Vom Shell-Skript zum TuX auf dem Wafer und LED-Lauflicht

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BOSCH

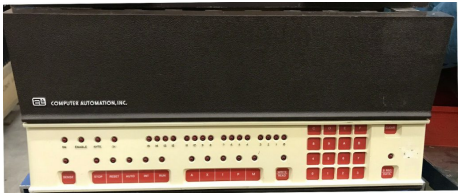
<me>

- OpenSource in der Schule (Pet-2001 / CBM-3032)
- TEX ab 1986 an der Uni
- VMS (1985) und UNX (1987) an der Uni
- Nie wieder INTEL (1989/90 – Intel-Assembler;)
- Linux 0.98.4 (1992, doch wieder Intel:-(
- XFree86 (S3, 1993-2001)
- science + computing ag in Tübingen seit 2001
- Bosch Sensortec GmbH in Reutlingen seit 2014
- . . .

No Graphics at all

https://commons.wikimedia.org/w/index.php?curid=36769003

By Rama & Musée Bolo - Own work CC BY-SA 2.0 fr

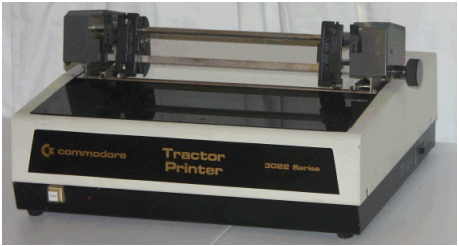


https://www.alphalsi.com/inventory/

Computer Automation Inc. Alpha/LSI-2 16 bit minicomputer

No Graphics, but 1st Printer Driver for. . .

https://upload.wikimedia.org/wikipedia/commons/5/57/Commodore_PET2001.jpg

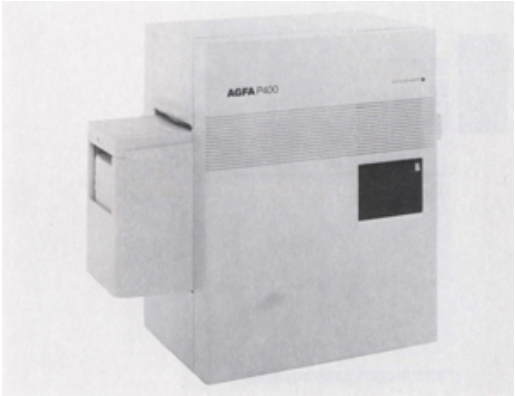


http://www.zimmers.net/cbmpics/cbm/printers/3022.gif

No Graphics, but 1st Printer Driver for. . .

https://www.unimuseum.uni-tuebingen.de/fileadmin/content/01_Ausstellungen/ausstellung_38_dinge/dinge34.html

Printer Driver for. . .



https://uploads.ifdesign.de/award_img_78/16130_01_Drucker_AGFA_P_400_0001.jpg

BOSCH

YaP (Yet another Printer)

https://pactech.com/de/advanced-packaging-maschinen/sb%c2%b2-maschinen/

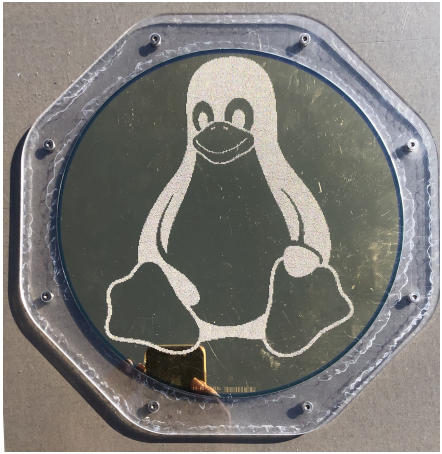
A Shell Script a Day. . .

```
#!/bin/bash
#...
read xsize ysize < <( pngtopnm "$picname" | sed -n 2p )

pngtopnm  "$picname"  |
    pnmdepth 1 |
    ppmtopgm |
    pgmtopbm |
    tee >( ppmtopgm | pnmtopng > test.png 2> /dev/null ) |
    pnmnoraw |
    sed 1,2d |
    tr -d '\n' |
    dd cbs=$xsize conv=unblock 2> /dev/null |
    cat -n |
    while read ny sy ; do echo $sy |
       sed 's/\(.\)/\1\n/g'  |
       cat -n |
       grep  '1$' |
       sed "s/^/$ny /"
    done |

(
#...
awk -v hex=$[ 0x76 ] -v pitch=$pitch -v radius=$radius -v xsize=$xsize -v ysize=$ysize -v xoffset=$xoffset -v yoffset=$yoffset '{
printf  \
 "CIRCLE\n" \
```

How did the TuX get onto the Wafer ?



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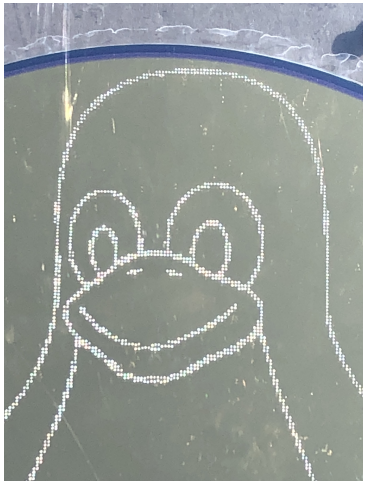

Picture Frame

- OpenSCAD
- Lasercutter Radium Laser Model 1390FabLab Neckar-Alb e.V.

https://www.fablab-neckar-alb.org/fablab-was-ist-das-eigentlich/ausstattung/

Leftover Acrylic Glass

- Inkscape
- more laser cutting ;-)

Illumination

- LED Strips: NeoPixel SK6812 WS281X
- Raspberry Pi Pico, RP2040
- MicroPython
  `https://micropython.org/`