

Командная оболочка Midnight Commander

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Цели и задачи работы

Цель лабораторной работы

Ознакомление с файловой системой Linux, её структурой, именами и содержанием каталогов. Приобретение практических навыков по применению команд для работы с файлами и каталогами, по управлению процессами, по проверке использования диска и обслуживанию файловой системы.

Задачи лабораторной работы

- 1 Изучить возможности Midnight Commander
- 2 Изучить редактор Midnight Commander

Процесс выполнения лабораторной работы

Работа с Midnight Commander

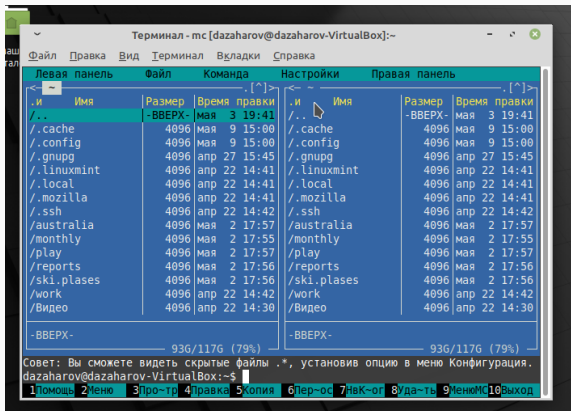


Figure 1: Запуск mc

Работа с Midnight Commander

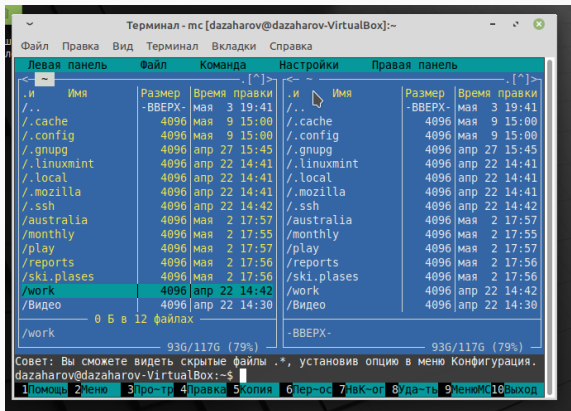


Figure 2: Выделение

Работа с Midnight Commander

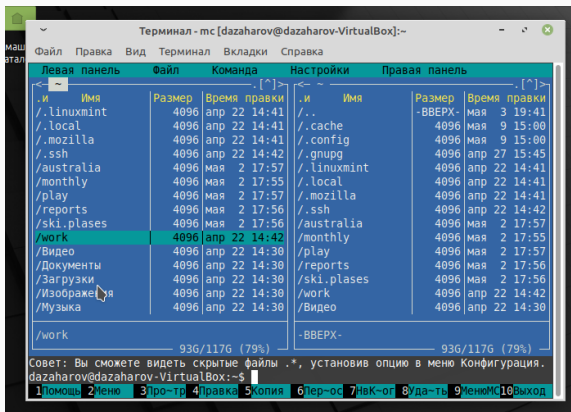


Figure 3: Отмена

Работа с Midnight Commander

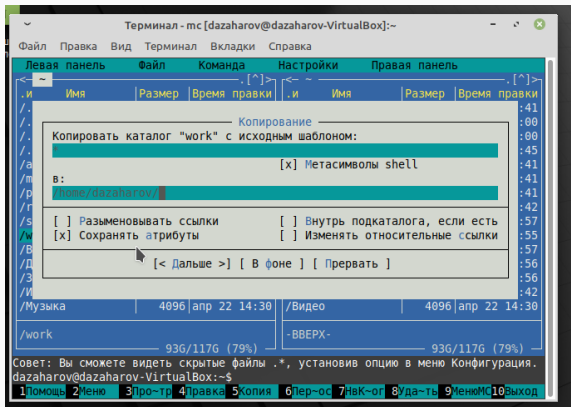


Figure 4: Копирование

Работа с Midnight Commander

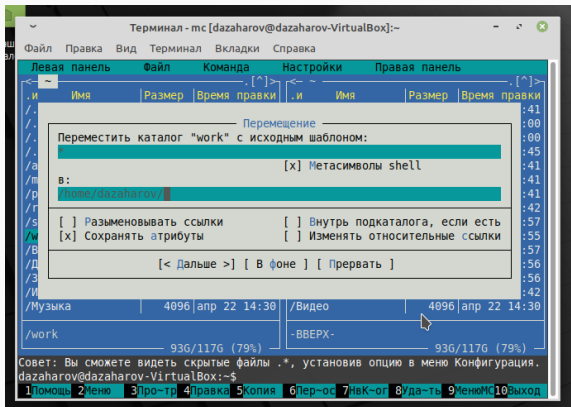


Figure 5: Перемещение

Работа с Midnight Commander

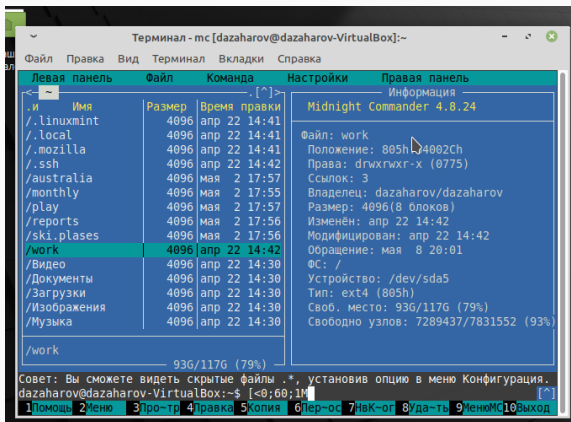


Figure 6: Информация

Работа с Midnight Commander

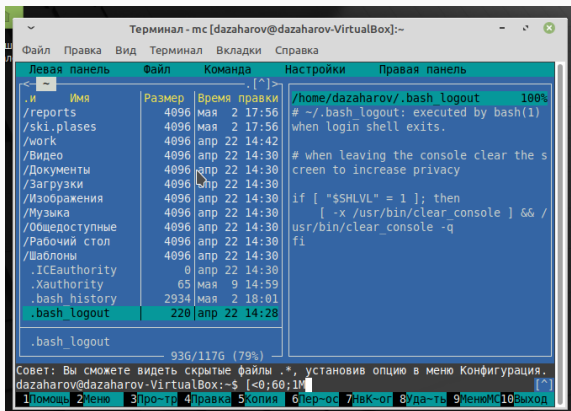


Figure 7: Быстрый просмотр

Работа с Midnight Commander

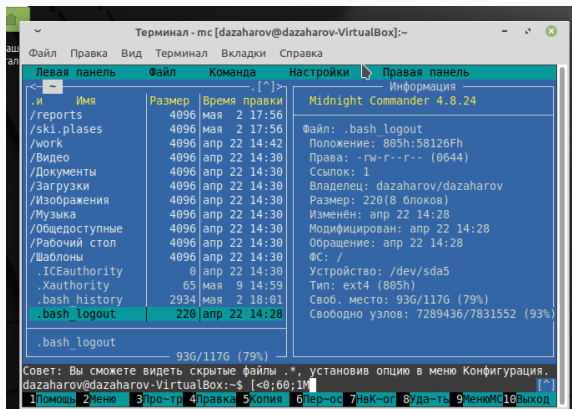


Figure 8: Информация

Работа с Midnight Commander

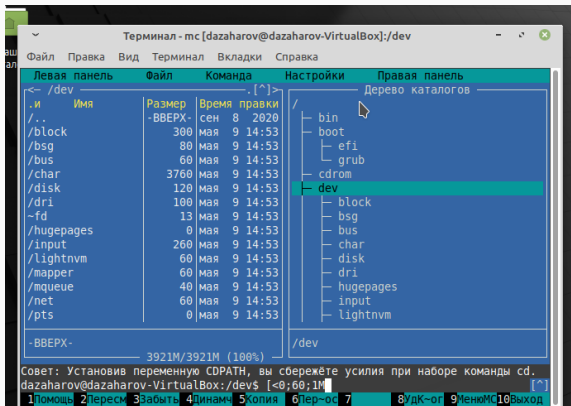
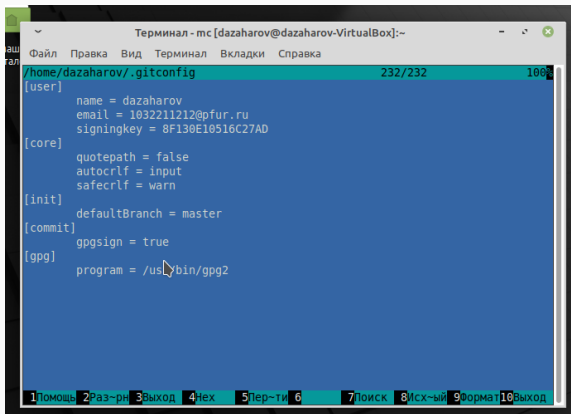


Figure 9: Дерево каталогов

Работа с Midnight Commander



The image shows a terminal window titled "Терминал - mc [dazaharov@dazaharov-VirtualBox]:~". The window has a menu bar with "Файл", "Правка", "Вид", "Терминал", "Вкладки", and "Справка". The main content area displays the contents of the file `/home/dazaharov/.gitconfig`, which is highlighted in green at the top. The file content is as follows:

```
[user]
  name = dazaharov
  email = 1032211212@pfur.ru
  signingkey = 8F130E10516C27AD
[core]
  quotepath = false
  autocrlf = input
  safecrlf = warn
[init]
  defaultBranch = master
[commit]
  gpgsign = true
[gpg]
  program = /usr/bin/gpg2
```

At the bottom of the terminal, there is a status bar with numbered shortcuts: 1Помощь, 2Раз-рн, 3Выход, 4hex, 5Пер-ти, 6, 7Поиск, 8Исх-ый, 9Формат, 10Выход.

Figure 10: Просмотр содержимого текстового файла

Работа с Midnight Commander

```
Терминал - dazaharov@dazaharov-VirtualBox: ~
Файл  Правка  Вид  Терминал  Вкладки  Справка
/home/da~itconfig [----] 0 L:[ 1+ 0 1/ 15] *(0 / 232b) 0091 0x05B [*][X]
[user]
<----->name = dazaharov
<----->email = 1032211212@pfur.ru
<----->signingkey = 8F130E10516C27AD
[core]
<----->quotepath = false
<----->autocrlf = input
<----->safecrlf = warn
[init]
<----->defaultBranch = master
[commit]
<----->gpgsign = true
[gpg]
<----->program = /usr/bin/gpg2
1Помощь 2Сох-ть 3Блок 4Замена 5Копия 6Пер-ть 7Поиск 8Уда-ть 9МенюМС 10Выход
```

Figure 11: Отредактируем содержимое текстового файла без сохранения результатов

Работа с Midnight Commander

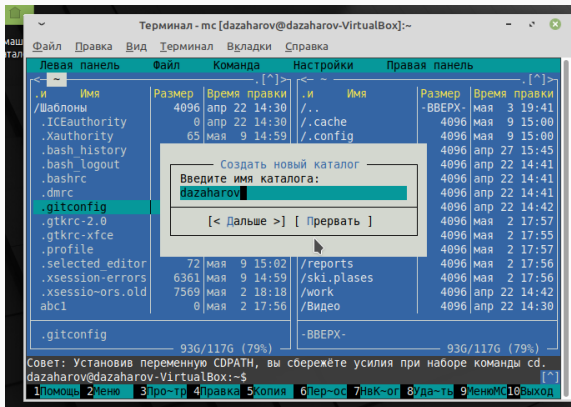


Figure 12: Создание каталога

Работа с Midnight Commander

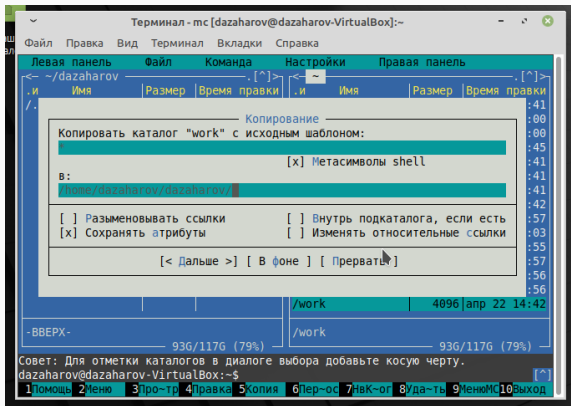


Figure 13: Копирование в файлов в созданный каталог

Работа с Midnight Commander

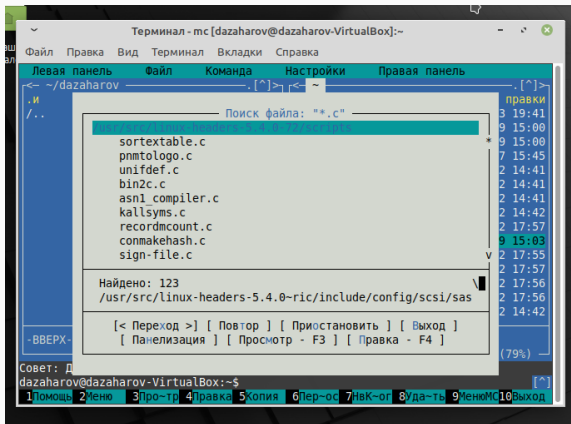


Figure 14: Поиск файлов

Работа с Midnight Commander

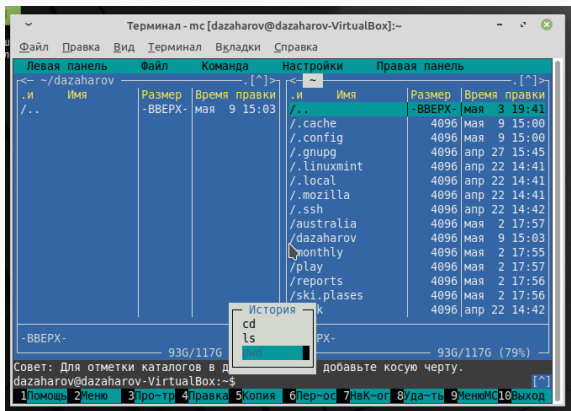


Figure 15: История команд

Работа с Midnight Commander

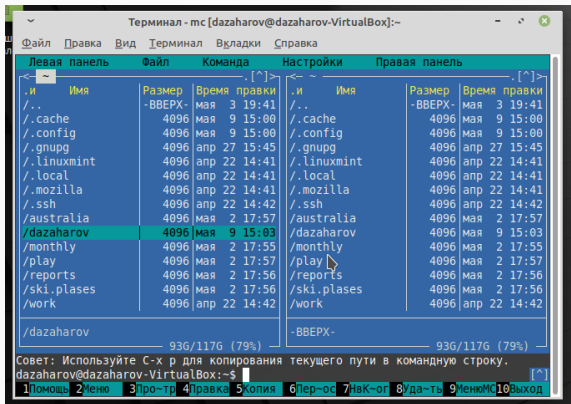
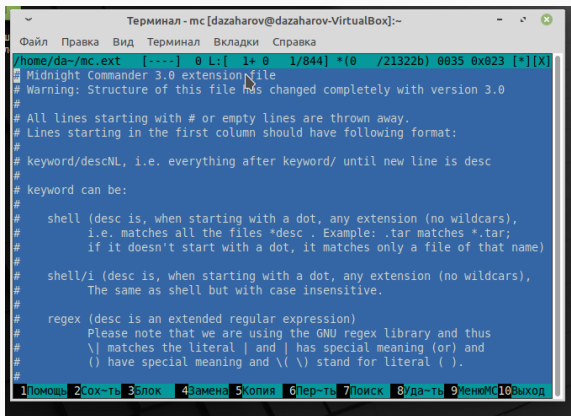


Figure 16: Переход в домашний каталог

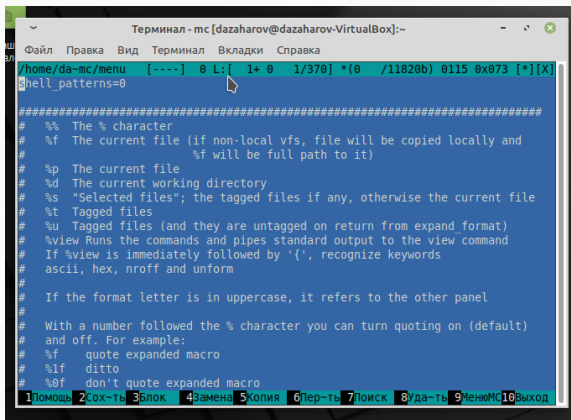
Работа с Midnight Commander



```
Терминал - mc [dazaharov@dazaharov-VirtualBox]:~
Файл  Правка  Вид  Терминал  Вкладки  Справка
/home/da-/mc.ext  [----]  0 L:[ 1+ 0 1/844] *(0 /21322b) 0035 0x023 [*][X]
# Midnight Commander 3.0 extension file
# Warning: Structure of this file has changed completely with version 3.0
#
# All lines starting with # or empty lines are thrown away.
# Lines starting in the first column should have following format:
#
# keyword/descNL, i.e. everything after keyword/ until new line is desc
#
# keyword can be:
#
#   shell (desc is, when starting with a dot, any extension (no wildcars),
#         i.e. matches all the files *desc . Example: .tar matches *.tar;
#         if it doesn't start with a dot, it matches only a file of that name)
#
#   shell/i (desc is, when starting with a dot, any extension (no wildcars),
#           The same as shell but with case insensitive.
#
#   regex (desc is an extended regular expression)
#   Please note that we are using the GNU regex library and thus
#   \ | matches the literal | and | has special meaning (or) and
#   ( ) have special meaning and \( \) stand for literal ( ).
#
1Помощь 2Сох-ть 3Блок 4Замена 5Копия 6Пер-ть 7Поиск 8Уда-ть 9Меню 10Выход
```

Figure 17: Просмотр файла расширений

Работа с Midnight Commander



The screenshot shows a terminal window titled "Терминал - mc [dazaharov@dazaharov-VirtualBox]:". The window has a menu bar with "Файл", "Правка", "Вид", "Терминал", "Вкладки", and "Справка". The main area displays the file menu, which lists various options and their descriptions. The menu is as follows:

```
/home/da-mc/menu [----] 0 L: [ 1+ 0 1/370] *(0 /11820b) 0115 0x073 [*][X]
hell_patterns=0

#####
# %% The % character
# %f The current file (if non-local vfs, file will be copied locally and
# %f will be full path to it)
# %p The current file
# %d The current working directory
# %s "Selected files"; the tagged files if any, otherwise the current file
# %t Tagged files
# %u Tagged files (and they are untagged on return from expand_format)
# %view Runs the commands and pipes standard output to the view_command
# If %view is immediately followed by '(', recognize keywords
# ascii, hex, nroff and uniform
#
# If the format letter is in uppercase, it refers to the other panel
#
# With a number followed the % character you can turn quoting on (default)
# and off. For example:
# %f quote expanded macro
# %lf ditto
# %0f don't quote expanded macro
1Помощь 2Сох-ть 3Блок 4Замена 5Копия 6Пер-ть 7Поиск 8Уда-ть 9Меню 10Выход
```

Figure 18: Просмотр файла меню

Работа с Midnight Commander

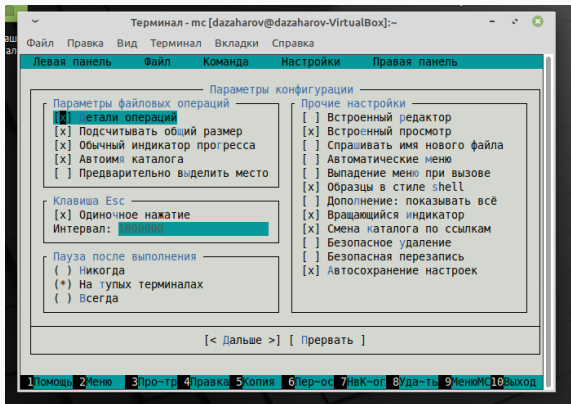


Figure 19: Конфигурация

Работа с Midnight Commander

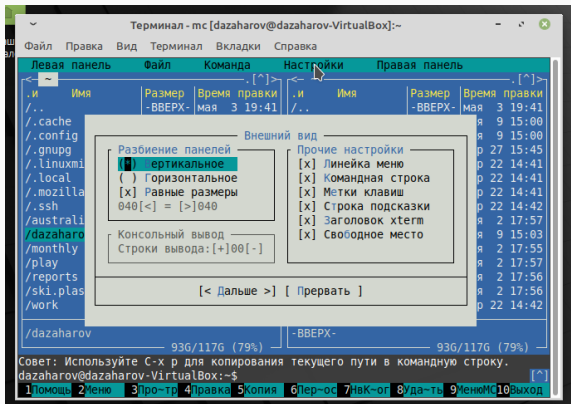


Figure 20: Внешний вид

Работа с Midnight Commander

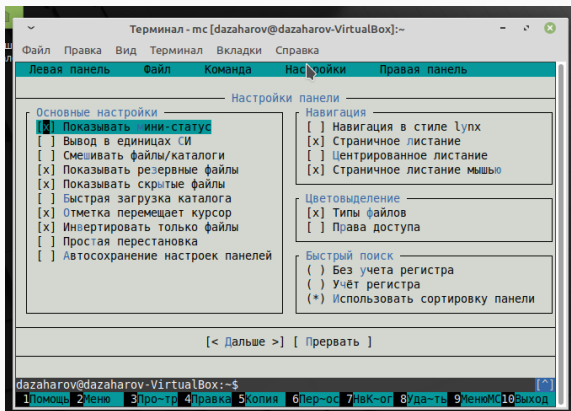


Figure 21: Настройки панелей

Работа с Midnight Commander

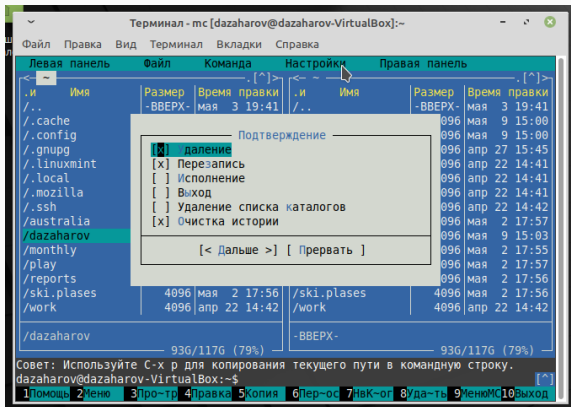


Figure 22: Подтверждение

Работа с Midnight Commander

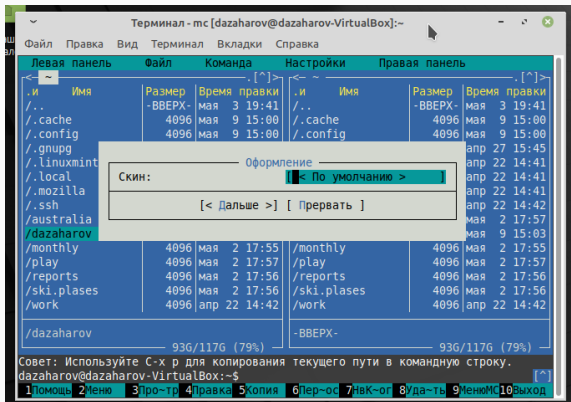


Figure 23: Оформление

Работа с Midnight Commander

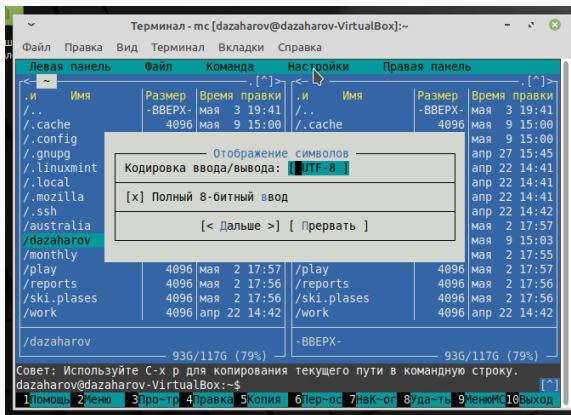


Figure 24: Кодировка символов

Работа с Midnight Commander

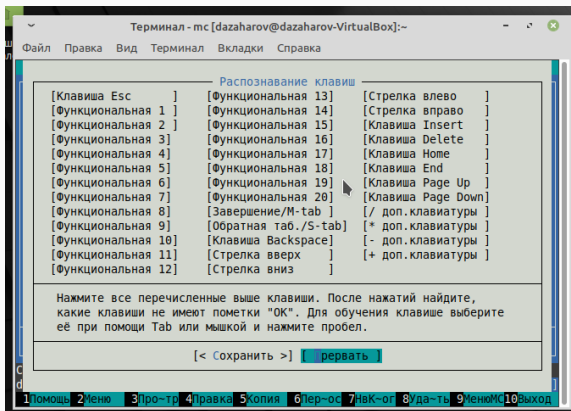
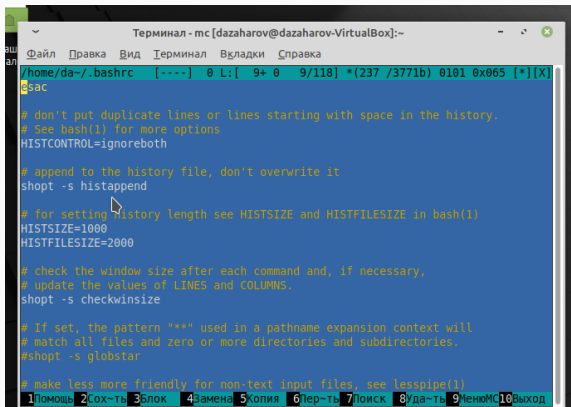


Figure 25: Распознавание клавиш

Работа с редактором Midnight Commander



The screenshot shows a terminal window titled "Терминал - mc [dazaharov@dazaharov-VirtualBox]:~". The window displays the contents of the `/home/da-/.bashrc` file. The text is as follows:

```
/home/da-/.bashrc [----] 0 L: [ 9+ 0 9/118] *(237 /3771b) 0101 0x065 [*][X]
# don't put duplicate lines or lines starting with space in the history.
# See bash(1) for more options
HISTCONTROL=ignoreboth

# append to the history file, don't overwrite it
shopt -s histappend

# for setting history length see HISTSIZE and HISTFILESIZE in bash(1)
HISTSIZE=1000
HISTFILESIZE=2000

# check the window size after each command and, if necessary,
# update the values of LINES and COLUMNS.
shopt -s checkwinsize

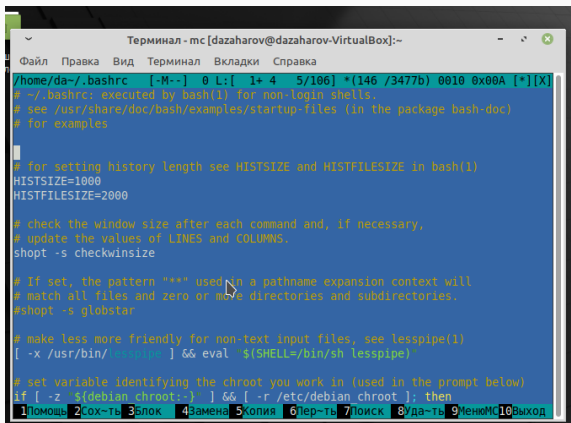
# If set, the pattern "*" used in a pathname expansion context will
# match all files and zero or more directories and subdirectories.
#shopt -s globstar

# make less more friendly for non-text input files, see lesspipe(1)
```

At the bottom of the window, there is a status bar with the following text: "1Помощь 2Сох-ть 3Блок 4Замена 5Копия 6Пер-ть 7Поиск 8Уда-ть 9МенюMC 10Выход".

Figure 26: Файл с текстом

Работа с редактором Midnight Commander



The image shows a terminal window titled "Терминал - mc [dazaharov@dazaharov-VirtualBox]:~". The window has a menu bar with "Файл", "Правка", "Вид", "Терминал", "Вкладки", and "Справка". The main area displays the contents of the `/home/da~/.bashrc` file. The text is as follows:

```
/home/da~/.bashrc  [-M--]  0 L: [ 1+ 4 5/106] *(146 /3477b) 0010 0x00A [*][X]
# ~/.bashrc: executed by bash(1) for non-login shells.
# see /usr/share/doc/bash/examples/startup-files (in the package bash-doc)
# for examples

# for setting history length see HISTSIZE and HISTFILESIZE in bash(1)
HISTSIZE=1000
HISTFILESIZE=2000

# check the window size after each command and, if necessary,
# update the values of LINES and COLUMNS.
shopt -s checkwinsize

# If set, the pattern "*" used in a pathname expansion context will
# match all files and zero or more directories and subdirectories.
#shopt -s globstar

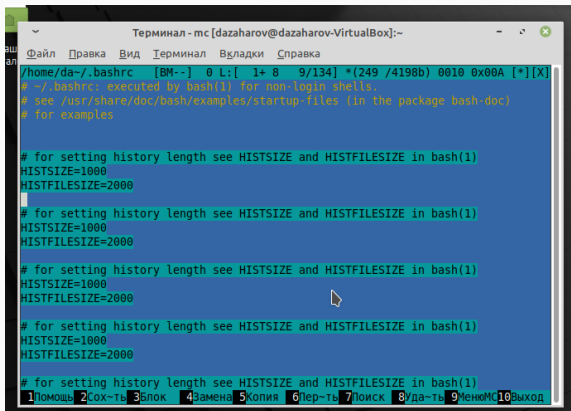
# make less more friendly for non-text input files, see lesspipe(1)
[ -x /usr/bin/lesspipe ] && eval "$(SHELL=/bin/sh lesspipe)"

# set variable identifying the chroot you work in (used in the prompt below)
if [ -z "${debian_chroot:-}" ] && [ -r /etc/debian_chroot ]; then
```

At the bottom of the terminal, a status bar shows navigation shortcuts: 1Помощь, 2Сох-ть, 3Блок, 4Замена, 5Копия, 6Пер-ть, 7Поиск, 8Уда-ть, 9Меню, 10Выход.

Figure 27: Файл с текстом

Работа с редактором Midnight Commander



```
Терминал - mc [dazaharov@dazaharov-VirtualBox]:~
Файл  Правка  Вид  Терминал  Вкладки  Справка
/home/da-/.bashrc  [BM--]  0 L:[ 1+ 8 9/134] *(249 /4198b) 0010 0x00A [*][X]
# ~/.bashrc: executed by bash(1) for non-login shells.
# see /usr/share/doc/bash/examples/startup-files (in the package bash-doc)
# for examples

# for setting history length see HISTSIZE and HISTFILESIZE in bash(1)
HISTSIZE=1000
HISTFILESIZE=2000

# for setting history length see HISTSIZE and HISTFILESIZE in bash(1)
HISTSIZE=1000
HISTFILESIZE=2000

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HISTSIZE=1000
HISTFILESIZE=2000

# for setting history length see HISTSIZE and HISTFILESIZE in bash(1)
HISTSIZE=1000
HISTFILESIZE=2000

# for setting history length see HISTSIZE and HISTFILESIZE in bash(1)
HISTSIZE=1000
HISTFILESIZE=2000

1Помощь 2Сох-ть 3Блок 4Замена 5Копия 6Пер-ть 7Поиск 8Уда-ть 9Меню 10Выход
```

Figure 28: Копирование фрагмента

Работа с редактором Midnight Commander

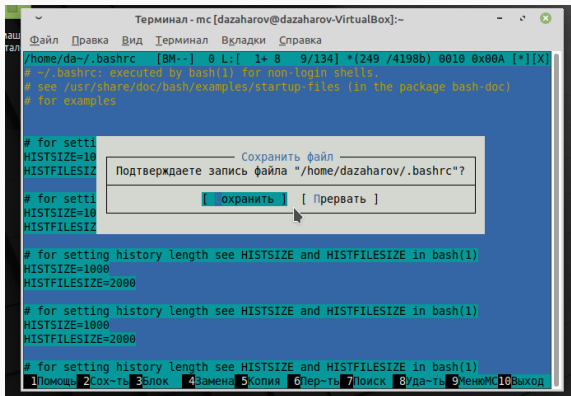
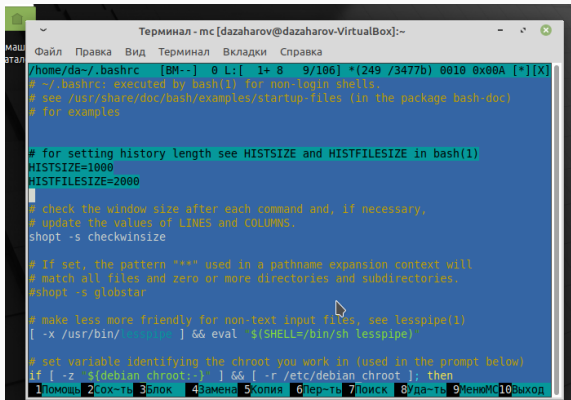


Figure 29: Сохранение

Работа с редактором Midnight Commander



```
Терминал - mc [dazaharov@dazaharov-VirtualBox]:~
Файл  Правка  Вид  Терминал  Вкладки  Справка
/home/da~/.bashrc [BM--] 0 L: [ 1+ 8 9/106] *(249 /3477b) 0010 0x00A [*][X]
# ~/.bashrc: executed by bash(1) for non-login shells.
# see /usr/share/doc/bash/examples/startup-files (in the package bash-doc)
# for examples

# for setting history length see HISTSIZE and HISTFILESIZE in bash(1)
HISTSIZE=1000
HISTFILESIZE=2000

# check the window size after each command and, if necessary,
# update the values of LINES and COLUMNS.
shopt -s checkwinsize

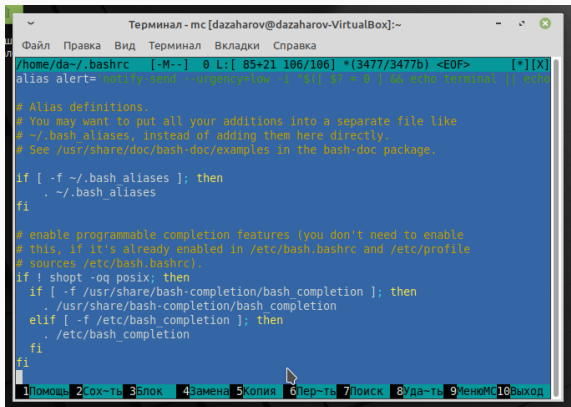
# If set, the pattern "*" used in a pathname expansion context will
# match all files and zero or more directories and subdirectories.
#shopt -s globstar

# make less more friendly for non-text input files, see lesspipe(1)
[ -x /usr/bin/lesspipe ] && eval "$(SHELL=/bin/sh lesspipe)"

# set variable identifying the chroot you work in (used in the prompt below)
if [ -z "${debian_chroot:-}" ] && [ -r /etc/debian_chroot ]; then
1Помощь 2Сох-ть 3Блок 4Замена 5Копия 6Пер-ть 7Поиск 8Уда-ть 9Меню 10Выход
```

Figure 30: Отмена

Работа с редактором Midnight Commander



```
Терминал - mc [dazaharov@dazaharov-VirtualBox]:~
Файл  Правка  Вид  Терминал  Вкладки  Справка
/home/dazaharov/.bashrc  [-M--]  0 L:[ 85+21 106/106] *(3477/3477b) <EOF>  [*][X]
alias alert=notify-send --urgency=low -i "${FILE}" && echo terminal || echo
# Alias definitions.
# You may want to put all your additions into a separate file like
# ~/.bash_aliases, instead of adding them here directly.
# See /usr/share/doc/bash-doc/examples in the bash-doc package.

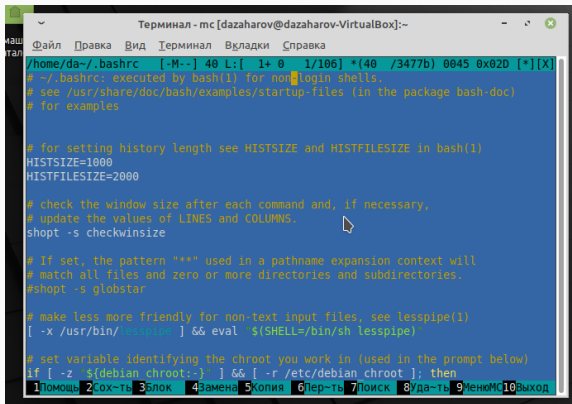
if [ -f ~/.bash_aliases ]; then
    . ~/.bash_aliases
fi

# enable programmable completion features (you don't need to enable
# this, if it's already enabled in /etc/bash.bashrc and /etc/profile
# sources /etc/bash.bashrc).
if ! shopt -oq posix; then
    if [ -f /usr/share/bash-completion/bash_completion ]; then
        . /usr/share/bash-completion/bash_completion
    elif [ -f /etc/bash_completion ]; then
        . /etc/bash_completion
    fi
fi
```

1Помощь 2Сох-ть 3Блок 4Замена 5Копия 6Пер-ть 7Поиск 8Уда-ть 9Меню 10Выход

Figure 31: Переход в конец файла

Работа с редактором Midnight Commander



The image shows a terminal window titled "Терминал - mc [dazaharov@dazaharov-VirtualBox]:~". The window has a menu bar with "Файл", "Правка", "Вид", "Терминал", "Вкладки", and "Справка". The main area displays the content of the `~/.bashrc` file. The text is as follows:

```
/home/da~/.bashrc  [-M--] 40 L:[ 1+ 0 1/106] *(40 /3477b) 0045 0x02D [*](X)
# ~/.bashrc: executed by bash(1) for non-login shells.
# see /usr/share/doc/bash/examples/startup-files (in the package bash-doc)
# for examples

# for setting history length see HISTSIZE and HISTFILESIZE in bash(1)
HISTSIZE=1000
HISTFILESIZE=2000

# check the window size after each command and, if necessary,
# update the values of LINES and COLUMNS.
shopt -s checkwinsize

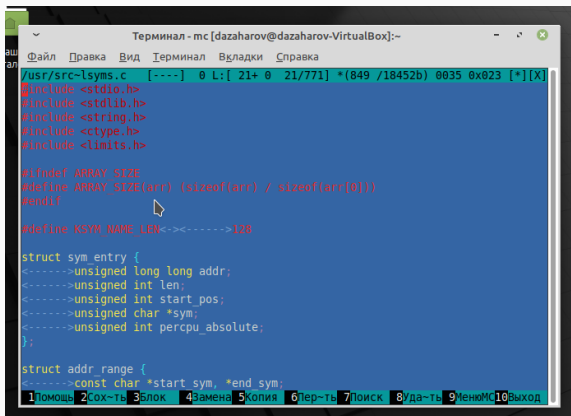
# If set, the pattern "*" used in a pathname expansion context will
# match all files and zero or more directories and subdirectories.
#shopt -s globstar

# make less more friendly for non-text input files, see lesspipe(1)
[ -x /usr/bin/lesspipe ] && eval "$(SHELL=/bin/sh lesspipe)"

# set variable identifying the chroot you work in (used in the prompt below)
if [ -z "${debian_chroot:-}" ] && [ -r /etc/debian_chroot ]; then
1Помощь 2Сох-ть 3Блок 4Замена 5Копия 6Пер-ть 7Поиск 8/да-ть 9МенюMC10Выход
```

Figure 32: Переход в начало файла

Работа с редактором Midnight Commander



```
Терминал - mc [dazaharov@dazaharov-VirtualBox]:~  
Файл  Правка  Вид  Терминал  Вкладки  Справка  
/usr/src-lsyms.c  [----]  0 L: [ 21+ 0  21/771] *(849 /18452b) 0035 0x023 [*][X]  
#include <stdio.h>  
#include <stdlib.h>  
#include <string.h>  
#include <ctype.h>  
#include <limits.h>  
  
#ifndef ARRAY_SIZE  
#define ARRAY_SIZE(arr) (sizeof(arr) / sizeof(arr[0]))  
#endif  
  
#define KSYM_NAME_LEN<----->128  
  
struct sym_entry {  
    <----->unsigned long long addr;  
    <----->unsigned int len;  
    <----->unsigned int start_pos;  
    <----->unsigned char *sym;  
    <----->unsigned int percpu_absolute;  
};  
  
struct addr_range {  
    <----->const char *start_sym, *end_sym;  
};
```

1Помощь 2Сох-ть 3Блок 4Замена 5Копия 6Пер-ть 7Поиск 8Уда-ть 9МенюMC10Выход

Figure 33: Файл с программой

Работа с редактором Midnight Commander

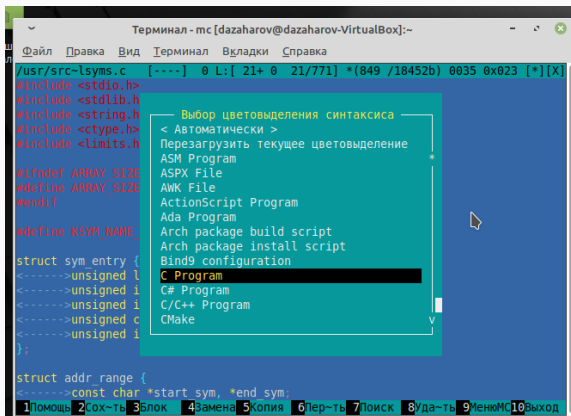


Figure 34: Цветовыделение синтаксиса

Выводы по проделанной работе

В данной работе мы ознакомились с инструментами поиска файлов и фильтрации текстовых данных. А также приобрели практические навыки по управлению процессами.