

{UNIX CHEAT SHEET}

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NOTES 2007 · VERSION 2026

USER AND ENVIRONMENT

- Account information:

passwd – (password) change the user's login password
quota -v – (quota – limit) display disk space limits assigned to the account
id – (user identity) display information about the current user's name and group
whoami – display the name of the current user
who / w – display logged-in users (and their activity)

- Session and help:

man polecenie – (manual) display the manual page for a command
history – command history
logout – log out the user

- Current directory:

pwd – (print working directory) display the name of the current directory

- Shell configuration:

~/.zshrc – file with instructions executed at login (note: errors may prevent access to the account)
alias polecenie='nowe polecenie' – assign a new definition to a command (recommended to place in .zshrc)
alias ls='ls -F' – mark directories with / and executable files with *
alias pico='pico -w -z' --w (disable word wrap), -z (enable suspend)
alias cp='cp -i' – confirm file overwrite
alias mv='mv -i' – confirm file overwrite
umask – display default permissions for new files/directories
umask ijk – set new permission value (analogous to chmod)

- Running programs and PATH:

Programs not in the PATH variable require the full path.

printenv PATH / echo \$PATH – display the PATH variable
which polecenie – path to the executable program (from PATH)

- Utility programs:

nano – terminal text editor (e.g. ^O save, ^X exit, ^W search)
vim – advanced text editor (normal/insert mode, :w save, :q exit)
g++ – C++ compiler (e.g. g++ plik.cpp -o program)
make – automate project builds based on a Makefile
git – version control system (e.g. git clone, git commit, git push)
ssh user@host – remote login via SSH
tar -cvf / -xvf – create and extract archives

FILES AND DIRECTORIES

- Navigation:

ls – (list) display directory contents (ls -al – all information)
cd – (change directory) go to the home directory
cd nazwa – go to the specified directory
. – current directory
.. – parent directory
/ – root directory
~ – home directory
~user – specified user's home directory

- File and directory operations:

mkdir nazwa – create a directory
touch plik – create an empty file (or update modification time)
cp nazwa1 nazwa2 – (copy) copy file/directory nazwa1 to nazwa2
mv nazwa1 nazwa2 – (move) move/ rename nazwa1 to nazwa2
ln nazwa1 nazwa2 – create a hard link
ln -s cel link – create a symbolic link
rm nazwa – (remove) delete a file
rmdir nazwa – remove an empty directory
rm -r nazwa – remove a directory with its contents (warning: no confirmation)

- Permissions:

chmod ijk nazwa – (change the permissions mode) change permissions (execute=1, write=2, read=4) for owner/group/others; also: chmod -R

- Disk and search:

du -h – (disk usage) directory size
df -h – filesystem usage
find ścieżka -name ' wzorzec' – search for files/directories

STREAMS, PIPES AND PROCESSES

- Streams and pipes (I/O):

polecenie > plik – write command output to a file
polecenie » plik – append output to the end of a file
polecenie < plik – read input from a file instead of the keyboard
polecenie1 | polecenie2 – pass output of polecenie1 to polecenie2
tee plik – write output to a file and simultaneously to the screen
xargs – build command arguments from a pipe

- Stream tools:

grep tekst plik – search for text in a file
cat plik – display file contents
less plik – view file page by page
head plik – beginning of file
tail plik – end of file
tail -f plik – follow appended lines (e.g. logs)
wc plik – (word count) number of lines, words and characters in a file
sort plik – sort file lines
uniq plik – remove adjacent duplicate lines (often used after sort)

- Processes:

ps / ps aux – process list
top – dynamic process viewer
kill PID – terminate process with given PID