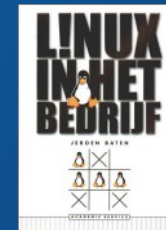


Working your own mainframe on Linux (for fun and profit)



Who am I?

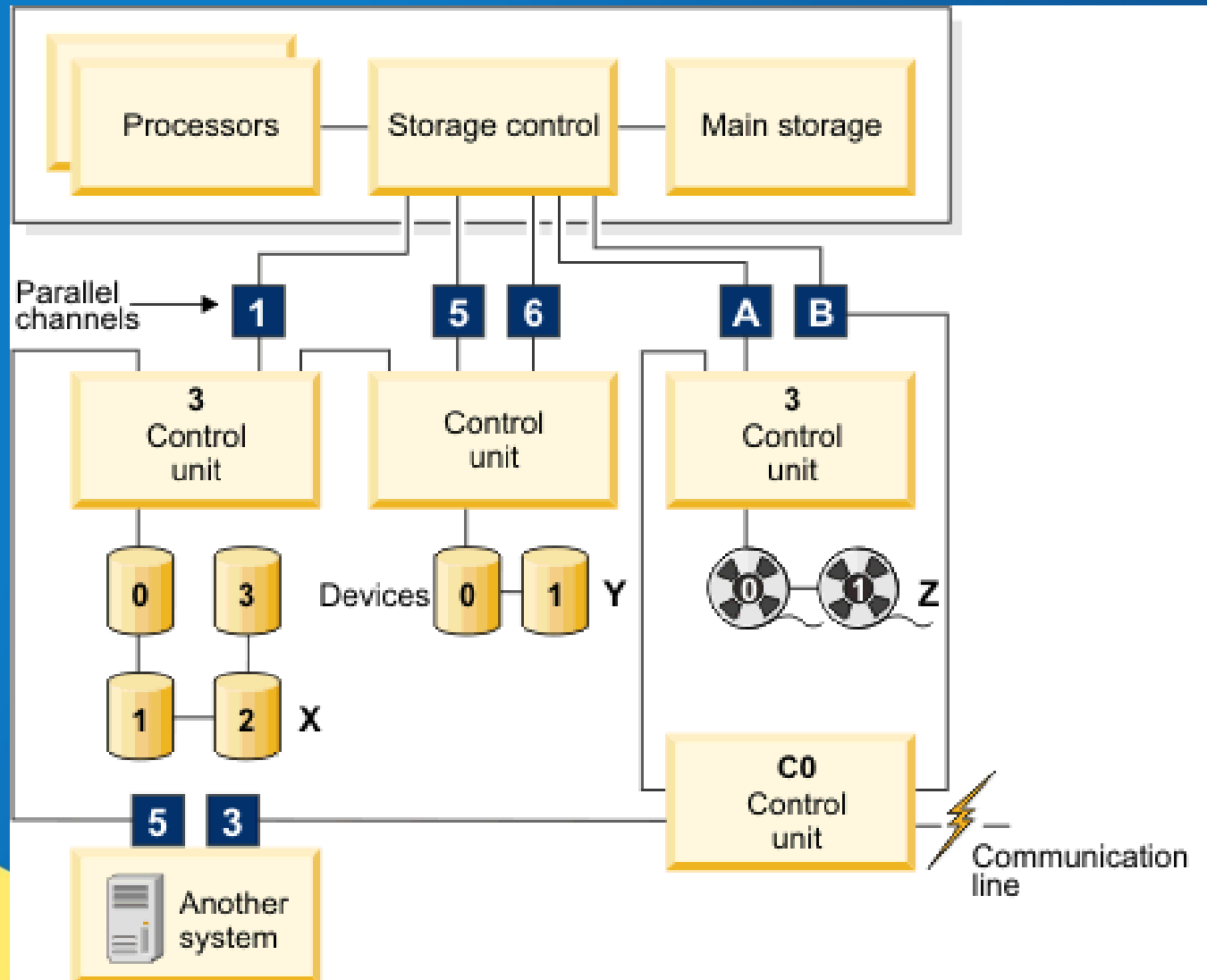
- Jeroen Baten
- Lifetime innovator
- Job title : IT Solutionist



Who am I ? (in pics)



What is a mainframe?



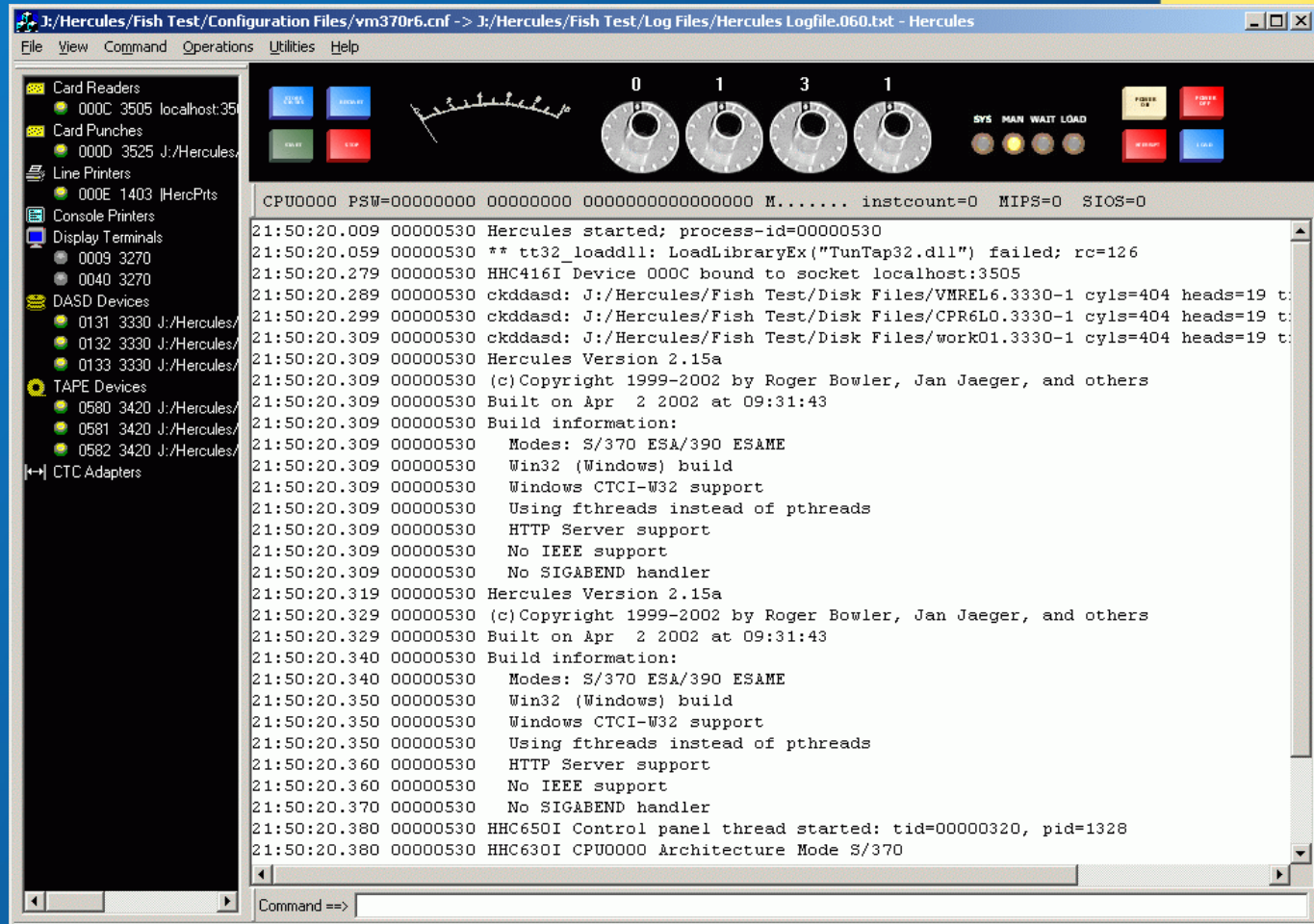
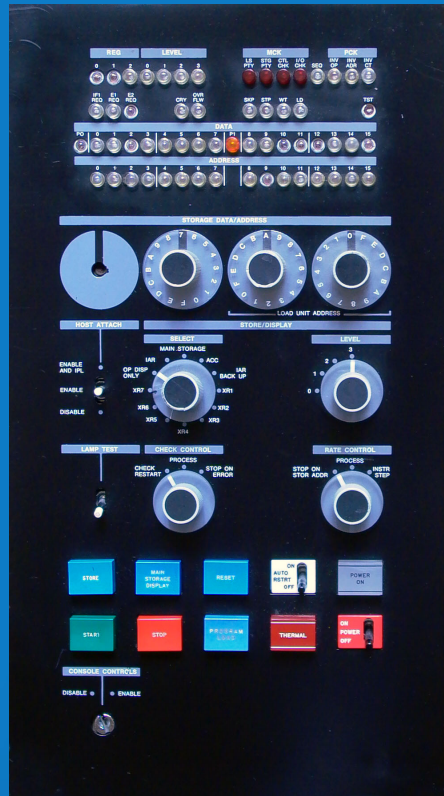
Mainframe=
Massive
hardware
parallelisation

What is “Hercules”



- A IBM Mainframe emulator for:
 - System/370
 - ESA/390
 - 64-bit z/Architecture.
- Hercules runs under Linux, Windows, Solaris, FreeBSD, and Mac OS X

How does it look?





What does it do?

- Run software (duh!)
- Many OS in public domain available
 - If you have a license and the hardware: OS/390, z/OS, VSE/ESA, z/VSE, VM/ESA, z/VM, TPF/ESA, z/TPF
 - Otherwise: OS/360, DOS/360, DOS/VS, MVS, VM/370, TSS/370, **Linux :-)**



What **not** to do....

- Google “hercules project”
 - www.hercules-390.org
 - “Last updated \$Date: 2010-03-09”
- Follow site to:
 - <http://www.ibiblio.org/jmaynard/>
- Easy start: Volker's MVS 3.8J turnkey system version 3
- Jay Maynard, at jmaynard@conmicro.cx
- **Lights are on but nobody's home!**



What to do!

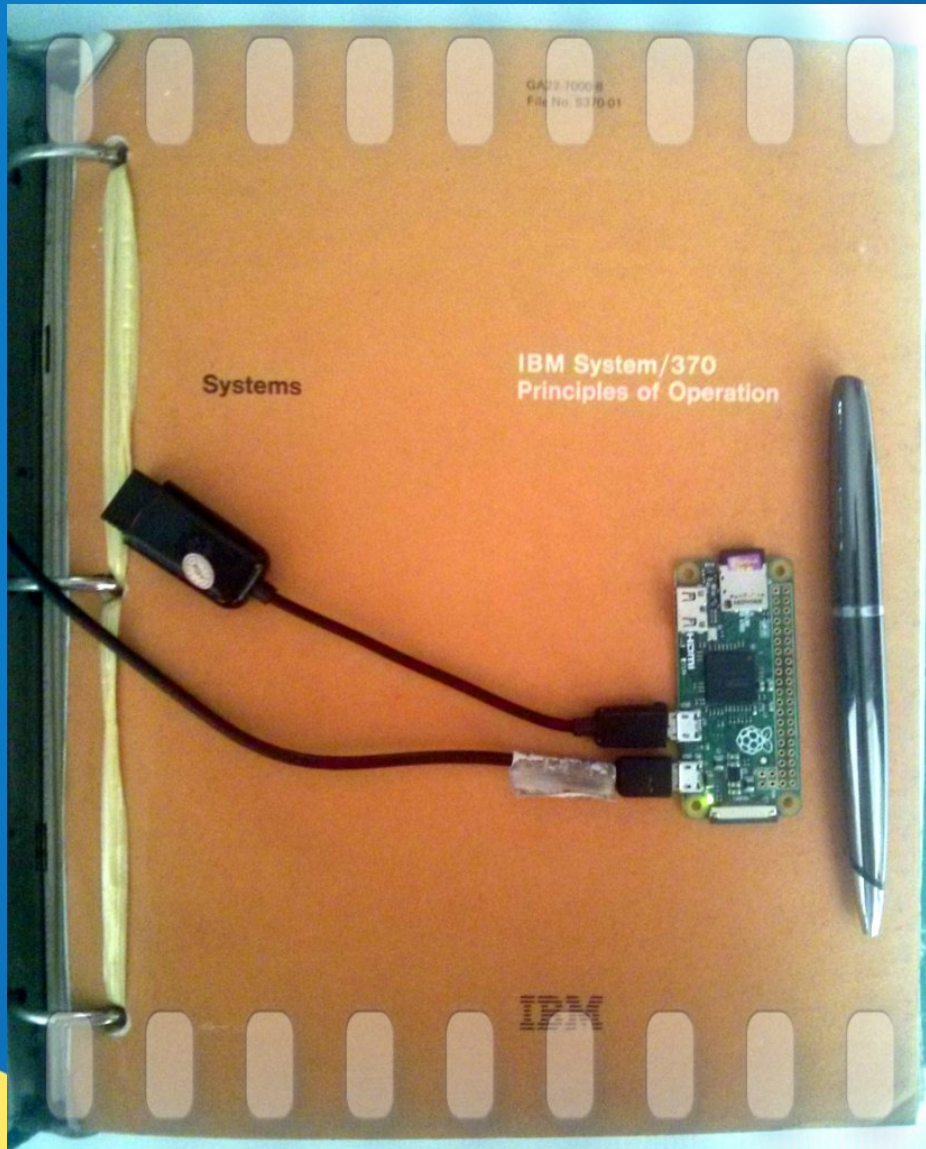
- Main site: <http://www.hercules-390.eu>
- Main list: hercules-390@yahooogroups.com
- Easy start: MVS 3.8j Tur(n)key 4- System
 - <http://wotho.ethz.ch/tk4-/>
 - Download: http://wotho.ethz.ch/tk4-/tk4-_v1.00_current.zip
- Start learning:
<https://www.youtube.com/user/moshe5760/videos>
- Moshix has 25 YouTube video howtos



What you need

- PC with Linux (or Windows, I know)
- Or Raspberry Pi
- 3270 terminal emulator (tn3270)
- Hercules software
- Some Operating System distribution

Very small mainframe



<https://www.suhendro.com/2016/10/look-ma-my-5-pi-zero-thinks-it-is-a-mainframe/>

Lingo to understand



- DASD: Direct Attached Storage Device (harddisk)
- TSO: Time Sharing Option (multi-user)
- JES2: Job Entry System (job queue)
- CICS: front-end to transaction software
- Datasets: created assigned space for stuff
- Catalog: system list of available stuff

What you will see (menu)



ISPF Primary Option Menu

```
Option ==> 3_
0 Settings      Terminal and user parameters      User ID . : KUMARVS
1 View          Display source data or listings    Time. . . : 02:31
2 Edit          Create or change source data       Terminal. : 3278
3 Utilities     Perform utility functions         Screen. . : 1
4 Foreground    Interactive language processing    Language. : ENGLISH
5 Batch         Submit job for language processing  Appl ID . : ISR
6 Command       Enter TSO or Workstation commands  TSO logon : SYSUSER
7 Dialog Test   Perform dialog testing            TSO prefix: KUMARVS
9 IBM Products  IBM program development products   System ID : ADCD
10 SCLM         SW Configuration Library Manager   MVS acct. : 12345678
11 Workplace    ISPF Object/Action Workplace       Release . : ISPF 5.6
S SDSF         SDSF Panels
D DB2          DB2 Product, SPUFI and DB2 Commands
A DB2ADM       DB2 Administration Tools
M More         Additional IBM Products

Enter X to Terminate using log/list defaults
PF 1=HELP      2=SPLIT      3=END        4=RETURN     5=RFIND      6=RCHANGE
PF 7=UP        8=DOWN       9=SWAP       10=LEFT      11=RIGHT     12=RETRIEVE
```

Demo time!





Questions for me?: jeroen@jeroenbaten.nl