$ wc -l myfile

wc (word count)

-l (broji linije/redove)

myfile je argument koji nalaže koji tekstualni file treba da se obradi, to jest naziv file-a u kome treba da se izbroje linije

$ wc -l -w my file (Two individual options)

-w (zahteva da se ispise broj)

$ wc -lw myfile (Same as -l -w)

$ wc -l myfile myfile2 (Count lines in two files)

Broji linije u dva text dokumenta

Opcije nisu standardizovane, mogu bili -(-l) i – (--lines)

$/ wc -l myfile (the command you type)

18 my file (the output it produces)

Sudo - super korisnik

$ sudo command

$ wc -l /etc/shadow (This will fail)

wc: /etc/shadow: Permission denied

$ sudo wc -l /etc/shadow/ (Now with sudo)

51 / etc/shadow

$ ls (list files) daje listu svih file-ove u directory

$ ls [options] [files]

Vertikalna crta (pipe) | se pise izmedju opcija/argumenata sve u obicnoj zagradi, znaci jedno ili drugo

(file | directory)

echo ispisuje argument na ekran

$ echo My dog has fleas

My dog has fleas

$ echo My name is $USER (Shell variable USER)

My name is smith

\ (Line continuation character) daje mogucnost da se napise komanda u vise linija zbog preglednosti

$ echo This is a long command that doesnt fit on \

one line

This is a long command that doesnt fit on one line

Man (Manual) ispisuje online manual stranicu (manpage) o zeljenoj komandi

$ man wc

Za pretragu manual stranica za zeljeni pojam, koristi se opcija -k za kojom sledi zeljena kljucna rec:

$ man -k database | less

Less prikazuje rezultat ekran po ekran, space za sledecu stranicu q za exit

Help ispisuje kratku informaciju o komandi

$ wc –help

Kao i u Windowsu, ako direktorijum one direktno sadrzi direktorijum two, kaze se da je two poddirektorijum (eng. subdirectory) od one; obrnuto, kaze se da je one roditeljski 18 direktorijum (eng. parent directory) od two (i engleski termin i srpski prevod su nezgodni, najlogicnije je prevesti kao naddirektorijum, kada se vec ne koristi termin child directory)

Path (putanja)

/one/two/three/four

Ako putanja pocinje root direktorijumom, za nju se kzže da je apsolutna (to jest kompletna, od vrha pa nadole u hijerarhiji, dokle treba); u suprotnom kaze se da je relativna

Dva specijalna direktorijuma su . (jedna tačka) i .. (dve tacke); to su zapravo simboli koji se koriste za skraćeni zapis: prvi označava radni direktorijum, a drugi označava njegov naddirektorijum

cd (change directory)

$ cd /usr/local/bin

$ cd d

$ cd ../mydir

Linux je case-sensitive, to jest pravi razliku izmedju malih i velikih slova (one i One nije isto)

$ echo $HOME

/home/smith

$ echo ~

/home/smith

Categories for programs

bin - Programs (usually binary files)

sbin - Programs (usually binary files) intended to be run by the superuser

lib - Libraries of code used by programs

Categories for programs

doc - Documentation

info - Documentation files for emacs’s built-in help system

man - Documentation files (manual pages) displayed by the man program. The files are often compressed and are sprinkled with typesetting command for man to interpret

share - Program-specific files, such as examples and installation instructions

Categories for configuration

etc - Configuration files for the system (and other miscellaneous stuff)

init.d - Configuration files for booting Linux

rc.d - Configuration files for booting Linux. Also rc1d., rc2d, …

Categories for programming

include - Header files for programming

src - Source code for programs

Categories for web files

cgi-bin - Scripts/programs that run on web pages

html - Web pages

public\_html - Web pages, typically in user;s home directories

www - Web pages

Categories for display

fonts - Fonts (Surprise!)

X11 - X window system files

Categories for hardware

dev - Device files for interfacing with disks and other hardware

media - Mount points: directories that provide access to disks

mnt - Mount points: directories that provide access to disks

Categories for runtime files

var - Files specific to this computer, created and updated as the computer runs

lock - Lock files, created by programs to say, “I am running”. The existence of a lock file may prevent a nother pgoram, or another instance of the same program, from running or performing an action

log - Log files that track important system events, containing error, warning, and informational messages

mail - Mailboxes for incoming mail

run - Pid files, which contain the IDs of running processes. These files are often consulted to track or kill particular processes

spool - Files queued or in transit, such as outgoing email, print jobs, and scheduled jobs

tmp - Temporary storage for pgrograms and/or people to use

/ - system files supplied with Linux (pronounced “root”)

/usr - More system files supplied with Linux (pronounced “user”)

/usr/local - System files developed “locally”, either for your organization or your individual computer

/usr/games - Games (surprise!)

/proc/ioports - A list of your computer’s input/output hardware

/proc/cpuinfo - Informations about your computers’s processors

/proc/version - The operating system version. The uname command prints the same informations

/proc/uptime - System uptime (i.e., seconds elapsed since the system was last booted). Run the uptime command for more a human readable-result.

/proc/nnn - Informations about the linux process with ID nnn, where nnn is a positive integer

$ who

Silver :0 Sep 23 20:44

burmes pts/0 Sep 15 13:51

barret pts/1 Sep 22 21:15

silver pts/2 Sep 22 21:18

$ wc | wc -l

4

Who se izvrsi, pa njegov izlazi ostaje ulaz za wc program

$ echo $SHELL

/bin/bash

$ bash - da korisnik iz nekog drugog shella predje u bash shell

type daje informacije o Linux komandi koja je zadata kao argument

$ type who

Who is /usr/bin/who

$ type cd

cd is a shell builtin

Wild card

\* - proizvoljan broj karakter u sekvenci, tj 0, 1, 2…

b\* (b, bac, basic, bash etc…)

b\*c pocinje sa b, zavrsava sa c (bc, b2c, basic etc…)

$ ls a\* - ispisuje list files koji pocinju sa a

$ ls -a - ispisuje sve fileove i one koji su hidden

? - oznacava tacno jedan karakter

b? (ba, bb, b3)

b?c (bac, bbc, bxc)

Ako treba 2 karakter onda ??

[] - svi karakteri koji dolaze u obzir ili njihov opseg definition pomocu crtice

o[ac]d (oad i ocd)

o[a-e]d (aod, obd, ocd, odd i oed)

\* - Zero or more consecutive characters

? - Any single character

[set] - Any single character in given set, most commonly a sequence of characters, like [aeiouAEIOU] for all vowels or a range with a dash, like [A-Z] for all capital letters

[^set] - Any single character not in the given set, such as [^0-9] to mean any nondigit

{} - skup vrednosti, odvojene zarezima koje ce argument neke komande redom uzimati

$ echo sand{X, YY, ZZZ}wich

sandXwich sandYYwich sandZZZwich

$ MYVAR=3

$ echo $MYVAR

3

DISPLAY - The name of X window display

HOME - Your home directory, such as /home/smith

LOGNAME - Your login name, such as smith

MAIL - Your incoming mailbox, such as var/spool/mail/smith

OLDPWD - Your shell’s previous directory, prior to the last cd command

PATH - Your shell search path: directories separated by colons

PWD - Your shell’s current directory

SHELL - The path to your shell (e.g., /bin/bash)

TERM - The type of your terminal (e.g., xterm or vt100)

USER - Your login name

Export daje mogucnost da ostali programi imaju mogucnost koristiti vrednost variable

$ export MYVAR / MYVAR=3

printenv - daje listu svih varijable okruzenja za dati shell

$ echo $PATH

/usr/local/bin:bin:/usr/bin

$ PATH=$PATH:/usr/sbin

$ echo $PATH

/usr/local/bin:bin:/usr/bin:/usr/sbin

alias - definise pologan, skraceni zapis (alias) za neku duzu komandu

$ alias ll=’ls -lG’

ll isto sto i ls -lG

< > karakteri za preusmeravanje

$ command < infile

$ sort < file\_list.txt

$ command > outfile - create outfile

$ ls > file\_list.txt zapisuje output od ls u file\_list.txt

$ sort < file\_list.txt > sorted\_file\_list.txt sortira podatke iz file\_list.txt i upisuje u sorted\_file\_list.txt

| vertikalna crta - ulancavanje

$ who | sort - izlaz programa who postaje ulaz programa sort

$ who | sort | awk ‘{print $1}’ | less - Pomoću komande awk (biće uvedena) izdvaja se jedna (u primeru: prva) kolona sortirane liste korisnika (a to su njihova korisnička imena), i na kraju pomoću komande less ispisuje se rezultat strana po strana

; - sekvenca komandi

$ command1 ; command2 ; command3 - prva, pa druga, pa treca navedena komanda

&& - ako jedna komanda ne radi ostale nemoj start

$ command1 && command2 && command3

|| - ako prva radi ostale nemoj ni da start

$ command1 || command2 || command3

$() zamena komande/ubacivanje komande u text

$ date +%Y

2016

$ echo This year is $(+%Y)

Moze se i koristiti `` backtick

$ echo This year is `date +%Y`

This year is 2016

Moze i shell variable

$ NUM\_USERS=$(who | wc -l)

$ echo There are currently $NUM\_USERS users

There are currently 2 users

Escapeovanje sa \ ispred characters ili ‘’

$ echo Is 5<3?

Error

$ echo is 5\<3\? –ILI– ‘5<3?’

Is 5<3?

$ cat my file

Error

$ cat my\ file –ILI– cat ‘my file’

Not Error

$ echo a\*

Aarkvard adam apple

$ echo a\\*

a\*

Izbor emacs shortcuts:

$ set -o emacs

Izbor vi shortcuts

$ set -o vi

(emacs keystroke) - (vi keystroke (after ESC)) - Meaning

^P or up arrow - k - Go to previous command

^N or down arrow - j - Go to next command

^R - - Search for a previous command interactively

^F or right arrow - l - Go forward one character

^B - or left arrow - h - Go backward one character

^A - 0 - Go to beginning of line

^E - $ - Go to end of line

^D - x - Delete next character

^U - ^U - Erase entire line

(command) - (meaning)

history - Print your history

history *N* - Print the most recent *N* commands in your history

history -c - Clear (delete) your history

!! - Re-run previous command

!*N* - Re-run command number *N* in your history

! -*N* - Re-run the command you typed *N* commands ago

!$ - Represent the last parameter from the previous command. Great for checking that files are present before running a destructive operation, like removing them

!\* - Represents all parameters from the previous command

expr - izracunavanje na komandnoj liniji (obavljanje logickih, aritmetickih operacija... nad strings)

$ expr 7 + 3

10

$ expr \( 7 + 3 \) \\* 14

140

$ expr 15 \> 16

0 (0 False, 1 True)

$ expr ‘( 7 + 3 ) \* 14’

Not working

$ epxr ‘(’ 7 + 3 ‘)’ ‘\*’ ‘14’

$ 15 ‘<’ 16

(operator) - (numeric operation) - (string operation)

+, -, \*, / - Addition, subtraction, multiplication and integer division, respectively -

% - Remainder (mod) -

< - Less than - Earlier in dictionary

<= Less than or equal - Earlier in dictionary or equal

> - Greater than - Earlier in dictionary

>= - Greater than or equal - Earlier in dictionary or equal

= - Equality - Equality

!= - Inequality - Inequality

| - Boolean “or” - Boolean “or”

& - Boolean “and” - Boolean “and”

$ echo smith@example.com

Subject: my subject

I’m typing a message.

To end it, i type a period by itself on a line.

.

Cc: jones@example.com

$

$ echo “Hey” | mail -s “subject” smith@example.com

Slanje file-a kao attachment:

$ mail -s “my subject” smith@example.com < filename

curl - ispisuje sadrzaj file na ekran

$ curl https://example.com

curl -o da se sacuva neki file na pc od usera

$ curl https://example.com/example.pdf -o /home/smith/example.pdf

sleep - komanda spavaj

$ sleep 100 & (& - nevidljiv posao)

[1] 16817

$ sleep 200 &

[2] 16990

$ jobs

[1]- Running sleep 100 &

[2]+ Running sleep 200 &

Nakon 200 sekundi

$ jobs

[1]- Done sleep 100

[2]+ Done sleep 200

fg (foreground) - cini komandu vidljivom i daje mogucnost da bude prekinuta

$ fg [%jobnumber]

$ sleep 100 &

[1] 18836

$ fg %1

sleep 100

^C

$

Ako user hoce vidljiv posao da prebaci u nevidljiv mora da ga zaustavi sa ^Z a posle da uz pomoc bg (background) ga prebaci u nevidljiv.

^C - prekid

^Z - zaustavljanje

bg (background) neki zaustavljeni vidljivi posao nastavi gde je stao ali da bude nevidljiv

bg [%jobnumber]

$ sleep 100  
^Z

[1]+ Stopped sleep 100

$bg %1

[1]+ sleep 100 &

$

exit (^D) - end of file signal

ls - List files in a directory

cp - Copy a file

mv - Rename (“move”) a file

rm - Delete (“remove”) a file

ln - Create links (alternative names) to a file

ls [options] [files]

ls prikazuje file-ove i directories(takodje i njihove atribute)

$ ls

$ ls dir1 dir2 dir3

$ ls myfile myfile2 myfile3

Najvaznije su -a -l -d

$ ls

myfile myfile2

$ ls -a

.hidden\_file myfile myfile2

-l (long) detaljni prikaz

$ ls -l myfile

-rw-r–r– 1 smith users 1168 Oct 28 2015 myfile

-d daje listu atributa o directory

$ ls -ld dir1

Drwxr-xr-x 1 smith users 4096 Oct 29 2015 dir1

-a - List all files, including those whose names begin with a dot.

-l - Long listing, including file attributes. Add the -h option (human-readable) to print file sizes in kilobytes, megabytes and gigabytes instead of bytes

-G - In a long listing, dont print the group ownership of the file.

-F - Decorate certain filenames with meaningful symbols, indicating their types. Appends “/” to directories, “\*” to executables, “@” to symbolic links, “|” to named pipes and “=” to sockets. These are just visual indicators for you, not part of the filenames!

-S - Sort files by their size.

-t - Sort files by the time they were last modified.

-r - Reverse the sorted order.

-R - If losing a directory, list its contents recursively

-d - If losing a directory, do not list its contents, just the directory itself.

cp [options] files (file | directory)

cp - pravi kopiju zadatog file

$ cp file copy

$ cp file destination\_dir

-a i -r obavlja se rekurzivno kopiranje (kopira se i directory i svi njegovi subdirectories)

-p - Copy not only the file contents, but also the file’s permissions, timestamps and if you have sufficient permission to do so, its owners and group. (Normally the copies will be owned by you, timestamped now with permissions set by applying your umask to the original permissions)

-a - Copy a directory hierarchy recursively, preserving all file attributes and links.

-r - Copy a directory recursively. This option doesn’t preserve the files;s attributes such as permissions and timestamps. It does preserve symbolic links.

-i - Interactive mode. Ask before overwriting destination files.

-f - Force the copy. If a destination file exists, overwrite it unconditionally.

mv [options] source target

mv (move) sluzi da preimenuje file

$ mv file\_name new\_name

$ mv file\_name dir\_name destination\_dir - premesti files i directories u drugi directory

-i - Interactive mode. Ask before overwriting destination files.

-f - Force the move. If a destination file exists, overwrite it unconditionally.

rm [options] files | directories

rm (remove) sluzi za brisanje file-ova (1 ili vise)

$ rm deleteme deletme2

$ rm -r dir1 dir2

-i - Interactive mode. Ask before overwriting destination files.

-f - Force the deletion, ignoring any errors or warning

-r - Recursively remove a directory and its contents. Use with caution, especially if combined with the -f option, as it can wipe out all your files.

ln [options] source target

ln (link) kreira hard link - reference na neki file

$ ln myfile myhardlink

$ cat myfile

Isti rezultat kao i

$ cat myhardlink

-s - Make symbolic link instead of a hard link.

-i - Interactive mode. Ask before overwriting destination files.

-f - Force the link. If a destination file exists, overwrite it unconditionally.

-d - Create a hard link to a directory (superusers only).

$ ls -l examplelink

Lrwxrwxrwx 1 smith … examplelink -> myfile

cd - Change your current directory (wru in the filesystem)

pwd - Print the name of your current directory

basename - Print the final part of a file path.

dirname - Print a file path without its final part.

mkdir - Create (make) a directory

rmdir - Delete (remove) an empty directory

rm -r - Delete a nonempty directory and its contents.

cd (change directory) definise radni direktorijum

$ cd /usr/games

pwd (path of working directory) ispisuje apsolutnu putanju radnog direktorijuma

$ pwd

/users/smith/linuxpocketguide

basename path [extension]

basname ispisuje samo naziv file-a, koji je dat pomocu svoje absolute putanje

$ basename /users/smith/finances/money.txt

Money.txt

$ basename /users/smith/finances/

finances

$ basename/users/smith/finances/money.txt .txt

money

dirname ispisuje celu putanje sem naziva file-a (directory)

$ dirname /users/smith/mydir

/users/smith

mkdir [options] directories

mkdir (“make directory”) kreira 1/vise directory u random directory

$ mkdir directory1 directory2 directory3

-p - Given a directory path (not just a simple directory name), create any necessary parent directories automatically. The command: $ mkdir -p one/two/three creates *one* and *one/two* and *one/two/three* if they dont already exist.

rmdir [options] directories

rmdir (remove directory) brise 1/vise praznih directory

$ mkdir /tmp/junk - make a directory

$ rmdir /tmp/junk

-p - If you supply a directory path (not just a simple directory name), delete not only the given directory, but the specified parent directories automatically, all of which must be empty. So rmdir -p one/two/three will delete not only *one/two/three*, but also *one/two* and *one*.

$ rm -r directory - brisanje nepreznog directory

-ri - zahtev korisniku da potvrdi

-rf - force

cat - View files in their entirety.

less - View text field one page at a time.

nl - View text files with their lines numbered

head - View the first lines of a text file.

tail - View the last lines of a text file.

strings - Display text that’s embedded in a binary file.

od - View data in octal (or other formats)

cat [options] [files]

cat - ispisuje sadrzaj teksutalnog file-a na ekran.

$ cat myfile | wc - ulancavanje

$ cat test1.txt test2.txt > test3.txt - preusmeravanje

-T - Print tabs as &l.

-E - Print newlines as $.

-v - PRint other nonprinting characters in a human-readable format

-n - Prepend line numbers to every line.

-b - Prepend line numbers to nonblank lines.

-s - Squeeze each sequence of blank lines into a single blank line

less [options] [files]

less prikazi stranicu po stranicu

$ command 1 | command 2 | command 3 | command 4 | less - korisna ako je krajnji rezutat predugacak

(keystroke) - (meaning)

h, H - View a help page.

Space bar, f, ^V, ^F - Move forward one screenful

Enter - Move forward one line.

b, ^B, ESC-v - Move backward one screenful

/ - Enter search mode. Follow it with a regular expression and press Enter and less will look for the first matching line

? - Same as /, but it searches backward in the file.

n - Next match: Repeat your most recent search forward.

N - repeat your most recent search backward

v - Edit the current file with your default text editor (the value of environment variable VISUAL or if not defined, EDITOR or it not defined, the program vi)

<, g - Jump to beginning of file.

>, G 0 Jump to end of file.

:n - Jump to next file.

:p - Jump to previous file.

$ less myfile.zip - prikaz zip file-a

-c - Clear the screen before displaying the next page. This avoids scrolling and may be more comfortable on the eyes.

-m - Print a more verbose prompt, displaying the percentage of the file displayed so far

-N - Display line numbers.

-r - Display control characters literally. Normally less converts them to a numan-readable format.

-s - Squeeze multiple, adjacent blank lines into a single blank line.

-S - Truncate long lines to the width of the screen, instead of wrapping.

nl [options] [files]

nl ispisuje ispisuje sadrzaj tekstualnog file-a i broj linija

$ nl poem

1 Once upon a time, there was

2 a little operating system named

3 Linux, which everybody loved.

(N - number)

-b [a|t|n|p R] - Prepend numbers to all lines (a), nonblank lines (t), no lines (n) or only lines that container regular expression R (Default=a)

-v N - Begin numbering with integer N. (Default=1)

-i N - Increment the number by N for each line, so for example you could use odd numbers only (-i2) or even numbers only (-v2 -i2). (Default=1)

-n [ln|rn|rz] - Format numbers as left justified (ln), right-justified (rn) or right-justified with leading zeros (rz). (Default=ln)

-w N - Force the width of the number to be N columns. (Default=6)

-s S - Insert string S between the line number and the text. (Default=tab)

head [options] [files]

head - ispisuje prvih 10 linija nekog text file-a

$ head myfile

$ head \* | less - Preview all files in the current directory

$ ls -lta | head

(N - number)

-n N - Print the first N lines instead of 10.

-N - Same as -n N.

-c N - Print the first N bytes of the file.

-q - Quiet mode: when processing more than one file, dont print a banner above each file. Normally, head, prints a banner containing the filename.

tail [options] [files]

tail ispisuje poslednjih 10 linija nekog file-a

$ tail myfile

$ nl myfile | tail - See line numbers too

-n N - Print the last N lines of the file instead of 10

-N - Same as -n N.

-n +N - Print all lines expect the first N.

-c N - Print the last N bytes of the file.

-f - Keep the file open and whenever lines are appended to the file, print them. This is extremely useful. Add the –retry option if the file doesnt exist yet, but you want to wait for it to exist.

-q - Quiet mode: when processing more than one file, dont print a banner above each file. Normally tail prints a banner containing the filename.

strings [options] [files]

string sluzi da izvoji i prikaze sav citljiv tekst

$ strings /usr/bin/who

David MacKenzie

Copyright %s %d Free Software Foundation, Inc.

grep pretrazuje tekst ili character/s u file

$ strings -n 10 /usr/bin/who | grep ‘@’

bug-coreutils@gnu.org

-n length - Display only strings with length greater than length (the default is 4)

od [options] [files]

od ispisuje sirovi sadrzaj binarnog file-a

$ od -w8 /usr/bin/who

0000000 042577 043114 000401 000001

0000010 000000 000000 000000 000000

0000020 000002 000003 000001 000000

$ od -tc -w8 /usr/bin/who | head -3

0000000 177 E L F 001 001 001 \0

0000010 \0 \0 \0 \0 \0 \0 \0 \0

0000020 002 \0 003 \0 001 \0 \0 \0

-N B - Display only the first B bytes of each file, specified in decimal, hexadecimal (by prepending 0x or 0X), 512-byte block (by appending b), kilobytes (by appending k) or megabytes (by appending m). (Default displays the entire file)

-j B - Begin the output at byte B +1 of each file. Acceptable formats are the same as for the -N option. (Default=0)

-w [B] - Displa B bytes per line. Acceptable formats are the same as in the -N option. Using -w by itself is equivalent to w32. (Default=16)

-A (d|o|x|n) - Display file offsets in the leftmost column, in decimal (d), octal (0), hexadecimal (x) or not at all (n). (Default=o)

-t(a|c)[z] - Display output in a character format with nonalphanumeric characters printed as escape sequences (c) or by name (a)

acroread pokrece Adobe aplikaciju “PDF reader”, ocitava zadati PDF file (koji je takodje binarni). PDF files mogu se i citati komandama xpdf i gv

soffice otvara sve Microsoft Office dokumente

abiword (samo Word)

gnumeric (samo Excel)

nano - A simple text editor included by default in popular linux distros.

emacs - Text editor from Free Software Foundation

vim - Text editor, extension of Unix vi.

$ nano myfile

$ emacs myfile

$ vim myfile

touch - pravljenje praznog file-a

$ touch newfile

$ echo -n > newfile2

-n sluzi da spreci upisivanje newline characters

$ EDITOR=emacs

$ VISUAL=emacs

$ export EDITOR VISUAL

nano [options] [files]

nano je vrlo mali i jednostavan program ugradjen u linux namenjen da se edituje text

emacs [options] [files]

emacs pokrece mocno okruzenje za editovanje teksta sa hiljadama komandi i opcija. Takodje sadrzi i komplenti programski jezik

vim [options] [files]

vim editor je obogacena verzija starog standardnog Unix editora vi.

$ gvim - preknut u novom X prozoru

$ vim - pokrenut u postojecem shell prozoru

insert mode - text se unosi na uobicajeni nacin

normal mode - briste text, radi copy/paste itd…

(task) - (emacs) - (nano) - (vim)

Type text - Just type- Just type - Switch to insert mode if necessary, by typing i, then type text

Save and quit - ^x^s then ^x^c - ^o then ^x - :wq

Quit without saving - ^x^c - ^x - :q!

Save - ^x^s - ^o - :w

Save as - ^x^w - ^o then type a filename - :w filename

Undo - ^/ or ^x u - M-u - u

Suspend editor (not in X) - ^z - ^z - ^z

Switch to insert mode - (N/A) - (N/A) - i

Switch to command mode - (N/A) - (N/A) - ESC

Switch to command-line - M-x - (N/A) - :

Abort command in progress - ^g - ^c - ESC

Move forward - ^f or right arrow - ^f or right arrow - l or right arrow

Move backward - ^b or left arrow - ^b or left arrow -h or left arrow

Move up - ^p or up arrow - ^p or up arrow - k or up arrow

Move down - ^n or down arrow - ^n or down arrow - j or down arrow

Move to next word - M-f - ^SPACEBAR - w

Move to previous word - M-b - M-SPACEBAR - b

Move to beginning of line - ^a - ^a - 0

Move to end of line - ^e - ^e - $

Move down one screen - ^v - ^v - ^f

Move up one screen - M-v - ^y - ^b

Move to beginning of document - M-< - M-\ - gg

Move to end of document - M-> - M-\ - G

Delete next character - ^d - ^d - x

Delete next word - M-d - (N/A) - de

Delete previous word - M-BACKSPACE - (N/A) 0 - db

Delete current line - ^a^k - ^k - dd

Delete to end of line - ^k - … - D

Define region - ^SPACEBAR - ^^ (control caret) - v

Cut region - ^w - ^k - d

Copy region - M-w - M-^ - y

Paste region - ^y - ^u - p

Get help - ^h - ^g - :help

View the manual - ^h i - ^g - :help

Komande za property/svojstva

stat - Display attributes of files and directories

wc - Count bytes, words and lines in a file

du - Measure disk usage of file and directories

file - Identify (guess) the type of a file

touch - Change timestamps of file and directories

chown - Change owner of file and directories

chgrp - Change group ownership of file and directories

chmod - Change protection mode of file and directories

umask - Set a default mode for new files and directories

chattr - Change extended attributes of file and directories

lsattr - List extended attributes of file and directories.

stat [options] files

stat (statistics) ispisuje detaljnu listu atributa zadatog file-a

$ stat myfile

File: ‘myfile’

Size: 1168 Blocks: 8

IO Block: 4096 regular file

Device: 811h/2065d Inode: 37224455 Links: 1

Access: (0644/-rw-r–r–) Uid: ( 600/lisa)

Gid: ( 620/users)

Access: 2015-11-07 11:15:14.766013415 -0500

Modify: 2015-11-07 11:15:14.722012802 -0500

Change: 2015-11-07 11:15:14.722012802 -0500

Birth: -

$ stat -t myfile

myfile 1168 8 84a4 600 811 37224455 1 0 0 1446912914 1446912914 1446912914 0 4096

-L - Follow symbolic links and report on the file they point to

-F - Report on the filesystem containing the file, not the file itself

-t - Terse mode: print information on a single line.

wc [options] [files]

wc (word count) ispisuje broj linija, reci i bajtova u tekstualnom file-u

$ wc myfile

18 211 1168 myfile

-l - Print the line count only

-w - Print the word count only

-c - Print the bytes count only

-L - Locate the longest line in each file and print its lenght in bytes

du [options] [files| directories]

du (disk usage) ispisuje sve directories koje sadrzi radni directory, broj blokova za svaki i sumu (ukupnu velicinu radnog directory)

$ du

36 ./Mail

340 ./Files/mine

40 ./Files/bob

416 ./Files

216 ./PC

2404 .

$ du myfile emptyfile hugefile

4 myfile

0 emptyfile

1814 hugefile

-b - Measure usage in bytes

-k - Measure usage in kilobytes

-m - Measure usage in megabytes

-B N - Display sizes in blocks that you define, where 1 block = N bytes (Default=1024)

-h -H - Print in human-readable units. For example, if two directories are of size 1 gigabyte or 25 kilobytes, respectively, du -h prints 1G and 25K. The -h option uses powers of 1024, whereas -H uses powers of 1000.

-c - Print a total in the last line. THis is the default behavior when measuring a directory, but for measuring individual files, provide -c if you want a total.

-L - Follow symbolic links and measure that files they point to

-s - Print only the total size.

file [options] files

file detaljno ispisuje podatke o tipu/formatu zadatog file-a

$ file /etc/hosts /usr/bin/who letter.docx

/etc/hosts: ASCII text

/usr/bin/who: ELF 64-bit LSB executable …

letter.docx: Microsoft Word 2007+

-b - Omit filenames (left column of output)

-i - Print MIME types for the file, such as “text/plain” or “mpeg”, instead of the usual output.

-f name\_file - Read filenames, one per line from the given name\_file and report their types. Afterward, process filenames on the command line as usual.

touch [options] files

touch - kreira prazan file, postavlja dva vremena (timestamp) vezana za dati file: vreme kada mu je sadrzaj poslednji put promenjen (modification time), vreme kada mu je poslednji put pristupljeno (access time)

$ touch myfile

$ touch -d “November 18 1975” myfile

-a - Change the access time only

-m - Change the modification time only.

-c - If the file doesnt exist, dont create it (normally, touch creates it)

-d timestamp - Set the file’s timestamp(s). A tremendous number of timestamp formats are acceptable, from “12/28/2001 3pm” to “28-May” (the current year is assumed and a time of midnight) to “next tuesday 13:59” to “0” (midnight today)

chown [options] user\_spec files

chown (change owner) definise vlasnistvo (ownership) korisnika i grupe nad file-ovima i directories

$ sudo chown smith myfile myfile2 mydir

–deference - Follow symbolic links and operate on the files they point to,

-R - Recursively change permission within a directory hierarchy

Pomoc parametra user\_spec, vlasnik se moze zadati na razlicite nacine:

1. Pomocu korisnickog imena (UID): (chown smith myfile)
2. Pomocu korisnickog imena (UID), posle koga idu dve tacke, posle kojih ide ime grupe (GID), da se kao vlasnici postave i korisnik i grupa (chown: smith:users myfile)
3. Pomocu imena grupe (GID), pre toga idu dve tacke, da se postavi samo grupa kao vlasnik (chown :users myfile)
4. Pomocu opcije –reference=file da se postave isti vlasnici (korisnik i grupa) kao sto su postavljeni za file file dat kao referenca (po uglu na taj file)

chgrp [options] group\_spec files

chgrp (change group) definise vlasnistvo grupe nad file-ovima i directories

$ chgrp friends myfile myfile2 mydir

Parametar group\_spec moze biti:

1. Naziv grupe ili njen GID
2. –reference=file, da se postavi isto vlasnistvo kao sto je postavljeno za zadati file

–dereference - Follow symbolic links and operate on the files they point to.

-R - Recursively change the ownership within a directory hierarchy

chmod [options] permission files

chmod (change mode) sluzi da se dodeljuju dozvole pristupa (r, w, x) file-ovima i directories. Korisnik-vlasniku (u), grupi-vlasniku (g), svim ostalima (o (others)) ili svima zajedno (a)

$ chmod u=rwx,g=r,o= new\_file.txt (Resetuje stare dozvole)

$ chmod a+x new\_script.sh (Na postojece dozvole dodaje i ovu)

–reference=file zeljene dozvole se dodeljuju po uzoru na referentni file

-R - Recursively change the ownership within a directory hierarchy.

chattr [options] [+ - =]attributes [files]

chattr (change attributes) menja attribute pored onih vezanih za dozvole pristupa (rxw)

$ chattr +ui myfile

myfile postaje neobrisiv (undeletable), a ni mogucnost da se promeni (immutable)

(attribute) - (Meaning)

a - Append-only: appends are permitted to this file, but it cannot otherwise be edited. Root only.

A - Accesses not timestamped: accesses to this file dont update its access timestamp (atime).

c - Compressed: data is transparently compressed on writes and uncompressed on reads

d - Dont dump: tell the dump program to ignore this file when making backup

i - Immutable: file cannot be changed or deleted (root only)

j - Journaled data (ext3 filesystems only)

s - Secure deletion: if deleted, this file’s data is overwritten with zeros.

S - Synchronous update: changes are written to disk immediately.

u - Undeletable: file cannot be deleted.

-R - Recursively process directories

$ chattr -R +i ./test-dir/ (svi file-ovi u test-dir postanu nepromenljivi)

lsattr [options] [files]

lsattr (list attributes) dodati attribute pomocu chattr mogu biti procitani pomocu ove komande

$ lsattr myfile

-u–i— myfile

-R - Recursively process directories.

-a - List all files, including those whose names begin with a dot.

-d - If listing a directory, do not list with contents, just the directory itself

find - Locate files in a directory hierarchy.

xargs - Process a list of located files (and much more)

locate - Create an idex of files and search the index of string

which - Locate executables in your search path (command)

type - Locate executables in your search path (bash built-in)

whereis - Locate executables, documentation and source files

find [directories] [expression]

find pretrazuje jedan ili vise direktorijuma i u njima trazi file-ove koji ispunjavaju zadate kriterijume

$ find . -type f -name myfile -print

./myfile

$ find . -type -f -name myfile\\* -print

./myfile.zip

./myfile3

./myfile

./myfile2

$ find . -type d -print

.

./jpegexample

./dir2

./mydir

./mydir/dir

-name pattern, -path pattern, -lname pattern - The name (-name), pathname (-path) or symbolic link target (-lname) of the desired file must watch this shell pattern, which may include sell wildcards \*, ? and []

-iname pattern, -ipath pattern, -ilname pattern - The -iname, -ipath and -ilname options are the same as -name, -path and -lname, respectively, but are case-insensitive

-regex regexp - The path (relative to the directory tree being searched must watch the given regular expression)

-type t - Locate only files on type t. This includes plain files (f), directories (d), symbolic links (l), block devices (b), character devices ©, named pipes (p) and sockets (s).

-atime N, -ctime N, -mtime N - File was accessed (-atime), last modified (-mtime) or had a status change (-ctime) exactly N\*24 hours ago. Use +N for “greater than N” or -N for “less than N”

-amin N, -cmin N, -mmin N - File was accessed (-amin), last modified (-mmin) or had a status change (-cmin) exactly N minutes ago. Use +N for “greater than N” or -N for “less than N”

-anewer other\_file, -cnewer other\_file, -newer other\_file - File was accessed (-anewer), modified (-newer) or had a status change (-cnewer) more recently than other\_file

-maxdepth N, -mindepth N - Consider files at least (-mindepth) or at most (-maxdepth) N levels deep in the directory tree being searched

-follow - Deference symbolic links

-depth - Proceed using depth-first search: completely search a directory’s contents (recursively) before operating on the directory itself

-xdev - Limit the search to a single filesystem (i.e., dont cross device boundaries)

-size N[bckw] - Consider files of size N, which can be given in blocks (b) one-byte characters (c), kilobytes (k) or two-byte words (w). Use +N for “greater than N” or -N for “less than N”

-empty - File has zero size and is a regular file or directory

-user name - File is owned by the given user

-group name - File is owned by the given group

-a (and) (default) oznaka za i

-o (or) oznaka za ili

! - oznaka za negaciju

>> pomocu logickog i: option1 -a option2

>> pomocu logickog ili: option -o option2

>> pomocu negacije: ! option

$ find . -type f \( ! -user jsmith -mtime +30 \) -print

(traze se svi file-ovi ciji vlasnik nike jsmith i koji su modifikovani pre vise od 30 dana)

-print - Simply print the path to the file, relative to the search directory

-print0 - Like -print, but instead of separating each line of output with a newline character, use a null (ASCII 0) character. Use when piping the output offend to another program

xargs [options] [command]

xargs - ocitava linije teksta sa standardnog ulaza, pretvara ih u komande, koje zatim izvrsava

$ cat important

/home/jsmith/mail/love-letters

/usr/local/lib/critical\_stuff

/etc/passwd

$ cat important | xargs ls -l

(xargs pmocu ulancavanja procesira svaki od navednih file-ova pomocu neke druge linux komande. Npr. moze da primeni ls -l na svaki od file-ova sa liste)

$ cat important | xargs less

$ cat important | xargs rm -f

$ find . -type f -print | xargs grep -l tomato

./findfile1

./findfile2

$ cat findfile1

This file contains the word tomato (Prvo komanda find generise listu svih tekstualnih file-ova, zatim u okviru lanca komanda grep pretrazuje svaki od tih file-ova sa liste (i string “tomato” pronadjen u dva).

-n k - Feed k lines of input to each executed command. The common -n1 guarantees that each execution will process only one line of input. Otherwise xargs may pass multiple lines of input to a single command.

-0 - Set the end of line character for input to be ASCII zero rather than whitespace and treat all characters literally. Use this when input is coming from find -print0

locate [options]

updatedb kreira/update-uje index (registar) svih file-ova i directories. Taj index se brzo pretrazuje pomocu partnerske komande locate.

$ updatedb -l0 -U directory -o /tmp/myindex

$ locate -d /tmp/myindex string

updatedb opcije:

-u - Create index from the root directory downward

-U directory - Create index from directory downward

-l (0|1) - Turn security off (0) or on (1). The default is 1

-e directories - Exclude on or more directories from the index. Separate their paths by commas

-o outfile - Write the index to file outfile

locate opcije:

-d index - Indicate which index to use (in our example, /tmp/myindex)

-i - Case-insensitive search

-r regexp - Search for files matching the given regular expression

which file

which locira izvrsni (executable) file, tj. program u shell putanji pretrage (program na disku)

$ which who

/usr/bin/who

type [options] commands

type se koristi isto kao i which, type je builtin u bash shell, i brza od which

$ type grep who

grep is /bin/grep

who is /usr/bin/who

$ type which type rm if

which is /usr/bin/which

type is a shell builtin

rm is aliased to `/bin/rm -i`

If is a shell keyword

whereis [options] files

whereis pokusava da locira zadati file tako sto pretrazuje jednu predfeinisanu listu directories (moze da locira izvrsne file-ove, dokumentaciju, source kodove)

$ whereis vim

vim: /usr/bin/vim /etc/vim /usr/share/vim

-b, -m, -s - List only executables (-b), manpages (-m) or source files (-is)

-B dirs.. -f, -M dirs.. -f, -S dirs.. -f - Search for executables (-B), manpages (-M) or source code files (-S) only in the given directories. You must follow the directory list with the -f option before listing the files you seek.

grep - Find lines in a file that match a regular expression

cut - Extract columns from a file

paste - Append columns

tr - Translate characters into other characters

expand, unexpand - Convert between tabs and spaces

sort - Sort lines of text by various criteria

uniq - Locate identical lines in a file.

tee - copy a file and pri it on standard output, simultaneously

grep [options] pattern [files]

grep u zadatom file (files) trazi zadati string

The quick brown fox jumped over the lazy dogs.

My very eager mother just served us nine pancakes.

Film at eleven.

$ grep pancake randomlines

My very eager mother just served us nine pancakes

Regex (Regular expression)

(plain) (extended) (meaning)

. - - Any single character

[...] - - Math any single character in this list

[^...] - - Match any single character NOT in this list

(...) - - Grouping.

\| - | - Or.

^ - - Beginning of a line

$ - - End of a line

\< - - Beginning of a word

\> - - End of a word

[:alnum:] - - Any alphanumeric character

[:alpha:] - - Any alphabetic character

[:cntrl:] - - Any control character

[:digit:] - - Any digit

[:graph:] - - Any graphic character

[:lower:] - - Any lowercase letter

[:print:] - - Any printable character

[:punct:] - - Any punctuation mark

[:space:] - - Any whitespace character

[:upper:] - - Any uppercase letter

[:xdigit:] - - Any hexadecimal digit

\* - - Zero or more repetitions of a regular expression

\+ - + - One or more repetitions of a regular expression

\? - ? - Zero or one occurrence of a regular expression

\{n\} - {n} - Exactly n repetitions of a regular expression

\{ n , \} - {n ,} - n or more repetitions of a regular expression

\{ n , m \} - { n , m } - Between n and m (inclusive) repetitions of a regular expression, n < m

\c - - The literal character c, even if c is a special regular expression character. For example, use \\* to match any asterisk or \\ to match a backslash. Alternatively, put the literal character in square brackets, line [\*] or [\]

$ grep ‘\!$’ randomlines (u textu randomline pronaci linije koje se zavrsavaju sa !)

The quick brown fox jumped over the lazy dogs!

$ grep ‘k..a’ file.txt

(pronalazi rec koja pocinje sa k ima bilo koja dva slova izmedju i zavrsava sa a)

$ grep ‘ko[ls]a’ file.txt

(pronalazi stringove kola i kosa)

-v - Print only lines that do not match the regular expression

-l - Print only the names of files that contain matching lines, not the lines themselves.

-L - Print only the names of files that do not contain matching lines.

-c - Print only a count of matching lines

-n - In front of each line of matching output, print its original line number

-b - In front of each line of matching output, print the byte offset of the line in the input

-i - Case-insensitive match

-w - Match only complete words (i.e., words that match the entire regular expression)

-x - Match only complete lines (i.e., lines that match the entire regular expression). Overrides -w

-A N - After each matching line, print the next N lines from its file

-B N - Before each matching line, print the previous N Lines from itself

-C N - Same as -A N -B: print N lines (From the original file)above and below each matching line

–color=always - Highlight the matched text in color, for better readability

-r - Recursively search all files in a directory and its subdirectories

-F - Use lists of fixed strings instead of regular expressions. See fgrep

cut -(b|c|f)range [options] [files]

cut izdvaja kolone teksta iz datog file-a

$ cat data.csv

one,two,three,four,five,six,seven

ONE,TWO,THREE,FOUR,FIVE,SIX,SEVEN

1,2,3,4,5,6,7

$ cut -f5 -d, data.csv (da izvoji 5 kolonu)

five

FIVE  
5

Moguce je i opseg napisati (-f 3-16), (-f 3,4,5,6,8,16) ili (-f 3,4,8-16)

Kolona moze biti definisana i rednim brojem charactera sa levo na desno (-c)

$ cut -c19 myfile (izdvojiti kolonu koju cine 19. characters iz svake linije (vrste))

$ echo “Lorem ipsum dolor sit amet” | cut -d ‘ ’ -f 2

ispum (U okvori jedne recenice texta, delimit izmedju reci je razmak, koje je stoga napisan izmedju polunavodnika ‘ ’)

-d C - Use character C as the input delimiter character between fields for the -f option. Bye default it’s a tab character.

–output-delimiter=C - use character C as the output delimiter character between fields for -f. By default its a tab character

paste [options] [files]

paste tretira zadate file-ove kao kolone i kombinuje ih na standardnom izlazu

$ cat letters

A

B  
C

$ cat numbers

1

2

3

$ paste numbers letters

1 A

2 B

3 C

-d delimiters - Use given delimiters characters between columnsl; the default is a tab character. Provide a single character (-d:) to be used always or a list of characters (-dxyz) to be applied in sequence on each line (the first delimiter is x, then y, then z, then x, then y, …)

-s - Sideways: transpose rows and columns of output ( $ paste -s letters numbers )

( A B C )

( 1 2 3 4 5 )

tr [options] charset1 [charset2]

tr (transform) izvodi neke jednostavne, ali korisne transformacije datog texta

$ cat wonderfulfile

This a very wonderful file

$ cat wonderfulfile | tr ‘a-z’ ‘A-Z’

THIS IS VERY WONDERFUL FILE

$ cat wonderfulfile | aeiouAEIOU ‘\*’

Th\*s \*s v\*ry w\*nd\*rf\*l f\*l\*

$ cat wonderfulfile | tr -d aeiouAEIOU

Ths s vry wnderfl fl

tr charset1 charset2

Komanda pretvara prvi char iz skupa charset1 u prvi iz skupa char2, drugi u drugi itd…

Ako charset1 ima duzinu N vecu od duzine charset2, pretvara se samo prvih N char iz charset2

Ako je charset1 duzi od charset2 ,koristi se opcija -t

ABDG - The sequence of characters A, B, D, G

A-Z - The range of characters from A-Z

[x\*y] - y repetitions of the character x.

[:class:] - The same character classes ([:alnum:], [:digit:], etc. accepted by grep)

sort [options] [files]

sort sortira linije texta u zadatom file-u (ispisuje linije texta zadatog file-a sortirane po abecedi)

$ cat fruits

peach

melon

mango

$ sort fruits

mango

melon

peach

-f - Case-insensitive sorting

-n - Sort numerically (i.e., 9 comes before 10) instead of alphabetically (10 comes before 9 because it begins with a “1”)

-g - Another numerical sorting method with a different algorithm that among other things, recognizes scientific notation (7.4e3 means “7.4 times then to the third power” or 7400). Run info sort fo full technical details

-u - Unique sort: ignore duplicate lines (If used with -c for checking sorted files, fail if any consecutive lines are identical)

-c - Dont sort, just check if the input is already sorted. If it is, print nothing; otherwise, print an arrow message

-b - Ignore leading whitespace in lines

-r - Reverse the output: sort form greatest to least

-t X - Use x as the field delimiter for the -k option

-k key - Choose sorting keys. (Combine with -t to choose a separator character between keys)

Kriterijum (“kljuc” = key) sortiranja se zadaje pomocu opcije -k. Sintaxa je -kF[.C]

F - Redni broj polja (kolone)

C - Redni broj charactera u polju (1 po defaultu)

$ cat people

George Washington,123 Main Street, New York

Abraham Lincoln,54 First Avenue, San Francisco

John Adams,39 Tremont Street, Boston

$ sort -k3 -t, people

John Adams,39 Tremont Street, Boston

George Washington,123 Main Street, New York

Abraham Lincoln,54 First Avenue, San Francisco

uniq [options] [files]

uniq prepoznaje i radi sta joj se zada sa indenticnim uzastopnim linijama datog textualnog file-a

$ cat letters2

a

b

b

c

b

$ uniq letters2

a

b

c

b

$ sort letters2 | uniq

a

b

c

$ sort letters2 | uniq -c

1 a

3 b

1 c

-c - Count adjacent duplicate lines

-i - Case-insensitive operation

-u - Print unique lines only

-d - Print duplicate lines only

-s N - Skip the first N characters on each line when detecting duplicates

- F N - Ignore the first N whitespace-separated fields on each line when detecting duplicates

-w N - Consider only the first N characters on each line when detecting duplicates. If used with -s or -f, sort will ignore the specified number of characters of fields first, then consider the next N characters.

tee [options] files

tee jednostavno ispisuje, bez promene, na standardnom izlazu podatke koje preuzme na standardnom ulazu. Medjutim ona uz to kopira podatke iz standardnog ulaza u file

$ who | tee original\_who | sort

barrett pts/1 Sep 22 21:15

byrnes pts/0 Sep 15 13:51

silver :0 Sep 23 20:44

silver pts/2 Sep 22 21:18

who formira (nesortiranu) listu korisnika. Tu listu preuzima komanda tee, koja radi:

Belezi tu (originalnu/nesortiranu) listu u file original\_who

Predaje tu listu komandi sort na sortiranje, ciji se rezultat vidi na ekranu

$ cat original\_who

silver :0 Sep 23 20:44

byrnes pts/0 Sep 15 13:51

barrett pts/1 Sep 22 21:15

silver pts/2 Sep 22 21:18

-a - Append instead of overwriting files