#### **10 Easy Steps to Becoming a Vim Expert**

Joe 'Zonker' Brockmeier openSUSE Community Manager







#### A little goes a long way

- You can do a lot as long as you understand the basics in Vim:
  - Movement
    - > h,j,k,l
    - > w, e, \$, 0, gg, G
  - Search and replace
  - Undo
  - Basic highlight / copy and paste
  - Using counts with operators (d5w, d0, etc.)

# N

## You can do more if you dig in

- Vim has a steep learning curve
- If you're just starting, be sure to run through vimtutor
- If you spend a lot of time editing text, it's worth it!



## **10: Using Abbreviations**

- You can replace text on the fly
- You can make sure that you spell things right (use abbreviations to correct poor spelling...)
- Avoid spelling out long words, names.



#### To add an abbreviation

Enter command mode and use the ab command:

- :ab zkr Zonker
- :ab orly O RLY?
- :ab yrly YA RLY!



#### **Using abbreviations**

To use the abbreviation for O RLY? type orly and hit space.

Note that Vim will convert any string with "orly" into "O RLY?" unless you limit the abbreviation to insert mode, like so:

:iab orly O RLY?

To avoid using an abbreviation, type Ctrl-v after the string, which tells Vim not to expand the string.



#### 9: Use tabs

- As of Vim 7, Vim has a tabbed interface for its GUI (gvim) and terminal mode.
- You can use tabs to consolidate multiple Vim instances into one Vim instance.

<u>File E</u> dit <u>V</u> iew <u>T</u> erminal Ta <u>b</u> s <u>H</u> elp
SaX.log Xgl.0.log NetworkManager
Apr 19 21:59:19 winslow NetworkManager: <info> DHCP daemon state is now 3 (renew) for interface e th1</info>
Apr 20 00:38:41 winslow NetworkManager: <debug> [1208666321.967835] nm_hal_device_added(): New dev</debug>
<pre>ice added (hal udi is '/org/freedesktop/Hal/devices/usb_device_46d_c019_noserial').</pre>
Apr 20 00:38:41 winslow NetworkManager: <debug> [1208666321.999213] nm_hal_device_added(): New dev</debug>
<pre>ice added (hal udi is '/org/freedesktop/Hal/devices/usb_device_46d_c019_noserial_if0').</pre>
Apr 20 00:38:42 winslow NetworkManager: <debug> [1208666322.040158] nm_hal_device_added(): New dev</debug>
<pre>ice added (hal udi is '/org/freedesktop/Hal/devices/usb_device_46d_c019_noserial_if0_logicaldev_in</pre>
put'). Ann 20.02:04:42 winslow Natural/Managary (infe). DUCD deemon state is now 2 (renew) for interface o
Apr 20 03:04:42 winslow NetworkManager: <info> DHCP daemon state is now 3 (renew) for interface e th1</info>
Apr 20 06:28:45 winslow NetworkManager: <info> DHCP daemon state is now 3 (renew) for interface e</info>
th1
Apr 20 07:59:22 winslow NetworkManager: <info> DHCP daemon state is now 3 (renew) for interface e</info>
th1
Apr 20 08:45:59 winslow NetworkManager: <debug> [1208695559.050136] nm_hal_device_added(): New dev</debug>
<pre>ice added (hal udi is '/org/freedesktop/Hal/devices/usb_device_5ac_1290_2c9b0582c02c880dd4fef7e1df</pre>
d8f723360cf138').
Apr 20 08:45:59 winslow NetworkManager: <debug> [1208695559.078679] nm_hal_device_added(): New dev</debug>
<pre>ice added (hal udi is '/org/freedesktop/Hal/devices/usb_device_5ac_1290_2c9b0582c02c880dd4fef7e1df</pre>
d8f723360cf138_if0').
Apr 20 08:57:22 winslow NetworkManager: <info> DHCP daemon state is now 3 (renew) for interface e</info>
th1
Apr 20 09:24:15 winslow NetworkManager: <info> DHCP daemon state is now 3 (renew) for interface e th1</info>
Apr 20 09:41:04 winslow NetworkManager: <info> DHCP daemon state is now 3 (renew) for interface e</info>
th1
Apr 20 09:48:13 winslow NetworkManager: <info> DHCP daemon state is now 3 (renew) for interface e</info>
th1 29099,1 99%

#### How to use tabs



#### vim -p file1 file2 file3

You can open tabs within Vim:

#### :tabnew or :tabnew filename

You can use tabf to find files and open in a new tab:

#### :tabf file\*



#### **Moving between tabs**

Using Vim's GUI, just click on the tabs.

In the terminal mode use:

:tabn to move to the next tab

:tabp to move to the previous tab

**:tabfirst** to move to the first tab

:tablast to jump to the last tab



### 8: Mappings

Mappings are a way to assign a hotkey or key combination to an action.

You can reduce this:

:call functionName()

To this:

#### Ctrl-n



#### How to use mappings

To set a mapping, use one of the mapping commands:

- 1. cmap handles command-line mappings.
- 2. imap handles insert-only mappings.
- 3. map maps keys in normal, visual, and operator-pending mode.
- 4. map! maps keys in Vim's command and insert modes.
- 5. nmap maps keys in normal mode only.
- 6. omap maps keys in operator-pending mode only.
- 7. vmap maps keys in visual mode only.

(Vim has plenty of modes...)



#### How to use mappings, Part II

Run the following:

:map <F10> <Esc>:tabnew<CR>

Which assigns :tabnew to F10.

So, :mapcommand <key> <command>

Another example:

#### :map <S-A-F2> <Esc>:syn off<CR>



#### **Get rid of mappings**

If you want to get rid of a mapping:

:unmap <F10>



#### 7: Viewports

• You can split Vim's "viewport" to see multiple files or the same file in different locations.

- You can split vertically or horizontally.
- You can choose how many lines each viewport takes.



#### **Horizontal split**

#### <u>File Edit View Terminal Tabs Help</u>

Apr 20 07:59:22 winslow NetworkManager: <info> DHCP daemon state is now 3 (renew) for interface e th1 Apr 20 08:45:59 winslow NetworkManager: <debug> [1208695559.050136] nm hal device added(): New dev ice added (hal udi is '/org/freedesktop/Hal/devices/usb device 5ac 1290 2c9b0582c02c880dd4fef7e1df d8f723360cf138'). Apr 20 08:45:59 winslow NetworkManager: <debug> [1208695559.078679] nm hal device added(): New dev ice added (hal udi is '/org/freedesktop/Hal/devices/usb device 5ac 1290 2c9b0582c02c880dd4fef7e1df d8f723360cf138 if0'). Apr 20 08:57:22 winslow NetworkManager: <info> DHCP daemon state is now 3 (renew) for interface e th1 Apr 20 09:24:15 winslow NetworkManager: <info> DHCP daemon state is now 3 (renew) for interface e th1 NetworkManager 29099.1 Bot Apr 20 06:28:45 winslow NetworkManager: <info> DHCP daemon state is now 3 (renew) for interface e th1 Apr 20 07:59:22 winslow NetworkManager: <info> DHCP daemon state is now 3 (renew) for interface e th1 Apr 20 08:45:59 winslow NetworkManager: <debug> [1208695559.050136] nm hal device added(): New dev ice added (hal udi is '/org/freedesktop/Hal/devices/usb\_device\_5ac\_1290\_2c9b0582c02c880dd4fef7e1df d8f723360cf138'). Apr 20 08:45:59 winslow NetworkManager: <debug> [1208695559.078679] nm hal device added(): New dev ice added (hal udi is '/org/freedesktop/Hal/devices/usb device 5ac 1290 2c9b0582c02c880dd4fef7e1df d8f723360cf138 if0'). Apr 20 08:57:22 winslow NetworkManager: <info> DHCP daemon state is now 3 (renew) for interface e th1 Apr 20 09:24:15 winslow NetworkManager: <info> DHCP daemon state is now 3 (renew) for interface e th1 NetworkManager 29103,1 Bot

## **Vertical split**

<u>File Edit View Terminal Tab</u>	s <u>H</u> elp		
		<pre>fo&gt; DIApr 20 07:59:22 winslow NetworkManager face eIDHCP daemon state is now 3 (renew) for</pre>	
Apr 19 21:39:48 winslow   HCP daemon state is now   th1	3 (renew) for inter	<pre>fo&gt; D Apr 20 08:45:59 winslow NetworkManager face e [1208695559.050136] nm_hal_device_adde levice added (hal udi is '/org/freedesh</pre>	ed(): New d <top de<="" hal="" th=""></top>
Apr 19 21:42:04 winslow ∣ HCP daemon state is now ∶ th1 @		<pre>fo&gt; D[vices/usb_device_5ac_1290_2c9b0582c02c face e[e1dfd8f723360cf138').</pre>	r: <debug></debug>
<mark>NetworkManager</mark> Apr 19 21:37:24 winslow   HCP daemon state is now		99% evice added (hal udi is '/org/freedesk fo> D vices/usb_device_5ac_1290_2c9b0582c02c face e <mark> </mark> e1dfd8f723360cf138_if0').	<top de<br="" hal="">c880dd4fef7</top>
th1 Apr 19 21:39:48 winslow   HCP daemon state is now		face e <mark>l</mark> eth1	r interface ≡
th1 Apr 19 21:42:04 winslow   HCP daemon state is now   th1			
Apr 19 21:44:08 winslow   HCP daemon state is now   th1			
Apr 19 21:46:27 winslow HCP daemon state is now th1			
Apr 19 21:48:33 winslow HCP daemon state is now th1	3 (renew) for inter	face e <mark>l</mark> ~	
NetworkManager :10 split	29083,1	99% NetworkManager 29099,1	Bot



#### **Using Viewports**

Simple: :sp or :split

Assign a number of lines: :15 split

Open a file: **:split** *filename* 

Vertical split: :vsplit filename



### **Moving between viewports**

Cycle between windows: Ctrl-w Ctrl-w

(All Ctrl-w commands are in command mode – Ctrl-w deletes a word in insert mode...)

Normal movement keys work with viewports... Move one viewport down: Ctrl-w j

Move one viewport to the left: Ctrl-w h

Reduce or enlarge viewport: Ctrl-w – or Ctrl-w +



#### More viewport goodness

"Rotate" the windows to the right **Ctrl-w r** 

"Rotate" the windows to the left **Ctrl-w R** 

Make viewports equal size: Ctrl-w =

Close active viewport: Ctrl-w q or :q

# N

#### 6: Marks

- Marks are bookmarks or placeholders in a file.
- · You can use any letter in the alphabet.
- · Lowercase letters are specific to a file.
- Uppercase letters are "global" and specific to a file.
  - Using a global mark will open the file and close the current file.



#### **Using marks**

To set a mark, in command mode: **ma** 

To set a global mark: **mA** 

To use a mark:

**`a** (that's a backtick)

Marks can be used with commands:

- :'a,'z w filename
- :'a,'k s/searchstring/replacestring/g



## Using marks, part II

# To display marks: **:marks**

<u>File Edit View Terminal Tabs Help</u>

th1		
Apr 20 06:2	8:4	5 winslow NetworkManager: <info> DHCP daemon state is now 3 (renew) for interface e</info>
th1		
Apr 20 07:5	9:2	2 winslow NetworkManager: <info> DHCP daemon state is now 3 (renew) for interface e</info>
th1		
		9 winslow NetworkManager: <debug> [1208695559.050136] nm_hal_device_added(): New dev</debug>
		udi is '/org/freedesktop/Hal/devices/usb_device_5ac_1290_2c9b0582c02c880dd4fef7e1df
d8f723360cf		
		9 winslow NetworkManager: <debug> [1208695559.078679] nm_hal_device_added(): New dev</debug>
		udi is '/org/freedesktop/Hal/devices/usb_device_5ac_1290_2c9b0582c02c880dd4fef7e1df
d8f723360cf	138	_if0').
:marks		
		file/text
' 10		Feb 8 08:14:11 linux NetworkManager: <debug> [1202487251.453920] nm_system_device</debug>
g 10		Feb 8 08:14:11 linux NetworkManager: <debug> [1202487251.453920] nm_system_device</debug>
h 29089		Apr 19 21:50:55 winslow NetworkManager: <info> DHCP daemon state is now 3 (renew)</info>
A 29098		Apr 20 06:28:45 winslow NetworkManager: <info> DHCP daemon state is now 3 (renew)</info>
0 29099		Apr 20 07:59:22 winslow NetworkManager: <info> DHCP daemon state is now 3 (renew)</info>
1 218		/etc/sysconfig/network/config
2 1		/etc/networks
3 228		/etc/sysconfig/network/config
4 518 5 1		/etc/init.d/network
5 1 6 13		<pre>/etc/sysconfig/network/ifcfg-eth1 /etc/NetworkManager/dispatcher.d/netcontrol_global_hooks</pre>
7 1		/etc/NetworkManager/dispatcher.d/netcontrol_
8 8		/etc/NetworkManager/dispatcher.d
9 220		/etc/sysconfig/network/config
" 29098		Apr 20 06:28:45 winslow NetworkManager: <info> DHCP daemon state is now 3 (renew)</info>
[ 1		Feb 8 08:14:11 linux NetworkManager: <info> starting</info>
29112		Apr 20 09:59:50 winslow NetworkManager: <info> DHCP daemon state is now 3 (renew)</info>
		type command to continue



#### **5: Jumps**

- · Jumps are a recording of your movements through files.
- Much like Firefox's history.
- Jumps can include marks, but also include any other movements through Vim's history.

# N

### **Using Jumps**

#### Use :jumps to see your movements within a file, like so:

:jumps	5		
jump	line	col	file/text
100	4	0	nautilus-debug-log.txt
99	44	0	nautilus-debug-log.txt
98	26	0	Writing/opensuse.org/beta-annc.html
97	30	5	Writing/opensuse.org/beta-annc.html
96	36	195	Writing/opensuse.org/beta-annc.html
95	17	0	Writing/opensuse.org/beta-annc.html
94	83	33	Writing/opensuse.org/beta-annc.html
93	13	378	Writing/opensuse.org/beta-annc.html
92	4	0	Writing/opensuse.org/beta-annc.html
91	11	0	Writing/opensuse.org/beta-annc.html
90	1	0	opendns.txt



## **Cycling through your jumps**

Using Ctrl-o and Ctrl-i will "cycle" through your jump list:

Ctrl-o will move you to the "last" jump (1<sup>st</sup> in the history list).

Ctrl-i will move you to the oldest jump.

This history is saved in your .viminfo file.



## **Other useful Vim movement commands**

Also be familiar with Vim movement commands:

**G** = bottom of file

**gg** = top of file

 $\mathbf{H}$  = top of screen

 $\mathbf{M}$  = middle of screen

**L** = bottom of screen



## 4: Folding

- $\cdot$  Folding allows you to see more of a file in one screen.
- $\cdot$  Great when working on code, HTML, etc.
- Folding works in command mode and visual mode.
- Folds can be "nested" so multiple folds can be folded into one big fold.



#### Working with folds...

- **zf** starts the folding command
- Can then enter a movement command (like **12j**) so **zf12j** will "fold" 13 lines (12 + current line.
- Can fold in visual mode using visual command and then enter **zf**.
- **zo** will "open" a fold.
- Deleting a folded "line" will delete the entire section. Same is true of Yank commands, etc.
- **zk** and **zj** will move to next and previous folds, respectively.
- **zd** deletes a fold
- **zm** and **zM** close folds.



#### **3: Use Vim scripts**

- Vim.org has thousands of scripts that probably do what you want.
- Everything from converting Vim to a Bash IDE to a Twitter client.
- If you don't find what you want, write your own.
  - Scripts usually live in ~/.vim/plugins
- Find scripts at http://www.vim.org/scripts/
- Source scripts with :source scriptname
- Syntax files live in the ~/.vim/syntax directory.

# N

#### 2: Use Vim's "easy" mode

- You don't always have to do things the hard way!
- Vim's easy mode acts (mostly) as a standard text editor.
- Easy mode works in text and GUI modes, but I recommend GUI if you're going to go with that...
- You can still enter normal Vim mode from the "easy" mode, but have all the advantages of Vim in easy mode.
- Best way to introduce newbies to Vim!



#### Using easy mode

- $\cdot$  Run evim or gvim -y from the command line.
- Provides a context menu
- Provides familiar shortcuts (like Ctrl-v for paste, rather than Vim's traditional paste commands)
- Still offers Vim's tools & features.
- · Displays Vim's usual shortcuts in menus.
- Leave easy mode by going to:

```
- Edit -> Global Settings -> Toggle Insert Mode
```

```
-or using :set im!
```



### 1: Hack your .vimrc

- If you use commands frequently, add them to your .vimrc.
- Set Vim up exactly as you like it.
- Commands are used in the vimrc mostly as they are when entered in Vim, just skip the : first...
- · Comments start with "
- · Can use mappings, set / unset commands, and much more.
- Save time start with an existing vimrc (see /etc/vimrc on most distros... or use Google...)

# **Thanks!**

Joe 'Zonker' Brockmeier openSUSE Community Manager http://zonker.opensuse.org/ zonker@opensuse.org



