

Лабораторная работа №10

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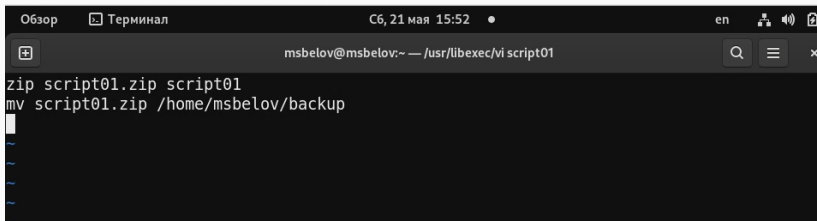
Программирование в командном процессоре ОС UNIX. Командные файлы

Цель работы:

Изучить основы программирования в оболочке ОС UNIX/Linux.
Научиться писать небольшие командные файлы.

Выполнение заданий

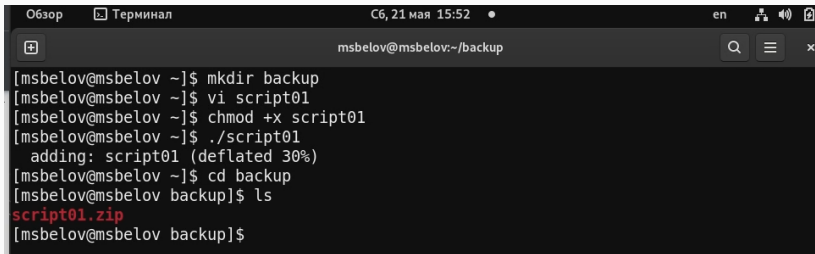
1. Напишем 1-й скрипт



The screenshot shows a terminal window with a dark background. The title bar at the top contains the text "Обзор Терминал" on the left, "C6, 21 мая 15:52" in the center, and "en" followed by system icons on the right. Below the title bar, a status bar displays "msbelov@msbelov:~ — /usr/libexec/vi script01" on the left and search, menu, and close icons on the right. The terminal content shows two lines of commands: "zip script01.zip script01" and "mv script01.zip /home/msbelov/backup". A cursor is visible at the end of the second line. On the left side of the terminal, there are several blue vertical lines, likely representing a scrollbar or a list of files.

```
msbelov@msbelov:~ — /usr/libexec/vi script01
zip script01.zip script01
mv script01.zip /home/msbelov/backup
```

2. Проверим его



A terminal window titled "Обзор Терминал" (Overview Terminal) showing a series of commands and their output. The window has a dark theme and a title bar with standard Linux window controls. The terminal content is as follows:

```
msbelov@msbelov:~/backup
[msbelov@msbelov ~]$ mkdir backup
[msbelov@msbelov ~]$ vi script01
[msbelov@msbelov ~]$ chmod +x script01
[msbelov@msbelov ~]$ ./script01
  adding: script01 (deflated 30%)
[msbelov@msbelov ~]$ cd backup
[msbelov@msbelov backup]$ ls
script01.zip
[msbelov@msbelov backup]$
```

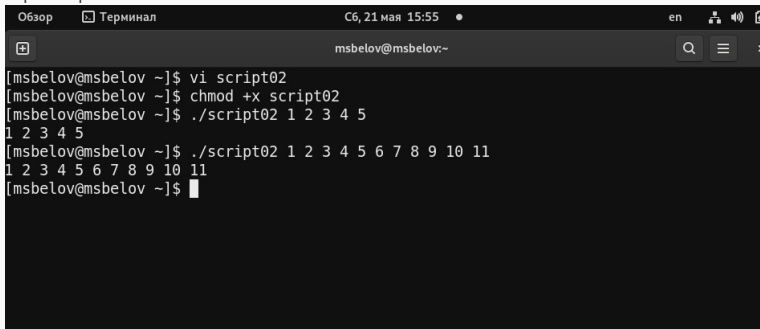
3. Напишем 2-й скрипт



The image shows a terminal window with a dark background. The title bar at the top contains the text "Обзор" (Overview), a terminal icon, "Терминал" (Terminal), the date and time "Сб, 21 мая 15:54", and a language indicator "en". Below the title bar is a dark bar with a "+" icon on the left and the text "msbelov@msbelov:~ — /usr/libexec/vi script02" on the right. The main area of the terminal is black and contains the following text: "for args in "\$*" do echo "\$args" done". The cursor is positioned at the end of the word "done". Below this line, there are several blue tilde characters (~) representing empty lines in the script.

```
for args in "$*"
do echo "$args"
done
```

4. Проверим его

A terminal window titled "Обзор Терминал" with a timestamp of "Сб, 21 мая 15:55". The window shows a user named "msbelov" at a host named "msbelov". The user enters several commands: "vi script02", "chmod +x script02", and two invocations of "./script02". The first invocation with arguments "1 2 3 4 5" produces the output "1 2 3 4 5". The second invocation with arguments "1 2 3 4 5 6 7 8 9 10 11" produces the output "1 2 3 4 5 6 7 8 9 10 11". The terminal window has a dark theme and standard Linux window controls.

```
msbelov@msbelov ~]$ vi script02
msbelov@msbelov ~]$ chmod +x script02
msbelov@msbelov ~]$ ./script02 1 2 3 4 5
1 2 3 4 5
msbelov@msbelov ~]$ ./script02 1 2 3 4 5 6 7 8 9 10 11
1 2 3 4 5 6 7 8 9 10 11
msbelov@msbelov ~]$
```

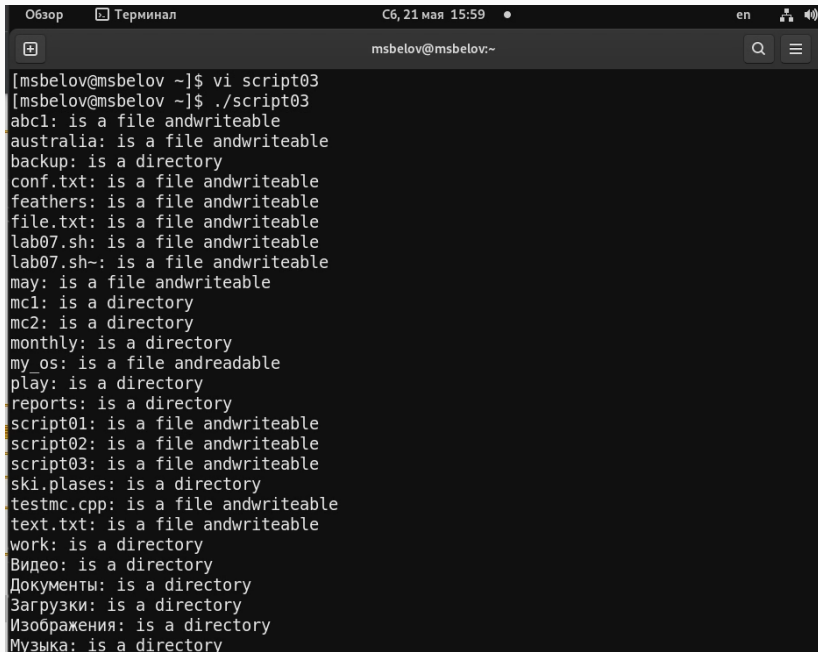

5. Напишем 3-й скрипт



The image shows a terminal window titled "Обзор Терминал" with a timestamp of "Сб, 21 мая 15:59". The user is "msbelov@msbelov:~" and the current directory is "/usr/libexec/vi script03". The terminal displays a shell script that iterates over all files in the current directory and checks their permissions. The script uses a 'for' loop and nested 'if' statements with 'test' commands to determine if a file is a directory, and if it is a file, whether it is writeable, readable, or neither. The output of the script is not shown, only the script code.

```
for A in *
do if test -d $A
    then echo $A: is a directory
    else echo -n $A: is a file and
        if test -w $A
        then echo writeable
        elif test -r $A
        then echo readable
        else echo neither readable nor writeable
        fi
    fi
done
```

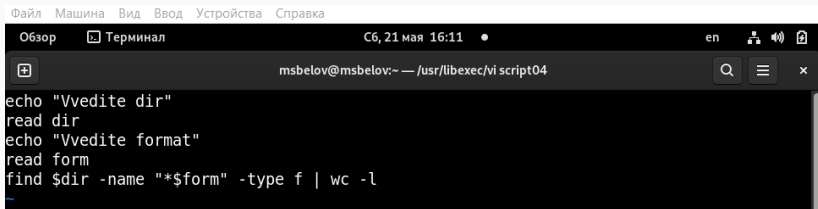
6. Проверим его



A terminal window titled "Обзор" (Overview) with a subtitle "Терминал" (Terminal). The window shows the user "msbelov@msbelov:~" and the time "Сб, 21 мая 15:59". The terminal output shows the user running "vi script03" and then "./script03", which lists the permissions and types for various files and directories. The output is as follows:

```
[msbelov@msbelov ~]$ vi script03
[msbelov@msbelov ~]$ ./script03
abc1: is a file andwriteable
australia: is a file andwriteable
backup: is a directory
conf.txt: is a file andwriteable
feathers: is a file andwriteable
file.txt: is a file andwriteable
lab07.sh: is a file andwriteable
lab07.sh~: is a file andwriteable
may: is a file andwriteable
mc1: is a directory
mc2: is a directory
monthly: is a directory
my_os: is a file andreadable
play: is a directory
reports: is a directory
script01: is a file andwriteable
script02: is a file andwriteable
script03: is a file andwriteable
ski.plases: is a directory
testmc.cpp: is a file andwriteable
text.txt: is a file andwriteable
work: is a directory
Видео: is a directory
Документы: is a directory
Загрузки: is a directory
Изображения: is a directory
Музыка: is a directory
```

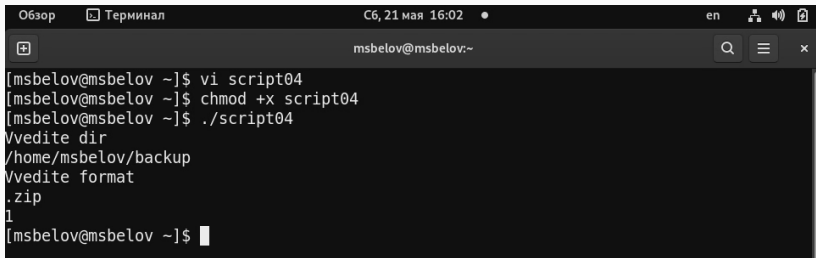
7. Напишем 4-й скрипт



The screenshot shows a terminal window with a menu bar at the top containing 'Файл', 'Машина', 'Вид', 'Ввод', 'Устройства', and 'Справка'. Below the menu bar, the window title is 'Обзор' and the terminal icon is visible. The status bar at the top right shows 'С6, 21 мая 16:11', a battery icon, and the text 'en'. The terminal prompt is 'msbelov@msbelov:~ — /usr/libexec/vi script04'. The script content is as follows:

```
echo "Vvedite dir"
read dir
echo "Vvedite format"
read form
find $dir -name "$*form" -type f | wc -l
```

8. Проверим его



A terminal window titled "Обзор Терминал" (Overview Terminal) with a subtitle "С6, 21 мая 16:02". The window shows a user named "msbelov" at a host named "msbelov" in the home directory. The user enters the following commands: `vi script04`, `chmod +x script04`, and `./script04`. The script's output is: `Vvedite dir`, `/home/msbelov/backup`, `Vvedite format`, `.zip`, and `1`. The prompt returns to `[msbelov@msbelov ~]$`.

```
[msbelov@msbelov ~]$ vi script04
[msbelov@msbelov ~]$ chmod +x script04
[msbelov@msbelov ~]$ ./script04
Vvedite dir
/home/msbelov/backup
Vvedite format
.zip
1
[msbelov@msbelov ~]$
```

Выводы

В ходе работы я изучил основы программирования в оболочке ОС UNIX/Linux. Научился писать небольшие командные файлы