

# Основы интерфейса взаимодействия пользователя с системой Unix на уровне командной строки

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## Информация

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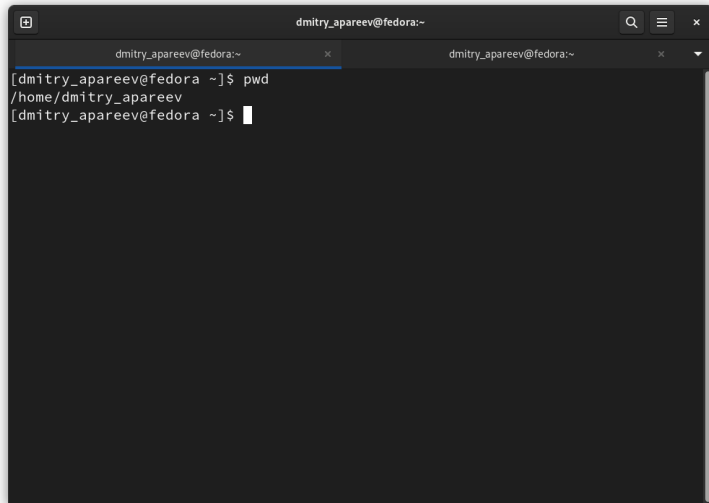
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## Вводная часть

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- Изучить командные строки системы unix в теории и на практике.

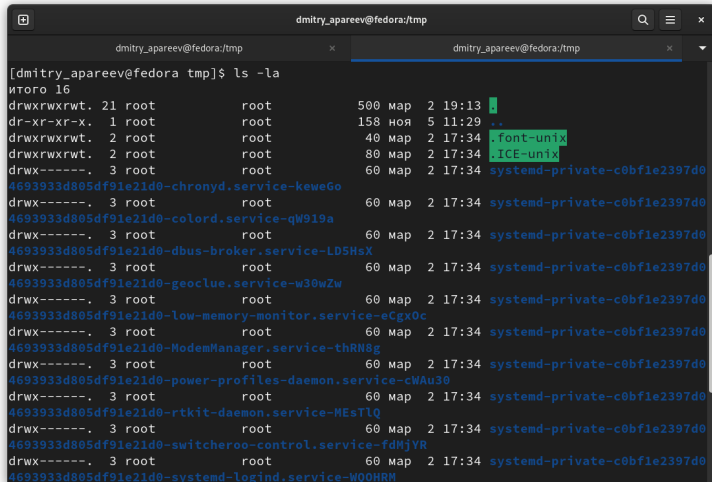
Определяю имя домашнего каталога (рис. (fig:001?)).



A terminal window titled "dmitry\_apareev@fedora:~" with search, menu, and close icons in the top right. It contains two tabs, both labeled "dmitry\_apareev@fedora:~". The active tab shows the command prompt "[dmitry\_apareev@fedora ~]\$ pwd" followed by the output "/home/dmitry\_apareev" on the next line. A new prompt "[dmitry\_apareev@fedora ~]\$" is shown with a cursor, ready for input.

```
[dmitry_apareev@fedora ~]$ pwd
/home/dmitry_apareev
[dmitry_apareev@fedora ~]$
```

Вывожу на экран содержимое каталога /tmp с помощью ls -la(рис. (fig:002?)).



```
dmitry_apareev@fedora:/tmp
[дмитрий_апареев@fedora tmp]$ ls -la
итого 16
drwxrwxrwt. 21 root      root      500 map  2 19:13 .
dr-xr-xr-x.  1 root      root      158 ноя  5 11:29 ..
drwxrwxrwt.  2 root      root       40 map  2 17:34 .font-unix
drwxrwxrwt.  2 root      root       80 map  2 17:34 .ICE-unix
drwx-----.  3 root      root       60 map  2 17:34 systemd-private-c0bffe2397d0
4693933d805df91e21d0-chronyd.service-keweGo
drwx-----.  3 root      root       60 map  2 17:34 systemd-private-c0bffe2397d0
4693933d805df91e21d0-colord.service-qW919a
drwx-----.  3 root      root       60 map  2 17:34 systemd-private-c0bffe2397d0
4693933d805df91e21d0-dbus-broker.service-LD5HsX
drwx-----.  3 root      root       60 map  2 17:34 systemd-private-c0bffe2397d0
4693933d805df91e21d0-geoclue.service-w30wZW
drwx-----.  3 root      root       60 map  2 17:34 systemd-private-c0bffe2397d0
4693933d805df91e21d0-low-memory-monitor.service-eCgx0c
drwx-----.  3 root      root       60 map  2 17:34 systemd-private-c0bffe2397d0
4693933d805df91e21d0-ModemManager.service-thRN8g
drwx-----.  3 root      root       60 map  2 17:34 systemd-private-c0bffe2397d0
4693933d805df91e21d0-power-profiles-daemon.service-cWAu30
drwx-----.  3 root      root       60 map  2 17:34 systemd-private-c0bffe2397d0
4693933d805df91e21d0-rtkit-daemon.service-MEsTLQ
drwx-----.  3 root      root       60 map  2 17:34 systemd-private-c0bffe2397d0
4693933d805df91e21d0-switcheroo-control.service-fdMjYR
drwx-----.  3 root      root       60 map  2 17:34 systemd-private-c0bffe2397d0
4693933d805df91e21d0-systemd-logind.service-WQ0HRM
```

Рис. 1: использование ls-la

В домашнем каталоге создаю новый каталог с именем newdir. (рис. (fig:003?)).

```
[dmitry_apareev@fedora ~]$ mkdir newdir
[dmitry_apareev@fedora ~]$ ls
bin      work    Документы  Изображения  Общедоступные  Шаблоны
newdir   Видео   Загрузки   Музыка        'Рабочий стол'
```

Рис. 2: использование mkdir

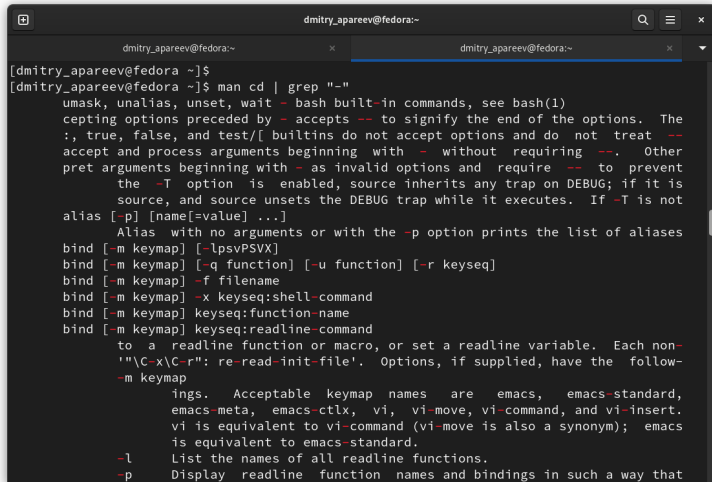


Удалил каталог ~/newdir/morefun из домашнего каталога. (рис. (fig:004?)).

```
[dmitry_apareev@fedora ~]$ rmdir newdir/morefun
[dmitry_apareev@fedora ~]$ ls
bin      work      Документы  Изображения  Общедоступные  Шаблоны
newdir   Видео     Загрузки   Музыка        'Рабочий стол'
[dmitry_apareev@fedora ~]$ rmdir newdir
[dmitry_apareev@fedora ~]$ ls
bin      Видео     Загрузки   Музыка        'Рабочий стол'
work     Документы  Изображения  Общедоступные  Шаблоны
```

Рис. 3: использование rmdir ls

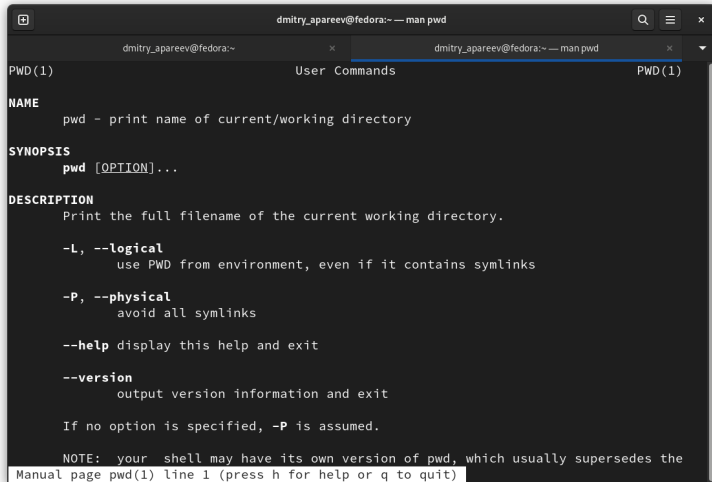
cd - делает переход в нужный каталог (рис. (fig:005?)).



```
dmitry_apareev@fedora:~  
[dmitry_apareev@fedora ~]$  
[dmitry_apareev@fedora ~]$ man cd | grep "-"  
umask, unalias, unset, wait - bash built-in commands, see bash(1)  
cepting options preceded by - accepts -- to signify the end of the options. The  
:, true, false, and test/[ builtins do not accept options and do not treat --  
accept and process arguments beginning with - without requiring --. Other  
pret arguments beginning with - as invalid options and require -- to prevent  
the -T option is enabled, source inherits any trap on DEBUG; if it is  
source, and source unsets the DEBUG trap while it executes. If -T is not  
alias [-p] [name[=value] ...]  
Alias with no arguments or with the -p option prints the list of aliases  
bind [-m keymap] [-lpsvPSVX]  
bind [-m keymap] [-q function] [-u function] [-r keyseq]  
bind [-m keymap] -f filename  
bind [-m keymap] -x keyseq:shell-command  
bind [-m keymap] keyseq:function-name  
bind [-m keymap] keyseq:readline-command  
to a readline function or macro, or set a readline variable. Each non-  
'"\\C-x\\C-r": re-read-init-file'. Options, if supplied, have the follow-  
-m keymap  
ings. Acceptable keymap names are emacs, emacs-standard,  
emacs-meta, emacs-ctlx, vi, vi-move, vi-command, and vi-insert.  
vi is equivalent to vi-command (vi-move 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
```

Рис. 4: использование man

pwd - выводит название рабочего каталога (рис. (fig:006?)).



The screenshot shows a terminal window titled "dmitry\_apareev@fedora:~ — man pwd". The window displays the manual page for the 'pwd' command. The content is as follows:

```
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

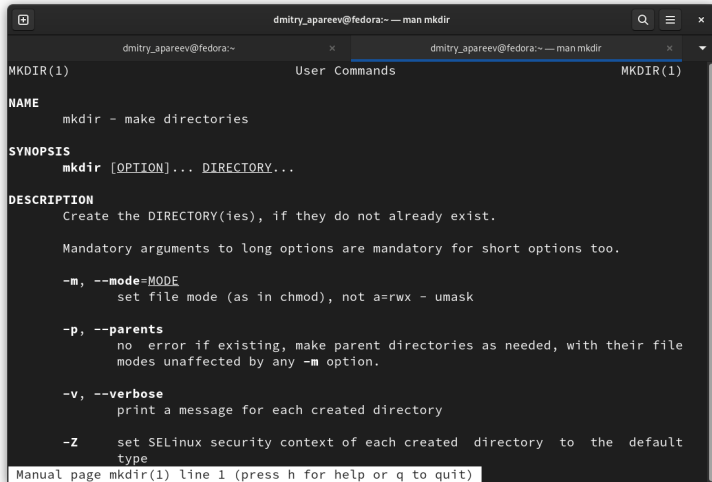
    --version
        output version information and exit

    If no option is specified, -P is assumed.

    NOTE: your shell may have its own version of pwd, which usually supersedes the
    Manual page pwd(1) line 1 (press h for help or q to quit)
```

Рис. 5: использование man

mkdir - создает новый каталог (рис. (fig:007?)).



The screenshot shows a terminal window titled "dmitry\_apareev@fedora:~ — man mkdir". The window displays the manual page for the "mkdir" command. The content is as follows:

```
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.

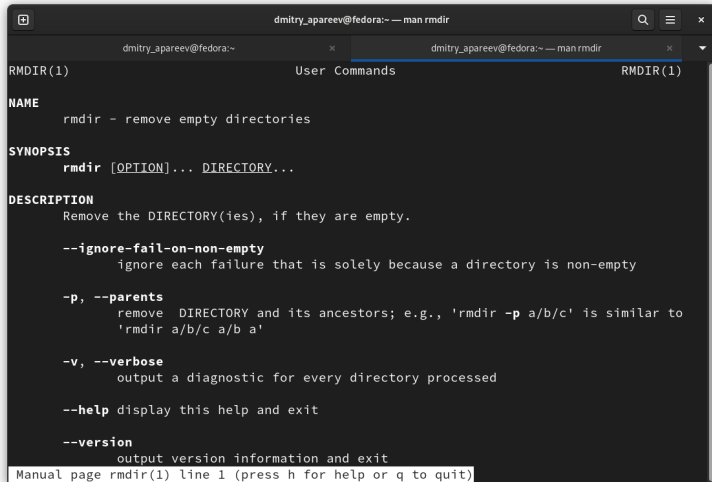
    -v, --verbose
        print a message for each created directory

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

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

Рис. 6: использование man

rmdir - удаляет выбранный пустой каталог(рис. (fig:008?)).



```
dmitry_apareev@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'

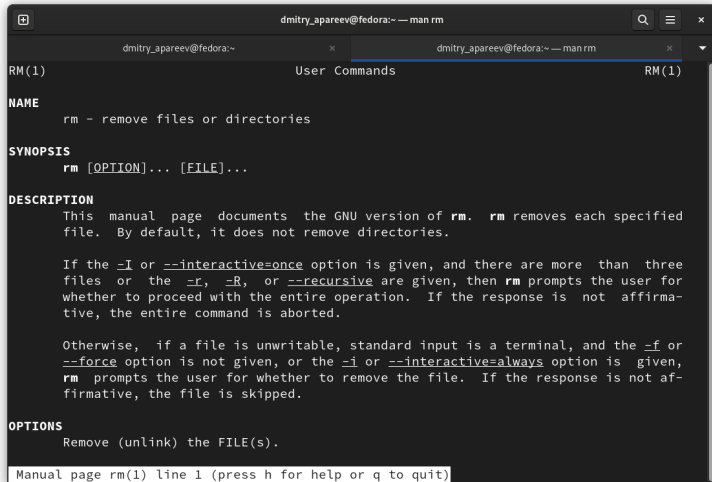
    -v, --verbose
        output a diagnostic for every directory processed

    --help
        display this help and exit

    --version
        output version information and exit
Manual page rmdir(1) line 1 (press h for help or q to quit)
```

Рис. 7: использование man

`rm` - удаляет выбранный файл (рис. (fig:009?)).



```
dmitry_apareev@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=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.

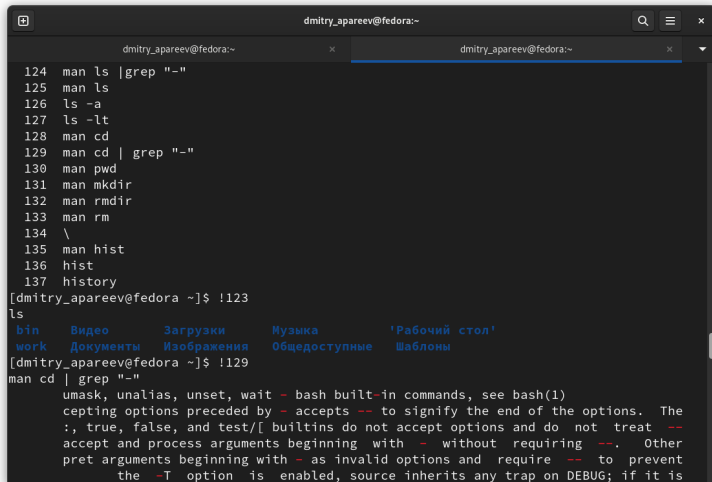
    Otherwise, if a file is unwritable, standard input is a terminal, and the -f or
    --force option is not given, or the -i or --interactive=always option is given,
    rm prompts the user for whether to remove the file. If the response is not af-
    firmative, the file is skipped.

OPTIONS
    Remove (unlink) the FILE(s).

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

Рис. 8: использование man

Используя информацию, полученную при помощи команды `history`, выполнил модификацию и исполнение нескольких команд из буфера команд (рис. (fig:010?)).



```
dmitry_apareev@fedora:~  
124 man ls |grep "-"  
125 man ls  
126 ls -a  
127 ls -lt  
128 man cd  
129 man cd | grep "-"  
130 man pwd  
131 man mkdir  
132 man rmdir  
133 man rm  
134 \  
135 man hist  
136 hist  
137 history  
[dmitry_apareev@fedora ~]$ !123  
ls  
bin Видео Загрузки Музыка 'Рабочий стол'  
work Документы Изображения Общедоступные Шаблоны  
[dmitry_apareev@fedora ~]$ !129  
man cd | grep "-"  
umask, unalias, unset, wait - bash built-in commands, see bash(1)  
cepting options preceded by - accepts -- to signify the end of the options. The  
:, true, false, and test/[ builtins do not accept options and do not treat --  
accept and process arguments beginning with - without requiring --. Other  
pret arguments beginning with - as invalid options and require -- to prevent  
the -T option is enabled, source inherits any trap on DEBUG; if it is
```

## Выводы

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Выполнив лабораторную работу, я смог на практике изучить основные командные строки Linux