

Операционные системы

Основы интерфейса взаимодействия пользователя с системой Unix на уровне командной строки

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Цели и задачи работы

Цель лабораторной работы

Приобретение практических навыков взаимодействия пользователя с системой посредством командной строки.

Процесс выполнения лабораторной работы

```
[msyagodin@yagodin ~]$ pwd  
/home/msyagodin
```

Рис. 1: Путь к домашнему каталогу

```
[msyagodin@yagodin ~]$ cd /tmp
[msyagodin@yagodin tmp]$ ls
sddm-auth-c2b8518f-3e69-4f06-be85-e6d68ff0f1ea
sddm--rnFbNy
systemd-private-e622bbbdabb2498ca94e695dc08880685-abrt.service-cNKk5l
systemd-private-e622bbbdabb2498ca94e695dc08880685-chronyd.service-F9X6SC
systemd-private-e622bbbdabb2498ca94e695dc08880685-dbus-broker.service-HuJ
j03
systemd-private-e622bbbdabb2498ca94e695dc08880685-irqbalance.service-Hc02
gh
systemd-private-e622bbbdabb2498ca94e695dc08880685-ModemManager.service-km
U0nz
systemd-private-e622bbbdabb2498ca94e695dc08880685-polkit.service-dUGmVc
```

Рис. 2: Команда ls

```
[asyagodin@yagodin tep]$ ls -a
.
..
.font-unix
.lft-unix
sids-auth-c2b8518f-3a69-4f86-ba85-e6d68ff8f1ea
sids--rnfBMy
systemd-private-e622b6bdabb2498ca94e695dc0888685-ahrid.service-cNK35I
systemd-private-e622b6bdabb2498ca94e695dc0888685-chromyd.service-F9X85C
systemd-private-e622b6bdabb2498ca94e695dc0888685-dbus-broker.service-8aJ
j03
systemd-private-e622b6bdabb2498ca94e695dc0888685-irqbalance.service-HcD2
gh
systemd-private-e622b6bdabb2498ca94e695dc0888685-MadewManager.service-kw
UOnz
systemd-private-e622b6bdabb2498ca94e695dc0888685-polkit.service-dUGaVc
systemd-private-e622b6bdabb2498ca94e695dc0888685-rtkit-danmon.service-PW
7744
```

Рис. 3: Команда ls -a

```
[asyagodin@yagodin tmp]$ ls -F
sdde-auth-c2b8518f-3e69-4fd6-be85-e6d68ff0f1ea=
sdde--rnFbNy=
systemd-private-e622bbbdabb2498ca94e695dc0880685-abrt.service-cNkk51/
systemd-private-e622bbbdabb2498ca94e695dc0880685-chronyd.service-F9X65C/
systemd-private-e622bbbdabb2498ca94e695dc0880685-dbus-broker.service-Haj
J03/
systemd-private-e622bbbdabb2498ca94e695dc0880685-irqbalance.service-Hc02
gh/
systemd-private-e622bbbdabb2498ca94e695dc0880685-ModemManager.service-ka
U0nz/
systemd-private-e622bbbdabb2498ca94e695dc0880685-polkit.service-dJGaVc/
```

Рис. 4: Команда ls -F


```
[msyagodin@yagodin tmp]$ ls /var/spool  
abrt  abrt-upload  anacron  at  cron  cups  lpd  mail  plymouth
```

Рис. 5: Каталог /var/spool

```
mayagodin@mayagodin: ~$ cd -
mayagodin@mayagodin: ~$ ls
95-system-keyboard-config.conf  LICENSE  Документы
'debug | grep -i "ru, что нана"'  work    Музыка
Документы                         Загрузки  Офисные документы
Downloads                         Документы  Фильмы и шоу
git-extended                      Зеркала   Звуконзаписи

mayagodin@mayagodin: ~$ ls -l
total 34
-rw-r--r--. 1 mayagodin mayagodin   67 ноя 24 14:28 95-system-keyboard-
-config.conf
-rw-r--r--. 1 mayagodin mayagodin 61448 ноя 24 15:07 'debug | grep -i "r
u, что нана"'
drwxr-xr-x. 1 mayagodin mayagodin    8 сен 27 11:28 Документы
drwxr-xr-x. 1 mayagodin mayagodin   34 сен 27 11:42 Downloads
drwxr-xr-x. 1 mayagodin mayagodin   74 сен 14 23:51 git-extended
-rw-r--r--. 1 mayagodin mayagodin 15567 сен 27 10:43 LICENSE
drwxr-xr-x. 1 mayagodin mayagodin   10 ноя 25 11:04 work
drwxr-xr-x. 1 mayagodin mayagodin    0 ноя 24 13:47 Загрузки
drwxr-xr-x. 1 mayagodin mayagodin    0 ноя 24 13:47 Документы
drwxr-xr-x. 1 mayagodin mayagodin    0 ноя 24 14:51 Зеркала
```

Рис. 6: Файлы в домашнем каталоге

```
[msyagodin@yagodin ~]$ mkdir newdir
[msyagodin@yagodin ~]$ mkdir newdir/morefun
[msyagodin@yagodin ~]$ aldir letters newos misk
bash: aldir: команда не найдена
[msyagodin@yagodin ~]$ mkdir letters newos misk
[msyagodin@yagodin ~]$ rmdir letters newos misk
[msyagodin@yagodin ~]$ rm newdir
rm: невозможно удалить 'newdir': Это каталог
[msyagodin@yagodin ~]$ rmdir newdir/morefun
[msyagodin@yagodin ~]$ ls
95-system-keyboard-config.conf  newdir      Музыка
'daesg | grep -i "то, что ищем"' work        Оборудование
Documents                       Видео       'Рабочий стол'
Downloads                      Документы   Записки
git-extended                   Загрузки
LICENSE                        Заявление
```

Рис. 7: Действия с каталогами

```
guments 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 com-
mand is turned off, the PATH is not searched. If any ar-
guments are supplied, they become the positional param-
eters when filename is executed. Otherwise the positional
parameters are unchanged. If the -I option is enabled, .
```

Рис. 8: Справка по команде `cd`

```
PSD(1)                                User Commands                                PSD(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
        resolve 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 super-
    sedes the version described here. Please refer to your shell's
    documentation for details about the options it supports.

AUTHOR
```

Рис. 9: Справка по команде 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 op-
  tions 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,
```

Рис. 10: Справка по команде 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
```

Рис. 11: Справка по команде rmdir

```
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,
```

Рис. 12: Справка по команде rm

История командной строки

```
[msyagodin@yagodin ~]$ history
 1  sudo -i
 2  tmux
 3  mkdir -p ~/.config/sway
 4  touch ~/.config/sway/config.d/95-system-keyboard-config.conf
 5  nano ~/.config/sway/config.d/95-system-keyboard-config.conf
 6  sudo -i
 7  rm -R .config/sway/
 8  mkdir -p .config/sway/config.d
 9  touch ~/.config/sway/config.d/95-system-keyboard-config.conf
10  nano ~/.config/sway/config.d/95-system-keyboard-config.conf
11  reboot
12  man cd
13  man pwd
14  man mkdir
15  man rmdir
16  man rm
17  history
[msyagodin@yagodin ~]$ !
```

Рис. 13: Команда history

Выводы по проделанной работе

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