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Архітектура комп'ютерів-2. Процесори
Лабораторна робота №4

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Please press Enter to activate this console.

```
/ # uname -a
Linux (none) 4.19.221 #1 SMP Tue Dec 14 14:53:07 PST 2021 armv7l GNU/Linux
/ # ls -l
total 0
drwxrwxr-x  2 1000    1000          0 Dec 14 23:56 bin
drwxrwxr-x  2 1000    1000          0 Dec 15 00:03 boot
drwxrwxr-x  3 1000    1000          0 Dec 22 19:06 dev
drwxrwxr-x  3 1000    1000          0 Dec 15 00:07 etc
lrwxrwxrwx  1 1000    1000        11 Dec 15 00:02 init -> bin/busybox
drwxrwxr-x  3 1000    1000          0 Dec 15 00:06 lib
lrwxrwxrwx  1 1000    1000        11 Dec 14 23:56 linuxrc -> bin/busybox
dr-xr-xr-x  90 root    root          0 Jan  1  1970 proc
drwxrwxr-x  2 1000    1000          0 Dec 14 23:56 root
drwxrwxr-x  2 1000    1000          0 Dec 14 23:56/sbin
dr-xr-xr-x  12 root    root          0 Dec 22 19:05 sys
drwxrwxr-x  2 1000    1000          0 Dec 14 23:56 tmp
drwxrwxr-x  4 1000    1000          0 Dec 14 23:56 usr
```

```
/ # dmesg | grep init
[  0.000000] random: get_random_bytes called from start_kernel+0x9c/0x480 with crng_init=0
[  0.000000] Memory: 407380K/524288K available (12288K kernel code, 1619K rwd ata, 4784K rodata, 2048K init, 393K bss, 51372K reserved, 65536K cma-reserved, 0K highmem)
[  0.000000]       .init : 0x(ptrval) - 0x(ptrval) (2048 kB)
[  0.213237] devtmpfs: initialized
[  0.279001] pinctrl core: initialized pinctrl subsystem
[  0.807486] SCSI subsystem initialized
[  1.437137] Trying to unpack rootfs image as initramfs...
[  6.806525] Freeing initrd memory: 25100K
[  7.656171] SuperH (H)SCI(F) driver initialized
[  7.685730] msm_serial: driver initialized
[  7.705267] STMicroelectronics ASC driver initialized
[  7.713506] STM32 USART driver initialized
[  8.670093] Run /init as init process
```

```
/ # busybox --help | head -15
BusyBox v1.34.1 (2021-12-14 15:51:42 PST) multi-call binary.
BusyBox is copyrighted by many authors between 1998-2015.
Licensed under GPLv2. See source distribution for detailed
copyright notices.
```

```
Usage: busybox [function [arguments]...]
or: busybox --list[-full]
or: busybox --show SCRIPT
or: busybox --install [-s] [DIR]
or: function [arguments]...
```

BusyBox is a multi-call binary that combines many common Unix utilities into a single executable. Most people will create a link to busybox for each function they wish to use and BusyBox will act like whatever it was invoked as.

```
/ # poweroff
/ # umount: can't unmount /: Invalid argument
swapoff: can't open '/etc/fstab': No such file or directory
The system is going down NOW!
Sent SIGTERM to all processes
Sent SIGKILL to all processes
Requesting system poweroff
[ 81.328295] reboot: Power down
yurao@ubuntu:~/repos/busybox$
```

