

SCIENCE AND ENGINEERING RESEARCH COUNCIL
RUTHERFORD APPLETON LABORATORY

COMPUTING DIVISION

DISTRIBUTED INTERACTIVE COMPUTING NOTE 638

issued by
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TRIP REPORT

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 Trip Reports/1982 file
 Perq/Gen file

PERQ

1. GMD have 2 Perqs bought from 3RCC because "ICL too expensive". They arrived in, I think, Feb '82.
2. Peter Seuffert is the main programmer on Perq. He has spent a lot of time giving demonstrations and educating people. GMD people are keen on the Perq but feel it is too expensive. Some would like colour (cf LISP machine).
3. GMD would like to collaborate with us on Perq software development. They are keen on Unix and run it on PDP 11s and VAX.
4. They have a Canon laser printer attached to their Perq. They have all the expected problems due to lack of Canon maintenance support. Seuffert complains that 4K writeable control store not big enough to contain Canon and Ethernet microcode support.
5. GMD are going to do a pilot LAN connection between VAX, PDP11/70 running Unix and Perqs using 3COM ethernet much like 'Paul Bryant' stuff. Scope for collaboration here - GMD are keen.

LISP MACHINE

1. The day I arrived the LISP machine also arrived. It is a six foot tall cabinet of electronics plus 'big' disk plus keyboard, 3 button mouse, black and white display and colour monitor. It did apparently run the next day but I did not see it.
2. GMD say that the VLSI bits of the machine had to be replaced by 'older' technology before an export licence could be granted. This is the first direct evidence I have experienced of the Raegan administration's clamp down on technology export.
3. The LISP machine is for VLSI design I think but I couldn't really find out.

GKS

1. GMD has implemented GKS7.0 in Pascal on a Siemens machine to be a product owned by Siemens. It was demonstrated at the Hanover fair recently.
2. GMD will see if we can have a copy if we ask for it.

TEX

1. Wolfgang Appelf got TEX in Oct 81. Put it on their IBM 370/185 as a learning exercise. Used IBM's Pascal compiler and VM/JES2/SPF-TSO. Took over 1 month's work to get it running. Drives Siemens laser printer but only monospaced fonts.
2. Not got Meta font working on IBM. They have Hershey fonts for Siemens printer on the IBM.
3. TEX takes 500K byte on IBM and virtual memory. Runs at 1 second CPU per page.
4. GMD have some Versatek bit map fonts from Stanford.
5. GMD got VAX/UNIX in Feb '82. Waiting for Whitesith's Pascal compiler then will mount TEX on VAX. Compiler translates Pascal to 'C' code. VAX Unix gurus prefer this approach.
6. Wolfgang is going to produce a driver for the Perq to use it as an I/O device for TEX running on the VAX. This will give access to Canon L.P.
7. GMD TEX work is freely available.
8. Told Wolfgang to contact H Brown. Perhaps D.A.D. could alert H Brown to GMD activity.

MISCELLANEOUS

1. Hitachi have just announced a laser printer - no details.
2. Siemens has just signed deal with Xerox to sell Xerox Star and Laser printer in Europe. It is a 3 year contract. Siemens reputed to have bought £3M of kit.
3. Kansy has got speech I/O project; includes Votrax on 11/70.
4. GMD have an operating system HUMEL which runs on Z80s. The small University at Bederfelt is due to replace its mainframe soon. GMD are going to replace it by distributed version of HUMEL running on network of small machines. Initially will use X25 type comms. Hope to have 50-100 machines by 1986.

5. The Deputy Director of GMD wishes to visit RAL in July '82. FRAH/GM level guy.
6. GMD people send best wishes to al UK GKS people.
7. GMD have got System III running on their VAX. They are willing for us to learn from their experience.

SOFTWARE TECHNOLOGY

1. GMD have 4 software technology projects funded by EEC in collaboration with NCC Manchester (Michael Wood) began Feb '82.
2. Projects are:
 - (a) project control (??)
 - (b) technical construction
 - (c) measurement
 - (d) requirements specification.
3. They also have a database project with NCC.
4. Called the SDSS project.
5. Will use software development database and tools.
6. Will use MENTOR results from INRIA. Tree editors for Pascal.
7. Relational distributed database.
8. Might use Perq and Lisp machine.
9. Requirements specification will be 'user model' of proposed system. Object orientated ideas - cross between small talk and algebraic specification.
10. Student project to translate sorting algorithms into Interlisp from algebraic specifications.

OFFICE AUTOMATION

1. Peter Wiskirchen very interested. Visiting UK to see DoI pilot projects in July '82. Might visit RAL.
2. Could Keith J. release details of our plans to GMD?

ACTIONS

1. Len Ford to send PUFTP Perq and PDP11 Unix versions to Peter Seuffert on Perq floppy.
2. RWW to ask ICL if GMD can have pre-release of RAL Unix.
3. RWW to ask GMD for the Siemens GKS7.0 in Pascal.
4. DAD to tell H Brown to liaise with GMD TEX project.
5. RWW to get FRAH to send invitation to GMD Deputy Director (Winkelhager) plus details of RAL activity. GM to be informed.