

Umeå University

Department of Applied Physics and Electronics

Linux as Development Environment 7.5 ECTS
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Assignment 4 - Editors

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1 Editors

The current text was written in 'emacs' about how to use 'nano'. Below follow the Q&A.

1. **Change between work/edit and command mode** In nano there is no separation between edit and command mode. A menu bar on the two lowest screen line shows the most important commands. Most of them are invoked by pressing a modifier key (Ctrl or Alt) and a normal character/symbol key.
2. **Start and quit editor** Nano is invoked by calling *nano* on the command line. A number of flags can be set on invocation. They are documented on the man pages. To quit the program, Ctrl-X is pressed. Depending whether there are unsaved changes, a dialog for saving edits will appear before the program actually quits.
3. **Create new, open and save text files** A new file can be created by opening nano without a file name as argument. The file get's created on writing out by CTRL-O, which will prompt for a file name to save to. In the same way, an open file can be saved to a new name by Ctrl-O and entering a new filename. When no new filename is provided, Ctrl-O is also the ordinary save command. New files can also be created by providing the new name as argument to nano on startup.
4. **Write ordinary text** Writing text is as expected. As there is no command mode, writing plain text is straight forward. From almost all menu dialogs, one can get back to the main screen for text entry/editing by Ctrl-c.
5. **Navigate between various parts of a text** There are most of the basic navigation commands for pure text editing available. Below follows a selection of commonly used navigation shortcuts:
 - Ctrl _ Go to line and column number
 - Ctrl Y Go one screen up
 - Ctrl V Go one screen down
 - Alt Go to first line of file
 - Alt / Go to last line of the file
 - ALT] Go to the matching bracket
 - Ctrl B Go back one character
 - Ctrl F Go forward one character
 - Alt Space Go forward one word
 - Ctrl Space Go back one word
 - Ctrl A Go to the beginning of the current line
 - Ctrl E Go to the end of the current line
 - Ctrl P Go to the previous line
 - Ctrl N Go to the next line
 - Alt (Go to the beginning of the paragraph
 - Alt) Go to the end of the paragraph
 - Alt - Scroll screen up one line without moving the cursor

- Alt + Scroll down one line without moving the cursor
6. **Cut, copy and paste** Looking at the command list from Help (Ctrl-G) the possibilities seem quite limited. There is no clear description for user selected range to do copy/paste, just cut and paste. However, looking at some forum or simply trying out showed that Ctrl- followed by Alt-6 allows to copy the selected area (Start selection by Ctrl-, end selection by Alt-6) to the buffer and then paste it by Ctrl-U. Cutting a whole like is Ctrl-K and uncutting/pasting as mentioned before Ctrl-U. Cutting from the current cursor position until file end is Alt-T.
 7. **Find and replace** Search a string or a regular expression by Ctrl-W, replace a string or a regular expression Ctrl- and repeat the last search is Alt-W.

2 ASCII

ASCII stands for American Standard Code for Information Interchange. It encodes 128 symbols to number values. Beside the normal 'printed' characters, there are also 33 control characters for example for 'end of line', 'carriage return' etc.

3 Hexeditors

To change my name in a hexeditor to capitalized letters, I looked up the hex values of the respective letters in an ASCII table and edited the file.