

Лабораторная работа №9

Текстовый редактор emacs

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Информация

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Познакомиться с операционной системой Linux. Получить практические навыки работы с редактором Emacs.

1. Откроем emacs. Создадим файл lab07.sh с помощью комбинации Ctrl-x Ctrl-f (C-x C-f).

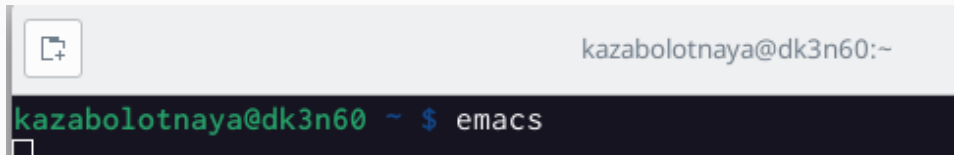


Рис. 1: Откроем emacs

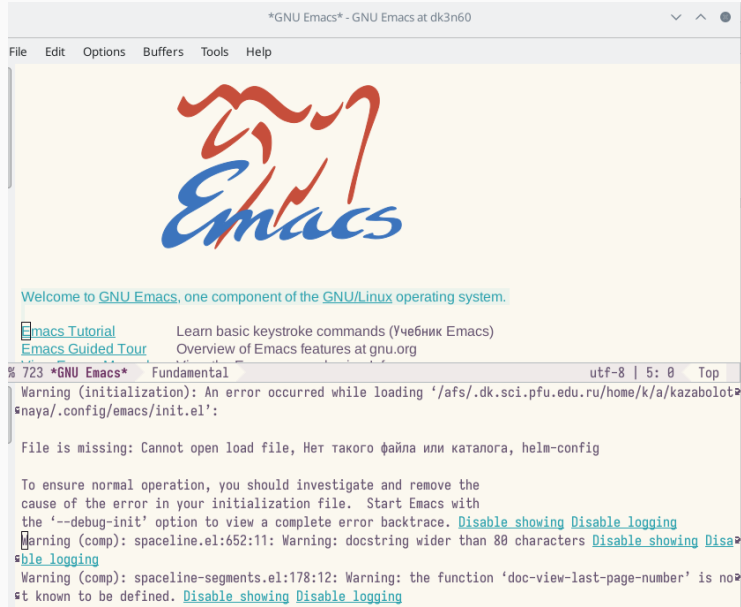
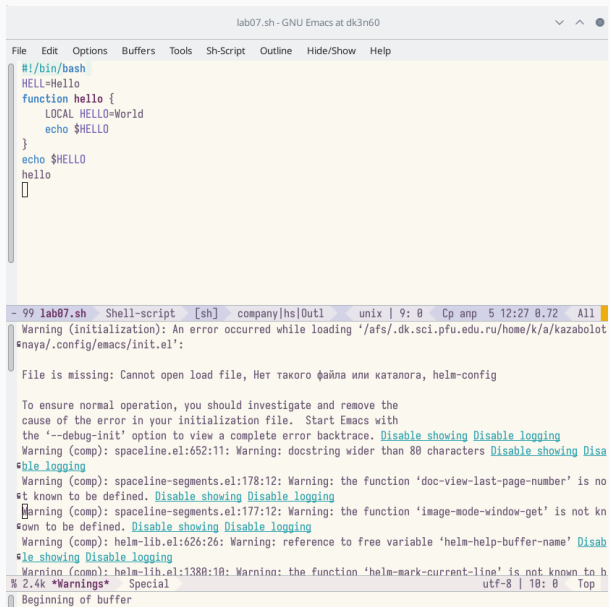


Рис. 2: Откроем emacs

2. Наберем текст. Сохраним файл с помощью комбинации Ctrl-x Ctrl-s (C-x C-s).



The screenshot shows a GNU Emacs editor window titled "lab07.sh - GNU Emacs at dk3n60". The menu bar includes File, Edit, Options, Buffers, Tools, Sh-Script, Outline, Hide/Show, and Help. The main editing area contains a shell script:

```
#!/bin/bash
HELL=Hello
function hello {
  LOCAL HELLO=World
  echo $HELLO
}
echo $HELLO
hello
```

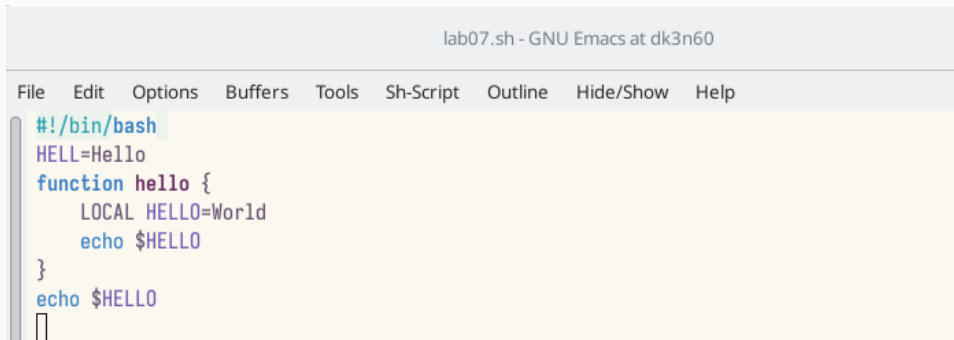
Below the script, a status bar shows: - 99 lab07.sh Shell-script [sh] company|hs|Outl unix | 9: 0 Cp anp 5 12:27 0.72 All. Below the status bar, a buffer contains the following text:

```
Warning (initialization): An error occurred while loading '/afs/.dk.sci.pfu.edu.ru/home/k/a/kazabolot
naya/.config/emacs/init.el':

File is missing: Cannot open load file, Нет такого файла или каталога, helm-config

To ensure normal operation, you should investigate and remove the
cause of the error in your initialization file. Start Emacs with
the '--debug-init' option to view a complete error backtrace. Disable showing Disable logging
Warning (comp): spaceline.el:652:11: Warning: docstring wider than 80 characters Disable showing Disa
ble logging
Warning (comp): spaceline-segments.el:178:12: Warning: the function 'doc-view-last-page-number' is no
t known to be defined. Disable showing Disable logging
Warning (comp): spaceline-segments.el:177:12: Warning: the function 'image-mode-window-get' is not kn
own to be defined. Disable showing Disable logging
Warning (comp): helm-lib.el:626:26: Warning: reference to free variable 'helm-help-buffer-name' Disab
le showing Disable logging
Warning (comp): helm-lib.el:1388:18: Warning: the function 'helm-mark-current-line' is not known to h
% 2.4k *Warnings* Special utf-8 | 18: 0 Top
Beginning of buffer
```

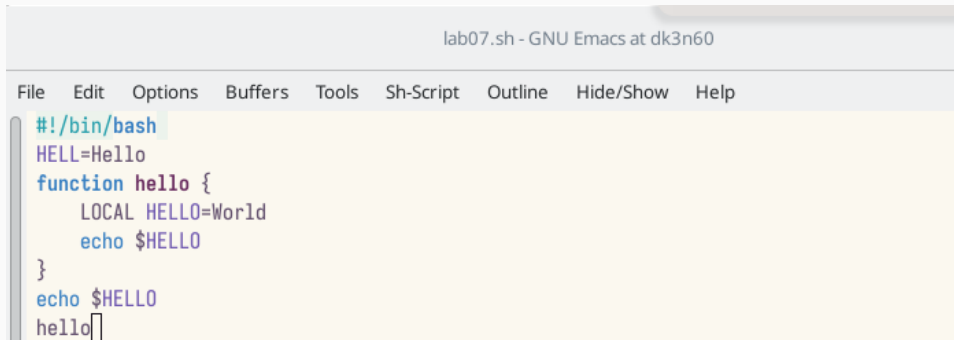
3. Вырежем одной командой целую строку (C-k).



```
lab07.sh - GNU Emacs at dk3n60
File Edit Options Buffers Tools Sh-Script Outline Hide/Show Help
#!/bin/bash
HELL=Hello
function hello {
    LOCAL HELLO=World
    echo $HELLO
}
echo $HELLO
█
```

Рис. 4: Вырежем строку

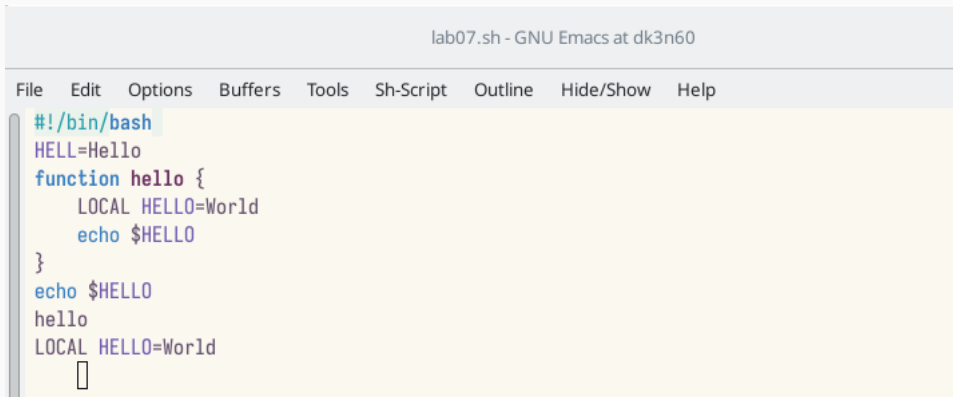
4. Вставим эту строку в конец файла (С-у).



```
lab07.sh - GNU Emacs at dk3n60
File Edit Options Buffers Tools Sh-Script Outline Hide/Show Help
#!/bin/bash
HELL=Hello
function hello {
    LOCAL HELLO=World
    echo $HELLO
}
echo $HELLO
hello
```

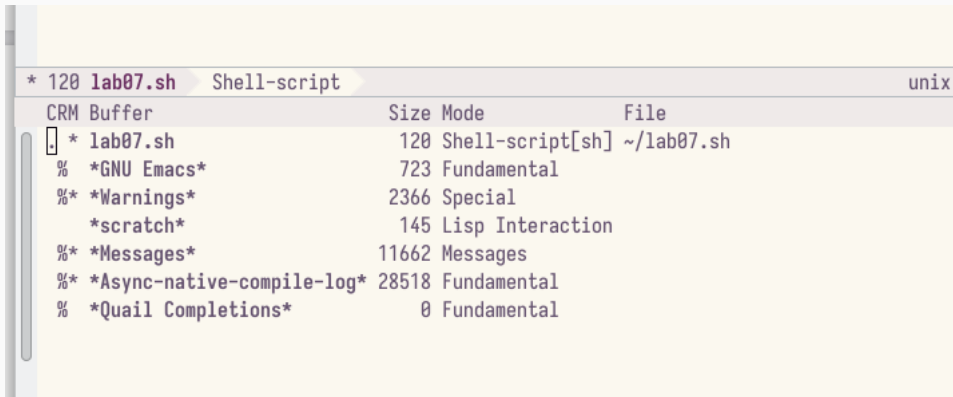
Рис. 5: Вставим строку

5. Выделим область текста (C-space). Скопируем область в буфер обмена (M-w). Вставим область в конец файла. Вновь выделим эту область и на этот раз вырежем её (C-w). Отменим последнее действие (C-/). Научились использовать команды по перемещению курсора. Переместили курсор в начало строки (C-a). Переместили курсор в конец строки (C-e). Переместили курсор в начало буфера (M-<). Переместили курсор в конец буфера (M->).



```
lab07.sh - GNU Emacs at dk3n60
File Edit Options Buffers Tools Sh-Script Outline Hide/Show Help
#!/bin/bash
HELL=Hello
function hello {
    LOCAL HELLO=World
    echo $HELLO
}
echo $HELLO
hello
LOCAL HELLO=World
```

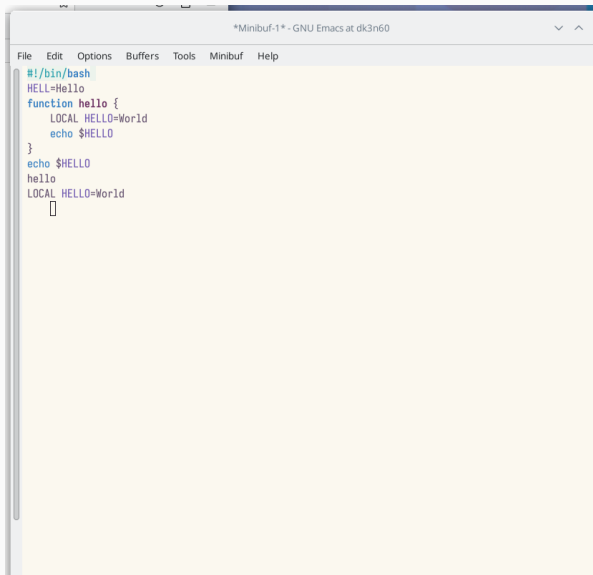
6. Управление буферами. Выведем список активных буферов на экран (C-x C-b).

A screenshot of the Emacs buffer list window, which appears as a table. The title bar at the top reads '* 120 lab07.sh' followed by a right-pointing arrow and the text 'Shell-script', and the word 'unix' on the far right. The table has four columns: 'CRM Buffer', 'Size', 'Mode', and 'File'. The first row is '* lab07.sh' with size 120, mode 'Shell-script[sh]', and file '~/lab07.sh'. The second row is '% *GNU Emacs*' with size 723 and mode 'Fundamental'. The third row is '%* *Warnings*' with size 2366 and mode 'Special'. The fourth row is '*scratch*' with size 145 and mode 'Lisp Interaction'. The fifth row is '%* *Messages*' with size 11662 and mode 'Messages'. The sixth row is '%* *Async-native-compile-log*' with size 28518 and mode 'Fundamental'. The seventh row is '% *Quail Completions*' with size 0 and mode 'Fundamental'.

* 120 lab07.sh Shell-script unix			
CRM Buffer	Size	Mode	File
* lab07.sh	120	Shell-script[sh]	~/lab07.sh
% *GNU Emacs*	723	Fundamental	
%* *Warnings*	2366	Special	
scratch	145	Lisp Interaction	
%* *Messages*	11662	Messages	
%* *Async-native-compile-log*	28518	Fundamental	
% *Quail Completions*	0	Fundamental	

Рис. 7: Управление буферами

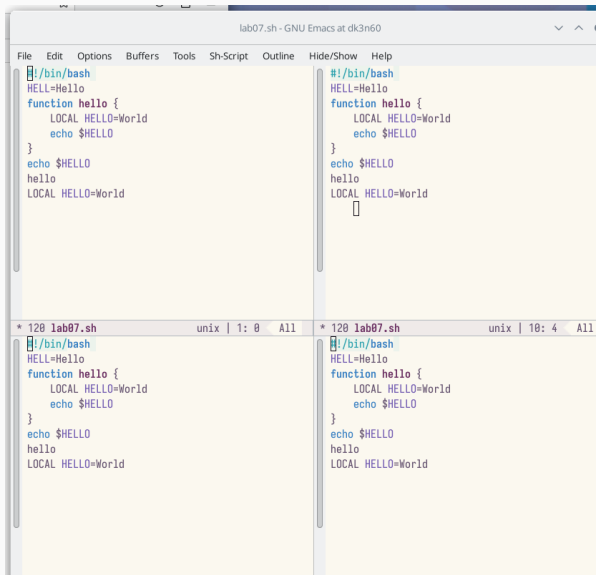
7. Закроем это окно (C-x 0). Теперь вновь переключаемся между буферами, но уже без вывода их списка на экран (C-x b).



The screenshot shows the Emacs editor window titled "*Minibuf-1* - GNU Emacs at dk3n60". The menu bar includes File, Edit, Options, Buffers, Tools, Minibuf, and Help. The buffer content is as follows:

```
#!/bin/bash
HELL=Hello
function hello {
  LOCAL HELLO=World
  echo $HELLO
}
echo $HELLO
hello
LOCAL HELLO=World
█
```

8. Поделим фрейм на 4 части: разделим фрейм на два окна по вертикали (C-x 3), а затем каждое из этих окон на две части по горизонтали (C-x 2).



The screenshot shows the GNU Emacs editor interface with a 2x2 grid of windows. The title bar at the top reads 'lab07.sh - GNU Emacs at dk3n60'. The menu bar includes 'File', 'Edit', 'Options', 'Buffers', 'Tools', 'Sh-Script', 'Outline', 'Hide/Show', and 'Help'. Each of the four windows contains the following shell script:

```
#!/bin/bash
HELL=Hello
function hello {
  LOCAL HELLO=World
  echo $HELLO
}
echo $HELLO
hello
LOCAL HELLO=World
```

The status bar at the bottom of each window shows '* 120 lab07.sh' and 'unix | 10: 4 All'. The top-right window has a cursor on the last line of the script.

10. В каждом из четырёх созданных окон откроем новый буфер (файл) и введем несколько строк текста.

The screenshot shows four Emacs windows arranged in a 2x2 grid, all titled 'lab07.sh - GNU Emacs at dk3n60'. Each window contains the same script:

```
#!/bin/bash
HELL=Hello
function hello {
    LOCAL HELLO=World
    echo $HELLO
}
echo $HELLO
hello
LOCAL HELLO=World
hello
HELL
```

The top-left window shows the script with the cursor at the end of the 'HELL' line. The top-right window shows the script with the cursor at the end of the 'HELL' line. The bottom-left window shows the script with the cursor at the end of the 'HELL' line. The bottom-right window shows the script with the cursor at the end of the 'HELL' line. The status bar at the bottom of each window indicates the file is 'lab07.sh', the system is 'unix', and the buffer is 'All'.

11. Переключимся в режим поиска (C-s) и найдем несколько слов, присутствующих в тексте.

The screenshot shows the GNU Emacs editor with a file named 'lab07.sh'. The editor is in search mode, indicated by the 'Isearch' menu item and the 'Isearch' status bar. The search string 'hello' is entered in the search bar. The search results are displayed in the bottom two panes, showing the lines where 'hello' was found. The top-left pane shows the original script content. The top-right pane shows the script content with the search results highlighted. The bottom-left pane shows the script content with the search results highlighted. The bottom-right pane shows the script content with the search results highlighted.

```
lab07.sh - GNU Emacs at dk3n60
File Edit Options Buffers Tools Sh-Script Isearch Outline Hide/Show Help

#!/bin/bash
HELL=Hello
function hello {
    LOCAL HELLO=World
    echo $HELLO
}
echo $HELLO
hello
LOCAL HELLO=World
hello
HELL
```

```
* 126 lab07.sh unix | 11: 4 All
#!/bin/bash
HELL=Hello
function hello {
    LOCAL HELLO=World
    echo $HELLO
}
echo $HELLO
hello
LOCAL HELLO=World
hello
HELL
```

```
* 126 lab07.sh unix | 10: 5 All
#!/bin/bash
HELL=Hello
function hello {
    LOCAL HELLO=World
    echo $HELLO
}
echo $HELLO
hello
LOCAL HELLO=World
hello
HELL
```

12. Переключимся между результатами поиска, нажимая C-s.

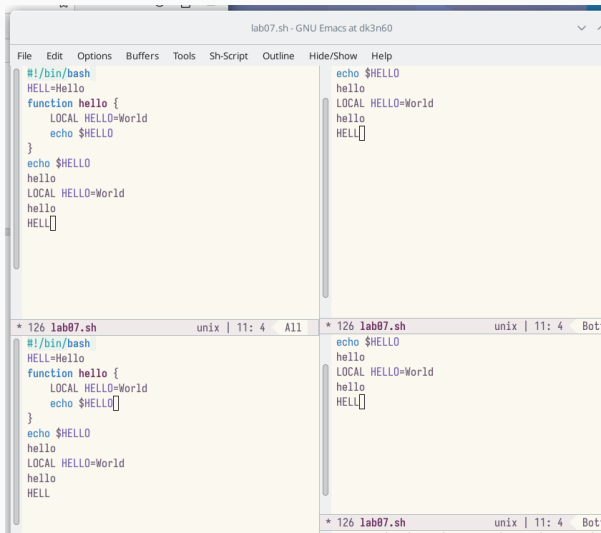
The screenshot shows the GNU Emacs editor interface with four windows displaying the same shell script file, `lab07.sh`. The script content is as follows:

```
#!/bin/bash
HELL=Hello
function hello {
    LOCAL HELLO=World
    echo $HELLO
}
echo $HELLO
hello
LOCAL HELLO=World
hello
HELL
```

Each window shows the script with search results for the word `HELLO` highlighted in red. The windows are arranged in a 2x2 grid, and the status bar at the bottom of each window indicates the file name, operating system (unix), and search results (All).

The status bar at the bottom of the Emacs window shows: `Wrapped I-search: hello`.

13. Перейдите в режим поиска и замены (M-%), введите текст, который следует найти и заменить, нажмите Enter , затем введите текст для замены. После того как будут подсвечены результаты поиска, нажмите ! для подтверждения замены.



The screenshot shows the GNU Emacs editor interface with a menu bar (File, Edit, Options, Buffers, Tools, Sh-Script, Outline, Hide/Show, Help) and a title bar (lab07.sh - GNU Emacs at dk3n60). The editor is displaying a shell script with the following content:

```
#!/bin/bash
HELL=Hello
function hello {
    LOCAL HELLO=World
    echo $HELLO
}
echo $HELLO
hello
LOCAL HELLO=World
hello
HELL
```

The editor is in the search and replace mode (M-%). The search string is "HELL" and the replacement string is "HELLO". The results of the search are highlighted in yellow. The status bar at the bottom shows the current buffer is "lab07.sh" and the search is active.

В ходе выполнения данной лабораторной работы мы познакомились с операционной системой Linux. Получили практические навыки работы с редактором Emacs.