

Linux w praktyce powłoka systemowa i środowisko graficzne

Linux

Historia, Konstrukcja Systemu, Powłoka Systemowa, Środowisko graficzne

Linux w teorii

historia i pojęcia

Twórcy UNIXa



Pierwszy komputer na którym uruchomiono UNIXA



Pierwsze środowisko graficzne dla UNIXA



Jak powstał LINUX ?



Jak powstało GNU ?



Jak powstał GNU/Linux ?

```
QEMU
Debian GNU/Linux 6.0 debian1 tty1
debian1 login: root
Password:
Last login: Fri Jan 10 09:53:12 CST 2014 on tty1
Linux debian1 2.6.32-5-686 #1 SMP Fri May 10 08:33:48 UTC 2013 i686

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
root@debian1:~# _
```

Konstrukcja systemu

Organizacja katalogów systemu



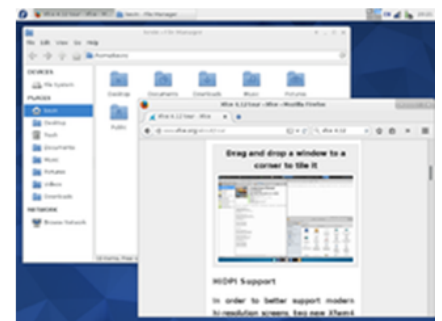
Konstrukcja systemu

Powłoka systemowa

Linux Command Cheat Sheet					
Basic commands		File management		File Utilities	
	Pipe (redirect) output	find	search for a file	tr -d	translate or delete character
sudo [command]	run <command> in superuser mode	ls -a -C -h	list content of directory	uniq -c -u	report or omit repeated lines
nohup [command]	run <command> immune to hangup signal	rm -r -f	remove files and directory	split -l	split file into pieces
man [command]	display help pages of <command>	locate -i	find file, using updatedb(8) database	wc -w	print newline, word, and byte counts for each file
[command] &	run <command> and send task to background	cp -a -R -i	copy files or directory	head -n	output the first part of files
>> [fileA]	append to fileA, preserving existing contents	du -s	disk usage	cut -s	remove section from file
> [fileA]	output to fileA, overwriting contents	file -b -i	identify the file type	diff -q	file compare, line by line
echo -n	display a line of text	mv -f -i	move files or directory	join -i	join lines of two files on a common field
xargs	build command line from previous output	grep, egrep, fgrep -i -v	print lines matching pattern	more, less	view file content, one page at a time
1>2&	Redirect stdout to stderr	File compression		sort -n	sort lines in text file
fg %N	go to task N	tar xvfz	create or extract .tar or .tgz files	comm -3	compare two sorted files, line by line
jobs	list task	gzip, gunzip, zcat	create, extract or view .gz files	cat -s	concatenate files to the standard output
Ctrl-z	suspend current task	uuencode, uudecode	create or extract .Z files	tail -f	output last part of the file
		zip, unzip -v	create or extract .ZIP files		

Konstrukcja systemu

Środowiska graficzne



root

sudo

sudo su

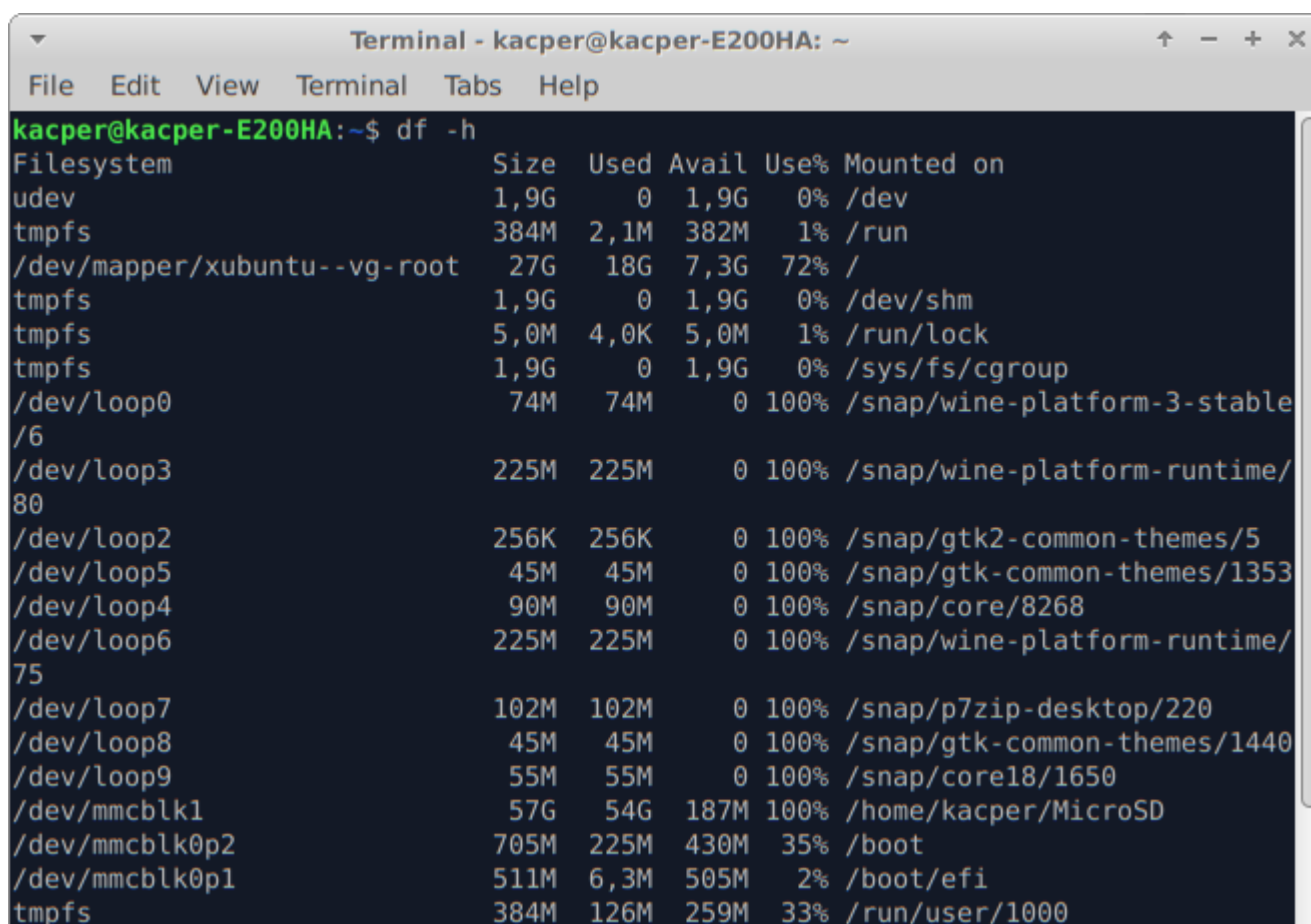
su



passwd root

Dyski i partycje w systemie

- hda1 – pierwszy dysk, 1 partycja
- hdb2 – pierwszy dysk, 2 partycja
- hdd4 – czwarty dysk, 4 partycja
- sudo fdisk -l
- df -h



```
Terminal - kacper@kacper-E200HA: ~
File Edit View Terminal Tabs Help
kacper@kacper-E200HA:~$ df -h
Filesystem                Size      Used Avail Use% Mounted on
udev                     1,9G         0   1,9G   0% /dev
tmpfs                    384M        2,1M   382M   1% /run
/dev/mapper/xubuntu--vg-root 27G        18G    7,3G  72% /
tmpfs                    1,9G         0   1,9G   0% /dev/shm
tmpfs                    5,0M        4,0K    5,0M   1% /run/lock
tmpfs                    1,9G         0   1,9G   0% /sys/fs/cgroup
/dev/loop0                74M        74M         0 100% /snap/wine-platform-3-stable/6
/dev/loop3                225M       225M         0 100% /snap/wine-platform-runtime/80
/dev/loop2                256K       256K         0 100% /snap/gtk2-common-themes/5
/dev/loop5                45M        45M         0 100% /snap/gtk-common-themes/1353
/dev/loop4                90M        90M         0 100% /snap/core/8268
/dev/loop6                225M       225M         0 100% /snap/wine-platform-runtime/75
/dev/loop7                102M       102M         0 100% /snap/p7zip-desktop/220
/dev/loop8                45M        45M         0 100% /snap/gtk-common-themes/1440
/dev/loop9                55M        55M         0 100% /snap/core18/1650
/dev/mmcblk1              57G        54G   187M  100% /home/kacper/MicroSD
/dev/mmcblk0p2            705M       225M   430M   35% /boot
/dev/mmcblk0p1            511M        6,3M   505M    2% /boot/efi
tmpfs                    384M       126M   259M   33% /run/user/1000
```

```
Terminal - kacper@kacper-E200HA: ~
File Edit View Terminal Tabs Help

kacper@kacper-E200HA:~$ sudo fdisk -l
[sudo] password for kacper:
Disk /dev/loop0: 74 MiB, 77565952 bytes, 151496 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk /dev/loop2: 132 KiB, 135168 bytes, 264 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk /dev/loop3: 224,6 MiB, 235503616 bytes, 459968 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes

Disk /dev/loop4: 89,1 MiB, 93417472 bytes, 182456 sectors
Units: sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
```

Polecenie man

`.man polecenie`

```
Terminal - kacper@kacper-E200HA: ~
File Edit View Terminal Tabs Help

DD(1) User Commands DD(1)

NAME
    dd - convert and copy a file

SYNOPSIS
    dd [OPERAND]...
    dd OPTION

DESCRIPTION
    Copy a file, converting and formatting according to the operands.

    bs=BYTES
        read and write up to BYTES bytes at a time (default: 512); over-
        rides ibs and obs

    cbs=BYTES
        convert BYTES bytes at a time

    conv=CONVS
        convert the file as per the comma separated symbol list

    count=N
        Manual page dd(1) line 1 (press h for help or q to quit)
```

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