



Department of Computer Science

Memorandum

To All Staff
Postgraduates
Student Workrooms

From Peter Schofield

Date 16th January 1987

Among the items that I may want to carry forward to my meeting with the Dean are as follows. Names of people likely to contribute ideas at the Departmental meeting are given in brackets.

DEPARTMENTAL MEETING

to be held on

Friday 16th January 1987

Time: 3.30 p.m.
Venue: Room 5215

*** Note the Change of Room ***

A G E N D A

- 1. The Department's plans, aspirations and problems in relation to teaching and research.

As indicated yesterday, I intend to use this occasion to allow me to brief myself on what the department would like me to say to the Dean when I see him on Tuesday.

On the page opposite, I repeat the rough list of topics circulated yesterday - with some slight addition.

Also attached are:

- (1) Extract from my submission for SERC visit to the University in November 1985.
- (2) Extract from a Faculty Plan, October 1985
- (3) Papers submitted by the department this morning.

Laboratory for Foundations of CS (RM, GLC)
Computer Systems research (RMI)
The Chair of Software Systems
Co-operation with other departments
Distance Learning Project (D. Park)
Conferences to be hosted in Edinburgh (LFCS, MRJ)
ECOSIG

Teaching developments

The Engineering and Technology Programme. ('The Shift to Science')
Quality of ERCC services for teaching
Block O/P. (Should we have an opening ceremony?)

Recruitment of students.

Publicity actions being taken

Danger of losing staff to industry

Software/Hardware products ought to rank as publications

APM's

Policy on Computing Equipment

Peter Schofield.

Department of Computer Science, University of Edinburgh.

Theory of Computation.

The department has, over the last ten years, become the largest UK centre for research in Computation Theory; it has an international reputation in this field. In Complexity Theory, led by L Valiant (now at Harvard) it has obtained notable results, particularly concerning algebraic characterisation of computational complexity. In the field of program specification, the work of R Burstall and his group has led the way in understanding the structure of specifications through the specification language CLEAR, and as a spin-off it produced the functional programming language HOPE. In the semantics of programming languages, G Plotkin, M Hennessy and others have made strong advances in domain theory, in denotational semantics, and in structured operational semantics. The theory of communicating concurrent systems is represented by the work of R Milner, G Milne and others; this work (e.g. the Calculus of Communicating Systems CCS) has created a new understanding of particular applications such as network protocols and VLSI design verification. Finally, work in computer-assisted proof - particularly the well known Edinburgh LCF system - has been prominent; it led to the functional language M (containing ideas from HOPE) which has now been adopted by Alvey as their standard functional language, and it led to pioneering work in hardware verification by M Gordon (now at Cambridge).

In all these areas the research has been richly funded by SERC grants. Several researchers with international reputations did their early work at Edinburgh on these projects, or obtained their PhD's at Edinburgh during the last ten years. Joint projects with Industry (ICL, BP, STL, SSL) have also been funded, and short courses for industry have been run on theoretical topics with potential for application. A strong focus for all this work has been the Department's first year Ph.D. course in Computation Theory; this course was founded in about 1976 in response to the evidence that frontier research in the field demanded a platform which was not provided by any undergraduate degrees, whether in Computer Science, in Mathematics or in Logic.

Computer Systems.

There have been many strands to the research in this general area. VLSI design under S Michaelson, D Rees and G Milne is making notable progress. The FIRST Silicon Compiler was developed in conjunction with the department of Electrical Engineering. Co-operation with Lattice Logic continues and three CASE students have joined this group. Joint teaching and research with AERE Harwell is developing rapidly following one of their staff being seconded to take a Ph.D. in the department.

The department has designed and built its own Advanced Personal Machines. A major aim of this development has been to provide maximum flexibility of configuration, so that it is possible within the overall framework to experiment with a variety of architectures and processors. Accordingly, the system is constructed around a high-performance memory bus, shareable by several processors and permitting easy expansion of memory capability. These machines have also proved very useful for providing a computing service for general teaching and research; 60 machines have now been brought into service, about half of these with powerful graphics capability; the latter have been particularly useful to

the VLSI design group. The machines are linked on our own Ethernet to a collection of filestores, also based on the same basic machine design.

Research in performance measurement has been led by A Wight in work in co-operation with the Edinburgh Regional Computing Centre. Vision research under A Blake links with the department of Artificial Intelligence.

Important work on persistent programming languages and databases has taken place under M Atkinson, but the leadership of this has recently moved to Glasgow with Atkinson's promotion to a chair there.

Following the recent appointment of Professor R.N. Ibbett to a newly created chair, the department intends to expand research in Computer Systems and draw some of the strands more closely together.

The future.

In future, the Department's research activities will have two foci: Computation Theory and Computer Systems.

In Computation Theory, our past success has led to the proposal that a Laboratory for Foundations of Computer Science be formed within the department. Research in Computation Theory will be its primary purpose. Its secondary purposes are (1) to increase and deepen knowledge of theory, through academic syllabuses and courses for industry; (2) to apply theories experimentally, particularly via industry, to obtain feed-back assessment of the theories. Some projects in the Laboratory will focus upon implementing various logical systems, to allow computer-assisted reasoning in a combination of different logics. This will ease both the development of the logical systems themselves and also their experimental application. The Alvey Directorate welcomes this initiative; it has already agreed to fund the Laboratory's Assistant Director, and also initial computing power worth over £100K. SERC are currently assessing our Laboratory plans and project proposals.

Following the recent appointment of Professor R.N. Ibbett to a newly created chair, the department intends to expand research in Computer Systems and draw it more closely together with the work of other research groups in the department. Computer systems, involving the design and implementation of computer and network hardware and software, is an area in which the Department has had a long standing interest. Much of the future work will involve a processing resource network which will use a variety of network technologies and to which workstations, file servers and different types of specialist processor, many constructed from our own Advanced Personal Machine kits, will be attached. The implementation of this network will itself involve both hardware and software research activity. Among the specialist processors there will be a sparse processing machine, which is the subject of a recent SERC Grant application, and a number of parallel processing systems will be investigated. The Department uses robots in real-time teaching and, in discussion with the AI Department, has identified a need for research into high-speed parallel processing systems which will complement the work of AI in this area. VLSI design and silicon compilation, already a major research activity in conjunction with EE, will become increasingly closely related to work in the systems area; so will the long standing interest in performance assessment.

The demands for our staff.

The demand for the services of our staff elsewhere is both a tribute and an embarrassment to the department. From the systems groups, three have gone to chairs elsewhere over the past decade, but the main pull has been towards industry. During the past few years, two "spin-off" companies have grown out of the department. Firstly, Lattice Logic has grown out of our VLSI design group; this company specialises in CAD software for IC design and in High Level Language compilers. More recently, Clan Systems has grown out of our Personal Machine and Networking group; this company specialises in hardware and software design. Members of staff of both companies have retained part-time lecturing appointments in the department, thus maintaining close links. Nevertheless, over the last 5 years or so, the department has lost 13.5 permanent staff to industry. 6.5 of these have been to the above spin-off companies, 2 to Acorn Computers, 1 to BIOC, 2 to DEC and 2 to other US companies. Although Lattice Logic, Clan Systems and AERE Harwell are co-operating with part-time appointments and secondments, it is unfortunately likely that the large salary differential between university and industry will continue to prevent us from attracting permanent staff back from industry.

On the Theory of Computation side, the pull has mostly been to academic posts. Two of the prestigious five-year SERC Senior Fellowships have been awarded to Burstall and Valiant (though the latter declined in favour of a Chair at Harvard). The B.P. Venture Research Unit is paying the university two-thirds of the salaries of Milner and Plotkin so that replacements may be recruited to relieve the above from departmental duties and enable them to devote additional time to fundamental research. Hennessy is about to take up a Chair at Sussex.

P.D. Schofield.

SERC Visit, 12th November 1985.

PLANNING FOR THE LATE 1980'S

Background Paper - Faculty of Science

1. Introduction

This submission has taken into account the replies to the 'Cochran questionnaire' from individual departments and from cost centres; for multi-department cost centres the conflation of the departmental questionnaires has generally been done by a member of the Dean's Committee. The completed questionnaires for the whole faculty were circulated to the Dean's Committee and are available for consultation in the Faculty Office.

The present document can be regarded as an update of our 'Prospect' submission, taking into account the requirements of the present UGC enquiry and the questions put to us by Old College. Views on some of the general matters (e.g. student numbers) have been canvassed with Heads of Departments and the whole document has been approved by the Dean's Committee.

2) General Policy

Our general long-term aims remain as in our 'Prospect' submission:

- a) to continue to promote the basic sciences which are essential to most undergraduate degrees and whose continued strength is needed to maintain an environment for innovation in both pure and applied science in the future;
- b) to foster growth areas of 'timeliness and promise' - particularly the new technologies and selected areas of applied science in which Edinburgh has a special contribution to make; and,
- c) to divert resources within departments and within the Faculty to build on our strengths.

We consider that it is important to concentrate effort in areas in which the universities have a distinctive role. We therefore continue to be cautious about such possible developments as continuing education (except at an advanced level), part-time undergraduate degrees, and 'revenue raising' by activities of marginal academic significance, unless these bring in substantial sums of money. All these can make disproportionate demands on staff time and thus deflect from the above central aims.

In judging existing or contemplated activities, our first criterion will remain excellence in teaching and research. However, we believe that national needs and employment opportunities should also be taken into account, with particular attention to areas in which there are acknowledged shortages of manpower. The IT initiatives have of course been of great significance here, although our numbers had shifted towards IT disciplines and engineering well before these special developments; FTE numbers in Computer Science and Electrical Engineering more than doubled between 1975/76 and 1981/82 and the strains of this are still felt.

15) Cost Centre 18, Computing

Edinburgh has great strengths in Information Technology for reasons set out in the research profile for this cost centre. The departments in the present cost centre of course collaborate closely with Electrical Engineering (Cost Centre 22) and the Edinburgh Regional Computing Centre, which has always been a powerful and innovative service unit.

The existing research portfolios in Artificial Intelligence, Cognitive Science and Computer Science have a good balance of fundamental and applied work, with the latter helping to force the former through the technology transfer initiatives. Looking ahead, the first priority is to maintain research momentum, in an attempt to stay on terms with work in the US and in Japan which is much more generously funded. Predicting specific research opportunities against a background of diminishing UK research council and government funding is extremely difficult. Nevertheless, the Edinburgh departments would aim to maintain their existing research strengths in critical areas, including natural language understanding and logic (Cog So), computation theory and computer systems (CS) and knowledge based systems and logic programming (AI).

One of the common threads that can be identified across departments is work on advanced complex information processing.

(3.) Papers submitted for Departmental Meeting

The Future of Computer Systems.

Teaching

The teaching of computer systems is undergoing major revision at the present time, but should reach a relatively stable position within a couple of years. Ongoing minor revisions will, of course, be inevitable beyond that time, and the rate of change in Computer Science is such that further major revisions may well be necessary.

We have recently introduced a fourth year module on computer architecture, and the corresponding third year modules have been re-structured to allow the fourth year module to be a natural successor. Some revision of first and second year courses have also been made, but this is still an active area of discussion. The fourth year module is concerned with parallel processing, and links in well with an existing module on the theory of communicating systems. I anticipate that a corresponding fourth year module on parallel programming will be introduced in the next year or two.

The introduction of a hardware laboratory associated with one of the third year modules has proved successful. In future years I would like to see some of the experiments done here moved into second year and combined with some of the experiments currently done in Real Time Systems to support systems teaching for all second year students. (Real Time Systems is not a requirement for Single Honours CS students). More advanced work could then be undertaken in the third year laboratory. The current extensions to Block O/P will give us the space needed for these proposals.

Research

As the cost of producing VLSI circuits comes down, and as the tools needed for their production become more widely available, more and more systems will be implemented in special purpose hardware and a computing system of the future may well take the form of a set of computing units of different specialities linked together by a high performance network. The Department has for a long time been involved in tools for VLSI, and this will continue as an ongoing activity. VLSI also offers enormous potential for parallel processing and research is in progress into architectures for parallel VLSI systems. VLSI fabrication support from industry has been offered, and general project funding is currently being sought.

A key factor in parallel processing is the development of algorithms and languages. The Department has a variety of interests in algorithm design, and has considerable expertise in functional programming languages. Until recently, how-

ever, it has lacked expertise in imperative languages and large scale software design. Some of our recent appointments have gone quite some way towards rectifying this situation, and I am hopeful that a suitable appointment to the new chair will give us the additional strength we need in these areas.

The grand plan in computer systems research within the Department is to integrate a number of related areas of research to produce the Edinburgh University Integrated Computing Resource Network (EUNICORN). The Department has skills in networking, processor and operating systems design and work is already in progress on the design of protocols for this network, as well as on a number of computers with novel parallel and uniprocessor architectures which will be attached to it. One of these computers is being designed with support from SERC and industry through the award of a Cooperative Grant. Related work on a number of topics is expected to grow around these activities, and I expect existing work on performance measurements and modelling, for example, to become integrated into the work on systems.

The Bepi Matrix Systems Solder-wrap machine is now coming into use and will provide valuable support for work in computer systems. Its presence in the Department has also inspired ideas for work on Computer Integrated Manufacture of Digital Systems and this could lead to a number of cooperative research projects with industry. We shall soon be in a position to offer the board making facilities of the Solder-wrap machine to other departments in the University, and eventually to other educational institutions.

RNI 15-1-87.

Departmental Meeting - Call for Information Submissions

Under the heading 'Conferences to be hosted in Edinburgh'

The Fourth British Colloquium for Theoretical Computer Science will take place in Edinburgh from 28th-30th March 1988. Between 70-100 people are expected to attend the conference, which is the only one in the country covering the whole spectrum of theoretical computer science. Previous conferences have attracted contributions of a high standard.

Mark Jerrum

For Departmental Meeting, 16 January 1987.

Publicity Actions being taken:

DOCUMENTS:

Departmental Handbooks: - almost complete. Outstanding sections on LFCS and theoretical aspects of research in the Department.

Undergraduate Prospectus: ("Bulletin") - corrected galleys have been sent to printers. Layout finalised. Waiting on a couple of black and white photographs for the inside.

M.Sc. Prospectus: - this is not going to alter much, just a slight re-ordering plus a new cover (cf. departmental handbook). In hand (JTB).

Postgraduate Prospectus: - aimed at attracting Ph.D. students. Will contain research interests as in Dept handbook (therefore incomplete), staff list (complete) plus introduction (incomplete). Cover cf. dept handbook.

Industrial Prospectus: - there has been no discussion on this so far except for approx. size - A4 rather than A5 like other documents. Much material can be plagiarised from Departmental Handbook. Could this be produced as a "Bulletin" rather than a TeX document inside an A4 cover???

COVERS: A5 cover for Departmental Handbook/M.Sc./Postgraduate documents almost finalised. Awaiting proof from printers.

SCHOOL VISITS: ca. 12 students from CS3 have agreed to return to their former schools to give presentations on CS at Edinburgh. Six schools have replied - all favourably - therefore these will go ahead between now and May.

VIDEO: "Computer Science at Edinburgh" - update of present video - in hand (AJS/GDMR)

UCCA VISITS: These are to be extended to include lunch as from the next visit (4 Feb). They have recently been altered to allow for ca. 10 minute informal interview with DoS plus a visit, later in the afternoon, to AI via a tour of Pollock Halls and George Square by minibus.

Dorothy Welch

Distance Learning Project

Support has been obtained from SERC and Alvey for a preliminary study of distance learning, to be based initially on the LFCS, and to teach advanced computer science topics. Initial support is for David Park, for one year. Subsequent development may lead to an organization with an establishment of 6 or more staff, which will consult academics for course design and tutoring assistance. A feature of the project is expected to be its use of electronic mail for supporting educational dialogue. This note summarises our current thinking about the project.

- We expect considerable demand for education courses from managerial and advanced technical staff in the software industry, as it expands. Many of these individuals will be well-motivated to absorb advanced material, but will also be aware of the limitations imposed by their own background and professional career. A high priority needs to be given, therefore, to presenting relevant advanced material on software engineering in a format which both encourages intensive study where appropriate, and which is available remotely.

- The demand we are most aware of relates to LFCS research, and concerns theoretical topics whose applicability is not yet fully realised. To exploit the advances made by ML, LCF, PEBBLE, and CCS to the full, their design principles must be widely understood in the software community. One immediate goal, therefore, will be to make accessible both these principles and the formal background on which they are based.

- The computer community has become used to electronic mail in conducting much of its routine business. The medium is particularly convenient to support communication at a distance between technically competent individuals. We expect, therefore, to adapt it for the educational purposes of the project -- augmented, where necessary, by short residential courses and by conventional mail. The problem of devising appropriate representations for relevant mathematical notation presents an interesting challenge, but does not seem to be insuperable in a computer science context.

- In the calendar year 1987 we will undertake preliminary studies of the market for higher education courses among computer professionals, of comparable education projects elsewhere, of the technical constraints imposed by the electronic mail medium, and of the organization needed to support such courses.

- If early additional finance can be obtained, it should be possible to mount a first course using the medium in the autumn of 1987. Our proposal for this is a course "Functional Programming and Formal Systems", devoted to programming in ML (based on short courses previously given by LFCS) and to its applications to the manipulation of a variety of formal systems (mostly new material). The course would be equivalent in weight and demands to an undergraduate computer science course of 30 lectures.

- Development from 1988 onwards will depend on the establishment of a group to coordinate the project. When this has been done, further course designs will emerge at a minimum of one design per year. Possible topics for further courses might be: Concurrency, Program Correctness Proofs, Complexity. Suggestions from the Department for topics for which the format is suitable [not restricted to "theoretical" topics] will be welcome.

- Staffing plans may give a good idea of the intended rate of growth of the project. We hope to set up the following posts, from the dates indicated, at the earliest

Administrative Computing Officer	April 1987
System Programmer	July 1987
Secretary	July 1987
Director	January 1988
Deputy Director	October 1988
Computing Support Officer	October 1988

David Park
16th January 1987

Department of Computer Science
Laboratory for Foundations of Computer Science

Forward Look for External Activities

1. **Industrial Liaison**
2. **Courses.** These have started in a modest way during 1986 with three successfully run industrial courses. During 1987 we are planning courses in the following areas:
 - Functional Programming;
 - Domain Theory;
 - Denotational Semantics;
 - Logics of Programming;
 - Non-Standard Logics;
 - Interactive Theorem Proving;
 - Concurrent Systems;
 - System Specification.

All of these are revenue earning courses for individual staff, the Laboratory and the Department.

3. **Affiliation Scheme.** This is being launched during March 1987. It is an information service to industrial research and development Groups. It will provide a growing range of services as the number of affiliates grow. Initially we will provide the following services:

Copies of all Laboratory publications including research reports and review material;

An annual update meeting;

A regular newsletter;

Access to the Laboratory's experimental software systems;

Priority booking on Courses;

Potential Employee matching service;

Limited exploratory discussion with Laboratory staff;

Information of all the Laboratory's activities;

Company Research Conference service (extra cost item).

4. **Collaborative Projects** With one project in place and one other being negotiated we expect to be able to cope with no more than one further project of this nature during 1987.
5. **Industrial Visitor Scheme** Shortage of accommodation has prevented us promoting this. Space has now been identified and we will be announcing the details of the scheme shortly.

6. **Conferences** The Laboratory is hosting three conferences in the near future:

Category Theory and Computer Science (Sept 1987)

Specifications of Abstract Data Types (Sept 1987)

Logics in Computer Science (June 1988)

The last named is the major conference in non-complexity Theoretical Computer Science and Edinburgh was offered the conference in 1988 in preference to Stanford. This is the first time this conference has been held outside the USA.

Department of Computer Science
Laboratory for Foundations of Computer Science

Outline

The Laboratory was inaugurated in January 1986. It consists of 45-50 people (academic staff, support staff, research staff and students) pursuing foundational studies, with concern for their utility as a basis for practical methodologies. Procedures are in place for managing the Laboratory's administration and its industrial interaction. The research programme is well-launched with confirmed funding to date of about 1.8M pounds, mostly from SERC and Alvey, divided more or less equally between salaries and equipment. This funding is over 3-4 years. We hope to find a way in which the administrative core of the Laboratory may be placed upon a permanent basis.

Forward Look for Research and Education

1. **Strategy** The Laboratory's main task, beyond research, is to achieve the necessary interplay between developing theories and applying them experimentally. To this end it will continue to divide its effort roughly in the proportions

40% pure research 30% prototype systems
15% technology transfer 15% education

2. **Research** The research effort will be mainly given to mathematical and logical theories about computing systems, particularly those suitable for computer-assisted design and validation of systems. More theory is needed to put Software Engineering on a stable basis. A primary goal is to find and implement a logical framework which provides computer assistance in whatever logical system an expert prefers. But besides the theory of this framework, particular theories (e.g. of concurrency or of program specifications) will be developed and used as experiments in the framework.

3. **Prototype Systems** The Laboratory has designed and implemented its own programming language ML for its systems work. Since ML is widely used elsewhere we intend to define it formally, and shall experiment with extensions to it. As examples of other prototype software we have an Interactive Proof Editor (for helping to do rigorous proofs) and a Concurrency Workbench (for analysing communicating systems); we intend to continue to make theories accessible through such software media.

4. **Technology Transfer** The systems above-mentioned are used experimentally by Industry. More is said later, under Industrial Liaison, about other means of transferring theories and methods to industry.

5. **Education** The Laboratory intends to increase the interplay between its research and teaching. A number of undergraduate courses are on topics close to our work; these include both purely theoretical courses and courses which make a bridge between practice and theory. We intend to widen the diet of MSc courses in such topics too. The Laboratory - or its forerunner research groups - have run a taught first-year PhD programme for 10 years, and will continue in this with added strength due to the Laboratory's existence. Finally (see later under industrial liaison) an increasing number of short courses for Industry is planned.

**Notes on Departmental Meeting held on Friday 16th January 1987
in Room 5215 JCMB, at 3.30 p.m.**

Present: MIC, IMN, RAM, JST, MCN, TMH, EM, KK, WEX, JJ, PJJ, RC, DJW, GLC, BCT, FS, JHB, RNI, SM, ASW, DAW, PDS, KBD, ARCH, DJR, RM, DP, KJC, CPS, SOA, RNP, FRED

Apologies: DTS, NPT

1. PDS said his reason for calling the meeting was to sound out departmental views on future plans for teaching and research prior to his forthcoming discussion with the Dean. He asked meeting for comments on the documents attached to the agenda.

Comments on Lab

RM felt that the Lab document attached to the Agenda covered most of the points required.

Comments from RNI

RNI felt some points may need strengthening. As some present thought RNI's document needed re-phrasing PDS gave a wider explanation of it which appeared to satisfy those present.

PDS said David Park had been funded for 1 year to work on the Distance Learning Project (document attached to Agenda).

SM felt that some activities in applications could be mentioned.

FS asked about direction of research - broad or narrow? PDS said 2 groups at present, theory and systems. People should try to link with one or other of these. Computer Science should be seen as a Centre of Excellence

RC mentioned negative response at department meetings to proposals put forward by staff. RC felt small groups gave better reception to her ideas.

DJR. Department should appoint new staff who would work within the existing groups rather than someone of high academic repute. RM did not agree with this, preferred a balance between reinforcing research and a 'good person'

PDS noted all these points.

New Chair

PDS would tell Dean the department aiming for 2 main areas. Computable and Computer Systems and steps had been taken to recruit a suitable person for Chair of Software Systems who would act as link between the 2 existing groups. He asked department for their comments on the new Chair, people or specialisations.

Comments on Links with Other Departments

JHB. Image Processing with Meteorology, links with ERCC (Mike Brown).

RNI. Links with Maths, ASW/RJP/Professor Lyons(Maths).

RM. Links with AI and Cognitive Science

DJR. VLSI links with EE. EE project which DJR is interested in. MSC links with EE.

RNI. B.Eng, M.Eng links particularly with EE, which need sorting out.

SM. Links with Humanities departments. Joint SERC project, RNP to send PDS VAX mail on this

Action RNP

KK. New lecturer in Maths, Sandy Davis, interested in Complexity Computation. KK could link with this.

Conferences to be held in Edinburgh

ASW. Performance Engineering Workshop, September '87 No 3.

Also Performance 90 may come to Edinburgh in 1990.

SM. VLSI Workshop '87 Silicon Compilations in July '87 in Edinburgh

VLSI Conference 1991 will be held in Edinburgh.

Possible Conference on Computing in Museums & Galleries under discussion.

Research - Applications

BCT asked about possibility of research on Aids for Disabled people. It was mentioned that JTB had been looking at something like this. RC suggested department contact Rehabilitation Unit.

MCN asked about placement of handicapped students. PDS said this now possible with new building. SM to contact L Parker as link to Handicapped Students Committee and pass information to MCN.

Action SM

RC. Some MSc projects could be built on applications side of Computer Science. SM said department could provide applications for other departments which could build good will in the future.

RNP thought student projects could involve applications but FS was not in favour of this as quality of application would not be good enough.

SM would give something to RNI for Syllabus on teaching of applications. He would also start a Bulletin Board on applications in the department which may provide a mechanism for people to come in to consult the department.

Action SM

MCN thought some mention should be made of the time staff spent talking to people who come to the department with problems which need discussion.

Teaching Developments

B.Eng and M.Eng part degrees with AI being discussed. Talk about putting theoretical strand into MSc course. FS said MSc course was in the 'melting pot'. Meeting on Wednesday to discuss then.

Engineering Technology Programme

Recruitment may have to provide alternations to cater for HND and mature students.

RM. Possibility of teaching teachers in other departments

SM. People using computers in places like museums etc would be suitable to be taught applications.

PDS asked about the quality of the ERCC Service for 1st year students.

SOA received back one batch of questionnaires from the students which indicated the service was very slow. Suggested 1st year course should be a lab-orientated course.

JHB. Gould Service poor, ERCC trying to fix this. Use of time-sharing and load restrictions. On Second Gould series (600k) was being used for developmental work which may stop system from coming down at peak times. He asked meeting for facts to give ERCC when complaints were made.

Computing Policy Group

It was the intention to put about 80k to buy work stations for 1st year. PDS said inadequacy of central services was evident.



Departmental Meeting - Fri 16th Jan - CALL FOR INFORMAL SUBMISSIONS

As there have been no specific items submitted for tomorrow's departmental meeting, I plan to take advantage of this and have a one-item agenda to allow me to brief myself on what the department would like me to say to the Dean at my meeting with him on Tuesday on:

"The department's plans, aspirations and problems in relation to teaching and research"

Among the items that I expect I may want to carry forward to my meeting with the Dean are as follows. Names of people likely to contribute ideas at the Departmental meeting are given in brackets.

- Laboratory for Foundations of CS (RM, GLC)
- Computer Systems research (RNI)
- The Chair of Software Systems
- Co-operation with other departments
- Distance Learning Project (D. Park)
- Conferences to be hosted in Edinburgh (LFCS, MRJ)
- ECOSIG

- Teaching developments
- The Engineering and Technology Programme. ('The Shift to Science')
- Quality of ERCC services for teaching
- Block O/P. (Should we have an opening ceremony?)

- Recruitment of students.
- Publicity actions being taken
- Danger of losing staff to industry
- Software/Hardware products ought to rank as publications

I am not expected to produce any document for the Dean, (other than the list of publications, that I asked you to work on yesterday); but if it turns out that we feel a document is needed, then I am sure one will be accepted. However, there is potentially rather a lot that might be discussed at the Departmental Meeting (3.30 pm on Fri 16th Jan in room 5210), so people with points to make that will take more than a couple of sentences are asked to put them on paper and get them to HLC by 9 am Friday. ⊗ Don't bother to make anything polished. All submissions will be copied and circulated during the early part of the morning.

Peter Schofield.

⊗ If at all possible, any item should have a maximum length of 1 page. There is no minimum.

Department of Computer Science

CS/MS

JHB
JDP
SEA
RNI
RNP.



Memorandum

To All Staff
Postgraduates
Student Workrooms

From Peter Schofield

Date 5th February, 1987

AGENDA for DEPARTMENTAL MEETING

to be held on

FRIDAY 6TH FEBRUARY 1987

Time:	15.30
Venue:	room 5210

*max default protection
other none.*

Course funding

*[Gould deletes files without
confirming copy taken
of CS2.]*

raised by

[Mila Weber]

- | | |
|--|-----|
| 1. Chairman's Business | |
| 2. Appraisal of Academic Staff | PDS |
| 3. Use of Micro Vaxes | JHB |
| 4. Equipment bids to Faculty for 1987/88 | JHB |
| 5. CS1 Workstations | JHB |
| 6. Report from Computing Resources Committee | PDS |
| 7. Report from Technical Resources Committee | RNI |
| 8. Matters from previous meetings | - |
| 9. Any Other Business | |

G

APPENDIX TO THE REPORT OF THE EDUCATIONAL POLICY COMMITTEE
14 January 1987

Item 2 : Appraisal of Academic Staff

I am not clear whether or not the department wish to discuss this again, but I feel in duty bound to offer the opportunity, since the topic has generated a certain amount of heat in other quarters.

Educational Policy Committee put out draft proposals in the autumn which we discussed at a departmental meeting. My resulting reply to Faculty was placed in the Coffee Room, together with the Faculty's document summarising all departments' replies. Educational Policy revised their proposals and sent them to Senate. There, wrangles over voting procedures dominated and Senate finished at 7.30 p.m. with a decision to consult Faculties again. Whether or not Faculties will forward documents to departments again, I do not know, but in any case here is a chance to comment if people want to!

Peter Schofield

Item 4 : Equipment Bids

This is a preliminary discussion to start the ball rolling.

Peter Schofield

ACADEMIC STAFF DEVELOPMENT : PROGRESS REVIEW OF ACADEMIC STAFF

1. Background

1.1 Educational Policy Committee devoted the whole of its meeting on 12 December 1986 to consideration of arrangements for a regular progress review of academic staff (previously referred to as appraisal) in the light of Departments' and Faculties' comments on the proposals circulated for comment last November; revised proposals were discussed by the Committee on 14 January.

1.2 While the Faculties reported a considerable measure of support for the general intentions underlying the draft proposals, and some resigned acceptance of their 'inevitability', they also drew attention to a fairly wide-spread concern about certain aspects of the proposals, and to some strong resistance to them in certain Departments, in respect both of the spirit and the substance. As a result of very full discussion of Faculty and Departmental views, Educational Policy Committee agreed to recommend a number of modifications to the draft proposals designed to resolve important anxieties relating to hierarchy, confusion of assessment and appraisal, confidentiality, wastage of time, lack of resources and mode of introduction. (A summary of the points made is available from Miss Giles.) These modifications were incorporated in the revised proposals considered by EPC on 14 January.

1.3 The Committee has now agreed to support the introduction of a regular review of the progress of all academic staff throughout their career, designed to promote the full potential of the individual and thereby to benefit the University. It is believed that all staff will welcome an opportunity to discuss with the Head of Department their achievements and aims on a regular but informal basis. This concept of a regular review is quite separate from the existing requirement for the crucial, formal assessment of academic staff, which Heads of Departments are already required to undertake at key points of the individual's career (e.g. at the conclusion of probation, at the efficiency bar, or when promotion is being considered). The recommended proposals are set out below.

2. Revised Proposals for Regular Progress Review

2.1 Considerable flexibility within departments is possible but the essence of the proposed review arrangements is four-fold:

- i) the updating by the individual of the formal C.V.
- ii) the completion by the individual of a progress report, consisting of a written self-appraisal of recent achievement and performance combined with a forward-looking statement of aims and aspirations, including any requests for training or for opportunities to acquire new skills, or to participate in new spheres of academic or administrative activity.

iii) /

years. (The normal two-year cycle would, it is hoped, permit a programme whereby a proportion of cases is considered by Heads of Departments each year.) The review process should start early in the academic year, probably in November, and should conclude by April.

2.5 It will be appreciated that there is value in ensuring that this procedure should be followed 18 months before the individual reaches the Efficiency Bar and 18 months before the individual reaches the top of the Lectureship scale. This would ensure that progress is constructively reviewed before formal assessment takes place.

2.6 A suggested outline of the advice to individual members of staff regarding the preparation of the progress report, for discussion at the progress review, follows on pages 4 to 5 below.

3. Method of Introduction

3.1 It is recommended that in the session 1987-88 Faculties should be asked to implement the proposals for all probationers and, in respect of at least one third of their Departments, and that the remainder should follow suit the following session. Departments in favour of the proposals would be expected to lead the way, and additional resources allocated for staff development would be utilised as far as possible in support of their members. During the first two years, Faculties would be asked to keep the procedures under review and to report to Staff Committee any difficulties or proposed variations in the arrangements. Staff Committee should be asked to make an interim report in the session 1989-90, and a full-scale review in 1991-92.

3.2 Each Head of Department should seek the Dean's approval for the method of operating the scheme which it is intended to adopt in the Department.

4. Timetable of Discussion

Following debate at Senatus, the proposals will be considered by Staff Committee and JCNC, with an opportunity for final confirmation by Senatus on 11 March 1987.

5. Resource Implications

Educational Policy Committee agreed that the acceptance of these proposals would imply an enhanced programme of staff development and received reports made on behalf of the T.L.A. Committee and the Staff Committee setting out the probable requirements, at an estimated cost of some £30,000 p.a. A request is being put to the Resources Committee for additional funding. The proposed arrangements assume a largely in-house training programme, utilising to the maximum existing resources and personnel.

iii) an interview, when these documents would be presented to the Head of Department (or to a senior member of staff designated by him*) as a basis for discussion in the context of the future arrangements within the department (e.g. individual statements of interest in undertaking different teaching commitments would require to be considered in the light of the departmental teaching programme as a whole). Where members of a department so agree, the individual interview may be replaced by a departmental discussion, provided that an individual interview is arranged for any member of staff whose preference this is. The obligation thereafter to complete an agreed statement relating to each individual in the department remains. (See iv below.)

iv) the completion of a brief, agreed statement of accepted aims and action. This statement should be signed by the member of staff and the reviewer: and counter-signed by the head of department if he has not conducted the interview.

Note: It should be made clear that, unless the individual wishes otherwise, the review and any documentation connected with it are confidential to the individual and the Head of Department (subject to any discussions with colleagues which are necessary for action that follows from it); and that the C.V., progress report and agreed statement of aims and action will remain in the individual's file, in the department, only until his/her next progress review, after which the progress report and the agreed statement will be destroyed, unless the individual requests that they be retained.

2.2 These procedures will normally apply to all members of academic staff including the head of department** in cases of difficulty, the Head of Department should consult the Dean. Heads of Departments will have an interview with the Dean and Deans and Vice-Principals with the Principal. These interviews will relate to the functions of the offices concerned and to the "balance" between these and their other duties.

2.3 For staff on probation, this procedure should be followed annually to ensure that the obligations laid down in the existing Agreement on Probation ("Information for Members of Staff" pages 81 to 83) are fulfilled. The submission would, in these cases, again be followed by an interview with the Head of Department, when any areas of difficulty should be clearly identified.

2.4 For staff beyond probation, this procedure should be followed at two-year intervals until the top of the Lectureship scale is reached. Thereafter the maximum period between reviews can be extended to three years at the discretion of the individual staff member. For Heads of Departments, Deans, and Vice-Principals a two-year interval is recommended. Thus, until the top of the Lectureship scale, the review would coincide with the existing requirement to update a C.V. every two

* e.g. in a large department or where, for personal reasons, this preferred by the Head and the staff member.

** Further thought is being given to the method of applying the procedures to the Head of Department in his academic capacity.

ACADEMIC STAFF DEVELOPMENT

THE PROGRESS REVIEW - Notes of Guidance for Academic Staff

1. At regular intervals* you will take part in a progress review involving only yourself and your Head of Department (or a senior member of the department designated by him) unless your Department has opted for an alternative system, (approved by the Dean) in which you prefer to be included.
2. These progress reviews should be clearly distinguished from the formal, long-standing assessments of performance which relate to decisions at the conclusion of probation, progress beyond the efficiency bar, and eligibility for promotion to a more senior position. Such formal assessments are concerned with a detailed evaluation of your expertise in the three areas of teaching, research and administration/general contribution to the University. Progress reviews, however, while they are also concerned with these three areas, are intended as an opportunity for staff member and Head to engage, in confidence, in a joint, creative review of current and anticipated achievements and responsibilities, and so reach agreement on future directions and any needs to which these may give rise. It is believed that this review will be of real value to the career development of the individual, to the department and to the University.
3. Two documents, which you are asked to provide for your head of department in advance, should form the basis for your discussion.
 - (i) An up-to-date curriculum vitae, prepared by you in accordance with the University's Notes of Guidance. (Copy attached pp. 6 and 7)
 - (ii) A progress report.

While the curriculum vitae provides a useful summary of your specific responsibilities and activities, the progress report should be used by you as a creative opportunity for observation and reflection, both on the previous two years and on the way in which you see your work developing over the years ahead.
4. It is believed you will find it helpful to divide the progress report into sections related to Teaching, Research and General Contribution (see notes on the C.V.), with a further section assessing the balance of your time and effort across these three areas. In each of the first three sections you should aim:

* for probationary staff - each year for Lecturers below the top of the scale - every 2 years for other staff - every 3 years unless individuals prefer a 2-year interval.

- a. to review progress and achievements.
- b. to identify and discuss any problems and difficulties experienced.
- c. to anticipate changes in focus and direction.
- d. to consider individual needs with a view to determining how the professional development of the member of staff concerned may best be furthered.

Additional suggestions are available regarding the structure of the report if you would like these.

5. You should bear in mind that, in the course of the interview itself, it will be the task of the Head of Department (or a senior member of staff designated by him) to weigh your own circumstances, needs and wishes in the light of the interests of the Department and of the University generally. Following the discussion with your Head of Department (or a senior member of staff designated by him), he will prepare a brief factual statement of any conclusions reached regarding courses of action or aims agreed, which you will be asked to endorse or annotate. The Head of Department will countersign the statement if he has not attended the interview. This document will be treated as confidential, except in so far as any action is planned affecting other members of staff, and will remain in the departmental file for reference at your next progress review. Thereafter you may choose whether to have the previous agreed statement and/or your related progress report retained in your file or destroyed.

Notes on Departmental Meeting held on Friday 6th February 1987
in Room 5210 JCMCB, at 3.30 p.m.

Present: RG, RNI, DTS, AII, GLC, KEVIN, RAM, JCD, KK, EM, MCN, DWB, KJC, LD, AIS, ASW, DJR, BCT, JHB, PDS, KBD, ARCH, RJP, SM, RNP, TMI, RM.
Apologies: DAW, JST, JJ.

0. GLC offered spaces on Workshop on General Logic held on 23rd February and course on User Interface Design on 2nd March. Possibly held in centre of town. Priority places given to Alvey Project workers.

1. Chairman's Business

Mike Weber of UniEd Technology wished to come and talk to department. After some discussion it was agreed that PDS would invite him to come separately to Systems and Theory lunches to talk to people.

Action PDS

Student Sit-in

PDS spoke of the proposed sit-in to be held on Thursday 12th February. JCMCB could be a target. Meeting agreed that JHB/JCD should take the minimum precautions. RJP was asked to take necessary precautions at AT.

Action JHB/JCD/RJP

Letter from Data Protection Officer

RNP told the meeting that the department had been asked to review its categories of use of sensitive data. In considering its position, the department had to bear in mind that, under the terms of the act, any computer-based data is subject to disclosure upon request. Information of this type must be kept securely. Passwords should be kept secure and terminals switched off when not in use. PDS said that an item should appear in the newsletter on security of terminals.

Action PDS

RNP would tell D Cronin that department kept some information in the knowledge that it can be disclosed.

Action RNP

2. Academic Staff Development (Appraisal)(document attached to the Agenda)

PDS said that revised proposals had come from Educational Policy Committee. It was clearly accepted that the advisory duties could be shared amongst senior members of staff. Some of those present felt that this proposal should be put into effect as from now. It was agreed that the Professors will look at this in more detail with PDS and make, at the next meeting, a proposal for "appraisal" interview to be offered to those who so requested.

Action PDS/Professors

3. Use of Microvax's in JCMCB

2 VAXs have now been installed. One would run un-interrupted service. Tex and Datatrave would be on this. This should give an indication of how it will perform. Small microvax for ASW's research work and microvac development work. AJS to look after it. PDS asked about documentation. AJS dealing with this. SM asked about benefit to editing. JHB said it was proposed to (1) move certain types of job on to microvax, or (2) put small amount of users on microvax. JHB/AJS working on this.

AJS was asked to note that files were apparently being lost between Gould and eesvax and check it out.

Action AJS

4. Equipment Bids for Faculty for 1987/88

PDS said proposals must be approved by CEP around May/June. CEP would look at bids on 27th February. Forms for bids from JHB, should be completed with costs and other details. Following items were mentioned:

- 2 bids for Gandalf
- 1) Gandalf Shelf for Block O/P - DWB
- 2) Software enhancements - DWB
- Microvax clustering software when available - AJS
- CS/AI Ethernet to be linked up - RM/GLC
- Upgrade APMS to colour graphics - RNI
- 2 colour Suns - DJR
- Rolling replacement of equipment each year (CSIB) - RJP
- Continuing replacement of Visual 200s - JHB
- Oscilloscope replacement - JCD
- Hardware Lab - RNI
- Display screen to slide Copier - DJR
- Audio Visual Equipment - RNP
- 5 1/2" laser disc drive and controller designed and built for attachment to APMS - SM
- Processor Board for APM - SM

Bids should be in by Friday 13 March

GLC asked that Computing Policy Group should discuss replacement policy for VAX.

Action SM

5. CSI Workstations

JHB's paper distributed at meeting. It was agreed that RJP and SOA should make some input to this on behalf of CSI. PDS said everyone should have a copy of JHB's paper and he proposed RNI, JHB, RJP, RNP and SOA should form a group and invite other people to participate.

Action RNI/JHB/RJP/RNP/SOA

6. Report from Computing Resources Committee

JHB circulated document for comment (tabled at meeting). The meeting felt that something drastic needed to be done about the Gould Machine. SM said Principal would be meeting with top Gould people. This could be a suitable time to make a case for a better machine. SM/JHB would extract more information, and, if necessary, make forceful comments on machine.

Gould

Message should be circulated to Department that information on any difficulties with Gould files, particularly loss of files, should be passed to SM. **Action SM/JHB**

7. Report from Technical Resources Committee

More partitioning in the Machine Halls. APM upgrade to support VM.

8. Matters from previous meetings

Due to shortage of time it was agreed to get DAW to get minutes of several previous meetings to see if anything was outstanding.

Action DAW

9. Any Other Business

As result of Jarrett, University changing arrangements for handling Equipment Money. (SM gave details)
RNI - department should think of a new name for Block O P and get some prominent person to open it, with attendant publicity.

9 March / Interviews → OCCA visit.
 PHS/Vax.
 M. Weber.
 M. Weber dot
 Gould file box

DEPARTMENTAL MEETING

to be held on
 Friday 6th March 1987

Time: 3.30pm
 Venue: Room 5210

- | | |
|---|-----------------|
| 1. Chairman's Business | PDS |
| 2. Academic Staff Development Interviews | PDS |
| 3. Facility for Research in Distributed Systems | RC/RJP/BCT/ ASW |
| 4. Engineering & Technology Programme (if anything known) | PDS |
| 5. Report from Computing Policy Group (incl. progress report on CSI workstations) | SM |
| 6. Equipment bids for 1987/88 | JHB |
| 7. Matters arising from previous meetings. | |

2nd RJP meeting in Oct.
 Evaluation of students.

Item 2: Academic Staff Development Interviews

At the February meeting, a number of staff members felt that the University proposals on this topic should be implemented on a voluntary basis without waiting for an official requirement to do so. PDS and the Professors were asked to make proposals.

We suggest that we institute a pilot scheme with a small number of volunteers (say 3 different interviewers, interviewing 2-3 staff each). Volunteers would be asked to contact PDS, giving the names of their first and second choices for interviewer from among the 5 Professors or PDS or DJR.

The interviewee would be expected to produce (a) cv (b) a note on recent work; aims and prospects; special points for discussion.
 The discussion might cover the following topics:

- (a) Teaching; teaching facilities.
- (b) Research; research facilities.
- (c) Departmental aims and milieu.
- (d) External and industrial contacts.
- (e) Administration; administrative support.
- (f) Career aims.

On completion of all the interviews, all those involved would get together to pool experience.

Peter Schofield

1/2 workshops
 RCE project.
 Sums.
 Analyses
 PHS graphics
 Candace
 Gou SW.

A Facility for Research in Distributed Systems

R. Candlin R. Pooley B. Tompsett A. Wight

March 4, 1987

We have felt for some time that there is a strong interest in the Department in working more actively on software for distributed and parallel systems. There are already Ph.D projects in this area, but there has not so far been active involvement on the part of the teaching staff. We think that this is a highly important field, which should become a central interest of the Systems Group.

Work has been going on elsewhere for a number of years on distributed systems, and several working systems have been implemented. Nevertheless, the field is still wide open, and Edinburgh has the opportunity of making a useful contribution. We feel that to make progress, we should implement an actual system, which could form the basis for future research on distributed systems.

Choice of Research Area

We thought the following features were desirable.

- lack of competition
- application driven
- within the scope of a small group
- incrementally extensible
- linking with other Departmental interests

We have identified a research area which seems to us to meet these requirements: the implementation of an operating system suitable for running large discrete_event simulation on closely_coupled distributed systems.

The application would seem to be a suitable one for parallel architectures, because of the natural parallelism in the systems being modelled. It is an important application, making heavy demands on computing power, but has different characteristics from the multi-user distributed systems which make up most of the existing implementation. The Department has expertise in modelling, so we would know what we were aiming for.

We would hope to explore such features as:

- efficient placement and migration of long-running processes.
- portability over different architectures.
- diagnostics.
- language interfaces.

Ultimately we would like to move upwards to considering the design of languages which allow parallel systems to be properly exploited, and downwards to the implication for hardware design for providing good support for the operating system.

In order to do this work, we require a test_bed, and are asking for resources to build a machine for our preliminary work.

It is our intention that this machine should become a useful facility for research in the Department, which could be used for Ph.D and M.Sc. projects in distributed systems. We would hope that as interest builds up, the group would grow and develop in new directions.

Requirements

The proposed testbed requires facilities in:

hardware: a closely coupled architecture, with a significant number of processors; ability to observe communications without degrading the system significantly; ability to modify configuration; hard disc for filestore;

software: message passing between processors; suitable implementation languages available; ability to run kernel operating system on processors; preferably a 'usable' development environment on processors;

access: ability to gain exclusive access to the system for sufficiently long periods;

Choice of Machine

Several different machines could be used for this project, but each has a different level of availability. The candidates that have been discussed so far are:

Meiko. The Meiko computing surface in physics was considered for this research.

APM. The departments APMs clustered by ethernet connection were considered.

Microvaxen. A cluster of Microvaxen connected by ethernet was considered.

Centrenet. A centrenet cluster was also considered.

Why Centrenet?

Centrenet was considered the most readily available resource in the department that allowed the project to proceed forward as soon as possible. We would have difficulty getting access to the Meiko for a large research effort, and documentation and software are not readily available. Any Microvaxen would be obtained later in the project and are not currently available. The APMs are used for many tasks, especially teaching, and to use a large number for development work on one project may cause some difficulties. The ethernet connections provided by the APMs may not provide the level of connectivity required for this project.

Centrenet is a readily available resource that is already in the department and is currently under utilised. There exist MCG80010 based processors for centrenet that have existing software facilities. The MUSS operating systems runs on the centrenet boards and provides a multi-user software development environment.

Why is MUSS suitable?

MUSS (Manchester University Software System) is a modular and portable operating system environment and software tool set. Due to its modular nature and the 'un-bundled' software that it contains any processor can be configured with the necessary level of systems software. A machine can be fully configured with the whole package to run a full multi-user service, or the higher levels can

be discarded when the processor is a special purpose engine, such as a device driver, computational engine or multiplexor. The upper levels of the software can run atop of other kernels to provide a cross development environment, and the compilers can be run alone on other systems. The flexible nature of MUSS and the in-house expertise that is available on both MUSS and centrenet makes this an attractive package.

The communication mechanism built into MUSS is message passing.

Language on MUSS

MUSS is written in MUSL a C like system implementation language. MUSS also has available ISO Pascal, Fortran 77, BASIC and C.

The quality of the compilers and run-time systems is variable between the languages. None of the language systems exceeds the quality normally provided by an external vendor, but is of the quality of University developed software. However, the expertise to maintain all of these compilers exists in-house. Production quality compilers do exist for MUSS for C, Fortran 77 and Pascal but those compilers are not in the Public domain. The BASIC and Fortran 77 languages would obviously not be candidates for this research work and that leaves Pascal, C and MUSL. Any work done at the operating system or run-time system level should really be done in MUSL to avoid inter-language problems in the body of the operating system. That leaves a choice of C or Pascal for application code work. The quality of those compilers is not known in detail, and so a detailed examination and survey is recommended. The C compiler is known to have non-standard features, and the Pascal compiler is known to be quite standard conforming. Obviously new compilers could be ported or developed for these systems, but that would take a certain amount of time and effort.

Costs

The proposed facility is intended as a purely research and post-graduate project facility.

Support requirements would be: technician support for construction of boards; computing officer support for system once in use.

The system envisaged would consist of eight processor boards, based on 68010

processors, hosting MUSS operating system. There would also be a bus monitor board, allowing detailed observation of inter-processor traffic. If available, a connection to a Microvax would allow development of software and modelling of systems 'offline'.

Costs are estimated at around £600 per board, plus £2000 for the disc.

A total funding requirement of around £8000 is estimated.

Proposed Schedule

We want to start quickly, but it will take 6 months or so to complete the boards, and get the system working. During this time we would produce a functional specification of the system, and complete a literature survey.

The construction of the hardware is estimated to require about six months, using the BEPI solder wrap machine. This includes testing of the boards and connection to the Centrenet node.

During this period, an evaluation of software options available in MUSS would be conducted. In particular, the requirements for inter-process communication and the language requirements would be evaluated against the current state of MUSS.

We would build our first system on top of the MUSS operating system, so that we can get going quickly.

There has been quite a lot of work on communication primitives, and on the partitioning of functions between the operating systems kernel and the run-time support. This should enable us to make a start on a simple system.

There has been little work on portability, and this would be one of our first research areas: to define a virtual machine that would allow us to exploit a number of different architectures.

At the same time, we would be concerned to design a system with good diagnostics. This is important both from the point of view of developing the system, and in order to supply user diagnostics later on.

Once we have a basic system working, we will be able to explore topics like process-scheduling and load balancing in a real system, and compare our findings with theoretical results.

Further research possibilities

There is a need to develop new modelling techniques to cope with distributed and parallel systems. The proposed system provides an environment for measurement and validation of models, as well as the chance to investigate the usefulness of new modelling approaches. In particular, it provides a vehicle for the investigation of protocols, especially under real time constraints.

Model solutions which require large amounts of computer time might benefit from being run on an engine like the one proposed. A useful testbed for new methods of executing models is provided.

Existing industrial support could well be increased and provide further Microvaxes as resources if the above projects were started.

Notes on Departmental Meeting held on Friday 6th March 1987
in Room 5210, JCMB, at 3.30pm

Present: JHB, RNI, TMH, BA, KEVIN, RC, RJP, NPT, BCT, CPS, DTS, SOA,
IMN, AJS, JJ, DWB, RM, PDS, KBD.

Apologies: JCD, SM, GDP, DAW.

1 Chairman's Business

PDS told meeting that Mike Weber, Unived Technology, would talk to the Department on Monday 9th March from 12.30 to 12.45 (Systems Group lunch period) with a period for discussion to follow.

Moirra Norrie had been applied for leave of absence for the summer term to work at Stockholm. A request had been passed to Faculty which was likely to be approved. KEVIN had agreed to act as CS3 coordinator in summer term. MCN would return for the examination period.

KBD was retiring at the end of July from full-time work. She would continue in part-time work for SM and others. EAK would take on the duties of the Senior Secretary in the Department.

2 Academic Staff Development Interviews

As recommended at the February meeting, the Professors and PDS put forward a proposal for a voluntary pilot scheme. It was to be based on the University Scheme and the notes for item 2 of the Agenda.

RM raised the following points

1. It should be made clear the proposal aimed at helping the individual rather than the Department.
2. Need to show that the interviews were for 'real' and not an exercise and that anything divulged could remain confidential.
3. Each interviewer should have more than one person to interview so that identification of interviewee would not be obvious.

RJP suggested interviews be divided into part (a) and (b), with one part for confidential matters. PDS agreed to call for volunteers to apply for interview as soon as possible, preferably during Easter vacation.

Action PDS/All

3 Facility for Research in Distributed Systems

RJP said there would be a meeting on Thursday 12th March at 4pm in Room 3309 open to anyone who was interested in the Distributed Computing proposal (see paper attached to the Agenda). He asked the departmental meeting for backing for the proposal as money and technician support would be required for building boards. General discussion on the proposal followed. BCT said it was intended that by limiting the proposal to this particular application certain problems that arise in porting the systems would be by-passed. RJP said a number of systems had been designed for which there have been no obvious applications. Group wished to ensure that the work would have a real application. JHB drew attention to the work being done by AJS and RWT on APMs. PDS asked for resource implications:

1. Hardware about 8K - JHB noted this for a bid to Faculty.
2. Technicians support - TRC would look at this.
3. GO Support - CRC would discuss this.

RM mentioned possible links with the hardware group. RJP was in favour of this as the research could be valuable for MSc projects and 4th year projects. PDS congratulated group on their proposal.

Action RC,RJP,BCT,ASW

4 Engineering & Technology Programme

PDS said the letter announcing the 2nd allocation of EPT money had reached Old College, who were still trying to clarify the amount and other details with the UGC. This money could be non-permanent. Some equipment money might follow in a month or two. Last year Department allocated funding to 3 lectureships, 3 COs, 1 secretary and workstations for CS1. It was recommended that H of D should use some of the ETP money to replace LD with a Computer Support Officer/Book-keeper/ Report writer type of post. There was a gap with compiler maintenance and further Lectureships were desired. No need for more secretaries at present. Meeting agreed PDS should bid for EPT money on these lines.

Action PDS

5 Report from Computing Policy Group

Apologies from SM due to illness. JHB reported that meeting mostly discussed equipment for CSI. JHB had produced a paper which specified the requirements for CSI teaching machines. Department required reasonably powerful machines to teach Pascal, run ML and be located preferably, in JCMB, with access from Pollock Halls. He had looked at a number of manufacturers namely Sun, Whitechapel, Acorn, Atari, Apple, Commodore and Torch.

- Acorn: J Tansley can produce numbers and timescale. He has been invited to demonstrate machines, probably 1st week of April. PDS asked if anyone was absent at beginning of April. JHB said machine would be left for trial period. Release in June, remainder in August.
- Torch: This was a suitable product but Torch had not been able to produce costing within the specified amount. Great machines. Pascal teaching environment not as good on workstations.
- Apple Macs Around some fileserver: Mac and Sun available. Software from Stanford. Central fileserver runs UNIX and looks like an external disc to the MACs. Size of screen not to everybody's taste. Good standby. Short delivery date. CPG would probably specify some preferred machine but could purchase and equip AppleMacs at short notice should timescales slip. RJP asked about time required to prepare Macs for teaching purposes.

Next meeting of CPG on Monday 9th March to discuss VAX replacement, future of APMs.

6 Equipment Bids for 1987/88

JHB processing for CEP. Implications of ETP: consider 2nd instalment of CSI workstations. Some for CSIB?

7 Matters arising from previous meetings

Update of duties documents noted, including additions:

- Team for Open Day [JHB (Convenor), KK, BCT, DAW].
- Text processing training for secretaries: DAW
- Arrangement for new staff arrival (? and departures): DAW

Data Protection - dealt with.
Difficulties with Gould files - GDMR rebuilding ITP protocol handler on ECSVAX
- should improve file transfer.

8 A O C B

JHB drew attention to major reorganization of ERCC.



Department of Computer Science

Possible JCMB Open Day

Memorandum

To All Staff
Postgraduates
Student Workrooms

From Peter Schofield
Date 23rd April, 1987

AGENDA FOR DEPARTMENTAL MEETING

to be held on

FRIDAY 24th April, 1987

Time: 15.30
Venue: room 5215

Please note room
number

- Chairman's Business
 - (a) Asbestos removal at the week-end
 - (b) Progress report on staffing
 - (c) Selection committee for Software Systems Chair
 - (d) Selection committee for Lecturer/CO posts
 - (e) Staff Development Interviews
 - (f) Any other.

raised by

PDS

- Proposed JCMB Open Day
 - (a) Yes or No?
 - (b) If Yes, name of Departmental representative.

PDS

- Proposal on further microcomputer laboratories

PDS

- Draft document on Consultancies (Briefly; further comments can follow)

PDS

- Procedures for space allocation in new building (Technical Services Committee to decide?)

PDS

- Distributed Computing Research (POSIE)

BCT

- Equipment bids for 87/88
 - (a) Report on current actions
 - (b) Meeting to decide priorities (8th May)

mind

GCC + JAB

- Matters arising from March meeting. 2pm

Distrib list

apple, pro.

- Dates of future meetings

A bids.

23/5.

Item 2.
By PDS.

As already indicated by mail and the Newsletter, Jo Blishen and I went to a meeting on 2nd April. There was general agreement that the idea was a good thing in principle. It should aim to be of interest to all groups: school children, the general public, industry, if possible. Personally, I should put priority upon interesting school children. The difficulty is in finding a possible date. From the point of view of affecting student UCCA applications, September is the key time, but for us September 1987 clashes with moving into the new building, coping with new CSI workstations, as well as all the ordinary start-of-session panics. Most departments, especially Physics who raised the idea in the first place, would like to try a September date. I said we would agree in principle, but would need to investigate further with our colleagues to see whether the problems I mention above would rule it out entirely. If CS says NO, the feeling was that it would probably have to be delayed until September 1988.

A further meeting has been called on the Monday of week 2, namely 9.30 on 27th April. I should be glad if people would think about the issue; we must determine our attitude during the first week of term at the latest, and to this end I shall probably want to call a departmental meeting on Friday 24th April.

The date currently preferred (at least by the convenor) for the Open Day is Saturday 26th September 1987. I suggested we also consider Saturday 3rd Oct (Saturday before Freshers week - we might keep some exhibits up for the Freshers) or even a Saturday early in the Autumn term (not easy, but when is?). Saturdays were considered desirable for the general public.

Any volunteers to be Departmental representative(s) on the JCMB organising committee?

Please add your comments, adding your name and date, to this file which is [ADMIN]JcmbOpen.day

PDS 21/4/87

Item 3.

University proposal on Further Microcomputer Laboratories.

From PDS 15/4/87.

I am circulating to all teaching and CO staff a letter from the Vice-Dean about a proposal from the University's Computing Policy Committee to set up two Central Microcomputer Teaching Laboratories, one at KB and one in the centre of town. Departments are being asked their views. In our case I think we need to consider carefully how the new laboratories would relate to the ISI lab.

In the past, the ERCC was always keen to support us and share the capital and recurrent costs of the existing lab with Computer Science, (though the Edinburgh Computing Committee, the predecessor of the above-mentioned Computing Policy Committee, was sometimes less enthusiastic). The new

Director of ERCC is keen to help, but has pointed out that he may now be called upon to spread his support over three labs. He is, therefore, being naturally cautious at this stage.

When you get the circular, you may note that the Vice-Dean does not sound too keen on the "slice off the top" equipment funding for the new labs; but if they can get it, what about us? On the other hand, the higher proportion of funds we contribute, the more control we can claim over the lab. Administrative support from ERCC is very desirable. Comments, please on the questions asked in the letter plus views on implications for IS1.

DON'T MAIL ME, but make your comments by APPEND-ing to [ADMIN]microlab.txt, so that others can read what you have said. Put your name plus the odd newline at the beginning and end of your submission.

Keep your copy of the circulated document, in case we want to discuss it at the next departmental meeting.

Note that Roland Ibbett is a member of the Computing Policy Committee, and is willing to answer questions on the way that committee has been thinking.

PDS 15/4/87

John Butler

I think we should lobby strongly for any new down-town microlab to be appended to the existing one.

It all boils down to economies of scale.

The Tower is central to the down-town area and is not within any one department. There is no geographical reason I can see why it should not be suitable.

Any such lab will require someone on the spot to do what Gerry does in the existing microlab. If you create several labs each with one person under-employed for some of the year then you have a career/morale problem - the job would be seen to be a dead end.

You also have duplication of effort - any new lab will have to provide the same basic facilities as does the microlab, so you need two laser printers, two plotters, two daisy-wheel printers etc. for no apparent benefit. If you put the two together you make better use of specialised peripherals and have the added benefit of being able to support large classes if necessary.

In addition I think CS and ERCC, having pioneered the idea of a Microlab through several years of adverse reaction from ECC and lack of interest from other departments, should claim some of the benefit of the new resource - the existing proposal (particularly with the "creaming-off" finance) runs the risk of being to the detriment of the current lab. We also have a certain amount of experience to contribute.

Rob Procter

- ? 1) The dept. should make it plain that it endorses this initiative.
2) The effect on the IS1 lab will very much depend on the siting of the new central area lab.

Locating the new lab in Appleton Tower could greatly enhance existing facilities, especially if the location chosen was the old Biology prep room (adjacent to the IS1 lab and now vacant).

From the outline proposal, it is clear that the ECS is prepared to put a significant amount of management and user support effort into the new lab; more than is currently provided for the IS1 lab. An adjacent location would enable the IS1 lab to enjoy the benefits of the new arrangements. Incidentally, the document is vague about the location of the user support team; I would suggest that it should be set up as an integral part of the lab facilities (possibly using the rooms on the west side of the Tower).

Some kind of integration of facilities would be feasible and could be mutually beneficial e.g:

Coping with larger class sizes
Provision of expensive facilities becomes more economical

Locating the new lab elsewhere would, at best, make little difference to the IS1 lab - we would simply lose the opportunity to improve our present stretched management and inadequate user support. At worst, it might lead to competition for human and financial resources. The ECS might decide to concentrate its resources on the new lab, to the detriment of the IS1 lab.

So, the dept. should press the case for an Appleton Tower location. Some opposition may be anticipated to the Appleton Tower choice. The TLA, in a recent proposal (January 1987) for a microcomputing lab, favoured other sites in the George Square area (e.g. Library). Whilst admitting that the existing Appleton Tower site "would have immediate advantages in terms of lab management.", it went on to claim that other sites "would have evident long term advantages..". My feeling is that long term considerations are irrelevant to the immediate situation; in the long term, we should expect microlabs to be as ubiquitous as Ednet terminal clusters.

- X 3) The dept. should be prepared to put some money into the new central area lab. The dept. can then expect to influence both choice of location and of equipment. The amount must be sufficient to make the dept. a major partner in the enterprise, say about 10K.

- ✓ 4) I would expect the impact on IS1 to be one of increased demand. Of course, departments will want to run their own "applications specific" computing classes, but I would not expect this to be at the expense of demand for places on IS1. Rather, I think that it will lead to greater awareness of the importance a broad foundation in IT skills and applications. It might be useful to discuss aspects of the IS1 course with interested departments; they would gain a better understanding of what is on offer, we would gain a better understanding of their needs.

Append: Tower -> Major facility.
Room K

Copy All Lecturing and Co. Staff.

PROCEDURES FOR CONSULTANCY - DRAFT *from Staff Committee*

A. PREAMBLE

The University encourages links between Staff, Industry, Commerce and Government bodies where, by participation in consultancy, a member of staff's professional competence, both as a teacher and a researcher, is enhanced, and the University financially rewarded for the provision of resources.

Whilst the financial rewards to the University are potentially not significant, the potential exists, such is the nature of consultancy work, for the University and the consultant to be exposed to serious financial risk, and it is in an attempt to reduce that risk that the procedures set out in this document are being introduced.

1. UNIVED TECHNOLOGIES LTD

The University has therefore decided that where a consultancy exposes both University and consultant to financial risk, members of staff should undertake such work only through UnivEd Technologies Ltd (or some other authorised University agency) in order to ensure that :-

- a. The risk carried by the Consultant is acceptable to the University which will, for the purpose of the contract, become the Contractor, and will assume all liabilities and responsibilities to the client, and
- b. The Consultant is adequately covered by Professional Indemnity and other third party insurances. These are carried by the University and cover the Consultant for the duration of the consultancy and thereafter.

In consequence it is important that UnivEd should be involved at an early stage in the consultancy negotiations to be able to give advice to the Consultant and to generate a contract which will afford protection to the member of staff and to the University.

2. DEFINITION OF CONSULTANCY

Consultancy may be defined in this context as the provision of advice or information for a fee. Normally, it involves the application of existing knowledge to a specific problem rather than the acquisition of new knowledge via research and development.

The majority of consultancy work is of an advisory nature in which a verbal or written report is the final product, although in some cases the consultant will carry out a short programme of work within his department, for example, when he has unique skills or know-how or uses a specialised piece of University equipment.

- ① Any comments: APPEND to [ADMIN] Consult. ncy
- ② Keep this document for possible discussion at a departmental Meeting.

Peter [Signature] 21/4/87

Notes:-

- a. It is the client's responsibility to decide whether to act on the Consultant's advice or not and the University would seek indemnity from any consequential actions arising out of product liability or professional negligence.
- b. There is, in some cases, a fine line between contract R and D and consultancy, particularly where the consultant produces a new piece of technology, hardware or software as a result of 'Consultancy' work. In such cases, the University would reserve its right to take a royalty from exploitation and UnivEd includes this clause as standard in its Consultancy Contracts.
- c. Some examples of activities which would generally be considered consultancies or 'non-consultancies' are listed in the Appendix to this document.

3. CATEGORIES OF CONSULTANCY

Consultancy is deemed to fall into one of three categories :-

- University Consultancy
- Private Consultancy
- Informal Unpaid Consultancy or Advice

Before entering into a consultancy arrangement, the Head of Department must be consulted and a decision made whether the consultancy is to be regarded as a University consultancy or a private consultancy.

Generally, where a University resource of any kind is used to obtain or carry out the work, then this must be considered a University consultancy.

If any possibility exists that the University could be held to be liable for the activities of the consultant, either during or after the work has been completed, then the consultancy must be considered to be a University consultancy.

Where there is any doubt whatever about category, reference should be made to the Director of UnivEd.

B. PROCEDURES

1. UNIVERSITY CONSULTANCY

a. Approval

A member of staff must inform the Head of Department as far in advance as possible, and certainly prior to agreement with a client, of the following :-

- nature of the proposed consultancy link
- estimate of the time involved
- details of the University facilities to be used

and must obtain the approval of the Head of Department.

Heads of Departments who wish to engage in consultancies will seek the approval of the Principal in the normal way.

Note:-

It is the responsibility of the Head of Department to ensure that the consultancy does not conflict with the Departmental duties of the member of staff.

b. Duration

A member of staff should not spend more than an average of one day per week during term, and two days per week at other times, pursuing consultancy work providing that in a full academic year this does not exceed 60 days. These days may be used en bloc subject to the regulations applicable to leave of absence. In the case of a Head of Department the agreement of the Principal must be obtained regarding the time-table proposed.

c. Consultancy Rates

The rates to be quoted should be agreed between the Consultant and UnivEd prior to negotiation with the client, taking into account that:-

1. Care must be exercised to quote rates which are not below those of commercial research organisations carrying on similar work, and
2. The daily rate, or project cost, will be established with due regard to a fair return to the Consultant and payment to the Department and the University for resources used.

In general payment rates or project cost will then be negotiated by the Consultant directly with the client. Alternatively, this responsibility may be delegated to UnivEd.

d. Payment

Invoices in respect of services rendered will generally be issued to the client by UnivEd on behalf of the Consultant.

UnivEd will ensure payment to the Consultant, using the following formula:-

	<u>Fee %</u>
Consultant -	65
Department -	20
University -	15

Costs of consumables and out-of-pocket expenses will be a prior charge. The Consultant may elect to make a further contribution to the Department, thereby reducing his own fee.

2. PRIVATE CONSULTANCY

Private consultancy may be undertaken outside normal working hours, or where specific leave has been given by Faculty on the recommendation of the Head of Department or the Principal (and, where appropriate, by the Staff Committee.)

The following conditions apply:-

- a. The Consultant must make it clear in writing to the client that he is acting as an individual and that the normal coverage of liabilities by the University will not apply.
- b. No resources of the University should be used in connection with either obtaining or carrying on the consultancy. In particular, telephone calls and mail should be addressed to the Consultant's private business address, and secretarial services of the University should not be used.
- c. The head of Department must be informed in writing of such consultancy work.

Note:-

Private consultancies as defined above are not automatically covered by the University's Professional Indemnity Insurance policy as the associated potential risk is not known to or accepted by the University. Members of staff should note, however, that provided the two conditions specified in Section C, Professional Indemnity Insurance, are fully satisfied, private consultancies would be covered within the terms of the University's policy.

3. INFORMAL UNPAID CONSULTANCY

Cases will arise where members of staff give professional advice to a third party without a formal contract and without payment. In such cases it is important to state that the advice is given in good faith but without responsibility of the University or the member of staff.

C. PROFESSIONAL INDEMNITY INSURANCE

The University has effected a policy which provides cover of up to £5m in any one policy year in the event of a claim being made against the University following professional negligence. The policy extends to provide cover to individual members of the academic staff undertaking consultancy work provided that:-

- a. the permission of the university has been obtained, and
- b. fees for such work are declared to the Insurance Group.

UnivEd Technologies Ltd should therefore be provided with full details and they will notify the Insurers accordingly.

Exclusions

It should be noted that the University's Professional Indemnity policy does not apply to certain activities namely:-

- a. advice, design or specification for incorporation into aircraft or aerial devices,
- b. trials involving drugs which are not the subject of Product Licence or Clinical Trials Certificate under the provision of the Medicines Act 1968.

Note:-

It must be emphasised that the University's policy does not provide staff with cover against liability which may arise as a result of activities which are not approved by the University in terms of this procedure.

D DISAGREEMENTS

In the event of a disagreement arising out of the application of these procedures, the Principal will act as arbiter.

P.T.O.

APPENDIX

CONSULTANCIES - GUIDELINES

The following activities will normally be considered consultancies:-

- 1. Where the consultant has a paid advisory role acting as a sounding board for a company or public corporation, either on a retainer or a per diem basis.
- 2. Where a member of staff is asked to assist a design team in a company or institution which is undertaking Research and Development. Again, this may be done upon a retainer or per diem basis.
- 3. Where a member of staff undertakes the design or evaluation of a product or system to the client's specification.
- 4. Directorships of companies where the position is a direct result of that member's position within the University, eg. Directorships of a Venture Capital Fund set up to exploit hi-tech ideas.
- 5. Where the member of staff acts as an expert witness.

'NON-CONSULTANCIES'

The following activities will not normally be considered consultancies:-

- 1. Reviewing publications, whether this is for payment in cash or in kind.
- 2. Appearances on the media, eg. TV, or articles for general media publication, eg. newspapers, where a fee is involved.
- 3. Carrying out external examining duties for other institutions or professional bodies, whether paid or not.
- 4. Editing a journal.
- 5. Acting in an advisory role for a publishing house or a professional body associated with the individual's role as a teacher, whether paid or not.

Note:-

Inevitably, there are grey areas where what could be considered as friendly advice slips legally into consultancy, and where consultancy can become R and D.

In cases of doubt, reference should be made to the Director of UnivEd.

University of Edinburgh : Computing Equipment Panel

APPLICATION FOR TECHNICAL APPROVAL OF COMPUTING EQUIPMENT

This form should be returned to Mr D B Marshall (Secretary to the Computing Equipment Panel),
Edinburgh Regional Computing Centre, The King's Buildings

*** DRAFT from BCT on behalf of POSIE group ***

1. Department

Computer Science

Faculty

Science

2. Items of equipment

	Capital	Recurrent
--	---------	-----------

Items for construction of a distributed computer research facility based on centreNet (POSIE Project) consisting of 8 processor boards and disc storage.

Standard Processor Card (MC68010 based)	7	* £800	5600
I/O Processor Card (")	1	* £1000	1000
Contingency for Spare Parts			200
Disk 5 1/4" 171 Mbyte Fljitsu)			2000
± 12V Power Supply for Disk			200
Optional Backup:			
Tape Cartridge (1/2" Fljitsu)			2000
Supply of Tape Cartridges for Backup (Estimate)			200

TOTAL	11000	200
TOTAL (without backup)	9000	0

Boards to be constructed in the department using the Bepi matrix machine in the department

3. Proposed supplier

4. Future Enhancements

Describe any enhancements or additional features likely to be required. (A further application will be necessary.)

Further processor designs may be made in the future to increase performance or capability of current design. Further processor cards may be constructed to increase the systems size. More disk capacity may be required as research progresses.

5. Purpose of equipment

Please state briefly the intended purpose and whether the equipment is to be connected to the University's central computing facilities. Sufficient detail should be given to allow the Panel to assess whether the equipment will be suitable for its intended purpose. If the application includes a requirement for a hard disc please specify how it is intended to provide backup.

This represents a seedcorn to start a research facility in computer science that can then be funded from other research grant sources.

The equipment will form a test bed facility for research into distributed computing and software (to be called POSIE). It will form part of centreNet, an existing research facility in the department.

Initially 8 MC68010 based processors will be constructed and software will be developed for them. The initial software is likely to be cross developed from other systems so full backup facilities may not be critical. Eventually sufficient software will exist so a local backup mechanism would be more valuable. Therefore, the tape streamer could be obtained either now or later.

6. Consultation

Please state whether a member of ERCC staff has been consulted about the proposal, and if so, who. Applicants are advised to consult the ERCC, via Mr J F Livingstone, about microcomputers and ancillaries, or word processors, before making their application.

Signed:

(Head of Department)

Date:

Name and address:

Notes on Departmental Meeting
held on Friday 24th April 1987 in Room 5215, JCMB.

Present: JJ, RAM, NPT, EM, RNP, BCT, DJW, JCD, TMH, ARCH,
KJC, RJP, RC, ASW, RB, RNI, DWB, JTB, JHB, DAW, PDS, KBD,
JST.

Apologies: SM, DJR.

1 Chairman's Business

- (a) Removal of Asbestos.
PDS drew the meeting's attention to the arrangements which had been made for the removal of asbestos in the building.
- (b) Progress on staffing.
PDS has advertised 3 lecturer and one CO posts but he was still awaiting confirmation of continued funding under ETP from Old College. Personnel reported a good response to the advertisements.
- (c) Selection Committee for Software Systems Chair.
This proposal was going ahead with confirmation due at the end of May. The following names were suggested for external representatives. Professor M Anderson, Dr A Crosbie, Professor B Wilson, Professor T Lyons, preference for someone from AI rather than EE (but if a representative from EE was required Professor Denyer should be suggested). Meeting discussed the departmental representation on the committee and it was agreed that PDS should ask for at least 3 or 4 members from CS (RNI, RM, PDS were already nominated). PDS asked for comments to be sent to him.

Action PDS,ALL

- (d) Section Committee for Lecturer/CO posts
PDS wished one common committee for the lectureships, possibly different one for COs. He wished to wait and see what the range of candidates were before a committee was chosen. For one of the posts the group should be looking for someone with research interests in VLSI Design and PDS proposed that DJR be included. RNI suggested RAM if graphics interest was indicated. RAM agreed. PDS asked for further views to be put up to him.

Action PDS,ALL

(e) Staff Development Interviews

PDS asked for more names to be put forward as only a small number of enquiries had been made. He would send out another reminder.

Action PDS

2 Proposed JCMB Open Day

- (a) PDS and JTB had attended a meeting to discuss this. Physics had proposed 26th September for JCMB Open Day. Meeting agreed that CS should join in.
- (b) DAW and JTB agreed to represent CS on the organising committee. PGs should be asked to participate and it was agreed that they and vacation students could be allocated to demonstrations for the Open Day.

Action PDS,DAW,JTB

3 Proposal on further microcomputer labs

JHB and RNP had responded to this. RNI, as member of the Computing Policy Committee, said the letter had not expressed the views of the meeting. RNI felt that more information was needed but he felt that CS should put in some positive proposals to the Dean. RNP felt that there could be a problem with the choice of equipment which would need to suit all users. Meeting agreed that, if Lab was to be at the centre of town, it should be at AT. In general it was felt that CS should propose an expansion in AT built on our experience and it was suggested that CS ask other interested departments to discuss this proposal with us. RNP felt that there should be a mixture of machines rather than a concentration of one type of micro. JHB said emphasis should be on PCs.

Action PDS/RNI/RNP

4 Draft document on Consultancies

PDS said this had been discussed at the Professors meeting and it was felt that

- (a) 35% was too big a cut and

- (b) 60 days consultancy was too much. It had been suggested that the first 20-30 days should have a small cut with a larger percentage for a higher number of days.
- (c) they were unhappy about private consultancies being unable to use University phones.

The document had originated from Mike Weber of UnivEd Technologies and the Staff Committee wished comments on it. RB said he would like to discuss the document with Mike Weber further. It was said that consultancies produced value to University by way of industrial links but RM felt that the loss of teaching time to University had to be taken into account. Possible implication of the proposal on contracts and conditions of service was mentioned. PDS felt that a number of things were unclear and more information on the practice in other universities would be helpful.

5 Procedures for space allocation in new building

PDS put forward a proposal that the Technical Resources Committee (Convenor RNI) should deal with this. Committee consists of RNI, JHB, GLC, JCD, JJ and FRED. RNI asked that RAM be co-opted to the group to discuss this. It was agreed that people should write to RNI with observations and requirements.

Action RNI,ALL

PDS said there was a need to look at the present accommodation to see what rooms we have and what our future requirements for equipment in offices would be.

Action PDS

6 Distributed Computing Research (POSIE)

RJP said the amount of money was slightly greater than expected. PDS felt that CEP approval was not necessary but department had used it in the past. POSIE could be one of our equipment bids to Faculty. JHB asked about VDUs and additional lines to Gandalf. TMH said group might require links to Gandalf. CO support - group would like some technical effort on construction of boards as mentioned in Item 3 of Notes of previous meeting. Meeting was asked to note that POSIE would be bidding to CRC for some computing help.

Action POSIE/CRC

7 Equipment Bids for 87/88

CPG have not yet met. JHB said all the information was now available to come to a decision on CS1 Workstations. Macintosh presentation to be arranged by GLC. RJP said department should look at the equipment for CSIB before bids were made to Faculty. It was agreed that SM should be asked to make CPG meeting open to all staff, with a possible closed meeting at the end. This should be held as soon as possible.

Action SM

JHB would circulate a list of bids Anyone putting in an equipment bid should make sure it is available for Equipment Meeting on 8th May. PDS would try to make sure ETP money was available.

Action JHB,ALL

8 Matters arising from March meeting

No matters arising.

9 Date of next meeting

Friday 29th May or Friday 12th June were possible dates for next meeting

Department of Sociology
18 Buccleuch Place
EDINBURGH EH8 9LN
May 87

Dear Colleague,

Whatever government is elected on June 11th, it is important that pressure for nuclear disarmament be kept up. I am writing to ask your help in this. It requires prompt (albeit small) action.

I am planning to place the enclosed advert, signed by several hundred Scottish academics and related university staff, in the Scotsman and/or the Glasgow Herald after the election.

Five pounds per head for non-promoted staff and ten pounds per head for promoted staff will get your name in the advert. Raising the money this way requires the sponsorship of a substantial portion of the university community since a half page display advert costs in the region of three thousand pounds. If insufficient funds should be raised, then the money will go to the general campaigning fund of Scottish CND. However, since the advert is moderately worded, I trust that the necessary support will be given.

Send a cheque made out to Scottish CND to the above address, as soon as possible. Ensure that your name is printed clearly on the cheque in addition to your signature. Although this information will not be used in the advert, it would be helpful in terms of measuring the success of the operation if you included a slip indicating your department and university. Please act now.

Your sincerely,

Lynn Jamieson

Lynn Jamieson.
Lecturer
S.CND officer.

As informed members of the public, the named Scottish university staff call on the newly elected government to take more serious steps towards a nuclear free Britain and a world free from the threat of nuclear war.

1. There is a possibility that the U.S.A. and the Soviet Union may agree to remove nuclear missiles from Europe. This should be welcomed and worked for by the British government, not resisted as it has been. It is unhelpful, for example, to respond by talk of 'making up for' any loss of nuclear weapons by additions elsewhere.

2. A comprehensive ban on the testing of nuclear weapons is now on the agenda. This would be an important step in freezing the development of new weaponry, and the technical means of verifying that both sides are keeping to it are available. Britain should cease its own nuclear tests and press the super-powers to do likewise.

3. To use nuclear weapons first would be suicidal. Britain should agree never to do so, and should work for a no-first-use treaty between the super-powers.

4. The U.S. 'star wars' programme involves further developments of nuclear weapons in the name of defence and distracts effort away from and threatens to impede nuclear disarmament efforts. Britain should withdraw support from it.

5. The Trident submarine missile system is Britain's particular contribution to the escalation of the nuclear arms race. It should be cancelled.

In addition it is suggested that ordinary members of the public reading this advert consider giving financial or other support to their local peace groups - contact Scottish CND, 420 Sauchiehall Street, Glasgow G2 for further information.

Notes on Departmental Meeting

held on Friday 12th June 1987 in Room 5215, JCMB at 10.30 am.

Present: DAW,ASW,RJG,KMH,NPT,RJP,RAM,MIC,JST,ARCH,TMH,BCT,R
AJS,FRED,RNI,GDMR,WEX,KJC,JTB,RC,SM,DJR,PDS,SOA,RNP,FS,KEVI
ALI,JHB,KBD.

Apologies: GLC

1 Chairman's Business

PDS told the meeting that GDP was coming to the end of his BP time and had been offered a 1 year post at Stanford with full salary paid. He will travel back to Edinburgh for 1 month in every 3 to work in the CS department. PDS wished to recommend that GDP has 1 year on condition that CS get money for a replacement, on lectureship level, while he is in Stanford. Comments to PDS.

2 Arrangements for Election of Head of Department

1. Appointment of Returning Officer
SM said Returning Officer must not be a candidate. PDS proposed SM as Returning Officer. As no other candidate was proposed this was agreed.

Action SM

2. Appointment of Teller WEX agreed to act as Teller in the event of an election taking place.

3. Date of Election
Nominations closed by Thursday 25th June. List of candidates distributed by Friday 26th June. Election will be held on Friday 3rd (am), voting will close at 1 pm. Anyone who will be absent on Friday 3rd July can vote from Friday 26th June until 1pm on Friday 3rd July. Result of the ballot will be announced at the Departmental meeting on Friday 3rd July (pm - time to be announced later).

3 Departmental decision-taking

It was agreed to leave this item for discussion at the end of the meeting.

4 Date for Allocation of Teaching Duties meeting

It was agreed that the Allocation Meeting should be held at 2pm on Friday 3rd July and should precede the Departmental meeting. It was noted that time should be made available for a separate meeting to discuss the computing requirements for the courses when course coordinators had been appointed.

5 Recommendations from CPG

(a) Choice of Workstations for CS1
An Open Meeting of the CPG was held on Wednesday 10th June and this was followed by a closed meeting of the CPG. SM reported that

(1) People had indicated, by a vote, that they favoured Suns. CPG therefore recommended this.

(2) CPG went over the salient points made at the meeting and came to the decision that Department should buy Suns if PDS could find the money. PDS said department could assume the money would be available although no official answer had been received, as yet, from Faculty.

SM said this decision was made after Suns had offered a large reduction on their price. Although a larger number of Macs could be purchased the people running CS1 felt that they could schedule Suns to cover their student needs. Green screen access would be available. Sun software suitable for CS1 came more or less free while Mac software would have to be paid for. The Sun provided a good program developing environment. SM asked for a decision to be made quickly.
The following comments were made:

- BCT: money would be spent and the department would end up with the same resources as at the beginning.
- RNP: criteria should be what we want to do with machines and not their performance. Department would pay for excellent performance but this was not what was needed.
- KEVIN: had some reservations about CS1 use of window facilities on Suns. SOA and RJP were interested in doing something about improving this.
- PDS: had been concerned about price for any future purchases of equipment but had been told that Suns would be cheaper in one year's time.
- SM: there was a spread of Suns among industry.

- KMH: wished to dissent without comment.
- RC: agreed with BCT's comment about value for money. Preferred to wait and see.
- PDS: the equipment money from last year should be spent this term otherwise it could be shifted to other sources in the I T School.

The meeting voted on the recommendation with the following result. 29 for Suns; 2 Macs; 1 to remain with Amdahl; no abstentions. RJP wished to record a vote of thanks to JHB for all his work on this. Seconded by FRED and endorsed by PDS.

(b) The future of UNIX on APM's
CPG recommended that we stop work on UNIX 5 on APMs. JHB asked for vote of thanks to FRED and MA for their work on the UNIX system. Meeting agreed to accept CPGs recommendation and endorsed the vote of thanks to FRED and MA.

Action SM

(c) Laser Printers
CPG discussed the problems with Laser printers around the department. More information was needed on costs and performance. MA and GLC are collecting information for CPG and Departmental meeting. SM asked for views and ideas to be given to him. Printers needed for October '88.

Action SM

6 Report from Appleton Tower Users' Committee

A request had been made for extra accommodation on 3rd floor. 3L and 3D were additional rooms with 3K included. This request was expected to be granted. Committee had been asked to organise safety audits in the building as building did not have a manager. Departments expected to provide safety backup. It had been felt that more input from Central Administration was required. JCD said that insurance cover had been checked and a safety watch was kept at AT in particular areas of the building. PDS felt department should only accept responsibility for areas which belonged to it. PDS asked RNP to put a note in the Newsletter and talk to JCD to collect material for TRC to discuss this question.

Action RNP/JCD

SM raised the following points:

1. Revival of the suggestion to move CS1 Lab to KB. Pros and cons should be discussed before any decision is made.
2. If we are not moving should we follow up the suggestion to combine IS1 and CS1 Labs? Pros and cons should be discussed.

RNI said that RAM needed to know who was moving into Block OP ad there could be problems with wiring and teaching would get priority if this occurred. He felt that it would not be possible to move IS1 and CS1 at the Tower in September. RJP suggested course organisers should get together and discuss this. This was agreed, some input from students should be included.

Action Course Organisers

7 BCS Accreditation

RNI told meeting that CS examinations had previously been exempted but the department was now due for an accreditation visit. RNI gave the meeting a description of the accreditation process and what it would involve. Department was already accredited to IEE. RJP indicated he would be interested in assisting with the administration of this visit.

Action RNI,SM,RJP

8 Syllabus Committee Report

Committee met on 27th. Decisions passed on by mail. The intention is to change syllabus for GS1A and GS2. Syllabus Committee agreed. If department lose additional 1/2 course for CS2 this could lead to loss of students coming from other areas. We should consider the possibility of a terminating 2nd year course. RJP and RNP would look at syllabus for such a course. RNP felt that a number of people would be needed to assist him to produce another course. RC said some market research should be conducted to see what interest there would be in other departments for this course.

MSc

RNI said that there was no SERC quota awards this year but Manpower Services Commission were providing some students.

There was a need to identify and look at themes in order to get back into the SERC scheme.

Hardware, software and CO support requirements for courses should be made CRC.

School of IT Undergraduate Sub-committee would be used to deal with joint courses and would consider the possibility of an undergraduate course in Information Engineering. Departmental members of sub-committee are RNI (Convener), RAM, GORDON, DTS.

9 Matters arising from previous meeting

PDS said the Chair in Software was still coming along and should be ready for approval for July meeting. Names had been collected for the committee. Those were awaiting Court approval. A number of applications have been made for lectureships.

PDS had received no comments on staffing for the future.

Proposed JCMB Open Day: this would be discussed at the next meeting.

Consultancies: PDS and RB had written to Mike Weber.

Space Allocation: RAM has been coopted to TRC to deal with space allocation in the new building. He needed to know which rooms were on loan also who is likely to be coming. Room 2308 has to be returned to Physics.

Posie: This was proceeding.

Equipment Bids: This has been dealt with.

10 Departmental decision-taking (Item 3 on Agenda)

FRED said that decisions made in small committees can leave more junior members of staff feeling left out. Not sufficient explanation given of method used to make the decisions. We should be looking at the way we make decisions to make them fairer. The present mechanism does not show fairness in decision making. Specialist groups should pass their comments to others to allow some input. The following comments were made:

- SM: lack of time to pass on information. Need for more careful planning.
- RNI: committee structure needs to be considered. Give people certain responsibilities.
- JCD: decisions made in committees should not be changed.
- RNP: need to define our objectives, need to have sufficient information.

- WEX: state objectives and decide policies. Final decision should be made by responsible person or group to make it work.

- RNI: make it clear that decisions have got to be made, how information has been obtained, and then how the decision has been reached. Look at the structure of the committees.

- SM: accept the need to provide more feedback from Departmental committees.

- PDS: committee structure inadequate and needs improving. Consideration of relationship between Head of Department and committees.

- SM: CPG membership was appointed by the department. Need for policy committee which is not involved with equipment. Committees should not continue indefinitely.

- PDS: people should put their views in writing and give their proposals for the structure and remit of committees. He would circulate a list of the membership and remit of each committee along with proposal asking for comments offered for the future.

- RJP: discussion meeting to look at proposals when submitted. Documents either circulated or put on Bulletin Board. Comments should be kept short.

It was agreed that this matter should be discussed at the Departmental meeting in October.

Action PDS/ALL

11 AOCB

Appointment of Lectureships

PDS asked if anyone had any views on priorities for filling new posts. RNI asked where additional lecturing staff were needed. RJP asked when information was needed in connection with CSIA and CSIB. PDS agreed to put out mail on this.

Action PDS

PDS asked all staff to avoid the use of the North Machine Halls during the period when they were being used for examinations. He would send this on E-Mail.

Action PDS



Department of Computer Science

Memorandum

To All Staff Postgraduates

From P.D. Schofield

Date 11th June, 1987

AGENDA FOR DEPARTMENTAL MEETING

to be held on

FRIDAY 12th JUNE 1987

Time: 10.30 a.m. Venue: 5210

raised by:

- 1. Chairman's Business. PDS
2. Arrangements for Election of Head of Department: (a) Appointment of Returning Officer SM (b) Appointment of Teller (c) Date of Election
3. Departmental decision-taking. FRED
4. Date for Allocation of Teaching Duties meeting. PDS
5. Recommendations from Computing Policy Group: (a) Choice of CS1 Workstations SM (b) The future of UNIX on APM's (c) Any other
6. Report from Appleton Tower Users' Committee. (Request for permanent use of level 3 rooms) RNP
7. BCS Accreditation. RNI
8. Syllabus Committee report. RNI
9. Matters arising from previous meetings.
10. Any other business.

Item 3: Departmental decision-taking.

The following item has been raised by Fred King. I have put it down early in the agenda, as I feel it raises important issues; however, it could easily take up a lot of time. I shall suggest that we start with a short discussion at this stage, with the possibility of returning to the item at the end of the agenda.

Peter Schofield.

Following the recent open meetings to discuss provision of computers for CS1 teaching, some members of staff have objected to the way in which the department arrives at such important decisions. A similar disquiet was voiced at a meeting of the Computing Officers a few months ago.

Their main concern was that these decisions have great long term implications to all members of staff. They would like ensure that such decisions are not only reasonable, but that they should be seen be arrived at in a fair and responsible manner. The trend in departmental decision making has been toward small committees whose decisions are inevitably ratified with little opposition by the departmental meeting. Is it now time to re-examine the general policy of departmental decision making? Maybe we should favour something which is more open, more democratic and possibly even more efficient than the current one of attempting to arrive at a consensus between parties with an officially recognised interest. Voting in committees and general meetings, referenda on important issues and elected committees have all been suggested.

Fred King

10/6/87

Recommendations from Computing Policy Group.

Following the Open Meeting yesterday, the CPG recommends:

- (i) The purchase of Sun Workstations for CS1.
(ii) The suspension of work on UNIX V for APM's

The CFG has also appointed a group to collect information on possible large laser printers.

Gould

Mon 15th



Department of Computer Science

Memorandum

To All Staff
Postgraduates

From P.D. Schofield

Date 2nd July 1987

AGENDA FOR DEPARTMENTAL MEETING

to be held on

FRIDAY 3rd JULY 1987

Time : 3.30 pm

Room : 5210

- | | <u>raised by</u> |
|--|------------------|
| 1. Chairman's Business | |
| a) Result of Election for new Chairman | SM |
| b) Visit by Prof. J. Gognan (9th, 10th July) | PDS |
| c) Equipment money received for 1987/88 | PDS |
| d) Any other | |
| 2. Matters arising from previous meeting | -- |
| 3. CS1 Workstations | -- |
| 4. Move of Gould machine to ERCC Hall | JHB |
| 5. New Building and Accommodation | RAM |
| 6. J.C.M.B. Open Day (Saturday 26th September) | DAW |
| 7. Report from Publicity Committee | DAW |
| 8. Admission of mature students | RC |
| 9. Any other business | |

MC Room move

Notes of Departmental Meeting held on Friday 3rd July 1987
in Room 5210 JCMB at 3.30pm

Present: RNI, KBD, SM, NPT, CPS, ASW, DB, KK, KJC, IMN, KEVIN, DAW, RM, EM, ARCH,
BCT, SOA, JCD, RAM, AJS, RA, JHB, DWB, TMH, WEX, JJ, RNP, RC, RJP, JTB, PDS.

Apologies: JHB, GDMR.

1 Chairman's Business

- (a) Result of Election for New Chairman
SM said there were 16 non-voters, 2 spoiled papers, 26 for RNP, 34 for RNI,
RNI is now future Head of Department. SM has asked Faculty to begin
formalities for Principal and Dean's meeting. Meeting thanked Returning
Officer (SM) and Teller (WEX) and both candidates. Congratulations were
given to RNI.
- (b) Visit by Professor Goguen (9th, 10th July)
PDS told meeting that Professor Goguen had a long list of publications
which were available from Margaret Melvin.
- (c) Equipment money received for 1987/88
PDS said equipment money letter had arrived from Faculty Office. Amount
for large items was £110.5K out of bid of £192K. Items 1 - 9 on list ap-
pend to Notes had been approved.
- (d) No other business.

2 Matters arising from previous meeting

PDS had received a number of comments on Departmental decision making and
Chairmen of committees would write out their remits. PDS suggested that this
should be discussed at the next meeting on Friday 4th September.

Action Chairmen of Committees

JCD mentioned item 10 in notes of previous meeting which should be amended
to read "JCD: decisions should not be lightly changed and committee members
should be informed".

Action KBD

3 CSI Workstations

PDS had a letter from Chairman of Computing Policy Committee referring to
the new Workstations purchased by the department and the possible effect on the
ERCC service. It was thought that department should be using its resources dur-
ing vacation time as well as teaching time. LFCS course could use the machines.

4 Move of Gould Machine to ERCC Hall

Gould to be moved in week beginning 17th August. Gould 6000 would be on-
line during this period. JCD told meeting there would be some inconvenience
in corridor 14 due to removal of asbestos. Cables cannot be run until this has
been cleared. The fault in the Gould has been located and the machine will be
stripped and cards replaced with new ones. If the fault persists Gould will strip
the machine and replace the card frame. Gould Management meeting on Monday
13th July.

5 New Building and Accommodation

RAM said the building was to be completed by 31st August. He showed the
meeting a plan for rooms in corridors 24, 34 and 26. The intention is to give up
some rooms in corridors 24 and 34 and keep the borrowed rooms in corridor 26.

6 JCMB Open Day

This was to be held on Saturday 26th September from 10 - 4pm. Aim is to
attract local people. All departments in the building are involved. PDS will give
departmental lecture on a topic to be decided later. There will be 5 demos and
it is hoped to have lots of staff around the building so people would be needed to
help.

7 Report from Publicity Committee

- (a) Open Day Post Mortem There had been a lack of organisation on the part
of the School Liaison Office. Ian Campbell, Schools Liaison Officer, would
be approached for an explanation for this and then it would be decided
whether to take the matter further. Department eventually had mezzanine
floor site. Committee would write to Schools Liaison Office to book rooms
on mezzanine for next year. Open Day 1988 would be on 3rd June.

- (b) New CS1 machines going into AT. Publicity for this organised by Information Office. It had been decided to wait until beginning of September and invite a group, possibly teachers, RAs and PGs for a trial run or alternatively wait until beginning of new term and invite teachers then.
- (c) New Building It was decided that the new building would not be used for the JCMB Open Day.
- (d) Women in Computing - Wednesday 16th September A joint Edinburgh/Heriot-Watt Workshop to attract women to computing would take place. This would consist of two parallel sessions. One on Careers and another on University life. Hands-on experience would also be gained by having several Macs around. It was planned that many women from industry and universities would be available to answer questions/promote and discussions at the practical session.

8 Admission of mature students

RC said mature students in late 20s with HNDs write to CS and are put off by the attitude that gives them no credit for their experience. They must be self-financing as only 2 years grant would be provided. Department should try to find some way of taking them into 2nd year by means of a preliminary short course or passing the 1st year resit exam. Mature students were highly motivated and could help to fill the gap in 18 year olds. RC asked if this should be pursued as it would involve extra courses in evenings and in vacations. Meeting agreed that this was worth pursuing and SM offered to assist with this. It was agreed that RC and SM would pursue this and RC would report back to the meeting.

Action RC/SM

9 AOCB

- (a) Machine Halls 'Tidy-up'
JHB said TRC proposed to move a lot of equipment round in the Machine Halls. RNI felt that things would look better if the machine halls were sorted out. RNI had mailed this to staff and had some comments. JHB felt that the reorganisation of the machine halls should be left until Block O/P had been opened. There was some discussion about this and PDS asked JCD to circulate a small drawing to show where things would be put.

Action JCD

- (b) CS1 students for 1987/88

ASW said the new intake for next year would be over 100 (mostly for AI/CS course.)

- (c) Bicycles in JCMB

JCMB Users Committee are not likely to provide acceptable facilities for the cycling community.

10 Date of Next Meeting

Friday 4th September 1987.

Computer Science

Capital submissions 1987/88
Prices include VAT

15/5/87

[1]	CS Gandalf PACX expansion and software	£ 9315
[2]	CS1b machines: 24 Macs + file servers	£ 55278
[3]	Replacement instrumentation for technical staff	
	a) Kikusui 100MHz digital storage oscilloscope	£ 10442
	b) Philips Pulse Generator	£ 1805
	c) Philips counter/Timer/frequency measurer	£ 1288
	d) line analyser	£ 690
[4]	Vax/VMS Cluster software	£ 1196
[5]	POSIE project	£ 9278
[6]	Interface pod for HP line monitor	£ 555
[7]	High density tape drive for VAXen	£ 7000
[8]	Colour graphics upgrades for APMs.	£ 6800
[9]	Sun X.25 Software and Hardware	£ 6900
<hr/>		
[10]	Kodak Datashow "electronic OHP slide"	£ 1350
[11]	Expansion of hardware lab	£ 7388
[12]	Tape backup for POSIE project	£ 2200
[13]	Sun File Server/Workstation for CS3 and CS4	£ 34000
[14]	Electronic Image recorder	£ 5083
[15]	Colour Suns for CS4	£ 19500
[16]	Vax/VMS Ether sub-network and bridge	£ 7500
[17]	Additional instrumentation for technicians	£ 5221
	Total	£ 192789



Department of Computer Science

Memorandum

To All Staff Postgraduates

From Peter Schofield

Date 16th September, 1987

AGENDA FOR DEPARTMENTAL MEETING

to be held on

THURSDAY 17TH SEPTEMBER 1987

Time: 2.15 p.m.

Venue: NEW COFFEE LOUNGE (2510)

- (1) Chairman's Business
(a) Report on staff recruitment
(b) Software Chair
(c) Additional Computing Support Officer
(d) Secretaries
(e) Any other
(2) Sitting of Secretaries
(3) LFCS
(a) Staffing
(b) Report on LFCS activities
(4) Location of LFCS Lunches
(5) Publicity, etc.
(a) Women in Computing - Wednesday 16th September
(b) JCMB Open Day - Saturday 26th September
(6) Lecture Tours by Foreign Visitors
(7) Departmental ties and scarves

RAISED BY:

PDS FS PDS RM GLC PDS KK ARCH

Acron choose contact.
CSI / M session for CS Staff
Phone Nos for SOS
PAD id for CSI lab.
Mark Needcutt
Bamf
Ardey
2/10 3.30

RAISED BY:

- (8) Membership of Boards of Studies PDS
(9) Teaching matters PDS
(a) Review of teaching allocation RNP
(b) Module on HCI
(c) CSI Laboratory
(d) Progress on APM Operating System
(e) Any other
(10) Room Security System Var.
(a) Hours of access
(b) Recording of Information
(11) Booking arrangements for Departmental Van Var.
(12) Review of Departmental Committee Organisation RNI
(a) Discussion document from new Head of Dept (to follow) MRJ
(b) Departmental Library Committee
(13) Matters arising from July meeting -
(14) Date of next meeting. Venue for next meeting -
(15) Any other business -

Notes for Departmental Meeting, 17th September, 1987

Item 1(a) : Recruitment

In addition to Moira Norrie and Rob Pooley who were on the strength already, the following have been appointed:-

Computing Officers

Douglas Rogers (DDR) VLSI/Hardware.
Morna Findlay (MJF) LFCS.

Arrived.
12th Oct.

Part-time CO's

Rosemary Soutar (RS) Compilers.
Linda Rollo (LR) CS1, Datrieive.
Mark Davoren (MARK) Operating System teaching, CS1.

1st Oct.
28th Sept.
1st Oct.

Teaching Staff from 87/88

Alistair Sinclair (ALI) Lecturer : 1 year from 1st October.
Dama Arvind (DKA) Demonstrator : 3 years from 1st November.
(VLSI/Hardware)

Teaching Staff from 88/89

David Walker (DUW) (Doing some teaching this year)
Lecturer : from October 88
Bob Harper (BOB) Lecturer : 2 years from October 88.

Peter Schofield

Item 1(b) : Software Chair

The Chair has now been advertised. Members of the Interview Committee are: RNI, RM, RC. Rob Pooley will not be present at the meeting but has made some comments on the new Chair in his multi-topic paper attached at the end of the agenda.

Peter Schofield

Item 1(c) : Additional Computing Support Officer

ETP funds were requested for a second Computing Support Officer. Having appointed Linda Rollo who is clearly appropriate to take over much data retrieve work, the case for a second CS Officer has been weakened and should I feel be reviewed. Requirements of the CS1 Lab and any ERCC contribution to this are relevant.

Peter Schofield

Item 1(d) : Secretaries

Kate Duncan is now working a.m. only. I have requested permission to recruit one part-time (afternoons) secretary to compensate. Again, we should review the need before appointing.

Peter Schofield

Item 2. : Siting of Secretaries

I am concerned about changes in secretarial arrangements which have been made with little or no consultation with the staff affected. It seems that almost all the secretaries are assigned, for at least part of the day, to duty for senior staff which inevitably means that the rest of us get low priority in times of pressure. Also, the secretaries seem to have been sited in offices which greatly increase their distances from their clients.

In particular, I see no good reason to move Margaret Melvin to the periphery of the departmental area in order to provide telephone/receptionist cover in the afternoons when part-time secretaries are not here.

The new accommodation has changed the distribution of staff considerably. I would suggest that a very workable arrangement would be to leave Margaret in room 2421 and let Heather and Margaret between them look after all staff on the 25 and 24 corridors. They could handle the telephone/receptionist duties for Roland and Sidney from these offices. This would also greatly reduce the potential for conflicts.

Frank Stacey

Item 6 : Tours for Foreign Visitors

A few months ago, Strathclyde University wrote to us asking for collaboration in inviting lecture speakers. We responded to that and now they would like to go ahead. We have to decide what we want out of it for our money.

Kyriakos Kalorkoti

Item 7 : Departmental Ties and Scarves

I shall be passing samples around at the meeting.

Archie Howitt

Item 8 : Membership of Boards of Studies

I have been asked to recommend any changes to Membership of Board of Studies. All members of teaching staff are automatically members of the Board of Studies. I have proposed the following for engineering: RNI, SM, PDS, DJR and all Directors of Studies and CS course co-ordinators. For historical reasons, Frank Stacey is the sole representative for the Biological subjects; he would like to withdraw, any volunteers to substitute? I have been ex officio member for the Board of Cognitive Science; obviously RNI replaces me; I propose RM should be added.

Peter Schofield

Document attached or following.

A module has been proposed by RNP and Bob Morris. Future proposal is attached.

The new operating system is behind schedule. Document from RWF is attached. We very much hope and expect a useful new system to be available by the start of term.

CS4 project arrangements

There is evidence that, in most cases, CS4 students do not adequately pace their project work over the academic year. The current system of confrontational grillings at the end of the first and second terms is of limited help in this matter.

Therefore, I propose that, in the forthcoming year, the class is divided into small groups of between four and six people, which meet regularly to discuss progress, with supervisors in attendance. There should be at least three meetings in the first term, and two in the second. At each meeting, each student would be required to give a 15-minute talk describing their project progress. The talk would be informal, with audience contributions encouraged. Some meetings would be attended by members of the Project Committee, and any student deemed to have failed to report adequately would be required to give a traditional end-of-term presentation.

This scheme might imply additional commitments for supervisors; however, I feel that it would enable individual supervision sessions to be held less frequently, and so would not involve much extra time. The composition of groups is a matter for discussion; common subject matter is an obvious criterion.

Gordon Brebner.

(a) Departmental Committee Organisation.

A discussion document from RNI is following shortly. There are also some comments from RJP attached.

(b) Library Committee.

Robin suggests - and I am in agreement - that the department should form a committee to make decisions on library matters. The main function of the committee would probably be to decide between rival bids for new journal subscriptions. (This is the only area where contention for resources arises). The proposed composition of the committee, with vague indications of responsibilities, is as follows:

Frank Stacey (Software Engineering)

Robin Milner (Semantics)

Nigel Topham (Hardware)

Mark Jerrum (Complexity)

Is this enough, or do we need an 'applications' representative?

Mark Jerrum

B.1 Human-Computer Interaction

Description

The interactive use of computing systems requires the cooperative efforts of both humans and machines. Success depends upon system designers understanding and applying knowledge of Human Factors and Computer Science in equal measure, so that systems are matched to the skills and knowledge of the human user. Human-Computer Interaction (HCI) combines the insights into human performance offered by Cognitive Psychology and Ergonomics with the formal methods, tools and technologies of Computer Science. HCI is now recognised as an aspect of design which is critical to the success of computing applications. The course aims to provide (a) an appreciation of the issues and problems in HCI, (b) knowledge of design methodologies, techniques and skills, and (c) awareness of current areas of research.

Context

No specific pre-requisite knowledge is required. Relevant companion subjects are Conceptual Modelling and Advanced Graphics. An inter-disciplinary approach is vital to success in the course.

Syllabus

- Background — issues and developments in HCI.
- Psychology of HCI — perception, cognition, organisational and environmental psychology, work-place stress, motor skills.
- Task analysis and specification — methodologies, task models, user models.
- Formal specification methods — grammars, state transition networks, event-based approaches.
- Design evaluation — methodologies, individual performance, system performance.
- Prototyping tools — HCI work benches.
- Techniques — textual command languages, direct manipulation, information display, adaptive interfaces, intelligent tutoring systems, natural language.
- Technologies — interaction devices, new technologies, implementation issues.

Activities

Twelve lectures are given by Rob Procter, and six lectures are given by Bob Morris (Psychology Department), on the above syllabus. The inter-disciplinary nature of the course makes regular background reading essential; a list of reading material is issued.

There is a piece of coursework consisting of a short project in which students are asked to submit a report describing, evaluating, and making recommendations for, an existing HCI environment.

Assessment

An examination paper accounts for 70% of the course mark. The coursework accounts for the remaining 30% of the mark; it is promulgated in the 7th week of term, must be submitted by the end of term, and is returned at the beginning of the next term.

References

- (**) Monk (ed.), *Fundamentals of Human Computer Interaction*, Academic Press 1985.
- (*) Card, Moran and Newell, *The Psychology of Human-Computer Interaction*, Lawrence Erlbaum 1983.
- (*) Norman and Draper (eds.), *User Centered System Design*, Lawrence Erlbaum 1986.
- (*) Schneiderman, *Designing the User Interface*, Addison-Wesley 1987.
- (*) Winograd and Flores, *Understanding Computers and Cognition*, ??.

RNP
Gordon

Delays

Clearly it is now well past the beginning-of-August "deadline" estimated earlier in the year. There is little use in attempting to go into detail of all the reasons for this, but we (or at least I) have not been able to work at peak efficiency of late (other duties, interruptions, distractions, laziness, lack of motivation, ...). Perhaps we also underestimated the amount of effort required, or tried to aim for too much at once too soon.

What we have now

GDNR's new-style filestore software has been mounted on a system based on what we call the "old" Mouse kernel. Many people will have tried this new filestore, which can be accessed from the APMS as "filestore A". The same filestore software has also been put onto a number of machines with smaller disks, among them the portable "demo" filestore.

Unlike the "old-style" filestores, such as those known to most as "B" and "C", which are dedicated file servers, these new filestores run in a stand-alone mode, but also "happen" to export a filestore service over the ethernet. This means that, apart from the processes involved in the file serving, there are others in the system, so it is possible to log on at the terminal, edit files, compile and run programs, even develop the filing and operating system software on the machine itself, without the need to involve a separate filestore. The environment available to the user of this system is still deficient in a number of ways.

There also exists what we call the "new" Mouse kernel, which has a revised message passing mechanism which takes account of the need to support VM as made possible by the MUs on the "daughter boards".

What remains to be done

The deficiencies in the user environment described above need to be removed, and a client system for disk-less APMS constructed on top the "new" Mouse kernel. This will make use of most of the software produced in putting together the above system, and this much I see as quite doable in time for the start of term.

What the users will actually see is a system very similar in flavour to what they have been using to date, but the most obvious feature they will observe is that they will no longer need to use utilities such as EFTP to move files between the various filestores (A, B, C, Vax, etc), but will be able to use filenames which incorporate the name of a filestore in all contexts. This much I see as a minimum requirement for "day 1". In addition the intention is that most user programs which work under the "current" system will also do so under the new system, some will need to be recompiled, some may not. This requirement is particularly important in view of the shortage of time left for testing.

Although the system will have the capability of running several processes on behalf of the (single) user of each diskless machine, as well as the capability to support VM handling mechanisms, it now seems sensible in view of the time available to omit the implementation of these mechanisms while leaving in the hooks which will allow them to be phased in.

I see it as a matter of priority now to proceed at speed to put together the bare minimum of what is necessary to support a service by the start of term. To this end AJS and I will attempt to exclude interruptions and distractions by working at home. We have each taken a stand-alone APM home, and in addition I have taken a diskless one for use as a "client" machine. I will concentrate on the work needed to support all the Imp and Pascal stuff, while AJS will look at converting the C runtime library (needed to support ML and TEX). Meanwhile GDNR is waiting for the "new" Mouse to stabilise before continuing development of the new-style filestores.

Thoughts on departmental meeting for September.

Rob Pooley

As I shall be away on the proposed date for the next Departmental meeting, I thought I would put a few points in writing. It seems to me that this is a rather important meeting and I want to make sure that the following points are considered.

1. Departmental democracy.

There are two indications that Fred's points and the ensuing discussion at the last departmental meeting have not sunk home. Firstly, we have not had any response to the request for a clear outline of the responsibilities of the departmental committees. The chairman elect has announced that he intends introducing a new structure, but no details have been made available so far. Secondly, the clear vote of a substantial minority for Rob in the election has failed to elicit a statement from Roland on how he intends to operate as chairman.

I would like to see discussion centering on how to widen the decision making process within a growing department. In particular, it must be made clear who makes decisions, how these people are selected and how they may be approached. 'Democratic centralism', where we vote in an oligarchy, or an elected dictator supported by an appointed civil service, are against the spirit of recent discussion and run contrary to the practice of the department over the years. Without a clear policy on democracy now, we run the risk of falling into one of these. The responsibility for policy making should be decentralised.

A simple set of rules might be that no one person can chair more than one committee. No decision referred to a committee can be taken by someone else without reference to them. No major decision can be taken without the consent of the departmental meeting.

If this seems merely to state the present situation and that anticipated for the future, then it is still worth re-affirming the principles, given the levels of concern expressed last time. In fact, I suspect that all of these principles have been violated recently as decision making has gone out of control.

2. The new chair.

I have grown increasingly sceptical of us finding a suitable candidate, given the expressed remit. This leads me to re-examine the thinking

dening the new chair. Are we looking for the impossible? Again a few random thoughts occur.

If the last chair didn't solve the problem of systems (whatever that means to each of us) research, why will a new one do any better. I do not dispute that Roland's energy and enthusiasm have been acquired, but I see no hope of solving the fundamental problems this way.

Why not build on our strengths? If the department is not engaging in systems research of its own accord and we cannot find lecturers who are prepared to be interested, why throw money at a void? Why not plan to extend out from our strengths? L.F.C.S. actually do quite a lot of system development and we are in danger of ghettoising this when we could be building on it.

Maybe I am being to extreme, but I feel that we must avoid being pressured by circumstance into appointing just because we have got the chair approved. If anyone has found a really good (i.e. peerless) candidate, who meets the spec and is likely to want to come, I guess the above is irrelevant. If not, maybe we need to rethink why we are doing this.

3. As we move towards staff review and career development advice for academic staff, what is to happen for secretarial and technical staff. The process of advancing through the CN scales is every bit as difficult as the AT scales. I somehow doubt that the head of department plus the profs is the appropriate group to guide here.

I look forward to hearing refutations of all the above on my return.

Phone Nos

To Departmental Meeting 17/9/87... Item 9(a)

Update on Teaching and other Duties, 1987/88.

Still subject to some negotiation.

VAXnames used for some newcomers

ALI = Alistair Sinclair
 BOB = Bob Harper
 DDR = Douglas Rogers
 RS = Rosemary Soutar
 MARK = Mark Davoren
 DJW = David Walker
 DKA = Damal Arvind
 MJF = Morna Findlay
 LR = Linda Rollo

1. Course organisers.

	Lecturer	Lab	Sec
Information Systems 1	RNP	JST	KAM
Computer Science 1A	SOA	RJG/KMH/LR	DAM
Computer Science 1B	RJP	RJG/KMH/LR	KAM/MMM
Computer Science 2 (Systems)	RC	DWB	KBD
Computer Science 2 (Foundations)	MRJ		DAM
Computer Science 2 (Real-time)	RC	JST/DWB/PJL	KBD
Computer Science 3	Kevin	ARCH	DAM
Computer Science 4	Gordon		DAM
M.Sc.	FS		MMM
Theory P. G.	DTS		EAK

CS4 Projects RNI, SM, ASW, Gordon
 CS4 Dissertations Gordon
 M.Sc. Projects SM, RNI, NPT
 1st year PG project reviews SM, CPS, (GDP) with others

2. Joint Degree Tutors.

CS & EE, also CS & Physics RAM
 CS & Management Science ASW
 CS & Maths MRJ
 CS & AI DTS

3. Student Admissions.

	Sec
Undergraduates	RC Faculty Office
M.Sc.	NPT MMM
Research students	SM, CPS EAK

4. Computer Science 4 Lecture Modules.

Advanced Graphics RAM
 Compiler Techniques RJP
 Computational Complexity ALI
 Conceptual Modelling MCN
 Concurrent Architectures NPT
 Denotational Semantics CPS
 Digital Communications Gordon
 Theory of Communicating Systems RM
 VLSI practical module DJR, NPT, RAM, ARVIND
 [Human Computer Interface RNP, Bob Morris]
 [CAD ?? AD]

5. Computer Science 3 Lecture Modules.

Analysis of Algorithms MRJ
 Computability (+ Formal Languages) SOA
 Computer Architecture RNI
 Computer Design TMH
 Database Systems MCN
 Language Semantics and Implementation KEVIN, BOB
 Operating Systems FS
 Programming Methodology BCT, KEVIN
 VLSI Circuit Design RAM
 Communications GORDON
 Op. System practical FS, MARK Davoren, and others
 System Design practical BCT, with others. DKA?
 Hardware laboratories TMH, ARCH

6. Computer Science 2 Lectures.

(a) Systems
 Architecture DJR
 ML, Compilers PDS
 Graphics KJC
 (b) Real-time RC (24), JHB, J. Ponton
 (c) Foundations MRJ, DCM, ALI

10. M.Sc. Lecturers.

7. Computer Science 1A Lecturers.

- (a) First Half
Pascal Theory
- (b) Second Half
Data Structures, ML
Various algorithms, Graphics(?)
Comparative languages, Graphics(?)

SOA
DJW (6), ALI (6)

KEVIN
PDS
BCT

Introductory course (Week 0)

Mark D (UNIX, µEMACS)
PDS (Pascal)

Software tools

FS
DJR
DJR (9), Gordon (9)

VLSI 1

VLSI 2

CAD for VLSI

Parallel Programming (new)

Hardware

Communications

Operating Systems

Database systems

Analysis of Algorithms

Graphics

Compilers

RC
NPT
ASW

(with CS3) FS
(with CS3) MCN
(with CS3) MRJ

(with CS4) RAM
(with CS4) RJP

8. Computer Science 1B Lecturers.

- (a) First Half
Pascal Graphics
- (b) Second Half
Modelling Hardware
The rest

RJP
KJC

RJP
RNI, DKA(?)
KK

11. Theory Pg Lecturers.

Algebraic Complexity
Algebras and categories
Algebraic specification

KK (18)
DTS (9)
DTS (9)

Domains

ML

Program logics

E. Moggi (18)
N. Rothwell (6)
F. Honsell (12)

9. Information Systems 1 Lecturers.

RNP (24)
CPS (Prolog)
SM/MCN/KMH/GORDON
Bob Morris/WEX(?)/Other External

Language Semantics, Implementation
Analysis of Algorithms
Computational Complexity
Denotational Semantics
Theory of Communicating Systems

(with CS3) BOB, KEVIN
(with CS3) MRJ
(with CS4) GORDON Brebner
(with CS4) CFS
(with CS4) RM

14. General.

Director of LFCS
 Deputy Director of LFCS
 Directors of Studies
 Syllabus Committee
 Departmental Colloquia
 Theory Seminars

RM
 GLC
 RC, ASW, FS, RAM
 RNI (Convenor) + others
 KK Sec: AMF
 SOA Sec: EAK

15. Administrative.

Departmental Safety Advisor
 First Aid
 Publicity Generally
 University Open Days
 Freshers Week Organisation
 Schools Liaison
 Departmental Handbook
 Publicity videos
 Arrangements for new staff arrivals
 Room allocations
 Telephones
 Furniture
 Senior Secretary
 Sick leave admin (all staff)
 Keys
 Bookings of room 3309
 Accommodation for visitors
 Travel arrangements
 Ordering of equipment
 Ordering of stationary
 Accounts
 Photocopier in room 2419
 Photocopier in room 1619
 Library Committee
 External reports in coffee room
 Departmental Reports
 Appleton Tower Users Ctee

JCD
 JCD, KBD, I Conkey, I Marr
 DAW, JTB (RNI Convenor)
 JTB, KK, BCT, (DAW)
 DAW, ASW

 (DAW)
 GDMR, AJS
 DAW (Temporarily RAM)
 RAM
 GLC
 JCD
 EAK
 EAK
 MWM
 MWM
 All secretaries
 All secretaries
 JCD
 KAM, JMKR
 HLC
 MWM
 JMKR
 MHJ
 FS
 DAM
 RNP

 * The following items are only a statement of roughly what
 * has been arranged so far. Obviously, a certain amount is
 * still subject to new arrangements under consideration by
 * Roland Ibbett as incoming Head of Department.

12. General Computing and other Services.

Departmental Computing Services
 Laboratory Superintendent
 APM Hardware
 BEPI Machine, P-CAD
 EGSVAX/ECUVAX Management
 Gandalf Management
 Machine Hall supervision
 User Number Allocations, etc.
 Advice on external mail
 Review of Text processing
 Secretarial computing
 Hardware design
 Compilers
 Documentation
 Databases
 Non-LFCS UNIX support
 Gould Users Committee
 Edinburgh Computer Users Ctee

JHB
 JCD
 JJ
 ARCH, PJL, RWT
 AJS
 DWB
 LINDA
 LINDA
 LINDA
 GDMR
 DAW
 RWT, ARCH, DDR, JJ, PJL
 RS

 KMH, LR
 RJG (?)
 GDMR
 JHB

13. Support for some more specialised activities.

LFCS computing systems
 Orion
 VLSI, Graphics teaching
 Database teaching
 Filestore design and maintenance
 APM operating system
 Rutherford Lab. liaison

MJF
 LINDA
 KJC
 GDMR
 AJS, RWT
 KJC

PROPOSED DEPARTMENTAL COMMITTEE STRUCTURE

I would like to propose that the Department operate various of its activities through the set of committees detailed below. Because the Head of Department is responsible to the University for the running of the Department, I think it is appropriate for the convenor of the main committees to be appointed by the Head of Department. A significant proportion of the proposed membership of some of the committees is inevitably ex-officio, but there will be some to be filled by democratic processes.

STAFFING COMMITTEE

Remit

1. To advise the Head of Department on staffing requirements
2. To set up appointment and interview committees
3. To advise the Head of Department, in appropriate cases, on matters relating to staff development and promotions
4. To consider requests for CO support for research projects and to advise the Head of Department on the provision of such support

Membership

The Head of Department (Convenor)
The Professors
Convenor of the Teaching Committee }
Convenor of the Computing Resources Committee } -- for CO posts
The Senior Computing Officer }
Convenor of the Technical Resources Committee } -- for Technician posts
The Laboratory Superintendent }
The Senior Secretary } -- for Secretarial posts

TEACHING COMMITTEE

Membership

A Convenor appointed by the Head of Department
The Course Organisers
Volunteer/elected Computing Officers

Remit

1. To coordinate the work of course organisers
2. To advise the Department on teaching procedures
3. To define assessment procedures

4. To advise the Staffing Committee of Teaching Staff and Computing Officer support requirements for teaching
5. To advise the TRC of space and technical requirements for teaching
6. To organise staff-student liaison sub-committees
7. To operate a final year project sub-committee
8. To provide the Head of Department with student record information

SYLLABUS COMMITTEE

Membership

The Head of Department
The Professors
A Course Organiser from each year
Directors of Studies.

Remit

1. To be responsible for the syllabuses of all Departmentally taught courses which appear in the University Calendar.

Operating Procedures

1. Most of the work of the Committee will be carried out by small ad-hoc working groups to which other members of the Department will be co-opted as appropriate. The work of the ad-hoc groups will be discussed by the committee as a whole before any matters involving anything other than individual course/module syllabuses are decided.
2. The Committee will seek the views of interested members of the Department (as identified in file ALERT:SYLLABUS.DIS on ECSVAX) on matters for decision, and will maintain a suitable input channel (currently file U0:[HANDBOOK.SYLLCOMM]INPUT.TXT on ECSVAX)
3. The Committee will bring matters of decision to the attention of Departmental Meetings.

JOINT SUBCOMMITTEE ON FUTURE COMPUTING REQUIREMENTS

A joint subcommittee of the Teaching and Syllabus Committees convened from time to time to assess the impact of research and changes in available computing equipment on both syllabuses and teaching methods.

COMPUTING RESOURCES COMMITTEE

Membership

A Convenor appointed by the Head of Department
Representatives of the Teaching Committee
The Senior Computing Officers

Remit

1. To provide authority to the Senior Computing Officer in matters relating to the running of computing services within the Department
2. To advise the Staffing Committee on Computing Officer staffing requirements to run these services
3. To organise a forum in which Computing Officers can discuss matters relating to these services
4. To assist members of the Department in formulating requirements for computing services to support research activity

TECHNICAL RESOURCES COMMITTEE

Membership

A Convenor appointed by the Head of Department
The Laboratory Superintendent
Representatives of the technical staff
Representatives of the Computing Officers
Representatives of the teaching staff.

Remit

1. To provide authority to the Laboratory Superintendent for disposition of technical staff effort
2. To monitor progress of technical work within the Department
3. To allocate space and technical resources within the Department
4. To advise the Staffing Committee on technical staffing requirements
- 5) To organise a forum in which Technical Staff can discuss matters relating to technical support within the Department

R.N.4

17-9-87

Notes of Departmental Meeting held on Thursday 17th September 1987

in New Coffee Lounge (R2510)

Present: PDS,RNI,EAK,RC,TMH,RA,MARK,TRS,FM,KEVIN,MCN,JHB,SOA,DJR,
JJ,EM,KK,RB,SM,DDR,NPT,BCT,ARCH,FS,NICK,GDMR,KJC,SWP,RNP.

Apologies: DTS

At the start of the meeting, PDS expressed the Department's thanks to RAM, JCD and the team involved in the successful completion of the new extension.

1. Chairman's Business

(a) Report on staff recruitment

PDS welcomed to the meeting Douglas Rogers (Computing Officer), who has joined us from the Wave Tank Project.

He reported that although the appointments of David Walker and Bob Harper as Lecturers will date from October 1988, both will be undertaking some teaching duties during 1987/88. Darnal Arvind will be joining as a Demonstrator with VLSI/hardware interests on 1st November 1987.

The starting dates for other Computing Officers about to join had been reported in the Newsletter: Linda Rollo (28th September), Rosemary Soutar (1st October), Mark Davoren (1st October), Morna Findlay (12th October; replacement for Hugh Stabler; now funded by the Department).

PDS observed that our complement of CO's had trebled in recent years and that we were now able to allocate CO effort to research projects in addition to the teaching. After consultation with the Professors, he proposed to the meeting that in addition to Morna Findlay, one further CO post should be allocated to the LFCS from January 1989. RM reported that if this was agreed, LFCS would seek external funds to cover the cost difference between the CO post offered and the Assistant Director's post, so that the latter can be funded from January 1989, when present Alvey funding runs out.

(b) Software Chair

PDS reported that an advertisement for the above had been placed on 16 September. RNI read relevant extracts from the draft "Further Particulars" of the post and a small amendment was recommended.

(c) Additional Computing Support Officer

PDS announced that ETP money was available to fund a 2nd CSO. It was agreed that the current requirements should be investigated further before an appointment was made.

(d) Secretaries

PDS reported that we were half a secretarial post short since KBD is now part-time (am). Since it is not yet certain whether or not the workload will require another part-time secretary (pm), the post would remain vacant meantime.

2. Siting of secretaries

At this point, Tom Stiernerling stressed the need to alter the Departmental Office room number on the board at the main entrance, which gives the wrong room number.

Action EAK

PDS reported on the item sent in by FS to express his concern at proposed new distribution of secretarial offices. After some discussion, it was decided that the matter be referred to RNI, EAK and RAM.

Action RNI/FS/RAM/EAK

3. LFCS

(a) and (b) Staffing and Report on LFCS activities

RM gave a research profile of the LFCS which embraced proof engineering, concurrency and functional language development. It was hoped that in 1988 we should mount a Theory of Computation theme within an expanded M.Sc. programme. An ML development grant had recently been announced to fund 3 researchers for 4 years. GLC outlined the EUREKA proposal involving around 27 European research organisations. He also reported that the LFCS Affiliation Scheme would be launched in the coming month with approximately 20 companies affiliated in the first year.

4. Location of LFCS Lunches

It was decided meantime to leave the question of a change of venue for the above (and for System Lunches), until it was clear whether or not general staff members would be likely to use the New Coffee Lounge.

5. Publicity, etc.

(a) Women in Computing - Wednesday, 16th September

PDS expressed his thanks to all involved in the above Workshop which appeared to have been a great success. SM suggested the Head of Department should bid for expenditure to fund another such Workshop to accommodate the people who had been turned away from the first one.

Action RNI

(b) JCMB Open Day - Saturday, 26th September

It was reported that demos would be running on Level 3, and volunteers were still needed for Open Day. Invitations should be sent out to other Depts.

At this juncture, RNI reported that our new extension would be formally opened on 2 December with the present Principal, Sir John Burnett, performing the Opening Ceremony. Suggestions for any publicity relating to the above should be sent to Jo Blishen.

Action JTB

PDS reported that Freshers' Week was now imminent, and that DAW will be enquiring as to whether the Science students have appointed a co-ordinator for a KB programme.

Action DAW

6. Lecture Tours by Foreign Visitors

KK reported on a scheme, in which he had expressed interest, involving a share in the cost of visits by prominent foreign visitors from various fields of study. The cost would be shared between 4 Departments, and it was envisaged that one visit per term would take place to one of the Departments. Information/suggestions

should be sent to KK. KK also remarked that Strathclyde University would like to be informed of visitors to the Department/LFCS.

Action KK

7. Departmental ties and scarves

ARCH passed round samples of the above, explaining that a minimum order of 20 would be required in the first instance. It was hoped to encourage 3rd and 4th year students to buy the ties and scarves. ARCH will explore the possibility of a colour selection. Orders to be sent to ARCH.

Action ARCH

Membership of Boards of Studies

PDS reported that recommended changes would include the replacement of FS on the Board of Biological Sciences. He suggested nominating ASW for same, and expressed his own willingness to serve on this Board if ASW should decline. It was also agreed that RM be added to the Board of Cognitive Science, with RNI replacing PDS as ex officio member of this Board.

Action PDS

9. Teaching matters

(a) Review of teaching allocation

PDS reported that RM had requested a half-year's sabbatical in order to write a book on Concurrency in the coming year. It was noted that he had been given a reduced teaching load for this purpose.

At this point, mentioned was made of problems with text processing facilities. GDMR had been invited to review the current situation and report.

Action GDMR

JHB asked that he be contacted concerning computing services required for teaching. This is in order to avoid clashes and to meet deadlines. Lecturers on modules should communicate their requirements to course co-ordinators. He

also pointed out that Linda Wilkie should be informed of software and hardware faults.

(b) Module on HCI

The introduction of this module was welcomed.

A letter had been received from Alex Deas requesting his M.Sc. course on CAD for VLSI be applied to 4th year. It will be referred to the next Syllabus Committee meeting. RNI to arrange.

Action RNI

(c) CSI Laboratory

SOA is handling this.

(d) Progress on APM Operating System

Since progress on this had been slow, the matter would be reviewed again at the start of term.

Action RWT

(e) Any other

Gordon Brebner outlined his proposal for improved CS4 project arrangements which would include dividing the students into small groups where they could give short reports on their work. Meetings would take place approx. three times in the first term and twice in the second, some of them attended by members of the project committee. This was approved.

Action GORDON

10. Room Security System

(a) Hours of access

It was agreed that the hours of access be 0900 - 1800.

(b) Recording of information on entries

It was agreed that, at least for the present, this information would not be recorded.

11. Booking arrangements for Departmental Van

The van's main use is for transportation of equipment to the Appletown Tower. Comments on booking priorities should be referred to the Technical Resources Committee who will consider them and promulgate. DJR raised the question of personal use of the van, but this will require investigation of the insurance position.

Action JCD

12. Review of Departmental Committee Organisation

(a) Discussion document from new Head of Department

RNI had circulated his preliminary thoughts on committee organisation. Any comments should be sent to RNI. The matter will come up again at the next meeting.

Action RNI

(b) Departmental Library Committee

Until the new committee structure is approved, the group proposed by MRJ should act in an advisory capacity to MRJ. MCN's name should be added to the group.

Action MRJ

13. Matters arising from July meeting

RC reported on the matter of mature students coming into 2nd year studies following a two-year HND grant. RC had discussed the matter with John Hannah who indicated that the Dean is still concerned in finding a solution to the additional funding problem.

14. Date and venue for next meeting

3.30 p.m. on Friday, 2nd October 1987 in New Coffee Lounge (R2510).

Any Other Business

RNI reported that a visit would take place on Friday, 25th September from the Chinese Institute of Computing Technology who wished to create a formal link with the Department. It was expected that the British Council would then fund

Election of Head of Department 1987

Rob Procter

Since my nomination as a candidate for Friday's election, many people have asked why a relatively junior member of the Department is standing. I would like to take this opportunity to explain to you the principal motivation behind my candidature.

The roles of the Head of Department are many; some are defined by the statutes of the University, others have evolved over the lifetime of our Department; most have a major impact on all of us, and it is this aspect which I shall concentrate on here.

In many respects, we can look back upon the past decade with satisfaction. The Department has grown steadily, and is an acknowledged centre of excellence; major new developments such as the Foundations Laboratory promise to further this reputation. Unfortunately, the cherished spirit of the Department and, in particular, the much-valued tradition of consensus in decision making, has become weakened in the process. To a large extent, these ills can be blamed on fragmentation as the Department has expanded. On a formal level, this is evident in the proliferation of committees and the emergence of an alien managerial style. On an informal level, it seems that the formation of cliques is becoming normal practice. Together, these have led to an atmosphere of uncertainty, and clouded vision. In short, the Department is faltering.

No individual can prescribe instant cures. To pretend otherwise would be to reduce policy-making to the level of quack medicine. However, at least one thing is not in doubt - in order to ensure future success, the Department needs to harness the energy and abilities of all its members. The Head of Department has an important part to play in encouraging individual effort without favour, and fostering a cooperative spirit. This must be supported by a more open administrative policy.

To this end, I propose a restructuring of the relative decision-making powers of the Department, its Committees, and its Head. The role of the Departmental Meeting, open to all, as the supreme decision-making body would be affirmed. Committees would become forums for the gathering and presentation of information on behalf of the Departmental Meeting, rather than major decision makers in their own right. The Head of Department would oversee this process. Also, drawing upon the considerable experience of senior members, he would have the responsibility of ensuring that the Department is made fully aware of any relevant external factors, both in the context of the University, and nationally.

The election of a new Head of Department presents a challenge to every one of its members. It is an appropriate moment for each and every one of us to review the recent past and our relationship with the Department at large. It is an appropriate moment to consider the future and the part we would each like to play in it. Most importantly, it is an opportunity for everyone to make their opinions count.

In standing for election as Head of Department, I invite you to think carefully about your own, and our collective, future. If you do, then my candidature will have served a purpose.

Rob Procter

PROPOSED DEPARTMENTAL COMMITTEE STRUCTURE

Following a very constructive meeting of the CRC on 23rd September I have revised my proposals concerning departmental committees. Some parts of this document are currently unchanged, and constructive suggestions will be welcome.

Because the Head of Department is responsible to the University for the running of the Department, I think it is appropriate for the convenor of the main committees to be appointed by the Head of Department. A significant proportion of the proposed membership of some of the committees is inevitably ex-officio, but there will be some to be filled by democratic processes.

STAFFING COMMITTEE (RNI)

This committee is meant to consider strategic issues relating to all categories of UGC supported staff posts within the Department. On some occasions it will be appropriate to consider some categories of post in isolation, in which case the appropriate subcommittee will be convened.

Remit

1. To advise the Departmental Meeting and the Head of Department on staffing requirements
2. To set up appointment and interview committees
3. To advise the Head of Department, in appropriate cases, on matters relating to staff development, appraisals and promotions

Membership

The Head of Department (Convenor)
The Professors
Convenor of the Teaching Committee
1 or 2 elected representatives of the teaching staff

Computing Officer Subcommittee

Convenor of the Computing Services Committee
The Senior Computing Officer

This subcommittee will also consider requests for CO support for research projects (involving more than about 3 man-months) and will be responsible for strategic allocation of CO duties

Technical Staff Subcommittee

Convenor of the Technical Resources Committee
The Laboratory Superintendent

Secretarial Staff Subcommittee

The Senior Secretary

TEACHING COMMITTEE

(PDS)

Membership

A Convenor appointed by the Head of Department
The Course Organisers
The Admin CO
Volunteer/elected Computing Officers

Remit

1. To coordinate the work of course organisers for MSc and undergraduate classes. In connection with these classes:
2. To review and coordinate the teaching and assessment procedures.
3. To advise the Staffing Committee of the teaching and CO staff requirements for teaching.
4. To advise the Equipment Committee of computing and software needs for teaching.
5. To advise the TRC of space and technical requirements for teaching.
6. To organise staff-student liaison committees.
7. To operate MSc and CS4 project sub-committees.
8. To coordinate the arrangements for degree examinations, liaison with External Examiners, invigilation and examiners meetings.
9. To organise student record information.

SYLLABUS COMMITTEE

(RNI)

Membership

The Head of Department
The Professors
A Course Organiser from each year
Directors of Studies.
Student Reps

Remit

1. To be responsible for the syllabuses of all Departmentally taught courses which appear in the University Calendar.

Operating Procedures

1. Most of the work of the Committee will be carried out by small ad-hoc working groups to which other members of the Department will be co-opted as appropriate. The work of the ad-hoc groups will be discussed by the committee as a whole before any matters involving anything other than individual course/module syllabuses are decided.

2. The Committee will seek the views of interested members of the Department on matters for decision.
3. The Committee will bring matters of decision to the attention of Departmental Meetings.

JOINT SUBCOMMITTEE ON FUTURE COMPUTING REQUIREMENTS

A joint subcommittee of the Teaching and Syllabus Committees convened from time to time to assess the impact of research and changes in available computing equipment on both syllabuses and teaching methods. This subcommittee will provide input to the Equipment Committee.

COMPUTING SERVICES COMMITTEE

Membership

A Convenor appointed by the Head of Department
 Representatives of the Teaching Staff
 The Senior Computing Officer
 Other Computing Officers as appropriate

(JTR)

This committee is intended to be a forum in which day to day matters involving the running of the various computing services in the department can be discussed and difficulties resolved. It would also be responsible for the allocation of CO effort on short term tasks. It is intended that it should have fairly open representation, so that COs can attend as and when necessary to raise issues of immediate concern. The convenor might on some occasions need to insist on particular individuals attending.

Remit

1. To provide authority to the Senior Computing Officer in matters relating to the running of computing services within the Department
2. To advise the Computing Officer Staffing Subcommittee on Computing Officer staffing requirements to run these services
3. To assist members of the Department in formulating requirements for computing services to support research activity

TECHNICAL RESOURCES COMMITTEE

Membership

A Convenor appointed by the Head of Department
 The Laboratory Superintendent
 Representatives of the technical staff
 Representatives of the Computing Officers
 Representatives of the teaching staff.

(RAM)

Remit

1. To provide authority to the Laboratory Superintendent for disposition of technical staff effort
2. To monitor progress of technical work within the Department
3. To allocate space and technical resources within the Department
4. To advise the Staffing Committee on technical staffing requirements
5. To organise a forum in which Technical Staff can discuss matters relating to technical support within the Department

EQUIPMENT COMMITTEE (JHB)

Membership

A convenor appointed by the Head of Department
 Representatives of the Teaching Staff
 The Senior Computing Officer
 Representatives of the Computing Officers

Remit

1. To formulate requirements for major equipment acquisitions
2. To coordinate bids for equipment from the Faculty and elsewhere
3. To consider requests for major re-dispositions of existing equipment
4. To consider the take-over of research equipment accruing to the Department at the end of research grants
5. To consider strategic issues regarding equipment maintenance

PUBLICITY COMMITTEE (JTB)

Membership

A convenor appointed by the Head of Department
 Volunteers mostly!

Remit

Responsibility of Departmental Handbook and related documents
 Organisation of Open Days
 Schools Liaison

LIBRARY (MRT)

Memorandum

To All Staff
Postgraduates

From Roland Ibbett

Date 1st October, 1987

AGENDA FOR DEPARTMENTAL MEETING

to be held on

FRIDAY 2nd OCTOBER

Time : 3.30 p.m.
Venue : NEW COFFEE LOUNGE (2510)

Raised by

- | | |
|---|-----|
| 1. Chairman's Business | RNI |
| (a) Student representatives on Board of Studies in Physical Sciences | |
| (b) Provision of short or special courses on University premises | |
| (c) Pre-University Conference | |
| 2. Data Protection Act. | RNP |
| 3. Introduction of Common Marking Scale for non-Honours examinations. | PDS |
| 4. Departmental Committees. | RNI |
| 5. Social Science students on IS1 and/or CS1. | PDS |
| 6. Freshers week. | RC |
| 7. Matters arising from September meeting. | |
| 8. Date of next meeting. | |
| 9. Any other business. | |

Notes for Departmental Meeting, 2nd October 1987

Item 2

Subject access rights come into force on 11th November. The department has been advised by the University Data Protection officer to devise procedures for prompt (& accurate) replies to subject requests.

Rob Procter

Item 3

Partly as a result of the Data Protection Act, the university has (sensibly) agreed that students will be entitled to find out from their Director of Studies their marks and grades obtained in any non-Honours examination. The Senate has decreed that marks **RECORDED** for non-Honours examinations from 1st Oct 1987 onwards shall correspond to Grades in accordance with the following (new) table, which is a compromise between usage in a number of Faculties:

A	75 - 100	First Class Merit
B	65 - 74	Second Class Merit
C	55 - 64	An average performance
D	50 - 54	A low pass
E	45 - 49	A marginal fail
F	35 - 44	A clear fail
G	00 - 34	A bad fail

The mark ranges above are for "final", "scaled", "adjusted" marks, or whatever you want to call them. The working party has suggested that examiners "should first allocate a grade and then assign a mark within that band". (I think the Faculty of Science suggested that only the grade should be recorded - but this was over-ruled).

This may have some impact on how we think about marking of practical exercises as well as class exams.

Peter Schofield

Item 4

Several members of the department would like to propose the following amendments to RNI's document on Departmental Committee Structure:
Insert a new paragraph after paragraph 1:

All committee decisions will be ratified, in general terms, by the departmental meeting. The departmental meeting can co-opt members and introduce revisions in the committee structure as it sees fit.

Amend paragraph 2 to read:

Because the Head of Department is responsible to the University for the running of the Department, then it is appropriate for the Head of Department to have a large say in the membership of the main committees. A significant proportion of the proposed membership of some of the committees is inevitably ex-officio, but the remainder will be filled with the agreement of the departmental meeting.

Item 5

On Wednesday, I had a call from the Accounting department saying "sorry about short notice, but our accrediting bodies want our students to do more computing than arises in our courses". They will probably wish to send about 30 more students per year into either ISI or CSI. I asked them to try to collect more detail, especially about the students' likely timetable, and ring back. I made generally encouraging noises, but noted pressure on equipment.

Peter Schofield

Item 6

Freshers week starts on Tuesday 6th October and all members of staff are asked to come and talk to the new students at 10.45 a.m. in room 3317 on that day.

Rosemary Candlin

Notes of Departmental Meeting held on Friday 2 October 1987

in New Coffee Lounge (R2510)

Present: RNI,EAK,JCD,DAW,JJ,DJR,ASW,KEVIN,DJW,DTS,GLC,CPS,KJC,KK,SOA,RNP,GDMR,PDS,BCT,RC,DDR,TMH,RJP,ARCH,AJS,RM,SM,NPT,RAM,JST,MFD,CMNT,DPYM,ALI.

At the start of the meeting, RNI welcomed the new faces in attendance. He also wished DAW well, saying we looked forward to her return in due course.

1. Chairman's Business

(a) Student representatives on Board of Studies in Physical Sciences

PDS advised on previous procedures, explaining that volunteers usually come forward. There will be a Newsletter item on this in an effort to meet the 23 October deadline in finding a representative to attend Faculty meetings.

Action RNI

(b) Provision of short or special courses on University premises

RNI informed the meeting that Dr. Nadeau would be taking over from Miss Giles as the point of contact for the above. LFCS courses are normally handled directly through UnivEd, who had also been informed of this.

(c) Pre-University Conference

This will take place on 28-31 March 1988, and SOA and RNP expressed their willingness to be involved.

(d) Welcome Party for new Staff and Postgraduates

A party will be held on Friday, 9 October at 4.00 p.m. in the new Coffee Lounge in order to welcome new research and M.Sc. students and new staff members.

Action EAK,MWM

(e) Photographs

The annual class and staff photographs will be taken on 15 and 16 October. The times and place will appear in the Newsletter.

Action JCD

2. Data Protection Act

RNP explained that we would soon be required to reveal all our computer data to the University Data Protection Officer if requested. It was agreed therefore that we should not store information of a confidential nature if we did not wish it to be read by the requesting body. JHB will produce a document to say how archiving affects users. He also stressed the need to shred scrap paper which might have information which, if read by others, could endanger our security code. RNP will alert course organisers to the situation with regard to the Data Protection Act.

Action JHB,RNP

3. Introduction of Common Marking Scale for non-Honours examinations

PDS read from the relevant instruction document which states that the marking ultimately recorded and kept is going to be available to students if they wish. The University wants to be consistent across all Departments and Faculties on this. The unrecorded marks will be the raw marks allocated prior to examiners meetings. RNP describe the 40-day window which is in operation at present. Only data existing at the end of the 40-day window is supplied. Failure to respond within the 40 days means we have to submit all information. PDS will enquire what should happen with ordinary degrees.

Action PDS

4. Departmental Committees

Lengthy discussion ensued on the revised document from RNI on the above. It was agreed that there should be a Library Committee, and MRJ will produce a remit to be considered at the next Departmental meeting. Course organisers will arrange meetings of staff/student liaison committees. A student representative

should also be asked to contribute to the Syllabus Committee. RNI said that a central record of student names and marks would be of great help to him. In addition to the Senior Member, RJP suggested there should be an elected representative for each of the Computing Officer, Technical Staff and Secretarial Staff Subcommittees. This was agreed. SOA discussed his amendment to RNI's document in which he stated that the Departmental meeting should have the primary role above the committee structure. The spirit of the amendment was acceptable to the meeting, but the wording remained unresolved. SOA will bring forward a reworded amendment for approval at the next meeting. RNI asked each of the committees to write down its own remit as it sees it for approval at the next Departmental meeting, and thereafter annually. It was agreed that the Teaching Committee should proceed immediately. RNI nominated PDS as Convenor of the Teaching Committee, and this was agreed. RNI also stated that he did not wish to continue serving on the Technical Resources Committee, and wished to nominate RAM to take his place. This was agreed. RNI did wish to continue to serve on the Syllabus Committee. He nominated DJR as Convenor of the Computing Services Committee, and this was agreed. PDS nominated JHB as Convenor of the Equipment Committee. This was agreed, and RNI will convey this to JHB. RJP suggested the Assistant Director of LFCS be an ex officio member of the Equipment Committee. This was agreed. Normally, DAW would be Convenor of the Publicity Committee, but it was agreed that JTB should carry out this duty in her absence.

RNI told the meeting that AMF will expect to receive Agenda items for the Departmental meeting by mid-day on the Wednesday before the meeting.

Action MRJ,SOA,RNI,Committee Convenors

5. Social Science students on ISI and/or CSI

PDS informed the meeting of a phonecall he had received from Accounting asking if 30 additional students could be sent along for the above. The meeting agreed that we should try to accommodate them but would require further information. RNI said he had been approached by various Heads of Departments to engage in a joint Honours course with us, namely Psychology, Business Studies, Linguistics.

6. Freshers week

RC reported on the imminent arrival of 108 freshers plus 7 non-graduating students. There would be a Departmental welcome over coffee and fruit juice at

10.45 a.m. on Tuesday, 6 October in Room 3317. Staff members to chat to them would be particularly welcome. PDS reported on the M.Sc. introductory programming course for which assistance would also be welcomed. Volunteers to help with demos. should contact Mark Davoren or himself.

7. Matters arising from September meeting

PDS reported that he had sent in ASW and RNP's names to the Board of Studies in "C" subjects since they were willing to volunteer.

The Publicity Committee were currently looking at the Opening Ceremony plans. RNI reported that Ray Footman and his assistant would be visiting the Dept. on October 14th in this connection. RNI told the meeting that the Opening Ceremony for the new extension would take place on the afternoon of Wednesday, 2 December.

With regard to progress on the APM operating systems, GDMR had been asked by CRC to produce a document outlining the series of changes which would be introduced to the APMs, involving the new operating system, filestores and Ethernet protocols. For the start of term it was proposed that 2nd year students should use the existing operating system, until selected users (e.g. SM) of the new system were confident of its resilience.

RNI reported that the Syllabus Committee had met, and had approved most of the things it was asked to.

He also reported on a meeting with representatives from the Institute of Computing Technology in Beijing which Jan Hulme of Old College had attended. When proposed wording of the formal association has been finalised it will be sent to Beijing for approval before going through the various committees here.

Date of next meeting

3.30 p.m. on Friday, 30 October 1987 in New Coffee Lounge (R2510).

Any Other Business

PDS said he wished to book as many APMs as possible for the afternoon of Tuesday, 6 October; also Thursday afternoon for CS2.

RNP raised the question of the equipment inventory which involved yearly reports of new equipment, changes, deletions etc. This duty had been passed to JCD who wished to relinquish it. JCD will think of a replacement.

Action JCD

Douglas Rogers raised the question of artwork to adorn the walls of the new Coffee Lounge. He agreed to be 'House Secretary' in this matter, and would investigate means to acquire some pictures. Appreciation was recorded to IMN who had kindly donated plants to the Coffee Lounge. Douglas Rogers will handle watering of same.



Department of Computer Science

Memorandum

To All Staff
Postgraduates

From Roland Ibbett

Date 29th October, 1987

AGENDA FOR DEPARTMENTAL MEETING

to be held on

Friday 30th October 1987

Time : 3.30 p.m.
Venue : NEW COFFEE LOUNGE (2510)

Raised by

1. Matters arising from meeting on 2nd October.
2. Chairman's business
 - (a) Student numbers
 - (b) Guidelines on disclosure of information about students
 - (c) Christmas arrangements
 - (d) Room painting.
3. Departmental Committees

To consider reports on the structure and remit of the following committees:

 - Staffing Committee
 - Teaching Committee
 - Syllabus Committee
 - Computing Services Committee
 - Technical Resources Committee
 - Equipment Committee
 - Publicity Committee
 - Library Committee
4. Any Other Competent Business

RNI

RNI

Item 2(a)

Provisional Student Numbers 1987-88

Postgraduate

1st year PhD	6
2nd year PhD	10
3rd year PhD	8
1st year MPhil	2
2nd year MPhil	1
MSc	17
Total Bodies	34
Total FTEs	34

CS4

Single Honours	32
CS & EE	11
CS & MS	4
CS & Physics	0
Non-graduating	1
Total Bodies	58
Total FTEs	40.5

CS3

Single Honours	34
AI & CS	11
CS & EE	11
CS & Maths	4
CS & MS	3
CS & Physics	0
Non-graduating	6
Total Bodies	69
Total FTEs	54.5

CS2

Single Honours	
AI & CS	
CS & EE	
CS & Maths	
CS & MS	
CS & Physics	
Non-graduating	
Total Bodies	85
Total FTEs	

CS1A

Single Honours	38
AI & CS	31
CS & EE	14
CS & Maths	10
CS & MS	12
CS & Physics	2
Non-CS	59
Non-graduating	
Total Bodies	165
Total CS1 FTEs	55
Total (CS3) Bodies	107
Total (CS3) FTEs	72.5

CS1B

Total Bodies	96
Total FTEs	32

ISI

Arts	22
Law	2
Soc Sci	32
Science	22
Total Bodies	78
Total FTEs	26

28th Oct 1987

in new Coffee Lounge (R2510)

Present: RNI, EAK, BCT, DJR, RC, JTB, LAH, JCB, JHA, MRJ, SM, PDS, KEVIN, DJW, ALI, GDMR, NPT, RAM, JCD, DCH, LINDA, JHB, TRS, DPYM, RJP, RNP, ASW.

Apologies: DTS, KK, SOA, GIC.

1. Matters arising from previous meeting

RNI reported that the student representative at Board of Studies in Physical Sciences meetings would be Andrew Bissell.

RNI remarked that the recent party held to welcome new staff and research students had been a great success, and he duly thanked the organisers.

JCD reported that all the staff and class photographs had been taken, but the turn-out for CS3 had been poor, due to inclement conditions.

Data Protection Act It was agreed that a small separate computing system, not involving mainframes, was required to handle all our marking and exam papers. RNI suggested that the Equipment Committee should set this up, and that the Teaching Committee should send their comments on this to the Equipment Committee.

Action Equipment Committee/Teaching Committee

At this point, RNI read from a document entitled "Guidelines on Disclosure of Information about Students". RNP remarked that our marks on the joint Honours course with Electrical Engineering should be released.

Departmental Equipment Inventory. JCD informed the meeting that PJL had agreed to take over this commitment from JCD and RNP, and he would handle the end of November returns to Old College.

Action PJJ

2. Chairman's Business

(a) Student numbers

RNI commented on the tabled document giving provisional student numbers. He said that the total bodies figure under the postgraduate heading should read 44 not 34. It was noted that IS1 numbers were down. The M.Sc. total is currently 17.

(b) Guidelines on disclosure of information about students

This item was discussed earlier in the meeting.

(c) Christmas arrangements

RNI reported that the University closes at 5.00 pm on 23 December and reopens at 9.00 am on 5 January 1988, the statutory holidays being 25 December, 1 January and 4 January. There will be no telephone operator service on the 1981 exchange during the Christmas closure. Anyone requesting heaters during this period should put their request in by 2 November. JHB reported that the disk-based service outside the main Machine Hall will be switched off during the Christmas closure. He will assume the responsibility of putting notices on the relevant machines.

Action JHB

(d) Room painting

JCD reported that he had written to the Works Department to request that certain rooms be painted which had not been painted last year.

(e) Board of Studies

RNI informed the meeting that the Board of Studies in Physical Science would meet on 16 December at 2.15 pm. A full Board meeting will be held on 10 February. 2 December is the deadline for sending in papers to be considered. ASW should be consulted in this connection.

RNI reminded the meeting that the formal opening ceremony of our new extension will take place on Wednesday, 2 December. A firm indication of internal numbers will be sought by electronic mail since the external number of invitees is increasing.

Action RNI

3. Departmental Committees

Staffing Committee - RNI reported that no changes had been made to the remit of this Committee. A CO subcommittee would meet with regard to annual allocation of duties. The additional Teaching Staff representatives were RC and MRJ for the first year. One Professor will serve on the CO subcommittee, namely RM or SM. The additional representatives for the Staffing Committee are: GDMR for computing services staff, David Hamilton for technical staff, KJC for computing officer staff and DAM for secretarial staff. They would not necessarily serve on interview committees.

Teaching Committee - It was reported that the Teaching Committee had held a meeting the previous Wednesday.

Syllabus Committee - The committee had not yet held a meeting this term. Andrew Bissell and Rick Innis were the student representatives.

Computing Services Committee - DJR tabled some notes. AJS registered disapproval that the committee's meetings were not open meetings. DJR seemed reluctant to convene open meetings. RM suggested that there should be a representative from LFCS who could represent a certain experience of a system or source of knowledge. It was agreed that Morna Findlay should be the representative if GLC declined. RNI remarked that there were a number of services in the Department which we employ our COs to run. He felt that a Working Party should be convened to sort out the remit of the committee, its membership and whether or not it requires to be expanded.

Action RNI

Technical Resources Committee - RAM reported that Morna Findlay had been invited to join.

Equipment Committee - The committee had not yet held a meeting this term, but planned to hold one on 2 November. JHB reported that its remit had not been discussed. 2 additions to the original composition of the committee were Bob Harper, representing LFCS interest, and RNI as Head of Department. The

committee will meet on 2 November.

Publicity Committee - JTB indicated that if anyone could offer the committee assistance, it would be welcomed.

Library Committee - The function of the committee is to evaluate the needs of the Department in respect of Library facilities met within resources, its main responsibility being how the current money should be spent. The members were FS, MRJ, RM, NPT, and DPYM was co-opted as the postgraduate representative. The committee will meet next week.

4. Any Other Competent Business

Departmental Telephone Directory - ARCH raised the question of a new issue. GLC normally handled this, but RM felt he would be too busy this time. EAK was asked to consult with GLC as soon as possible to organise the issue of a new directory.

Action EAK/GLC

Card Entry System - JCD report that the system, which has proved faulty, is in hand and should be resolved by Monday next.

Art work in Coffee Lounge - DDR reported that the paintings would soon be returning to the artist. Our thanks would be conveyed to him for the loan.



~~Floppy with Schools Video~~

~~8/11~~
DONN 29/11

Department of Computer Science

Memorandum

To All Staff
Postgraduates

From Roland Ibbett

Date 3 December 1987

Maint figures for JD

AGENDA FOR DEPARTMENTAL MEETING

to be held on

Friday 4 December 1987

Time : 3.30 p.m.

Venue : Room 5210 ~~5210/5210~~

Add KJC to equip. dis.

SM's machine

CSZ.

non-computy kit

Raised by

~~Sid: should we run our service ourselves~~

1. Matters arising from meeting on 30 October.
2. Chairman's business
 - (a) Student numbers
 - (b) BEST Research etc Database.
 - (c) University savings

Save 300K

3. Reports from Committees
 - (a) Staffing
 - (b) Teaching
 - (c) Syllabus
 - (d) Technical Resources
 - (e) Equipment
 - (f) Planning ability
 - (g) Library

RNI

4. UCCA visit on 15 December

→ 4 persons, so far

RNI

RC

5. Any Other Competent Business.

Party

Provisional Student Numbers 1987-88

Postgraduate

1st year PhD	6
2nd year PhD	10
3rd year PhD	8
1st year MPhil	2
2nd year MPhil	1
MSc	17
 Total Bodies	 44
Total FTEs	44

CS4

Single Honours	32
CS & EE	11
CS & MS	4
CS & Physics	0
Non-graduating	1
 Total Bodies	 48
Total FTEs	40.5

CS3

Single Honours	34.5
AI & CS	11.0
CS & EE	11
CS & Maths	4
CS & MS	3
CS & Physics	0
Non-graduating	6
 Total Bodies	 69
Total FTEs	54.5

CS2

	Sys	Found	RT
Single Honours	32	36	15
AI & CS	14	14	11
CS & EE	11	1	11
CS & Maths	6	6	1
CS & MS	1	1	
CS & Physics	1		1
Other	14	15	4
Non-graduating	2	1	2
 Total Bodies	 81	 74	 45
Total FTEs	13.5	12	7.5

CS1A

Single Honours	38
AI & CS	31
CS & EE	14
CS & Maths	10
CS & MS	12
CS & Physics	2
Non-CS	58
Non-graduating	
Total Bodies	165
Total CS1 FTEs	55
Total (CS3 =) Bodies	107
Total (CS3 =) FTEs	72.5

CS1B

Total Bodies	96
Total FTEs	32

IS1

Arts	22
Law	2
Soc Sci	32
Science	22
Total Bodies	78
Total FTEs	26

23rd Nov 1987

REPORT OF THE TEACHING COMMITTEE

Agenda and Minutes

The minutes are regularly posted in the Coffee Room. Any member of staff wishing to be added to the distribution list for a personal copy should inform KEVIN.

Would it be useful if the agenda was promulgated by electronic mail?

Some of the Business so far

1. Course co-ordinators and Lecturers have been encouraged to give guidance to students on the amount of time they should spend on particular exercises and to collect information on how much time students feel they have actually spent.
2. We commend the wider use of course questionnaires.
3. Discussions have been started with Linda Rollo, Kathy Humphry and the Registry about ways of improving the methods of transmitting information about exam marks and grades (e.g. abolish those hand-completed Registry lists).
4. After some vacillation, the Senate has approved new rules which will permit students to receive more detail than previously on exam marks and grades. The latter was received too late for detailed consideration at our last meeting of the implications for Honours marks, though we are happy that grades for individual papers should be released.
5. We are worried about congestion on the APM's. A booking scheme has been introduced and we have asked other parties to make every effort to increase the number of machines available to students.]

An undecided matter

The committee feels the need (again) for wider consultation among the teaching staff on the proposal to increase the weight of CS4 marks in the final Honours total from 50% to 60%. Although a majority of the committee was in favour of the proposal, ~~both~~ the Directors of Studies present were opposed. 2/3

Peter Schofield 2.12.87

**Notes of Departmental Meeting held on Friday 4 December 1987 in
Room 5210**

Present: BCT, KK, DKA, ALL, JTB, SM, PDS, EAK, RNI, KEVIN, SOA, RC,
DJW, ASW, KJC, RJP, JJ, JHT, DTS, ARCH, RJG, CRS, BOB, JST.

Apologies: RAM, JCD.

1. Matters arising from previous meeting

Computing services during Christmas break - JHB will produce a document.

Action JHB

RNI reported that the room painting had been completed to everyone's satisfaction.

Opening Ceremony - RNI thanked everyone concerned with this most successful occasion which had been enjoyed by all who had attended.

Committee reports - RNI reported that the Computing Services Committee had not met since the last Departmental meeting. The other committee reports would be dealt with later on in the Agenda.

Departmental telephone directory - EAK reported that the new issue had now been circulated.

2. Chairman's Business

(a) Student numbers

RNI reported on the student numbers circulated with the Agenda. Kevin Mitchell pointed out that the CS3 single Hons. figure should read 35 and the CS3 AI & CS figure should read 10.

(b) BEST

RNI commented on communications from UnivEd with regard to the BEST database, to which the Department has contributed. CPS remarked that he had received a letter from SERC implying that future grants might be affected

if he failed to complete their questionnaire. Since there was some concern that SERC might use this in connection with peer review, RNI felt that the Dean and Principal should be made aware of the situation.

Action RNI

(c) University savings

RNI enlightened the meeting on methods being used to achieve this, and on discussions taking place concerning the concept of protection.

(d) Progress reviews - RNI pointed out that they concern teaching staff only, but that CO's should perhaps be included. The relevant staff committee will discuss this at a meeting early next year.

(e) University Catering Services - RNI had been asked by the Catering Services to find a volunteer to help them in a market research survey. The volunteer should contact RNI.

Christmas lunches are now available in the usual refectories.

3. Reports from Committees

(a) Staffing

RNI announced that the Personnel Office consider DCM's contract with the University to have terminated on 30 September 1987. He appears to have taken up a post in a University in Florida. Discussions are taking place with Cognitive Science regarding a replacement.

The closing date for Systems Chair applications was 30 November. 4 had been received and 2 were in the post. The Chair Committee will meet on 17 December (subsequently revised to 22nd), chaired by the Principal. Candidates would not be obliged to give formal seminars in the Department, but would be expected to visit the Department and at least give an informal seminar. The Staffing Committee will be informed about the applications and will investigate ways of sounding out opinions within the Department.

(b) Teaching

PDS reported that this committee had met several times, and that the Agenda and Minutes appear on the Notice Board. If anyone wished to be put on the list to receive copies of same they should contact Kevin Mitchell. PDS commented on the report which had been circulated with the Departmental Meeting Agenda. The next meeting will take place in January.

(c) Syllabus

RNI reported that the documents concerning the new M.Sc. had gone off to SERC. A proposal for an M.Eng. in Information Technology to be put to the School of I.T. Teaching Subcommittee (which meets next week, as does the Syllabus Committee) was discussed. ASW pointed out that items for the Board of Studies in Engng. have to be in by 13 January.

(d) Technical Resources

Due to the absence of the convenor, there was nothing to report.

(e) Equipment

This committee has met twice since the last Departmental meeting. Due to shortage of money, it has only reached the stage of drawing up lists and a draft of priorities. RJP has offered a file server, and LFCS have donated Sun's. Since Escvax is showing signs of wear, its future is under question. The previous date for the winding-down of this machine was summer 1989. Input is required on major capital items to be discussed, and they should be addressed to DWB.

(f) Publicity

The Committee has not yet met but JTB expressed their hopes of holding another "Women in Computing" Workshop next Spring. Any suggestions or help would be welcomed. RNI reported that he had attended a lunch at the invitation of F International, who would likely send people along to the Workshop. He had also met the Chairman of the SDA there who had agreed to sponsor a schools video on computing.

(g) Library

This committee has not yet met.

At this point, RNI belatedly welcomed Damal Arvind to the meeting.

4. UCCA visit on 15 December

RC reported that 4 people had said they would attend. There is no closing date for student entry applications. 60/70 offers have already been made by RC, conditional on English A-level results.

5. Any Other Competent Business

JHB announced that the Departmental Christmas Party would be held on Tuesday, 15 December at 8.00 in the Students' Union, Reviot Row. Tickets on sale from Monday, three pounds for staff and half-price for students. A Father Christmas is currently being sought.

Action JHB

The meeting sent its best wishes to AMF in her recovery from a sinus operation. It also expressed its congratulations to DAW on the recent birth of her daughter.

BCT asked for confirmation that the recent furniture audit had taken place, and was informed that it had.

Date of next meeting - 29 January 1988.

DEPARTMENT OF COMPUTER SCIENCE

DRAFT ANNUAL REPORT 1987/88

Partly in order to make the next research selectivity exercise easier, but also to allow us to have an additional means of publicising our achievements I propose that we record useful information in an Annual Report. This partial draft indicates the form which the Policy Committee believes this report should take, and attached is a pro forma on which individuals can report their own contributions to the relevant sections. I would be grateful if you could complete and return it asap. Please also check the contents of the draft and inform me of any changes/corrections.

The report will be made available for circulation externally as a Departmental Report, and will be circulated to all staff in the department with the annual update to the Academic Plan attached as an appendix.

RNI

Students

Computer Science 1A1h	157
Computer Science 1A2h	137
Computer Science 1B1h	80
Computer Science 1B2h	21
Computer Science 2 (Computer Systems)	76
Computer Science 2 (Foundations)	63
Computer Science 2 (Real Time Systems)	43
Computer Science 3	62
Computer Science 4	47
Information Systems 1Ah	74
Information Systems 1Bh	62

Degrees Awarded

Computer Science	31
Computer Science and Electronics	11
Computer Science and Management Science	4
Ordinary B.Sc.	9
M.Sc.	6
Ph.D.	7

Staff Changes

Dr A.J. Sinclair joined the Department as a Lecturer.

D.K. Arvind joined the Department as a University Demonstrator.

P. Anderson joined LFCS as Systems Development Manager.

Ms M. Findlay joined the Department as a Computing Officer.

D.J. Rogers joined the Department as a Computing Officer.

Mrs L. Rollo joined the Department as a part-time Computing Officer.

Ms R. Soutar joined the Department as a part-time Computing Officer.

Dr C.D. McCarty left to take up an appointment in the USA.

Miss M.C. Norric left to take up an appointment in Sweden.

Staff Activities

Awards

Professors Milner and Burstall were awarded the BCS Technical Award for the programming language Standard ML.

Conferences

Dr M.R. Jerrum organised the Fourth British Colloquium for Theoretical Computer Science in held in Edinburgh, March 1988.

Committees

Visitors

Seminars and Academic Visits

Professor Ibbett visited a number of institutions in China as a guest of the Chinese Academy of Sciences.

Infrastructure

A new CSI Laboratory was brought into service and the use of EMAS discontinued.

All CSI programming work is now carried out in this laboratory which contains 36 Sun-3 workstations running Unix and supported by 3 file servers.

Industrial Collaboration

Research

RNI will collate and edit contributions from research groups

Research Grants

R.M. Burstall, A.J.R.G. Milner and G.D. Plotkin £336,604 from SERC in support of "Computing facilities for the LFCS".

R.M. Burstall, A.J.R.G. Milner and G.D. Plotkin £63,760 from SERC in support of "Systems development co-ordination for the LFCS".

R.M. Burstall, A.J.R.G. Milner and G.D. Plotkin £21,000 from SERC in support of "Computing facility the LFCS".

K.N.P. Mitchell and R.M. Burstall £214,185 from the SERC in support of "ML language development: modules, concurrency and interfacing".

D.J. Rees £55,669, from UKAEA in support of "Idiomatic Floorplanning".

N.P. Topham £2,500 from the Nuffield foundation in support of "Computer architectures for the efficient execution of arbitrarily connected parallel processes."

Publications

External

Internal Reports

- G.J. Brebner and F. King* "The Evolution of the Fred Machine" (CSR-246-87)
- A. Deas* "Chromatic Idioms for Automated VLSI Floorplanning" (CSR-255-88)
- M.R. Jerrum* "A Data Structure for Systems of Orthogonal, Non-overlapping Rectangles" (CSR-239-87)
- D.C. McCarty* "Variations on a Thesis; Intuitionism and Computability" (CSR-245-87)
- R.J. Pooley and M. Brown* "Improved Methods for Performance Engineering" (CSR-253-88)
- R.J. Pooley and M. Brown* "A diagramming paradigm for hierarchical process oriented discrete event simulation" (CSR-254-88)
- A.J. Sinclair and M.R. Jerrum* "Approximate Counting, Uniform Generation and Rapidly mixing Markov Chains" (CSR-241-87)
- N.P. Topham and R.N. Ibbett* "On the Design and Performance of Pipelined Architectures" (CSR-247-87)
- S. Zhu* "XHDL: A Development of CIRCAL its Graphical Representation and Simulation" (CSR-263-88)
- S. Zhu and D.J. Rees* "An Attempt at translating VHDL into CIRCAL" (CSR-267-88)
- ### LFCS Reports
- A. Avron* "Foundations and Proof Theory of 3-valued Logics" (ECS-LFCS-88-48)
- A. Avron, R.W. Harper, F. Honsell, I. Mason and G.D. Plotkin* "Workshop on General Logic" (ECS-LFCS-88-52)
- A. Gordon* "How to Breed Compiler/Interpreters" (ECS-LFCS-88-50)
- T.G. Griffin* "An Environment for Formal Systems" (ECS-LFCS-87-34)
- T. Hagino* "A Typed Lambda Calculus with Categorical Type Constructors" (ECS-LFCS-88-44)
- R.W. Harper* "Constructing Type Systems over an Operational Semantics" (ECS-LFCS-88-59)
- R.W. Harper, A.J.R.G. Milner & M. Toft* "The Semantics of Standard ML - Version 1" (ECS-LFCS-87-36)
- R.W. Harper & J. Mitchell* "The Essence of ML" (ECS-LFCS-87-42)
- F. Honsell* "Models of Self-Descriptive Set Theories" (ECS-LFCS-88-47)
- H. Lin* "Relative Completeness in Algebraic Specification" (ECS-LFCS-87-4)

- Z. Luo* "A Higher-order Calculus and Theory Abstraction" (ECS-LFCS-88-5)
- Z. Luo* "CCC and its Meta Theory" (ECS-LFCS-88-58)
- I. Mason* "Verification of Programs that Destructively Manipulate Data" (ECS-LFCS-87-40)
- A.J.R.G. Milner* "Changes to the Standard ML Core Language" (ECS-LFCS-87-33)
- A.J.R.G. Milner* "Operational and Algebraic Semantics of Concurrent Processes" (ECS-LFCS-88-46)
- A.J.R.G. Milner, M. Toft, D. MacQueen and Appel* "Unifying Exceptions with Constructors in Standard ML" (ECS-LFCS-88-55)
- J. Parrow* "Synchronisation Flow Algebra" (ECS-LFCS-87-35)
- J. Reynolds and G.D. Plotkin* "On Functors Expressible in the Polymorphic Typed Lambda Calculus" (ECS-LFCS-88-53)
- B. Ritchie and P. Taylor* "The Interactive Proof Editor - An Experiment in Interactive Theorem" (ECS-LFCS-88-61)
- D.T. Sannella* "Fifth Workshop on Specification of Abstract Data Types" (ECS-LFCS-87-41)
- D.T. Sannella* "A Survey of Formal Software Development Methods" (ECS-LFCS-88-56)
- A. Tarlecki, R.M. Burstall and J. Goguen* "Some Fundamental Algebraic Tools for the Semantics of Computation Pt.III" (ECS-LFCS-88-60)
- C. Tofts* "Temporal Ordering for Concurrency" (ECS-LFCS-88-49)
- D.J. Walker* "Analysing mutual exclusion algorithms using CCS" (ECS-LFCS-88-45)
- ### Ph.D. Theses
- I. Castellani* "Bisimulations for Concurrency" (CST-51-88)
- M. Cole* "Algorithmic Skeletons: A Structured Approach to the Management of Parallel Computation"
- J. Nizon* "The Automatic Synthesis of Fault Tolerant and Fault Secure VLSI Systems" (CST-50-88)
- K. Prasad* "Combinators and Bisimulation Proofs for Restartable Systems"
- B. Ritchie* "The Design and Implementation of an Interactive Proof Editor"
- M. Toft* "Operational Semantics and Polymorphic Type Inference" (CST-52-88)
- R. Widdowson* "Parallel Algorithms and Architectures for VLSI Pattern Generation (CST-49-88)"
- ### M.Sc. Dissertations