

№4

Unix

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Linux

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shell: /bin/sh;

/bin/csh; /bin/ksh.

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- man
- cd
- pwd
- ls
- mkdir
- rm
- history







```
atdashkina@dk3n31 ~ $ cd  
atdashkina@dk3n31 ~ $ pwd  
/afs/.dk.sci.pfu.edu.ru/home/a/t/atdashkina  
atdashkina@dk3n31 ~ $ cd /tmp
```

. 1:



/tmp

```
atdashkina@dk3n31 ~ $ cd /tmp
```

. 2: /tmp

/tmp

ls

```

atdashkina@dk3n31 /tmp $ ls
atdashkina
gnome-desktop-thumbnailer-8428J2
hsperfdata_atdashkina
kmsaljkova
krb5cc_4953_e01Cmn
krb5cc_5534_24Wrg0
krb5cc_5534_iz98Hy
portage
pulse-PKdhtXMmr18n
root
screen
sddm-:0-dEKvIw
sddm-auth-d20849f0-9833-4612-b9e4-746737b1177f
systemd-private-af2a34bc8e91468f82612e267ac80061-colord.service-mbJoQf
systemd-private-af2a34bc8e91468f82612e267ac80061-polkit.service-VSnn4A
systemd-private-af2a34bc8e91468f82612e267ac80061-power-profiles-daemon.service-YOj0lB
systemd-private-af2a34bc8e91468f82612e267ac80061-systemd-logind.service-GLFUgq
systemd-private-af2a34bc8e91468f82612e267ac80061-systemd-resolved.service-YyFQTg
systemd-private-af2a34bc8e91468f82612e267ac80061-systemd-timesyncd.service-ueZ1MD
systemd-private-af2a34bc8e91468f82612e267ac80061-upower.service-M0bAuZ
Temp-59adc13e-ee43-4b02-afe9-92c17883bcd4
tmux-0

```

. 3: ls

ls -a ls -F

ls -a

ls

-a

```
atdashkina@dk3n31 /tmp $ ls -a
.
..
atdashkina
font-unix
gnome-desktop-thumbnailer-842872
homerfdato_atdashkina
libcomp
kasa1jkova
krb5cc_4953_e01Cm
krb5cc_5534_24Wrg0
krb5cc_5534_1z90Hy
portage
pulse-PkdhtXHeur18n
root
screen
sddm-PdERvIw
sddm-auth-d20849f0-9433-4612-b9e4-746737b1177f
systemd-private-af2a34bc8e91468f82612e267ac80061-colord.service-mb7oQf
systemd-private-af2a34bc8e91468f82612e267ac80061-polkit.service-V5me4A
systemd-private-af2a34bc8e91468f82612e267ac80061-power-profiles-daemon.service-Y0j0lB
systemd-private-af2a34bc8e91468f82612e267ac80061-systemd-logind.service-0lFuzg
systemd-private-af2a34bc8e91468f82612e267ac80061-systemd-resolved.service-VyFQTg
systemd-private-af2a34bc8e91468f82612e267ac80061-systemd-timesyncd.service-ueZlMD
```

. 4: ls -a

ls -F

ls -F

```
with@kali:~$ ls -F
atdashkina@edk3n31 /tmp $ ls -F
atdashkina/
gnome-desktop-thumbnailer-8420J2/
hyperfdata_atdashkina/
kmsaljkova/
krb5cc_4953_eD1Cmn
krb5cc_5534_24Wrg0
krb5cc_5534_lz98Hy
portage/
pulse-PKdhtXMr18n/
root/
screen/
sddm--0-dEKvIw=
sddm-auth-d20849f0-9833-4612-b9e4-746737b1177f=
systemd-private-af2a34bc8e91468f82612e267ac80061-colord.service-mbJoQf/
systemd-private-af2a34bc8e91468f82612e267ac80061-polkit.service-VSnw4A/
systemd-private-af2a34bc8e91468f82612e267ac80061-power-profiles-daemon.service-Y0j0lB/
systemd-private-af2a34bc8e91468f82612e267ac80061-system-logind.service-GLfUga/
systemd-private-af2a34bc8e91468f82612e267ac80061-systemd-resolved.service-YyFQIg/
systemd-private-af2a34bc8e91468f82612e267ac80061-systemd-timesyncd.service-ueZ1ND/
systemd-private-af2a34bc8e91468f82612e267ac80061-upower.service-M0bAuZ/
Temp-59adc13e-ee43-4b02-afe9-92c17893bcd4/
tmux-0/
with@kali:~$
```

. 5: ls -F

, /var/spool cron

```
atdashkina@dk3n31 /tmp $ ls /var/spool
cups
atdashkina@dk3n31 /tmp $ cd
atdashkina@dk3n31 ~ $ ls
home      work      Видео     Загрузки  Музыка    'Рабочий стол'  Шаблоны
          архив    Документы  Изображения  Общедоступные  'Снимки экрана'
```

. 6: /var/spool

```
atdashkina@dk3n31 /tmp $ ls /var/spool
cups
atdashkina@dk3n31 /tmp $ cd
atdashkina@dk3n31 ~ $ ls
home      work      Видео     Загрузки  Музыка    'Рабочий стол'  Шаблоны
          архив    Документы  Изображения  Общедоступные  'Снимки экрана'
```

. 7:

ls -l

```
atdashkina@dk3n31 ~ $ ls -l
итого 27
drwxr-xr-x 3 atdashkina studsci 2048 фев 26 11:41 home
lrwxr-xr-x 1 atdashkina root      18 фев 15 06:01 ->
drwxr-xr-x 3 atdashkina studsci 2048 фев 26 17:51 work
drwxr-xr-x 2 atdashkina studsci 2048 фев 24 13:43 архив
drwxr-xr-x 2 atdashkina studsci 2048 сен  7 10:58 Видео
drwxr-xr-x 2 atdashkina studsci 2048 сен  7 10:58 Документы
drwxr-xr-x 2 atdashkina studsci 4096 фев 26 20:33 Загрузки
drwxr-xr-x 3 atdashkina studsci 2048 фев 26 18:12 Изображения
drwxr-xr-x 2 atdashkina studsci 2048 сен  7 10:58 Музыка
drwxr-xr-x 2 atdashkina studsci 2048 сен  7 10:58 Общедоступные
drwxr-xr-x 2 atdashkina studsci 2048 фев  8 13:54 'Рабочий стол'
drwxr-xr-x 2 atdashkina studsci 2048 фев 26 17:17 'Снимки экрана'
drwxr-xr-x 2 atdashkina studsci 2048 сен  7 10:58 Шаблоны
atdashkina@dk3n31 ~ $ mkdir newdir
```

. 8:



newdir.

```
atdashkina@dk3n31 ~ $ mkdir newdir
atdashkina@dk3n31 ~ $ ls
home      public_html  архив  Документы  Изображения  Общедоступные  'Снимки экрана'
newdir    work        Видео  Загрузки   Музыка        'Рабочий стол'  Шаблоны
atdashkina@dk3n31 ~ $
```

. 9:

newdir

~/newdir

morefun.

```
atdashkina@dk3n31 ~ $ cd newdir
atdashkina@dk3n31 ~/newdir $ mkdir morefun
atdashkina@dk3n31 ~/newdir $ ls
morefun
atdashkina@dk3n31 ~/newdir $
```

. 10:

morefun

letters, memos, misk.

```
atdashkina@dk3n31 ~ $ mkdir letters memos misk
atdashkina@dk3n31 ~ $ ls
home      memos     misk      work      Видео     Загрузки  Музыка    'Рабоч
letters   newdir    [REDACTED] архив     Документы  Изображения  Общедоступные  'Снимк
atdashkina@dk3n31 ~ $
```

. 11:

~/newdir/morefun

```
atdashkina@dk3n31 ~ $ mkdir letters nemos nisk
atdashkina@dk3n31 ~ $ ls
home      nemos     nisk      work      Видео     Загрузки  Музыка    'Рабочий стол'  Шаблоны
letters   newdir    [REDACTED] архив     Документы  Изображения  Общедоступные  'Снимки экрана'
```

atdashkina@dk3n31 ~ \$ rm -r letters nemos nisk
atdashkina@dk3n31 ~ \$

. 12: newdir



man , ls -

```
newdir work Видео Загрузки Музыка 'Рабочий стол' Шаблоны
atdashkina@dk3n31 ~ $ rm -r newdir
atdashkina@dk3n31 ~ $ ls
home work Видео Загрузки Музыка 'Рабочий стол' Шаблоны
[redacted] архив Документы Изображения Общедоступные 'Снимки экрана'
atdashkina@dk3n31 ~ $
```

. 13: man ls

```
home  work  Видео  Загрузки  Музыка  "Рабочий стол"  Шаблоны
public_html  архив  Документы  Изображения  Общедоступные  "Снимки экрана"

stdashkina@dkln31 ~$ man
Как? Справочная страница вам нужна?
Например, попробуйте ввести «man ls».
stdashkina@dkln31 ~$
```

. 14: man ls

```
ls(1)                                User Commands                                ls(1)
NAME
  ls - list directory contents

SYNOPSIS
  ls [OPTION]... [FILE]...

DESCRIPTION
  List information about the FILES (the current directory by default). Sort entries alphabetically if none of -cfuvStu nor --sort is specified.

  Mandatory arguments to long options are mandatory for short options too.

  -a, --all
    do not ignore entries starting with .

  -A, --almost-all
    do not list implied . and ..

  --author
    with -l, print the author of each file

  -b, --escape
    print C-style escapes for nongraphic characters

  --block-size=SIZE
    with -l, scale sizes by SIZE when printing them; e.g., '--block-size=M'; see SIZE format below

  -B, --ignore-backups
    do not list implied entries ending with ~

  -c
    with -lt: sort by, and show, ctime (time of last change of file status information); with -l: show ctime and sort by name; otherwise: sort by ctime, newest first

  -C
    list entries by columns

  --color[=WHEN]
    color the output WHEN; more info below

  -d, --directory
    list directories themselves, not their contents

  -D, --dired
    generate output designed for Emacs' dired mode

  -f
    list all entries in directory order

  -F, --classify[=WHEN]
    append indicator (one of */>@) to entries WHEN

  --file-type
    likewise, except do not append 'x'

Manual page ls(1) line 1 (press h for help or q to quit)
```

. 15: -R, -recursive

ls -R



man

ls,

-

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-time-style

```
--file-type
    likewise, except do not append 'a'

--format=FORMAT
    across -x, commas -m, horizontal -x, long -l, single-column -l, verbose -l, vertical -C

--full-time
    like -l --time-style=Full-iso

-g
    like -l, but do not list owner

--group-directories-first
    group directories before files; can be augmented with a --sort option, but any use of --sort=none
    (-u) disables grouping

-O, --no-group
    in a long listing, don't print group names

-b, --human-readable
    with -l and -s, print sizes like 1K 234M 2G etc.

--si
    likewise, but use powers of 1000 not 1024

-H, --dereference-command-line
    follow symbolic links listed on the command line

--dereference-command-line-symlink-to-dir
    follow each command line symbolic link that points to a directory

--hide=PATTERN
    do not list implied entries matching shell PATTERN (overridden by -a or -A)

--hyperlink=WHEN
    hyperlink file names WHEN

--indicator-style=WORD
    append indicator with style WORD to entry names: none (default), slash (-p), file-type
    (-f-file-type), classify (-F)

-I, --inode
    print the index number of each file

-I, --ignore=PATTERN
    do not list implied entries matching shell PATTERN

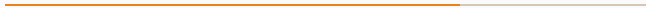
-k, --kibibytes
    default to 1024-byte blocks for file system usage; used only with -s and per directory totals

-l
    use a long listing format

-L, --dereference
    when showing file information for a symbolic link, show information for the file the link refers
    to rather than for the link itself

Manual page ls(1) line 52 (press h for help or q to quit)
```

. 16: -time-style=TIME_STYLE



man

: cd, pwd, mkdir, rmdir, rm.

.

```

-t      sort by time, newest first; see --time
-T, --tabsize=COLS
      assume tab stops at each COLS instead of 8
-u      with -lt: sort by, and show, access time; with -l: show access time and sort by name; otherwise:
      sort by access time, newest first
-U      do not sort; list entries in directory order
-v      natural sort of (version) numbers within text
-W, --width=COLS
      set output width to COLS. 0 means no limit
-x      list entries by lines instead of by columns
-X      sort alphabetically by entry extension
-Z, --context
      print any security context of each file
--zero
      end each output line with NUL, not newline
-l      list one file per line
--help
      display this help and exit
--version
      output version information and exit

The SIZE argument is an integer and optional unit (example: 10K is 10*1024). Units are
K,M,G,T,P,E,Z,Y,R,Q (powers of 1024) or KB,MB,... (powers of 1000). Binary prefixes can be used, too:
KiB=K, MiB=M, and so on.

The TIME_STYLE argument can be full-iso, long-iso, iso, locale, or +FORMAT. FORMAT is interpreted like
in date(). If FORMAT is FORMAT<newline>FORMAT2, then FORMAT1 applies to non-recent files and FORMAT2
to recent files. TIME_STYLE prefixed with "posix-" takes effect only outside the POSIX locale. Also
the TIME_STYLE environment variable sets the default style to use.

The WHEN argument defaults to 'always' and can also be 'auto' or 'never'.

Using color to distinguish file types is disabled both by default and with --color=never. With
--color=auto, ls emits color codes only when standard output is connected to a terminal. The LS_COLORS
environment variable can change the settings. Use the dircolors() command to set it.

Exit status:
0      if OK,
1      if minor problems (e.g., cannot access subdirectory),
2      if serious trouble (e.g., cannot access command-line argument).

Manual page ls(1) line 187 [press h for help or q to quit]

```

. 17: man cd

```

cd(1P)                                POSIX Programmer's Manual                                cd(1P)

PROLOG
This manual page is part of the POSIX Programmer's Manual. The Linux implementation of this interface
may differ (consult the corresponding Linux manual page for details of Linux behavior), or the interface
may not be implemented on Linux.

NAME
cd - change the working directory

SYNOPSIS
cd [-L|-P] [directory]
cd -

DESCRIPTION
The cd utility shall change the working directory of the current shell execution environment (see Sec-
tion 2.13, Shell Execution Environment) by executing the following steps in sequence. (In the following
steps, the symbol curpath represents an intermediate value used to simplify the description of the algo-
rithm used by cd. There is no requirement that curpath be made visible to the application.)

1. If no directory operand is given and the HOME environment variable is empty or undefined, the de-
fault behavior is implementation-defined and no further steps shall be taken.

2. If no directory operand is given and the HOME environment variable is set to a non-empty value, the
cd utility shall behave as if the directory named in the HOME environment variable was specified as
the directory operand.

3. If the directory operand begins with a <slash> character, set curpath to the operand and proceed to
step 7.

4. If the first component of the directory operand is dot or dot-dot, proceed to step 6.

5. Starting with the first pathname in the <colon>-separated pathnames of curpath (see the ENVIRONMENT
VARIABLES section) if the pathname is non-null, test if the concatenation of that pathname, a
<slash> character if that pathname did not end with a <slash> character, and the directory operand
names a directory. If the pathname is null, test if the concatenation of dot, a <slash> character,
and the operand names a directory. In either case, if the resulting string names an existing direc-
tory, set curpath to that string and proceed to step 7. Otherwise, repeat this step with the next
pathname in curpath until all pathnames have been tested.

6. Set curpath to the directory operand.

7. If the -P option is in effect, proceed to step 10. If curpath does not begin with a <slash> charac-
ter, set curpath to the string formed by the concatenation of the value of Pwd, a <slash> character
if the value of Pwd did not end with a <slash> character, and curpath.

8. The curpath value shall then be converted to canonical form as follows, considering each component
from beginning to end, in sequence:
    a. Dot components and any <slash> characters that separate them from the next component shall be
       deleted.

Manual page cd(1p) line 1 (press h for help or q to quit)

```

. 18: man pwd

```

mkdir(1)                                User Commands                                mkdir(1)

NAME
    mkdir - make directories

SYNOPSIS
    mkdir [option]... DIRECTORY...

DESCRIPTION
    Create the DIRECTORY(ies), if they do not already exist.

    Mandatory arguments to long options are mandatory for short options too.

    -m, --mode=MODE
        set file mode (as in chmod), not a-rwx - umask

    -p, --parents
        no error if existing, make parent directories as needed, with their file modes unaffected by any
        -m option.

    -v, --verbose
        print a message for each created directory

    -Z
        set SELinux security context of each created directory to the default type

    --context[=CTX]
        like -Z, or if CTX is specified then set the SELinux or SMACK security context to CTX

    --help
        display this help and exit

    --version
        output version information and exit

AUTHOR
    Written by David Mackenzie.

REPORTING BUGS
    GNU coreutils online help: <https://www.gnu.org/software/coreutils/>
    Report any translation bugs to <https://translationproject.org/team/>

SEE ALSO
    mkdir(2)

    Full documentation <https://www.gnu.org/software/coreutils/mkdir>
    or available locally via: info '(coreutils) mkdir invocation'

    Packaged by Gentoo (9.4 (p0))
    Copyright © 2023 Free Software Foundation, Inc.
    License (GPLv2+ GNU GPL version 3 or later <https://gnu.org/licenses/gpl.html>).
    This is free software; you are free to change and redistribute it.
    There is NO WARRANTY, to the extent permitted by law.

GNU coreutils 9.4                                August 2023                                mkdir(1)
Manual page mkdir(1) line 1 (press h for help or q to quit)

```

. 19: man mkdir

```

rmdir(1)                                User Commands                                rmdir(1)

NAME
  rmdir - remove empty directories

SYNOPSIS
  rmdir [OPTION]... DIRECTORY...

DESCRIPTION
  Remove the DIRECTORY(ies), if they are empty.

  --ignore-fail-on-non-empty
      ignore each failure to remove a non-empty directory

  -p, --parents
      remove DIRECTORY and its ancestors; e.g., 'rmdir -p a/b' is similar to 'rmdir a/b a'

  -v, --verbose
      output a diagnostic for every directory processed

  --help
      display this help and exit

  --version
      output version information and exit

AUTHOR
  Written by David MacKenzie.

REPORTING BUGS
  GNU coreutils online help: <https://www.gnu.org/software/coreutils/>
  Report any translation bugs to <https://translationproject.org/team/>

SEE ALSO
  rmdir(2)

  Full documentation <https://www.gnu.org/software/coreutils/rmdir>
  or available locally via: info '(coreutils) rmdir invocation'

  Packaged by Gentoo (9.4 (p0))
  Copyright © 2023 Free Software Foundation, Inc.
  License GPLv3+: GNU GPL version 3 or later <https://gnu.org/licenses/gpl.html>.
  This is free software: you are free to change and redistribute it.
  There is NO WARRANTY, to the extent permitted by law.

GNU coreutils 9.4                                August 2023                                rmdir(1)
Manual page rmdir(1) line 1/45 (END) (press h for help or q to quit)

```

```

rm(1)                                User Commands                                rm(1)

NAME
  rm - remove files or directories

SYNOPSIS
  rm [OPTION]... [FILE]...

DESCRIPTION
  This manual page documents the GNU version of rm. rm removes each specified file. By default, it does
  not remove directories.

  If the -i or --interactive=once option is given, and there are more than three files or the -r, -R, or
  --recursive are given, then rm prompts the user for whether to proceed with the entire operation. If
  the response is not affirmative, the entire command is aborted.

  Otherwise, if a file is unwritable, standard input is a terminal, and the -f or --force option is not
  given, or the -i or --interactive=always option is given, rm prompts the user for whether to remove the
  file. If the response is not affirmative, the file is skipped.

OPTIONS
  Remove (unlink) the FILE(s).

  -f, --force
    ignore nonexistent files and arguments, never prompt

  -i
    prompt before every removal

  -I
    prompt once before removing more than three files, or when removing recursively; less intrusive
    than -i, while still giving protection against most mistakes

  --interactive=[when]
    prompt according to WHEN: never, once (-I), or always (-i); without WHEN, prompt always

  --one-file-system
    when removing a hierarchy recursively, skip any directory that is on a file system different from
    that of the corresponding command line argument

  --no-preserve-root
    do not treat '/' specially

  --preserve-root[=all]
    do not remove '/' (default); with 'all', reject any command line argument on a separate device
    from its parent

  -r, -R, --recursive
    remove directories and their contents recursively

  -d, --dir
    remove empty directories

  -v, --verbose
    explain what is being done

Manual page rm(1) line 1 (press h for help or q to quit)

```

. 21: man rm



history

```

1 findskid@skid:~$ - R rm -r rmidir
2 findskid@skid:~$ - R ls
3   name      work      Ресурсы      Работы      "Материал стил"      Работы
4   Книжки      Книжки      Документы      Наброски      Шаблоны/шрифты      "Смешные скринш"
5 findskid@skid:~$ - R man
6   Книга: справочник: справочник или книга?
7   Компьютер, компьютерные системы: ман: man
8 findskid@skid:~$ - R man ls
9 findskid@skid:~$ - R man cd
10 findskid@skid:~$ - R man pwd
11 cat: справочник: справочник или книга
12 findskid@skid:~$ - R man rmidir
13 findskid@skid:~$ - R man rmidir
14 findskid@skid:~$ - R man rm
15 findskid@skid:~$ - R history
16
17 1 pwd
18 2 cd
19 3 cd cd /
20 4 cd /
21 5 ls
22 6 man ls
23 7 ls -l
24 8 cd
25 9 ls
26 10 of public
27 11 mkdir
28 12 mkdir test
29 13 ls
30 14 touch test/ah
31 15 ls
32 16 ls test
33 17 cp test/test/ah
34 18 cd test/ah
35 19 mkdir /test
36 20 cd /
37 21 cd PUBLIC
38 22 of public
39 23 of /public
40 24 rmidir test
41 25 rmidir test
42 26 rm -r test
43 27 cd
44 28 pwd
45 29 of /usr/local/
46 30 pwd
47 31 cd
48 32 cd
49 33 ls
50 34 mkdir parentdir
51 35 of parentdir
52 36 mkdir dir
53 37 mkdir dir1 dir2 dir3
54 38 mkdir "mkdirdir"
55 39 ls -l

```

```
. 22: history
```

```

67 cd /tmp
68
69 cd /tmp
70
71 git config --global user.name "Anita Bashkina"
72 git config --global user.email "anita.bashkina@gmail.com"
73 git config --global user.email "anita.bashkina@gmail.com"
74 git config --global user.email "anita.bashkina@gmail.com"
75 git config --global user.name "Anita Bashkina"
76
77 clear
78
79 git config --global user.name "Anita Bashkina"
80 git config --global user.email "anita.bashkina@gmail.com"
81 clear
82
83 cd /Users/ashish/2023-2024/AspenTech/Projects/aspentech-arch-01
84 mkdir -p /Users/ashish/2023-2024/AspenTech/Projects/aspentech-arch-01

```

```
atdashkina@dk3n31 ~ $ ls -f
.          .bash_profile  'Рабочий стол'  Изображения  .xsession-errors.old  home
..         .config        Загрузки        Видео         .fr-6DFMJ2           .ssh
.fr-IDTGJ2 .Xauthority     Шаблоны         .gnupg        .fr-IMGKJ2           .texlive2023
public_html .mozilla        Общедоступные  .gtkrc-2.0    .ICEauthority        архив
.profile   .cache          Документы      .bash_history work             'Снимки экрана'
.bashrc    .local          Музыка         .pki          .gitconfig
```

. 24:

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```
atdashkina@dk3n31 ~ $ ls -a
.          .cache          .gitconfig      .local          .ssh            архив          Музыка
..         .config        .gnupg          .mozilla        .texlive2023   Видео         Общедоступные
.bash_history .fr-6DFMJ2     .gtkrc-2.0      .pki            work           Документы     'Рабочий стол'
.bash_profile .fr-IDTGJ2     home            .profile        .Xauthority     Загрузки      'Снимки экрана'
.bashrc      .fr-IMGKJ2    .ICEauthority   [REDACTED]      .xsession-errors.old  Изображения   Шаблоны
atdashkina@dk3n31 ~ $
```

. 25:

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