Research UNIX and Plan 9

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dramatis personae

- Ken Thompson: father of UNIX, B, UTF-8, chess guru
- Dennis Ritchie: co-father of UNIX, C, Streams
- Joe Ossanna: author of ROFF et al.
- Doug McIlroy: TMG, inventor of pipes
- Brian Kernighan: evangelist, author, k of awk, greeter of worlds
- Stephen Johnson: yet another compiler compiler writer, pcc
- Rob Pike: father of research UNIX GUIs, Plan 9, concurrent programming languages
- and many others

The first decade of UNIX

- 1969: UNICS on PDP-7 (18 bit machine, 8kw memory)
- Nov. 1971: UNIX V1, PDP-11, assembly, no MMU
- Jun. 1972: UNIX V2, 10 installations
- Feb. 1973: UNIX V3, 16 installations, PDP-11/45, Pipes!
- Nov. 1973: UNIX V4, >20 installations, rewritten in C
- Jun. 1974: UNIX V5, >50 installations
- May 1975: UNIX V6, the last "old UNIX"
- Jan. 1979: UNIX V7, much bigger system, last public version, everything derives from this

The second decade of UNIX…at Bell Labs

First made public in early 2017

- 1982: UNIX V8, VAX-11/750, derived from 4.1cBSD, first UNIX GUI, procfs, etc.
- mid 80s: UNIX V9, sam, also on Sun3
- 1989: UNIX V10, rc, mk, etc., last research UNIX

Plan 9 from Bell Labs

- mid 80s: UNIX is starting to smell bad
- New OS:
- network is a first class citizen
- graphics too
- everything is a file, for real this time
- 1992: 1e, first official release
- 1995: 2e, acme
- spin off: inferno, for embedded systems
- 2000: 3e, in color, open source (but it's too late)
- 2002: 4e, last official release
- since then: ongoing development, death, forks

- everything is a file
- because everything can manipulate files
- programs should be simple and general (no bloat!)
- combine them to make the impossible possible
- and don't be afraid of mice

Links

- TUHS, The UNIX heritage society `http://www.tuhs.org/`
- unix-history-repo
  `https://github.com/dspinellis/unix-history-repo`
- pdp7-unix `https://github.com/DoctorWkt/pdp7-unix`
- V1 unix `https://github.com/DoctorWkt/unix-jun72`
- How to install and run ancient UNIX in simh
  `http://a.papnet.eu/UNIX`
- V8 build script `https://github.com/timnewsham/myv8`
- Blit `https://www.youtube.com/watch?v=emh22gT5e9k`
  emulator for UNIX `https://github.com/aap/blit`
- Labs Plan 9 (mirror) `http://9p.io/plan9/`
- 9front `http://9front.org/`