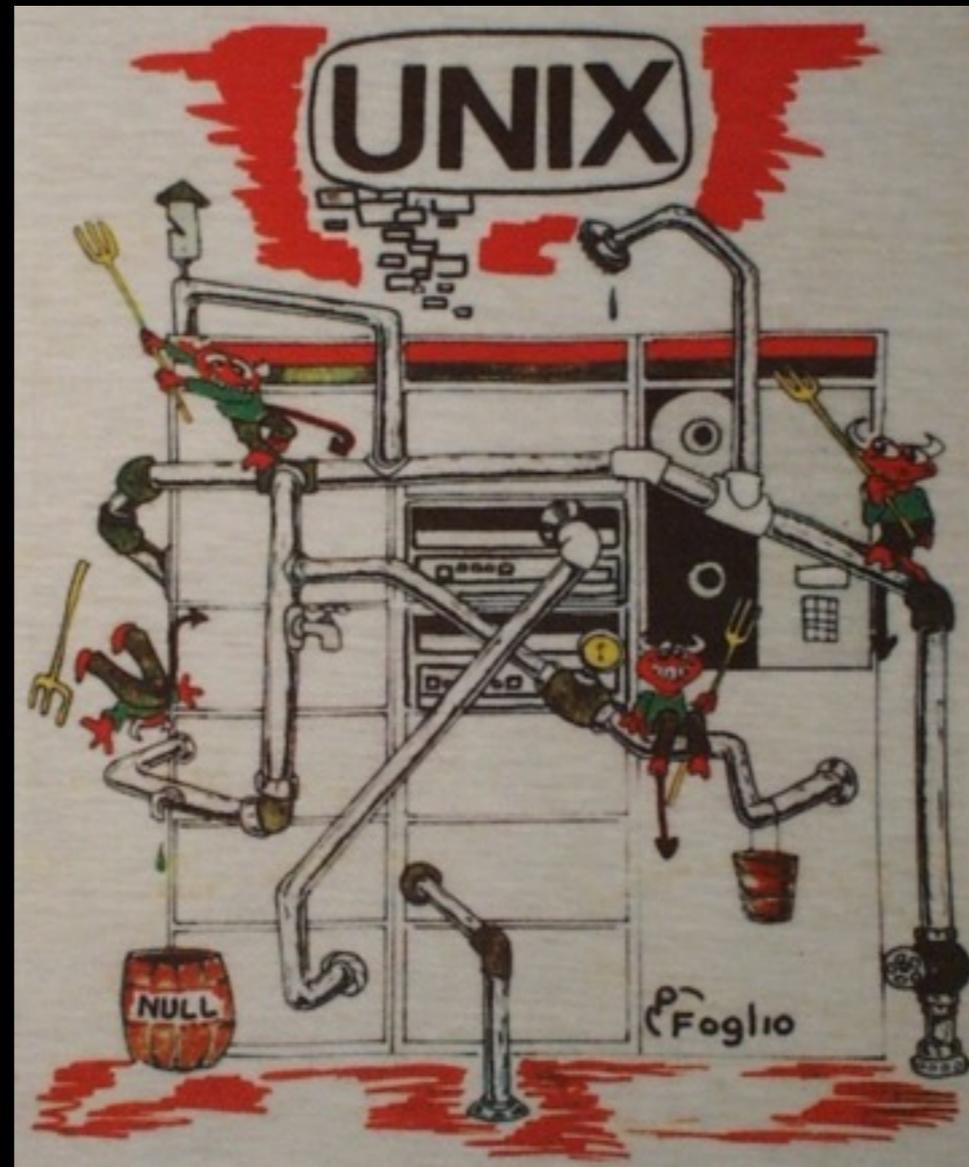


The BSDs & pkgsrc - Introductory fun for the whole family

Featuring slides from a past life describing
The BSD Family of Operating Systems

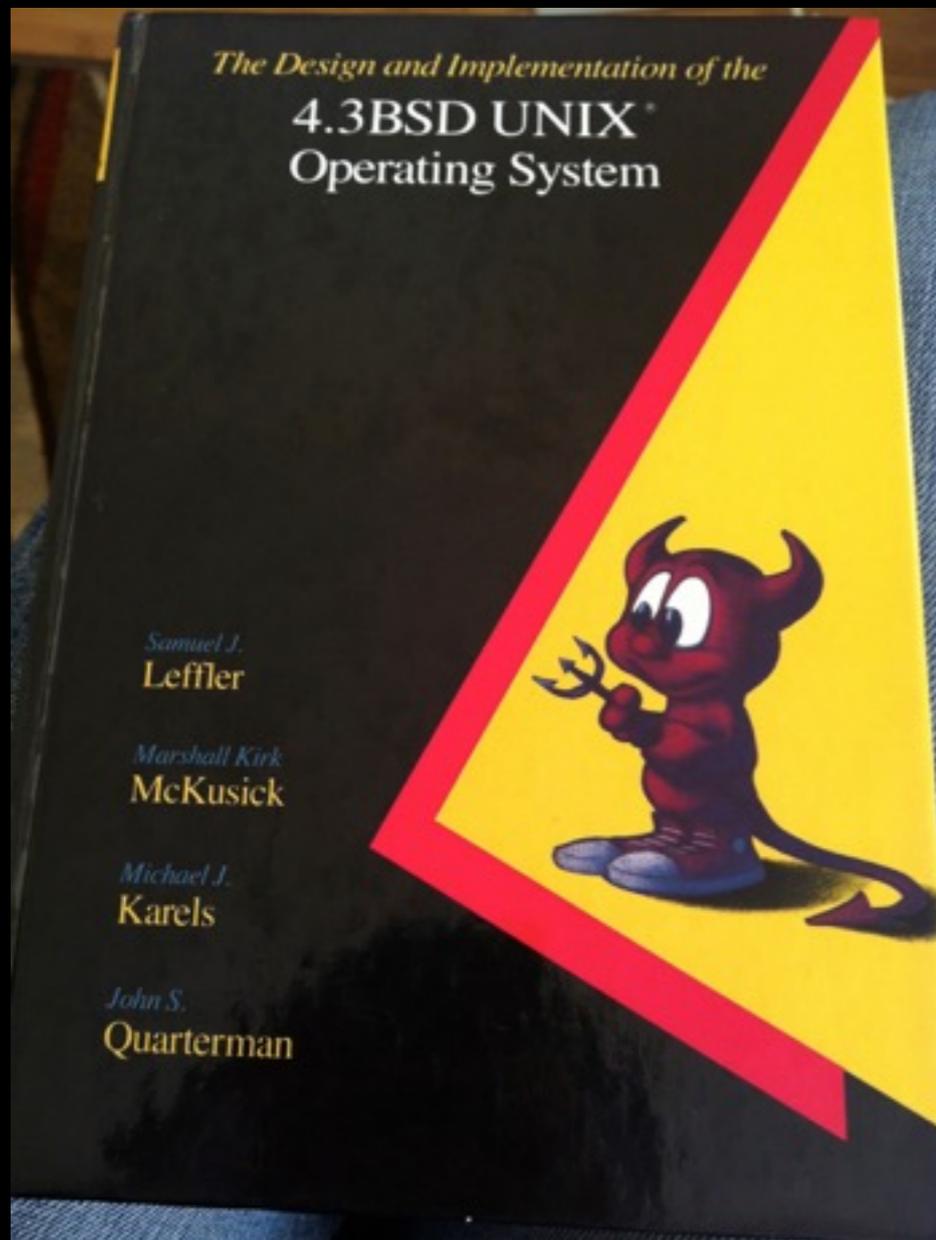
Sevan Janiyan
sevan@NetBSD.org
@sevanjaniyan



Berkeley CSRG 1977 - 1995

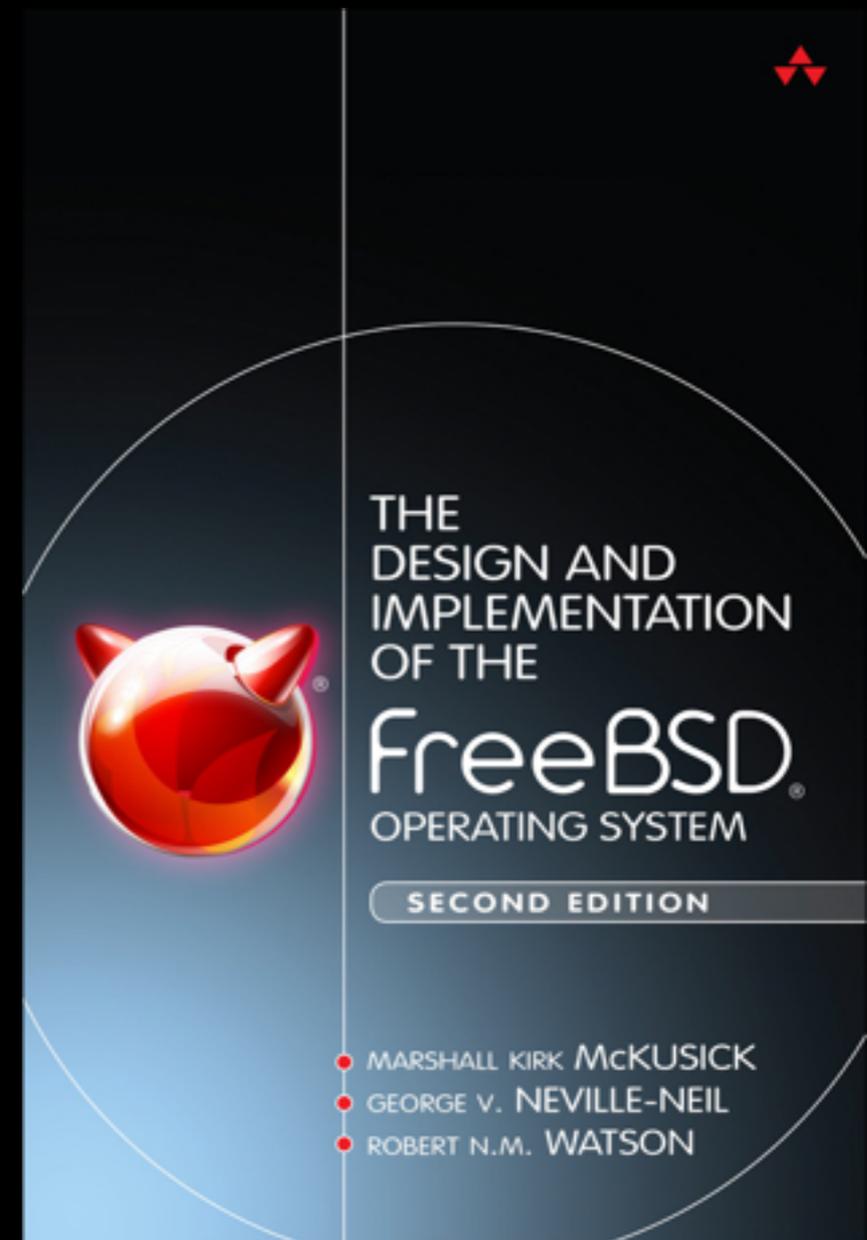
There are two main flavors of UNIX: one from AT&T ("original") and one from the University of California, Berkeley ("extra crispy")





1989

FreeBSD handbook
NetBSD Guide
NetBSD Internals
OpenBSD FAQ



2014



NetBSD

IoT visionaries by targeting a Toaster

VAX support

veriexec

ATF

Unprivileged builds

build.sh

pkgsrc

FreeBSD

Moving towards free from GPL in base

dummynet

jails / VIMAGE

geom

ports

bhyve

Capsicum

RISC-V support

BERI - CheriBSD



OpenBSD

libc

LibreSSL

PF

CARP

ipsec.conf

pledge

vmm

OpenSSH/SMTPD/BGPD/SPFD/HTTPD

DragonFly BSD

HAMMER

Scaling on multi-cpu systems

Clustered Filesystem

Scheduler improvements

LWKT (Light Weight Kernel Thread) / User Thread Scheduler

vkernl

swapcache

RetroBSD LiteBSD

```
Terminal — cu — 68x28
cpp      id      passwd   sl      uucico
# reboot
killing processes... done
syncing disks... done

2.11 BSD Unix for PIC32, revision 892 build 1:
  Compiled 2014-03-29 by
  /usr/local/retrobsd/sys/pic32/max32-eth
cpu: 795F512L 80 MHz, bus 80 MHz
oscillator: XT crystal, PLL div 1:2 mult x20
console: tty0 (5,0)
sd0: port SPI2, select pin C14
sd0: type SDHC, size 15339520 kbytes, speed 13 Mbit/sec
phys mem = 128 kbytes
user mem = 96 kbytes
root dev = rd0a (0,1)
root size = 163840 kbytes
swap dev = rd0b (0,2)
swap size = 2048 kbytes
temp0: allocated 47 blocks
/dev/rd0a: 576 files, 8644 used, 154555 free
temp0: released allocation
Starting daemons: update cron

2.11 BSD UNIX (pic32) (console)

login: █
```

Copycenter licensed

The way it was characterized politically, you had copyright, which is what the big companies use to lock everything up; you had copyleft, which is free software's way of making sure they can't lock it up; and then Berkeley had what we called 'copycenter', which is 'take it down to the copy center and make as many copies as you want.'

— Kirk McKusick, BSDCon 1999

NASA
Network stack
pkgsrc

Android
OpenBSD libc
mksh

Apple
NetBSD & FreeBSD for Darwin
PF
Airport OS

Toyota
OpenBSD libraries?

Juniper
NetApp
Force10
Sony Playstation

....

Packaging

Ports
Started in FreeBSD
circa 1994

NetBSD pkgsrc / OpenBSD ports
adopted around 1997
DragonFly BSD Dports ~ 2012?

pkgsrc platform support

Platform	Date Support Added	Notes
NetBSD	Aug 1997	
Solaris	Mar 1999	README.Solaris
Linux	Jun 1999	README.Linux
Darwin (Mac OS X)	Oct 2001	README.MacOSX
FreeBSD	Nov 2002	README.FreeBSD
OpenBSD	Nov 2002	README.OpenBSD
IRIX	Dec 2002	README.IRIX README.IRIX5.3
BSD/OS	Dec 2003	
AIX	Dec 2003	README.AIX
Interix (Microsoft Windows Services for Unix)	Mar 2004	README.Interix
DragonFlyBSD	Oct 2004	
OSF/1	Nov 2004	README.OSF1
HP-UX	Apr 2007	README.HPUX
Haiku	Sep 2010	README.Haiku
MirBSD	Jan 2011	
Minix3	Nov 2011	README.Minix3
Cygwin	Mar 2013	README.Cygwin
GNU/kFreeBSD	Jul 2013	README.GNUkFreeBSD
Bitrig	Jun 2014	README.Bitrig

pkg_tools

pkgng

OpenBSD pkg_tools?

FreeBSD - poudriere
NetBSD pkgsrc - pbulk
OpenBSD - dpb

FreeBSD Porters Handbook
NetBSD pkgsrc guide
OpenBSD ports FAQ
DragonFly BSD Howtodports

Security Notification

FreeBSD vuxml

pkgsrc pkg-vulnerabilities