

# Командная оболочка Midnight Commander

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# Цели и задачи работы

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## 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**

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# Работа с Midnight Commander

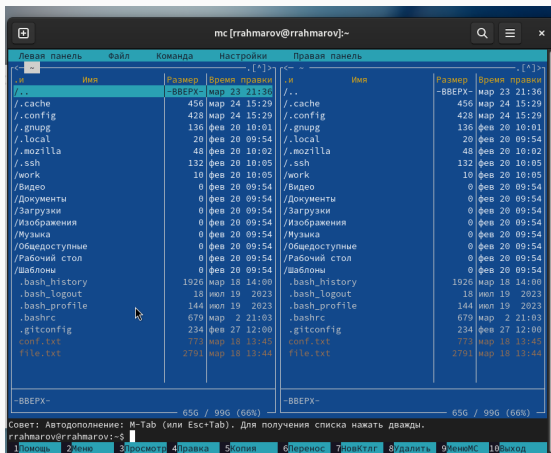


Рис. 1: Запуск mc

# Работа с Midnight Commander

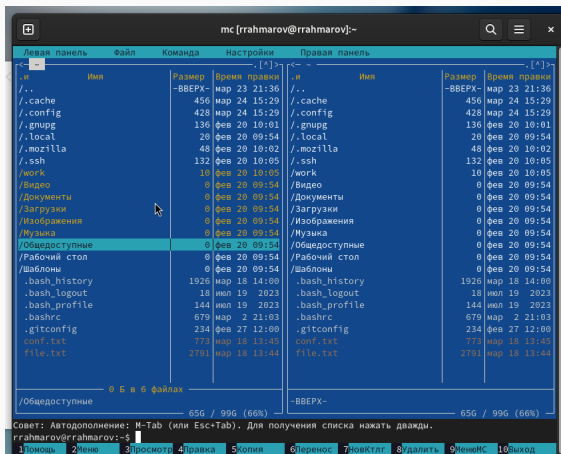


Рис. 2: Выделение

# Работа с Midnight Commander

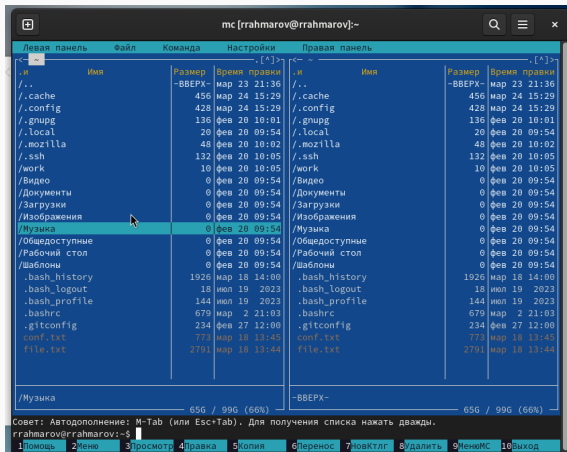


Рис. 3: Отмена



# Работа с Midnight Commander

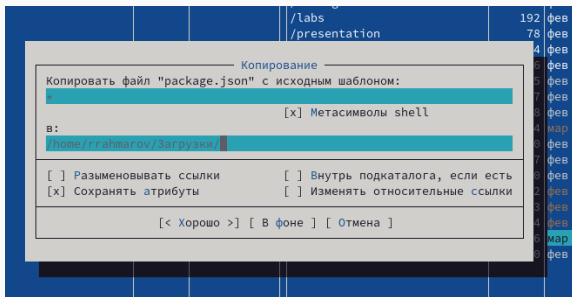


Рис. 4: Копирование

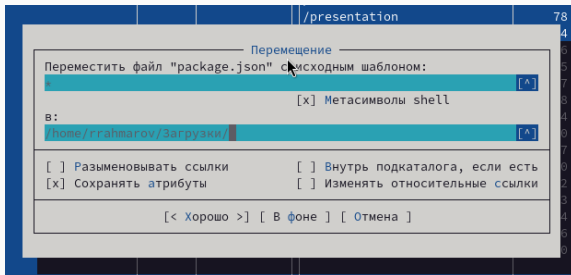


Рис. 5: Перемещение

# Работа с Midnight Commander

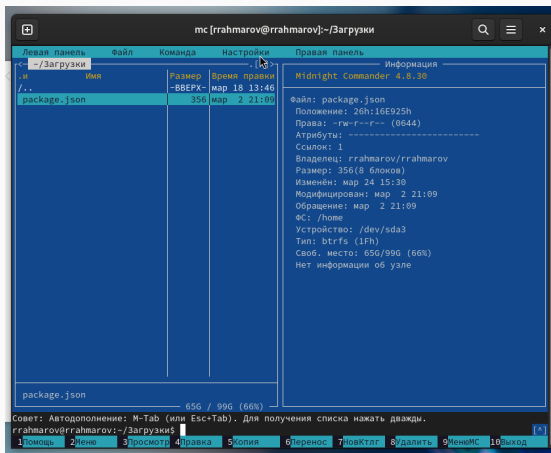


Рис. 6: Информация

# Работа с Midnight Commander

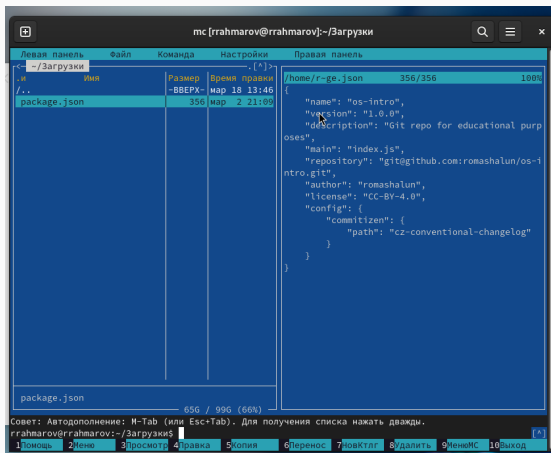


Рис. 7: Быстрый просмотр

# Работа с Midnight Commander

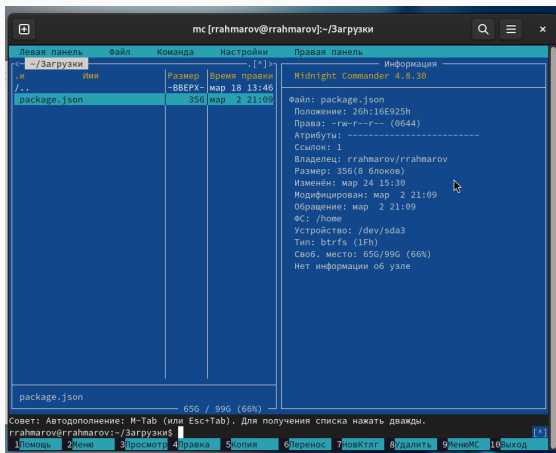


Рис. 8: Информация

# Работа с Midnight Commander

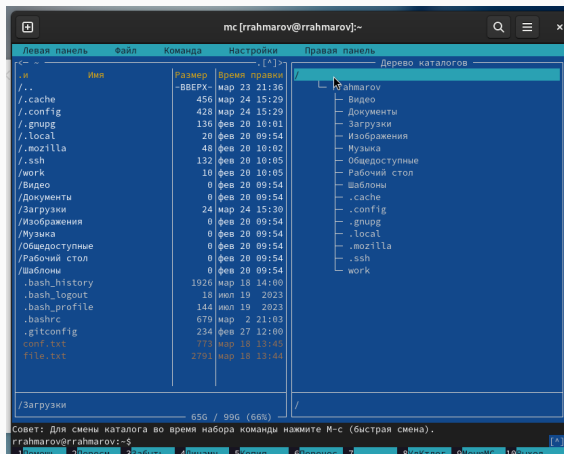
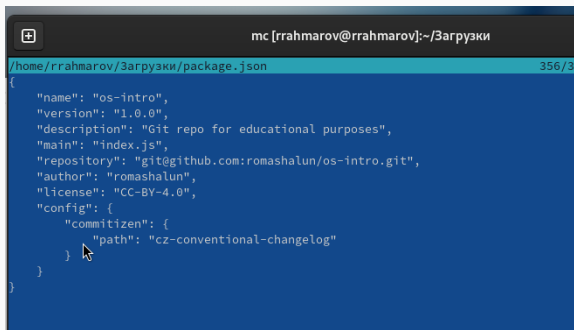


Рис. 9: Дерево каталогов

# Работа с Midnight Commander

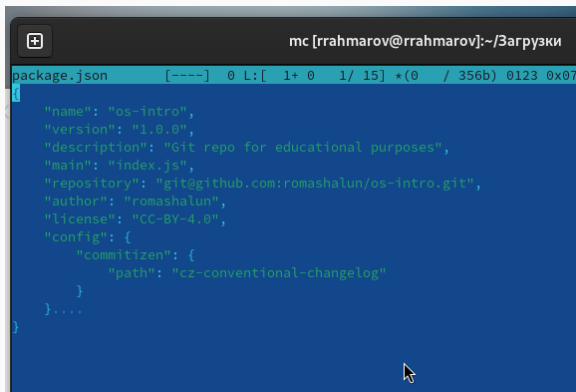


The image shows a screenshot of the Midnight Commander (mc) file manager. The title bar at the top indicates the user is 'rrahmarov' and the current directory is '~/Загрузки'. The active file is '/home/rrahmarov/Загрузки/package.json', with a line counter showing '356/3'. The main area displays the JSON content of the file, which is a package configuration for 'os-intro'. A mouse cursor is positioned over the closing curly brace of the 'commitizen' configuration object.

```
{
  "name": "os-intro",
  "version": "1.0.0",
  "description": "Git repo for educational purposes",
  "main": "index.js",
  "repository": "git@github.com:romashalun/os-intro.git",
  "author": "romashalun",
  "license": "CC-BY-4.0",
  "config": {
    "commitizen": {
      "path": "cz-conventional-changelog"
    }
  }
}
```

**Рис. 10:** Просмотр содержимого текстового файла

# Работа с Midnight Commander

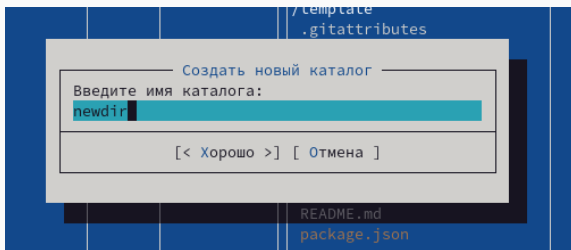


The screenshot shows the Midnight Commander (mc) interface. The title bar at the top reads "mc [rrahmarov@rrahmarov]:~/Загрузки". The main window displays the contents of a file named "package.json". The file's metadata bar shows "[----] 0 L: [ 1+ 0 1/ 15] \*(0 / 356b) 0123 0x07". The file content is a JSON object with the following fields: "name", "version", "description", "main", "repository", "author", "license", and "config". The "config" field contains a "commitizen" object with a "path" field. The text is displayed in a monospaced font on a dark blue background.

```
package.json [----] 0 L: [ 1+ 0 1/ 15] *(0 / 356b) 0123 0x07
{
  "name": "os-intro",
  "version": "1.0.0",
  "description": "Git repo for educational purposes",
  "main": "index.js",
  "repository": "git@github.com:romashalun/os-intro.git",
  "author": "romashalun",
  "license": "CC-BY-4.0",
  "config": {
    "commitizen": {
      "path": "cz-conventional-changelog"
    }
  }
}
```

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





**Рис. 12:** Создание каталога

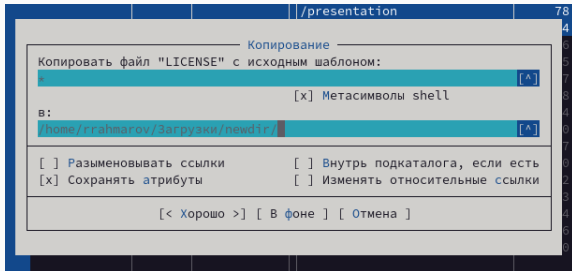


Рис. 13: Копирование в файлов в созданный каталог

# Работа с Midnight Commander

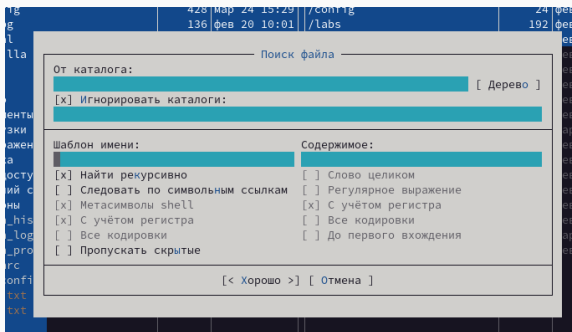


Рис. 14: Поиск файлов

# Работа с Midnight Commander

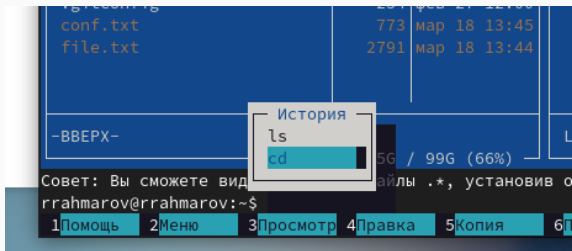


Рис. 15: История команд

# Работа с Midnight Commander

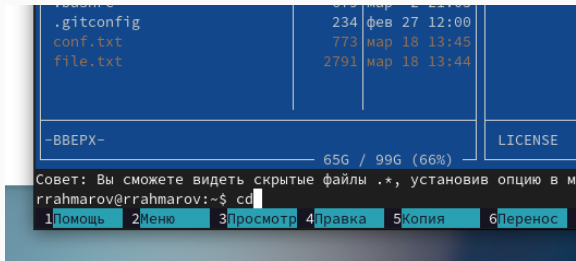


Рис. 16: Переход в домашний каталог

# 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 (F8-c-e). If you edit this file in any other way
# while mc is running, you will need to press F8-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

A screenshot of the Midnight Commander file menu. The window title is "menu" with a status bar at the top showing "1 t: 1\*16 17/378 \*(732 /11821b) 0010 0x00A" and a close button. The menu text 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 labeled in Russian: 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), 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



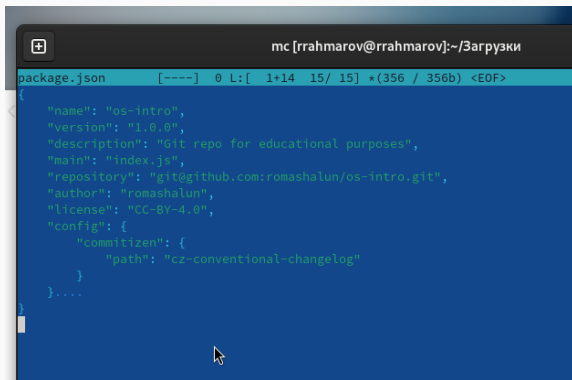
**Рис. 24:** Кодировка символов

# Работа с Midnight Commander



Рис. 25: Распознавание клавиш

# Работа с редактором Midnight Commander

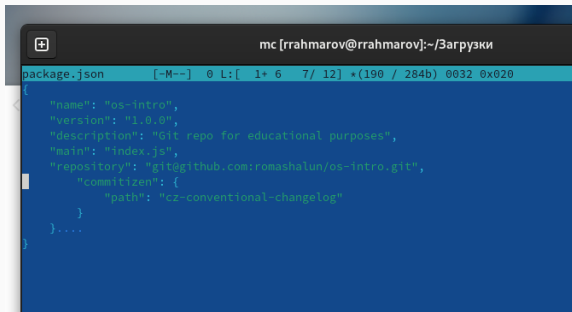


The screenshot shows the Midnight Commander (mc) interface. The title bar at the top reads "mc [rrahmarov@rrahmarov]:~/Загрузки". The active file is "package.json", with a status bar below it showing "[----] 0 L:[ 1+14 15/ 15] \*(356 / 356b) <EOF>". The file content is displayed in a blue background with white text, showing a JSON object for a package named "os-intro".

```
{
  "name": "os-intro",
  "version": "1.0.0",
  "description": "Git repo for educational purposes",
  "main": "index.js",
  "repository": "git@github.com:romashalun/os-intro.git",
  "author": "romashalun",
  "license": "CC-BY-4.0",
  "config": {
    "commitizen": {
      "path": "cz-conventional-changelog"
    }
  }
}....
```

**Рис. 26:** Файл с текстом

# Работа с редактором Midnight Commander



The screenshot shows the Midnight Commander (mc) interface. The title bar indicates the user is rrahmarov and the current directory is ~/Загрузки. The active file is package.json, which is highlighted in a light blue bar. Below the title bar, the file's metadata is shown: [-M--] 0 L: [ 1+ 6 7/ 12] \*(190 / 284b) 0032 0x020. The main editing area has a dark blue background and displays the JSON content of package.json. The JSON is formatted with indentation and line wrapping. The visible content includes the 'name', 'version', 'description', 'main', 'repository', and 'commitizen' fields.

```
package.json  [-M--] 0 L: [ 1+ 6 7/ 12] *(190 / 284b) 0032 0x020
{
  "name": "os-intro",
  "version": "1.0.0",
  "description": "Git repo for educational purposes",
  "main": "index.js",
  "repository": "git@github.com:romashalun/os-intro.git",
  "commitizen": {
    "path": "cz-conventional-changelog"
  }
}....
```

**Рис. 27:** Файл с текстом

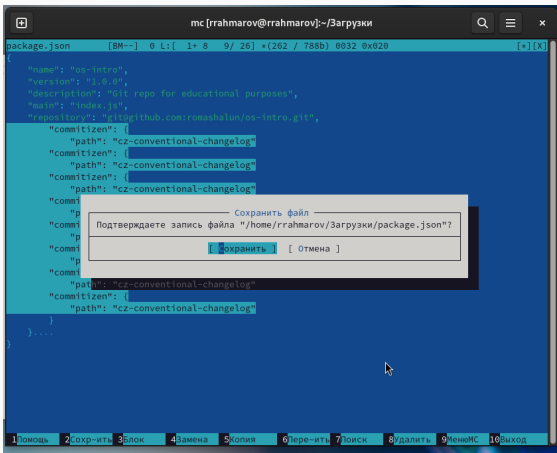


## Работа с редактором Midnight Commander

[illegible]

### Рис. 28: Копирование фрагмента

## Работа с редактором Midnight Commander



**Рис. 29: Сохранение**

# Работа с редактором Midnight Commander

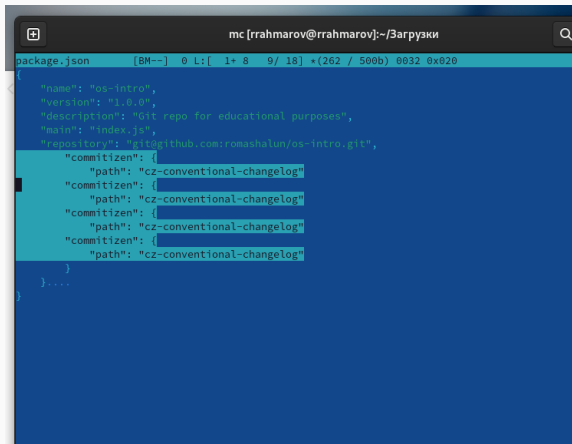
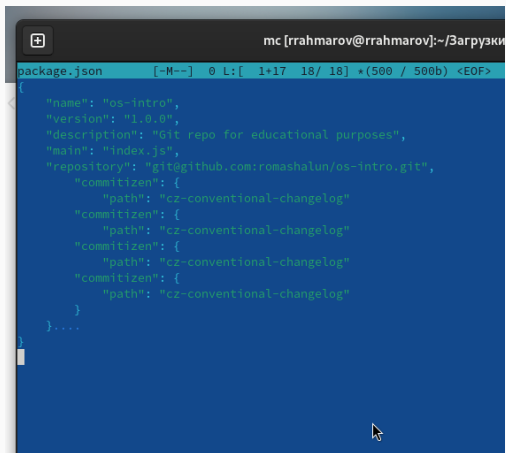


Рис. 30: Отмена

# Работа с редактором Midnight Commander

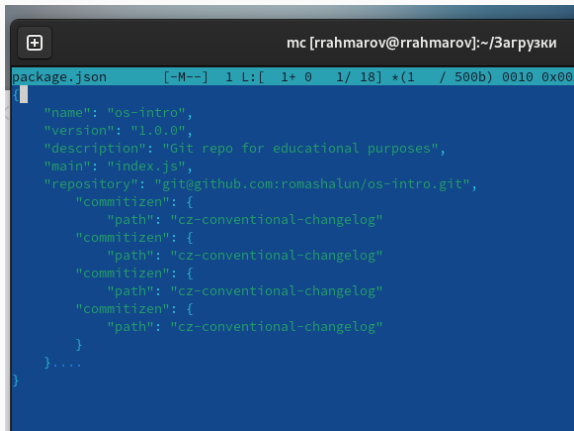


The screenshot shows the Midnight Commander (mc) interface. The title bar at the top reads "mc [rrahmarov@rrahmarov]:~/Загрузки". The current file is "package.json", and the status bar indicates it is 0 lines long, with the cursor at line 17, column 18. The file content is a JSON object for "os-intro" version 1.0.0, which includes a "repository" field and a "commitizen" configuration. The cursor is positioned at the end of the file, after the closing brace of the "commitizen" object, ready to move to the end of the file.

```
package.json  [-M--]  0 L: [ 1+17 18/ 18] *(500 / 500b) <EOF>
{
  "name": "os-intro",
  "version": "1.0.0",
  "description": "Git repo for educational purposes",
  "main": "index.js",
  "repository": "git@github.com:romashalun/os-intro.git",
  "commitizen": {
    "path": "cz-conventional-changelog"
  },
  "commitizen": {
    "path": "cz-conventional-changelog"
  },
  "commitizen": {
    "path": "cz-conventional-changelog"
  },
  "commitizen": {
    "path": "cz-conventional-changelog"
  }
}....
}
```

Рис. 31: Переход в конец файла

# Работа с редактором Midnight Commander

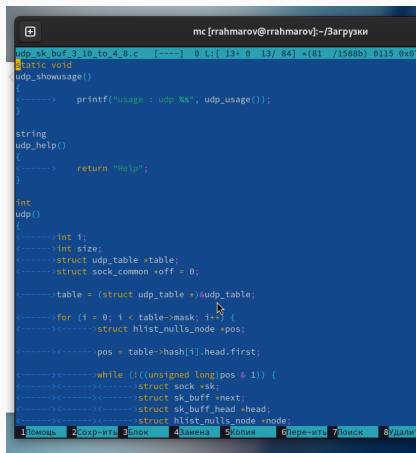


The screenshot shows the Midnight Commander (mc) interface. The title bar at the top reads "mc [rrahmarov@rrahmarov]:~/Загрузки". The main window displays the contents of a file named "package.json". The file's metadata bar shows "[ -M-- ] 1 L: [ 1+ 0 1/ 18 ] \*(1 / 500b) 0010 0x00". The file content is a JSON object with the following structure:

```
{
  "name": "os-intro",
  "version": "1.0.0",
  "description": "Git repo for educational purposes",
  "main": "index.js",
  "repository": "git@github.com:romashalun/os-intro.git",
  "commitizen": {
    "path": "cz-conventional-changelog"
  },
  "commitizen": {
    "path": "cz-conventional-changelog"
  },
  "commitizen": {
    "path": "cz-conventional-changelog"
  },
  "commitizen": {
    "path": "cz-conventional-changelog"
  }
}....
}
```

Рис. 32: Переход в начало файла

# Работа с редактором Midnight Commander



```
mc [rrahmarov@rrahmarov:~/Загрузки
udp_sk_buf_3_10_to_4_8.c  [---]  0 L:[ 13+ 0 13/ 84] *(01 /1588b) 0115 0x0
static void
udp_showusage()
{
    printf("usage : udp %s", udp_usage());
}

string
udp_help()
{
    return "Help";
}

int
udp()
{
    int i;
    int size;
    struct udp_table *table;
    struct sock_common *off = 0;

    table = (struct udp_table *)&udp_table;

    for (i = 0; i < table->mask; i++) {
        struct hlist_nulls_node *pos;

        pos = table->hash[i].head.first;

        while (!((unsigned long)pos & 1)) {
            struct sock *sk;
            struct sk_buff *next;
            struct sk_buff_head *head;
            struct hlist_nulls_node *node;
        }
    }
}
```

1 Помощь 2 Сохранить 3 Выход 4 Заменить 5 Копия 6 Переименовать 7 Поиск 8 Удалить

Рис. 33: Файл с программой

# Работа с редактором Midnight Commander

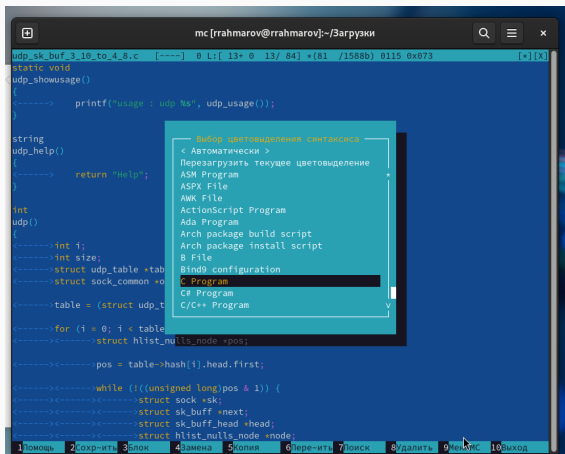


Рис. 34: Цветовыделение синтаксиса

## **Выводы по проделанной работе**

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