From MVT to MVS and MVSXA, to Z/OS and how to break the time bomb

ASU Conference

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Peter(1) BEGIN

Pre-history at school

- 1972: Algol 60 Book from math teacher

Röntgen-Gymnasium
Remscheid-Lennep

Simula first steps

- 1973 PeterPaul Spies – University Bonn

- IBM /168 – MVT

- SIMULA from NCC

- Teaching abstract SIMULA machine as « programming »

- Playing with « derivatives formula »

- 1974 Math Practical Programming in Simula ?, yes
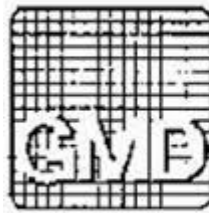
MVS - « holy grail »

- 1975 – 1981: Internship at GMD Bonn
- IBM /158 – MVS, (not SIRIS from CII)
- SIMULA – Protection Exception in Post Mortem
- Also SIEMENS BS2000
- Prototype TeX dvi driver for Calcomp 35mm film

GMD Schloss Birlinghoven

Upgrades

- IBM Systems programmer
- 1982: MVS/SP, IBM 3083 (6MO storage), good
- 1984: MVS/XA
- Simula – oops, region pointers gone
- Disassembled, fixed code, called Gunnar at Simula a.s
- Code protection logic was at the same place, see later
- 1984 – 1991 European Academic and Resea
  - Lots of pascal

GESELLSCHAFT FÜR
MATHEMATIK
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MBH BONN

Housekeeping

- 1992-1994 INRIA France, Unix, X.400, perl, …
- Backup of Simula Compiler and RT
  - « Winter was coming? »
- No more IBM?

INRIA Rocquencourt

Intermezzo

- 1994 Creation of EdelWeb and GCTech
- No IBM, no Simula
- Sun, Java, the emperor's new clothes?

Paris, Front de Seine

Revival / The time bomb

- 2005: Hercules IBM 370… emulator
- MVS 3.8 Tur(n)key3 (Volker Bandke)
- Simula: year 2000 problem
- circumvent code protection when testing
- One byte to change in constants area

Troubleshooting

- Compiler says 2006, RT says 1906
- The protection bug, unpk instruction off 1
- Z/OS binder doesn't like ZYQENT entrypoint

- It works

Save haven

- Simula documents scanned
  - Users, programmers, implementors guides, ..
- Added to the CBTTAPE (Sam Golub)
- Added to Tur(n)key 4- (Jürgen Winkelmann)
- edelweb.de/Simula (me)

Usage

- MVS has TSO, ugly to use
- Remote job entry emulation RJE80
  – Card reader
  – Printer
- Tur(n)key4- (Jürgen Winkelmann)
  – Automagic operation

Conclusion

- Simula from 1985 works on many IBM systems
  - With some small patches
  - Like in old days with cards and paper
- Meaning of ZYQENT ?
  - ZYQ indicating a pair or a union
  - ENT « don't be hasty »

- That's all, folks