Emacs is My New Window Manager

Most companies that employ me, hand me a "work laptop" as I enter the building. Of course, I do not install personal software and keep a clear division between my "work like" and my "real life."

However, I also don't like to carry two computers just to jot down personal notes. My remedy is to install a virtualization system and create a "personal" virtual machine. (Building cloud software as my day job means I usually have a few VMs running all the time.)

Since I want this VM to have minimal impact on my work, I base it on a "Server" version of Ubuntu. however, I like some graphical features, so my most minimal *after market* installation approach is:[1]

```
sudo apt-get install -y xinit
```

Since most of what I do is `org-mode` work, the next step is:

```
sudo apt-get install -y emacs
```

I have played with a lot of window managers, and while some claim to be unobtrusive and minimal[2], I really just want Emacs in full-screen mode (utilizing all screen estate possible).[3]

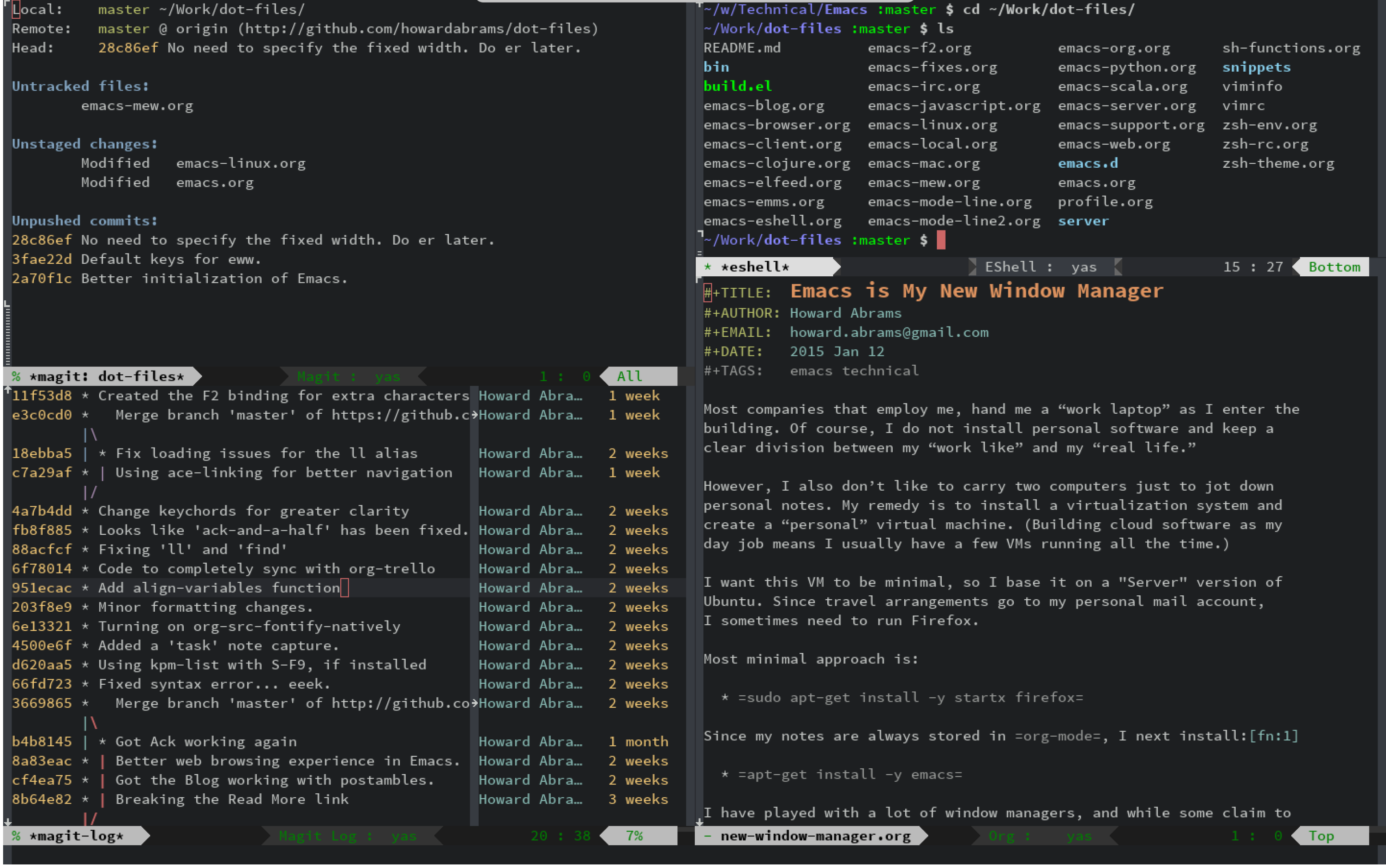
To accomplish this, I create an `.xinitrc` file that contains only:

```
exec emacs
```

That's right, folks, **Emacs is my window manager**. I add the following to my Emacs `init.el` script:

```
(set-frame-parameter nil 'fullscreen 'fullboth)
```

And now I can split the screen into windows, launch programs– even edit files– all without fondling the mouse, and since Emacs is in its graphical mode, I can use my favorite fonts, decorate the fringe, etc.



```
Local:    master ~/Work/dot-files/
Remote:   master @ origin (http://github.com/howardabrams/dot-files)
Head:     28c86ef No need to specify the fixed width. Do er later.

Untracked files:
        emacs-mew.org

Unstaged changes:
        Modified   emacs-linux.org
        Modified   emacs.org

Unpushed commits:
28c86ef No need to specify the fixed width. Do er later.
3fae22d Default keys for eww.
2a70f1c Better initialization of Emacs.
```

```
% *magit: dot-files*          Magit : yas          1 : 0   All
```

```
11f53d8 * Created the F2 binding for extra characters Howard Abra…  1 week
e3c0cd0 *   Merge branch 'master' of https://github.c Howard Abra…  1 week
        |\
18ebba5 | * Fix loading issues for the ll alias        Howard Abra…  2 weeks
c7a29af * | Using ace-linking for better navigation    Howard Abra…  1 week
        |/
4a7b4dd * Change keychords for greater clarity        Howard Abra…  2 weeks
fb8f885 * Looks like 'ack-and-a-half' has been fixed. Howard Abra…  2 weeks
88acfcf * Fixing 'll' and 'find'                      Howard Abra…  2 weeks
6f78014 * Code to completely sync with org-trello     Howard Abra…  2 weeks
951ecac * Add align-variables function                Howard Abra…  2 weeks
203f8e9 * Minor formatting changes.                   Howard Abra…  2 weeks
6e13321 * Turning on org-src-fontify-natively         Howard Abra…  2 weeks
4500e6f * Added a 'task' note capture.                Howard Abra…  2 weeks
d620aa5 * Using kpm-list with S-F9, if installed      Howard Abra…  2 weeks
66fd723 * Fixed syntax error... eeek.                 Howard Abra…  2 weeks
3669865 *   Merge branch 'master' of http://github.co Howard Abra…  2 weeks
        |\
b4b8145 | * Got Ack working again                     Howard Abra…  1 month
8a83eac * | Better web browsing experience in Emacs.  Howard Abra…  2 weeks
cf4ea75 * | Got the Blog working with postambles.     Howard Abra…  2 weeks
8b64e82 * | Breaking the Read More link               Howard Abra…  3 weeks
        |/
```

```
% *magit-log*          Magit Log : yas          20 : 38   7%
```

```
~/w/Technical/Emacs :master $ cd ~/Work/dot-files/
~/Work/dot-files :master $ ls
README.md          emacs-f2.org          emacs-org.org       sh-functions.org
bin                emacs-fixes.org       emacs-python.org    snippets
build.el           emacs-irc.org         emacs-scala.org     viminfo
emacs-blog.org     emacs-javascript.org  emacs-server.org    vimrc
emacs-browser.org  emacs-linux.org       emacs-support.org   zsh-env.org
emacs-client.org   emacs-local.org       emacs-web.org       zsh-rc.org
emacs-clojure.org  emacs-mac.org         emacs.d             zsh-theme.org
emacs-elfeed.org   emacs-mew.org         emacs.org
emacs-emms.org     emacs-mode-line.org   profile.org
emacs-eshell.org   emacs-mode-line2.org  server
~/Work/dot-files :master $
```

```
* *eshell*          EShell : yas          15 : 27   Bottom
```

```
#+TITLE:  Emacs is My New Window Manager
#+AUTHOR: Howard Abrams
#+EMAIL:  howard.abrams@gmail.com
#+DATE:   2015 Jan 12
#+TAGS:   emacs technical

Most companies that employ me, hand me a “work laptop” as I enter the
building. Of course, I do not install personal software and keep a
clear division between my “work like” and my “real life.”

However, I also don’t like to carry two computers just to jot down
personal notes. My remedy is to install a virtualization system and
create a “personal” virtual machine. (Building cloud software as my
day job means I usually have a few VMs running all the time.)

I want this VM to be minimal, so I base it on a "Server" version of
Ubuntu. Since travel arrangements go to my personal mail account,
I sometimes need to run Firefox.

Most minimal approach is:

  * =sudo apt-get install -y startx firefox=

Since my notes are always stored in =org-mode=, I next install:[fn:1]

  * =apt-get install -y emacs=

I have played with a lot of window managers, and while some claim to
```

```
- new-window-manager.org          Org : yas          1 : 0   Top
```

If I need a program that doesn’t run well *within* Emacs, I can call `xterm` (or any other application) with `M-! xterm`.

Web Browsing

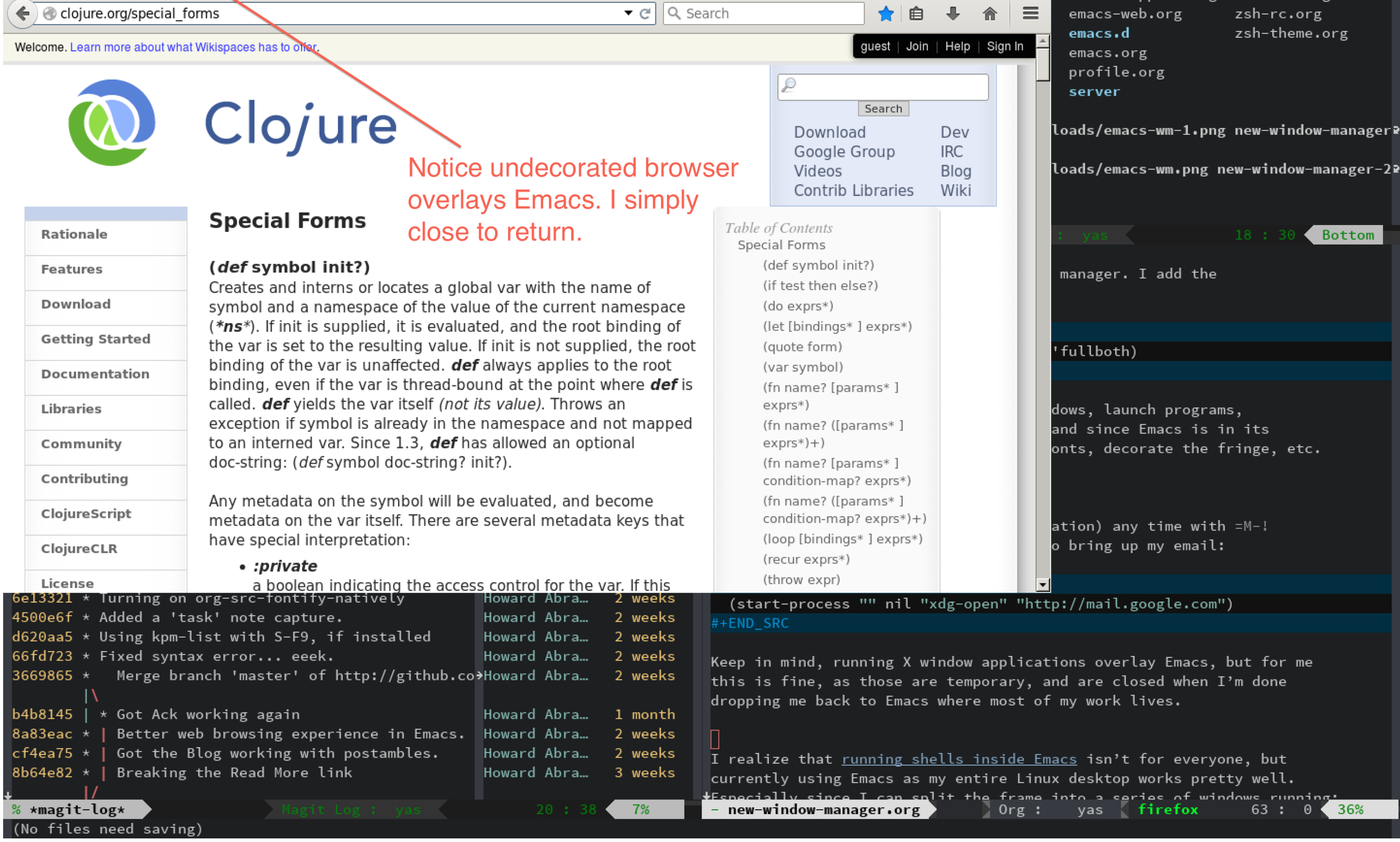
Unlike the previous century, this century has been defined by web applications. Most of my web efforts are looking up code documentation and other technical resources, and this is good using a text-oriented browser like w3m or eww embedded within Emacs.

Whenever a page doesn’t render well (can you say JavaScript), I can hit the `&` key to bring up a web browser.[4]. You can kick off a graphical browser to a specific URL by binding a function that calls this:

```
(start-process "" nil "xdg-open" "http://mail.google.com")
```

Keep in mind, running X window applications without a *real* window manager will overlay Emacs, which is only an option if the window is temporary. When closed, you are back to Emacs:

```
emacs-server.org    vimrc
emacs-support.org   zsh-env.org
```



Notice undecorated browser overlays Emacs. I simply close to return.

Special Forms

(*def* symbol init?)
Creates and interns or locates a global var with the name of symbol and a namespace of the value of the current namespace (***ns***). If init is supplied, it is evaluated, and the root binding of the var is set to the resulting value. If init is not supplied, the root binding of the var is unaffected. ***def*** always applies to the root binding, even if the var is thread-bound at the point where ***def*** is called. ***def*** yields the var itself *(not its value)*. Throws an exception if symbol is already in the namespace and not mapped to an interned var. Since 1.3, ***def*** has allowed an optional doc-string: (*def* symbol doc-string? init?).

Any metadata on the symbol will be evaluated, and become metadata on the var itself. There are several metadata keys that have special interpretation:

- ***:private***
  a boolean indicating the access control for the var. If this

Table of Contents
Special Forms
(def symbol init?)
(if test then else?)
(do exprs*)
(let [bindings*] exprs*)
(quote form)
(var symbol)
(fn name? [params*] exprs*)
(fn name? ([params*] exprs*)+)
(fn name? [params*] condition-map? exprs*)
(fn name? ([params*] condition-map? exprs*)+)
(loop [bindings*] exprs*)
(recur exprs*)
(throw expr)

```
emacs-web.org        zsh-rc.org
emacs.d              zsh-theme.org
emacs.org
profile.org
server

loads/emacs-wm-1.png new-window-manager

loads/emacs-wm.png new-window-manager-2

: yas                    18 : 30   Bottom

 manager. I add the

'fullboth)

dows, launch programs,
and since Emacs is in its
onts, decorate the fringe, etc.

ation) any time with =M-!
o bring up my email:
```

```
6e13321 * Turning on org-src-fontify-natively          Howard Abra…  2 weeks
4500e6f * Added a 'task' note capture.                 Howard Abra…  2 weeks
d620aa5 * Using kpm-list with S-F9, if installed       Howard Abra…  2 weeks
66fd723 * Fixed syntax error... eeek.                  Howard Abra…  2 weeks
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8b64e82 * | Breaking the Read More link                Howard Abra…  3 weeks
        |/
% *magit-log*          Magit Log :  yas          20 : 38   7%
(No files need saving)
```

```
  (start-process "" nil "xdg-open" "http://mail.google.com")
#+END_SRC

Keep in mind, running X window applications overlay Emacs, but for me
this is fine, as those are temporary, and are closed when I’m done
dropping me back to Emacs where most of my work lives.


I realize that running shells inside Emacs isn’t for everyone, but
currently using Emacs as my entire Linux desktop works pretty well.
Especially since I can split the frame into a series of windows running:
- new-window-manager.org     Org :    yas   firefox     63 :  0   36%
```

Update: Since I wrote this section, a number of people have mentioned some light-weight window managers. If you need to use a browser, but still want Emacs to utilize every possible pixel, the best seems to be Ratpoison[5] (with DWM a close second).

Other Applications

I realize that running shells inside Emacs isn’t for everyone, but currently using Emacs as my entire Linux desktop works pretty well. Especially since I can split the frame into a series of windows running:

- IRC
- Twitter
- RSS Feed Reader
- Stack Exchange
- Google Talk/Jabber

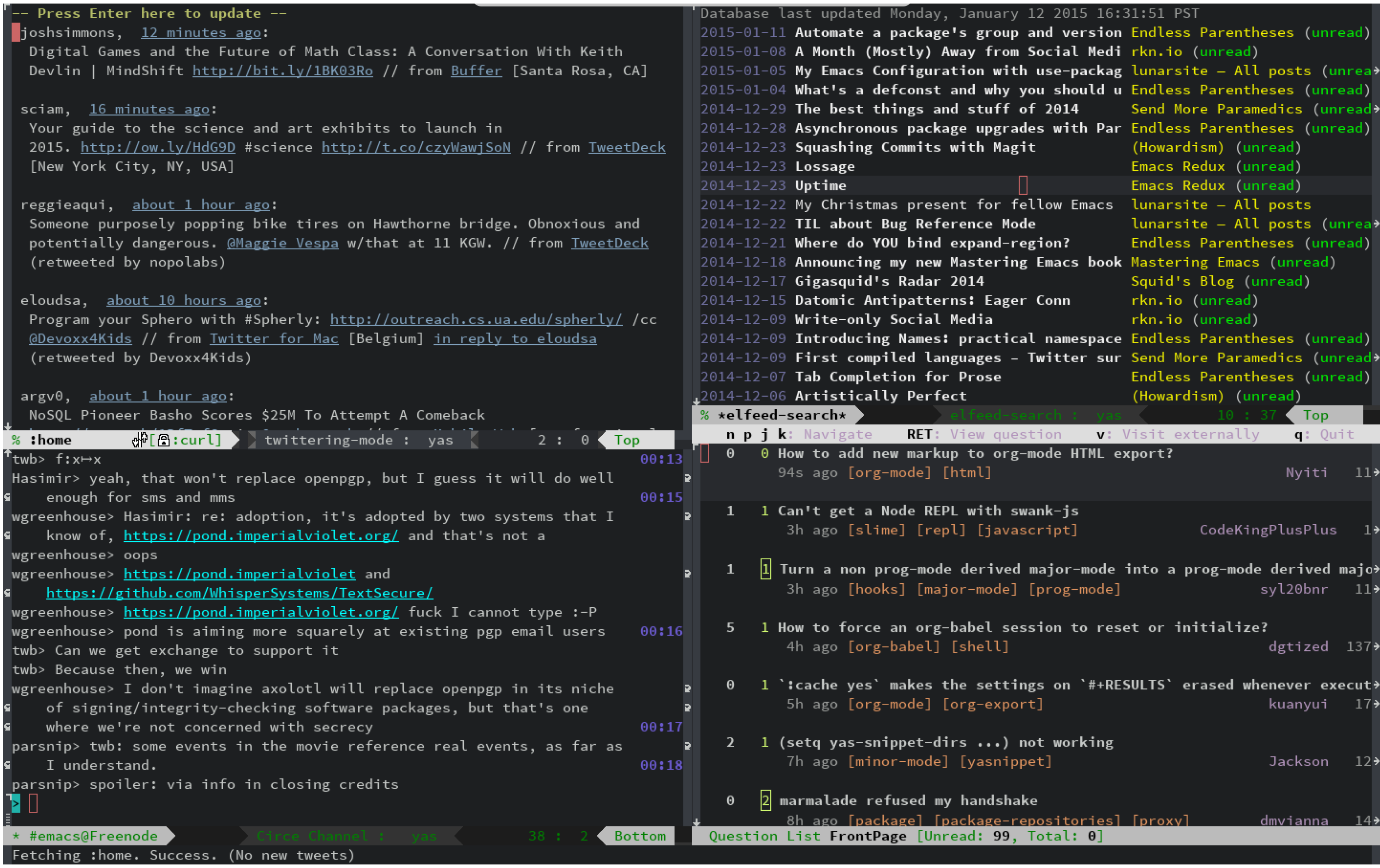
I use a function to start my favorite time-sinks…er, applications, at one time:

```
(defun setup-windows ()
  "Organize a series of windows for ultimate distraction."
  (interactive)
  (delete-other-windows)
```

```
    ;; Start with the Stack Overflow interface
    (sx-tab-frontpage t nil)

    ;; Put IRC on the other side
    (split-window-horizontally)
    (other-window 1)
    (circe-connect-all)

    ;; My RSS Feed goes on top:
    (split-window-vertically)
    (elfeed)

    ;; And start up the Twitter interface above that:
    (other-window 2)
    (split-window-vertically)
    (twit)

    (window-configuration-to-register ?w))
```

The last line insert this “current” configuration in a register, so after stomping and stirring my windows, I return to this organization with `C-x r j w`.

Perhaps another screenshot of these results are in order:



```
-- Press Enter here to update --
joshsimmons,  12 minutes ago:
  Digital Games and the Future of Math Class: A Conversation With Keith
  Devlin | MindShift http://bit.ly/1BK03Ro // from Buffer [Santa Rosa, CA]

 sciam,  16 minutes ago:
  Your guide to the science and art exhibits to launch in
  2015. http://ow.ly/HdG9D #science http://t.co/czyWawjSoN // from TweetDeck
  [New York City, NY, USA]

 reggieaqui,  about 1 hour ago:
  Someone purposely popping bike tires on Hawthorne bridge. Obnoxious and
  potentially dangerous. @Maggie_Vespa w/that at 11 KGW. // from TweetDeck
  (retweeted by nopolabs)

 eloudsa,  about 10 hours ago:
  Program your Sphero with #Spherly: http://outreach.cs.ua.edu/spherly/ /cc
  @Devoxx4Kids // from Twitter for Mac [Belgium] in reply to eloudsa
  (retweeted by Devoxx4Kids)

 argv0,  about 1 hour ago:
  NoSQL Pioneer Basho Scores $25M To Attempt A Comeback
% :home        [:curl]   twittering-mode :  yas          2 :  0   Top
```

```
twb> f:x↦x                                                          00:13
Hasimir> yeah, that won't replace openpgp, but I guess it will do well
    enough for sms and mms                                          00:15
wgreenhouse> Hasimir: re: adoption, it's adopted by two systems that I
    know of, https://pond.imperialviolet.org/ and that's not a
wgreenhouse> oops
wgreenhouse> https://pond.imperialviolet and
    https://github.com/WhisperSystems/TextSecure/
wgreenhouse> https://pond.imperialviolet.org/ fuck I cannot type :-P
wgreenhouse> pond is aiming more squarely at existing pgp email users  00:16
twb> Can we get exchange to support it
twb> Because then, we win
wgreenhouse> I don't imagine axolotl will replace openpgp in its niche
    of signing/integrity-checking software packages, but that's one
    where we're not concerned with secrecy                          00:17
parsnip> twb: some events in the movie reference real events, as far as
    I understand.                                                   00:18
parsnip> spoiler: via info in closing credits
>
* #emacs@Freenode        Circe Channel :  yas         38 :  2   Bottom
Fetching :home. Success. (No new tweets)
```

```
Database last updated Monday, January 12 2015 16:31:51 PST
2015-01-11 Automate a package's group and version Endless Parentheses (unread)
2015-01-08 A Month (Mostly) Away from Social Medi rkn.io (unread)
2015-01-05 My Emacs Configuration with use-packag lunarsite — All posts (unrea
2015-01-04 What's a defconst and why you should u Endless Parentheses (unread)
2014-12-29 The best things and stuff of 2014      Send More Paramedics (unread
2014-12-28 Asynchronous package upgrades with Par Endless Parentheses (unread)
2014-12-23 Squashing Commits with Magit           (Howardism) (unread)
2014-12-23 Lossage                                Emacs Redux (unread)
2014-12-23 Uptime                                 Emacs Redux (unread)
2014-12-22 My Christmas present for fellow Emacs  lunarsite — All posts
2014-12-22 TIL about Bug Reference Mode           lunarsite — All posts (unrea
2014-12-21 Where do YOU bind expand-region?       Endless Parentheses (unread)
2014-12-18 Announcing my new Mastering Emacs book Mastering Emacs (unread)
2014-12-17 Gigasquid's Radar 2014                 Squid's Blog (unread)
2014-12-15 Datomic Antipatterns: Eager Conn       rkn.io (unread)
2014-12-09 Write-only Social Media                rkn.io (unread)
2014-12-09 Introducing Names: practical namespace Endless Parentheses (unread)
2014-12-09 First compiled languages - Twitter sur Send More Paramedics (unread
2014-12-07 Tab Completion for Prose               Endless Parentheses (unread)
2014-12-06 Artistically Perfect                   (Howardism) (unread)
% *elfeed-search*        elfeed-search :  yas         10 : 37   Top
```

```
  n p j k: Navigate    RET: View question    v: Visit externally    q: Quit
  0   0 How to add new markup to org-mode HTML export?
         94s ago [org-mode] [html]                              Nyiti   11
  
  1   1 Can't get a Node REPL with swank-js
         3h ago [slime] [repl] [javascript]            CodeKingPlusPlus   1

  1   1 Turn a non prog-mode derived major-mode into a prog-mode derived majo
         3h ago [hooks] [major-mode] [prog-mode]                syl20bnr   11

  5   1 How to force an org-babel session to reset or initialize?
         4h ago [org-babel] [shell]                              dgtized  137

  0   1 `:cache yes` makes the settings on `#+RESULTS` erased whenever execut
         5h ago [org-mode] [org-export]                          kuanyui   17

  2   1 (setq yas-snippet-dirs ...) not working
         7h ago [minor-mode] [yasnippet]                         Jackson   12

  0   2 marmalade refused my handshake
         8h ago [package] [package-repositories] [proxy]        dmvianna   14
 Question List FrontPage [Unread: 99, Total: 0]
```

Footnotes:

[1] Since I use my virtual machine primarily to take notes, you'll need to install `ispell` (or one of the variants):

```
apt-get install -y ispell
```

In order to install the VirtualBox extensions, do:

```
sudo apt-get install -y build-essential
sudo mount /dev/cdrom /mnt
sudo /mnt/VBoxLinuxAdditions.run
```

[2] I always grin when I read the change log in the release notes of any window manager project. It begins by complaining that all other window managers are bloated, and that this one will be small and efficient.

As you follow the history of the project, the complaints that it needs to do launching menus, iconify windows with translucent images, docks and panels, and soon the project is just as big as the competition.

Not that there is anything wrong with that… Writing a window manager is a lot of fun.

[3] While taking notes at a conference, a person sitting behind me asked me after the session what window manager I was using. I said this was just a normal Mac, but running Emacs in a full-screen mode with a couple `org-mode` files, an embedded w3m browser, and an Emacs-based twitter client.

[4] By the way, to have EWW use Chromium, add this to your init file:

```
(setq shr-external-browser "chromium-browser")
```

[5] Along with having the best name, the Ratpoison window manager is minimal and mouse-less (and even has a nice Info page), but its default *escape* key, `Control-t` is the transpose key in Emacs. To get around this and call Emacs' transpose function, type `C-t t`. This is *okay* when swapping two letters, but now swapping lines is `C-x C-t t`. Acceptable if I'm swapping only two lines, but I'm often swapping multiple lines–and now it is painful.

To make Ratpoison completely palatable with Emacs, make it use a *Command* key sequence (like the useless `Command-t` or whatever that Windows key is on other keyboard). To do this, simply add the following to your `~/.ratpoisonrc` file:

```
escape s-t
```

Note: I've received many *alternative* solutions to the most minimal, mouse-less window managers, Josuah Demangeon suggested 2wm. While I still prefer *ratpoison*, his journey mirrored mine, so I thought I would attach his email… especially, since variety is the spice of it all, right?

> TL;DR - 2wm is the most smallest tiling window manager
>
> > Your post inspired me, and I decided to look for the nimblest window manager that could make Emacs rocks on X11.
> >
> > I had a look at tinywm, but it is entirely mouse-driven, but hacking it would be like write a window manager from scratch.
> >
> > I had a look at evilwm, which is great, but I got difficulties to make it work as I wanted to.
> >
> > I looked at dwm: a very good one by Suckless, with many features. Maybe a little too much, and it wouldn't be like a bare Emacs experience with this wm. But after browsing a bit their website I found 2wm
> >
> > 2wm is a keyboard-controlled tiling window manager that attach and detach windows on a main or side frame. It also support floating.
> >
> > For me, 2wm is the minimal gap between Emacs and X11, as well as the ultimate window manager!
> >
> > If you want to give it a try have a look at my repo. I tweaked the key-bindings to fit Emacs.

Date: 2015 Jan 12

Created: 2023-01-11 Wed 21:34