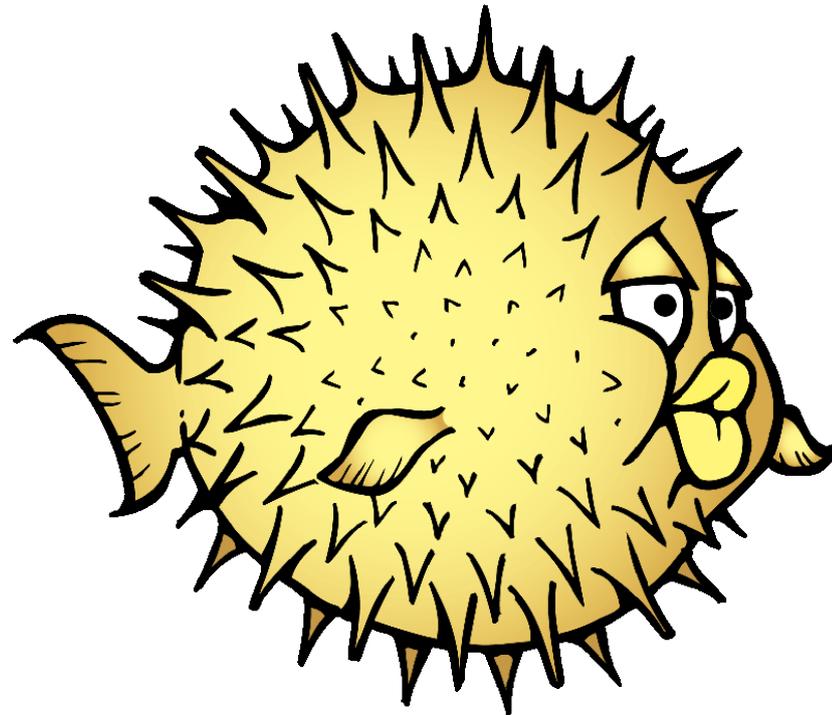


Life with an OpenBSD Laptop

a UNIX-lover's tale of migrating away from
the Mac
The Good, The Bad, The Ugly



NYC*BUG 2015.02.10

ike Context



- I build infrastructure

Disclaimers

- No commit bit, just a *BSD user since 99'
- New to **living** with OpenBSD
- Ideas and statements today are my own opinion, and do not necessarily reflect those of my employer, my colleagues, NYC*BUG, or the OpenBSD project.

Kindergarden, 1981 (1977)







~2002

Sends other UNIX boxes to /dev/null.

“My PowerBook G4 is now running every major UNIX app that we had on our Suns, AlphaStations and SGIs – and running them faster.”

–Mark Cohen, Ph.D., Professor,
Brain Mapping Center, UCLA

“This new OS has accomplished in a short period of time what others have struggled to do for years: bring a compelling, widely accepted GUI (called Aqua) to UNIX.”

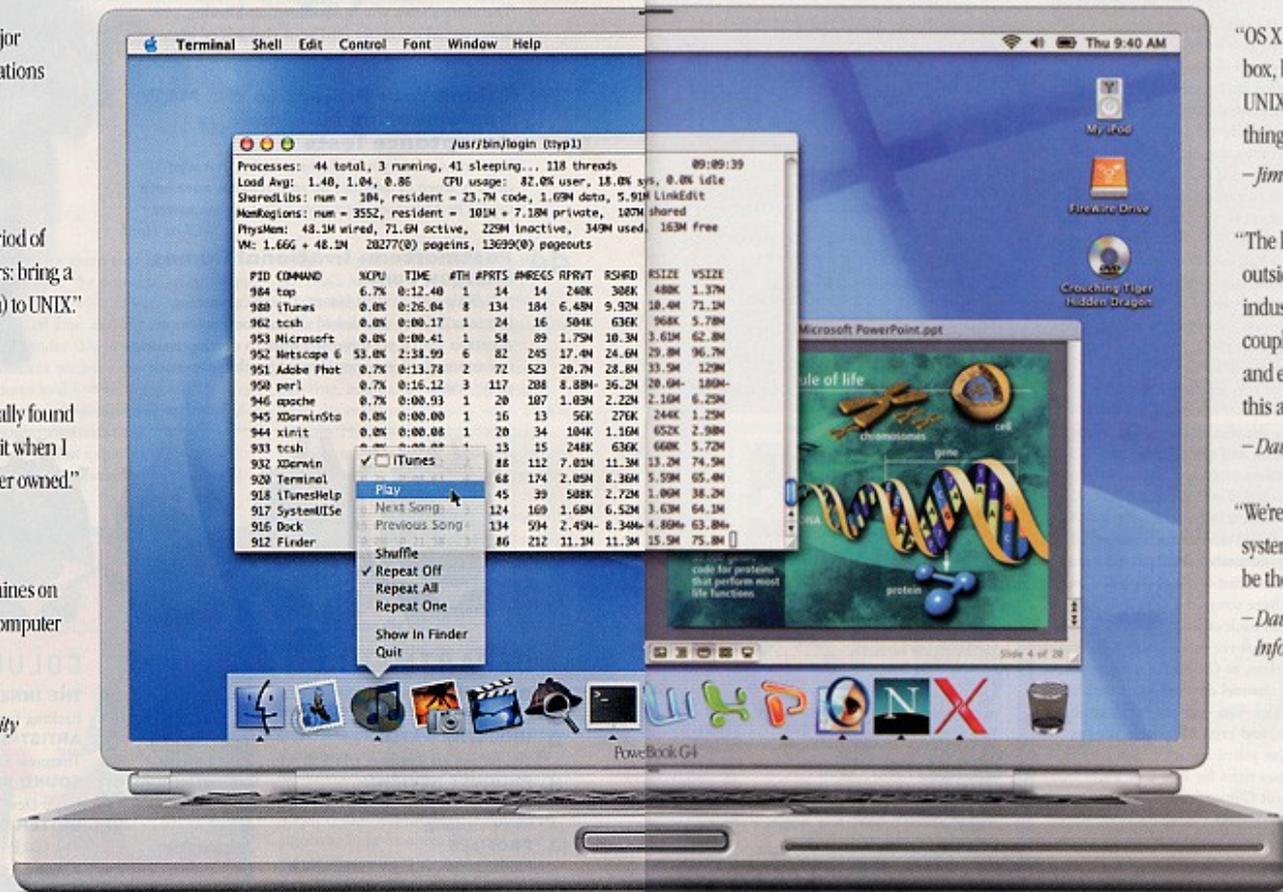
–Tim O'Reilly, O'Reilly Network

“After two-and-a-half years of Linux, I've finally found joy in a UNIX operating system. And I found it when I purchased a Macintosh – the first one I've ever owned.”

–John Hummel Jr., The Gamers' Press

“Until Mac OS X came along, I had three machines on my desk. Now with Mac OS X, I can use one computer for writing, coding, research, everything.”

–Dr. Michael Chberry, Associate Professor,
Department of Genetics, Stanford University



“OS X has all the power you expect from a UNIX box, but none of the hassle associated with basic UNIX system administration. You can expect things to work and they do.”

–Jim Houriban, Tweak Films

“The keys to OS X are that it's UNIX inside and Mac outside. This combination of stability, support for industry standards, and wide developer support coupled with Apple's Aqua graphical user interface and emphasis on graphic performance makes this a truly great operating system.”

–David Coursey, ZDNet AnchorDesk

“We're old hardcore UNIX hackers, so a BSD-based system is mother's milk. Everything you expect to be there is there, and it works right.”

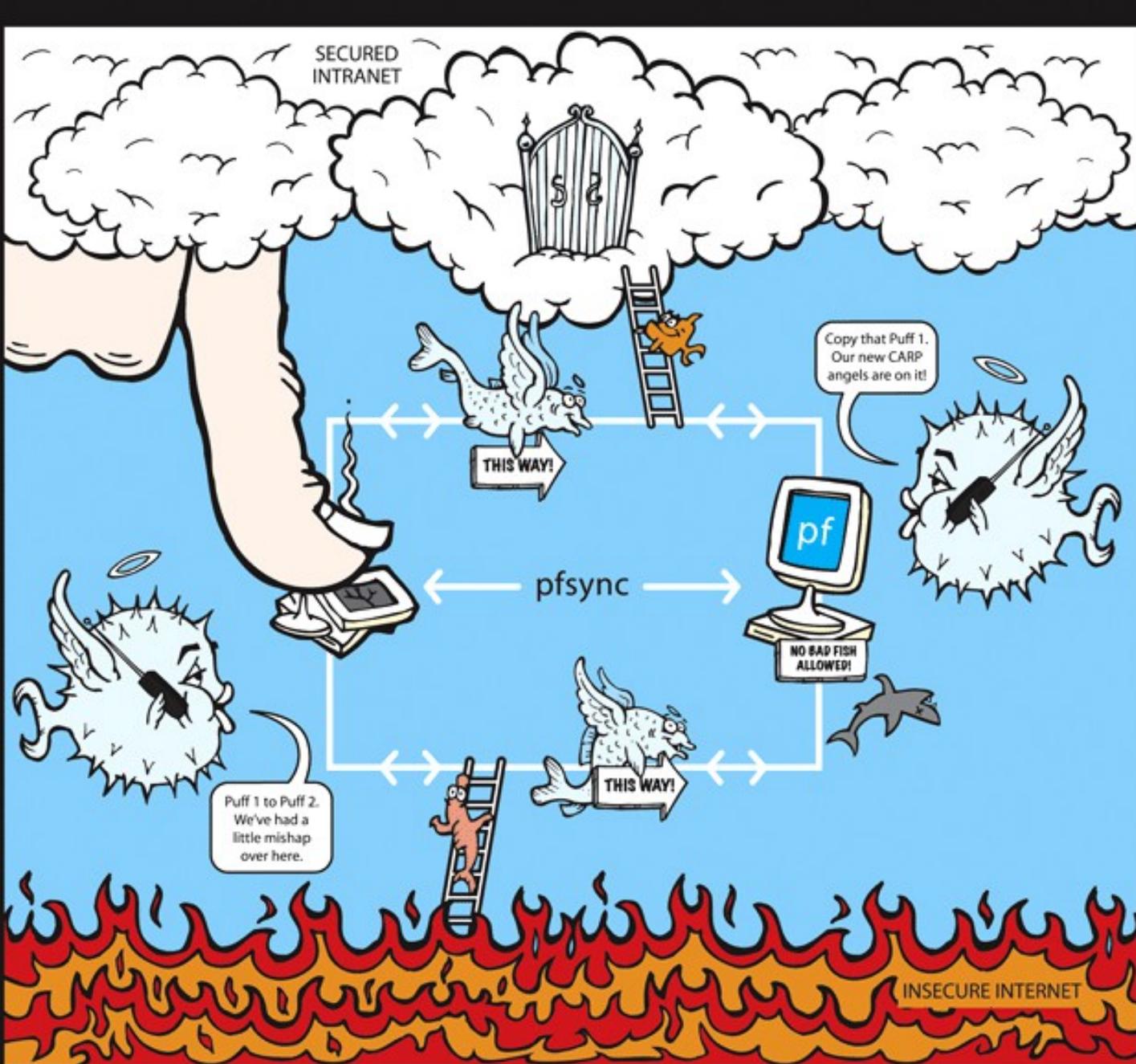
–Dave Weininger, President, Daylight Chemical Information Systems, Inc.





Quick OpenBSD Background

- Fork from NetBSD 1995, with a security focus
- Theo de Raadt
- OpenSSH
- OpenNTPD
- pf (packet filter)



SECURED INTRANET

Copy that Puff 1. Our new CARP angels are on it!

Puff 1 to Puff 2. We've had a little mishap over here.

THIS WAY!

pfsync

NO BAD FISH ALLOWED!

THIS WAY!

INSECURE INTERNET

you see?

Getting to a Working Laptop



Getting to a Working Laptop



UNIX basic knowledge requisites, how to learn your unknown unknowns fast

- CD/DVD media (purchase)
- USB/CD/DVD iso downloads
- man(1) pages (SERIOUSLY EXCELLENT)
- openbsd.org (how-to's)

- This can be painful for new kit.
- Search online for hw compatibility
- Ask around, (talk@lists.nycbug.org, etc!)

- I spent \$500 for...

ARM and Mips Laptops?! Wow!

- Mips Laptops (Brian Calahan, nycbug, 2013-04-03)
- ARM future? Engagement...

Installation and updating

- Follow the instructions. (seriously)
- Blessed, signed binary culture
- Packages, `pkg_add(1)`
 - Just works - oldschool, clean.
 - Excellent “supported” attitude
 - Oldschool, clean.

Wireless, overcoming a broken world of "standards"

- Not every wireless hardware supported
- No binary blobs
 - Except... sortof... (Lenovo packages)
- System upgrades
 - Implementation tar(1) based
 - Ike thinks this is fscking awesome
 - Implementation is elegant

Sleep, Power Management, Screen Locking- working ACPI and APM for normal laptop life

/etc/rc.conf,

apmd_flags="-C"

(/etc/rc.conf.local)

~/.xinit and xlock,

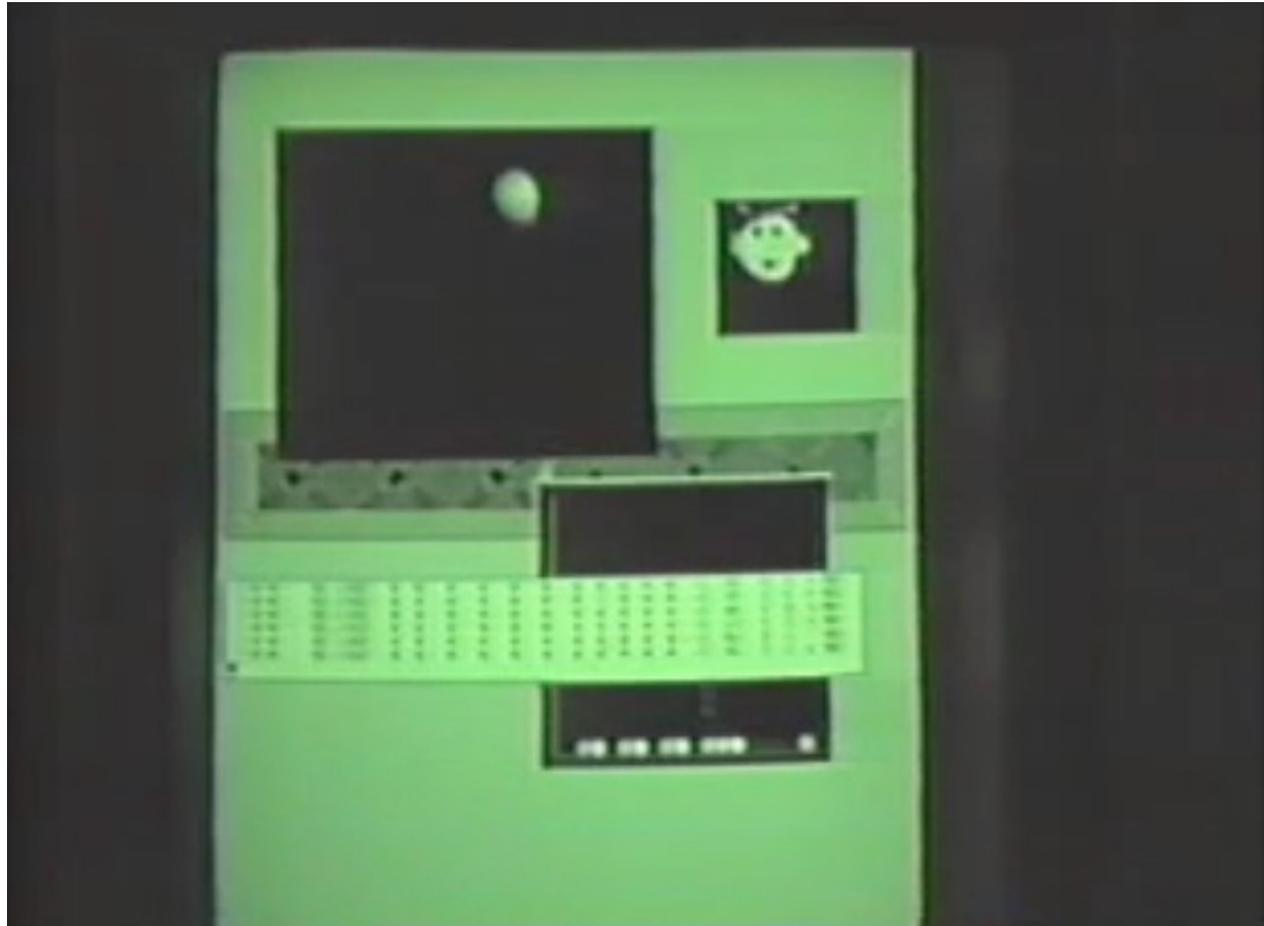
/etc/apm/suspend

/etc/apm/resume

What else do we need!

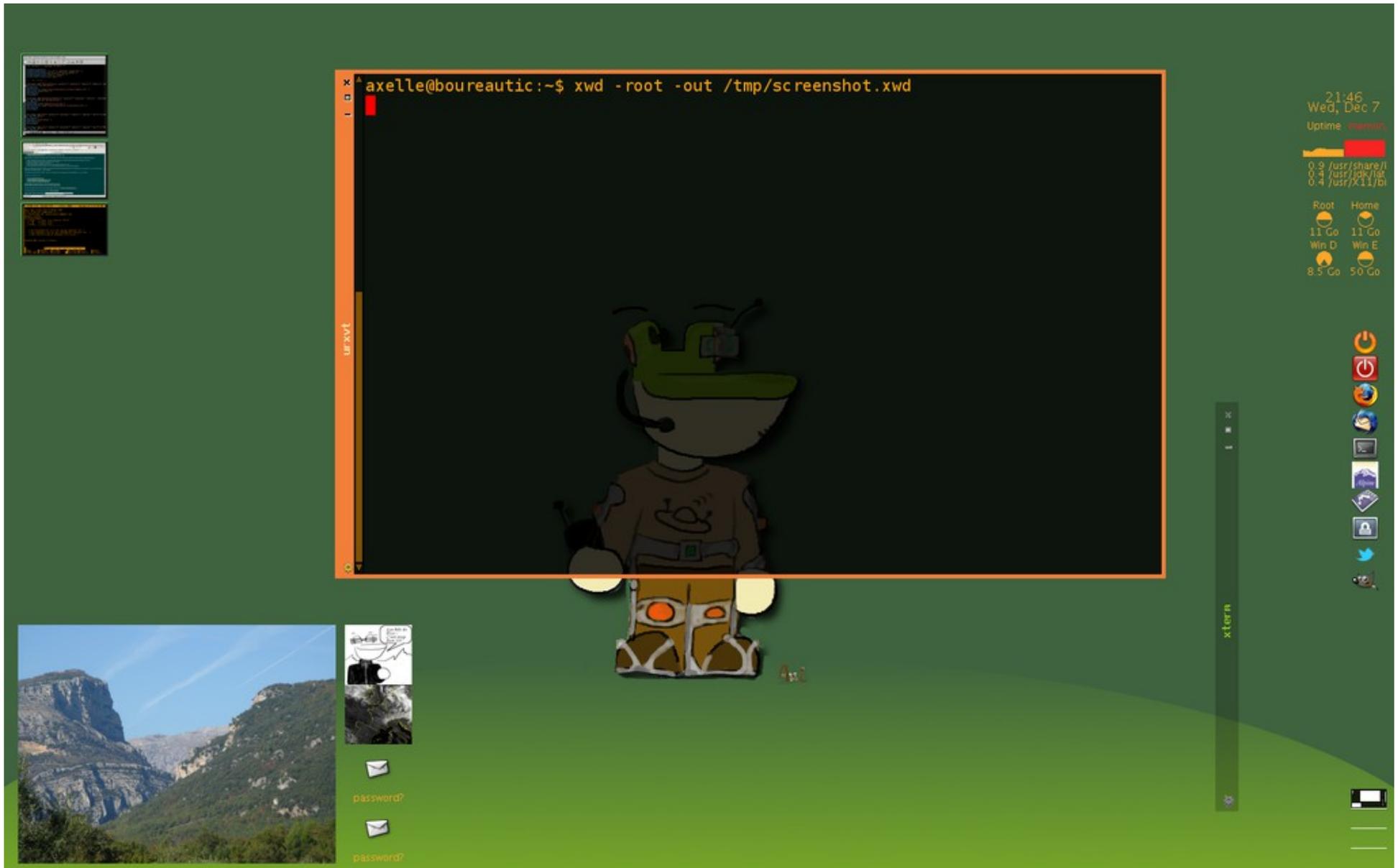
- (fold laptop closed)

30 years of choose-your-own-adventure



<http://blackskyresearch.net/blit.480p.mov>

fvwm(1)



cwm(1)

The screenshot displays the OpenBSD desktop environment. In the foreground, an Eterm terminal window shows the command prompt and the output of the `ls` command in the `/usr/ports` directory. Below the terminal, a Mozilla Firefox browser window is open to the "techPowerUp! Forums" website, showing a login form. The background features the OpenBSD logo, a cartoon pufferfish, and the text "Secure Operating System for a Hostile Internet".

Terminal Output:

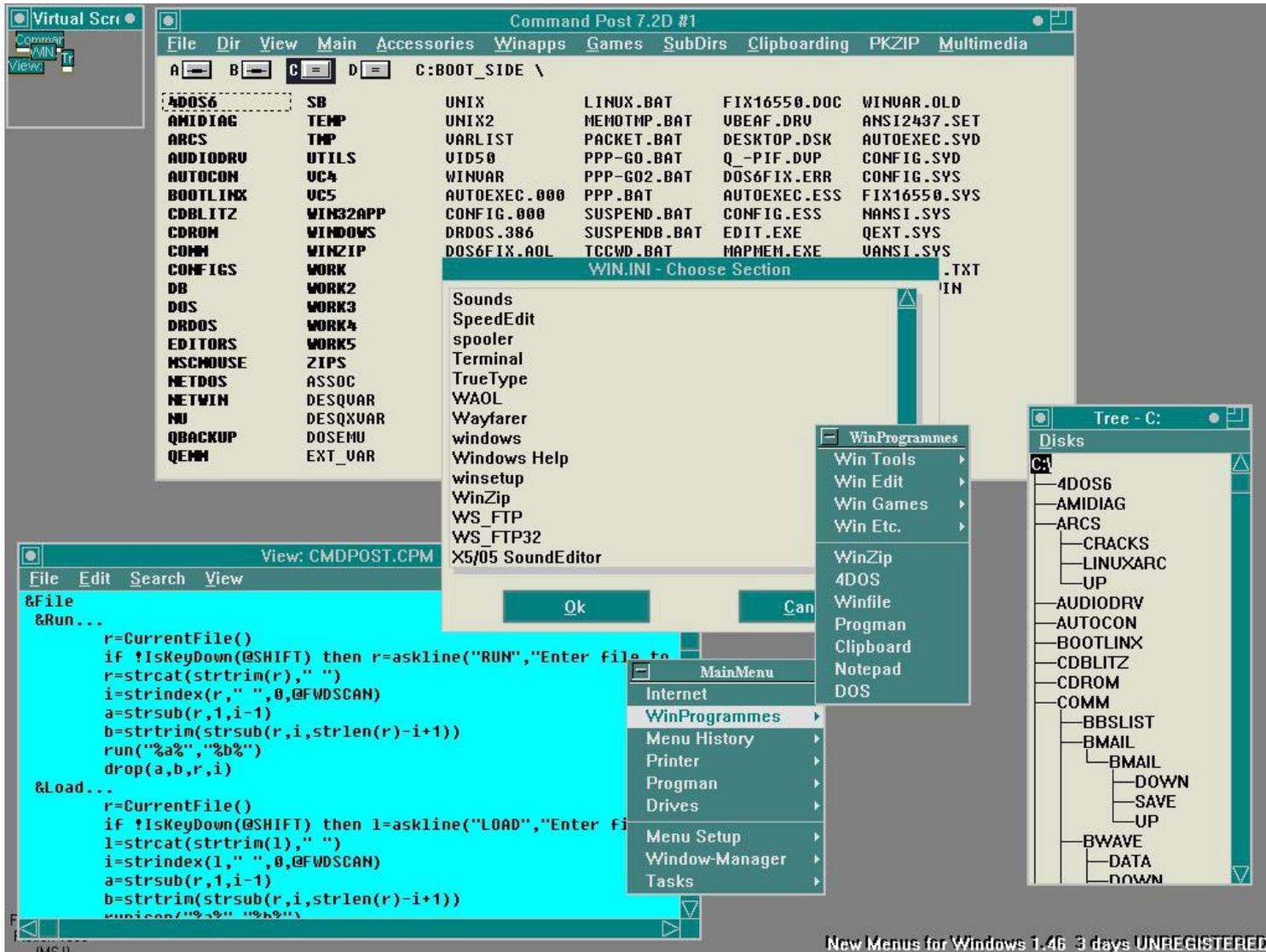
```
Eterm Font Background Terminal
$ cd /usr/ports
$ ls
CVS          cad          games       math         productivity
INDEX       chinese     geo         misc         russian
Makefile    comms      graphics   multimedia  security
README      converters infrastructure net          shells
archivers   databases  inputmethods news         sysutils
astro       devel      japanese   obj          telephony
audio       distfiles  java       packages    textproc
benchmarks  editors    korean     palm        www
biology     education lang        plan9       x11
books       emulators mail        print
```

System Status:

- OpenBSD - Kernel 4.6
- Processor: 3.19 GHz
- Proc Usage: 1%
- Total RAM: 2.45GiB
- RAM Usage: 17%
- FileSys Type: ffs
- FileSys Size: 0.98GiB
- FileSys Used: 42.4MiB
- Networking:
 - Upload Speed: 0B
 - Download Speed: 0B
- Top Processes:
 - Xorg
 - firefox35-bin
 - xfce4-screensho
 - conky
 - gconfd-2
- 2010-04-27 20:18:57

www.OpenBSD.org

twm(1)



Window Managers I Tried

- KDE
- GNOME
- ratpoison
- MANY MANY MORE.....

- **I'm using xfce right now**



Macintosh Human Interface Guidelines

by Apple Computer, Inc.

Apple Technical Library



(This is the most daunting part
for old Mac users like me...)

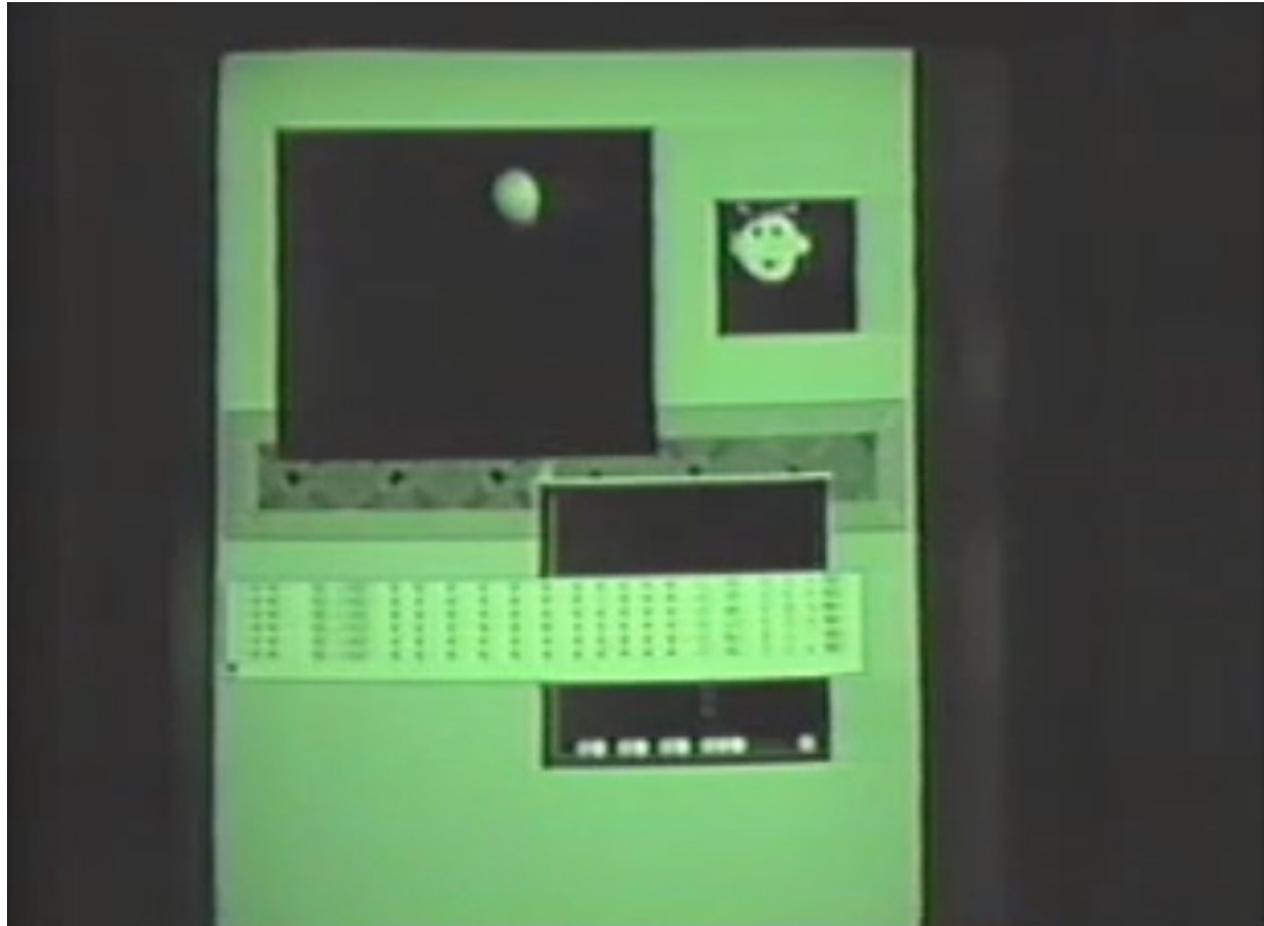
Web Browsers, Email

- firefox
- chromium (youtube works)

- thunderbird
- claws-mail

(pkg_add for all)

30 years of choose-your-own-adventure



<http://blackskyresearch.net/blit.480p.mov>

Why I settled on XFCE for now?

Daily Life tid-bits (5 mins) - The things one takes for granted in a Mac...

- Journaling Filesystem

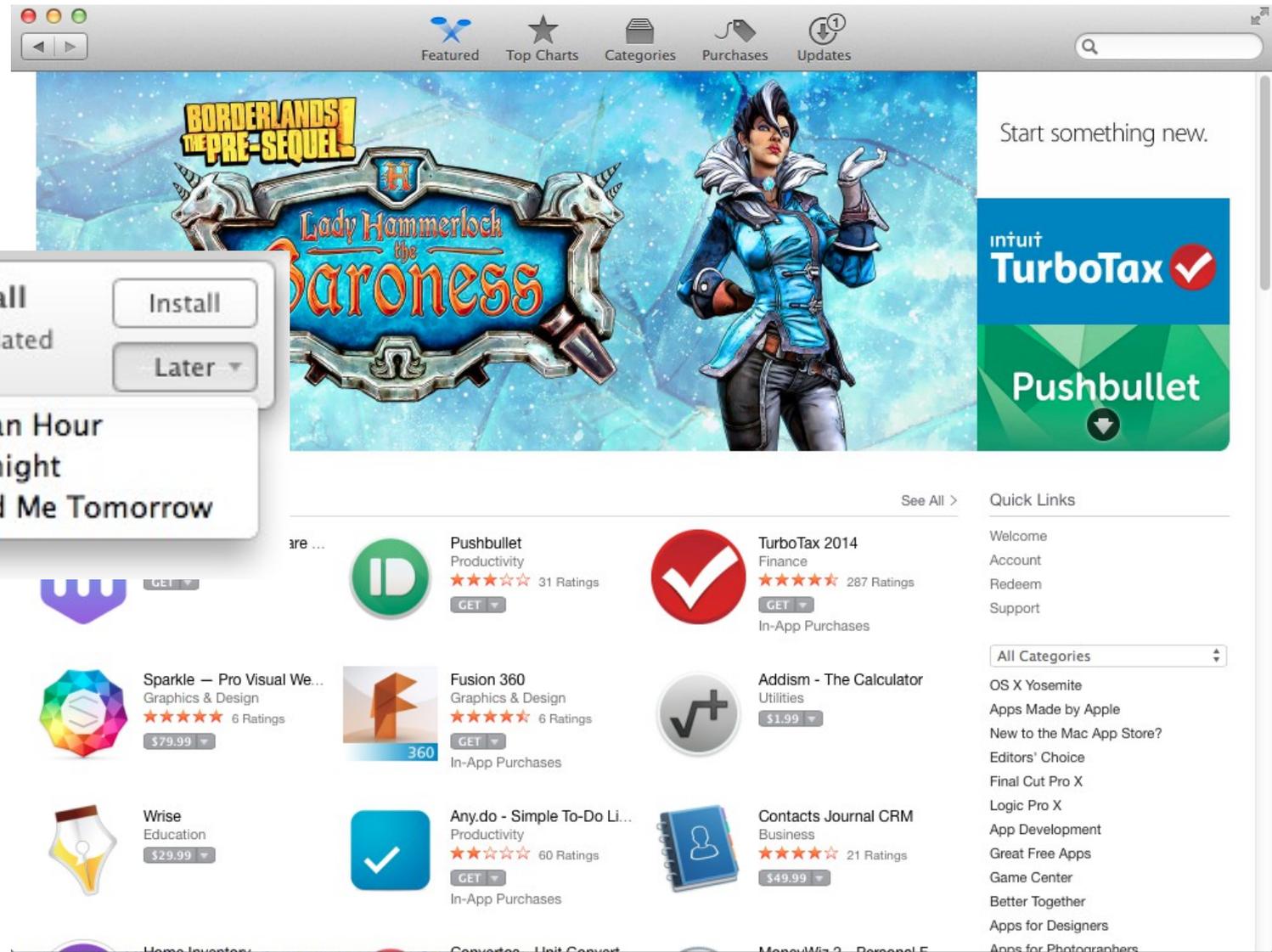
`fsck(1)`

- UTF-8/Unicode **everywhere**

`grep(1)`

OpenBSD Release Schedule,
new to me- pretty nice...

Compared to...





Store

Artists



U2

1 album, 11 songs



Radio



Playlists



Artists



Songs



More

OpenBSD

Release Songs

Every 6 months the OpenBSD project has the pleasure to release software on an official CDROM set, with artwork and music. Theo and some other developers mutate a theme (from a classical setting, a movie, or some genre) into the fishy world of OpenBSD. In some advance, event or controversy the project went through over the previous six months. To match the art released with some musicians we know to make a song. Theo then gets the pleasure (and responsibility) to write a commentary

[5.6: "Ride of the Valkyries"](#)

[5.5: "Wrap in Time"](#)

[5.4: "Our favorite hacks"](#)

[5.3: "Blade Swimmer"](#)

[5.2: "Aquarela do Linux"](#)

[5.1: "Bug Busters!", "Shut up and Hack" and "Sonate aux insomniagues"](#)

[5.0: "What Me Worry?"](#)

[4.9: "The Answer"](#)

[4.8: "El Puffiachi"](#)

[4.7: "I'm still here"](#)

[4.6: "Planet of the Users"](#)

[4.5: "Games"](#)

[4.4: "Trial of the BSD Knights"](#)

[4.3: "Home to Hypocrisy"](#)

[4.2: "100001 1010101"](#)

[4.1: "Puffy Baba and the 40 Vendors"](#)

[4.0: "Humppa Negala" and "OpenVOX"](#)

[3.9: "Blob!"](#)

[3.8: "Hackers of the Lost RAID"](#)

[3.7: "The Wizard of OS"](#)

[3.6: "Pond-erosa Puff \(live\)"](#)

[3.5: "CARP License" and "Redundancy must be free"](#)

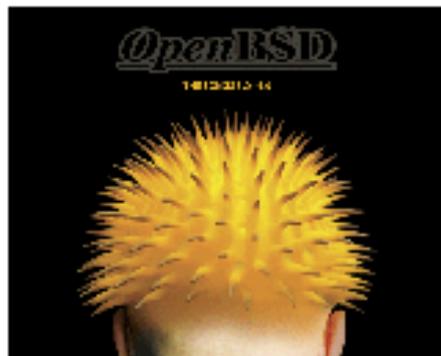
[3.4: "The Legend of Puffy Hood"](#)

[3.3: "Puff the Barbarian"](#)

[3.2: "Goldflipper"](#)

[3.1: "Systemagic"](#)

[3.0: "E-Railed \(OpenBSD Mix\)"](#)



Two audio CDs are also available which contain approximately 50 songs.

Click to order ["The Songs 3.0 - 4.0"](#) and ["The Songs 4.1 - 5.1"](#).

Both CDs contain extra tracks by the artist Ty Semaka (who really is a real person in my mind). "The Songs 4.1 - 5.1" also contains another track by audio engineer Alexandre Ratchov, mixed and produced using OpenBSD code.

Disks, CD/DVD, USB devices, Network File Services, etc...

- mount(1)
- smb for samba shares, in ports
- automount and security

**It all feels clumsy as hell at first.
That feeling goes away.**

Printing (to paper)

I have not yet done it yet :)

Things I miss

- Phone pictures sync
- Phone contacts sync
- Drawing Tools (omnigraffiti)
- Consistent UI (previously discussed)

Future?

- NetBSD
- DragonFlyBSD (hammer!)
- FreeBSD (zfs, jail)

