

Лабораторная работа № 6

Основы интерфейса взаимодействия пользователя с системой посредством командной строки

Мальянц В. К.

16 марта 2025

Российский университет дружбы народов, Москва, Россия

Цель работы

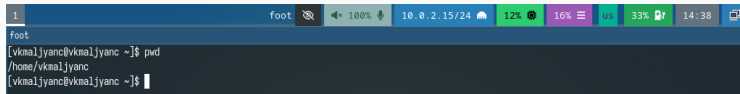
- Приобретение практических навыков взаимодействия пользователя с системой посредством командной строки.

Задание

- Работа с командной строкой

Выполнение лабораторной работы


- Определяю полное имя домашнего каталога (рис. 1).



```
1 foot 10.0.2.15/24 12% 16% us 33% 14:38  
foot  
[vkmajyanc@vkmajyanc ~]$ pwd  
/home/vkmajyanc  
[vkmajyanc@vkmajyanc ~]$
```

Рис. 1: Определение полного имени домашнего каталога

- Перехожу в каталог /tmp (рис. 2).

A terminal window with a dark background. The first line shows the prompt '[vkmajyanc@vkmajyanc ~]' followed by the command 'cd /tmp'. The second line shows the prompt '[vkmajyanc@vkmajyanc tmp]' followed by a cursor.

```
[vkmajyanc@vkmajyanc ~]$ cd /tmp  
[vkmajyanc@vkmajyanc tmp]$
```

Рис. 2: Переход в каталог /tmp

- Вывожу на экран содержимое каталога /tmp (рис. 3).

```
[vkmaljyanc@vkmaljyanc tmp]$ ls  
sddm-auth-bdbc9782-e9ff-472f-8407-73de41b06c96  
sddm--edKONY  
systemd-private-b9946ce0937d46c5b3970e0203a15c72-abrt.d.service-yTen7k  
systemd-private-b9946ce0937d46c5b3970e0203a15c72-chrond.service-ARkumI  
systemd-private-b9946ce0937d46c5b3970e0203a15c72-dbus-broker.service-vaMahQ  
systemd-private-b9946ce0937d46c5b3970e0203a15c72-ModemManager.service-mPtsYP  
systemd-private-b9946ce0937d46c5b3970e0203a15c72-polkit.service-XmQzU  
systemd-private-b9946ce0937d46c5b3970e0203a15c72-rtkit-daemon.service-HuBggv  
systemd-private-b9946ce0937d46c5b3970e0203a15c72-systemd-logind.service-u3ym50  
systemd-private-b9946ce0937d46c5b3970e0203a15c72-systemd-oomd.service-5tLAff  
systemd-private-b9946ce0937d46c5b3970e0203a15c72-systemd-resolved.service-lrbmGP  
systemd-private-b9946ce0937d46c5b3970e0203a15c72-upower.service-cXTD3a  
[vkmaljyanc@vkmaljyanc tmp]$
```

Рис. 3: Вывод на экран содержимого каталога /tmp

- Вывожу имена скрытых файлов (рис. 4).

```
[vkmaljanc@vkmaljanc tmp]$ ls -a
.
..
.font-unix
.ICE-unix
sddm-auth-bdbc9782-e9ff-472f-8407-73de41b06c96
sddm--edKONY
systemd-private-b9946ce0937d46c5b3970e0203a15c72-abrtd.service-yTen7k
systemd-private-b9946ce0937d46c5b3970e0203a15c72-chronyd.service-ARKumI
systemd-private-b9946ce0937d46c5b3970e0203a15c72-dbus-broker.service-vaMahQ
systemd-private-b9946ce0937d46c5b3970e0203a15c72-ModemManager.service-mPtsYP
systemd-private-b9946ce0937d46c5b3970e0203a15c72-polkit.service-XmnQzU
systemd-private-b9946ce0937d46c5b3970e0203a15c72-rtkit-daemon.service-HuBggv
systemd-private-b9946ce0937d46c5b3970e0203a15c72-systemd-logind.service-u3ym50
systemd-private-b9946ce0937d46c5b3970e0203a15c72-systemd-oomd.service-5tLAff
systemd-private-b9946ce0937d46c5b3970e0203a15c72-systemd-resolved.service-lrbmGP
systemd-private-b9946ce0937d46c5b3970e0203a15c72-upower.service-cXTD3a
.X0-lock
.X11-unix
.XIM-unix
[vkmaljanc@vkmaljanc tmp]$
```

Рис. 4: Вывод имен скрытых файлов

- Вывожу информацию о типах файлов (рис. 5).

```
[vkmajyanc@vkmajyanc tmp]$ ls -F
sddm-auth-bdbc9702-e9ff-472f-8407-73de41b06c96=
sddm--edKONY=
systemd-private-b9946ce0937d46c5b3970e0203a15c72-abrt.service-yTen7k/
systemd-private-b9946ce0937d46c5b3970e0203a15c72-chronyd.service-ARkumI/
systemd-private-b9946ce0937d46c5b3970e0203a15c72-dbus-broker.service-vaMahQ/
systemd-private-b9946ce0937d46c5b3970e0203a15c72-ModemManager.service-mPtsYP/
systemd-private-b9946ce0937d46c5b3970e0203a15c72-polkit.service-XmQzU/
systemd-private-b9946ce0937d46c5b3970e0203a15c72-rtkit-daemon.service-HuBggv/
systemd-private-b9946ce0937d46c5b3970e0203a15c72-systemd-logind.service-u3ym50/
systemd-private-b9946ce0937d46c5b3970e0203a15c72-systemd-oomd.service-5tLAff/
systemd-private-b9946ce0937d46c5b3970e0203a15c72-systemd-resolved.service-lrbmGP/
systemd-private-b9946ce0937d46c5b3970e0203a15c72-upower.service-cXTD3a/
[vkmajyanc@vkmajyanc tmp]$
```

Рис. 5: Вывод информации о типах файлов

- Вывожу подробную информацию о файлах и каталогах (рис. 6).

```
[vkmajjanc@vkmajjanc tmp]$ ls -l
итого 0
srwxr-xr-x. 1 root root 0 map 16 14:29 sddm-auth-bdbc9702-e9ff-472f-8407-73de41b06c96
srwx-----. 1 sddm sddm 0 map 16 14:29 sddm--edKONY
drwx-----. 3 root root 60 map 16 14:29 systemd-private-b9946ce0937d46c5b3970e0203a15c72-abrt.service-yTen7k
drwx-----. 3 root root 60 map 16 14:29 systemd-private-b9946ce0937d46c5b3970e0203a15c72-chronyd.service-ARKumI
drwx-----. 3 root root 60 map 16 14:29 systemd-private-b9946ce0937d46c5b3970e0203a15c72-dbus-broker.service-vaMahQ
drwx-----. 3 root root 60 map 16 14:29 systemd-private-b9946ce0937d46c5b3970e0203a15c72-ModemManager.service-mPtsYP
drwx-----. 3 root root 60 map 16 14:29 systemd-private-b9946ce0937d46c5b3970e0203a15c72-polkit.service-XmnQzU
drwx-----. 3 root root 60 map 16 14:29 systemd-private-b9946ce0937d46c5b3970e0203a15c72-rtkit-daemon.service-Hu8ggv
drwx-----. 3 root root 60 map 16 14:29 systemd-private-b9946ce0937d46c5b3970e0203a15c72-systemd-logind.service-u3ym50
drwx-----. 3 root root 60 map 16 14:29 systemd-private-b9946ce0937d46c5b3970e0203a15c72-systemd-oomd.service-5tLAff
drwx-----. 3 root root 60 map 16 14:29 systemd-private-b9946ce0937d46c5b3970e0203a15c72-systemd-resolved.service-lrbmGP
drwx-----. 3 root root 60 map 16 14:29 systemd-private-b9946ce0937d46c5b3970e0203a15c72-upower.service-cXTD3a
[vkmajjanc@vkmajjanc tmp]$
```

Рис. 6: Вывод подробной информации о файлах и каталогах

- Комбинирую опции (рис. 7).

```
[vkmajyanc@vkmajyanc tmp]$ ls -alF
итого 4
drwxrwxrwt. 16 root    root    388 map 16 14:38 ./
dr-xr-xr-x.  1 root    root    158 map 6 09:24 ../
drwxrwxrwt.  2 root    root     40 map 16 14:29 .font-unix/
drwxrwxrwt.  2 root    root     40 map 16 14:29 .ICE-unix/
srwxr-xr-x.  1 root    root      0 map 16 14:29 sddm-auth-bdbc9782-e9ff-472f-8407-73de41b06c96=
srwx-----  1 sddm     sddm      0 map 16 14:29 sddm--edKONY=
drwx-----  3 root     root     60 map 16 14:29 systemd-private-b9946ce0937d46c5b3970e0203a15c72-abrtd.service-yTen7k/
drwx-----  3 root     root     60 map 16 14:29 systemd-private-b9946ce0937d46c5b3970e0203a15c72-chronyd.service-ARkumI/
drwx-----  3 root     root     60 map 16 14:29 systemd-private-b9946ce0937d46c5b3970e0203a15c72-dbus-broker.service-vaMahQ/
drwx-----  3 root     root     60 map 16 14:29 systemd-private-b9946ce0937d46c5b3970e0203a15c72-ModemManager.service-mPtsYP/
drwx-----  3 root     root     60 map 16 14:29 systemd-private-b9946ce0937d46c5b3970e0203a15c72-polkit.service-XmnQzU/
drwx-----  3 root     root     60 map 16 14:29 systemd-private-b9946ce0937d46c5b3970e0203a15c72-rtkit-daemon.service-Hu8ggv/
drwx-----  3 root     root     60 map 16 14:29 systemd-private-b9946ce0937d46c5b3970e0203a15c72-systemd-logind.service-u3ym50/
drwx-----  3 root     root     60 map 16 14:29 systemd-private-b9946ce0937d46c5b3970e0203a15c72-systemd-oomd.service-5tLAff/
drwx-----  3 root     root     60 map 16 14:29 systemd-private-b9946ce0937d46c5b3970e0203a15c72-systemd-resolved.service-lrbmGP/
drwx-----  3 root     root     60 map 16 14:29 systemd-private-b9946ce0937d46c5b3970e0203a15c72-upower.service-cXTD3a/
-r--r--r--.  1 vkmajyanc vkmajyanc 11 map 16 14:29 .X0-lock
drwxrwxrwt.  2 root     root     60 map 16 14:29 .X11-unix/
drwxrwxrwt.  2 root     root     40 map 16 14:29 .XIM-unix/
[vkmajyanc@vkmajyanc tmp]$
```

Рис. 7: Комбинирование опций

- Просматриваю содержимое каталога `/var/spool`, нахожу в нем подкаталог с именем `cron` (рис. 8).

```
[vkmajyanc@vkmajyanc tap]$ ls /var/spool  
abrt abrt-upload anacron at cron cups lpd mail plymouth  
[vkmajyanc@vkmajyanc tap]$
```


Рис. 8: Просмотр содержимого каталога `/var/spool`

- Перехожу в домашний каталог, вывожу на экран его содержимое, владельцем файлов и подкаталогов является vkmaljanc (рис. 9).

```
[vkmaljanc@vkmaljanc tap]$ cd ~  
[vkmaljanc@vkmaljanc ~]$ ls -l  
итого 20  
drwxr-xr-x. 1 vkmaljanc vkmaljanc 14 мар 11 19:34 bin  
drwxr-xr-x. 1 vkmaljanc vkmaljanc 186 мар 8 15:32 blog  
drwxr-xr-x. 1 vkmaljanc vkmaljanc 0 мар 11 21:20 Documents  
drwxr-xr-x. 1 vkmaljanc vkmaljanc 0 мар 13 19:53 Downloads  
drwxr-xr-x. 1 vkmaljanc vkmaljanc 74 мар 7 21:48 git-extended  
-rw-r--r--. 1 vkmaljanc vkmaljanc 18657 мар 11 19:47 LICENSE  
drwxr-xr-x. 1 vkmaljanc vkmaljanc 10 мар 13 19:51 work  
drwxr-xr-x. 1 vkmaljanc vkmaljanc 0 фев 24 14:14 Видео  
drwxr-xr-x. 1 vkmaljanc vkmaljanc 0 фев 24 14:14 Документы  
drwxr-xr-x. 1 vkmaljanc vkmaljanc 134 мар 8 16:05 Загрузки  
drwxr-xr-x. 1 vkmaljanc vkmaljanc 0 мар 1 21:44 Изображения  
drwxr-xr-x. 1 vkmaljanc vkmaljanc 0 фев 24 14:14 Музыка  
drwxr-xr-x. 1 vkmaljanc vkmaljanc 0 фев 24 14:14 Общедоступные  
drwxr-xr-x. 1 vkmaljanc vkmaljanc 0 мар 7 22:49 'Рабочий стол'  
drwxr-xr-x. 1 vkmaljanc vkmaljanc 0 фев 24 14:14 Шаблоны  
[vkmaljanc@vkmaljanc ~]$
```

Рис. 9: Переход в домашний каталог и вывод его содержимого


- В домашнем каталоге создаю новый каталог с именем newdir (рис. 10).



```
[vkmajyanc@vkmajyanc ~]$ mkdir ~/newdir  
[vkmajyanc@vkmajyanc ~]$
```

Рис. 10: Создаю каталог newdir

- В каталоге `~/newdir` создаю новый каталог с именем `morefun` (рис. 11).



```
[vkmajyanc@vkmajyanc ~]$ mkdir ~/newdir/morefun  
[vkmajyanc@vkmajyanc ~]$
```

Рис. 11: В каталоге `~/newdir` создание нового каталога с именем `morefun`

- В домашнем каталоге создаю одной командой три новых каталога с именами letters, memos, misk. Затем удаляю эти каталоги одной командой (рис. 12).

```
[vkmajyanc@vkmajyanc ~]$ mkdir ~/letters ~/memos ~/misk  
[vkmajyanc@vkmajyanc ~]$ rmdir ~/letters ~/memos ~/misk  
[vkmajyanc@vkmajyanc ~]$
```

Рис. 12: Создание и удаление каталогов с именами letters, memos, misk

- Пробую удалить каталог ~/newdir командой rm. Каталог не был удален (рис. 13).

```
[vkmajyanc@vkmajyanc ~]$ rm ~/newdir
rm: невозможно удалить '/home/vkmajyanc/newdir': Это каталог
[vkmajyanc@vkmajyanc ~]$ ls
bin  Documents  git-extended  newdir  Видео  Загрузки  Музыка  'Рабочий стол'
blog  Downloads  LICENSE      work   Документы  Изображения  Общиедоступные  Шаблоны
[vkmajyanc@vkmajyanc ~]$
```

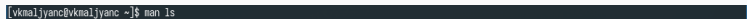
Рис. 13: Попытка удаления каталога ~/newdir командой rm

- Удаляю каталог `~/newdir/morefun` из домашнего каталога. Каталог был удален (рис. 14).

```
[vkmajyanc@vkmajyanc ~]$ rmdir ~/newdir/morefun  
[vkmajyanc@vkmajyanc ~]$ ls ~/newdir  
[vkmajyanc@vkmajyanc ~]$
```

Рис. 14: Удаление каталога `~/newdir/morefun` из домашнего каталога

- Ввожу команду `man ls` (рис. 15).

A screenshot of a terminal window with a dark background. The prompt is `[vkmajyanc@vkmajyanc ~]$` and the command `man ls` is entered.

```
[vkmajyanc@vkmajyanc ~]$ man ls
```

Рис. 15: Ввод команды `man ls`


- Нужно использовать опцию -R для просмотра содержимого каталога и подкаталогов, входящих в него (рис. 16).



```
-R, --recursive  
list subdirectories recursively
```

Рис. 16: опция -R


- Ввожу команду `man ls` (рис. 17).

A terminal window with a dark background. The prompt is `[vkmajyanc@vkmajyanc ~]$` and the command `man ls` is entered.

```
[vkmajyanc@vkmajyanc ~]$ man ls
```

Рис. 17: Ввод команды `man ls`

- Нужно использовать опцию `-l` для просмотра содержимого каталога с развернутым описанием файлов (рис. 18).



```
-l use a long listing format
```

Рис. 18: опция `-l`

- Нужно использовать опцию `-t` для сортировки по времени последнего изменения (рис. 19).




```
-t    sort by time, newest first; see --time
```

Рис. 19: опция `-t`

- Использую `ls -lt` для сортировки по времени последнего изменения выводимого списка содержимого каталога с развернутым описанием файлов

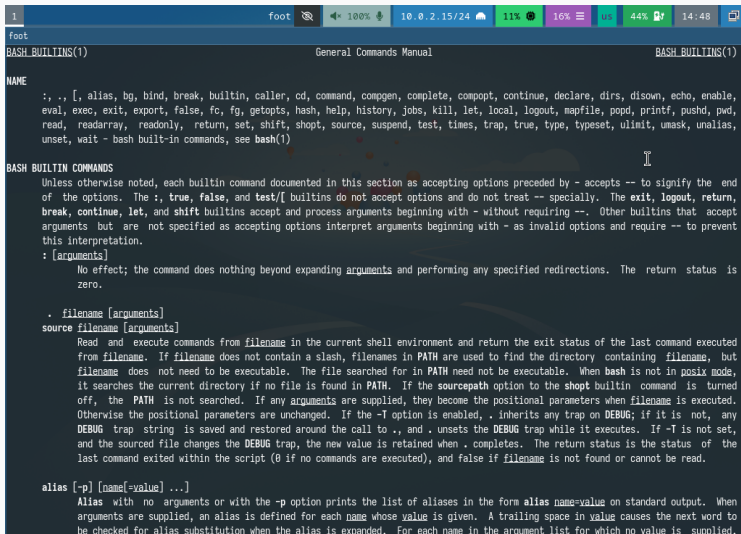
- Ввожу команды `man cd`, `man pwd`, `man mkdir`, `man rmdir`, `man rm` (рис. 20).



```
[vkmaljyanc@vkmaljyanc ~]$ man cd  
[vkmaljyanc@vkmaljyanc ~]$ man pwd  
[vkmaljyanc@vkmaljyanc ~]$ man mkdir  
[vkmaljyanc@vkmaljyanc ~]$ man rmdir  
[vkmaljyanc@vkmaljyanc ~]$ man rm  
[vkmaljyanc@vkmaljyanc ~]$
```

Рис. 20: Ввод команд `man cd`, `man pwd`, `man mkdir`, `man rmdir`, `man rm`

- Результат ввода команды `man cd` (рис. 21).

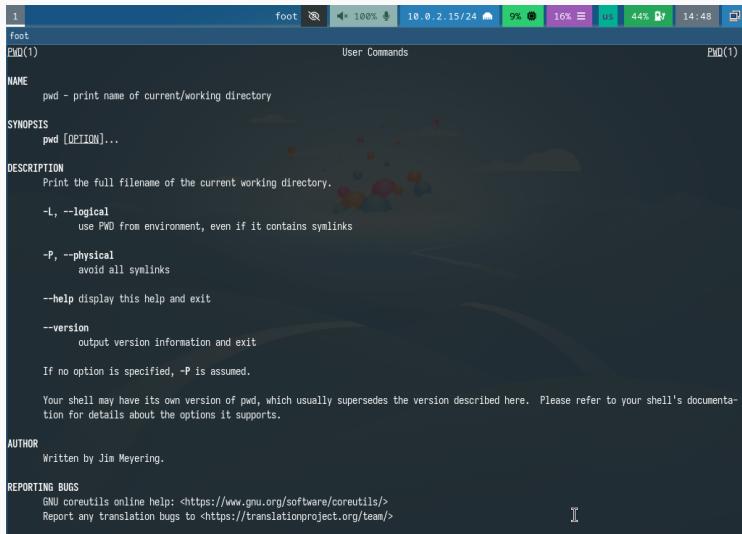


```
1 foot 10.0.2.15/24 11% 16% us 44% 14:48
BASH_BUILTINS(1) General Commands Manual BASH_BUILTINS(1)

NAME
: , . , [ , alias , bg , bind , break , builtin , caller , cd , command , compgen , complete , compopt , continue , declare , dirs , disown , echo , enable ,
eval , exec , exit , export , false , fc , fg , getopts , hash , help , history , jobs , kill , let , local , logout , mapfile , popd , printf , pushd , pwd ,
read , readarray , readonly , return , set , shift , shopt , source , suspend , test , times , trap , true , type , typeset , ulimit , umask , unalias ,
unset , wait - bash built-in commands, see bash(1)

BASH BUILTIN COMMANDS
Unless otherwise noted, each builtin command documented in this section as accepting 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 -- specially. The exit , 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 beginning with - as invalid options and require -- to prevent
this interpretation.
: [arguments]
    No effect; the command does nothing beyond expanding arguments and performing any specified redirections. The return status is
    zero.
. filename [arguments]
source filename [arguments]
    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, but
    filename does not need to be executable. The file searched for in PATH need not be executable. When bash is not in posix mode,
    it searches the current directory 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, . inherits any trap on DEBUG; if it is not, any
    DEBUG trap string is saved and restored around the call to . , and . 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 . 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,
```

- Результат ввода команды `man pwd` (рис. 22).



```
1 foot 100% 10.0.2.15/24 9% 16% us 44% 14:48
foot
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

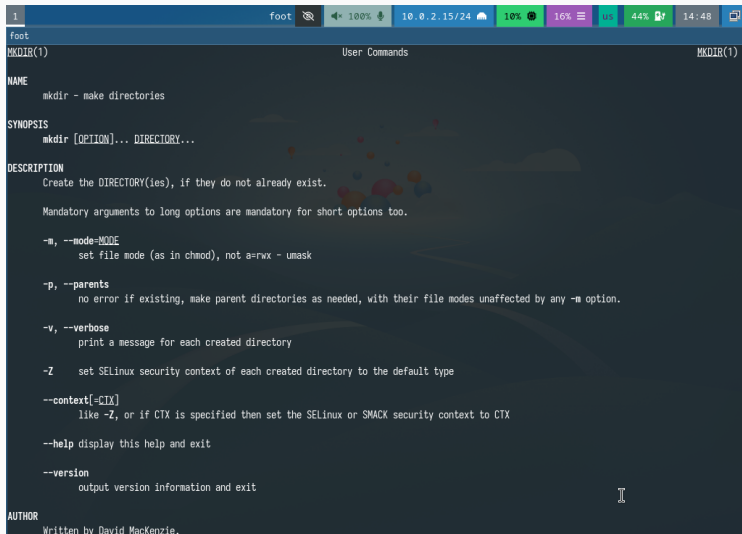
    If no option is specified, -P is assumed.

    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/>
    Report any translation bugs to <https://translationproject.org/team/>
```

- Результат ввода команды `man mkdir` (рис. 23).



```
1 foot 10.0.2.15/24 10% 16% us 44% 14:48
foot
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

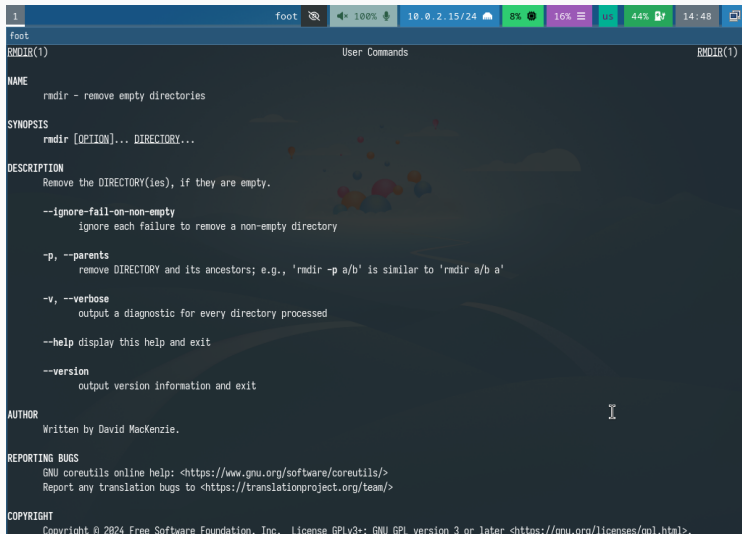
    --help
        display this help and exit

    --version
        output version information and exit

AUTHOR
    Written by David MacKenzie.
```

Работа с командной строкой

- Результат ввода команды `man rmdir` (рис. 24).



```
1 foot 100% 10.0.2.15/24 8% 16% us 44% 14:48
foot
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/>

COPYRIGHT
    Copyright © 2024 Free Software Foundation, Inc. License GPLv3+: GNU GPL version 3 or later <https://gnu.org/licenses/gpl.html>.
```

- Результат ввода команды `man rm` (рис. 25).



```
1 foot 10.0.2.15/24 10% 16% us 44% 14:49
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

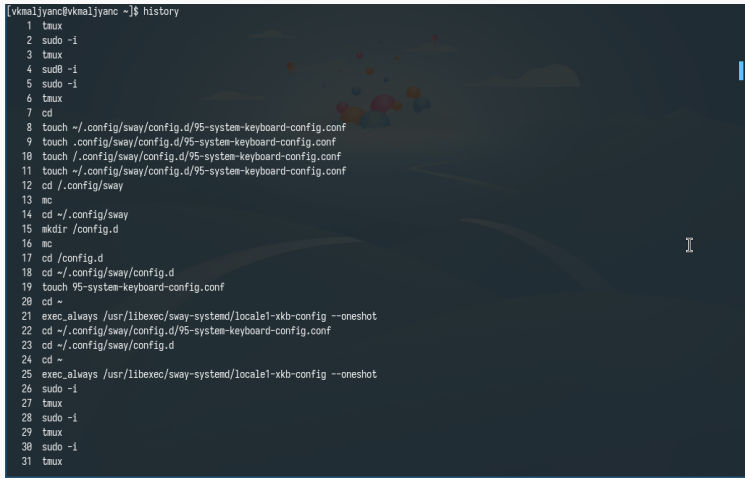
  -i
    prompt before every removal

  -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 com-
```


- Ввожу команду history (рис. 26).

A terminal window with a dark blue background and a faint, colorful abstract pattern. The terminal shows the output of the 'history' command, listing 31 previous commands. The commands include 'tmux', 'sudo -i', 'cd', 'touch', 'mkdir', and 'exec_always'. The prompt is '[vkmaljyanc@vkmaljyanc ~]\$ history'.


```
[vkmaljyanc@vkmaljyanc ~]$ history
 1  tmux
 2  sudo -i
 3  tmux
 4  sudo -i
 5  sudo -i
 6  tmux
 7  cd
 8  touch ~/.config/sway/config.d/95-system-keyboard-config.conf
 9  touch .config/sway/config.d/95-system-keyboard-config.conf
10  touch /.config/sway/config.d/95-system-keyboard-config.conf
11  touch ~/.config/sway/config.d/95-system-keyboard-config.conf
12  cd /.config/sway
13  mc
14  cd ~/.config/sway
15  mkdir /config.d
16  mc
17  cd /config.d
18  cd ~/.config/sway/config.d
19  touch 95-system-keyboard-config.conf
20  cd ~
21  exec_always /usr/libexec/sway-systemd/locale1-xkb-config --oneshot
22  cd ~/.config/sway/config.d/95-system-keyboard-config.conf
23  cd ~/.config/sway/config.d
24  cd ~
25  exec_always /usr/libexec/sway-systemd/locale1-xkb-config --oneshot
26  sudo -i
27  tmux
28  sudo -i
29  tmux
30  sudo -i
31  tmux
```

- Изменяю команду `ls -F` на `ls -a` (рис. 27).

```
[vkmajyanc@vkmajyanc ~]$ !518:s/F/a
ls -a
.          .bashrc    Documents  .gtkrc-2.0  .ssh       .vimrc     Изображения
..         .bashrc.d  Downloads  LICENSE     .texlive2023  work       Музыка
.asy       bin        .git       .local      .vboxclient-clipboard-tty2-control.pid  .XCompose  Общедоступные
.bash_history  blog     .gitconfig .mozilla    .vboxclient-draganddrop-tty2-control.pid  Видео      'Рабочий стол'
.bash_logout  .cache   git-extended newdir      .vboxclient-hostversion-tty2-control.pid  Документы  Шаблоны
.bash_profile .config  .gnupg     .password-store .vboxclient-seamless-tty2-control.pid     Загрузки
```

Рис. 27: Изменение команды `ls -F` на `ls -a`

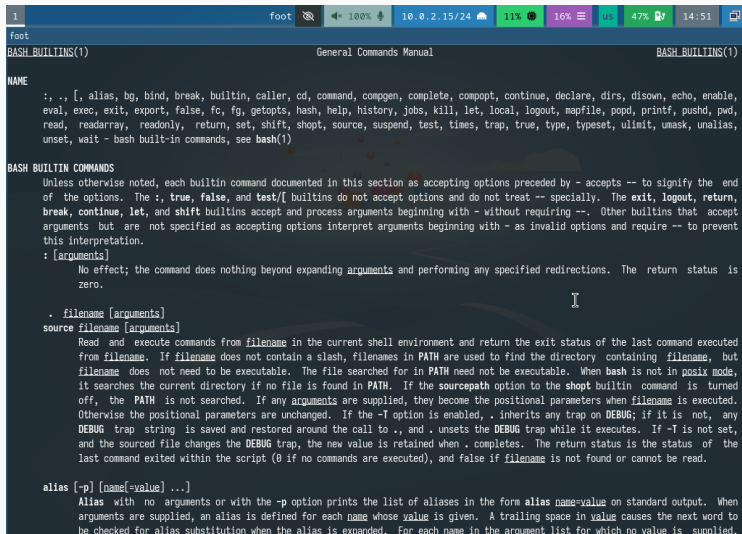
- Изменяю команду `man ls` на `man cd` (рис. 28).

A terminal window with a dark background. The prompt is [vkmajyanc@vkmajyanc ~]\$ and the command !533:s/ls/cd is entered. The output is man cd. The prompt is then [vkmajyanc@vkmajyanc ~]\$ with a cursor.

```
[vkmajyanc@vkmajyanc ~]$ !533:s/ls/cd
man cd
[vkmajyanc@vkmajyanc ~]$
```

Рис. 28: Изменение команды `man ls` на `man cd`

- Результат ввода команды `man cd` (рис. 29).



```
1 foot 10.0.2.15/24 11% 16% us 47% 14:51
BASH_BUILTINS(1) General Commands Manual BASH_BUILTINS(1)

NAME
: , . , [ , alias , bg , bind , break , builtin , caller , cd , command , compgen , complete , compopt , continue , declare , dirs , disown , echo , enable ,
eval , exec , exit , export , false , fc , fg , getopts , hash , help , history , jobs , kill , let , local , logout , mapfile , popd , printf , pushd , pwd ,
read , readarray , readonly , return , set , shift , shopt , source , suspend , test , times , trap , true , type , typeset , ulimit , umask , unalias ,
unset , wait - bash built-in commands, see bash(1)

BASH BUILTIN COMMANDS
Unless otherwise noted, each builtin command documented in this section as accepting 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 -- specially. The exit , 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 beginning with - as invalid options and require -- to prevent
this interpretation.

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

. filename [arguments]
source filename [arguments]
    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, but
    filename does not need to be executable. The file searched for in PATH need not be executable. When bash is not in posix mode,
    it searches the current directory 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, . inherits any trap on DEBUG; if it is not, any
    DEBUG trap string is saved and restored around the call to . , and . 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 . 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,
```

Выводы

- Я приобрела практические навыки взаимодействия пользователя с системой посредством командной строки.

Спасибо за внимание
