

Conference

„Pioneering Software in the 1960s in Germany, The Netherlands, and Belgium”

Date: 2.-4. November 2006

Site: CWI (Amsterdam)

Organizers: Gerard Alberts (CWI Amsterdam), Wilfried Brauer (TU München), Arjan van Dijk (NGI), Ulf Hashagen (MZWTG/Deutsches Museum), Hans Dieter Hellige (Universität Bremen), Jacques VandenBulcke (SAI/Universiteit Leuven), John Impagliazzo

Supporting Organizations:

- Societies: GI, NGI, SAI, IFIP Working Group 9.7 „History of Computing“, CEPIS
- Universities and Research Institutes: CWI, Deutsches Museum/MZWTG, TU München

Participants:

- 20 speakers and commentators
- Open for guests

Format:

- Invited lectures and comments to be prepared in advance
- Editing of proceedings afterwards

Moderators:

- Michael S. Mahoney (Princeton University)
- Wilfried Brauer (TU München)

Abstract:

Software, today, is the ubiquitous support of everyday practice. The early beginnings of software, however, are half a century old. From the coding of the early machines in the 1950s gradually rose the writing of software as an autonomous practice. By 1960 the main areas of research and industrial innovation were operating systems, programming languages and construction of compilers. In the following years the software field developed its own tools, techniques and methodologies. The foundation of software houses signified the emergence of software as an economic activity. The development of software showed its growing pains, from late deliveries, to not meeting specifications, and to straightforward accidents. By the end of the 1960s some perceived the field as being in a crisis, others saw new challenges. The famous Garmisch-Partenkirchen Conference in 1968 marked the self-conscious start of a new discipline called software engineering.

European countries followed their own paths in these early developments of software. Their academics tended to choose the niche of theoretical research, symbolized by abstract reflection on the design of languages. Simultaneously university research teams filled the gap of the absent software departments in the European computer industries, delivering compilers and contributing to operating systems. Germany, The Netherlands and Belgium shared this paradox characteristic of the pioneering age of software.

Topics:

- Designing programming languages
- Construction of compilers and operating systems
- The rise of the software branch: software-houses and application software
- Software tools, techniques and methodologies: towards software engineering in industry and academy

Thursday, November 2nd, 15:30 – 19:00

Designing Languages

- Gerard Alberts (Amsterdam), Van Wijngaarden and ALGOL 68
- Hartmut Petzold (München), Lehmann and ALGOL
- Jacques Loeckx (Köln), (title tba)

Conference dinner

Friday, November 3rd

Morning, 9:00 – 13:00

Compilers, and operating systems in academic-industrial cooperation

- Hans Langmaack (Kiel), The Role of Academic Research Teams in Software Development for Computer Manufacturers, spec. ALCOR
- Frans Kruseman Aretz (Eindhoven), Constructing Compilers
- Gerhard Goos (Karlsruhe), comments on compiler construction
- Hans-R Wiehle (München), Operating Systems at Telefunken
- Adrienne van den Bogaard (Delft), Dijkstra and the THE operating system
- Klaus-Peter Löhr (Berlin), comments on contributions on operating systems and compilers

Afternoon, 15:30 – 19:00

The rise of the software industry

- Jan Mol (Amsterdam), Volmac
- Norbert Szyperski (Köln), Kienzle
- Timo Leimbach (München), Software for Telefunken
- Sandra Mols (Manchester), on the beginnings of the Belgian software branche
- Albert Endres (Sindelfingen), Software development at IBM before 1968

Saturday

Morning, 9:00 – 13:00

Software tools, techniques and methodologies: towards software engineering in industry and academy

- Jan Berghuis (Bennekom), Project Management, systems management
- Willem van der Poel (Delft), Zebraclub and SERA
- Hans-Dieter Hellige (Bremen), Software Engineering approaches before the notion
- Maurice Verhelst (Leuven), Decision Tables