

# The Beginner's Guide to Nano, the Linux Command-Line Text Editor

*By Yatri Trivedi*

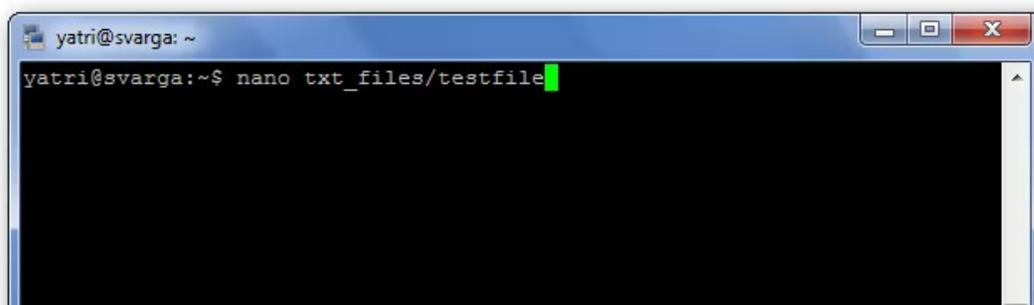
7-9 minutes

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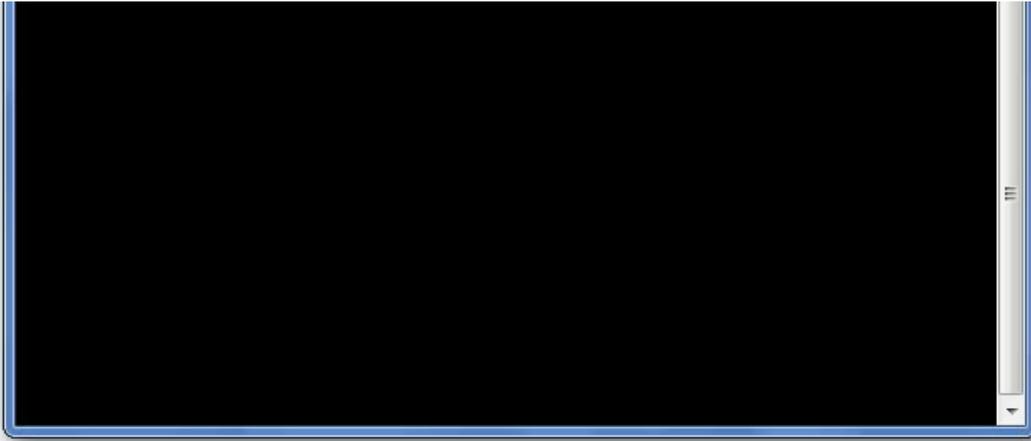
New to the Linux command-line? Confused by all of the other advanced text editors? How-To Geek's got your back with this tutorial to Nano, a simple text-editor that's very newbie-friendly.

When getting used to the command-line, Linux novices are often put off by other, more advanced text editors such as vim and emacs. While they are excellent programs, they do have a bit of a learning curve. Enter Nano, an easy-to-use text editor that proves itself versatile and simple. Nano is installed by default in Ubuntu and many other Linux distros and works well in conjunction with sudo, which is why we love it so much.

## Running Nano

A screenshot of a terminal window. The window title is "yatri@svarga: ~". The terminal shows the command "yatri@svarga:~\$ nano txt\_files/testfile" with a green cursor at the end of the line. The rest of the terminal is black and empty.

```
yatri@svarga: ~  
yatri@svarga:~$ nano txt_files/testfile
```



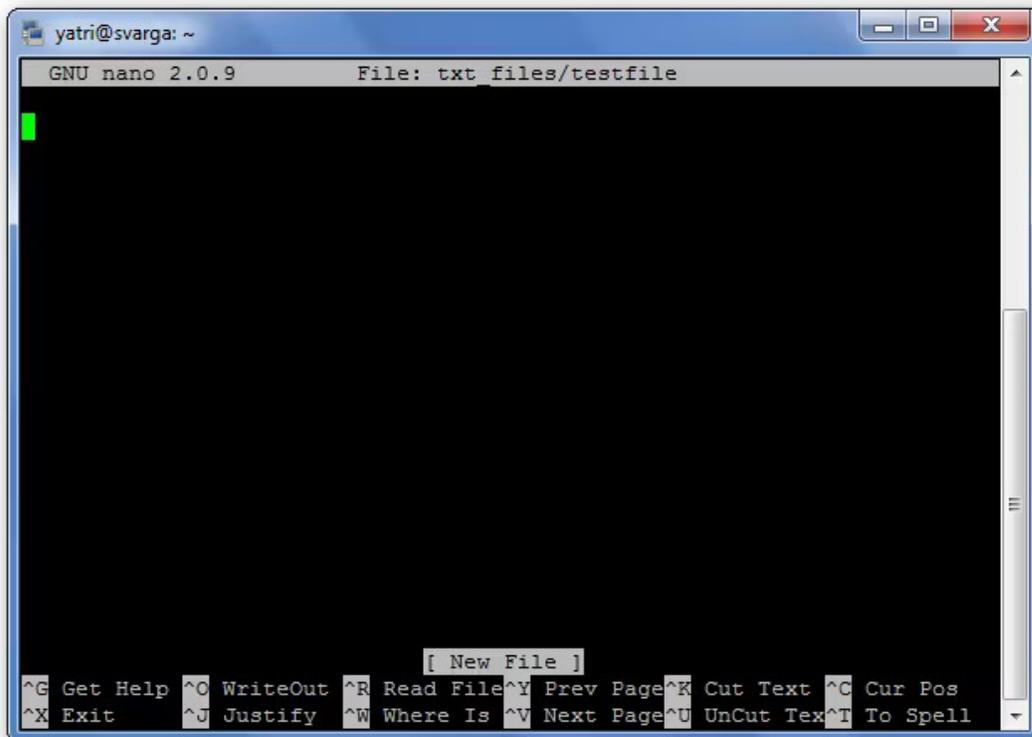
You can run nano in two ways. To open nano with an empty buffer, just type in "nano" at the command prompt.

You can also use the following syntax:

```
{ nano /path/to/filename
```

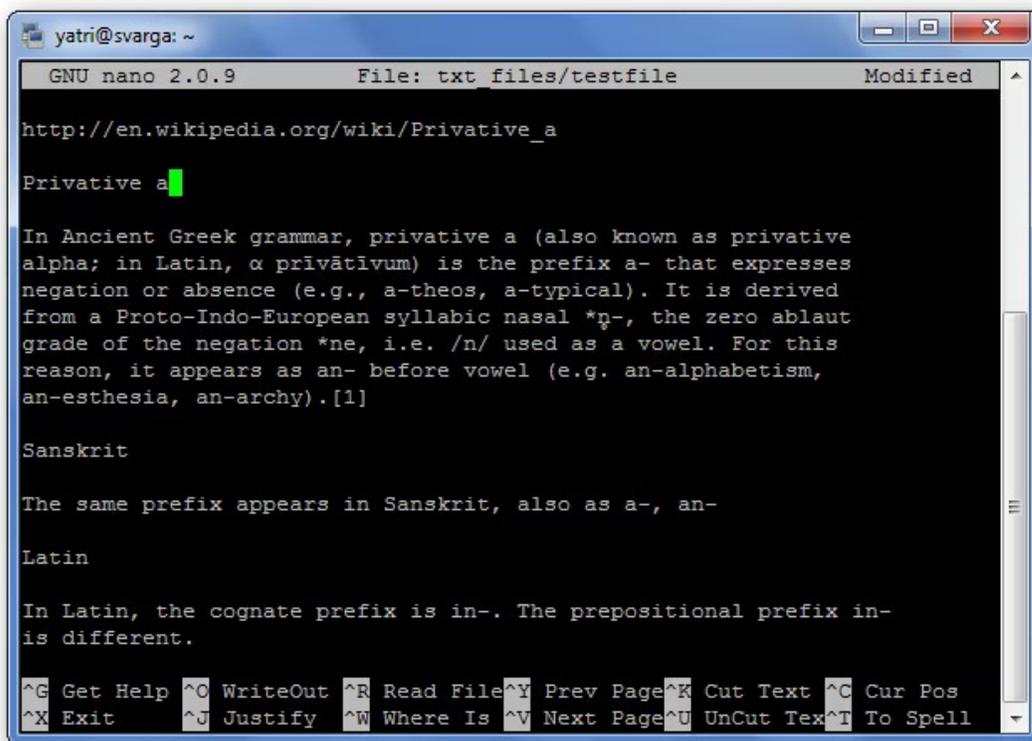
Nano will follow the path and open that file if it exists. If it does not exist, it'll start a new buffer with that filename in that directory.

Let's take a look at the default nano screen.



At the top, you'll see the name of the program and version number, the name of the file you're editing, and whether the file has been modified since it was last saved. If you have a new file that isn't saved yet, you'll see "New Buffer." Next, you'll see the contents of your document, a body of text. The third-line from the bottom is a "system message" line that displays information relevant to the program executing a function. Here, you can see that it says "New File." Lastly, the final two rows at the bottom are what make this program very user-friendly: the shortcut lines.

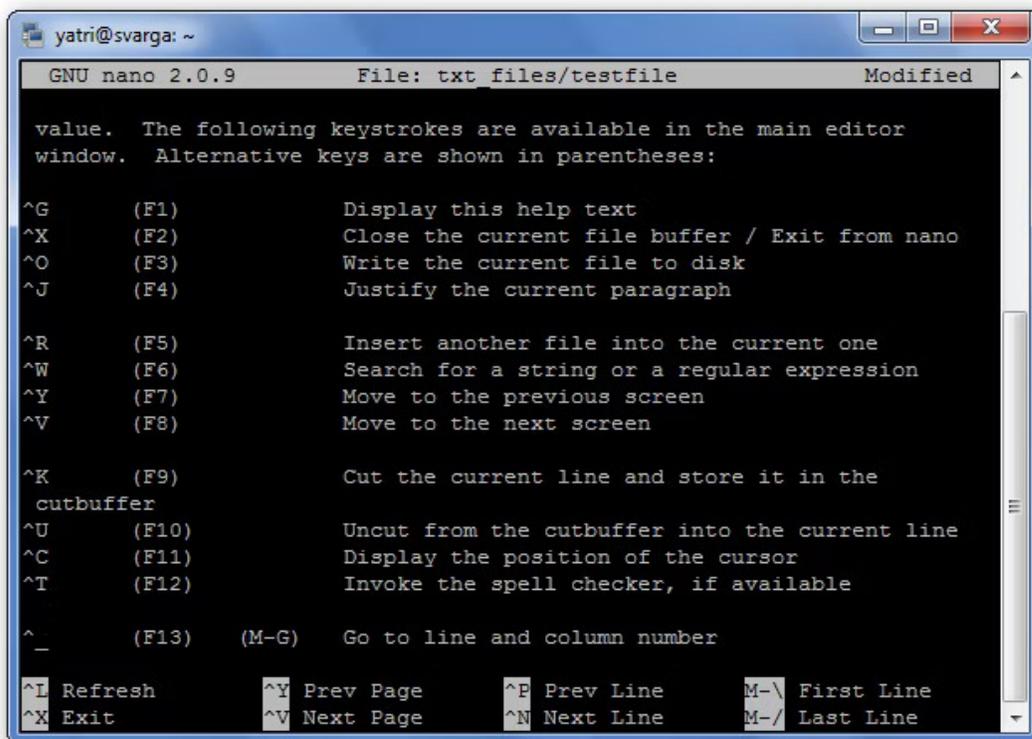
It's a WYSIWYG editor; "what you see is what you get." What you type directly goes into the text input, unless you modify it with a key like Control or Meta. It's pretty simple, so type some text out, or copy something and paste it into your terminal so we have something to play with.



```
yatri@svarga: ~
GNU nano 2.0.9      File: txt_files/testfile      Modified
http://en.wikipedia.org/wiki/Privative_a
Privative a █
In Ancient Greek grammar, privative a (also known as privative
alpha; in Latin, α privativum) is the prefix a- that expresses
negation or absence (e.g., a-theos, a-typical). It is derived
from a Proto-Indo-European syllabic nasal *ǵ-, the zero ablaut
grade of the negation *ne, i.e. /n/ used as a vowel. For this
reason, it appears as an- before vowel (e.g. an-alphabetism,
an-esthesia, an-archy). [1]
Sanskrit
The same prefix appears in Sanskrit, also as a-, an-
Latin
In Latin, the cognate prefix is in-. The prepositional prefix in-
is different.
^G Get Help ^O WriteOut ^R Read File ^Y Prev Page ^K Cut Text ^C Cur Pos
^X Exit ^J Justify ^W Where Is ^V Next Page ^U UnCut Text ^T To Spell
```

## Shortcuts

Program functions are referred to as "shortcuts" in nano, such as saving, quitting, justifying, etc. The most common ones are listed at the bottom of the screen, but there are many more that aren't. Note that nano does not use the Shift key in shortcuts. All shortcuts use lowercase letters and unmodified number keys, so Ctrl+G is NOT Ctrl+Shift+G. Hit Ctrl+G to bring up the Help documentation and scroll down to see a list of valid shortcuts.



```
yatri@svarga: ~
GNU nano 2.0.9      File: txt_files/testfile      Modified
value.  The following keystrokes are available in the main editor
window.  Alternative keys are shown in parentheses:

^G      (F1)          Display this help text
^X      (F2)          Close the current file buffer / Exit from nano
^O      (F3)          Write the current file to disk
^J      (F4)          Justify the current paragraph

^R      (F5)          Insert another file into the current one
^W      (F6)          Search for a string or a regular expression
^Y      (F7)          Move to the previous screen
^V      (F8)          Move to the next screen

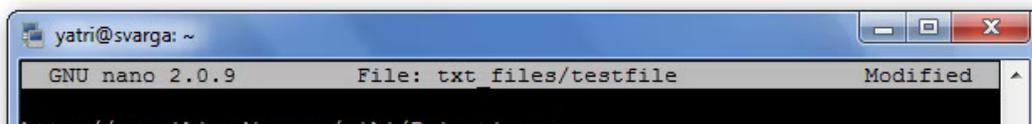
^K      (F9)          Cut the current line and store it in the
cutbuffer
^U      (F10)         Uncut from the cutbuffer into the current line
^C      (F11)         Display the position of the cursor
^T      (F12)         Invoke the spell checker, if available

^_      (F13)         (M-G)  Go to line and column number

^L Refresh      ^Y Prev Page      ^P Prev Line      M-\ First Line
^X Exit         ^V Next Page      ^N Next Line      M-/ Last Line
```

When you're done looking at the list, hit Ctrl+X to exit help.

Let's say you're working on a new text file, or "buffer," and you want to save it. This is called "writing out" and is executed by hitting Ctrl+O. You'll be prompted for a filename to use, and the shortcuts at the bottom will change to reflect what you can enter to complete this particular command.



```
yatri@svarga: ~
GNU nano 2.0.9      File: txt_files/testfile      Modified
http://en.wikipedia.org/wiki/Private_a
```

```
http://en.wikipedia.org/wiki/Privative_a
Privative a
In Ancient Greek grammar, privative a (also known as privative
alpha; in Latin, α privātivum) is the prefix a- that expresses
negation or absence (e.g., a-theos, a-typical). It is derived
from a Proto-Indo-European syllabic nasal *ǵ-, the zero ablaut
grade of the negation *ne, i.e. /n/ used as a vowel. For this
reason, it appears as an- before vowel (e.g. an-alphabetism,
an-esthesia, an-archy).[1]
Sanskrit
The same prefix appears in Sanskrit, also as a-, an-
Latin
In Latin, the cognate prefix is in-. The prepositional prefix in-
is different.
File Name to Write: txt files/testfile
^G Get Help      ^T To Files      M-M Mac Format   M-P Prepend
^C Cancel        M-D DOS Format   M-A Append      M-B Backup File
```

If you want to insert the contents of another file into your current buffer, you'd type Ctrl+R.

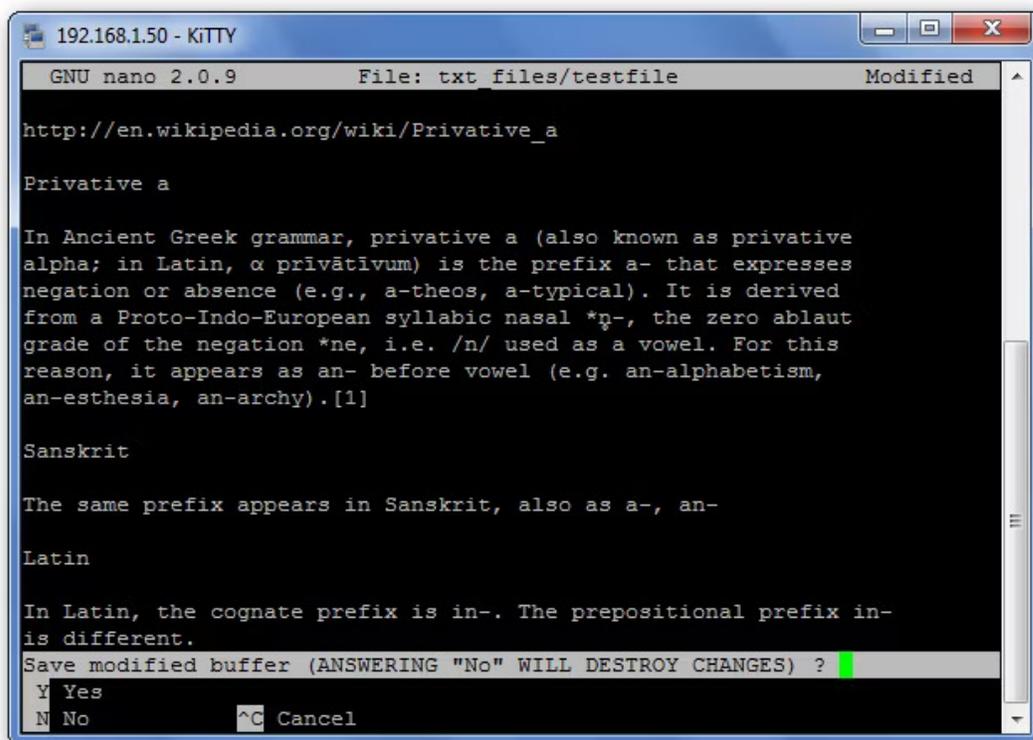
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Sanskrit
The same prefix appears in Sanskrit, also as a-, an-
Latin
In Latin, the cognate prefix is in-. The prepositional prefix in-
is different.
File to insert [from ./] : txt_files/wikip.txt
^G Get Help      ^T To Files      M-F New Buffer
^C Cancel        ^X Execute Command
```

You can cancel both of the previous commands by typing Ctrl+C.

You can hit Escape twice instead of holding down the Control key, if you have trouble doing that. There are also some

commands that require use of the Meta key. On most keyboard layouts, Meta equates to the Alt button.

When you want to quit nano, you just hit Ctrl+X. Nano will politely ask you if you want to save your buffer, and you can cancel this action as well.

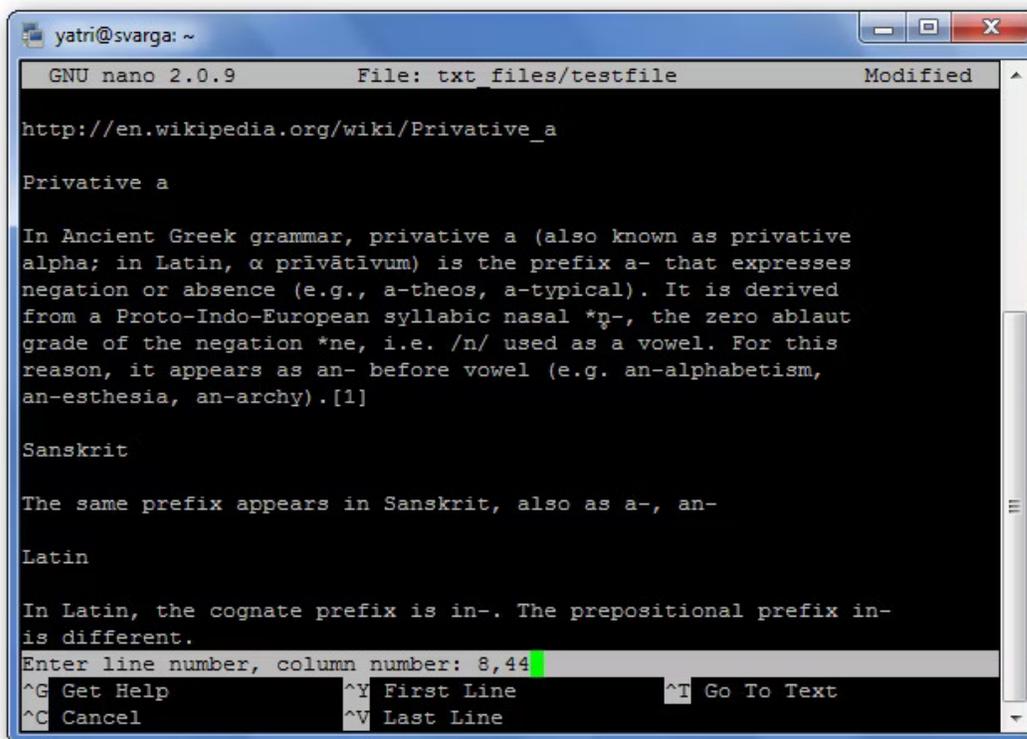
A screenshot of a terminal window titled "192.168.1.50 - KITTY" showing the GNU nano 2.0.9 text editor. The editor's status bar at the top indicates "File: txt\_files/testfile" and "Modified". The main content area displays a Wikipedia article snippet about the prefix "Privative a", including sections for "Sanskrit" and "Latin". At the bottom of the editor, a prompt asks "Save modified buffer (ANSWERING 'No' WILL DESTROY CHANGES) ?" with a green cursor. Below the prompt, the options "Y Yes", "N No", and "^C Cancel" are visible.

## Navigation

Now that we've got a hang of shortcuts, let's get used to moving around a text file very quickly. Of course, you can always use the Home, End, Page Up, Page Down, and the arrow keys to get around, but that requires moving your fingers from the letters that we all love so much.

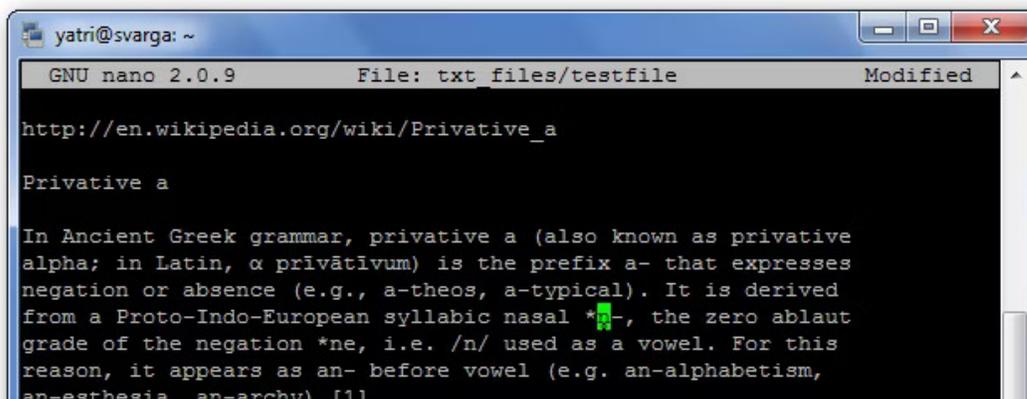
To move the cursor forward or backward, you can type Ctrl+F and Ctrl+B. To move up and down one line at a time, you can type Ctrl+P and Ctrl+N. In other words, you can use those keys instead of the Right, Left, Up, and Down arrows,

respectively. Missing the Home and End keys? You can use Ctrl+A and Ctrl+E. Want to move pages at a time instead? Ctrl+V moves down a page, and Ctrl+Y moves up a page. But wait, there's more! To move forward and backward one word at a time, you can use Ctrl+Space and Meta+Space (remember, that's Alt+Space). And, if you're really in a rush, you can hit Ctrl+\_ and then type in the line number, a comma, and the column number to jump straight there.



The screenshot shows the GNU nano 2.0.9 editor window. The title bar indicates the user is 'yatri@svarga' and the file is 'txt\_files/testfile'. The editor content includes a URL and text about the Greek prefix 'privative a'. A command prompt is active at the bottom, showing 'Enter line number, column number: 8,44' with a green cursor. Below the prompt is a menu of navigation options: '^G Get Help', '^Y First Line', '^T Go To Text', '^C Cancel', and '^V Last Line'.

If you want to see where your cursor currently is, sort of like nano-GPS, hit Ctrl+C.



The screenshot shows the GNU nano 2.0.9 editor window with the same content as the previous image. The cursor is now positioned at the end of the word 'nasal' in the sentence '...the zero ablaut grade of the negation \*ne, i.e. /n/ used as a vowel.' A green box highlights the cursor's position, indicating its current location in the text.

```
Sanskrit

The same prefix appears in Sanskrit, also as a-, an-

Latin

In Latin, the cognate prefix is in-. The prepositional prefix in-
is different.

[ line 8/35 (22%), col 44/64 (68%), char 289/1099 (26%) ]
^G Get Help ^O WriteOut ^R Read File ^Y Prev Page ^K Cut Text ^C Cur Pos
^X Exit ^J Justify ^W Where Is ^V Next Page ^U UnCut Text ^T To Spell
```

## Copying, Cutting, and Pasting

When we want to copy text in graphical environment, we highlight it with the cursor. Similarly, in nano we "mark" it by using the Ctrl+^ command. You simply move the cursor to where you want to start marking, and then you hit Ctrl+^ to "set" it. This will mark everything between the starting point up to and NOT including the cursor.

```
yatri@svarga: ~
GNU nano 2.0.9 File: txt_files/testfile Modified
http://en.wikipedia.org/wiki/Privative_a

Privative a

In Ancient Greek grammar, privative a (also known as privative
alpha; in Latin,  $\alpha$  privativum) is the prefix a- that expresses
negation or absence (e.g., a-theos, a-typical). It is derived
from a Proto-Indo-European syllabic nasal * $\eta$ -, the zero ablaut
grade of the negation *ne, i.e. /n/ used as a vowel. For this
reason, it appears as an- before vowel (e.g. an-alphabetism,
an-esthesia, an-archy).[1]

Sanskrit

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In Latin, the cognate prefix is in-. The prepositional prefix in-
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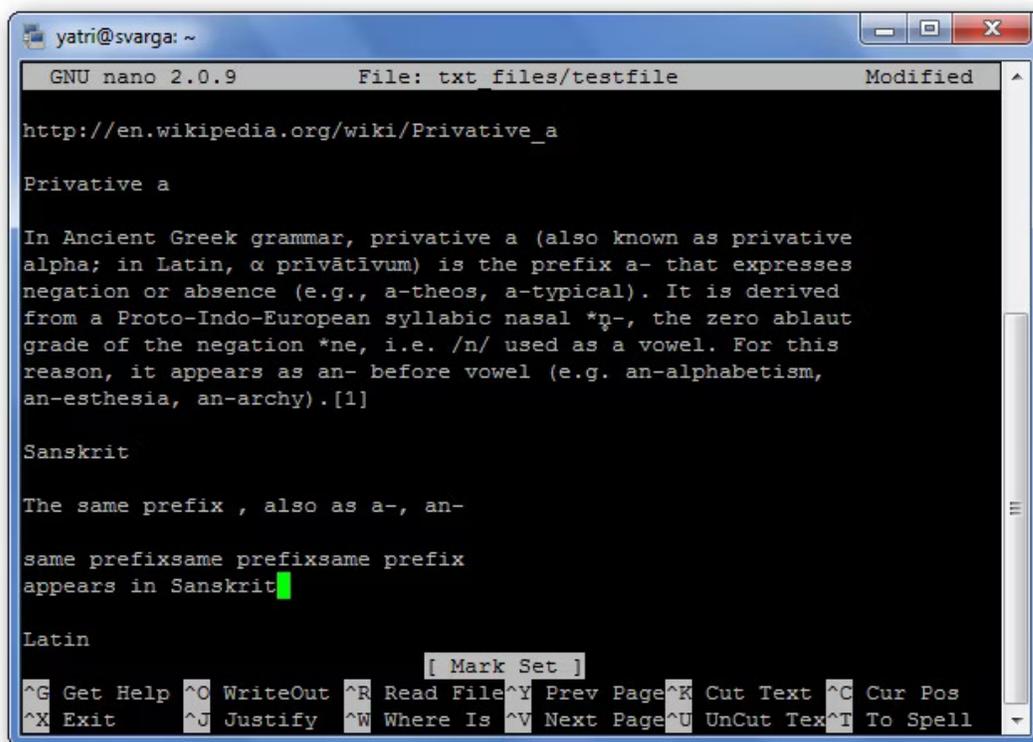
[ Mark Set ]
^G Get Help ^O WriteOut ^R Read File ^Y Prev Page ^K Cut Text ^C Cur Pos
^X Exit ^J Justify ^W Where Is ^V Next Page ^U UnCut Text ^T To Spell
```

Note that the cursor is on the empty space, and copying/cutting will not include this space. You can also mark

backwards from your "set" point. Be careful, however, as you can edit text while your marking. If you messed up, just hit Ctrl+^ again to unset the marker and you can start over.

To copy the marked text, hit Meta+^ . If, instead, you want to cut the text, hit Ctrl+K.

To Paste your text, move the cursor to a suitable position and hit Ctrl+U.



```
yatri@svarga: ~
GNU nano 2.0.9 File: txt_files/testfile Modified
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from a Proto-Indo-European syllabic nasal *p-, the zero ablaut
grade of the negation *ne, i.e. /n/ used as a vowel. For this
reason, it appears as an- before vowel (e.g. an-alphabetism,
an-esthesia, an-archy).[1]
Sanskrit
The same prefix , also as a-, an-
same prefixsame prefixsame prefix
appears in Sanskrit
Latin
[ Mark Set ]
^G Get Help ^O WriteOut ^R Read File ^Y Prev Page ^K Cut Text ^C Cur Pos
^X Exit ^J Justify ^W Where Is ^V Next Page ^U UnCut Text ^T To Spell
```

If you want to remove an entire line of text, simply hit Ctrl+K without highlighting anything. This sometimes comes in handy when editing configuration files.

You know how in notepad, you can force long lines of text to wrap-around into what look like paragraphs? You can toggle that feature in nano with the Meta+L shortcut. Since line wrapping is set to "on" by default, this usually comes in handy in the opposite way; for example, you're writing a config file and want to disable line-wrapping.

```

192.168.150 - KITTY
GNU nano 2.0.9 File: txt_files/testfile Modified
http://en.wikipedia.org/wiki/Privative_a
Privative a
In Ancient Greek grammar, privative a (also known as privative
alpha; in Latin, α privātivum) is the prefix a- that expresses
negation or absence (e.g., a-theos, a-typical). It is derived
from a Proto-Indo-European syllabic nasal *ǵ-, the zero ablaut
grade of the negation *ne, i.e. /n/ used as a vowel. For this
reason, it appears as an- before vowel (e.g. an-alphabetism,
an-esthesia, an-archy).[1]
Sanskrit
The same prefix , also as a-, an-
same prefixsame prefixsame prefix
$ n Sanskritappears in Sanskritappears in Sanskritappears in Sanskritappears in Sanskrit$
Latin
[ Long line wrapping enabled ]
^G Get Help ^O WriteOut ^R Read File^Y Prev Page^K Cut Text ^C Cur Pos
^X Exit ^J Justify ^W Where Is ^V Next Page^U UnCut Text^T To Spell

```

You can see that the line the cursor is on has a "\$" at both the beginning and end. This signifies that there's more text both before and after the portion being displayed on screen.

If you want to search for a text string, hit Ctrl+W, and enter your search term. This search can then be cancelled mid-execution by hitting Ctrl+C without destroying your buffer.

```

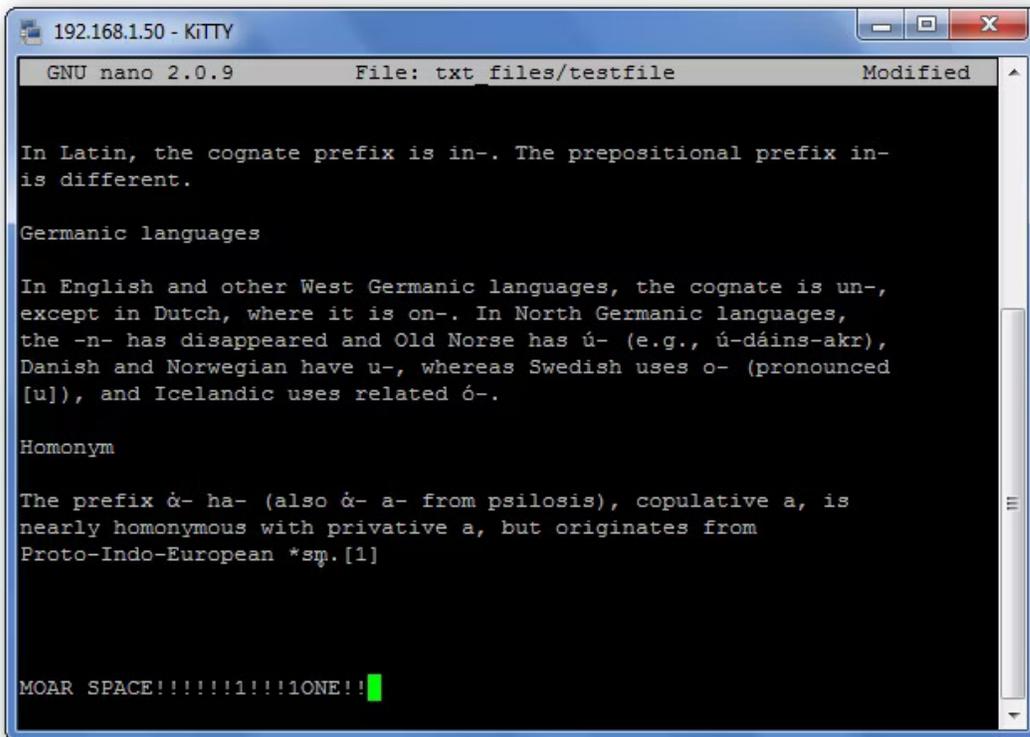
192.168.150 - KITTY
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reason, it appears as an- before vowel (e.g. an-alphabetism,
an-esthesia, an-archy).[1]
Sanskrit
The same prefix , also as a-, an-
same prefixsame prefixsame prefix
appears in Sanskritappears in Sanskritappears in Sanskritappears in Sans$
Latin
Search [sanskrit]: Germanic

```

```
^G Get Help ^Y First Lin ^R Replace ^W Beg of PaM-C Case SenM-R Regexp  
^C Cancel ^V Last Line ^T Go To Lin ^O End of PaM-B Backward ^P PrevHistory
```

The previous search term appears in the square brackets, and leaving the line blank and hitting Enter will repeat that last search.

And after you get really comfortable, you can turn that helpful section at the bottom off by hitting Meta+X to get more screen space for editing!



## Some History

Nano was designed to be similar in look and feel to another program called Pico. Pico was the default text editor of Pine, an email program from back in the day that wasn't distributed with a GPL-friendly license. This meant that redistribution was somewhat of a fuzzy area, and so the TIP project was born. "TIP Isn't Pico" added some functionality that Pico

lacked and was licensed for free distribution, and over time, became the nano we love to use today. For more information, check out the [Nano Project's History section](#) on their FAQ.

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The strength of nano lies in its simplicity of use. The shortcuts work just like in GUI-based word processors like Word and Open Office, so it's just a matter of learning which ones do what. Everything outside of that is just simple text-editing. Next time you have to edit stuff on the command-line, we hope that you'll be more comfortable with it now that you've gotten familiar with nano.

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