EduNET.LK Workshop “Talk Linux”

For the Induction Program

Bachelor in Software Engineering

The Open University of Sri Lanka

Session 1. 22 January 2026

History of Free and Open Source Software

Topics

Up to the 60s, mainframes to mini-computers

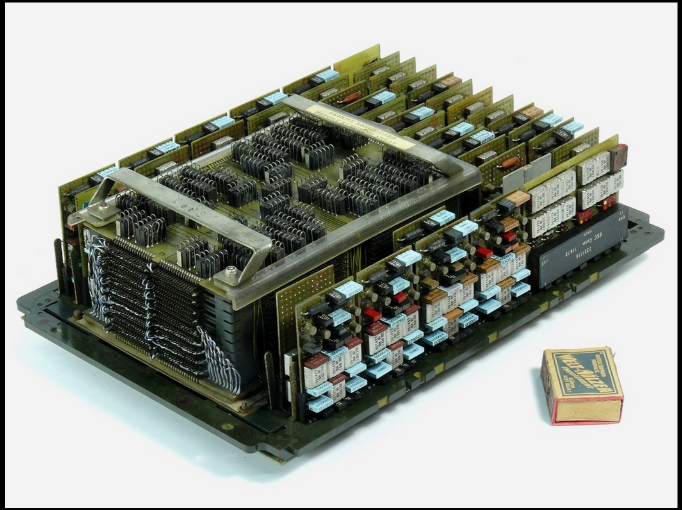
..70s and 80s, micro-computers

..80s software industry, copyright, copyleft

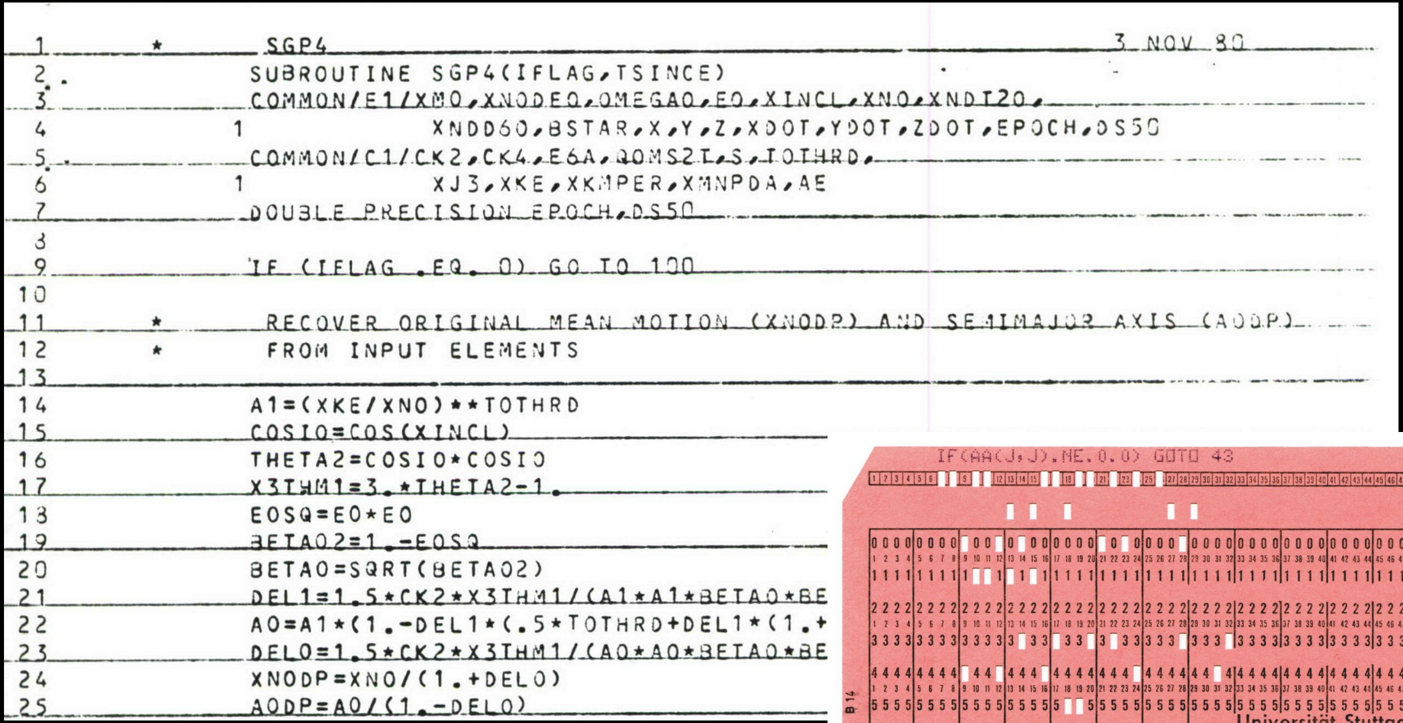
.. 90s Linux

(..2000 upwards)

The 1950s and the 1960s (I)



The 1950s and the 1960s (II)

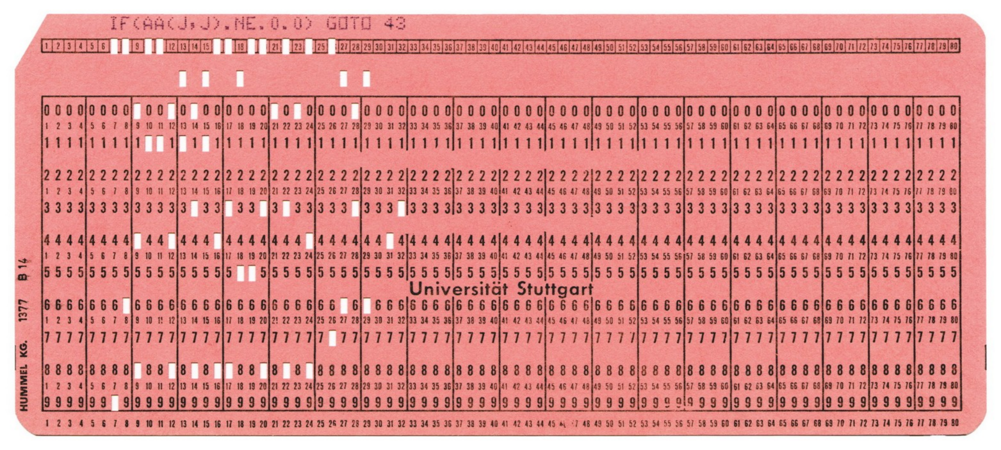


```
      *     SGP4                                                 3 NOV 80
            SUBROUTINE SGP4(IFLAG,TSINCE)
            COMMON/E1/XMO,XNODEO,OMEGAO,EO,XINCL,XNO,XNDT20,
          1           XNDD60,BSTAR,X,Y,Z,XDOT,YDOT,ZDOT,EPOCH,DS50
            COMMON/C1/CK2,CK4,E6A,QOMS2T,S,TOTHRD,
          1           XJ3,XKE,XKMPER,XMNPDA,AE
            DOUBLE PRECISION EPOCH,DS50

            IF (IFLAG .EQ. 0) GO TO 100

      *      RECOVER ORIGINAL MEAN MOTION (XNODP) AND SEMIMAJOR AXIS (AODP)
      *      FROM INPUT ELEMENTS

            A1=(XKE/XNO)**TOTHRD
            COSIO=COS(XINCL)
            THETA2=COSIO*COSIO
            X3THM1=3.*THETA2-1.
            EOSQ=EO*EO
            BETAO2=1.-EOSQ
            BETAO=SQRT(BETAO2)
            DEL1=1.5*CK2*X3THM1/(A1*A1*BETAO*BE
            AO=A1*(1.-DEL1*(.5*TOTHRD+DEL1*(1.+
            DELO=1.5*CK2*X3THM1/(AO*AO*BETAO*BE
            XNODP=XNO/(1.+DELO)
            AODP=AO/(1.-DELO)
```



From the late 1960s to the early 1970s

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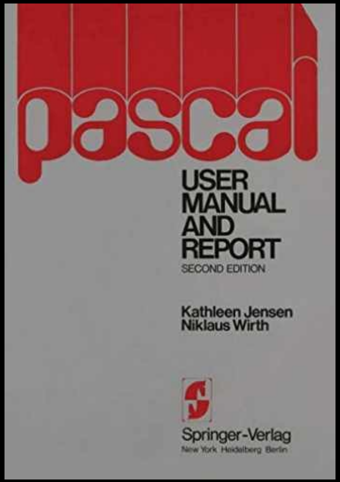
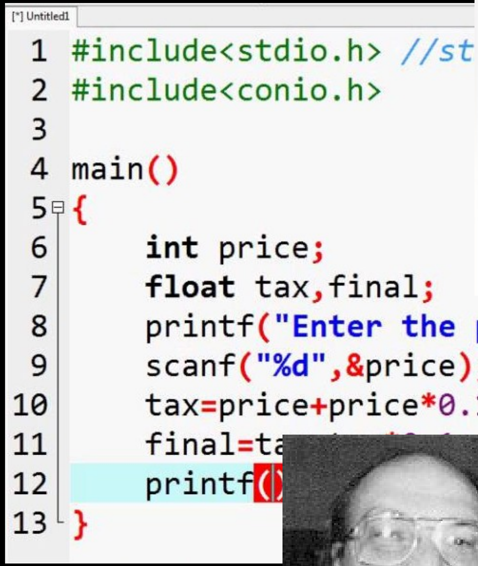
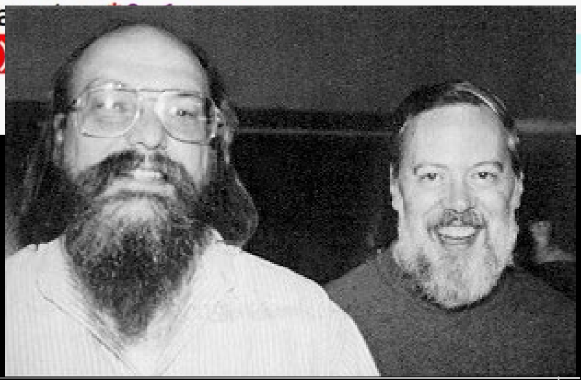
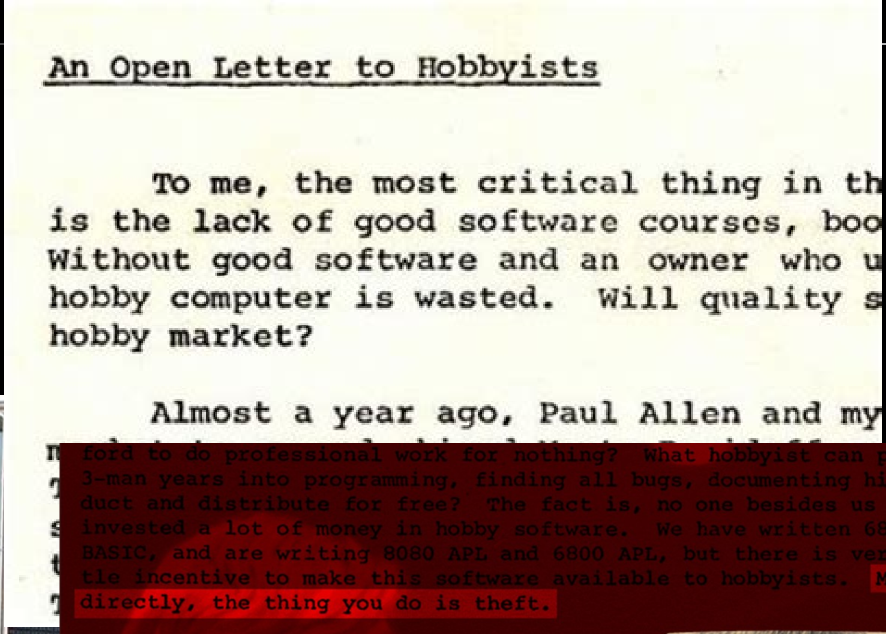




Cover graphic of *The C Programming Language*, co-authored by C's original designer Dennis Ritchie[1]



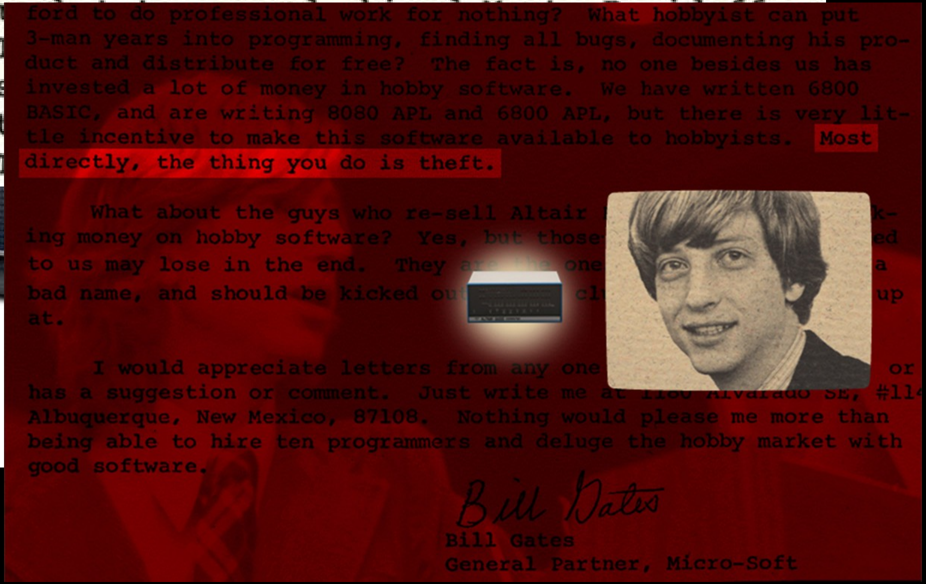
From the mid 1970s in to the 1980s



An Open Letter to Hobbyists

To me, the most critical thing in th
is the lack of good software courses, boo
Without good software and an owner who u
hobby computer is wasted. Will quality s
hobby market?

Almost a year ago, Paul Allen and my



ford to do professional work for nothing? What hobbyist can put 3-man years into programming, finding all bugs, documenting his product and distribute for free? The fact is, no one besides us has invested a lot of money in hobby software. We have written 6800 BASIC, and are writing 8080 APL and 6800 APL, but there is very little incentive to make this software available to hobbyists. Most directly, the thing you do is theft.

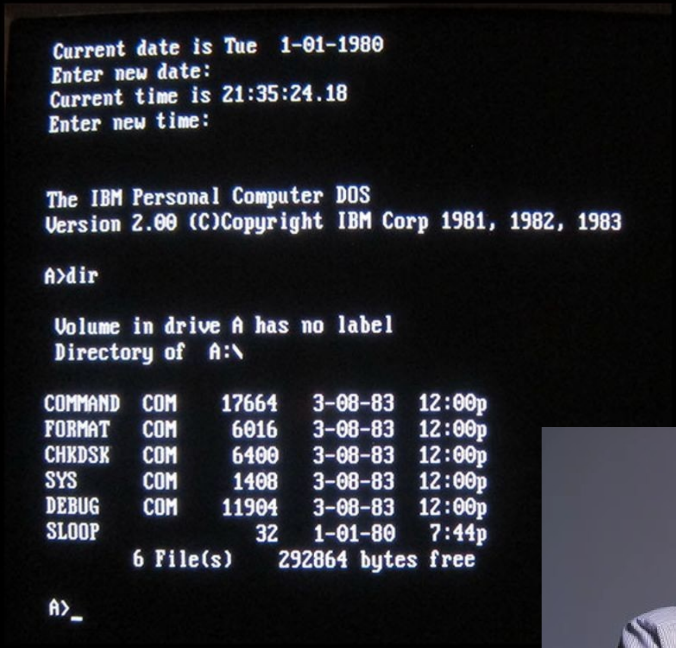
What about the guys who re-sell Altair
ing money on hobby software? Yes, but those
to us may lose in the end. They
bad name, and should be kicked ou
at.

I would appreciate letters from any one
has a suggestion or comment. Just write me at
Albuquerque, New Mexico, 87108. Nothing would please me more than being able to hire ten programmers and deluge the hobby market with good software.

Bill Gates

Bill Gates
General Partner, Micro-Soft

Early 1980s (I)



Early 1980s (II)

The GNU Project

by Richard Stallman

The first software-sharing community

What is free software?

The Free Software Definition

The free software definition presents the criteria for whether a particular software program qualifies as free software. From time to time we

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FREE SOFTWARE
FOUNDATION
www.fsf.org

1991!

Linus Benedict Torvalds 26.08.1991, 02:27:08

an

...

Hello everybody out there using minix -

I'm doing a (free) operating system (just a hobby, won't be big and professional like gnu) for 386(486) AT clones. This has been brewing since april, and is starting to get ready. I'd like any feedback on things people like/dislike in minix, as my OS resembles it somewhat (same physical layout of the file-system (due to practical reasons) among other things).

I've currently ported bash(1.08) and gcc(1.40), and things seem to work. This implies that I'll get something practical within a few months, and I'd like to know what features most people would want. Any suggestions are welcome, but I won't promise I'll implement them :-)

Linus (torv...@kruuna.helsinki.fi)

PS. Yes - it's free of any minix code, and it has a multi-threaded fs.
It is NOT protable (uses 386 task switching etc), and it probably never will support anything other than AT-harddisks, as that's all I have :-(.

The rest is history!