

Nu

Modern keybinding for Emacs

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This manual is for Nu (version 0.3 of 2014-08-03), a modern keybinding for Emacs. Copyright © 2014 Pierre-Yves Luyten.

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1 Overview

“Nu “ is a modern keybinding for Emacs.

nu-mode is a global minor mode, its keymap, and the commands which are not provided in raw Emacs.

Modern, means respecting conventions like

1. *Control-f* to find
2. *Control-r* to replace
3. *Control-s* to save
4. *Control-x*, *Control-c*, *Control-v* to cut, copy, paste.

To allow user to leverage large panel of functions, nu-mode relies on prompts. For example, *Control-r* raises a prompt precising which key - actually, which sequence - to press in order to execute desired function : once *Control-r* has been pressed and the “Replace-prompt” appears, pressing *r* will offer to replace-regexp, *a* will revert buffer, while *k* will trigger overwrite-mode, or *j* will join current line with following line.

Most common shortcuts - ie, common to most applications - respect this guideline. Thus, there is a prompt for *s*, *v*, *a*... Almost all prompts rely on Control modifier to be run. There are exceptions. Since *Control+s* invoking a prompt would be irritating, this sequence directly saves buffer, while *Alt+s* runs the “save prompt”.

nu-emacs does not only provides nu-mode. There are also two independant parts

1. nu-alias is a simple mechanism to define aliases into org-mode file(s). This way its easier to maintain aliases to be invoked from Mx. See its REAME.
2. dhammacakka is a light set of customization. See its README.

1.1 Dependencies

Nu depends on several libraries, both native or external ones :

1. help-fns+
2. undo-tree
3. ace-jump
4. recentf
5. cua-selection-mode
6. magit is optional

1.2 Help

Use *Control-q* to quit a sequence or a command in progress. Use *Alt+z* to undo last command. Use *Control+h* to gain access to help functions. This includes the usual shortcuts to describe what a key does, or what a function does. If you messed up, use *Control+w* then *Control+q* to quit.

Prompts are usually triggered using a *Control* modifier and advertise a function using the same key, but with *Alt* modifier. For example, *Control-n* will pop-up a new-prompt, while *Alt-n* will directly create some new untitled buffer.

These prompts offer you to quickly learn where functions are.

2 View and Edit

Obviously just type keys to input text. With slight notes : **Alt+m** to carriage return + indent. Use **Alt+v** + c to insert literally a character.

2.1 Navigate

While arrows still work, Nu uses **Alt** key to navigate. Hence, the thumb often presses **Alt** key, while pinky finger remains safe. This is exactly the same principle than ErgoEmacs applies. Navigate up left right down using **Alt** and :

```
I
J K L
```

Additionally, use **Alt u** and **Alt o** to move to previous, next word.

```
U I O
J K L
```

Use **Alt+\$** to go to end of line, or **Alt+h** to go beginning of line. To reach a line, or the beginning of buffer, or the end of the buffer, use **Alt+g** then the appropriate key. Just read this goto-prompt. To find a char, a string, a line starting with a specific letter, use **Alt+f**. To directly trigger a regexp-search, use **Control+f**.

Notice that f key, used both with ‘control’ and ‘alt’ modifiers, offers find-related features. One of these keys is direct : it directly executes a command, & maybe a very common one. The other key does raise a prompt to offer more features. This principle to have one ‘alt’ modifier plus one ‘control’ modifier applies to other keys, as well.

Numeric arguments can apply to navigation. Press **Alt+1** then **Alt+5** to input 15 as a numeric argument ; now input **Alt+k** to go down one line : this will go down 15 lines.

‘Repeat’ also applies to navigation. Enter **Control+Return** to repeat a navigation.

However - let’s finish with navigation. Use **Alt+Space** to scroll (to the bottom), and **Alt+Backspace** to go back to the top. Emacs vanilla keybindings for ‘help-mode’ and some other offer Space and Backspace to do this - this is one of the few conventions respected into Emacs-nu. Yup.

Note that emacs sometimes require you to scroll another window. This is quite useful to go through *Help* buffer, for example. If you need this, use **Control+Alt+Space**. To scroll the other way around the other window, use first a negative argument (**Alt+-**).

This navigation chapter is meant as a general introduction to emacs-nu ; because navigation is a basis, but also because we saw many emacs-nu principles :

1. Direct keys for most common operations.
2. Prompts for slightly less common to rare operations.
3. Numeric arguments.
4. Repeat.
5. Few emacs convention respected, but some.

These same principles apply to other prompts.

2.2 Selections and Deletion

Now that you can input text plus navigate, let's examine several alternatives to delete (cut) text.

1. Use *Control-x* to cut the current line.
2. Use *Control+j*, *Control+l* to delete backward, forward char. Backspace / Delete are still available.
3. Use *Control + u* to delete previous word.
4. Use *Control + \$* to delete up to end of line.
1. Use *Alt+d* to trigger a prompt. This will offer you to delete what you want (function, org-node, sentence, ...).
2. Alternatively, first mark (select) text you want to select then use *Control+x*.

Right, but how to select? Once again, several alternatives...here we go

1. The paddle allow to directly select ("mark") text : keep *shift* pressed, then move either with arrows or *Alt+<some key of the paddle>*. Using *Alt-Shift-u*, for example, will select previous word (or extend current selection to previous word).
2. An alternative in order to select text is to press *Alt+a* to set a mark, then move to extend selection. You can also use a direct key to set a rectangular mark : *Control+S*, ie *Control+Shift+s*.
3. An alternative is to press *Control+a* to invoke "a-" prompt, allowing to select "a-" word, "a-" sentence, and so on, or to set the mark. Or, to set a rectangular mark. Read the prompt!

Once some text is selected you can "toggle the point and mark" using *Control+a*, or deactivate the selection using *Alt+a*, or cut the text using *Control+x* (or *Alt+d* might be nice depending on your fingers position).

2.3 Cut Copy Paste

When no selection is active, use *Control + x* to cut current line, or a deletion command since deletions actually cut text (as a reminder : emacs 'kill-' commands will copy to kill-ring, while emacs 'delete-' commands will not).

Use *Control + c* to copy current line, or, while a selection is active, copy this selection.

Use *Control + v* to paste the current clipboard. Following *Control + v* will replace this paste with precedent clipboard item. However, if you need to paste several times, first invoke a numeric prefix argument to specify how many times to paste, then type *Control+v*. Or, you can use *Alt + v* to invoke an advanced "Paste" prompt.

2.4 Undo or Redo

Use *Alt+z* to undo. Or, use *Control+z* to invoke undo-tree visualizer to play with discard changes in an advanced way. This screen displays last changes, and you can navigate these using the paddle (*Alt+i*, *Alt+j*, *Alt+k*, *Alt+l*). Press *q* to quit this screen.

2.5 Advanced Edition

Some advanced editon features rely on *Control-r*, which will invoke replace prompt, allowing you to replace-regexp, merge-lines, delete spaces, or invoke other functions.

1. *Alt+y* will copy to current line char under point (on the below line).
2. *Alt+e* will copy to current line char above point (on the above line).

Alt+v prompt to open a line. *Alt+s* prompt allows you to save current column as a goal-column. While you move next and previous lines, cursor will try to reach this column as far as possible.

3 Files Buffers Windows

Use *Control+s* to save current file, *Alt+s* to invoke a prompt to rename it.

1. Use *Control+o* to open a file, a window, a buffer, or use bookmarks,... Or move to another frame...or buffers list...
2. Use *Control+w* to close current window. Note that *Alt+w* raises a prompt with far more options.
3. Use *Control+n* to raise a prompt in order to create a new untitled document or split window. As the opposite of new, *Alt+n* will delete current window.
4. Use *Control+t* to open another tab. It directly shows up an ibuffer list. Key *Alt+t* would swith from a ‘tab’ to another one (other-window).

² will invoke buffers list on the current frame. The tab invokes on another one.Â■

4 Hacking

The print buffer, invoked from *Control+p*, will offer you to eval things or make (compile). The insert prompt, invoked from *Alt+v*, will allow you to insert a file, or the result of an async shell command into a new buffer. The save buffer, from *Alt+s*, offers to use git power to save cats or so.

Control+p also offers to grep, find-grep or ediff.

5 NU for the power user

If you are not used to Emacs, reading this chapter is not necessary. But Emacs veteran should probably start here. emacs-nu redefines many keys, however two points make learning curve shorter

1. For any user, knowing CUA keybinds will make emacs-nu discoverable.
2. For veteran Emacs user, two important sequences remain:

M-x is still there. This means, you can probably obtain what you want. Also, *Control+h* for help-prefix is still there.

Now, two things should probably be kept in mind while trying nu-mode

1. To trigger a major mode sequence, start with *Control+Space*. This will invoke vanilla emacs *Control+c*. For example, into org-mode, use *Control+Space Control+n* to navigate to next node. If you already defined you own keys starting with *Control+c*, do not amend this definition.

```
(define-key mykeymap kbd("\C-c h") myfunction)
```

To invoke above myfunction example, press *Control-SPC h*.

2. You should not rely on *Control+x*, or at least no regularly. However to trigger x prefix, use *Control+g*. This will raise a prompt to trigger Control-X-Prefix.

‘Repeat’ is invoked from *Control+Return*. It was hacked to work with prompts : thus, you can repeat a command ran from a prompt. Prefix arguments (numeric-argument, negative-argument) can work : either use standard *Alt+1*, *Alt+2* ... shortcuts plus one command. Or, from a prompts, directly type a figure (or, a number) then choose the command (eg, from delete prompt, type 3 then invoke kill-word to kill 3 words ; or type 2 then 3 to input 23). Alternatively, first trigger the argument from standard shortcuts, then call the prompt. What is invoked from the prompt will make use of that argument.

Note that ‘where-is’ function, which sometimes advertises shortcuts, will not work as usual, since a prompt is not a keymap : ‘where-is’ do not know how to invoke *Control-r* then *r* to invoke replace-regexp. (Did you try ‘where-is git push’ in magit? this does not work. What is acceptable for maggit is not for a full keymap.)

Thus :

1. For each function accessible from a prompt, an additional shortcut is created, accessible from *menu* plus the same *key* than the prompt, in order to make where-is advertise. Hence, if you read ‘You can run this command with <menu> r k’, please understand, despite it is also true, that you can also run the command with *Control-r-k*.
2. From the help prompt (*Control-h*), run *h* to invoke nu-help. This function will present you all prompts, and will offer you to describe their keymaps - that is, all the functions you can access from these prompts.

6 NU & other libraries

How does NU integrate with other libraries?

6.1 org

As of today, NU has few features related to org. **Alt+s** prompt will allow you to org-store-link. **Alt+v** prompt will allow you to org-table-insert-column or row. More will come later ; as usual help is welcomed!

6.2 magit

Use Alt+s, ie save-prompt, to gain access to magit-status.

6.3 evil-mode

While nu-mode is not a modal editor, and aims at being the most efficient keymap, sometimes using lot of modifiers might still be harassing. Using vim keymap is feasible : you can activate evil-mode, then switch from evil-state to emacs-state as you want.

Even while in evil-state, you will enjoy a few nu-mode keys, like Alt+v, Alt+f, and probably many others. However vim paddle (hjkl for left down up right) and nu-mode paddle (ijkl for up left down right) disagree on three of these four keys! If you want to have evil with nu-mode paddle, I recommend you to make vim paddle similar to nu-mode. Since i will not be available anymore to insert, use h for this purpose. Simply put below lines on your .emacs:

```
(define-key evil-normal-state-map (kbd "h") 'evil-insert)
(define-key evil-normal-state-map (kbd "j") 'evil-backward-char)
(define-key evil-normal-state-map (kbd "i") 'evil-previous-line)
(define-key evil-normal-state-map (kbd "k") 'evil-next-line)
```

Obviously this only fixes the basic paddle. Backward and Forward word are different, but fixing the paddle is fine.

6.4 god-mode

I'm currently waiting for a patch to be integrated, in order to allow god-mode to allow configuring which modifier is added to keys. This patch will allow to use god-mode with alt automatically triggered. Forward / Backward char / line / word will be one key distant, while delete prompts becomes nicer. Commands relying on *Control* modifier will be triggered with g key.

7 Contributing

As of today nu-mode only has one author, & contribution is more than welcomed. Please look at [github](#).

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