

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

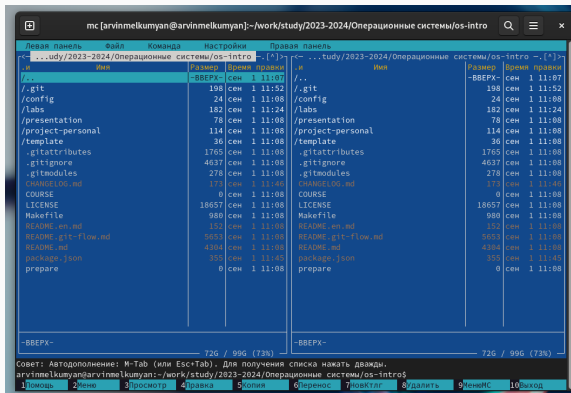


Рис. 1: Запуск mc

Работа с Midnight Commander

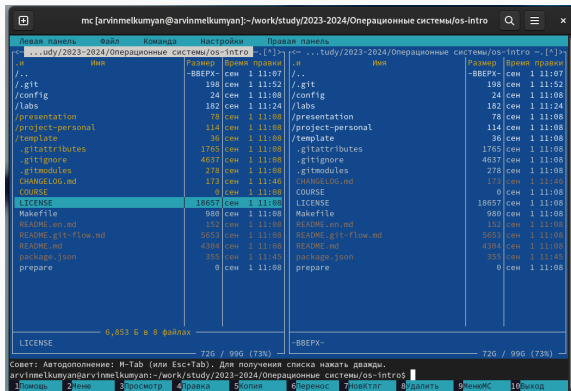


Рис. 2: Выделение

Работа с Midnight Commander

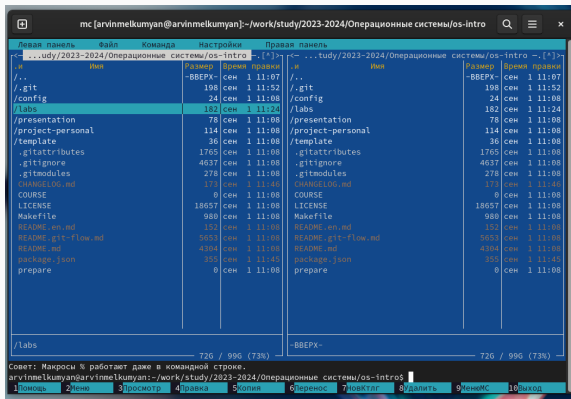


Рис. 3: Отмена

Работа с Midnight Commander

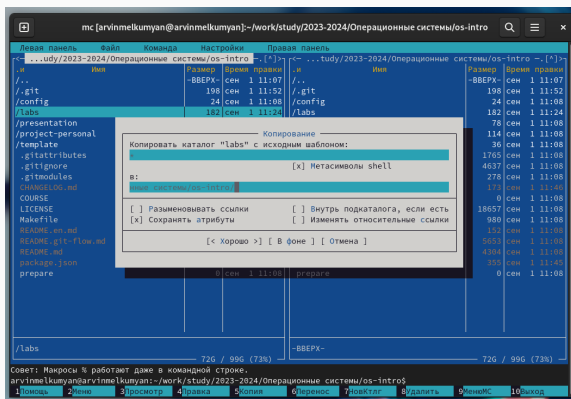


Рис. 4: Копирование

Работа с Midnight Commander

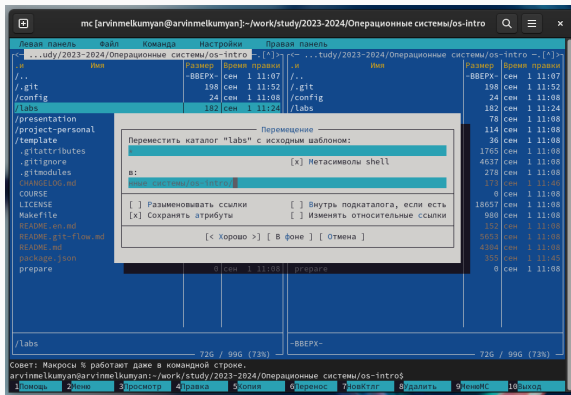


Рис. 5: Перемещение

Работа с Midnight Commander

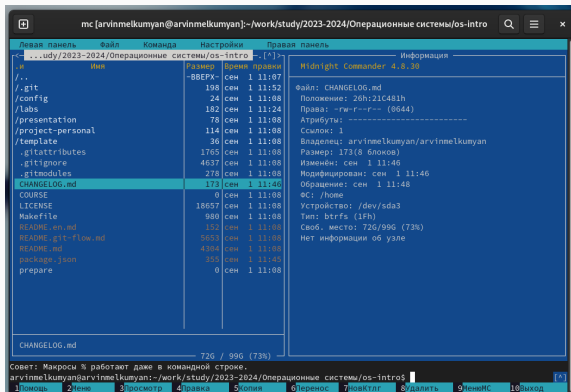


Рис. 6: Информация

Работа с Midnight Commander

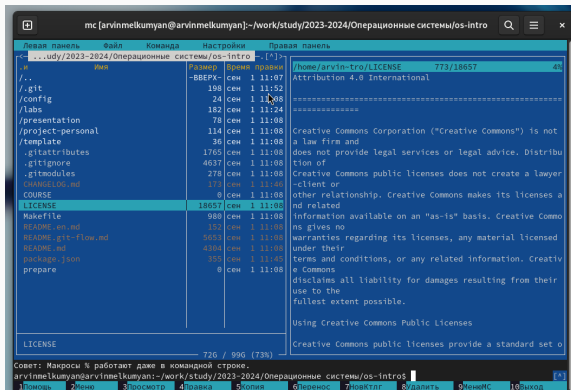


Рис. 7: Быстрый просмотр

Работа с Midnight Commander

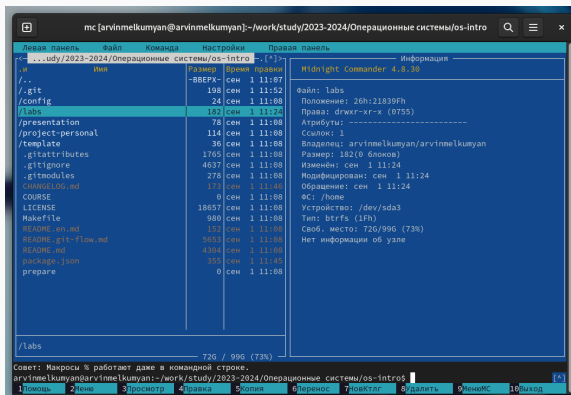


Рис. 8: Информация

Работа с Midnight Commander

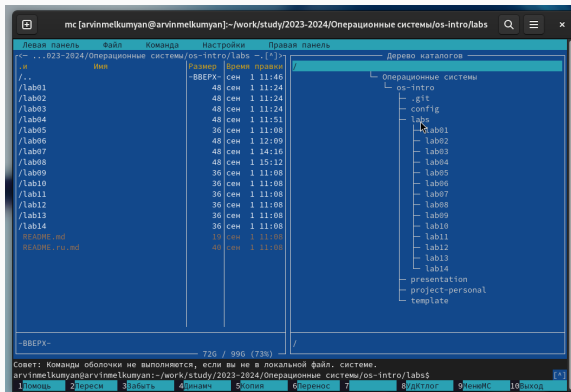
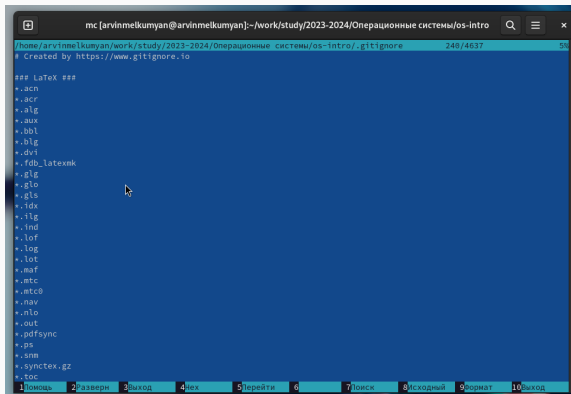


Рис. 9: Дерево каталогов

Работа с Midnight Commander



The screenshot shows the Midnight Commander (MC) interface. The title bar indicates the user is 'mc [arvinmelkumyan@arvinmelkumyan]'. The current directory is '~/work/study/2023-2024/Операционные системы/os-intro'. The file being viewed is '.gitignore', which is 248/4637 bytes in size. The file content is displayed in a blue-themed editor. The file is a standard .gitignore for LaTeX projects, listing various files to be ignored. At the bottom of the window, there is a navigation bar with buttons for navigating between files and directories.

```
mc [arvinmelkumyan@arvinmelkumyan] ~/work/study/2023-2024/Операционные системы/os-intro
/home/arvinmelkumyan/work/study/2023-2024/Операционные системы/os-intro/.gitignore 248/4637 5%
# Created by https://www.gitignore.io

## LaTeX ##
*.acn
*.acr
*.alg
*.aux
*.bbl
*.blg
*.dvi
*.fdb_latexmk
*.glg
*.glo
*.gls
*.idx
*.ilg
*.ind
*.lof
*.log
*.lot
*.maf
*.mtc
*.mtc0
*.nav
*.nlo
*.out
*.pdfsync
*.ps
*.smn
*.synctex.gz
*.toc

1.Помощь 2.Разверн 3.Выход 4.Фех 5.Перейти 6. 7.Помощь 8.Исходный 9.Формат 10.Выход
```

Рис. 10: Просмотр содержимого текстового файла

Работа с Midnight Commander

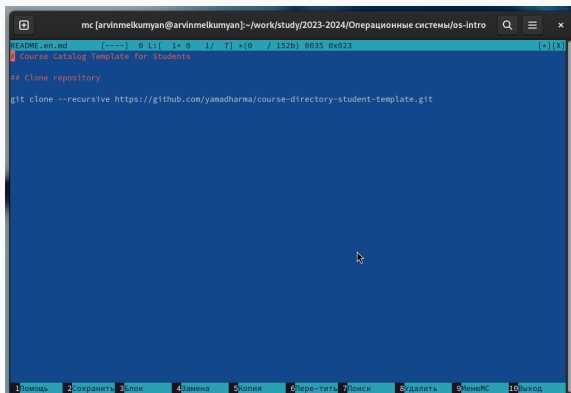


Рис. 11: Отредактируем содержимое текстового файла без сохранения результатов

Работа с Midnight Commander

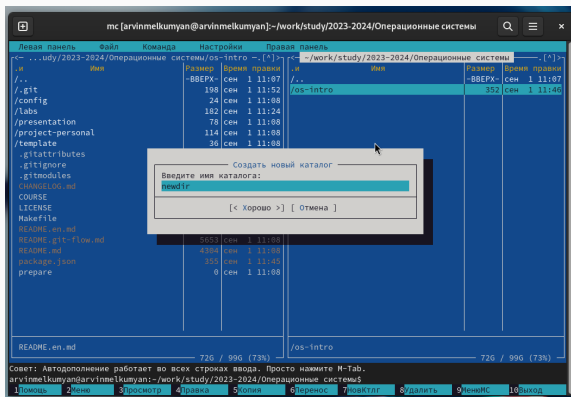


Рис. 12: Создание каталога

Работа с Midnight Commander

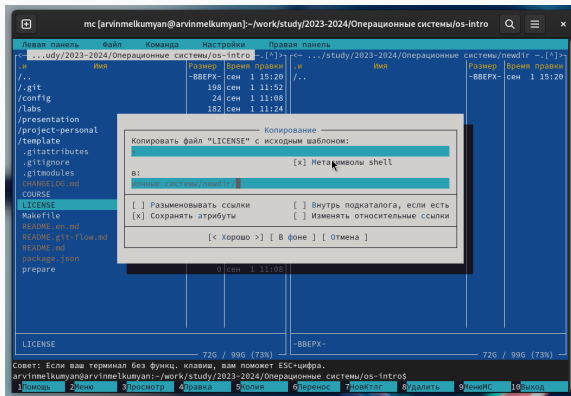


Рис. 13: Копирование в файлов в созданный каталог

Работа с Midnight Commander

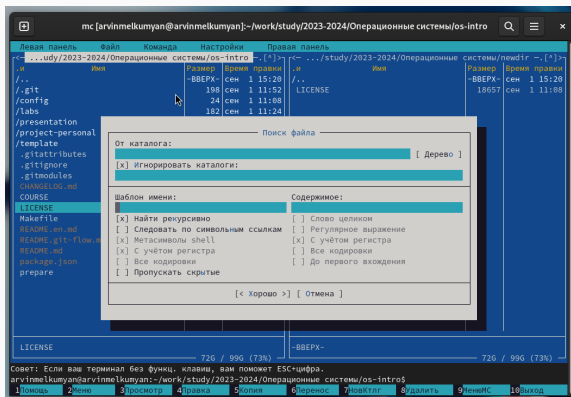


Рис. 14: Поиск файлов

Работа с Midnight Commander

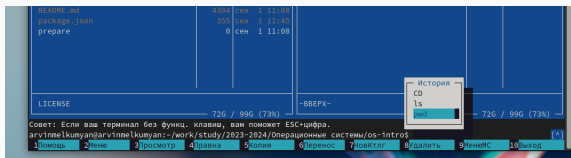


Рис. 15: История команд

Работа с Midnight Commander

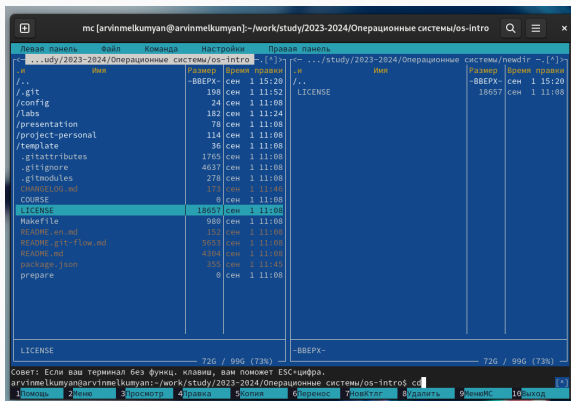
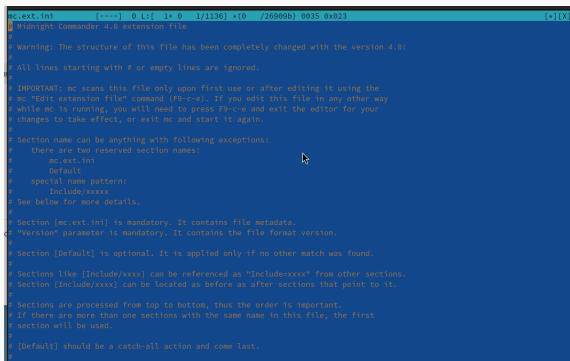


Рис. 16: Переход в домашний каталог

Работа с Midnight Commander



```
mc.ext.ini      [-----]  0 L: 1+ 0  1/1136) *(0  /26909b) 0035 0x023      [.*][X]
Midnight Commander 4.8 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

A screenshot of the Midnight Commander file menu. The window title is "menu" with a status bar on the right showing "[*][X]". The menu content is as follows:

```
shell_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)
# %v Run the commands and pipes standard output to the view command
# If %view is immediately followed by '|', recognize keywords
#   ascii, hex, nroff and unform
#
# 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
# %if  ditto
# %of  don't quote expanded macro
#####

+ ! t t
| Do something on the current file
| CMD=%(Enter command)
| $CMD %f

+ t t
| Do something on the tagged files
| CMD=%(Enter command)
| for i in %t ; do
```

At the bottom of the window is a toolbar with 10 icons and their corresponding labels: 1. Помощь (Help), 2. Сохранить (Save), 3. Поиск (Find), 4. Имена (Names), 5. Скопия (Copy), 6. Перенести (Move), 7. Повтор (Repeat), 8. Удалить (Delete), 9. Ненавс (Not in view), 10. Выход (Exit).

Рис. 18: Просмотр файла меню

Работа с Midnight Commander



Рис. 19: Конфигурация

Работа с Midnight Commander



Рис. 20: Внешний вид

Работа с Midnight Commander



Рис. 21: Настройки панелей



Рис. 22: Подтверждение



Рис. 23: Оформление

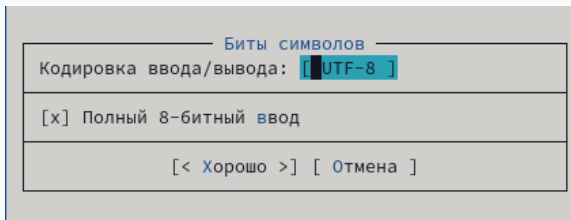


Рис. 24: Кодировка символов

Работа с Midnight Commander



Рис. 25: Распознавание клавиш

Работа с редактором Midnight Commander

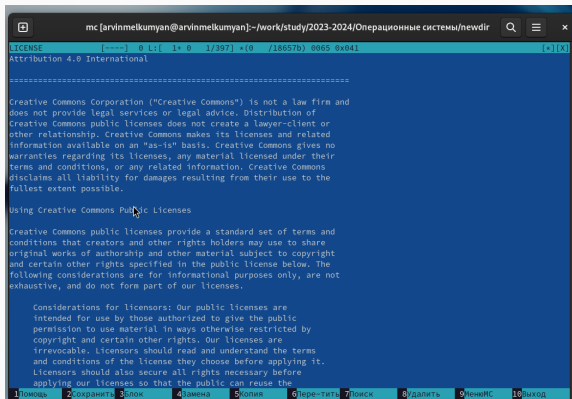
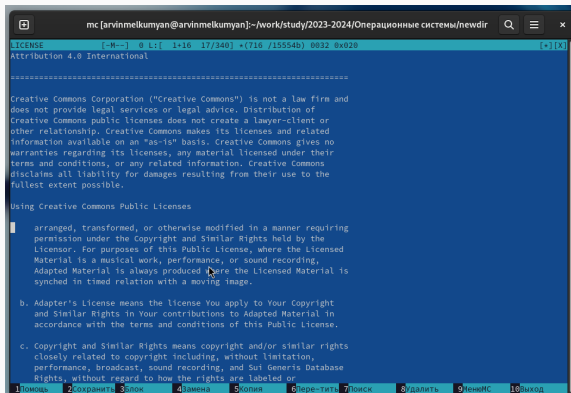


Рис. 26: Файл с текстом

Работа с редактором Midnight Commander



The screenshot shows the Midnight Commander (mc) interface. The title bar indicates the current directory is `~/work/study/2023-2024/Операционные системы/newdir`. The main window displays the contents of a file named `LICENSE`. The text in the file is as follows:

```
License: [~M~] 0 L: [ 1+16 17/340] + (716 /15554b) 0032 0x020 [*] [X]
Attribution 4.0 International

=====

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```

At the bottom of the window, there is a toolbar with icons and labels for various actions: 1. Помощь (Help), 2. Сохранить (Save), 3. Поиск (Find), 4. Замена (Replace), 5. Копия (Copy), 6. Вставить (Paste), 7. Поиск (Find), 8. Удалить (Delete), 9. Меню (Menu), 10. Выход (Exit).

Рис. 27: Файл с текстом

Работа с редактором Midnight Commander

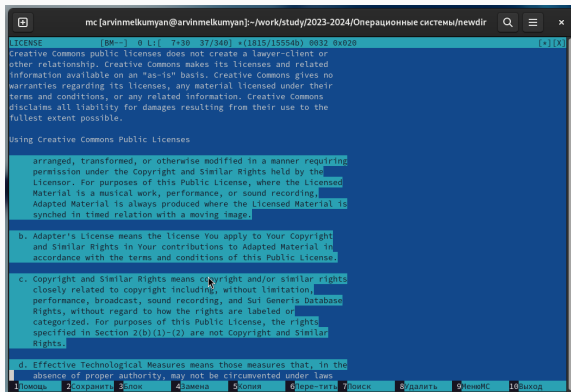


Рис. 28: Копирование фрагмента

Работа с редактором Midnight Commander

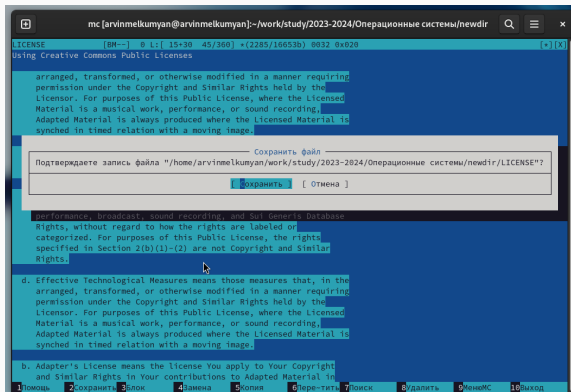


Рис. 29: Сохранение

Работа с редактором Midnight Commander

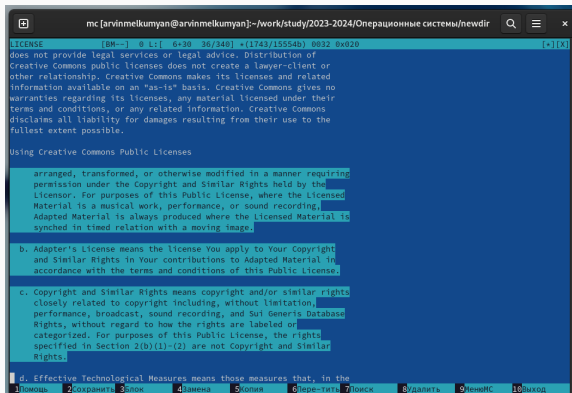


Рис. 30: Отмена

Работа с редактором Midnight Commander

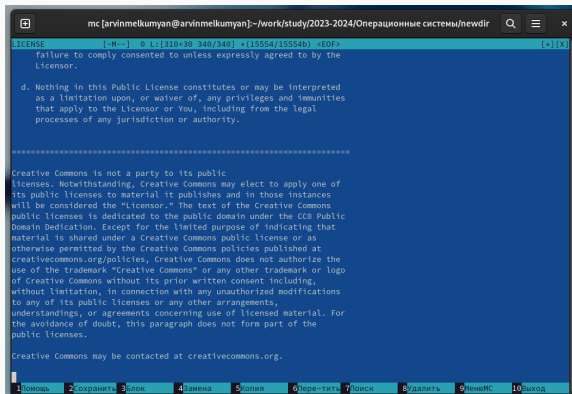


Рис. 31: Переход в конец файла

Работа с редактором Midnight Commander

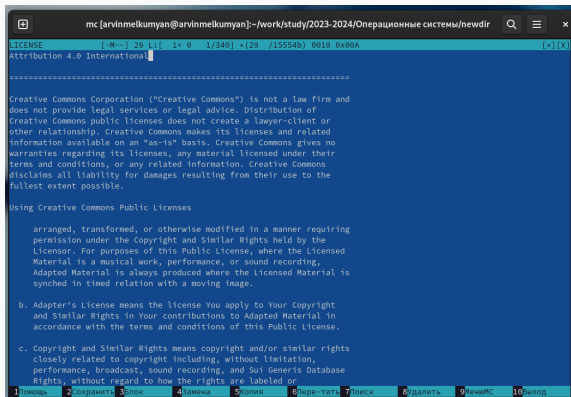
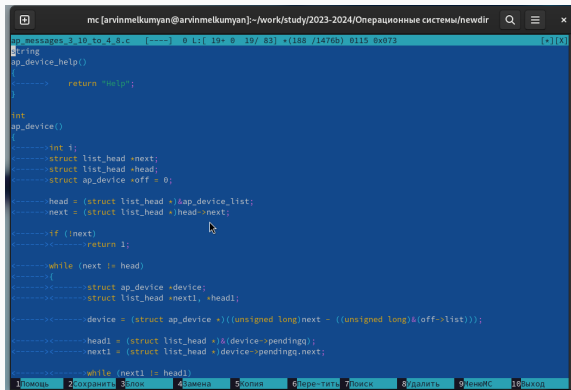


Рис. 32: Переход в начало файла

Работа с редактором Midnight Commander



The screenshot shows the Midnight Commander (mc) file editor interface. The title bar indicates the current directory is `~/work/study/2023-2024/Операционные системы/newdir`. The editor is displaying a C program file named `ap_messages_3.10_to_4.8.c`. The code is a C program that implements a linked list structure. It includes a `string` type definition, a `ap_device_help()` function that returns "Help", and an `ap_device()` function that initializes a linked list. The `ap_device()` function takes an integer `i` and a pointer to a `list_head` structure. It initializes the `list_head` and `ap_device` structures, then enters a loop that adds new devices to the list. The loop continues until `next` is equal to `head`. The code uses `struct` for `list_head` and `ap_device`, and `typedef` for `string`. The bottom status bar shows various menu options: 1.Помощь, 2.Сохранить, 3.Выйти, 4.Замена, 5.Юлия, 6.Пере-тити, 7.Поиск, 8.Удалить, 9.Меню, 10.Выход.

```
ap_messages_3.10_to_4.8.c  [----]  0 L: [ 19+ 0 19/ 83]  *(188 /1476b) 0115 8x073  [X]
string
ap_device_help()
{
    return "Help";
}

int
ap_device()
{
    int i;
    struct list_head *next;
    struct list_head *head;
    struct ap_device *off = 0;

    head = (struct list_head *)&ap_device_list;
    next = (struct list_head *)head->next;

    if (!next)
        return 1;

    while (next != head)
    {
        struct ap_device *device;
        struct list_head *next1, *head1;

        device = (struct ap_device *)((unsigned long)next - ((unsigned long)&off->list));

        head1 = (struct list_head *)&device->pendingq;
        next1 = (struct list_head *)device->pendingq->next;

        while (next1 != head1)
    }
```

Рис. 33: Файл с программой

Работа с редактором Midnight Commander

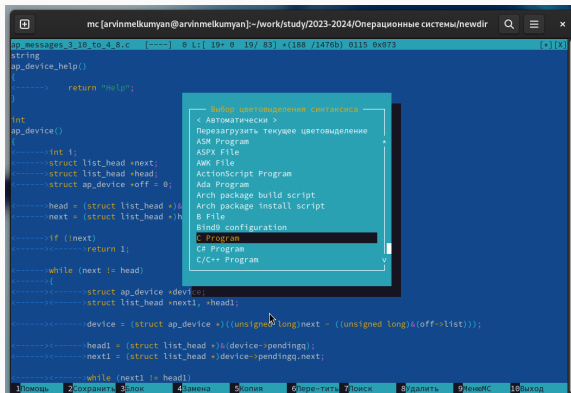


Рис. 34: Цветовыделение синтаксиса

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.