

# Exercise 4: Getting started with Emacs

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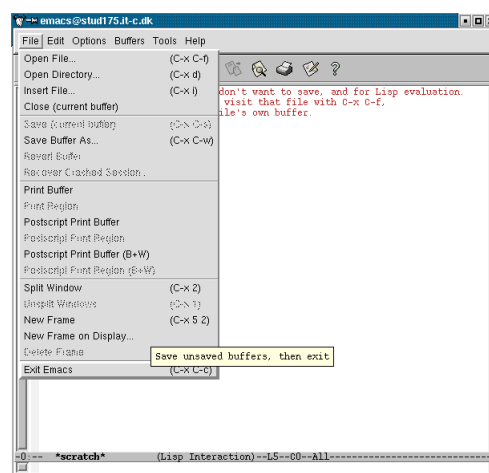
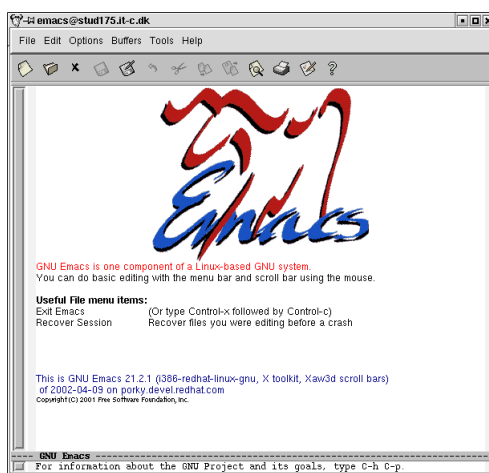
January 24, 2005

Emacs is a text editor. In contrast to a word processing program, a text editor is used for writing plain text. The document contains the characters typed, without any formatting (e.g., boldface and font size). This is necessary for instance for writing java programs and HTML documents.

## 1 Starting and stopping Emacs

- Open Emacs from the command line, with the command "emacs &"
- or from the Window Maker menu → Editors → Emacs.
- First it displays a "Welcome screen", then after a while (or when you click on it) it changes to the "scratch buffer".
- To exit Emacs, click on the "Files" menu and select "Exit Emacs".

This is what it looks like:



- In the "files" menu, did you notice the (C-x C-c) after "Exit Emacs"? That is the keyboard shortcut to exit Emacs. It means you can also exit Emacs by holding down the "Ctrl" key and pressing "x", then holding down the "Ctrl" key again and pressing "c".
- Open Emacs again, you will need it in the rest of the exercise.

## 2 Emacs keyboard shortcut notation

**C-x** means ctrl+x (hold down the "Ctrl" key and press "x").

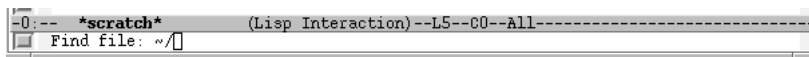
**M-x** means alt+x (hold down the "Alt" key and press "x").

**Esc-x** means press the "Escape" key, then press "x".

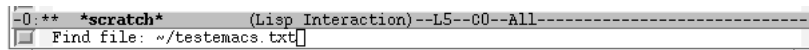
This notation is used in most Emacs books and documents.

## 3 Opening and saving a file

- Create a new file by selecting "Files → Open File..." in the menu, or by typing **C-x C-f**. Notice what happened at the bottom of Emacs:

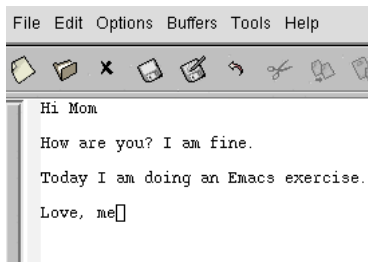


You have to type a file name for your new file. Emacs shows the path to your home directory, so if you want to save the file there, you only have to type a name. Call the file "testemacs.txt":



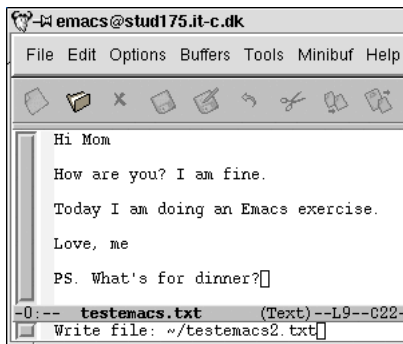
and press "enter". Emacs will now display an empty page, where you can start typing.

- Type a few lines. If you can't think of anything, write a letter to your mom.

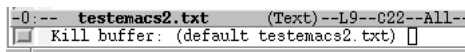


- Save the file with **C-x C-s** (or select "Save (current buffer)" in the "Files" menu).  
*The examples in the rest of this document will use the keyboard shortcuts only, but you can keep using the menu if you want.*
- Type a few lines more, and save the file under a different name, using **C-x C-w**. Type the new file name in the bottom window of Emacs, after the path to your

home directory. Call it testemacs2.txt

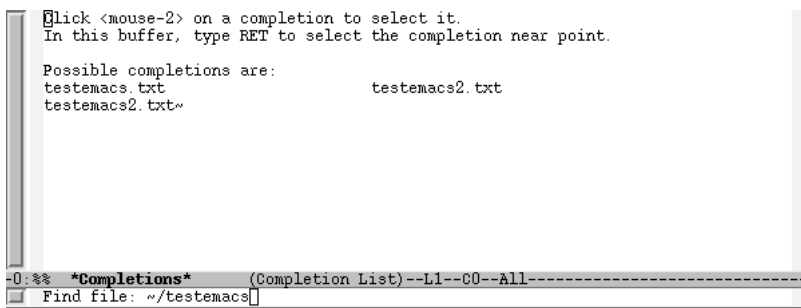


- Close the file - "kill the buffer", in Emacs terms - with **C-x k** ("control+x", then "k"). Emacs will ask you which buffer to kill:



To kill the current buffer, just press "enter".

- Opening an existing file is done with **C-x C-f**. It is just like creating a new file, except that you type the name of a file that already exists. If you can't remember the file name, press the "tab" key twice (the one with two arrows on it, above "Caps Lock"), and half of the Emacs window will turn into a sort of a "file manager". If you type the first part of the file name, and press "tab" twice, Emacs will only show the files that matches. Typing "test" and pressing "tab" twice gives this:



To select the file you want, either click the middle mouse button on the file name, or left-click on the file name and press "enter".

- The file in the picture named testemacs2.txt~, is an Emacs backup file. Emacs makes automatic backups with certain intervals.
- If there is only one file that matches what you have already typed, and you press "tab", Emacs will complete the file name for you.
- *Tip: If you have pressed the wrong key combination, and don't know how to get out of whatever you got into, **C-g** is your friend. It will abort whatever strange thing Emacs is in the middle of doing, and get you back to the normal Emacs window.*

## 4 Copy and paste

- In Emacs, you select what to copy or cut, by placing the cursor at the beginning of the text you want to copy/cut, and pressing **C-Space**. Then move the cursor to the end of the text you want, and use **M-w** for copy or **C-w** for cut. Put the cursor where you want the text to go, and press **C-y** to paste.

**C-Space** Marks beginning of a block

**M-w** Marks end of block and copy

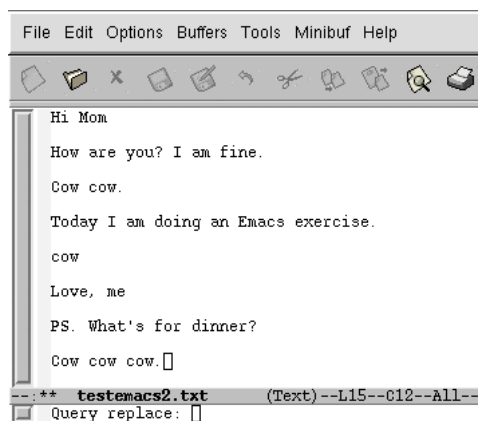
**C-w** Marks end of block and cut

**C-y** Paste

- Experiment with cutting, copying and pasting. *Tip: You can also select the text with the mouse if you like that better.*

## 5 Find and replace

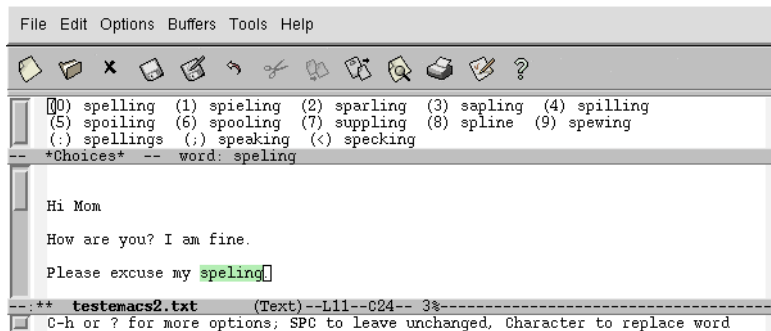
- First, type some more text. Let the word "cow" appear several times in the text. Later we will replace it with "computer".
- Place your cursor at the top of the document (**Esc-<**), and search for the word "cow": **C-s**. It is an incremental search, so when you type "c", Emacs will go to the first "c" after the cursor. When you type the "o", it will go to the first "co", and finally when you type the "w", it will only stop on the word "cow". To go to the next instance of "cow", press **C-s** again. And again. And again... until the cursor is at the last instance of "cow" in your document.
- You can also search backwards, with **C-r**. Try searching for "cow" again, this time backwards.
- Now we will make Emacs replace the word "cow" with "computer". Go to the top of the document. Press **M-%**. Emacs will ask you what word to query for:



Type "cow" and press "enter". Emacs now asks "Query replace cow with:". Type "computer". Now Emacs will stop on every instance of "cow" and say "Query replacing cow with computer:". Press "y" for "yes" if you want to replace, press "n" for "no" if you don't.

## 6 Spell checking

- You can spell check your buffer with the program "Ispell" this way: **M-x ispell-buffer**. That means: Press "alt-x", then type "ispell-buffer" and press enter.
- If you had no spelling errors, make some on purpose, and try again. Try spelling the word "spelling" as speling.



- Ispell suggests some words from its dictionary - "spelling" is number 0. Press "0" to replace "speling" with "spelling". If you want to replace it with a word not in the list, press "r". To leave unchanged, press "space". Press **C-h** for more options.
- If you select spell checking from the menu - *Tools* → *Spell Checking* - you can choose between different languages.

## 7 Switching between buffers

As you probably have noticed, an open file in Emacs is called a "buffer". You switch between your open buffers with **C-x b**. Emacs select the next buffer to switch to. If this is correct, just press "enter". Press "tab" to get a list over buffers, to choose from (see section 3 "Opening and saving a file", page 3. (Or use the "Buffers" menu).

## 8 Closing remarks

- The last page is a Emacs reference sheet. It looks difficult, but it is very useful. Try out some of the commands on the reference sheet.
- Also try the Emacs tutorial: **C-h t**

## References

- [1] hamlet@cs.utah.edu *Emacs introduction*.  
<http://www.cs.utah.edu/~hamlet/lib/lessons/unix07/unix07/unix07.shtml>
- [2] Debra Cameron. *GNU Emacs pocket reference*.
- [3] Debra Cameron, Bill Rosenblatt, Eric Raymond. *Learning GNU Emacs*.
- [4] Jesper Pedersen, Jari Aalto. *Sams Teach Yourself Emacs in 24 Hours*.