

# ~~Synchronisation of userland source code amongst the BSD's~~

~~Userland:  
Diverged and Gone Wild!~~

*UNIX course – holly war 101: interpretation of  
intention & implementation without documentation.  
Note: Best fought over code 35 years or older*

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What is this about?  
&  
Why?

*die\_you\_gravy\_sucking\_pig\_dog()*  
*shutdown.c*

Background

“Quality happens only when someone is responsible for it.”

*–Poul-Henning Kamp(A Generation Lost in the Bazaar)*

FROM THE AUTHOR OF *THE MYTHICAL MAN-MONTH*



# THE DESIGN OF DESIGN

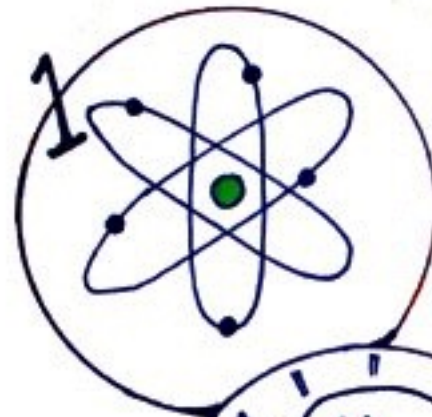
ESSAYS FROM A COMPUTER SCIENTIST

FREDERICK P. BROOKS, JR.



# DISCIPLINES OF A LEARNING ORGANIZATION

@tnvora



## SYSTEMS THINKING

→ Comprehend and address the whole and examine interrelationships between parts



## MENTAL MODELS

→ deeply ingrained assumptions, images, generalizations that influence how we act. Ability to reflect in and on actions.



## SHARED VISION

→ with vision, people excel and learn not because they are told to but because they want to.

continually clarifying and deepening our personal vision

## PERSONAL MASTERY



process of aligning and

## TEAM LEARNING

→ developing capacities of a team to create results they truly desire to see.





CD-ROM INCLUDED



# UNIX<sup>®</sup> SYSTEM ADMINISTRATION HANDBOOK

SECOND EDITION



EVI NEMETH • GARTH SNYDER  
SCOTT SEEBASS • TRENT R. HEIN



# An Oral history of Unix

A Research UNIX Reader:  
Annotated Excerpts from the  
Programmer's Manual, 1971-1986

## **1.2. The Manual**

During the system's first two years one literally had to work beside the originators to learn it. But the stock of necessary facts was growing and the gurus' capacity to handle apprentices was limited. As they wished to spread the good news about their marvelous system, a manual became a necessity. Ritchie one



(((Norman Wilson)))

@ocisc



Following

Old enough to remember when BSD meant the big complex overfeatured member of the UNIX family, rather than the slim trim one.

RETWEETS

58

LIKES

118



6:18 PM - 15 Jul 2016



58



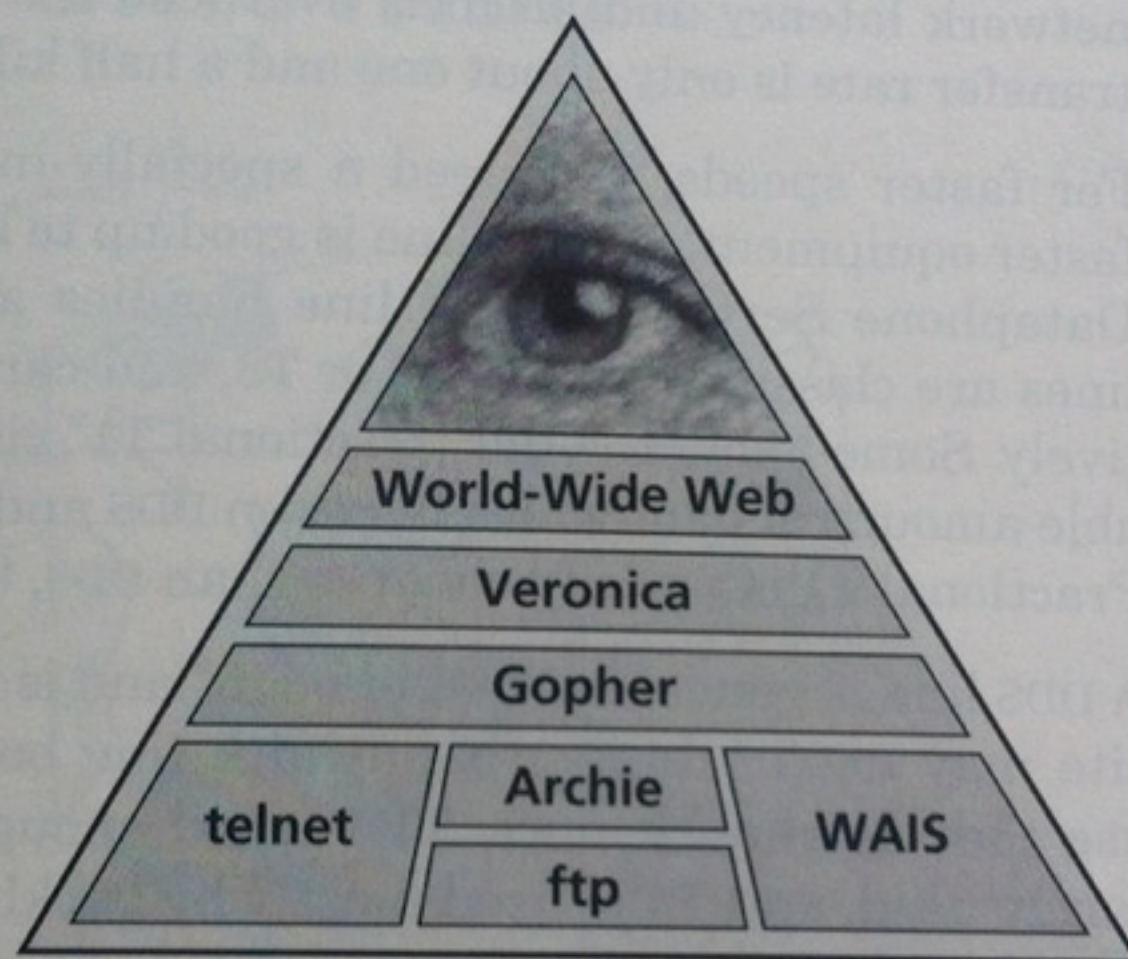
118





BSDI's `man` command supports about a zillion silly options that can be set from `/etc/man.conf`. This is a perfect example of going to a lot of trouble to solve nonexistent problems.



**Exhibit C Internet service conspiracy unmasked**

The partner is usually an Internet provider organization. Some providers are set up as not-for-profit groups, but most are hot-for-profit. The provider acts as a gateway between your network and the Internet. Providers also usually handle routing and domain-name issues for you. Some large providers in the United States are listed in Table 20.2; a complete list is always available from the InterNIC.

Table 20.2 Providers of Internet service in the USA<sup>a</sup>



An Oral History of Unix (Michael S. Mahoney)  
- Your Highlight Location 633-641

If you look at the Berkeley Unix system and some of the commands that are similar, the same in Berkeley as what we have here but you look at the Berkeley manual they've added 85 flags to the Cat command or something. It was a very simple elegant thing that did a very simple job. I guess we've always had the attitude that it has to be really useful to be worthwhile putting in. Maybe just 'cause it was a smaller group than at Berkeley or maybe people in Berkeley, everybody needs to find a niche so they've got to put a flag on something, I don't know what the environment is there. But I think it was here to prevent featurism. I think that's the difference between the two systems. And I think that undoubtedly has to do with the university environment where everybody has to do something as opposed to the environment where in some sense everybody had to justify what it is they were doing to your cause. And there is also some hesitancy 'cause if you touched it you owned it, you thought hard about whether you needed to add that flag or whether there was some other way around it. Whether there was some program. You said "I'll find some other way to do this 'cause I don't want to own this program." - Lorinda Cherry

[-ABCFGHILPRSTUWZabcdefghijklmnopqrstuvwxyz1,]  
[-1AaBbCcDfghikLIMmnOoPpqRrSsTtuWwXx]  
[-1AaCcDfghHhikLImnopqRrSsTtux]

```
[1490vp040_pub[/] > cat -vbe ~/f2.txt
```

```
1  of course$
```

```
$
```

```
2  it's not patched$
```

```
$
```

```
3  like NetBSD$
```

```
1490vp040_pub[/] >
```





<https://twitter.com/IBM/status/763459894070476800>

Workflow

# Source Repo & Man pages

- 1) Does this buffer size change apply to DragonFly?
- 2) Does DragonFly have the corresponding system variables?
- 3) `sysconf(3)` needs to document `_SC_PHYS_PAGES`?
- 4) What does `getconf(1)` do?
- 5) `getconf(1)` references support for DEC Alpha!?
- 6) Does it contain platform specific code for Alpha?



Validating a change makes  
sense

e.g. changing buffer size

FreeBSD BZ: 206048, 211280, 211389

Documentation fixes

“Often the reason for a particular implementation technique becomes clear when the historical reasons are described”

*–Richard Stevens (Advanced Programming in UNIX Environment)*

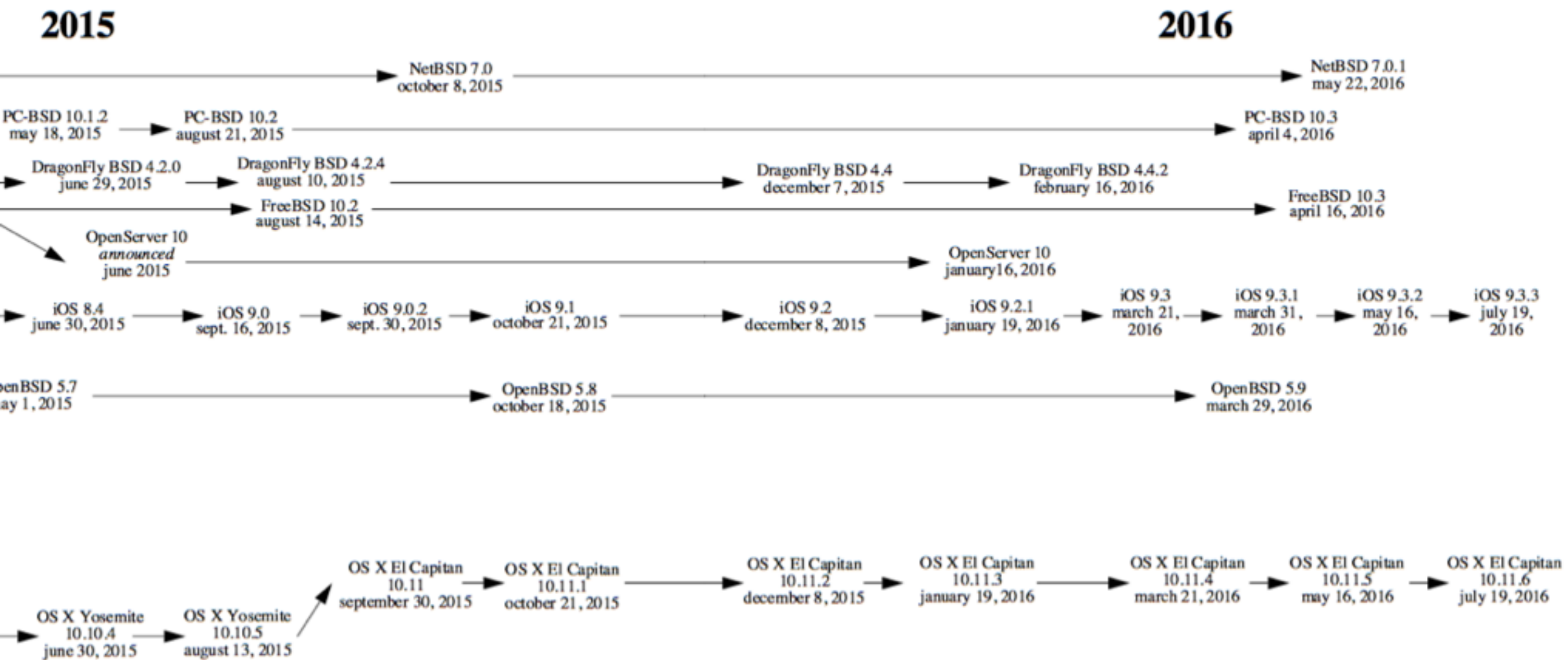
seq(1)

From Plan 9 or  
Research UNIX V8?

FreeBSD BZ: 181390



# UNIX archeology toolkit



TUHS archive  
Éric Lévénez history of Unix  
[man.cat-v.org](http://man.cat-v.org)

Category 1 or 8

/etc

Presence in CSRG archive

Beastie's pedigree cat(1)

- `cat -v` considered harmful & broken with multibyte characters
- Align output between when invoked with `-be` & `-ne` flags
- Remove socket support in `cat(1)`
- Backout? `FreeBSD r184471` in `src/bin/cat/cat.c`
- `-f` support - only attempt to open regular files

Georges Keramidas: <http://marc.info/?t=103030722400029&r=1&w=2>

Lack of hardware -  
chio(1)



# External Hurdles

Bug trackers

Archives

Design Documentation

People

Knock-on effect

"A good programmer is someone  
who looks both ways before  
crossing a one-way street." - Doug  
Linder

Questions?