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SCIENCE AND ENGINEERING RESEARCH COUNCIL

RUTHERFORD APPLETON LABORATORY  
COMPUTING DIVISION

DISTRIBUTED INTERACTIVE COMPUTING NOTE 792

Minutes of the ICL/PERQ/SERC Collaboration  
Meeting held at RAL on 10 January 1983

Issued by  
L O Ford

1 February 1983

PRESENT: ICL C H Barfield  
P F Palmer  
A Brown  
H S Woodgate  
D W Pearson  
T Gibson  
A Montgomery

SERC R W Witty  
K Robinson  
L O Ford  
C Prosser  
F R A Hopgood  
R E Thomas

DISTRIBUTION: Those present and  
R Chamberlain ICL  
M Watson ICL  
M R Carter ICL  
R J R Ashbrook ICL  
E V C Fielding SERC

1. ICL PROGRESS REPORT AND ACTIONS

1.1 Software

- (a) POS release 2 has been signed off.
- (b) Microcode/UNIX B-test is complete and will have a controlled release Wk 21 (End February). Two items, the screen editor and chatter have been decoupled from the release but will be available at the same time from the Trust Library.
- (c) Fortran has also been decoupled from the release and will be taken over by Dalkeith. PFP said that he expected FTN to be available for field trial end of January - middle of February with general release end of March.
- (d) ISO Pascal would be released end of June but would be available internally mid-April.

- (e) POS (F2) + Z80 supporting communications would be released Wk 24 (mid-March).
- (f) The final release of the rewritten Z80 code arrived at Dalkeith one day before Christmas so no measurements have been made on it yet.
- (g) POS on PERQ 2 would be available end of June.

## 1.2 Hardware

- (a) PERQ 2 would be available end of June and could have up to two 8 inch Micropolis disks in the DRS petite cabinet. This would reduce sound levels and cut down on the electromagnetic radiation.
- (b) ICL needs to re-layout the 16k WCS board which would then be available with PERQ 2.
- (c) PERQ 2 will support the Versatec, ethernet, 2780 emulator and 1 RS232 connection. It is not confirmed yet whether it will support the 2Mb memory board.
- (d) Dalkeith have taken delivery of the first two prototypes and have driven the Micropolis disk successfully in test mode. They look like the final product.
- (e) The EIO board needs reworking as it has the same tracking problems as the 16k WCS board. This board has ethernet and 2 RS232 connectrons.
- (f) There is no date set for the availability of Multibus but it would be able to support more than one large disk.

## 1.3 Matters Arising

- (a) SERC requires that future software must run on 4k machines and were informed that UNIX currently runs in 4k WCS. However, ICL stated that graphics may rely on the 16k machine as there is no space currently left in the controlstore. SERC insisted that UNIX and basic graphics should run on their existing machines but would be happy that it did not if there existed a zero cost upgrade path. (SERC requirements for support in 4k WCS were for: UNIX; basic graphics (including rasterop); double and single precision floating point; and the Fortran and Pascal compilers.)
- (b) SERC were concerned that the new GPIB driver and the Z80 rewrite would not be available in Microcode/Unix until the end of June. The Cambridge Ring project at SERC cannot proceed until these are available and the Office Pilot is based on Cambridge Ring. ICL stated that there was a meeting set for the end of January to establish the plan for the end of June release and an earlier pre-release date would be supplied after that meeting.

- (c) ICL were asked their policy on the release of sources for Microcode/Unix. AB stated that in principle they can be released if the recipient has a source licence but ICL would not support modified systems. Universities should normally contact A Brown directly.
- (d) ICL would like SERC to supply their views on the backup of fixed disks.

#### 1.4 Review of ICL Actions

- 1.1 The nucleus of the software team for PERQ/DAP is being set up and the hardware team has already started working. The complete development will take until June 1984 but preproduction machines should be available April 1984. SERC stated that they would probably take up to nine preproduction machines. ICL believed that these machines would include the high-speed interface, ie they would be colour PERQs.
- 1.2 AB stated that it was possible to upgrade 4k to 16k WCS but provided no costs. It also became clear during the discussions that ICL did not know the current state of SERC orders.
- 1.3 A partial list of customers was supplied and is attached to these minutes.
- 1.4 Carried forward.
- 1.5 Carried forward.
- 1.6 ICL were not able to offer GMD a place on the current field trial but were prepared to offer them a field trial at Wk 17 of the full product. A visit by GMD to Dalkeith could be arranged: ICL Sales Germany should do this.
- 1.7 Will be supplied by the Press Office.
- 1.8 SERC are to supply to ICL the new ported Utilities and EVCF will provide assistance on FTN. SERC's actions are complete for the Screen Editor for the first release but SERC/ICL should sort out the final screen editor. The collaborative project on the Window Manager has been agreed and has been sent to SERC's Computing and Communications Sub-Committee for funding. ICL would like to start work on it as soon as possible.
- 1.9 J R Stonehouse has produced an interim report. Documents should be circulated with SERC for comment.
- 1.10 Done.
- 1.11 Covered earlier.
- 1.12 Carried forward.
- 1.13 Agenda Item.

1.14 Covered in 1.8.

1.15 Carried forward.

## 2. SERC PROGRESS REPORT AND ACTIONS

### 2.1 Microcode/Unix

(a) Work has continued at RAL on familiarisation with Microcode/Unix and with porting utilities. The nroff suite is now complete and tested except for refer which is very close to completion.

(b) Benchmarking is complete and the results sent to Dalkeith. 32 bit integer operations appear to be between 2-4 times faster or slower than the PDP 11/70.

### 2.2 Screen Editor

The survey is now complete with Pepper decided upon as best. SERC need the THIEF sources to start work on it.

### 2.3 Window Manager

The RG2/RG6 is in and has been acknowledged by Swindon Office. SERC are impressed by the current window manager but see that work is needed on the user interface.

### 2.4 Communications

Communications have been badly affected by the move to Microcode/Unix. The RS232 and GRIB drivers are needed, the lack of the latter is especially serious for the D of I Office Pilot project. X25 is in better shape but needs the RS232 driver. SERC wished to know if ICL had any interest in the inboard solution.

### 2.5 Accent/Unix

The major work on Accent/Unix has involved building 0.3 BDS and documenting the system, both of which are essentially complete. The evaluation of the system is still to be done.

SERC would like to know what plans ICL have for Accent as future work on Accent is only viable with ICL collaboration.

### 2.6 Review of SERC Actions

2.1 Received by ICL.

2.2 Carried forward. It was agreed that Ted Owen of DL should talk to Alan Montgomery of ICL as AM is the interface to Universities and new projects.

2.3 -

2.4 SERC will sort out its own maintenance contract first.

3. TIMESCALES FOR PERQ HARDWARE DEVELOPMENTS

CHB was not prepared to give any dates beyond the end of June so this item was carried forward to the next meeting.

3.1 Matters Arising

The Versatec requires the Z80 rewrite and there are performance problems with the current interface, the Versatec does not like starting and stopping. TG to progress urgently as we are approaching end of SERC financial year. TG agreed to send specs of OKI printer.

4. APPLICATIONS

H S Woodgate provided a progress report and his slide is included with these minutes.

5. OFFICE PILOT

- (a) Considerable progress has been made since the last meeting with an outline plan agreed for the implementation. A collaborative arrangement with Manchester University for Scientific Word Processing (VUMAN) needs sorting out.
- (b) Office mail will be done based on the Grey book.
- (c) The timescales for communications look uncertain. Professor Hopgood asked if there was a print protocol in good order. NDF is used as a document transfer format, but this was felt to be a hybrid as it contained layout information. There was another format for interchange between PERQ and Data Recall machines, and also a 2-way transfer capability between NDF and GKS metafile.

6. ANY OTHER BUSINESS

- 6.1 ICL stated that there are no plans or funding for COBOL on the PERQ.
- 6.2 The long timescales for ICL PASCAL were discussed and ICL said the cross-compiler which runs on VME would be available end of February. SERC were asked to determine the date of delivery of PASCALPLUS for Microdode/Unix.
- 6.3 It was noted possible to direct dial some numbers at RAL; this avoided having to go via the switchboard.

FRAH	0235 44 5547
RWW	0235 44 6218
CP	0235 44 6566
KR	0235 44 6391

The last 4 digits were the extension numbers of 0235 21900.

6.4 Next Meeting

The next Collaboration Meeting will be on 24 March 1983 at Dalkeith starting at 10.00 am.

APPENDIX A

Action Lists

A1	ICL	
1.1	Report on performance of the re-programmed Z80.	P Palmer
1.2	Report on endeavours to obtain from 3RCC a PERQ hardware monitor for RAL.	P Palmer
1.3	Make a statement on ICL policy concerning print servers.	D Bandy
1.4	Provide PERQ-DAP presentation.	C H Barfield
1.5	Supply photographs of PERQ 2.	T Gibson
1.6	Supply indication of performance of PERQ 2.	P Palmer
1.7	To determine the earliest date for the new GPIB driver and the Z80 rewrite code on old PERQ for the Office Pilot.	P Palmer
1.8	To supply sources of Microcode/Unix for Newcastle and York.	T Gibson
1.9	Provide dates and prices on upgrading existing machines from 4k WCS to 16k WCS and order one 16k WCS board from 3RCC.	T Gibson
1.10	To determine if Dalkeith can supply SERC with one 16k WCS board.	C H Barfield
1.11	To determine if existing PERQs can take the landscape display.	A Brown
1.12	To confirm state of actions on orders and pseudo-orders.	T Gibson
1.13	Divert any queries going directly to Dalkeith on POS to SERC.	P Palmer
1.14	Deliver four Versatecs as soon as possible.	T Gibson
1.15	Determine specification and costs of OKI printer.	T Gibson
1.16	Deliver CALC to SERC.	H S Woodgate
1.17	Provide specification of Assembler and interface between CPass1 and CPass2.	C H Barfield
1.18	Decide if specifications in 1.17 to be released generally.	A Brown
1.19	Provide presentation on PERQ hardware developments.	C H Barfield

A2 SERC

- |     |   |             |
|-----|---|-------------|
| 2.1 | Provide information on the DL Camac interface.                          | T Owen - DL |
| 2.2 | Specify what software should be capable of running on a 4k WCS machine. | K Robinson  |
| 2.3 | Provide views on backup of fixed disks.                                 | K Robinson  |
| 2.4 | Determine date of delivery of PASCALPLUS for Microcode/Unix.            | R W Witty   |

APPLICATION SYSTEMS DIVISION

PERQ PROJECTS

PROGRESS REPORT - 5TH JANUARY 1983 (13)

ITEM No.	PROJECT	GENERAL RELEASE PAC WEEK No 82/3		COMMENTS
		PREVIOUS	CURRENT	
1.	<u>DEVELOPMENT ON POS</u>			
1.1	GRAFIKS	08	ACH	
1.2	SIMPLEPLOT.	08	17	AWAITING ISSUE OF TSI
1.3	GINO	17	17	DEVELOPMENT COMPLETE - CONTRACT OUTSTANDING
1.4	PLANNER	13	18	INTERIM PAC OBTAINED - FIELD TEST INCOMPLETE
1.5	P.M. WORKSTATION	25	N.F.	REDEFINED (PMD REQUEST)
1.6	CALC	17	17	INTERIM PAC ACHIEVED
1.7	SCIENTIFIC TEXT	35	35	POLICY & FUNDING PROBLEMS RESOLVED
1.8	ILLUSTRATOR	18	27	NOW TARGETED ON PQOS VERSION R3
2.	<u>DEVELOPMENTS ON UNIX</u>			
2.1	VERSIONS OF 1.1 TO 1.7			DEPENDENCIES ON UNIX/FORTRAN AND UNIX/PASCAL
TO	SCHEDULED	N.F.	N.F.	NOT YET RESOLVED
2.7				
2.8	GKS	47	47	WHICH FORTRAN QUERY UNRESOLVED
3.	OMAC LINKS SPECIF.	08	ACH	
4.	SOFTWARE HOUSE SUPPORT	ONGOING		INSUFFICIENT FUNDING



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