

# Командная оболочка Midnight Commander

---

Баранова Анна<sup>1</sup>

23 марта, 2024, Москва, Россия

<sup>1</sup>Российский Университет Дружбы Народов

# 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

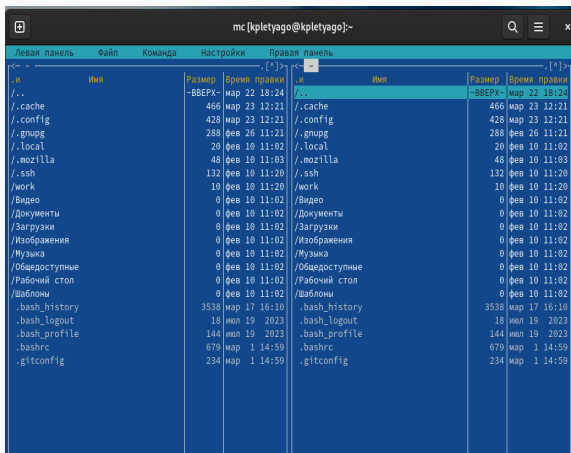


Рис. 1: Запуск mc

# Работа с Midnight Commander

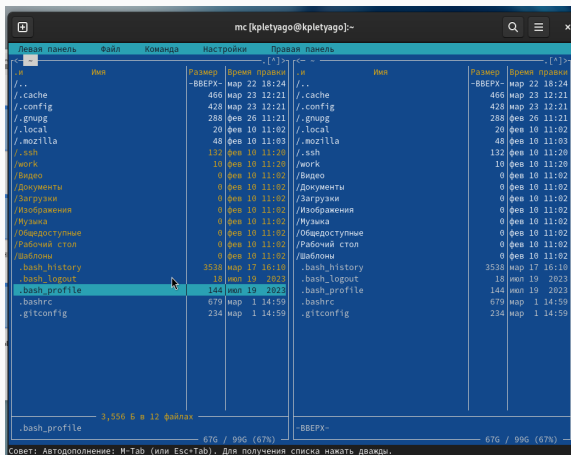


Рис. 2: Выделение

# Работа с Midnight Commander

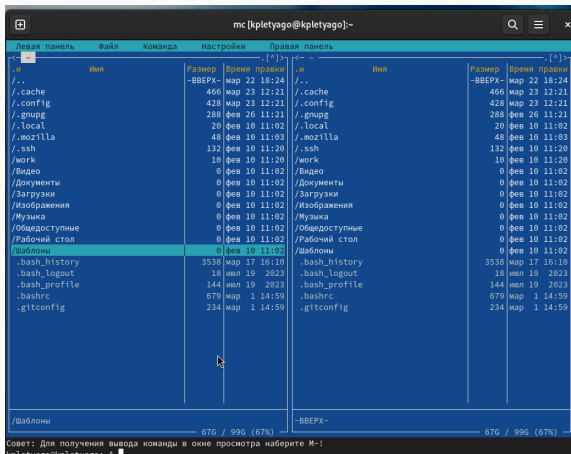


Рис. 3: Отмена



# Работа с Midnight Commander

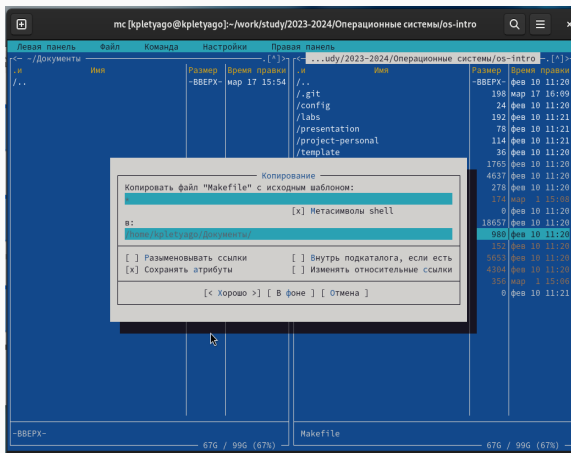


Рис. 4: Копирование

# Работа с Midnight Commander

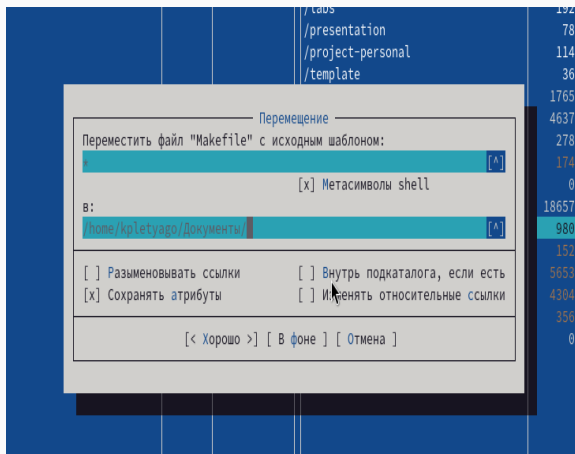


Рис. 5: Перемещение

# Работа с Midnight Commander

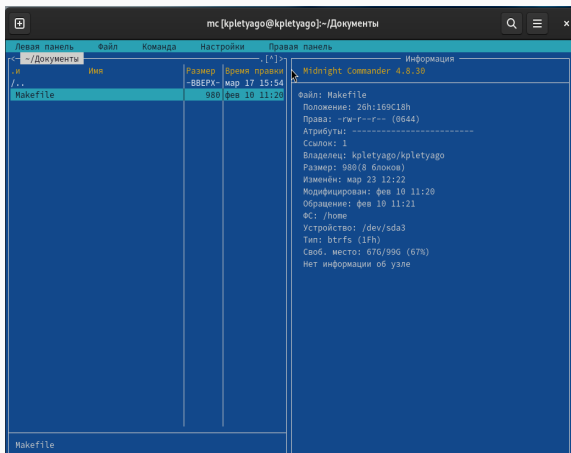


Рис. 6: Информация

# Работа с Midnight Commander

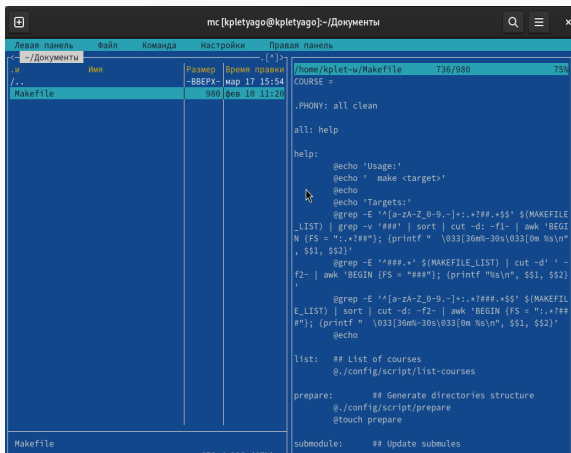


Рис. 7: Быстрый просмотр

# Работа с Midnight Commander

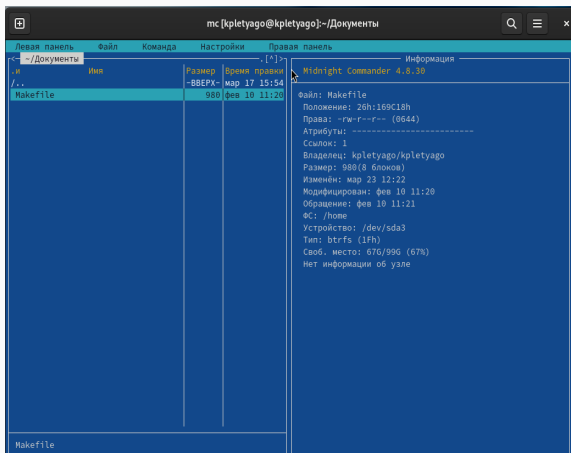


Рис. 8: Информация

# Работа с Midnight Commander

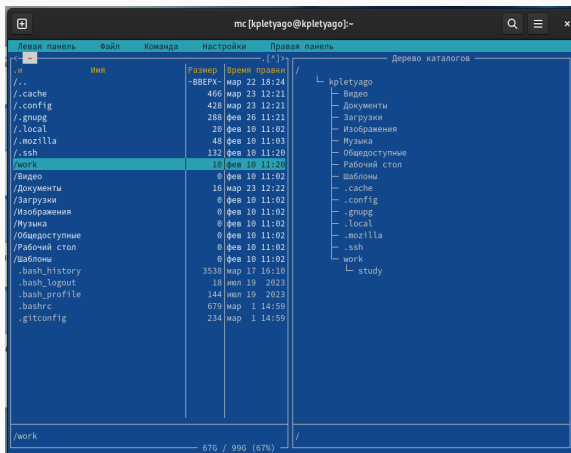
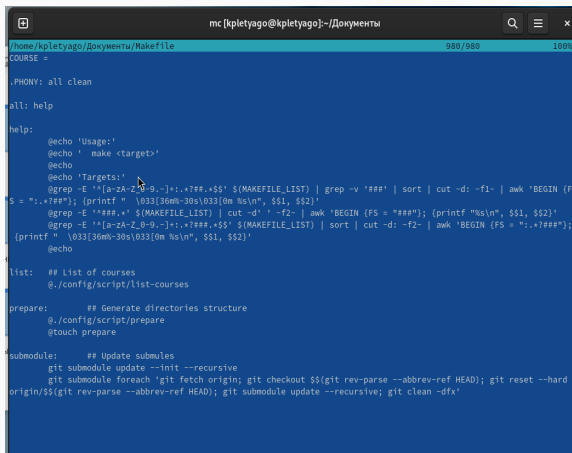


Рис. 9: Дерево каталогов

# Работа с Midnight Commander



The screenshot shows a terminal window with the title bar "mc [kpletzyago@kpletzyago]:~/Документы". The terminal displays the contents of a file named "Makefile" located at "/home/kpletzyago/Документы/Makefile". The file content includes a "COURSE =" line, a ".PHONY: all clean" declaration, an "all: help" target, a "help:" target with echo and grep commands, a "list:" target with a comment and a script path, a "prepare:" target with a comment and a script path, and a "submodule:" target with a comment and a series of git commands.

```
mc [kpletzyago@kpletzyago]:~/Документы
/home/kpletzyago/Документы/Makefile 980/980 100%
COURSE =

.PHONY: all clean

all: help

help:
    @echo 'Usage:'
    @echo ' make <target>'
    @echo
    @echo 'Targets:'
    @grep -E '[a-zA-Z0-9-]+\.[789].*$$' $(MAKEFILE_LIST) | grep -v '##' | sort | cut -d: -f1- | awk 'BEGIN {FS = "\.[789]";} {printf " \033[36m%-30s\033[0m %s\n", $$1, $$2}'
    @grep -E '###.*' $(MAKEFILE_LIST) | cut -d' ' -f2- | awk 'BEGIN {FS = "###";} {printf "%s\n", $$1, $$2}'
    @grep -E '[a-zA-Z0-9-]+\.[789].*$$' $(MAKEFILE_LIST) | sort | cut -d: -f2- | awk 'BEGIN {FS = "\.[789]";} {printf " \033[36m%-30s\033[0m %s\n", $$1, $$2}'
    @echo

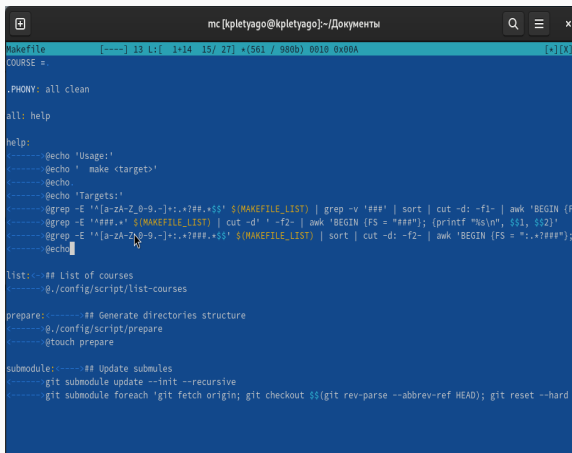
list:    ## List of courses
    @./config/script/list-courses

prepare:    ## Generate directories structure
    @./config/script/prepare
    @touch prepare

submodule:    ## Update submodules
    git submodule update --init --recursive
    git submodule foreach 'git fetch origin; git checkout $(git rev-parse --abbrev-ref HEAD); git reset --hard origin/$(git rev-parse --abbrev-ref HEAD); git submodule update --recursive; git clean -dfx'
```

Рис. 10: Просмотр содержимого текстового файла

# Работа с Midnight Commander



The screenshot shows the Midnight Commander (mc) interface. The title bar indicates the user is 'kpetyago@kpetyago' in the directory '~/Документы'. The main window displays the content of a file named 'Makefile'. The text in the file includes comments and shell commands for a build system, such as 'COURSE =.', '.PHONY: all clean', 'all: help', 'help:', and various 'grep' and 'awk' commands used for processing a list of courses. The interface has a dark background with a light blue selection bar at the top.

```
mc [kpetyago@kpetyago]:~/Документы
Makefile [-----] 13 L: [ 1+14 15/ 27] *(561 / 980b) 0010 0x00A [*][X]
COURSE =.

.PHONY: all clean

all: help

help:
(-----)@echo 'Usage:'
(-----)@echo ' make <target>'
(-----)@echo.
(-----)@echo 'Targets:'
(-----)@grep -E '^[a-zA-Z_0-9-]+.*?##.*$$' $(MAKEFILE_LIST) | grep -v '###' | sort | cut -d: -f1- | awk 'BEGIN {F
(-----)@grep -E '###.*' $(MAKEFILE_LIST) | cut -d' ' -f2- | awk 'BEGIN {FS = "###"; {printf "%s\n", $1, $2}'
(-----)@grep -E '^[a-zA-Z_0-9-]+.*?##.*$$' $(MAKEFILE_LIST) | sort | cut -d: -f2- | awk 'BEGIN {FS = ".*?##"}';
(-----)@echo

list:<->## List of courses
(-----)@./config/script/list-courses

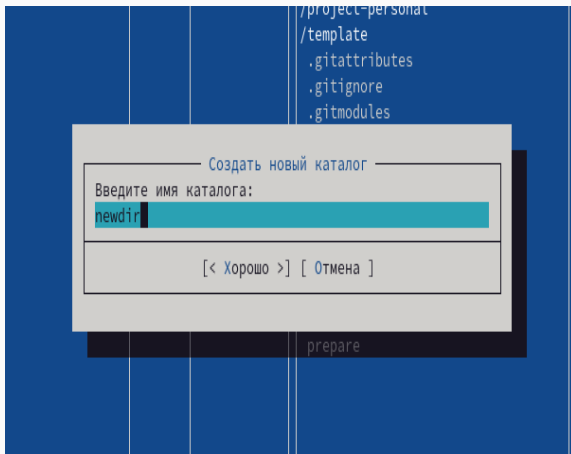
prepare:<----->## Generate directories structure
(-----)@./config/script/prepare
(-----)@touch prepare

submodule:<----->## Update submodules
(-----)git submodule update --init --recursive
(-----)git submodule foreach 'git fetch origin; git checkout $(git rev-parse --abbrev-ref HEAD); git reset --hard
```

**Рис. 11:** Отредактируем содержимое текстового файла без сохранения результатов



# Работа с Midnight Commander



**Рис. 12:** Создание каталога

# Работа с Midnight Commander

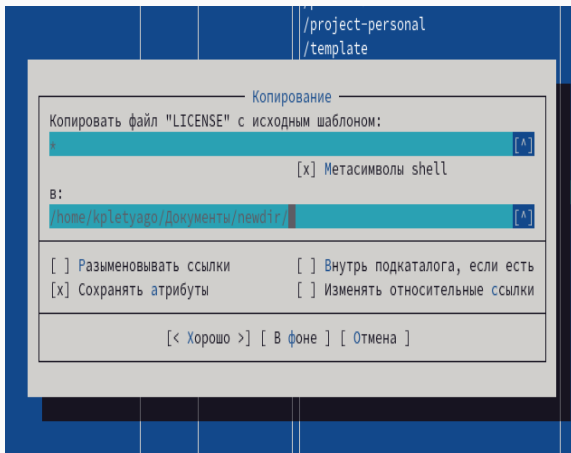
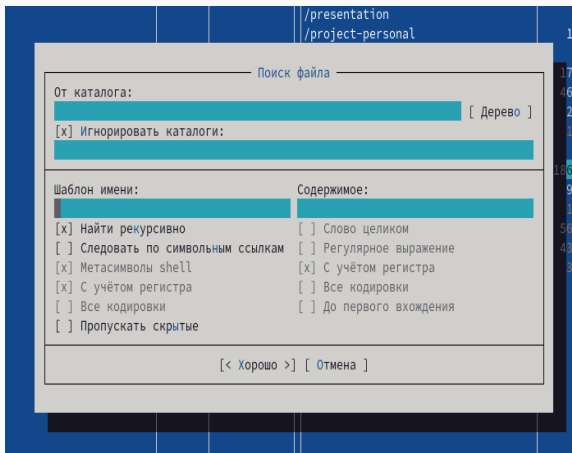


Рис. 13: Копирование в файлов в созданный каталог

# Работа с Midnight Commander



**Рис. 14:** Поиск файлов

# Работа с Midnight Commander

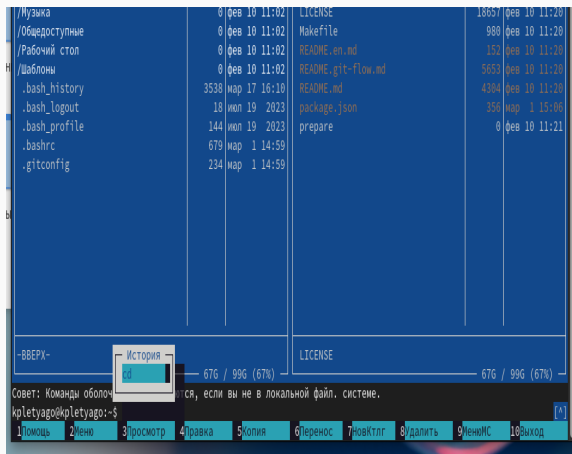


Рис. 15: История команд

# Работа с Midnight Commander

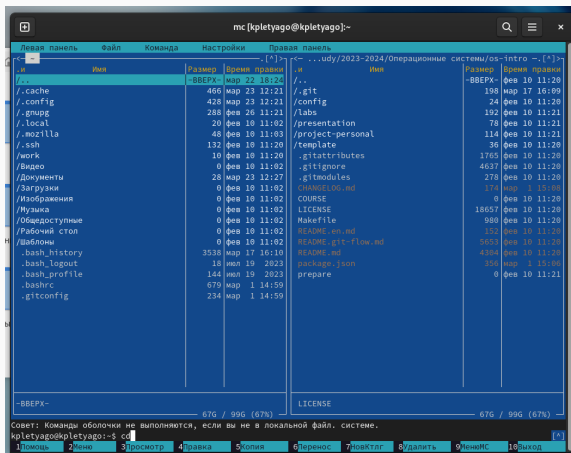
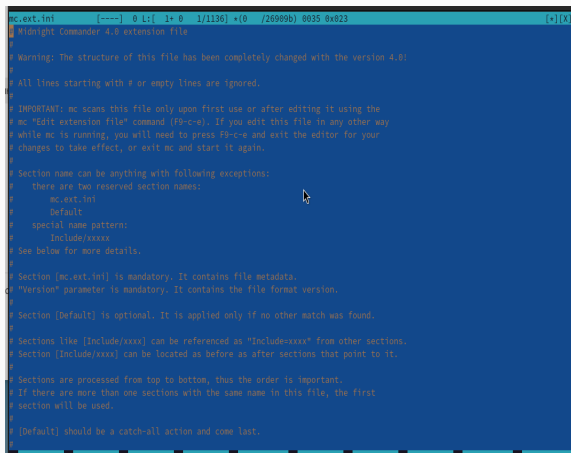


Рис. 16: Переход в домашний каталог

# Работа с Midnight Commander



```
mc.ext.ini  [-----] 0 L: 1+ 0 1/1136 +0 /26909b 0035 0x023 [X]
Midnight Commander 4.0 extension file
#
# Warning: The structure of this file has been completely changed with the version 4.0!
#
# All lines starting with # or empty lines are ignored.
#
# IMPORTANT: mc scans this file only upon first use or after editing it using the
# mc "Edit extension file" command (F9-c-e). If you edit this file in any other way
# while mc is running, you will need to press F9-c-e and exit the editor for your
# changes to take effect, or exit mc and start it again.
#
# Section name can be anything with following exceptions:
#   there are two reserved section names:
#       mc.ext.ini
#       Default
#   special name pattern:
#       Include/xxxx
# See below for more details.
#
# Section [mc.ext.ini] is mandatory. It contains file metadata.
# "Version" parameter is mandatory. It contains the file format version.
#
# Section [Default] is optional. It is applied only if no other match was found.
#
# Sections like [Include/xxxx] can be referenced as "Include=xxxx" from other sections.
# Section [Include/xxxx] can be located as before as after sections that point to it.
#
# Sections are processed from top to bottom, thus the order is important.
# If there are more than one sections with the same name in this file, the first
# section will be used.
#
# [Default] should be a catch-all action and come last.
#
```

Рис. 17: Просмотр файла расширений



# Работа с Midnight Commander

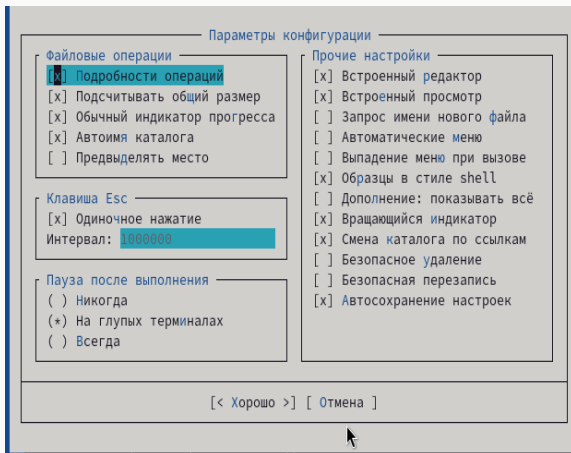
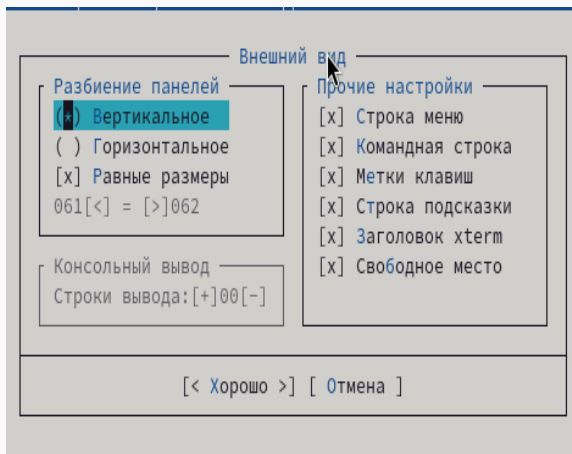


Рис. 19: Конфигурация





**Рис. 20:** Внешний вид

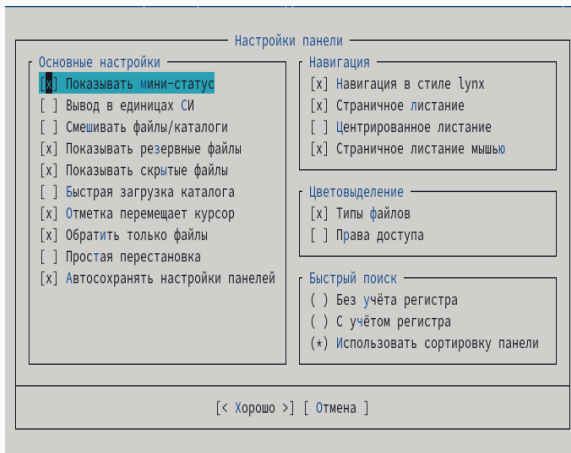


Рис. 21: Настройки панелей

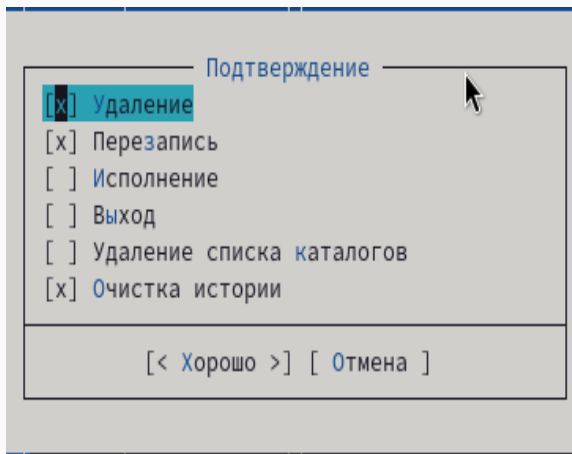
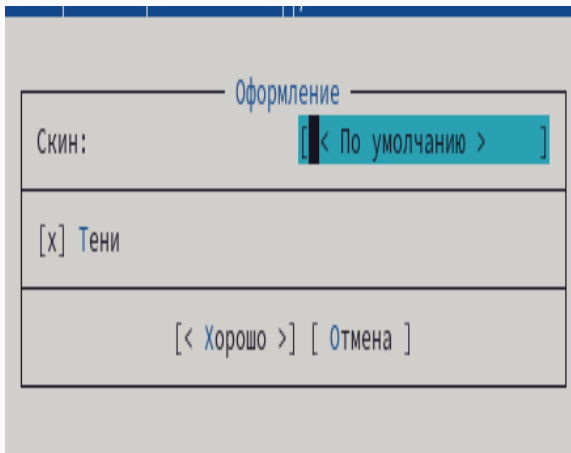
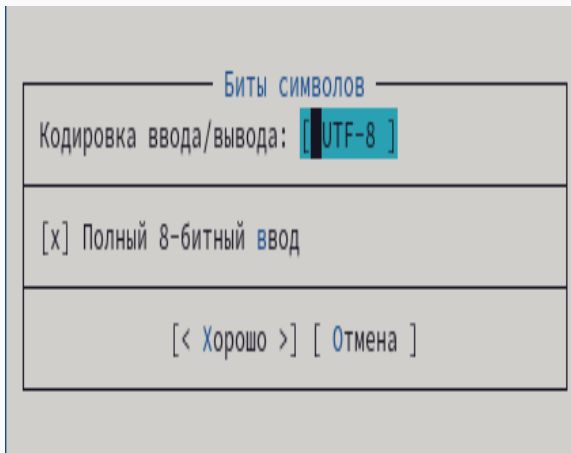


Рис. 22: Подтверждение



**Рис. 23:** Оформление



**Рис. 24:** Кодировка символов

# Работа с Midnight Commander

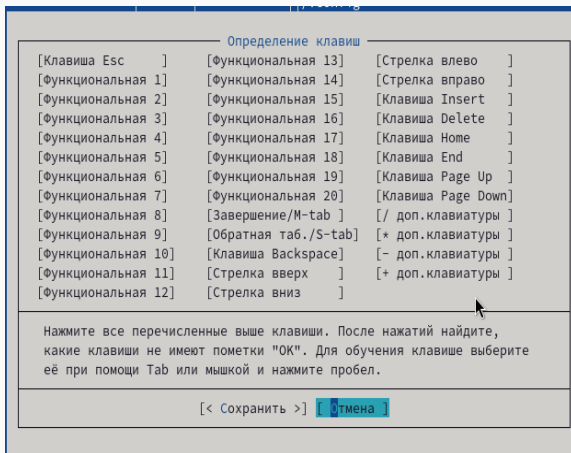


Рис. 25: Распознавание клавиш

# Работа с редактором Midnight Commander

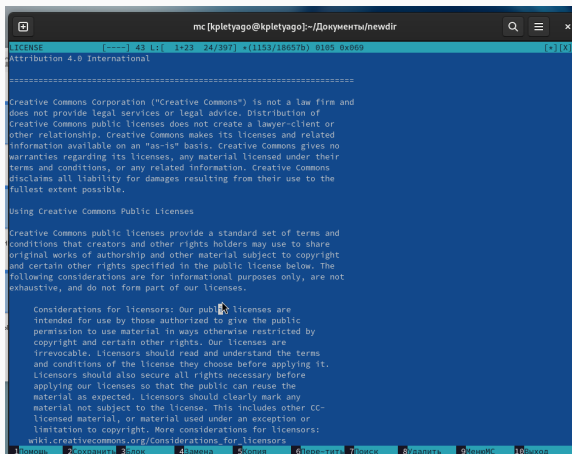
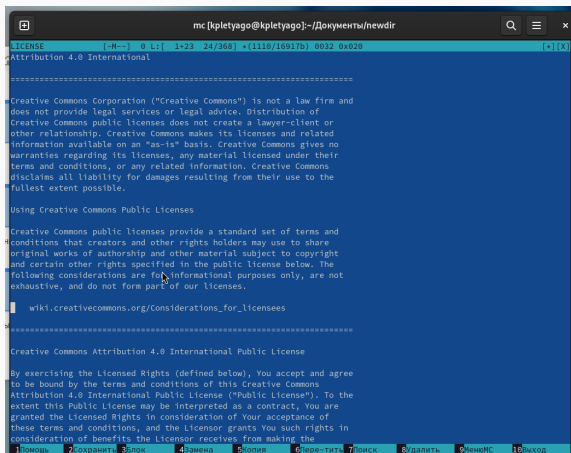


Рис. 26: Файл с текстом

# Работа с редактором Midnight Commander



The screenshot shows the Midnight Commander (mc) file editor interface. The title bar indicates the user is 'kpletiyago@kpletiyago' and the current directory is '~/Документы/newdir'. The editor displays the text of the Creative Commons Attribution 4.0 International Public License. The text is as follows:

```
LICENSE [-M--] 0 L: 1+23 24/368) +(1110/16917b) 0032 0x020 [*][X]
Attribution 4.0 International

=====

Creative Commons Corporation ("Creative Commons") is not a law firm and
does not provide legal services or legal advice. Distribution of
Creative Commons public licenses does not create a lawyer-client or
other relationship. Creative Commons makes its licenses and related
information available on an "as-is" basis. Creative Commons gives no
warranties regarding its licenses, any material licensed under their
terms and conditions, or any related information. Creative Commons
disclaims all liability for damages resulting from their use to the
fullest extent possible.

Using Creative Commons Public Licenses

Creative Commons public licenses provide a standard set of terms and
conditions that creators and other rights holders may use to share
original works of authorship and other material subject to copyright
and certain other rights specified in the public license below. The
following considerations are for informational purposes only, are not
exhaustive, and do not form part of our licenses.

| wiki.creativecommons.org/Considerations_for_licensees

=====

Creative Commons Attribution 4.0 International Public License

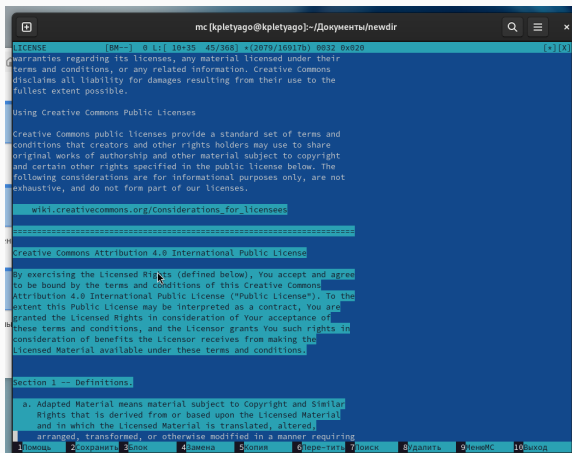
By exercising the Licensed Rights (defined below), You accept and agree
to be bound by the terms and conditions of this Creative Commons
Attribution 4.0 International Public License ("Public License"). To the
extent this Public License may be interpreted as a contract, You are
granted the Licensed Rights in consideration of Your acceptance of
these terms and conditions, and the Licensor grants You such rights in
consideration of benefits the Licensor receives from making the
```

At the bottom of the window, there is a toolbar with icons for various file operations: 1. Поиск (Search), 2. Сохранить (Save), 3. Слов (Words), 4. Заменить (Replace), 5. Ссылка (Link), 6. Переименовать (Rename), 7. Переместить (Move), 8. Удалить (Delete), 9. Переименовать (Rename), 10. Выход (Exit).

Рис. 27: Файл с текстом



# Работа с редактором Midnight Commander



```
mc [kpetyago@kpetyago] ~/Документы/newdir
LICENSE [BM--] 0 L: [10+35 45/368] +(2079/16917b) 0032 0x020 [*) [X]
warranties regarding its licenses, any material licensed under their
terms and conditions, or any related information. Creative Commons
disclaims all liability for damages resulting from their use to the
fullest extent possible.

Using Creative Commons Public Licenses

Creative Commons public licenses provide a standard set of terms and
conditions that creators and other rights holders may use to share
original works of authorship and other material subject to copyright
and certain other rights specified in the public license below. The
following considerations are for informational purposes only, are not
exhaustive, and do not form part of our licenses.

wiki.creativecommons.org/Considerations_for_licensees

=====
Creative Commons Attribution 4.0 International Public License

By exercising the Licensed Rights (defined below), You accept and agree
to be bound by the terms and conditions of this Creative Commons
Attribution 4.0 International Public License ("Public License"). To the
extent this Public License may be interpreted as a contract, You are
granted the Licensed Rights in consideration of Your acceptance of
these terms and conditions, and the Licensor grants You such rights in
consideration of benefits the Licensor receives from making the
Licensed Material available under these terms and conditions.

Section 1 -- Definitions.

a. Adapted Material means material subject to Copyright and Similar
Rights that is derived from or based upon the Licensed Material
and in which the Licensed Material is translated, altered,
arranged, transformed, or otherwise modified in a manner requiring
1Помощь 2Сохранить 3Блок 4Вставка 5Копия 6Перетянуть 7Поиск 8Удалить 9Переименовать 10Выход
```

Рис. 28: Копирование фрагмента

# Работа с редактором Midnight Commander

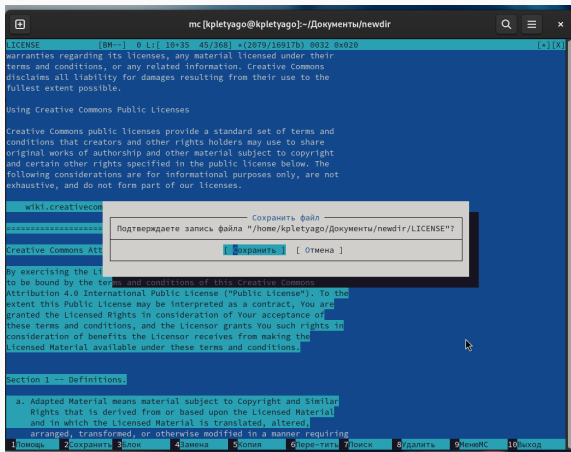
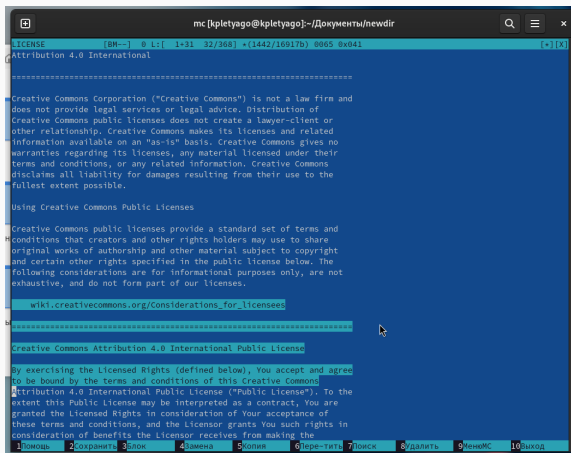


Рис. 29: Сохранение

# Работа с редактором Midnight Commander



The screenshot shows the Midnight Commander (mc) interface. The title bar indicates the current directory is ~/Документы/newdir. The main window displays the text of the Creative Commons Attribution 4.0 International Public License. The text is displayed in a monospaced font on a dark background. The license text includes a disclaimer from Creative Commons Corporation and the full text of the Attribution 4.0 International Public License. At the bottom of the window, there is a status bar with various icons and a row of numbered buttons (1-10) for navigation and editing.

```
mc [kpletiago@kpletiago]: ~/Документы/newdir
LICENSE [BM--] 0 L: 1*31 32/368 * (1442/16917b) 0065 0x041
Attribution 4.0 International
=====
Creative Commons Corporation ("Creative Commons") is not a law firm and
does not provide legal services or legal advice. Distribution of
Creative Commons public licenses does not create a lawyer-client or
other relationship. Creative Commons makes its licenses and related
information available on an "as-is" basis. Creative Commons gives no
warranties regarding its licenses, any material licensed under their
terms and conditions, or any related information. Creative Commons
disclaims all liability for damages resulting from their use to the
fullest extent possible.

Using Creative Commons Public Licenses

Creative Commons public licenses provide a standard set of terms and
conditions that creators and other rights holders may use to share
original works of authorship and other material subject to copyright
and certain other rights specified in the public license below. The
following considerations are for informational purposes only, are not
exhaustive, and do not form part of our licenses.

wiki.creativecommons.org/Considerations_for_licensees

=====
Creative Commons Attribution 4.0 International Public License

By exercising the Licensed Rights (defined below), You accept and agree
to be bound by the terms and conditions of this Creative Commons
Attribution 4.0 International Public License ("Public License"). To the
extent this Public License may be interpreted as a contract, You are
granted the Licensed Rights in consideration of Your acceptance of
these terms and conditions, and the Licensor grants You such rights in
consideration of benefits the Licensor receives from making the
1Помощь 2Сохранить 3Блок 4Замена 5Копия 6Пере-тить 7Помск 8Удалить 9МенюМС 10Выход
```

Рис. 30: Отмена

# Работа с редактором Midnight Commander

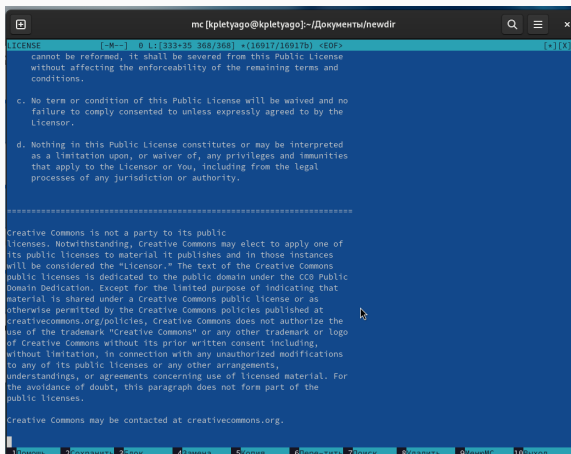


Рис. 31: Переход в конец файла

# Работа с редактором Midnight Commander

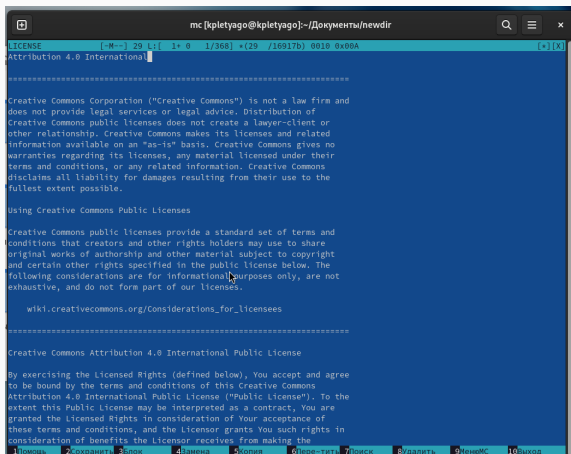
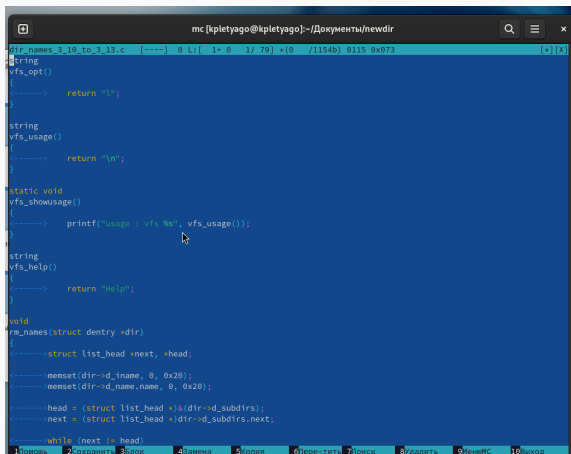


Рис. 32: Переход в начало файла

# Работа с редактором Midnight Commander



```
mc [kpletyago@kpletyago]: ~/Документы/newdir
dir_names_3_10_to_3_13.c  [----]  0 Li:  1+ 0  1/ 79) *(0  /1154b) 0115 0x073  (*) [X]
string
vfs_opt()
{
<-----> return "t";
}

string
vfs_usage()
{
<-----> return "\n";
}

static void
vfs_showusage()
{
<-----> printf("usage : vfs %s", vfs_usage());
}

string
vfs_help()
{
<-----> return "Help";
}

void
rm_names(struct dentry *dir)
{
<-----> struct list_head *next, *head;
<-----> memset(dir->d_name, 0, 0x20);
<-----> memset(dir->d_name.name, 0, 0x20);

<-----> head = (struct list_head *)&(dir->d_subdirs);
<-----> next = (struct list_head *)&dir->d_subdirs.next;

<-----> while (next != head)
```

Рис. 33: Файл с программой

# Работа с редактором Midnight Commander

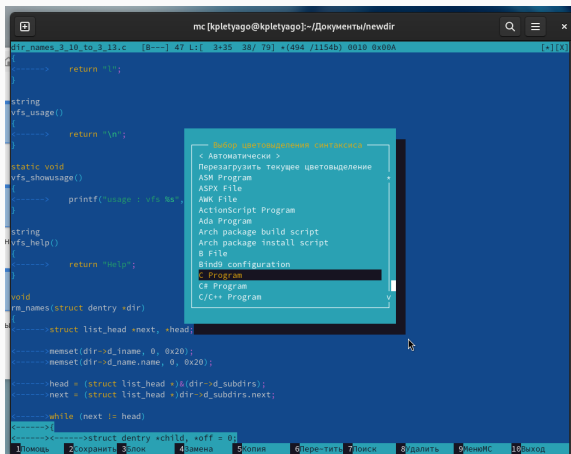


Рис. 34: Цветовыделение синтаксиса

## **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.