

Работа с командной строкой

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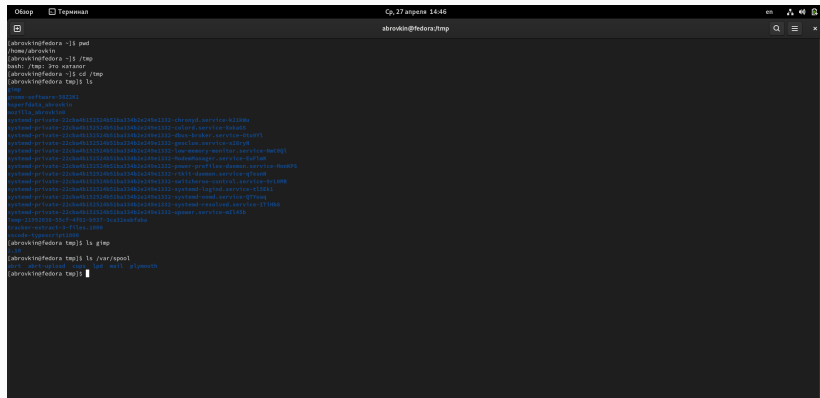
Цель работы

Приобретение практических навыков взаимодействия пользователя с системой посредством командной строки.

Выполнение лабораторной работы

Выполнение лабораторной работы

НАЧАЛО



```
abrosvkin@fedora ~$ pwd
/home/abrosvkin
abrosvkin@fedora ~$ /tmp
bash: /tmp: not a directory
abrosvkin@fedora ~$ cd /tmp
abrosvkin@fedora ~$ ls
tmp
chrome-software-022821
superfats_abrosvkin
mp155v_abrosvkin
systemd-private-22c8a06152214051ba354626240a1321-chrompd.service-82180a
systemd-private-22c8a06152214051ba354626240a1321-color.service-86a405
systemd-private-22c8a06152214051ba354626240a1321-dmcc-broker.service-81a091
systemd-private-22c8a06152214051ba354626240a1321-gscclose.service-c2b9d
systemd-private-22c8a06152214051ba354626240a1321-low-memory-monitor.service-86c8d1
systemd-private-22c8a06152214051ba354626240a1321-metamanager.service-8af4e
systemd-private-22c8a06152214051ba354626240a1321-power-profiles-daemon.service-8a0d5
systemd-private-22c8a06152214051ba354626240a1321-r811-daemon.service-97a0d
systemd-private-22c8a06152214051ba354626240a1321-netlchero-control.service-8e1ee
systemd-private-22c8a06152214051ba354626240a1321-systemd-logind.service-155d1
systemd-private-22c8a06152214051ba354626240a1321-systemd-sound.service-077a9
systemd-private-22c8a06152214051ba354626240a1321-systemd-seriald.service-1710a
systemd-private-22c8a06152214051ba354626240a1321-upower.service-af10b
tmp-2292828-5637-4f92-8537-3ca2ca0fab
chrome-software-022821
superfats_abrosvkin
mp155v_abrosvkin
abrosvkin@fedora ~$ ls /tmp
ls
abrosvkin@fedora ~$ ls /var/spool
lsr_act-upload_cups_b2d_mall Plymouth
abrosvkin@fedora ~$
```

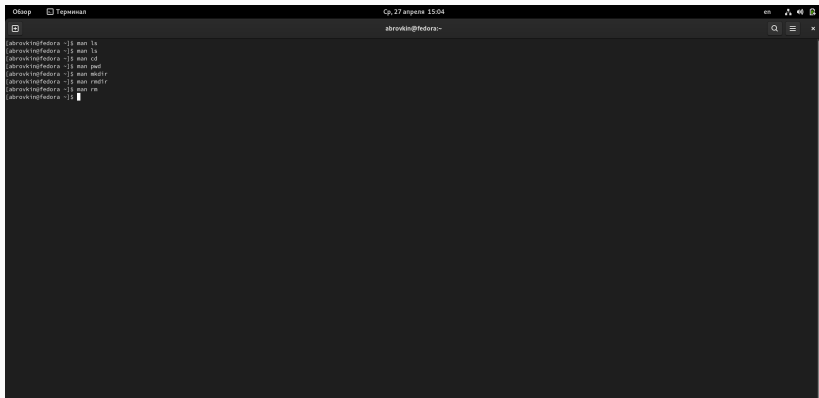
Figure 1: Вывожу на экран каталоги с помощью команды `ls`

Определяю, если ли в каталогах подкаталог с именем `cron`, его нет.

А также создам одной командой три новых каталога, а потом удалю ранее созданный каталог newdir

С помощью команды `man` определяю опции команды `ls`, `cd`, `pwd`, `mkdir`, `rmdir`, `rm`.

Разница в выводимой на экран информации: Команда `ls` выводит содержимое каталога. Команда `ls -l` выводит подробный список, в котором будет отображаться владелец, группа, дата создания, размер и другие параметры. Команда `ls -F` показывает тип объекта.

A terminal window titled "Терминал" (Terminal) with a subtitle "abrovin@fedora:~". The window shows a series of commands and their outputs. The commands are: "man ls", "man ls", "man cd", "man pwd", "man mkdir", "man rm", "man rm", and "man rm". The outputs are: "ls", "ls", "cd", "pwd", "mkdir", "rm", "rm", and "rm". The terminal has a dark background and a light-colored text. The window title bar includes "Обзор" (Overview), "Терминал" (Terminal), and the date and time "Ср, 27 апреля 15:04". The window also has standard Linux window controls (minimize, maximize, close) and a search icon.

```
abrovin@fedora ~$ man ls
abrovin@fedora ~$ man ls
abrovin@fedora ~$ man cd
abrovin@fedora ~$ man pwd
abrovin@fedora ~$ man mkdir
abrovin@fedora ~$ man rm
abrovin@fedora ~$ man rm
abrovin@fedora ~$ man rm
```

Figure 3: команды man

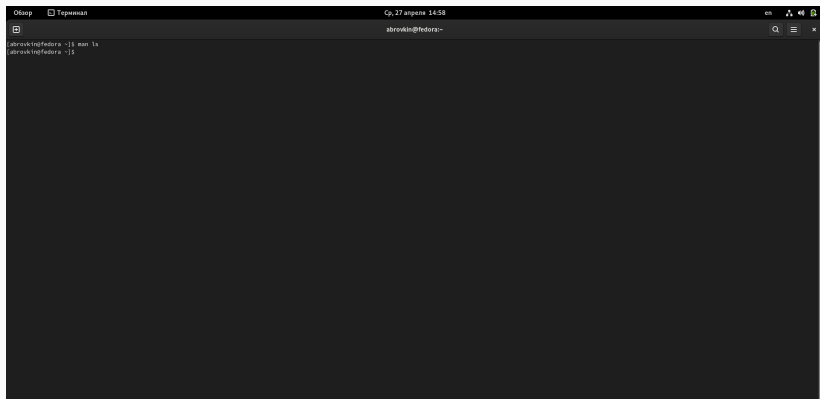


Figure 4: команда man ls

```
Олеоп Терминал Cp, 27 апреля 14:58 en
abrovkin@fedora:~ — 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 -eftsux 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 be-
low
-B, --ignore-backups
do not list implied entries ending with ~
-e
with -lt: sort by, and show, ctime (time of last modification of file status information);
with -lt: show ctime and sort by name; otherwise: sort by ctime, newest first
-C
list entries by columns
--color[=WHEN]
colorize the output; WHEN can be 'always' (default if omitted), 'auto', or 'never'; more
info below
-d, --directory
list directories themselves, not their contents
-D, --dired
Manual page ls(1) line 1 (press h for help or q to quit)
```

Figure 5: команда man ls

```
Obsoп  Терминал  Cp, 27 апреля 14:58  en  [Icons]
abrovin@fedora:~ — man ls

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

-C  list entries by column

--color[=WHEN]
    colorize the output; WHEN can be 'always' (default if omitted), 'auto', or 'never'; more
    info below

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

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

-f  do not sort, enable -ad, disable -ls --color

-F, --classify
    append indicator (one of */>@|) to entries

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

--format=FORMAT
    across -s, comma -m, horizontal -x, long -l, single-column -L, verbose -l, vertical -f

--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

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

-h, --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
Manual page ls(1): line 35 (press h for help or q to quit)
```

Figure 6: команда man ls

```
--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 disk 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
    references rather than for the link itself

--m
    fill width with a comma separated list of entries

--n, --numeric-uid-gid
    like -l, but list numeric user and group IDs

--N, --literal
    print entry names without quoting

--o
    like -l, but do not list group information

--p, --indicator-style=slash
    append / indicator to directories

--q, --hide-control-chars
    print ? instead of nongraphic characters

--show-control-chars
    show nongraphic characters as-is (the default, unless program is 'ls' and output is a termi-
    nal)

--Q, --quote-name
    enclose entry names in double quotes

--quoting-style=escape
    use quoting style WORD for entry names: literal, locale, shell, shell-always, shell-escape,
    shell-escape-always, C, escape (overrides QUOTING_STYLE environment variable)

--r, --reverse
    reverse order while sorting
```

Manual page ls(1) line 85 (press h for help or q to quit)

Figure 7: команда man ls

```
Олеоп  Терминал  Cp, 27 апреля 14:58  en  [иконки]  abrovkin@fedora:~ — man ls

with -l, WORD determines which time to show; with --sort=time, sort by WORD (newest first)

--time-style=TIME_STYLE
time/date format with -l; see TIME_STYLE below

-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; other-
wise: 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

-l
list one file per line. Avoid '\n' with -q or -b

--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 (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(1). If FORMAT is FORMAT1newlineFORMAT2, 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.

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.

Manual page ls(1) line 156 (press h for help or q to quit)
```

Figure 8: команда man ls

```
Osop  Терминал  Cp, 27 апреля 14:58  en  [user icons] [window icons]
abrovin@fedora:~ — man ls  [search] [menu] [close]

-l      list one file per line. Avoid '\n' with -q or -b
--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,P,T,P,Z,Y (powers of 1024) or KB,MB,... (powers of 1000). Binary prefixes can be used, too:
KiB, MiB, GiB, and so on.

The TIME_STYLE argument can be full-iso, long-iso, iso, locale, or -FORMAT. FORMAT is interpreted
like in date(1). If FORMAT is FORMATTIMELINEFORMAT2, 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.

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).

AUTHOR
Written by Richard M. Stallman and David Mackenzie.

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

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<https://gnu.org/licenses/gpl.html>.
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extent permitted by law.

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

GNU coreutils 8.32      July 2021      LS(1)
Manual page LS(1) line 162/217 (END) (press h for help or q to quit)
```

Figure 9: команда man ls

С помощью команды `man` определил, какую опцию команды `ls` нужно использовать для просмотра содержимого не только указанного каталога, но и подкаталогов, входящих в него. А именно: `-R`, `-recursive list subdirectories recursively`

С помощью команды `man` определил набор опций команды `ls`, позволяющий отсортировать по времени последнего изменения выводимый список содержимого каталога с развёрнутым описанием файлов. А именно:

```
-time-style=TIME STYLE -t -T -u
```

Использовал команду `man` для просмотра описания следующих команд: `cd`, `pwd`, `mkdir`, `rmdir`, `rm`.

```
Оснор Терминал Cp, 27 апреля 15:01 en 100% x
abrovin@fedora: ~ — man cd
BASH_BUILTINS(1)      General Commands Manual      BASH_BUILTINS(1)

NAME
  bash, c, _ , ., alias, bg, bind, break, builtin, caller, cd, command, compgen, complete, compopt,
  continue, declare, dirs, disown, echo, enable, eval, exec, exit, export, false, fc, fg, fgrep, getopts,
  hash, help, history, jobs, kill, let, local, logout, mapfile, popd, printf, pushd, pwd, read,
  readonly, return, set, shift, shopt, source, suspend, test, times, trap, true, type, typeset,
  unset, unsetf, unalias, unset, wait - bash built-in commands, see bash(2)

BASH BUILTIN COMMANDS
  Unless otherwise noted, each builtin command documented in this section as accepting options pre-
  ceded by - accepts -- to signify the end of the options. The set, true, false, and test builtins
  do not accept options and do not treat -- specially. The wait, logout, return, break, continue,
  let, and shift builtins accept and process arguments beginning with - without requiring --. Other
  builtins that accept arguments but are not specified as accepting options interpret arguments be-
  ginning with - as invalid options and require -- to prevent this interpretation.

  set [arguments]
    No effect; the command does nothing beyond expanding arguments and performing any specified
    redirections. The return status is zero.

  set -o [options]
    Read and execute commands from filename in the current shell environment and return the
    exit status of the last command executed from filename. If filename does not contain a
    slash, filenames in PATH are used to find the directory containing filename. The file
    searched for in PATH need not be executable. When bash is not in posix mode, the current
    directory is searched if no file is found in PATH. If the sourcepath option to the shopt
    builtin command is turned off, the PATH is not searched. If any arguments are supplied,
    they become the positional parameters when filename is executed. Otherwise the positional
    parameters are unchanged. If the -T option is enabled, source inherits any trap on DEBUG;
    if it is not, any DEBUG trap string is saved and restored around the call to source, and
    source unsets the DEBUG trap while it executes. If -T is not set, and the sourced file
    changes the DEBUG trap, the new value is retained when source completes. The return status
    is the status of the last command exited within the script (0 if no commands are executed),
    and false if filename is not found or cannot be read.

  alias [-p] [name=value] ...
    alias with no arguments or with the -p option prints the list of aliases in the form alias
    name=value on standard output. When arguments are supplied, an alias is defined for each
    name whose value is given. A trailing space in value causes the next word to be checked
    for alias substitution when the alias is expanded. For each name in the argument list for
    which no value is supplied, the name and value of the alias is printed. alias returns true
    unless a name is given for which no alias has been defined.

  bg [jobspec] ...
    Resume each suspended job jobspec in the background, as if it had been started with &. If
    Manual page cdl: line 1 (press h for help or q to quit)
```

Figure 10: команда man cd

```
Обзор Терминал Cp, 27 апреля 15:01 en
abrovin@fedora:~$ man cd

hg [jobspec ...]
    Resume each suspended job jobspec in the background, as if it had been started with &. If
    jobspec is not present, the shell's notion of the current job is used. hg jobspec returns
    0 unless run when job control is disabled or, when run with job control enabled, any speci-
    fied jobspec was not found or was started without job control.

bind [-m keymap] [-l leavesPSWX]
bind [-m keymap] [-q function] [-w function] [-r keyseq]
bind [-m keymap] [-f filename]
bind [-m keymap] [-s keyseq:shell-command]
bind [-m keymap] keyseq:function-name
bind [-m keymap] keyseq:readline-command
    Display current readline key and function bindings, bind a key sequence to a readline func-
    tion or macro, or set a readline variable. Each non-option argument is a command as it
    would appear in .inputrc, but each binding or command must be passed as a separate argu-
    ment; e.g., "^C a^C:" re-reads into-file. Options, if supplied, have the following
    meanings:
    -m keymap
        Use keymap as the keymap to be affected by the subsequent bindings. Acceptable
        keymap names are emacs, emacs-standard, emacs-meta, emacs-ctlx, vi, vi-moon, vi-com-
mand, and vi-insict. vi is equivalent to vi-command (vi-moon is also a synonym);
        emacs is equivalent to emacs-standard.
    -l
        List the names of all readline functions.
    -p
        Display readline function names and bindings in such a way that they can be re-read.
    -s
        Display readline key sequences bound to macros and the strings they output in such a
        way that they can be re-read.
    -S
        Display readline key sequences bound to macros and the strings they output.
    -v
        Display readline variable names and values in such a way that they can be re-read.
    -V
        List current readline variable names and values.
    -f filename
        Read key bindings from filename.
    -q function
        Query about which keys invoke the named function.
    -w function
        Unbind all keys bound to the named function.
    -r keyseq
        Remove any current binding for keyseq.
    -x keyseq:shell-command
        Cause shell-command to be executed whenever keyseq is entered. When shell-command
        is executed, the shell sets the READLINE_LINE variable to the contents of the read-
line line buffer and the READLINE_POINT and READLINE_MARK variables to the current
        location of the insertion point and the saved insertion point (the mark), respec-
        tively. If the executed command changes the value of any of READLINE_LINE, READ-
LINE_POINT, or READLINE_MARK, those new values will be reflected in the editing

Manual page cd(1) line 44 (press h for help or q to quit)
```

Figure 11: команда man cd

```
is executed, the shell sets the READLINE_LINE variable to the contents of the read-  
line line buffer and the READLINE_POINT and READLINE_MARK variables to the current  
location of the insertion point and the saved insertion point (the mark), respec-  
tively. If the executed command changes the value of any of READLINE_LINE, READ-  
LINE_POINT, or READLINE_MARK, those new values will be reflected in the editing  
state.  
-X  
List all key sequences bound to shell commands and the associated commands in a for-  
mat that can be reused as input.  
  
The return value is 0 unless an unrecognized option is given or an error occurred.  
  
break [n]  
Exit from within a for, while, until, or select loop. If n is specified, break n levels,  
n must be  $\geq 1$ . If n is greater than the number of enclosing loops, all enclosing loops are  
exited. The return value is 0 unless n is not greater than or equal to 1.  
  
builtin shell-builtin [arguments]  
Execute the specified shell builtin, passing it arguments, and return its exit status.  
This is useful when defining a function whose name is the same as a shell builtin, retain-  
ing the functionality of the builtin within the function. The cd builtin is commonly redef-  
ined this way. The return status is false if shell-builtin is not a shell builtin com-  
mand.  
  
caller [expr]  
Returns the context of any active subroutine call (a shell function or a script executed  
with the . or source builtin). Without expr, caller displays the line number and source  
filename of the current subroutine call. If a non-negative integer is supplied as expr,  
caller displays the line number, subroutine name, and source file corresponding to that po-  
sition in the current execution call stack. This extra information may be used, for exam-  
ple, to print a stack trace. The current frame is frame 0. The return value is 0 unless  
the shell is not executing a subroutine call or expr does not correspond to a valid po-  
sition in the call stack.  
  
cd [-L] [-P] [-e] [-v] [dir]  
Change the current directory to dir. If dir is not supplied, the value of the HOME shell  
variable is the default. Any additional arguments following dir are ignored. The variable  
CDPATH defines the search path for the directory containing dir; each directory name in CD-  
PATH is searched for dir. Alternative directory names in CDPATH are separated by a colon  
(:). A null directory name in CDPATH is the same as the current directory, i.e., ..  
If dir begins with a slash (/), then CDPATH is not used. The -P option causes cd to use  
the physical directory structure by resolving symbolic links while traversing dir, and be-  
fore processing instances of .. in dir (see also the -P option to the set builtin command);  
the -L option forces symbolic links to be followed by resolving the link after processing  
instances of .. in dir. If .. appears in dir, it is processed by removing the immediately  
previous pathname component from dir, back to a slash or the beginning of dir. If the -P  
option is supplied with -P, and the current working directory cannot be successfully deter-
```

Manual page cd(1) line 85 (press h for help or q to quit)

Figure 12: команда man cd

```
Осноп  Терминал  Cp, 27 апреля 15:03  en  [system icons] x
abrovkin@fedora: ~ — man pwd
PWD(1)                                User Commands                                PWD(1)

NAME
  pwd - print name of current/working directory

SYNOPSIS
  pwd [OPTION]...

DESCRIPTION
  Print the full filename of the current working directory.

  -L, --logical
      use PWD from environment, even if it contains symlinks

  -P, --physical
      avoid all symlinks

  --help
      display this help and exit

  --version
      output version information and exit

  If no option is specified, -P is assumed.

  NOTE: your shell may have its own version of pwd, which usually supersedes the version described
  here. Please refer to your shell's documentation for details about the options it supports.

AUTHOR
  Written by Jim Meyering.

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

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  extent permitted by law.

SEE ALSO
  getcwd(3)

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

Manual page pwd(1) line 1/47 64% (press h for help or q to quit)
```

Figure 13: команда man pwd

```
Осноп Терминал Cp, 27 апреля 15:03 en
abrovin@fedora:~$ man mkdir

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

  -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

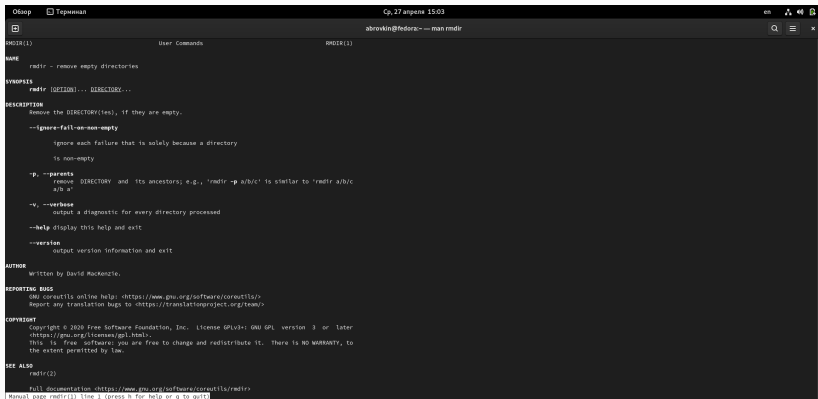
AUTHOR
  Written by David Mackenzie.

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

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  extent permitted by law.

SEE ALSO
  Manual page mkdir(1) line 1 (press h for help or q to quit)
```

Figure 14: команда man mkdir



```
OSop Terminan Cp, 27 апреля 15:03
abrovkin@fedora:~ -- man rmdir

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 that is solely because a directory
      is non-empty

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

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  <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.

SEE ALSO
  rmdir(2)

  Full documentation <https://www.gnu.org/software/coreutils/rmdir>
  Manual page rmdir(1) line 1 (press h for help or q to quit)
```

Figure 15: команда man rmdir

```
Осир Терминал Cp, 27 апреля 15:04 en
abrovin@fedora:~ — man rm

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 option is given, and there are more than three files or the -r, -d, 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 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

--no-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
    Manual page rm(1) line 1 (press h for help or q to quit)
```

Figure 16: команда man rm

Основные опции этих команд: `cd` – команда перемещения по файловой системе. `pwd` – команда показывающая директорию, в которой находится пользователь. `mkdir` – команда, создающая новую директорию. `rmdir` – команда, удаляющая файлы, которые должны быть пустыми. `rm` – команда, удаляющая файлы или целые деревья каталогов.

Используя информацию, полученную при помощи команды history, выполнил модификацию и исполнение нескольких команд из буфера команд. Команда history

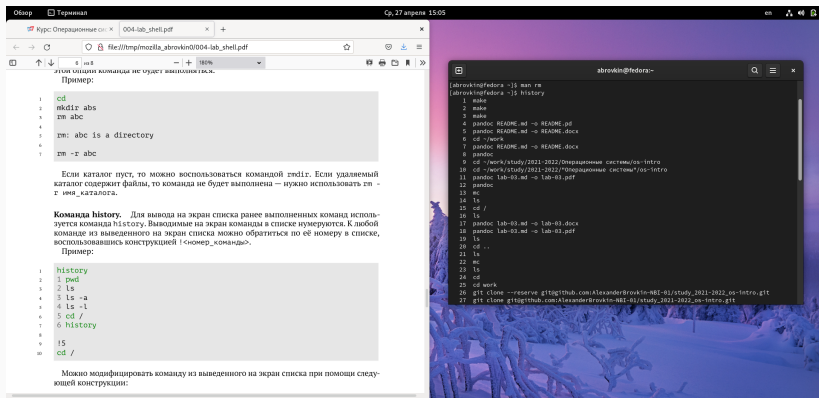


Figure 17: history

```
Обзор ТерминалСр, 27 апреля 15:06 en  
abrovkin@fedora:~  
[abrovkin@fedora ~]$ history  
1 make  
2 make  
3 make  
4 pandoc README.md -o README.pdf  
5 pandoc README.md -o README.docx  
6 cd ~/work  
7 pandoc README.md -o README.docx  
8 pandoc  
9 cd ~/work/study/2021-2022/Операционные системы/os-intro  
10 cd ~/work/study/2021-2022/Операционные системы/os-intro  
11 pandoc lab-03.md -o lab-03.pdf  
12 pandoc  
13 mc  
14 ls  
15 cd /  
16 ls  
17 pandoc lab-03.md -o lab-03.docx  
18 pandoc lab-03.md -o lab-03.pdf  
19 ls  
20 cd ..  
21 ls  
22 mc  
23 ls  
24 cd  
25 cd work  
26 git clone --recursive git@github.com:AlexanderBrovkin-MOI-01/study_2021-2022_os-intro.git  
27 git clone git@github.com:AlexanderBrovkin-MOI-01/study_2021-2022_os-intro.git  
28 mc  
29 git add .  
30 git commit --am 'lab3: add screen'  
31 git commit --am 'add screen'  
32 make  
33 ./install-rl  
34 sudo -i  
35 mv pandoc-crossref /usr/bin/  
36 sudo -i  
37 geofit ~/.bashrc  
38 make  
39 yum search pandoc  
40 yum install pandoc  
41 su yum install pandoc  
42 sudo -i  
43 ls -al  
44 git add .  
45 git commit --am 'add screen'  
46 git commit --am 'add screen'
```

Figure 18: history

пример: !8 СВ !8:s/d/b cb

Мы приобрели практические навыки взаимодействия пользователя с системой посредством командной строки.