0 - 16:04 ? 00:00:00 [kworker/0:1]
1 S root 83 2 0 0 0 -20 0 - 16:04 ? 00:00:00 [ip6v6_addrconf]
1 S root 87 2 0 0 0 0 - 16:04 ? 00:00:00 [deferred]
1 S root 88 2 0 0 0 -20 0 - 16:04 ? 00:00:00 [charger_manager]
1 S root 100 2 0 0 0 0 - 16:04 ? 00:00:00 [kworker/2:1]
1 S root 200 2 0 0 0 0 - 16:04 ? 00:00:00 [kswapd0]
1 S root 547 2 0 0 0 0 - 16:04 ? 00:00:00 [scsi_ah_2]
1 S root 548 2 0 0 0 -20 0 - 16:04 ? 00:00:00 [scsi_lwf_2]
1 S root 549 2 0 0 0 0 - 16:04 ? 00:00:00 [scsi_ah_3]
1 S root 550 2 0 0 0 -20 0 - 16:04 ? 00:00:00 [scsi_lwf_3]
1 S root 551 2 0 0 0 0 - 16:04 ? 00:00:00 [scsi_ah_4]
```

```
Menu 10 renderz monitor... Terminal
File Edit View Search Terminal Help
top - 16:12:37 up 8 min, 1 user, load average: 1.64, 1.61, 0.85
tasks: 290 total, 3 running, 286 sleeping, 0 stopped, 0 zombie
Mem(s): 2.1 us, 1.9 sy, 4.0 ni, 95.7 id, 0.3 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 3841680 total, 1439609 free, 1029788 used, 2376532 buff/cache
MiB Swap: 4990972 total, 4990972 free, 0 used, 2334980 avail Mem

PID USER PR NI VIRT RES SHR S %CPU WCHAN TIME COMMAND
3389 root 20 0 376728 92372 62808 R 3.6 2.4 0:07.49 Xorg
5825 bercznai 20 0 3209708 493104 172316 S 1.0 0.0 0:27.41 Firefox
5121 bercznai 20 0 483424 29800 24032 S 1.5 0.8 0:00.91 marco
5827 bercznai 20 0 503288 36512 28948 S 1.5 1.0 0:00.21 mate-terminal
6030 bercznai 20 0 2845206 234852 157616 S 1.0 6.0 0:15.20 Web Content
6118 bercznai 20 0 3081048 365712 122556 S 1.0 9.5 0:16.94 Web Content
2180 avahi 20 0 47064 3764 2356 S 0.1 0.0 0:00.10 avahi-daemon
5189 bercznai 20 0 504988 23968 20340 S 0.5 0.6 0:00.11 mate-power-manager
6258 bercznai 20 0 35244 3520 2988 R 0.5 0.1 0:00.06 top
1 root 20 0 38328 6332 4120 S 0.0 0.2 0:02.18 systemd
2 root 20 0 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root 20 0 0 0 0 S 0.0 0.0 0:00.01 ksftirqd/0
5 root 0 -20 0 0 0 S 0.0 0.0 0:00.00 kworker/0:0H
7 root 20 0 0 0 0 S 0.0 0.0 0:00.48 rcu_sched
8 root 20 0 0 0 0 S 0.0 0.0 0:00.00 rcu_bh
9 root rt 0 0 0 0 0 S 0.0 0.0 0:00.00 migration/0
10 root rt 0 0 0 0 0 S 0.0 0.0 0:00.00 watchdog/0
11 root rt 0 0 0 0 0 S 0.0 0.0 0:00.00 watchdog/1
12 root rt 0 0 0 0 0 S 0.0 0.0 0:00.00 migration/1
13 root 20 0 0 0 0 S 0.0 0.0 0:00.02 ksftirqd/1
15 root 0 -20 0 0 0 S 0.0 0.0 0:00.00 kworker/1:0H
16 root rt 0 0 0 0 0 S 0.0 0.0 0:00.00 watchdog/2
17 root rt 0 0 0 0 0 S 0.0 0.0 0:00.00 migration/2
18 root 20 0 0 0 0 S 0.0 0.0 0:00.00 ksftirqd/2
19 root 0 -20 0 0 0 S 0.0 0.0 0:00.00 kworker/2:0H
21 root rt 0 0 0 0 0 S 0.0 0.0 0:00.00 watchdog/3
22 root rt 0 0 0 0 0 S 0.0 0.0 0:00.00 migration/3
23 root 20 0 0 0 0 S 0.0 0.0 0:00.01 ksftirqd/3
25 root 0 -20 0 0 0 S 0.0 0.0 0:00.00 kworker/3:0H
26 root 20 0 0 0 0 S 0.0 0.0 0:00.00 kdevtmpfs
27 root 0 -20 0 0 0 S 0.0 0.0 0:00.00 netns
28 root 0 -20 0 0 0 S 0.0 0.0 0:00.00 perf
29 root 20 0 0 0 0 S 0.0 0.0 0:00.00 khungtaskd
30 root 0 -20 0 0 0 S 0.0 0.0 0:00.00 writeback
31 root 25 5 0 0 0 S 0.0 0.0 0:00.00 ksmd
32 root 39 15 0 0 0 S 0.0 0.0 0:00.00 khugepaged
33 root 0 -20 0 0 0 S 0.0 0.0 0:00.00 crypto
34 root 0 -20 0 0 0 S 0.0 0.0 0:00.00 kintegrityd
36 root 0 -20 0 0 0 S 0.0 0.0 0:00.00 bioaset
37 root 0 -20 0 0 0 S 0.0 0.0 0:00.00 ata_sff
38 root 0 -20 0 0 0 S 0.0 0.0 0:00.00 md
39 root 0 -20 0 0 0 S 0.0 0.0 0:00.00 devfreq_wq
41 root 20 0 0 0 0 S 0.0 0.0 0:00.00 kworker/1:1
44 root 20 0 0 0 0 S 0.0 0.0 0:00.00 kswapd0
45 root 0 -20 0 0 0 S 0.0 0.0 0:00.00 vstat
46 root 20 0 5 0 0 S 0.0 0.0 0:00.00 fsnotify_mark
47 root 0 -20 0 0 0 S 0.0 0.0 0:00.00 ecryptfs-kthrea
63 root 0 -20 0 0 0 S 0.0 0.0 0:00.00 kthrottd
64 root 0 -20 0 0 0 S 0.0 0.0 0:00.00 acpi_thermal_pm
65 root 0 -20 0 0 0 S 0.0 0.0 0:00.00 bioaset
66 root 0 -20 0 0 0 S 0.0 0.0 0:00.00 bioaset
67 root 0 -20 0 0 0 S 0.0 0.0 0:00.00 bioaset
68 root 0 -20 0 0 0 S 0.0 0.0 0:00.00 bioaset
69 root 0 -20 0 0 0 S 0.0 0.0 0:00.00 bioaset
70 root 0 -20 0 0 0 S 0.0 0.0 0:00.00 bioaset
71 root 0 -20 0 0 0 S 0.0 0.0 0:00.00 bioaset
72 root 0 -20 0 0 0 S 0.0 0.0 0:00.00 bioaset
73 root 20 0 0 0 0 S 0.0 0.0 0:00.00 scsi_ah_0
```

```
File Edit View Search Terminal Help
berezna@lab101-05 ~$ vmstat -3
vmstat: invalid option -3
Usage:
vmstat [options] [delay [count]]

Options:
-a, --active          active/inactive memory
-f, --forks          number of forks since boot
-m, --slabs          slabinfo
-n, --no-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).
berezna@lab101-05 ~$ vmstat -a
procs .....memory.....--swap--....io....-system--.....cpu-----
r b swpd free inact active si so bi bo in cs us sy id wa st
0 0 0 1316180 676768 1616680 0 0 0 254 55 123 345 3 1 90 6 0
berezna@lab101-05 ~$ vmstat -s
1641680 K total memory
1114696 K used memory
1616980 K active memory
676768 K inactive memory
1316476 K free memory
177892 K buffer memory
1232616 K swap cache
4990972 K total swap
0 K used swap
4990972 K free swap
12418 non-nice user cpu ticks
1263 nice user cpu ticks
3996 system cpu ticks
406020 idle cpu ticks
28736 io-wait cpu ticks
0 i/o cpu ticks
188 softirq cpu ticks
0 stolen cpu ticks
1137019 pages paged in
247788 pages paged out
0 pages swapped in
0 pages swapped out
553584 interrupts
1552161 CPU context switches
1640606057 boot time
6630 forks
berezna@lab101-05 ~$
```

```
File Edit View Search Terminal Help
5804 ? Ss 0:00 /usr/bin/ssh-agent /usr/bin/dbus-launch --exit-with-session /usr/bin/launch-mate-session
5810 ? S 0:00 /usr/bin/dbus-launch --exit-with-session /usr/bin/launch-mate-session
5830 ? Ss 0:00 /usr/bin/dbus-daemon --fork --print-pid 6 --print-address 9 --session
5861 ? Sl 0:00 /usr/bin/dbus-daemon --config-file=/etc/at-spi2/accessibility.conf --nofork --print-address 3
5866 ? S 0:00 /usr/lib/at-spi2-core/at-spi2-registrard --use-gnome-session
5870 ? Sl 0:00 /usr/lib/dbus/dbus-daemon --service
5895 ? Sl 0:00 /usr/bin/mate-settings-daemon
5112 ? Sl 0:00 /usr/lib/gvfs/gvfsd
5121 ? Sl 0:01 mate-panel
5126 ? Sl 0:00 /usr/lib/gvfs/gvfsd-fuse /run/user/1000/gvfs -f -o big_writes
5135 ? Sl 0:00 /usr/bin/gvfsd-fuse /run/user/1000/gvfs -f -o big_writes
5150 ? Ssl 0:00 /usr/bin/pulseaudio --start --log-target=syslog
5161 ? Ssl 0:00 /usr/lib/rtkit/rtkit-daemon
5167 ? Sl 0:01 caja
5169 ? Sl 0:00 mate-power-manager
5173 ? Sl 0:00 /usr/bin/gnome3 /usr/share/system-config-printer/applet.py
5175 ? Sl 0:00 /usr/lib/x86_64-linux-gnu/polkit-mate-authentication-agent-1
5181 ? Sl 0:00 mate-volume-control-applet
5183 ? Sl 0:00 blueberry-obex-agent
5185 ? Sl 0:00 mate-screensaver
5201 ? Ssl 0:00 /usr/lib/gnome/powertop
5211 ? Sl 0:00 mintmenu
5213 ? Sl 0:01 /usr/lib/mate-panel/wnck-applet
5225 ? Sl 0:00 /usr/lib/mate-panel/clock-applet
5227 ? Sl 0:00 /usr/lib/mate-panel/notification-area-applet
5271 ? Sl 0:00 /usr/lib/gvfs/gvfs-udisks2-volume-monitor
5274 ? Ssl 0:00 /usr/lib/udisks2/udisksd --no-debug
5286 ? Sl 0:00 /usr/lib/gvfs/gvfs-goa-volume-monitor
5291 ? Sl 0:00 /usr/lib/gvfs/gvfs-gphoto2-volume-monitor
5296 ? Sl 0:00 /usr/lib/gvfs/gvfs-afc-volume-monitor
5304 ? S 0:00 /usr/lib/libmtp/libmtp
5313 ? Sl 0:00 /usr/lib/gvfs/gvfs-mtp-volume-monitor
5345 ? Sl 0:00 /usr/lib/gvfs/gvfsd-trash --spawner :1.12/org.gtk/gvfs/exec_spaw/0
5371 ? Sl 0:00 /usr/lib/gvfs/gvfsd-metadata
5382 ? S 0:00 /usr/bin/python2 /usr/bin/mintupdate-launcher
5399 ? S 0:00 sh -c /usr/lib/linuxmint/mintupdate/mintupdate.py
5400 ? Sl 0:00 mintupdate
5408 ? S 0:00 [worker/2:0]
5482 ? Ss 0:00 /usr/sbin/cupsd -l
5483 ? S 0:00 [worker/0:0]
5486 ? Ssl 0:00 /usr/sbin/cups-browsed
5485 ? Sl 0:49 /usr/lib/firefox/firefox
5496 ? Sl 0:03 /usr/lib/firefox/firefox -contentproc -childID 2 -isForBrowser -preflen 41 -prefMapSize 196032 -parentBuildID 20190918105201 -greomni /usr/lib/firefox/omni.ja -appomni /usr/lib/firefox/browser/omni.ja -appdir /
5593 ? Sl 0:00 /usr/lib/firefox/firefox -contentproc -childID 3 -isForBrowser -preflen 6043 -prefMapSize 196032 -parentBuildID 20190918105201 -greomni /usr/lib/firefox/omni.ja -appomni /usr/lib/firefox/browser/omni.ja -appdir /
5600 ? Sl 0:22 /usr/lib/firefox/firefox -contentproc -childID 4 -isForBrowser -preflen 6782 -prefMapSize 196032 -parentBuildID 20190918105201 -greomni /usr/lib/firefox/omni.ja -appomni /usr/lib/firefox/browser/omni.ja -appdir /
6118 ? Sl 0:26 /usr/lib/firefox/firefox -contentproc -childID 5 -isForBrowser -preflen 7571 -prefMapSize 196032 -parentBuildID 20190918105201 -greomni /usr/lib/firefox/omni.ja -appomni /usr/lib/firefox/browser/omni.ja -appdir /
6135 ? Ss 0:00 [worker/2:2H]
6158 ? Sl 0:04 /usr/lib/firefox/firefox -contentproc -childID 6 -isForBrowser -preflen 7882 -prefMapSize 196032 -parentBuildID 20190918105201 -greomni /usr/lib/firefox/omni.ja -appomni /usr/lib/firefox/browser/omni.ja -appdir /
6276 ? Sl 0:00 /usr/lib/gvfs/gvfsd-network --spawner :1.12/org.gtk/gvfs/exec_spaw/1
6302 ? Sl 0:00 /usr/lib/gvfs/gvfsd-dnssd --spawner :1.12/org.gtk/gvfs/exec_spaw/2
6328 ? Sl 0:00 /usr/lib/firefox/firefox -contentproc -childID 7 -isForBrowser -preflen 8001 -prefMapSize 196032 -parentBuildID 20190918105201 -greomni /usr/lib/firefox/omni.ja -appomni /usr/lib/firefox/browser/omni.ja -appdir /
6468 ? S 0:00 [worker/2:1]
6539 ? S 0:00 [worker/2:1H]
6566 ? S 0:00 [worker/u6:1]
6568 ? Ss 0:00 [worker/3:0H]
6591 ? Ss 0:00 [worker/2:1H]
6606 ? Sl 0:02 mate-terminal
6613 pts/0 Ss 0:00 bash
6742 ? S 0:00 [worker/2:0]
6761 ? Ss 0:00 [worker/2:0H]
6814 ? S 0:00 [worker/u6:0]
6873 ? S 0:00 [worker/0:2]
6927 ? Ss 0:00 /lib/systemd/systemd-hostnamed
6931 pts/0 Bt 0:00 s0.s0
Click here to hide all windows and show the desktop.
```

```
File Edit View Search Terminal Help
berzeznal@lab101-05: ~$
berzeznal@lab101-05: ~$ w
2022-02-20 16:05 (10)
berzeznal@lab101-05: ~$ w
16:25:24 up 21 min, 1 user, load average: 0.06, 0.21, 0.43
USER      TTY      FROM          LOGIN@  IDLE   JCPU   PCPU  WHAT
berzeznal  tty      berzeznal    16:05   ?      15.79s  0.17s  mate-session
berzeznal@lab101-05: ~$ whoami
berzeznal
berzeznal@lab101-05: ~$
```



```
File Edit View Search Terminal Help
berzeznal 5084 0.0 0.0 11140 312 ? Ss 16:05 0:00 /usr/bin/ssh-agent /usr/bin/dbus-launch --exit-with-session /usr/bin/launch-mate-session
berzeznal 5010 0.0 0.0 35364 2964 ? S 16:05 0:00 /usr/bin/dbus-launch --exit-with-session /usr/bin/launch-mate-session
berzeznal 5030 0.0 0.0 35348 3712 ? Ss 16:05 0:00 /usr/bin/dbus-daemon --fork --print-pid 6 --print-address 9 --session
berzeznal 5061 0.0 0.1 330952 5452 ? SL 16:05 0:00 /usr/lib/at-spi2-core/at-spi-bus-launcher
berzeznal 5066 0.0 0.0 34872 3576 ? S 16:05 0:00 /usr/bin/dbus-daemon --config-file=/etc/at-spi2/accessibility.conf --nofork --print-address 3
berzeznal 5070 0.0 0.1 266464 4660 ? SL 16:05 0:00 /usr/lib/at-spi2-core/at-spi2-registrard --use-gnome-session
berzeznal 5065 0.0 0.1 176664 5080 ? SL 16:05 0:00 /usr/lib/dconf/dconf-service
berzeznal 5112 0.0 0.0 868488 32972 ? SL 16:05 0:00 /usr/bin/mate-settings-daemon
berzeznal 5121 0.2 0.7 483384 29428 ? SL 16:05 0:04 marco
berzeznal 5126 0.0 0.1 276864 6244 ? SL 16:05 0:00 /usr/lib/gvfs/gvfsd
berzeznal 5127 0.0 0.0 625488 31036 ? SL 16:05 0:01 mate-panel
berzeznal 5135 0.0 0.1 486864 4980 ? SL 16:05 0:00 /usr/lib/gvfs/gvfsd-fuse /run/user/9180/gvfs -f -o big_writes
berzeznal 5150 0.0 0.2 437560 11176 ? Ssl 16:05 0:00 /usr/bin/pulseaudio --start --log-target=syslog
rtkit 5151 0.0 0.0 175388 1460 ? Ssl 16:05 0:00 /usr/lib/rtkit/rtkit-daemon
berzeznal 5157 0.1 1.6 1036884 61700 ? SL 16:06 0:01 caja
berzeznal 5160 0.0 0.6 584988 23668 ? SL 16:06 0:00 mate-power-manager
berzeznal 5173 0.0 0.7 229292 29468 ? SL 16:06 0:00 /usr/bin/gpython3 /usr/share/system-config-printer/applet.py
berzeznal 5175 0.0 0.4 336316 15988 ? SL 16:06 0:00 /usr/lib/x86_64-linux-gnu/polkit-mate-authentication-agent-1
berzeznal 5181 0.0 0.7 326584 20832 ? SL 16:06 0:00 mate-volume-control-applet
berzeznal 5183 0.0 0.6 434460 31184 ? SL 16:06 0:00 blueberry-obex-agent
berzeznal 5185 0.0 0.5 424820 20128 ? SL 16:06 0:00 mate-screensaver
root 5201 0.0 0.2 548864 9652 ? Ssl 16:06 0:00 /usr/lib/upower/upowerd
berzeznal 5211 0.0 1.4 695660 56212 ? SL 16:06 0:00 mintmenu
berzeznal 5213 0.1 0.7 546548 30420 ? SL 16:06 0:01 /usr/lib/mate-panel/mwck-applet
berzeznal 5225 0.0 0.7 535040 29060 ? SL 16:06 0:00 /usr/lib/mate-panel/clock-applet
berzeznal 5227 0.0 0.6 482624 23520 ? SL 16:06 0:00 /usr/lib/mate-panel/notification-area-applet
berzeznal 5271 0.0 0.1 178796 7224 ? SL 16:06 0:00 /usr/lib/gvfs/gvfs-udisks2-volume-monitor
5274 0.0 0.1 358672 7444 ? Ssl 16:06 0:00 /usr/lib/udisks2/udisksd --no-debug
berzeznal 5286 0.0 0.1 259376 4860 ? SL 16:06 0:00 /usr/lib/gvfs/gvfs-goa-volume-monitor
berzeznal 5291 0.0 0.1 273260 6148 ? SL 16:06 0:00 /usr/lib/gvfs/gvfs-gphoto2-volume-monitor
berzeznal 5296 0.0 0.2 402108 8800 ? SL 16:06 0:00 /usr/lib/gvfs/gvfs-afc-volume-monitor
berzeznal 5384 0.0 0.2 150180 10120 ? S 16:06 0:00 /usr/lib/usbmuxd/obexd
berzeznal 5313 0.0 0.1 261864 4524 ? SL 16:06 0:00 /usr/lib/gvfs/gvfs-mtp-volume-monitor
berzeznal 5345 0.0 0.1 352116 6024 ? SL 16:06 0:00 /usr/lib/gvfs/gvfsd-trash --spawner :112/org.gtk/gvfs/exec_spaw/0
berzeznal 5371 0.0 0.1 187520 5508 ? SL 16:06 0:00 /usr/lib/gvfs/gvfsd-metadata
berzeznal 5393 0.0 0.3 450684 12532 ? S 16:06 0:00 /usr/bin/python3 /usr/bin/mintupdate-launcher
berzeznal 5399 0.0 0.6 4594 832 ? S 16:06 0:00 sh -c /usr/lib/linumint/mintupdate/mintupdate.py
berzeznal 5400 0.0 1.4 735588 57132 ? SL 16:06 0:00 mintupdate
root 5680 0.0 0.0 0 0 ? S 16:09 0:00 [worker/0:0]
root 5682 0.0 0.1 80812 6696 ? Ss 16:09 0:00 /usr/sbin/cupsd -l
root 5683 0.0 0.0 0 0 ? S 16:09 0:00 [worker/0:0]
root 5686 0.0 0.2 266376 9068 ? Ssl 16:09 0:00 /usr/sbin/cups-browsed
berzeznal 5835 3.0 9.2 332340 356192 ? SL 16:10 0:49 /usr/lib/firefox/firefox
berzeznal 5926 0.2 4.2 3820860 164792 ? SL 16:10 0:43 /usr/lib/firefox/firefox-contentproc-childID 2 -isForBrowser-prefilen 41 -prefMapSize 196032 -parentBuildID 20190918105201 -greonni /usr/lib/firefox/omni.ja -appomni /usr
berzeznal 5973 0.0 0.6 2562136 183656 ? SL 16:10 0:00 /usr/lib/firefox/firefox-contentproc-childID 3 -isForBrowser-prefilen 6043 -prefMapSize 196032 -parentBuildID 20190918105201 -greonni /usr/lib/firefox/omni.ja -appomni /u
berzeznal 6080 1.0 5.7 2791276 213408 ? SL 16:10 0:22 /usr/lib/firefox/firefox-contentproc-childID 4 -isForBrowser-prefilen 6767 -prefMapSize 196032 -parentBuildID 20190918105201 -greonni /usr/lib/firefox/omni.ja -appomni /u
berzeznal 6118 2.2 9.7 3071760 374672 ? SL 16:11 0:26 /usr/lib/firefox/firefox-contentproc-childID 5 -isForBrowser-prefilen 7571 -prefMapSize 196032 -parentBuildID 20190918105201 -greonni /usr/lib/firefox/omni.ja -appomni /u
root 6135 0.0 0.0 0 0 ? Ss 16:11 0:00 [worker/2:20]
berzeznal 6158 0.3 4.9 2644576 189344 ? SL 16:11 0:44 /usr/lib/firefox/firefox-contentproc-childID 6 -isForBrowser-prefilen 7882 -prefMapSize 196032 -parentBuildID 20190918105201 -greonni /usr/lib/firefox/omni.ja -appomni /u
berzeznal 6276 0.0 0.1 428260 6924 ? SL 16:12 0:00 /usr/lib/gvfs/gvfsd-network --spawner :112/org.gtk/gvfs/exec_spaw/1
berzeznal 6302 0.0 0.1 363256 6644 ? SL 16:12 0:00 /usr/lib/gvfs/gvfsd-dnssd --spawner :112/org.gtk/gvfs/exec_spaw/5
berzeznal 6328 0.0 2.0 2534340 77232 ? SL 16:12 0:00 /usr/lib/firefox/firefox-contentproc-childID 7 -isForBrowser-prefilen 8001 -prefMapSize 196032 -parentBuildID 20190918105201 -greonni /usr/lib/firefox/omni.ja -appomni /u
root 6468 0.0 0.0 0 0 ? S 16:16 0:00 [worker/3:1]
root 6539 0.0 0.0 0 0 ? S 16:18 0:00 [worker/1:1]
root 6566 0.0 0.0 0 0 ? S 16:19 0:00 [worker/u16:1]
root 6568 0.0 0.0 0 0 ? Ss 16:19 0:00 [worker/3:00]
root 6591 0.0 0.0 0 0 ? Ss 16:21 0:00 [kworker/2:10]
berzeznal 6690 0.4 0.9 544476 36872 ? SL 16:22 0:02 mate-terminal
berzeznal 6913 0.0 0.0 14528 3984 pts/0 Ss 16:22 0:00 bash
root 6742 0.0 0.0 0 0 ? S 16:24 0:00 [worker/2:0]
root 6761 0.0 0.0 0 0 ? Ss 16:25 0:00 [worker/2:00]
root 6814 0.0 0.0 0 0 ? S 16:28 0:00 [kworker/u16:0]
root 6873 0.0 0.0 0 0 ? S 16:29 0:00 [kworker/0:2]
root 6927 0.0 0.0 15672 10996 ? Ss 16:30 0:00 /lib/systemd/systemd-hostnamed
berzeznal 6960 0.0 0.0 30672 1508 pts/0 R+ 16:31 0:00 ps aux
berzeznal@lab101-05: ~$
```

```
File Edit View Search Terminal Help
beroznai@lab101-05 ~ $ who
beroznai tty1 2022-02-20 16:05 (:0)
beroznai@lab101-05 ~ $ w
16:25:24 up 21 min, 1 user, load average: 0.06, 0.21, 0.43
USER      TTY      FROM          LOGIN@  IDLE   JCPU   PCPU WHAT
beroznai  tty1    -0            16:05   ?      15.79s 0.17s mate-session
beroznai
beroznai@lab101-05 ~ $
```

```
File Edit View Search Terminal Help
beroznai@lab101-05 ~ $ ps eJH
PID    PID    PGID    SID    TTY      TPGID STAT  UID    TIME COMMAND
6686  6613  6613    pts/0    6977 Ss    9180    0:00 bash SESSION_MANAGER=local/lab101-05.lit:uni-miskolc.hu:/tmp/.ICE-unix/4931.XDG_CONFIG_DIRS=/etc/xdg/xdg-mate:/etc/xdg LC_TELEPHON
6613  6977  6977    pts/0    6977 Rv    9180    0:00 ps eJH LC_PAPER=en_US.UTF-8 XDG_VTNR=7 MATE_DESKTOP_SESSION_ID=this-is-deprecated LC_ADDRESS=en_US.UTF-8 SSH_AGENT_PID=5004 XDG_SESSION_ID=c1 LC_MONETARY=en_US.UTF-8 QT_STYLE_OVERRIDE=
beroznai@lab101-05 ~ $
```

```
File Edit View Search Terminal Help
beroznai@lab101-05 ~ $ uname
Linux
beroznai@lab101-05 ~ $ uptime
16:27:47 up 23 min, 1 user, load average: 0.07, 0.16, 0.37
beroznai@lab101-05 ~ $
```

```
File Edit View Search Terminal Help
6666 6613 6613 pts/0 6977 Ss 0180 0:00 bash SESSION_MANAGER=local/lab101-05:/tmp/.ICE-unix/4931:/tmp/.ICE-unix/4931 XDG_CONFIG_DIRS=/etc/xdg/xdg-mate:/etc/xdg LC_TELEPHONY=
6613 6977 6977 pts/0 6977 R+ 0180 0:00 ps wjh LC_PAPER=en_US.UTF-8 XDG_VTNR=7 MATE_DESKTOP_SESSION_ID=this-is-deprecated LC_ADDRESS=en_US.UTF-8 SSH_AGENT_PID=5864 XDG_SESSION_ID=c1 LC_MONETARY=en_US.UTF-8 QT_STYLE_OVERRIDE=
beroznai@lab101-05 ~ $ pstree
systemd├─ModemManager─┬─(gdbus)
│                   └─(gmain)
├─accounts-daemon─┬─(gdbus)
│                 └─(gmain)
├─acpid
├─agetty
├─at-spi-bus-launcher─┬─dbus-daemon
│                     └─(dconf worker)
├─at-spi2-registrars─┬─(gdbus)
│                   └─(gmain)
├─avahi-daemon─┬─avahi-daemon
│              └─cmanager
├─clock-applet─┬─(dconf worker)
│              └─(gdbus)
├─console-kit-daemon─┬─(console-kit-daemon)
│                   └─(gdbus)
├─cron
├─cups-browsed─┬─(gdbus)
│              └─(gmain)
├─cupsd
├─dbus-launch─┬─dbus-daemon
│             └─(dconf service)
├─dhclient
├─dnsmasq─┬─dnsmasq
│         └─(gdbus)
├─gnome-keyring─┬─(gdbus)
│               └─(gmain)
├─gpm
├─gvfsafc-volume─┬─(gdbus)
│                └─(gmain)
├─gvfs-goa-volume─┬─(gvfsafc-volume)
│                 └─(gdbus)
├─gvfs-gphoto2-volume─┬─(gmain)
│                     └─(gdbus)
├─gvfs-mtp-volume─┬─(gdbus)
│                 └─(gmain)
├─gvfs-udisks2-volume─┬─(gdbus)
│                     └─(gmain)
├─gvfsd─┬─(gdbus)
│       └─(gmain)
├─gvfsd-dnssd─┬─(gdbus)
│             └─(gmain)
├─gvfsd-fuse─┬─(gdbus)
│            └─(gmain)
├─gvfsd-metadata─┬─(gvfs-fuse-sub)
│                 └─2*(gvfsd-fuse)
├─gvfsd-network─┬─(gdbus)
│               └─(dconf worker)
├─gvfsd-trash─┬─(gdbus)
│             └─(gmain)
├─gvfsd-trash─┬─(gdbus)
│             └─(gmain)
├─irqbalance
└─irqbalance
```



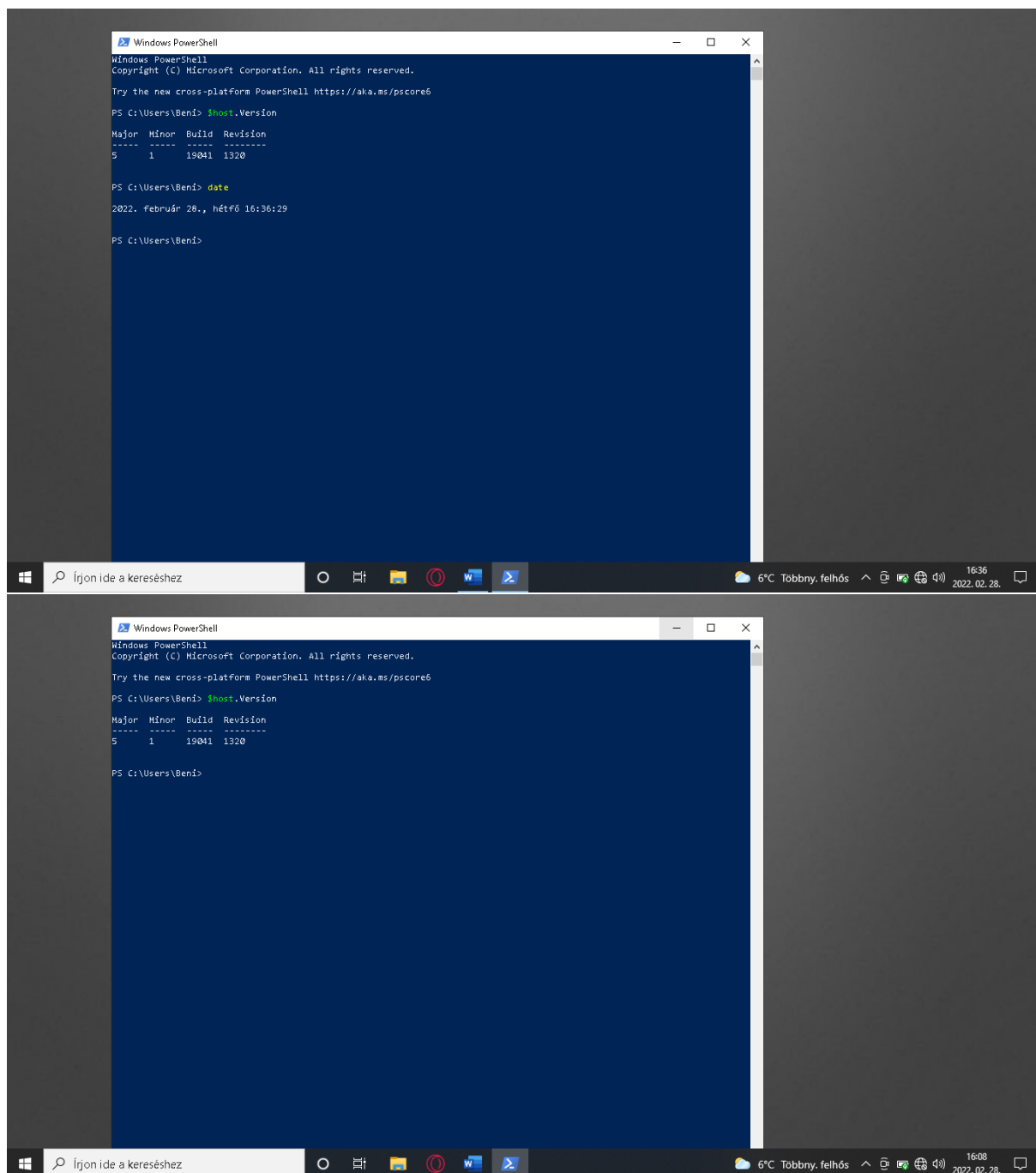
```
File Edit View Search Terminal Help
0825 pts/0 ~$ ps -h
bercznai@lab01-05 ~$ ps -A
PID TTY          TIME CMD
 1 ?           00:00:00 systemd
 2 ?           00:00:00 kthreadd
 3 ?           00:00:00 ksoftirqd/0
 5 ?           00:00:00 kworker/0:0H
 7 ?           00:00:00 rcu_sched
 8 ?           00:00:00 rcu_bh
 9 ?           00:00:00 migration/0
10 ?           00:00:00 watchdog/0
11 ?           00:00:00 watchdog/1
12 ?           00:00:00 migration/1
13 ?           00:00:00 ksoftirqd/1
15 ?           00:00:00 kworker/1:0H
16 ?           00:00:00 watchdog/2
17 ?           00:00:00 migration/2
18 ?           00:00:00 ksoftirqd/2
21 ?           00:00:00 watchdog/3
22 ?           00:00:00 migration/3
23 ?           00:00:00 ksoftirqd/3
26 ?           00:00:00 kdevtmpfs
27 ?           00:00:00 netns
28 ?           00:00:00 perf
29 ?           00:00:00 khungtask
30 ?           00:00:00 writeback
31 ?           00:00:00 ksm
32 ?           00:00:00 khugepaged
33 ?           00:00:00 crypto
34 ?           00:00:00 kintegrityd
35 ?           00:00:00 bioset
36 ?           00:00:00 kblockd
37 ?           00:00:00 ata_sff
38 ?           00:00:00 md
39 ?           00:00:00 devfreq_wq
44 ?           00:00:00 kswapd0
45 ?           00:00:00 vmstat
46 ?           00:00:00 fnotify_mark
47 ?           00:00:00 ecryptfs-kthrea
63 ?           00:00:00 kthrotld
64 ?           00:00:00 acpi_thermal_pm
65 ?           00:00:00 bioset
66 ?           00:00:00 bioset
67 ?           00:00:00 bioset
68 ?           00:00:00 bioset
69 ?           00:00:00 bioset
70 ?           00:00:00 bioset
71 ?           00:00:00 bioset
72 ?           00:00:00 bioset
73 ?           00:00:00 scsi_eh_0
74 ?           00:00:00 scsi_tmf_0
75 ?           00:00:00 scsi_eh_1
76 ?           00:00:00 scsi_tmf_1
78 ?           00:00:00 kworker/0:1
83 ?           00:00:00 ipvs_addrconf
97 ?           00:00:00 deferwq
98 ?           00:00:00 charger_manager
100 ?          00:00:00 kworker/2:1
290 ?         00:00:00 kpmoused
547 ?         00:00:00 scsi_eh_2
548 ?         00:00:00 scsi_tmf_2
549 ?         00:00:00 scsi_eh_3
550 ?         00:00:00 scsi_tmf_3
551 ?         00:00:00 scsi_eh_4
552 ?         00:00:00 scsi_tmf_4
553 ?         00:00:00 scsi_eh_5
554 ?         00:00:00 scsi_tmf_5
```

```
Menu 10 rendszert monitor... Terminal
Terminal
File Edit View Search Terminal Help
bercznai@lab01-05 ~$ ps axZ
LABEL          PID TTY          STAT TIME COMMAND
unconfined      1 ?           Ss   0:02 /sbin/init
unconfined      2 ?           S    0:00 [kthreadd]
unconfined      3 ?           S    0:00 [ksoftirqd/0]
unconfined      5 ?           Ss   0:00 [kworker/0:0H]
unconfined      7 ?           S    0:01 [rcu_sched]
unconfined      8 ?           S    0:00 [rcu_bh]
unconfined      9 ?           S    0:00 [migration/0]
unconfined     10 ?           S    0:00 [watchdog/0]
unconfined     11 ?           S    0:00 [watchdog/1]
unconfined     12 ?           S    0:00 [migration/1]
unconfined     13 ?           S    0:00 [ksoftirqd/1]
unconfined     15 ?           S    0:00 [kworker/1:0H]
unconfined     16 ?           S    0:00 [watchdog/2]
unconfined     17 ?           S    0:00 [migration/2]
unconfined     18 ?           S    0:00 [ksoftirqd/2]
unconfined     21 ?           S    0:00 [watchdog/3]
unconfined     22 ?           S    0:00 [migration/3]
unconfined     23 ?           S    0:00 [ksoftirqd/3]
unconfined     26 ?           S    0:00 [kdevtmpfs]
unconfined     27 ?           Ss   0:00 [netns]
unconfined     28 ?           Ss   0:00 [perf]
unconfined     29 ?           Ss   0:00 [khungtaskd]
unconfined     30 ?           Ss   0:00 [writeback]
unconfined     31 ?           Ss   0:00 [ksm]
unconfined     32 ?           Ss   0:00 [khugepaged]
unconfined     33 ?           Ss   0:00 [crypto]
unconfined     34 ?           Ss   0:00 [kintegrityd]
unconfined     35 ?           Ss   0:00 [bioset]
unconfined     36 ?           Ss   0:00 [kblockd]
unconfined     37 ?           Ss   0:00 [ata_sff]
unconfined     38 ?           Ss   0:00 [md]
unconfined     39 ?           Ss   0:00 [devfreq_wq]
unconfined     44 ?           Ss   0:00 [kswapd0]
unconfined     45 ?           Ss   0:00 [vmstat]
unconfined     46 ?           Ss   0:00 [fnotify_mark]
unconfined     47 ?           Ss   0:00 [ecryptfs-kthrea]
unconfined     63 ?           Ss   0:00 [kthrotld]
unconfined     64 ?           Ss   0:00 [acpi_thermal_pm]
unconfined     65 ?           Ss   0:00 [bioset]
unconfined     66 ?           Ss   0:00 [bioset]
unconfined     67 ?           Ss   0:00 [bioset]
unconfined     68 ?           Ss   0:00 [bioset]
unconfined     69 ?           Ss   0:00 [bioset]
unconfined     70 ?           Ss   0:00 [bioset]
unconfined     71 ?           Ss   0:00 [bioset]
unconfined     72 ?           Ss   0:00 [bioset]
unconfined     73 ?           Ss   0:00 [scsi_eh_0]
unconfined     74 ?           Ss   0:00 [scsi_tmf_0]
unconfined     75 ?           Ss   0:00 [scsi_eh_1]
unconfined     76 ?           Ss   0:00 [scsi_tmf_1]
unconfined     78 ?           Ss   0:00 [kworker/0:1]
unconfined     83 ?           Ss   0:00 [ipvs_addrconf]
unconfined     97 ?           Ss   0:00 [deferwq]
unconfined     98 ?           Ss   0:00 [charger_manager]
unconfined    100 ?           Ss   0:00 [kworker/2:1]
unconfined    290 ?           Ss   0:00 [kpmoused]
unconfined    547 ?           Ss   0:00 [scsi_eh_2]
unconfined    548 ?           Ss   0:00 [scsi_tmf_2]
unconfined    549 ?           Ss   0:00 [scsi_eh_3]
unconfined    550 ?           Ss   0:00 [scsi_tmf_3]
unconfined    551 ?           Ss   0:00 [scsi_eh_4]
unconfined    552 ?           Ss   0:00 [scsi_tmf_4]
unconfined    553 ?           Ss   0:00 [scsi_eh_5]
unconfined    554 ?           Ss   0:00 [scsi_tmf_5]
```

```
File Edit View Search Terminal Help
beretznal@lab101-05 ~$ ps -A
  PID TTY          TIME CMD
  1    0      0:00:02 systemd
  2    0      0:00:00 kthreadd
  3    0      0:00:00 ksoftirqd/0
  5    0      0:00:00 kworker/0:0H
  7    0      0:00:01 rcu_sched
  8    0      0:00:00 rcu_bh
  9    0      0:00:00 migration/0
 10   0      0:00:00 watchdog/0
 11   0      0:00:00 watchdog/1
 12   0      0:00:00 migration/1
 13   0      0:00:00 ksoftirqd/1
 15   0      0:00:00 kworker/1:0H
 16   0      0:00:00 watchdog/2
 17   0      0:00:00 migration/2
 18   0      0:00:00 ksoftirqd/2
 21   0      0:00:00 watchdog/3
 22   0      0:00:00 migration/3
 23   0      0:00:00 ksoftirqd/3
 26   0      0:00:00 kdevtmpfs
 27   0      0:00:00 netns
 28   0      0:00:00 perf
 29   0      0:00:00 khungtaskd
 30   0      0:00:00 writeback
 31   0      0:00:00 ksm
 32   0      0:00:00 khugepaged
 33   0      0:00:00 crypto
 34   0      0:00:00 kintegrityd
 35   0      0:00:00 bioset
 36   0      0:00:00 blkcgcd
 37   0      0:00:00 ata_sff
 38   0      0:00:00 md
 39   0      0:00:00 devfreq_wq
 44   0      0:00:00 kswapd0
 45   0      0:00:00 vmstat
 46   0      0:00:00 fnotify.mark
 47   0      0:00:00 ecryptfs_kthrea
 63   0      0:00:00 kthrotld
 64   0      0:00:00 acpi_thermal_pm
 65   0      0:00:00 bioset
 66   0      0:00:00 bioset
 67   0      0:00:00 bioset
 68   0      0:00:00 bioset
 69   0      0:00:00 bioset
 70   0      0:00:00 bioset
 71   0      0:00:00 bioset
 72   0      0:00:00 bioset
 73   0      0:00:00 scsi_eh_0
 74   0      0:00:00 scsi_tmf_0
 75   0      0:00:00 scsi_eh_1
 76   0      0:00:00 scsi_tmf_1
 78   0      0:00:00 kworker/0:1
 83   0      0:00:00 ipvs_admconf
 97   0      0:00:00 deferwq
 98   0      0:00:00 charger_manager
100   0      0:00:00 kworker/2:1
290   0      0:00:00 kpsmoused
547   0      0:00:00 scsi_eh_2
548   0      0:00:00 scsi_tmf_2
549   0      0:00:00 scsi_eh_3
550   0      0:00:00 scsi_tmf_3
551   0      0:00:00 scsi_eh_4
552   0      0:00:00 scsi_tmf_4
553   0      0:00:00 scsi_eh_5
554   0      0:00:00 scsi_tmf_5
```

```
File Edit View Search Terminal Help
beretznal@lab101-05 ~$ ps -eM
LABEL PID TTY          TIME CMD
unconfined 1 7 00:00:02 systemd
unconfined 2 7 0:00:00 kthreadd
unconfined 3 7 0:00:00 ksoftirqd/0
unconfined 5 7 0:00:00 kworker/0:0H
unconfined 7 7 0:00:01 rcu_sched
unconfined 8 7 0:00:00 rcu_bh
unconfined 9 7 0:00:00 migration/0
unconfined 10 7 0:00:00 watchdog/0
unconfined 11 7 0:00:00 watchdog/1
unconfined 12 7 0:00:00 migration/1
unconfined 13 7 0:00:00 ksoftirqd/1
unconfined 15 7 0:00:00 kworker/1:0H
unconfined 16 7 0:00:00 watchdog/2
unconfined 17 7 0:00:00 migration/2
unconfined 18 7 0:00:00 ksoftirqd/2
unconfined 21 7 0:00:00 watchdog/3
unconfined 22 7 0:00:00 migration/3
unconfined 23 7 0:00:00 ksoftirqd/3
unconfined 26 7 0:00:00 kdevtmpfs
unconfined 27 7 0:00:00 netns
unconfined 28 7 0:00:00 perf
unconfined 29 7 0:00:00 khungtaskd
unconfined 30 7 0:00:00 writeback
unconfined 31 7 0:00:00 ksm
unconfined 32 7 0:00:00 khugepaged
unconfined 33 7 0:00:00 crypto
unconfined 34 7 0:00:00 kintegrityd
unconfined 35 7 0:00:00 bioset
unconfined 36 7 0:00:00 blkcgcd
unconfined 37 7 0:00:00 ata_sff
unconfined 38 7 0:00:00 md
unconfined 39 7 0:00:00 devfreq_wq
unconfined 44 7 0:00:00 kswapd0
unconfined 45 7 0:00:00 vmstat
unconfined 46 7 0:00:00 fnotify.mark
unconfined 47 7 0:00:00 ecryptfs_kthrea
unconfined 63 7 0:00:00 kthrotld
unconfined 64 7 0:00:00 acpi_thermal_pm
unconfined 65 7 0:00:00 bioset
unconfined 66 7 0:00:00 bioset
unconfined 67 7 0:00:00 bioset
unconfined 68 7 0:00:00 bioset
unconfined 69 7 0:00:00 bioset
unconfined 70 7 0:00:00 bioset
unconfined 71 7 0:00:00 bioset
unconfined 72 7 0:00:00 bioset
unconfined 73 7 0:00:00 scsi_eh_0
unconfined 74 7 0:00:00 scsi_tmf_0
unconfined 75 7 0:00:00 scsi_eh_1
unconfined 76 7 0:00:00 scsi_tmf_1
unconfined 78 7 0:00:00 kworker/0:1
unconfined 83 7 0:00:00 ipvs_admconf
unconfined 97 7 0:00:00 deferwq
unconfined 98 7 0:00:00 charger_manager
unconfined 100 7 0:00:00 kworker/2:1
unconfined 290 7 0:00:00 kpsmoused
unconfined 547 7 0:00:00 scsi_eh_2
unconfined 548 7 0:00:00 scsi_tmf_2
unconfined 549 7 0:00:00 scsi_eh_3
unconfined 550 7 0:00:00 scsi_tmf_3
unconfined 551 7 0:00:00 scsi_eh_4
unconfined 552 7 0:00:00 scsi_tmf_4
unconfined 553 7 0:00:00 scsi_eh_5
unconfined 554 7 0:00:00 scsi_tmf_5
```

2. feladat Készítse el Windows OS a saját gépen az alábbi feladatokat. Minden egyes lekérdezés eredményét illessze be egy dokumentumba.



The image displays two screenshots of a Windows PowerShell terminal window, stacked vertically. Both screenshots show the same sequence of commands and output.

Top Screenshot:

```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\Beni> $host.Version

Major Minor Build Revision
-----
5      1      19041 1320

PS C:\Users\Beni> date

2022. február 28., hétfő 16:36:29

PS C:\Users\Beni>
```

Bottom Screenshot:

```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\Beni> $host.Version

Major Minor Build Revision
-----
5      1      19041 1320

PS C:\Users\Beni>
```

The taskbar at the bottom of both screenshots shows the Windows search bar with the text "Írjon ide a kereséshez", taskbar icons for File Explorer, Edge, and other applications, and system tray information including "6°C Többny. felhős", "16:36", and "2022. 02. 28."

Uj Microsoft Word Document (2) - Word

Windows PowerShell

```
PS C:\Users\Beni> service
```

Status	Name	DisplayName
Stopped	AarSvc_86b1bc0	Agent Activation Runtime_86b1bc0
Stopped	AJRouter	Alloyn-átvitel szolgálat
Stopped	ALG	Alkalmazási réteg átjárószolgálat
Running	AMD External Ev...	AMD External Events Utility
Stopped	AppIDSvc	Alkalmazásidentitás
Running	AppInfo	Alkalmazásinformációk
Stopped	AppMgmt	Alkalmazáskezelés
Stopped	AppReadiness	Alkalmazás-előkészítő
Stopped	AppNClient	Microsoft App-V Client
Running	AppXSvc	AppX Deployment Service (AppXSVC)
Stopped	AssignedAccessM...	AssignedAccessManager szolgáltatás
Running	AtherosSvc	AtherosSvc
Running	AudioEndpointBu...	Windows-hangvégpont-épitő
Running	AudioSrv	Windows audio
Stopped	autotimesvc	Mobilhálózati idő
Stopped	AxInstSV	ActiveX Telepítő (AxInstSV)
Running	BcastDVRUserSer...	Játékvideó-nyújtó és Konverziós fe...
Stopped	BDESVC	BitLocker meghajtótitkosítási szolg...
Running	BFE	Alap szűrőprogram
Stopped	BITS	Háttérben futó intelligens átviteli...
Stopped	BluetoothUserSe...	Felhasználói Bluetooth-támogatási s...
Running	BrokerInfrastru...	Hírtérlelakatok. Infrastruktúra-szolg...
Stopped	BTAGService	Bluetooth-hangátviteli szolgálat
Running	BthAvctpSvc	AVCTP-szolgáltatás
Stopped	bthserv	Bluetooth-támogatási szolgáltatás
Running	camsvc	Képesség hozzáférés-kezelési szolgá...
Stopped	CaptureService_...	CaptureService_86b1bc0
Running	cbdsvc_86b1bc0	Végőlap felhasználói szolgáltatás_8...
Running	CDPSvc	Csatlakoztatott eszközök platformja...
Running	CDPSvc_86b1bc0	Csatlakoztatott eszközök platformja...
Stopped	CertPropSvc	Tandíjnyújtó szolgáltatás
Running	ClickToRunSvc	Microsoft Office Click-to-Run Service
Stopped	ClipSvc	Ügyfél-licenccelési szolgáltatás (Cl...
Stopped	cloudidvc	Microsoft felhőalapú identitásszolg...
Stopped	COMSysApp	COM System Application
Stopped	ConsentUXUserSv...	ConsentUX_86b1bc0
Running	CoreMessagingRe...	CoreMessaging
Running	cphs	Intel(R) Content Protection HECI Se...
Running	cplspcon	Intel(R) Content Protection HECI Se...
Stopped	CredentialEnroll...	CredentialEnrollmentManagerUserSvc...
Running	CryptSvc	Kriptográfiai szolgáltatások
Stopped	CscService	Offline fájlok
Running	DcomLaunch	DCOM-kiszolgáló folyamatindítója
Stopped	defrag	Meghajtó normalizálása

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Windows PowerShell

```
PS C:\Users\Beni> psdrive
```

Name	Used (GB)	Free (GB)	Provider	Root	CurrentLocation
Alias			Alias	C:\	Users\Beni
Cert	91,50	19,76	Certificate	\	
D	0,99	441,64	FileSystem	D:\	
E	29,05	459,23	FileSystem	E:\	
Env			Environment		
Function			Function		
HKCU			Registry	HKEY_CURRENT_USER	
HKLM			Registry	HKEY_LOCAL_MACHINE	
Variable			Variable		
Wslan			Wslan		

```
PS C:\Users\Beni>
```

Page 2 of 2 0 words

```
Windows PowerShell
PS C:\Users\Beni> Get-Childitem C:\

Directory: C:\

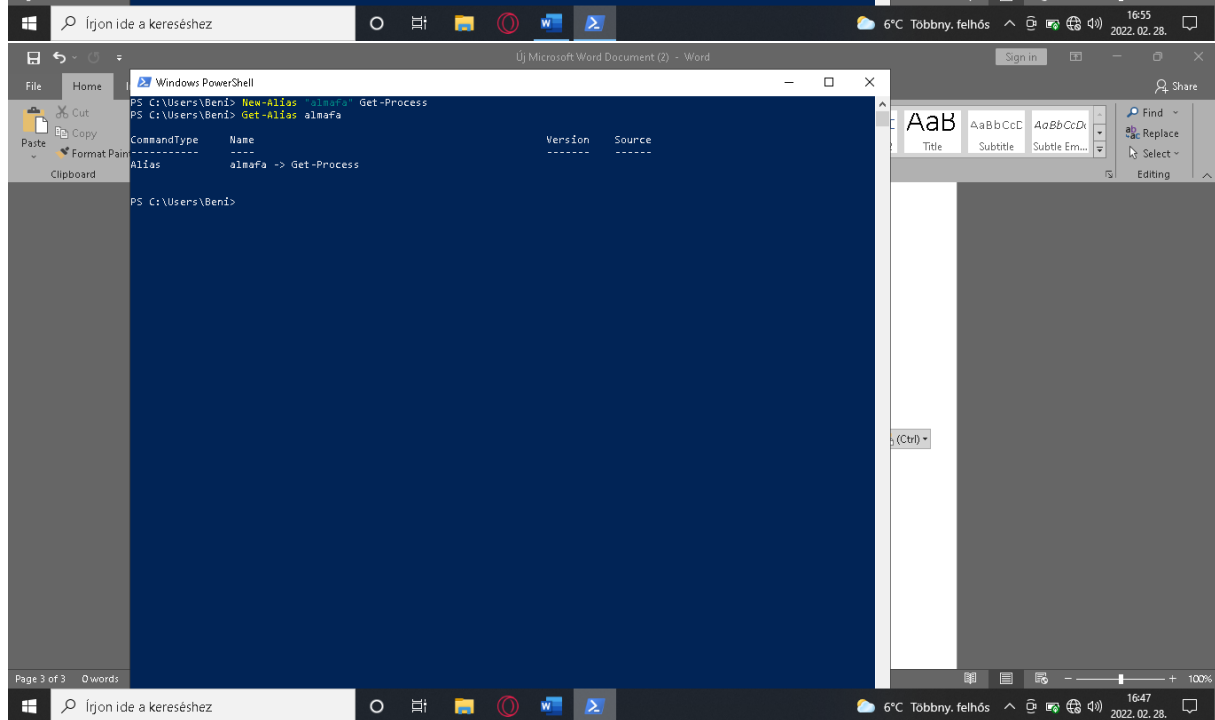
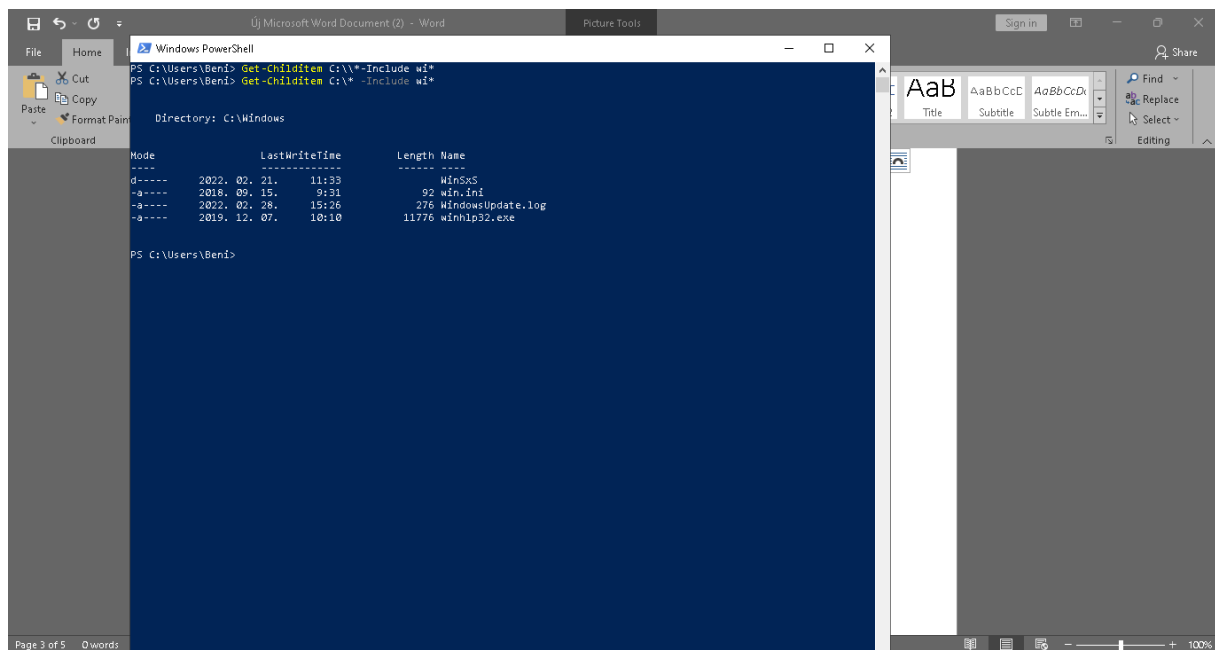
Mode                LastWriteTime         Length Name
----                -
d-----          2021. 09. 27.      15:54         Intel
d-----          2021. 09. 05.      22:32          LOL
d-----          2019. 12. 07.      10:14       PerfLogs
d-r-----        2021. 12. 02.      13:34   Program Files
d-r-----        2021. 09. 27.      21:45   Program Files (x86)
d-----          2021. 10. 19.      21:34    Riot Games
d-----          2021. 09. 24.      14:16     Rocket
d-r-----        2021. 09. 27.      15:53      Users
d-----          2022. 02. 14.      15:28     Windows

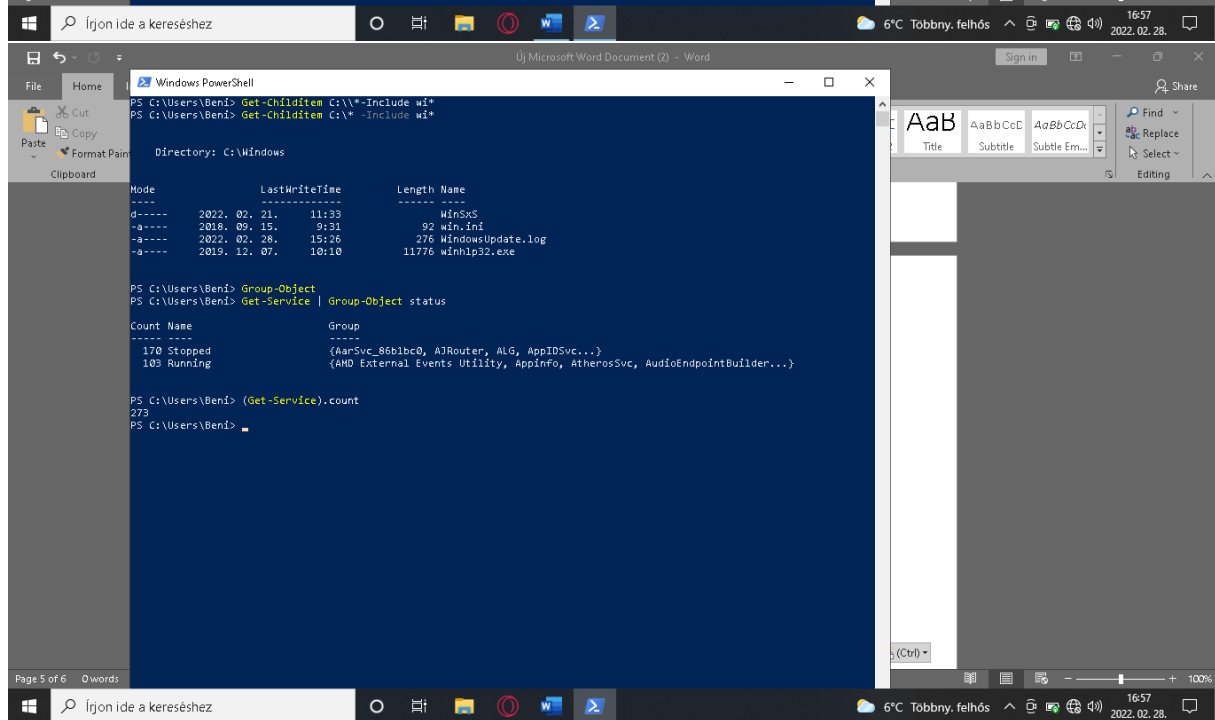
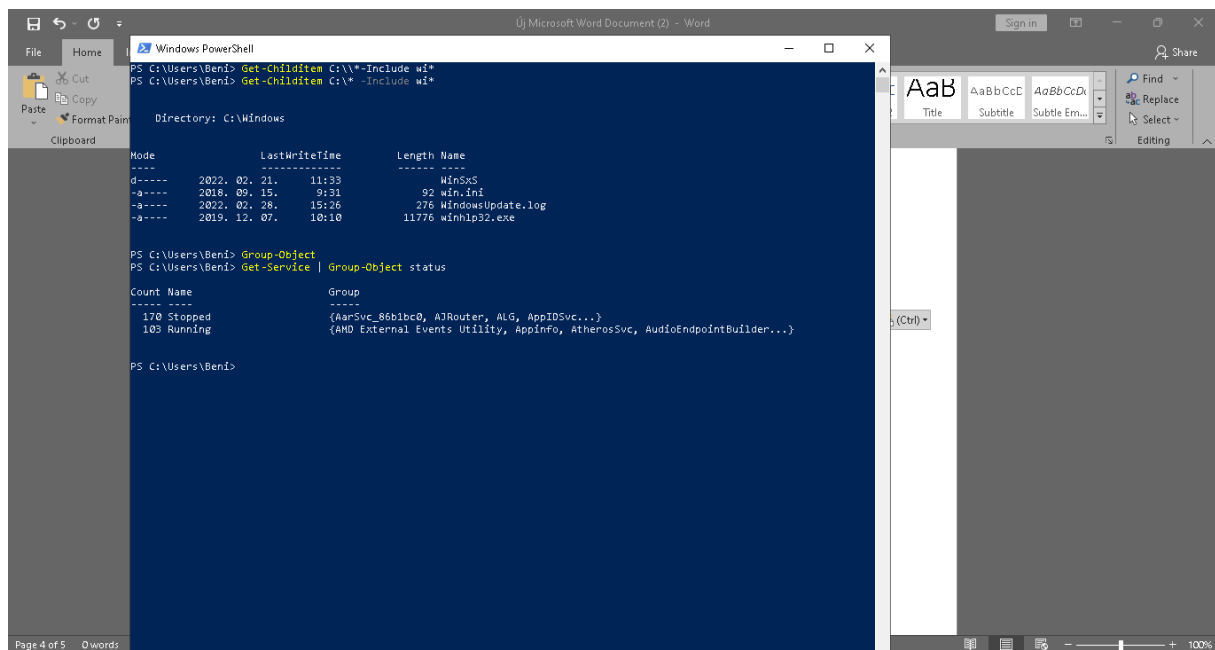
PS C:\Users\Beni>
```

```
Windows PowerShell

Alias      ncn -> Rename-Item
Alias      ri -> Remove-Item
Alias      rjb -> Remove-Job
Alias      rm -> Remove-Item
Alias      radir -> Remove-Item
Alias      rmo -> Remove-Module
Alias      rmi -> Rename-Item
Alias      rnp -> Rename-ItemProperty
Alias      rp -> Remove-ItemProperty
Alias      rsn -> Remove-PSSession
Alias      rsnp -> Remove-PSSnapin
Alias      rujb -> Resume-Job
Alias      rv -> Remove-Variable
Alias      rupa -> Resolve-Path
Alias      rwmf -> Remove-WmiObject
Alias      sab -> Start-Job
Alias      sal -> Set-alias
Alias      saps -> Start-Process
Alias      sasv -> Start-Service
Alias      sbp -> Set-PSBreakpoint
Alias      sc -> Set-Content
Alias      scb -> Set-Clipboard
Alias      select -> Select-Object
Alias      set -> Set-Variable
Alias      shcm -> Show-Command
Alias      si -> Set-Item
Alias      sl -> Set-Location
Alias      sleep -> Start-Sleep
Alias      sis -> Select-String
Alias      sort -> Sort-Object
Alias      sp -> Set-ItemProperty
Alias      spjb -> Stop-Job
Alias      spps -> Stop-Process
Alias      spsv -> Stop-Service
Alias      start -> Start-Process
Alias      stz -> Set-TimeZone
Alias      subj -> Suspend-Job
Alias      sv -> Set-Variable
Alias      swmi -> Set-WmiInstance
Alias      tee -> Tee-Object
Alias      tracm -> Trace-Command
Alias      type -> Get-Content
Alias      wget -> Invoke-WebRequest
Alias      where -> Where-Object
Alias      wjb -> Wait-Job
Alias      write -> Write-Output

3.1.0.0 Microsoft.PowerShell.Management
3.1.0.0 Microsoft.PowerShell.Management
```





Uj Microsoft Word Document (2) - Word

Windows PowerShell

```
PS C:\Users\Beni> Get-Childitem C:\*\* -Include wi*
PS C:\Users\Beni> Get-Childitem C:\*\* -Include wi*
```

Directory: C:\Windows

Mode	LastWriteTime	Length	Name
d-----	2022. 02. 21. 11:33		WinSxS
-a-----	2018. 09. 15. 9:31	92	win.ini
-a-----	2022. 02. 28. 15:26	276	WindowsUpdate.log
-a-----	2019. 12. 07. 10:10	11776	winhlp32.exe

```
PS C:\Users\Beni> Group-Object
PS C:\Users\Beni> Get-Service | Group-Object status
```

Count	Name	Group
170	Stopped	{AarSvc_86b1be0, A3Router, ALG, AppIDSvc...}
103	Running	{AMD External Events Utility, AppInfo, AtherosSvc, AudioEndpointBuilder...}

```
PS C:\Users\Beni> (Get-Service).count
273
PS C:\Users\Beni> Get-Process | Measure-Object -Property Id -Maximum -Minimum -Average -Sum
```

Count	Average	Sum	Maximum	Minimum	Property
148	5540,75675675676	820032	16864	0	Id

PS C:\Users\Beni>

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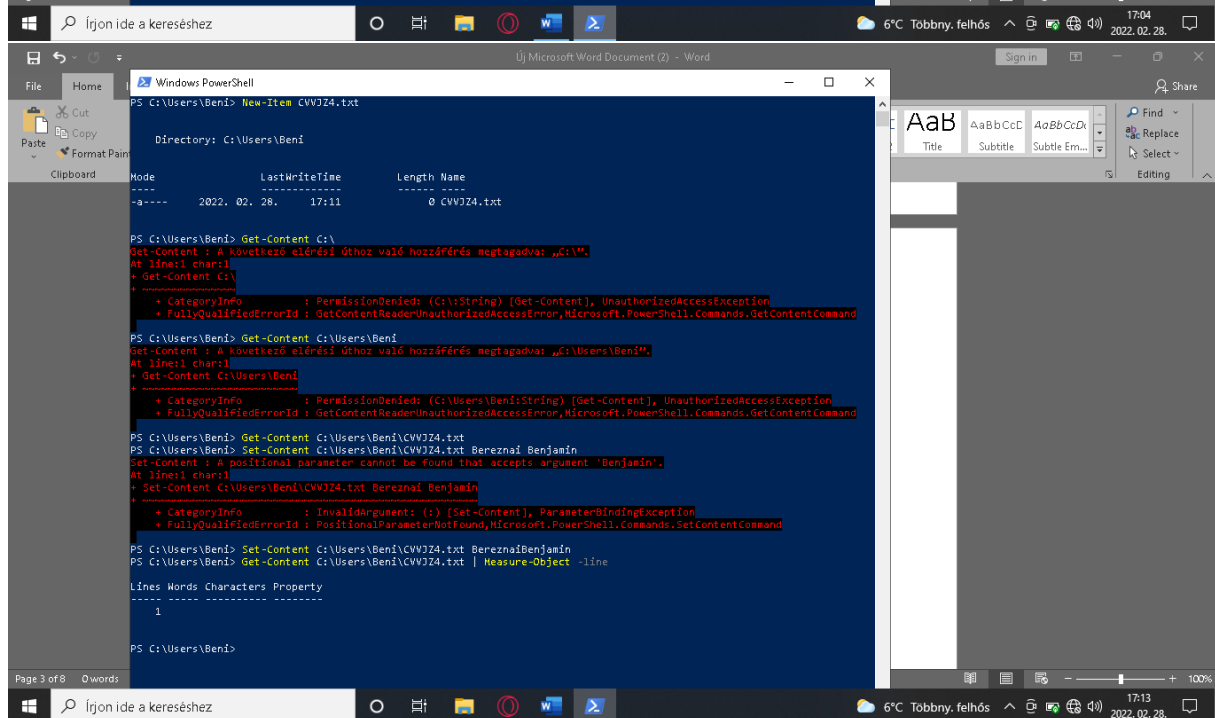
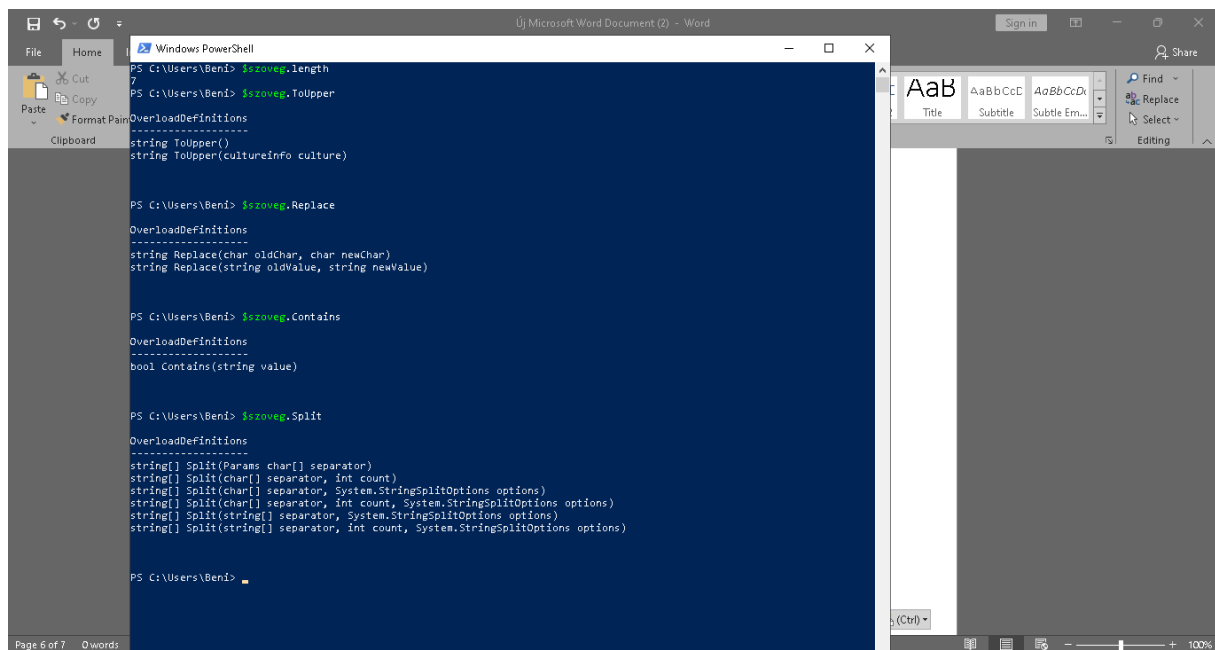
Windows PowerShell

```
PS C:\Users\Beni> Get-Service | Where-Object { $_.Name -eq "W32Time" }
```

Status	Name	DisplayName
Stopped	W32Time	Windows Time

PS C:\Users\Beni>

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Uj Microsoft Word Document (2) - Word

Windows PowerShell

```
PS C:\Users\Beni> Get-Service | Format-Table
```

Status	Name	DisplayName
Stopped	AarSvc_86b1bc0	Agent Activation Runtime_86b1bc0
Stopped	AJRouter	Allyoyn-átvitel szolgálat
Stopped	ALG	Alkalmazási réteg átjárószolgáltatása
Running	AMD External Ev...	AMD External Events Utility
Stopped	AppIDSvc	Alkalmazásidentitás
Running	AppInfo	Alkalmazásinformációk
Stopped	AppHgmt	Alkalmazáskezelés
Stopped	AppReadiness	Alkalmazás-előkészítő
Stopped	AppVClient	Microsoft App-V Client
Stopped	AppXSvc	AppX Deployment Service (AppXSVC)
Stopped	AssignedAccessM...	AssignedAccessManager szolgáltatás
Running	AtherosSvc	AtherosSvc
Running	AudioEndpointBu...	Windows-hangvégpontépítő
Running	AudioSrv	Windows audió
Stopped	autotimesvc	Mobilhálózati idő
Stopped	AxInstSV	ActiveX Telepítő (AxInstSV)
Stopped	BcastDVRUserSer...	Játékvideo-rögzítő és közvetítés fe...
Stopped	BDESVC	BitLocker meghajtótitkosítási szolg...
Running	BFE	Alap szűrőprogram
Stopped	BITS	Háttérben futó intelligens átviteli...
Stopped	BluetoothUserSe...	Felhasználói Bluetooth-támogatási s...
Running	BrokerInfrastru...	Háttérfeladatok infrastruktúra-szolg...
Stopped	BTAGService	Bluetooth-hangátjáró szolgáltatás
Running	BthAvctpSvc	AVCTP-szolgáltatás
Stopped	bthserv	Bluetooth-támogatási szolgáltatás
Running	camsvc	Képesség hozzáférés-kezelési szolgá...
Stopped	CaptureService_...	CaptureService_86b1bc0
Running	cbdsvc_86b1bc0	Végőlap felhasználói szolgáltatás_8...
Running	CDPSvc	Csatlakoztatott eszközök platformja...
Running	CDPUserSvc_86b1bc0	Csatlakoztatott eszközök platformja...
Stopped	CertPropSvc	Tanúsítvány-terjesztés
Running	ClickToRunSvc	Microsoft Office Click-to-Run Service
Stopped	ClipSvc	Ügyfél-licenclési szolgáltatás (Cl...
Stopped	cloudidvc	Microsoft felhőalapú identitásszolg...
Stopped	COMSysApp	COM+ System Application
Stopped	ConsentUXUserSv...	ConsentUX_86b1bc0
Running	CoreMessagingRe...	CoreMessaging
Running	cphs	Intel(R) Content Protection HECI Ser...
Running	cpaspcon	Intel(R) Content Protection HDCP Ser...
Stopped	CredentialEnroll...	CredentialEnrollmentManagerUserSvc_...
Running	CryptSvc	Kriptográfiai szolgáltatások
Stopped	CscService	Offline fájlok
Running	DcomLaunch	DCOM-kiszolgáló folyamatindítója
Stopped	defragvsc	Meghajtók normalizálása

Page 4 of 4 0 words

Uj Microsoft Word Document (2) - Word

Windows PowerShell

```
PS C:\Users\Beni> Get-Service | ft -AutoSize
```

Status	Name	DisplayName
Stopped	AarSvc_86b1bc0	Agent Activation Runtime_86b1bc0
Stopped	AJRouter	Allyoyn-átvitel szolgálat
Stopped	ALG	Alkalmazási réteg átjárószolgáltatása
Running	AMD External Events Utility	AMD External Events Utility
Stopped	AppIDSvc	Alkalmazásidentitás
Running	AppInfo	Alkalmazásinformációk
Stopped	AppHgmt	Alkalmazáskezelés
Stopped	AppReadiness	Alkalmazás-előkészítő
Stopped	AppVClient	Microsoft App-V Client
Stopped	AppXSvc	AppX Deployment Service (AppXSVC)
Stopped	AssignedAccessManagerSvc	AssignedAccessManager szolgáltatás
Running	AtherosSvc	AtherosSvc
Running	AudioEndpointBuilder	Windows-hangvégpontépítő
Running	AudioSrv	Windows audió
Stopped	autotimesvc	Mobilhálózati idő
Stopped	AxInstSV	ActiveX Telepítő (AxInstSV)
Stopped	BcastDVRUserService_86b1bc0	Játékvideo-rögzítő és közvetítés felhasználói szolgá...
Stopped	BDESVC	BitLocker meghajtótitkosítási szolgáltatás
Running	BFE	Alap szűrőprogram
Stopped	BITS	Háttérben futó intelligens átviteli szolgáltatás
Stopped	BluetoothUserService_86b1bc0	Felhasználói Bluetooth-támogatási szolgáltatás_86b1bc0
Running	BrokerInfrastructure	Háttérfeladatok infrastruktúra-szolgáltatása
Stopped	BTAGService	Bluetooth-hangátjáró szolgáltatás
Running	BthAvctpSvc	AVCTP-szolgáltatás
Stopped	bthserv	Bluetooth-támogatási szolgáltatás
Running	camsvc	Képesség hozzáférés-kezelési szolgáltatása
Stopped	CaptureService_86b1bc0	CaptureService_86b1bc0
Running	cbdsvc_86b1bc0	Végőlap felhasználói szolgáltatás_86b1bc0
Running	CDPSvc	Csatlakoztatott eszközök platformja (CDP) szolgáltatás
Running	CDPUserSvc_86b1bc0	Csatlakoztatott eszközök platformja (CDP) felhasználó...
Stopped	CertPropSvc	Tanúsítvány-terjesztés
Running	ClickToRunSvc	Microsoft Office Click-to-Run Service
Stopped	ClipSvc	Ügyfél-licenclési szolgáltatás (ClipSvc)
Stopped	cloudidvc	Microsoft felhőalapú identitásszolgáltatás
Stopped	COMSysApp	COM+ System Application
Stopped	ConsentUXUserSvc_86b1bc0	ConsentUX_86b1bc0
Running	CoreMessagingRegistrar	CoreMessaging
Running	cphs	Intel(R) Content Protection HECI Service
Running	cpaspcon	Intel(R) Content Protection HDCP Service
Stopped	CredentialEnrollmentManagerUserSvc_86b1bc0	CredentialEnrollmentManagerUserSvc_86b1bc0
Running	CryptSvc	Kriptográfiai szolgáltatások
Stopped	CscService	Offline fájlok
Running	DcomLaunch	DCOM-kiszolgáló folyamatindítója
Stopped	defragvsc	Meghajtók normalizálása

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