

**Notes of Departmental Meeting held on Friday 1st February 1985
in Room 5210, JCMB at 1530.**

1. Chairman's Business

- (a) PDS announced the appointment of Professor Roland Ibbett to the new Chair and the appointment of Mr Man Chi Pong as Computing Officer.
- (b) Gordon Hughes has submitted his resignation. He will be joining Lattice Logic. No replacement had been made as yet. [Since the meeting, Alistair Scobie had been appointed].
- (c) HMD's post had been filled, until 31st July, by Paul Dunne as a Computing officer. PDS proposed that he should advertise the long-term vacancy for someone in the systems area.
- (d) Two 1st year PG's from RNI group were considering a possible transfer to Edinburgh and his Research Assistant, Nigel Topham, had applied for an SERC Advanced Fellowship to be held here.

PDS said more I T and New Blood posts were to be announced and it was expected that the department would get some of them. Meeting agreed that PDS should get together the selection committee, as appropriate to the posts available.

Action PDS

2. Chairmanship of the Department

PDS asked the meeting to give this question some thought and, after some discussion it was agreed to leave the matter for the February meeting.

3. Invigilating and Examining 1985

The meeting agreed that the arrangements for 1984 had been satisfactory and should be used in 1985. The external examiners for 1985 are:

Prof R.A. Brooker, Essex 1st and 2nd years
Prof B. Spratt, Canterbury 3rd and 4th years

Dates for examiners' meetings were:

19th - 20th June 1985 CS3 and CS4
27th - 28th June 1985 CS1, CS2 and ISI.

Action All

4. Status of DEC 10 and GEC 63 Proposals

SM said the Edinburgh Computing Committee had felt it would be desirable

to keep this comparatively cheap resource within the University. GET might cover the maintenance costs and other costs were then discussed. It was agreed that PDS should pursue this further. It was agreed that if the cost came down to 5K per annum, the matter should be given serious consideration.

Action PDS/All

5. Procedure for formulating equipment requests 1985/6

(i) Computing Policy Group had had its first meeting but had not yet reached the stage where equipment bids could result. PDS asked the following people to consider bids for 1985/86:

SM/JHB	APM	(and	Meteorology
RNP	ISI Lab		
FK	CS1		
RC	CS2 (Real Time)		
DJR	CS3 and VLSI		
GJB	CS4		
FS	MSc		
RNI	Equipment Bids		
GLC	Vax-related items		

APMs RC said the real-time course had so far only received 4 of her allocation of 12-14. 20 - 25 were to be allocated for public areas. PDS asked APM Review Committee to investigate the possibility of the number of APMs which can be located in the Department. SM/JHB to look into future problems with the siting of APMs.

Action PDS/All

(ii) Community Computing Project

RNP/DJR would discuss the contents of Fraser Woodburn's letter of 30th January which was attached to the Agenda.

Action

RNP/DJR

6. Warnings of Interruptions etc.

(a) (See Item 6 with agenda) GLC's proposal was agreed.

(b) GLC would produce a form which everyone scheduling exercises with deadlines should complete. He would publish an up-to-date record of all deadlines. This was agreed.

Action GLC

7. Accommodation

(a) Future Lab Needs

FS told meeting that RNI would need lab space for hardware and additional

lab space for the Real-time course could be required.

(b) Interim needs of Foundations Laboratory

RM tabled a paper on the case for support by Alvey Directorate for the Laboratory for the Foundations of Computer Science. Immediate requirements would be for 4-6 rooms and 3 more in the next academic year.

(c) Plans under consideration in JCMB

A discussion paper on Accommodation in the JCMB had been prepared for the Heads of Departments meeting and was attached to the agenda. RC was not in favour of the suggested lab space on Level 6 and felt that the Real Time course should expand into the North Machine Hall. The question of an alternative Coffee Room was discussed. It was felt that the loss of the kitchen would be a retrograde step. It was agreed that the location of the Department should be as integrated as possible.

Action PDS/FS

8. Matters arising from the December Meeting

GLC said CITHO printer had been bought. It was too early to comment on the new laserjet printer in the Machine Halls.

ASW told meeting that the Department's proposals for B Eng had been through the Board of Studies. It could start in 1986.

Meeting closed at 1715.

Memorandum

To All Staff
Postgraduates
Student Workrooms

From Sidney Michaelson

Date 28th February, 1985

AGENDA for DEPARTMENTAL MEETING

to be held on

Friday 1st March 1985

Time: 15.30
Venue: Room 5210

- (1) Chairman's Business
- (2) Notes of last Departmental Meeting
- (3) Matters Arising:
 - (i) Accommodation
 - (ii) GFC 63
 - (iii) APPLE Mackintosh
- (4) Chairmanship of the Department
- (5) Computing Policy Group - Remit and Working Practice
- (6) Equipment Bids to CEP and Faculty
- (7) Foundations Laboratory
- (8) Any other Business
- (9) Date of next Departmental Meeting - Friday 5th April.

DEPARTMENT OF COMPUTER SCIENCE

THE COMPUTING POLICY GROUP

It was agreed at a recent departmental meeting that this group be set up. Its remit is to review policy on the provision and development of computing equipment in the department, and to plan the overall nature of the services to be provided ~~on this equipment~~. The group's primary purpose is to concentrate on long term policy (timescales of two years or more); initially, it will also need to make recommendations for development of the present equipment and service. It will report to the Departmental Meeting.

While it is recognised that research grant holders have a certain degree of independence in supplying a computing service in support of their research projects it is hoped that they will co-operate with this mechanism and at least seek advice, and, if appropriate, integrate their systems with the department's.

The mechanism by which the group will operate is as follows:

In advance of each diet of CPG meetings discussion papers will be circulated to the department in good time, to canvass input on the issues to be raised. Responses to these papers will be considered at the meetings. Reports to the department will then be issued by the CPG for consideration at departmental meetings. It is intended that the meeting will either accept these reports (with possibly minor generally accepted amendments) or will refer them back to the CPG. Individuals will be able to make further input at that point.

Input to the CPG will normally be expected to be in writing, although, because of the restricted membership it will be necessary, from time to time to invite others with specific experience to attend CPG meeting to offer specialist advice.

Membership of the Group will be:

- Sidney Michaelson - Convener
- George Cleland - Secretary
- Roland Ibbett
- David Rees
- Frank Cringle
- Peter Schofield (as Head of Department)
- Robin Milner

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+ Car Post

**Notes of Departmental Meeting held on Friday 1st March 1985
in Room 5210, JCMB at 1530**

1. Chairman's Business

Meeting expressed its sympathy to PDS on his bereavement.

University Finance

SM reported that Principal had stated the possibility of a 1.5 million University deficit by the end of 1985/86. There could be similar cuts for next 3 years which would make it difficult to do anything about "The Shift to Science and Technology" unless extra funds were provided to the University.

2. Notes of last Departmental meeting

Notes were passed without alteration.

3. Matters Arising

3.(i) Accommodation

FS reported some developments. Heads of Departments in JCMB had met. The following accommodation had been offered to CS:

(a) Physics had offered a laboratory on the 6th Floor for undergraduate teaching

(b) Office Space

JCMB Users Committee would look into the division of Corridor 16 including CS Coffee Room into a suite of offices. Upwards of 10 rooms could be created if the kitchen were removed. CS had asked for rooms in Corridor 26. Possibility of some rooms from Statistics would not be known until Statistics had their Staff Meeting. FS and PDS would meet with Mr Fisk of Statistics. GET would consider giving up 3 rooms in Corridor 26. Meeting were not in favour of dispersing department throughout JCMB and pressed for fairer division of accommodation if possible.

3.(ii) Chairman agreed to take this item out of order.

David Mercer (ERCC) reported to meeting that a second GEC CV63 processor will be installed during next few months as part of the Alvey IKBS Infrastructure Support Project. A proportion of the available capacity of this machine will be used by the support staff on this project. The rest of the available capacity would be used in support of teaching in the School of I.T. The machines would be housed in the Computer Science Machine Halls.

3.(iii) APPLE Mackintosh

GLC told meeting that Apple had offered the University 5 Apples and a

further order with a special deal of 40% discount. Although this was stated as a special offer to Edinburgh it was known that it had been made to other Universities. GET would be discussing better terms with Mackintosh and hoped to get an answer next week.

6.(b) Warnings of Interruptions etc.

GLC presented a Form for Scheduling Exercises for the approval of the meeting. Meeting agreed that it was necessary that this form should be completed. Course Coordinators were asked to give information about their teaching requirements at the beginning of each term. GLC would distribute a copy of the form to teaching staff and secretaries would hold spares.

4. Chairmanship of the Department

SM reminded the meeting that an Election for Head of Department was due to take place. After some discussion SM agreed to speak to PDS about his continuation as Head for further 18 months. Meeting also recommended that senior members of department should meet to discuss this matter.

Action - All Senior Staff

5. Computing Policy Group - Remit and Working Practice

The Policy Group would report to the Departmental Meeting its thoughts on the direction the department should be taking. SM requested people to put papers to the Group giving their views.

Remit document (Paper CPG/85/2) was amended as follows;

"overall nature of the services" should read "overall nature of the computing services"
and "to be provided on this equipment" should read "should be provided."
The CPG would circulate documents to the department which, it was hoped, would result in further input of suggestions.

6. Equipment Bids to CEP and Faculty

Two meetings had taken place on bids within the department. The Deadline for the CEP was 8th March. ISI bids had to go to the meeting of the Microlab Committee on 12th March so GET would put the ISI request forward. A number of APMs had already been provided and it should be decided how many more would be produced.

7. Foundations Lab

RM reported that things progressed slowly and attempts to acquire money for permanent housing were being pursued.

8. A O C B

Some surplus equipment was available from Machine Room. Contact GLC or JHB.

PDP15 - SM suggested it should be offered to Royal Scottish Museum as

Department of Computer Science

Memorandum

To All Staff
Postgraduates
Student Workrooms

From Peter Schofield

Date 2nd May, 1985

AGENDA FOR DEPARTMENTAL MEETING

to be held on

FRIDAY 3rd MAY, 1985

Time:	15.30
Venue:	5210

PLEASE BE SEATED ON TIME

1. Chairman's Business
2. University Open Day (Friday 31st May)
3. Secondment of an ERCC Operator
4. Equipment Bids for 1985/86
5. Offer of a Gould Machine to I.T. School
6. Significant extra UGC funds expected
7. Proposal to limit life of Scribe on VAX/VMS
8. Review of ERCC
9. Matters arising from March meeting

Notes for Departmental Meeting to be held on Friday 3rd May 1985

Item 2 : University Open Day (Friday 31st May)

This item is just to check that the arrangements are proceeding correctly. Eric Mackenzie is in overall charge but all other members of staff are expected to give him support as requested.

Peter Schofield

Item 3 : Secondment of an ERCC Operator

Owing to the closure of the ERCC Bush Machine Halls, the Departments of AI, CS and EE are likely to be offered (free of charge) one extra ERCC Computing Officer apiece. I asked George Cleland to prepare a possible job spec and this is attached.

Peter Schofield

Item 4 : Equipment Bids for 1985/86.

A large number of proposals have been approved by the Computing Equipment Panel. If there are any circulated with this agenda, a summary will follow or be available at the meeting. This item is to consider whether any further bids should be added. The meeting to advise me about placing items in priority order takes place next week (Friday 10th).

Peter Schofield

Item 5 : Offer of a Gould Machine to I.T. School

The Gould Corporation is almost certainly going to offer (£500 capital value) a Gould UNIX machine for the School of ~~A.I.T.~~ ^{A.I.T.} The ERCC are negotiating on our behalf. The details are changing rapidly from day to day but George Cleland should be able to give us the latest news at the meeting. The machine is expected to come free. It had been believed that we should also get free maintenance for the first year but have to find the running costs thereafter. I hear a rumour that we have now been asked to pay running costs in year one also. The next agenda item could be relevant to this.

Peter Schofield

Item 6 : Significant extra UGC funds expected

People will know about the "Shift to Science". The second round of our submissions went off (as usual called for at about three days notice) and we have offered to take students into Computer Science, Computer Science and Electronics, and also into a proposed new Computer Science and Artificial Intelligence Degree. This department has asked for 19 additional staff,

Mini / Char.

including secretarial and technical staff, £170K for equipment, £100K per annum running costs plus new buildings.

Since putting in this bid and quite separate from it, we have just had a letter saying that the UGC is allocating a large sum of extra money to all Computer Science departments to improve student/staff ratios and purchase equipment. We look likely to be getting a considerable sum (perhaps £200K per annum) without this being linked to any additional students. It is quite clear that there is going to be additional money, but just when the size of it is going to be announced (and how much the university may try to subtract for overheads!) is not yet clear. Some preliminary discussions of priorities is appropriate.

Peter Schofield

Item 7 : Proposal to limit life of Scribe on VAX/VMS

As you all know, our departmental VAX/VMS is heavily overloaded. I understand that one of the "killers" is Scribe and that steps to replace it by TEK which is much less demanding on the machine, are in hand. I propose, that a date be set for withdrawal from VAX/VMS. My impression is that a large proportion of usage is from Theoreticians and presumably Scribe would continue to be available to them on VAX/UNIX.

Item 8 : Review of ERCC

As people may know, Dr Thomas is resigning as Director of ERCC to take up a 5 year job setting up an I.F. Division of CSIRO for the Australian Government. He had originally announced his intention to leave Edinburgh in September 1986, and the University had set up a committee to review the future functions of the ERCC before setting about advertising for a replacement for Tommy. (This is similar to the procedure when the holder of any established Chair leaves, but may have had extra impetus as the University is considering its overall organisation in the light of the recent Jarratt report). Sidney Michaelson is a member of the review committee and will of course be glad to have any suggestions made directly to him.

Since all this started, Tommy's specific job for CSIRO has arisen and he has given notice for the end of July THIS YEAR. I understand that Peter Williams will be Acting Director for about a year while the University procedures grind on.

The Faculty of Science has been asked to send its views on the future of ERCC to the review committee and is holding a meeting at 2. p.m. on Wed. 8th May in JCMB, Lecture Room c. Anyone in the department who might be interested is invited to attend. This agenda item is to discuss department policy on this matter. I attach part of a document prepared by George Cleland for another audience, but it gives us some idea of the present functions carried out at the ERCC and their cost.

University of Edinburgh

Department of Computer Science

Secondment of an Operator from ERCC

Job Title: Computing Support Officer

The department has about 60 APM workstations, a VAX 11/780 running VAX/VMS, a VAX 11/750 running Unix, a SUN 2/120 running Unix and 5 Perqs with a total of about 3,000 Mb of disk storage. About 150 terminals access these machines, as well as EMAS via direct wiring, network connections and three ethernetets. The increasing number and complexity of the systems in the department means that further effort is needed in managing and running the computing resource in the department. The person appointed to this post will co-operate with existing members of staff in carrying out tasks to ensure the continued efficient running of the service based round this equipment. The work will cross the boundaries of administration, computer operations and technical work.

Because the nature of the computing facilities in the department is constantly changing it is not possible to lay down a specific job description, but a flavour of the type of work is given from the list of tasks below.

1. Responsibility for monitoring the condition and presence of all computing equipment in the department. This will include
 - a) Checking the functionality of all terminals and APM's on a regular (weekly?) basis,
 - b) Reporting faults to the maintenance manager and in co-operation with him arrange for repair, either by in-house effort or by shipping the unit to a maintenance company. S/He will monitor the progress of any such repair and expedite the device's return to service.
 - c) Assisting the technical staff with installation of equipment and recording its disposition (down to individual board level in the case of APM's). The level of assistance here will be mainly in connection with the logistics of the operation, rather than the technical aspects of the installation.
 - d) Maintaining an inventory of all equipment in the department and a record of its location.

The support officer would be responsible to the departmental maintenance manager in the above duties.

2. Supervising the day to day backups on various systems. This will include:

- a) VAX/VMS backups will probably still be carried out during the silent hours by ERCC operators, but the performance of these procedures will have to be monitored.
- b) Backup on various Unix machines around the department. This will include CSTVAX and any new machines for the Foundations Lab., George Milne's expected new machine, Andrew Blake's Sun workstation.
- c) APM backups. These take place on the VAX/VMS machine over the ethernet. These are the most tricky backups carried out and require a great deal of care and attention.
- d) In all these activities a large number of magnetic tapes will result and this library will have to be managed. Certain critical tapes will be stored off the premises in order to minimise the loss of data in the event of a major disaster.

In all of the above activities close co-operation with the appropriate system manager will be expected and some aspects of the development and maintenance of the backup procedures will be carried out.

3. General

- a) On CS systems equipment is often moved from place to place. The various systems need to be kept up to date on the kind of equipment connected (e.g. type of terminals). This requires that various system databases be kept up to date.
- b) In co-operation with the system management accreditation will be carried out. This will include ensuring consistent username allocation across the various systems used.
- c) Network addresses have been changing at an increasing rate over the past few years. These will be monitored and updated on the address tables on the various machines around the department which provide network access.
- d) It is expected that a photoplotter will be installed in the department during the coming year. This will be used to provide camera ready plots for printed circuit board construction from tapes produced on one of the department's computers. It will also offer a service to other departments. This will require some supervision and maintenance. Operation of the machine will also require a little familiarity with photographic techniques.

George Cleland, 30th April 1985

INCOME AND EXPENDITURE ACCOUNT
FOR THE YEAR ENDED 31 JULY 1985

Actual
for 1984

	£	£	£
INCOME			
Grants: Computer Board		715000	
University of Edinburgh		1761467	
		2476467	
Sales: Research Councils		80000	
Industry		112000	
Treasury funded organisations		188000	
University of Edinburgh		33000	
Other universities		2000	
Software contracts		244000	
Staff contracts		639000	
Factoring & recovered costs		461000	
Administrative services		209000	
Projects		302000	
Miscellaneous		17000	
SERC DEC-10 contract		5000	
		4109467	
EXPENDITURE			
Staff costs: Academically related			
Other		1936745	
Casual			
Mats & succ: Travel & subsistence		71300	
Computer materials		134039	
External service charges		236635	
Postframe maintenance		435820	
Telecommunications		166000	
Engineering development		25050	
Information & training		100954	
General expenses		207705	
Factoring & rec costs		451000	
Stock adjustment		1840482	
		1340482	
Use of SERC Contract / facilities			
Overheads		230800	
Bad debts			
Transfer to CAST		50000	
		4058027	
Surplus/deficit for year		51440	

SUMMARY STATEMENT OF RESOURCES

Appx Function	Number of staff		Salaries		Materials	Income
	Acad related	Other	Acad related	Other		
2 Sen Management	3	3			6000	670000
3 Administration	3	17.5			722030	
4 User Support	8.5	3			2010	
5 Central Systems	14	1.5			13750	
6 Compilers	5.5	4			10930	
7 DECsystems-10	.5	.5	3		74000	115340
8 Operations	3	23			787450	
9 Service Support	2	8.5			6400	
10 Communications	1	2			36680	
10a Comms (DSLAN)	3	1			7620	
11 Engineering Supp	2	8			41680	76000
12 Measurement	2				199640	
13 Small Systems	4.5	1			1000	
13a IBM Project	.5	2			17530	122480
14 UNIX Systems	1.5	2			66240	
15 DEC Project	1	2.5			5000	67320
16 Training	4	.5	2		21670	
17 Data Preparation	.5		6		4350	
18 Text Processing	1	1			6500	
19 ASET					4400	10000
Sales of services						656000
Computer Board grants						715000
Edin Univ grant						1761470
Sub totals	60.5	16.5	76.5		1930840	4193610

EXPENDITURE: 3928970
INCOME: 4193610

ERCC Review Committee

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As most will know Dr. Thomas is going to Australia in August to set up a new IT Division for the Australian government. As is usual when a post occupied by a professor or senior member of staff leaves a review committee has been set up. This committee will be examining the functions of ERCC and producing a report which will be passed to the Edinburgh Computing Committee and then to the Educational Policy Committee. A decision will then be made on filling the position of director of ERCC in the light of the expected role of ERCC in the University.

ERCC has a clearly defined management structure and these outlined below. Where possible some indication of the responsibilities and interests of the groups is given along with cost of running the groups. The cost figure is a global one allowing for university overhead, all supplies, capital and recurrent costs. Income is also given in some cases but this of necessity often covers several groups and often one group could not generate that income without the support of other groups.

It may be appropriate to comment on the present function and perceived effectiveness of the various groups individually with an overall set of recommendations at the end. While we should not comment directly on organisations outside ERCC it may be appropriate to comment on ERCC's relationship with other bodies. Specifically CAST and DPU both represent significant investment in computing within the University.

The members of the Review Committee are :

- Dr. A.J.Crosbie, Geography, Convenor
- Mr. A.F.Woodburn, Old College, Secretary
- Prof. S. Michaelson, Computer Science
- Mr. F. Beckhofer, Research Centre for the Social Sciences
- The Director of Finance
- Prof. J. Collins, Centre for Speech Technology
- Dr. D. Sillitto, Physics
- Dr. G. Stacey, CAST
- External Assessors: Dr. G.R. Field (Director, ULCC)
- Prof P.H. Ford (Director, U. of Nottingham CC)

The committee expect to report by early autumn.

Details of individual groups follow on the next page and following that the expected income and expenditure account and summary statement of resource for the year to 31st July 1985.

Group Title	Manager	Acad. Other staff	other	Income	Stat Nos. Cost (#x1,000)
Senior Management	Dr. G.E. Thomas	3	3	100	6
Administration	David Marshall	3	17.5	172	722
User Support	Charles Mackinder	8.5	3	144	3
Central Systems	Peter Stephens	14.5	1.5	257	14
Operations	Colin Davies	3	23	364	787
Compilers	Geoff Millard	9.5	-	142	11
DECsystem-10	Jeff Phillips	1	3	74	74
Service Support	Clive Nicholas	2	9	126	6
Communications	Brian Gilmore	3	-	*	7
OSLAN Project	Scott Currie	4	-	64	41
Engineering Support	Frank Barratt	2	8	100	200
Measurement	Roy Middleton	2	-	*	1
Small System	Pat Moran	5.5	1	79	18
IBM Project	Pat Moran	2.5	-	*	66
Unix Systems	Kath Favis	3.5	-	38	5
GEC Project	David Mercer	3.5	-	44	22
Training	Morton Ogilvie	4.5	2	83	4
Data Preparation	Bill Aitken	-	6	50	6
Text Processing	Jeff Phillips	0.5	-	*	-
ASET (ADA Project)	Ian Richmond	2	1	30	4

* indicates a small group where giving costs may reveal personal salary information

(+) expenditure and income largely offset each other in this area (reprographics, stores, factoring etc.)

(=) sale of machine time, mainly EMAS and VAX/VMS. This income also accrues to operations, user support, and service support

Notes for Departmental Meeting held on Friday 3 May 1985
held in Room 5210 at 3.30 p.m.

1. Chairman's Business

- (a) Apologies for absence were received from Rod Burstall, John Dow, and Sidney Michaelson.
- (b) PDS welcomed Roland Ibbett (Professor Elect, to date 1st July 1985) to the meeting.
- (c) PDS welcomed Man Chi Pong and Alastair Scobie, Computing Officers, to the Department.
- (d) Before the meeting discussed individual items, PDS pointed out that additional resources were likely to accrue to the department from at least some of the following sources. Some of the issues were therefore inter-related.
 - (i) I T Lectureships. We had been allocated 1.5.
 - (ii) "The Shift to Science". (Outcome unknown).
 - (iii) "Extra money for CS Departments generally" (Item b)
 - (iv) A Computing Support Officer (from ERCC), (Item 3)
 - (v) A Gould Powermode 9080 (Item 5)
 - (vi) Alvey support for Foundations Laboratory
 - (vii) The usual UGC Equipment Grant for 1985/86.

Other departments were trying to be helpful (3 rooms from Statistics, 2 rooms from ERCC and 1-2 laboratories from Physics). Nevertheless, there were acute accommodation problems looming ahead.

(c) Foundations Laboratory. RM reported that negotiations are still in progress with Alvey who have a cash flow problem. The Director of Alvey would visit the Department on 8 May and the lab has top priority. There is the possibility of using temporary accommodation in JCMB and Physics have offered a laboratory in addition to an offer of 2 rooms. It may be possible to get some UGC money to extend the Lab later on.

2. University Open Day - Friday 31st May

PDS drew attention of the meeting to the Open Day in 4 weeks time. RAM said all the administrative details were in hand and he would approach anyone in the department that he needed to help with the Open Day. Those already involved should check with him as soon as possible. ASW said the Handbook was at the printers and should be ready for Open Day. Alastair Scobie would be in charge of the demonstrations for APMs.

3. Secondment of ERCC Operator

PDS asked for comment on GLC's document. It was thought that the operator

should be involved in the Laboratory at AT and that dealing with the photoplotter should be high on the priority list. It was proposed that CS and AI should define a post which would be open to all the operators at ERCC and that CS could then choose the most suitable candidate, if one was offered. Meeting agreed. **Action PDS**

4. Equipment Bids for 1985/86

PDS announced that Equipment Meeting would take place in Room 3309 at 3.30 p.m. on Friday 10th May. The following comments were made on the list circulated:-

RC's Real-Time course needed another 10K.

RNP said the Apple proposal had been rejected but discussions were proceeding on purchase of small number of Apples for Micro Lab. These would need to be added to the ISI bid. **Action RNP**

GJM asked about Video Camera. PDS asked him to contact Audio Visual about this.

PDS suggested that colour projection should be added to the list.

The meeting suggested addition of more terminals for teaching purposes.

Question of APM bids should be dealt with by SM.

Action SM

RNP asked about upgrading graphics and JJ said RNP had been allocated 3 Graphics Systems under the previous year's funding.

Terminals to be run on Gould Machine should also be added to the list.

RNP said that disc controller boards were needed for test facilities.

JHB asked for 10% to be added to APM part of bid to cover spares. (This had been incorporated in the paper tabled at the meeting.)

5. Offer of Gould Machine to I T School

The rights on software development on the machine would belong to Gould but they would make it available to the School. GET arranged that School of I T should approach ERCC for assistance to manage this equipment. The languages available on Gould Machine would be Pascal, Lisp and possibly Fortran and Modular 2.

GLC thought CS's share of the machine should be based on the number of FTE in the Department. A full-time manager would be needed. PDS thought we would be likely to put a substantial load on the machine. FS asked about moving M.Sc. on to it. Insufficient information was available for any firm decisions to be taken.

GLC reminded meeting that GEC 63 machine was still available and under used. RW and ASD would be willing to move to GEC63. To reduce load on VAX RM was in favour of moving ML for CS2 on to Gould Machine. Both ASW and DJR favoured more memory for VAX and GLC thought future of VMS should be discussed later.

Computing Policy Group

SM and GLC had nothing new to report from last meeting.

6. Significant extra UGC funds expected

PDS reported that we might get something like £200K per annum extra recurrent money from 1985/86 on. Date for firm information was unknown, but reported to be "soon".

Specific suggestions for use of the money included:

(i) More teaching staff.

Complexity	(Names from RM/MRJ)
Architecture	(Names from RNI/DJR)
'Operating Systems'	
Compilers	
Visiting Lecturer Post	
Part-time staff from industry.	

(ii) More Computing Officers, Technical Staff, Secretaries.

(iii) Administrative assistance.

7. Proposal to limit life of Scribe on VAX/VMS

ASW recommended TEX as a substitute for Scribe although there are few users of TEX in department at present. The following points were made:

1. PDS said try and press on with TEX and advertise it.
2. Produce a registrar of Scribe Users and how they wish to use it. Guide lines of good practice should be presented.

MIRJ asked for Departmental support for Scribe for at least 2 years. JHB said that we should announce that scribe will be substituted by Tex. Timescale to be agreed when progress on TEX was more clearly seen.

Action GLC

8. ERCC Review

Faculty of Science Meeting would be held on 8th May to discuss the future of ERCC. Input was welcomed. RNP to prepare document for meeting on Wednesday 8th May.

Action RNI

Gould Machine

PDS, SM and GLC reported on progress of negotiations for the Gould Machine. SM said Gould would make an announcement during Alvey Week (muted), to avoid treading on the toes of British manufacturers). I T School had agreed, in principle, to accept the machine, with gratitude. Earlier that afternoon ERCC had produced a paper proposing management arrangements. SM and the 3 Heads of Departments would meet with GET at 9 am on Wednesday 12th June to discuss this document. Any member of the department who wished to read the proposals and comment thereon could see it in Kate's room. Despite an earlier agreement that CS would house the machine, it was believed that ERCC might now press to house it in their premises. GLC considered this would seriously prejudice communication arrangements for CS and EE. The meeting reaffirmed the desire to house it in CS Machine Halls. SM read out the ERCC proposal on allocations. SM and the meeting at large protested violently at the proposal to allow ERCC management a one hour development slot at 1300.

The meeting discussed the teaching that might be transferred to the Gould Machine. The following were suggested:

CS2 - ML plus as much else as possible.

SPICE for CS4 and MSc.

Document preparation (TEX).

Modules as possible from CS4, CS3 and MSc.

It was agreed that GLC would discuss with Course Coordinators which modules could be moved. The MSc Introductory Course and Software Tools were also suggested.

It was agreed that GLC would arrange to purchase some UNIX Manuals.

Action - GLC

6. Accommodation in JCMB

Corridor 16

(a) PDS told meeting that work was due to start on Corridor 16 to add windows to storerooms and make alterations to the toilets and then to upgrade all rooms to normal JCMB standards. 5 rooms at the North End should be completed by October and the rest by Christmas. GLC would look into the colour scheme. He would also make recommendations on data lines needed and coordinate these with FS's list of telephones and power point requirements.

Action - FS, GLC

Relocation of Coffee Room

(b) PDS recommended department should move from the present Coffee Room to the west half of Block OP and this area would be carpeted and refurbished. SM suggested that it might be possible to gain even more rooms by combining both male and female toilets.

Action - PDS, FS

Foundations Laboratory

Notes for Departmental Meeting held on Friday 7th June 1985 at 3.30 pm in Room 5210, J C M B

Present: PDS, RNI, GLC, GM, NWB, MCN, RAM, ASW, JJ, KK, JCD, RNP, DB, SM, CL, AJS, Mark, GDP, MCP, RM, RDW, FDC, PRASAD, NGT, DIR, JHB, KBD.

1. Chairman's Business

Apologies reported from: AD, IBH, IMN, MIC, DMC, RMB.

2. Alvey Week

PDS reported that "Alvey Week" would take place on 24th - 27th June. It was agreed that we should offer demonstrations in the AT (coordinated by GLC and JHB) but would not receive visitors to the department at KB.

Action GLC, JHB

RNP suggested loan of a Barco Projector. The meeting suggested that RNP arrange a demonstration of this at KB, keeping this activity separate from Alvey Week.

Action RNP

3. Membership of Edinburgh Computer Users Committee

The Edinburgh Computer Users Committee, was a sub-committee of the Edinburgh Computing Committee which controls computing in the University. ECUC had proposed that its membership should be changed. Direct Faculty of Science representatives should be reduced to 3 and would be appointed by the Vice Dean. More representation should be allocated to other Special Interest Groups. SM said this proposal had been accepted by the Edinburgh Computing Committee on the previous day. It was agreed that PDS should write to Faculty to state that CS wished to continue sending a student representative to the ECUC. It was further agreed that representation on ECUC should be an item for discussion at the next School of I T Meeting.

Action - PDS, SM

4. Arrangements for Allocating Teaching 1985/86

It was agreed that a meeting be held on Friday 5th July at 2 p.m. in Room 5210 which would be followed by the monthly departmental meeting at 3.30 p.m. PDS would circulate a document prior to the meeting.

Action - PDS

The lab had been allocated 4 rooms for Assistant Director and other staff.

6th Floor Laboratory

(d) Various suggestions were put forward for the use of the space on the 6th floor.

1. Real-Time Course - JBH to investigate. Move MSC workroom to 6th floor.

Action - JHB

2. Terminal Room
3. Student Work Room (? MSc)

7. Matters arising from May Meeting.

ERCC Review (Item 8 from Notes of previous meeting)

RNP's document had been passed to Faculty of Science Office and copied to PDS and SM. RNP told the meeting that APPLE UK had decided to offer some equipment free of charge and the department should decide what should additions should be made to this. PDS stated that an item covering this had been inserted into our equipment bid.

8. Any other business

CL had circulated a paper asking for assistance with equipment for the University of Nicaragua. RNP would bring this to the attention of the Micro Lab at AT within the next few days. The meeting agreed that this request should be passed around the department.

As there was no other business the meeting closed.

Department of Computer Science

Memorandum

To ALL.

From PDS

Date 7th June 1985



AGENDA FOR DEPARTMENTAL MEETING

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*****
*
* Time: 15.30 on Friday 7th June, 1985.
*
* Place: J.C.M.B., Room 5210.
*
*****
    
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1. Chairman's business.
2. Alvey Week, 24th - 27th June.
3. Membership of Edinburgh Computers Users Committee.
4. Arrangements for allocating teaching, 1985/6.
5. I.T. School machines (Gould and GEC 63).
 - (a) Progress report on negotiations.
 - (b) Accommodation.
 - (c) Teaching to be done on them?
6. Accommodation in JCMB.
 - (a) Corridor 16.
 - (b) Coffee room.
 - (c) Foundations of CS Laboratory.
 - (d) 6th floor laboratories.
7. Matters arising from May meeting.
8. Any other business.

/Notes for

Notes for Departmental Meeting, 7th June, 1985.

Item 2: Alvey Week, 24th - 27th June 1985.

This is being organised by Alvey in Edinburgh, 24th-27th June. After a meeting with some key departmental people involved, I agreed that we should contribute to the exhibition in Appleton Tower (we shall be in part of the Micro-lab). However, in view of examiners meetings that week, I refused the request that we should receive bus-loads of visitors to the department at EB.

Item 3: Membership of the Edinburgh Computer Users Committee.

John Butler and Gordon Hughes were our representatives. We were asked to reduce to one, and John Butler withdrew. Now JGH has left. For a meeting earlier this week, I asked George Cleland to attend as an interim representative, without prejudice to the future. He will report on some proposed change of structure in that committee, which might affect our views on representation.

Item 4: Arrangements for allocating teaching, 1985/6.

A date needs to be agreed for our usual meeting to agree teaching duties for the coming year.

Item 5: Accommodation in J.C.M.B.

£45K has been allocated to build windows in the store rooms in corridor 16 and upgrade all rooms to the same standard as the rest of the building, roughly on the lines of the plan circulated by FS some months ago. After informal discussions with a number of people, I have agreed that at least most of this plan should go ahead. We could insist on keeping our options open by having the kitchen sink left in the present room, but on balance I think all those I spoke to seem to agree that it would be best to move coffee (and the reading room in room 1616?) back up to the west half of Block O/P. Money can be found for carpets and general amenities; the lobby with the sink can be upgraded to a small kitchen. It may not be ideal, but on balance with the sunnier outlook, I think we can make it better than the present arrangements. With the expanding need for offices, I think we have little option.

Terminals can be packed more tightly in the east half of Block O/P, and many more can usefully go into the machine halls. Not so convenient, but we have two ex-Physios laboratories on the 6th floor. One is ear-marked as a teaching laboratory for Roland Ibbett; the other was originally thought of for partitioning up into temporary offices for the Foundations Lab. Now that immediate needs (four rooms) of this Lab can be met in corridor 16, we might consider putting terminals into the 6th floor laboratory. (Only terminals to machines that the general public do not have user numbers for, to avoid them becoming public terminals that we pay for.) We could also consider displacing the GEC machines from our machine halls to 6th floor. (I have already given notice that we reserve the right to give notice to quit to the GEC machines, when space gets tight.)

Department of Computer Science



Memorandum

To All Staff Postgraduates

From Peter Schofield

Date 4th July, 1985

AGENDA for DEPARTMENTAL MEETING

to be held on

FRIDAY 5TH JULY

Time: 15.30
Venue: Room 5210

1. Chairman's Business
 - (a) New money for Computer Science
 - (b) Staffing
 - (c) ICL studentship
 - (d) Report of new Alvey Projects

2. The Engineering and Technology Programme. (Formerly "The Shift to Science")

3. Possible CAD/CAM initiative.

4. Progress with Gould PN9080.

5. Equipment allocation for 1985/86.

6. Proposals for Joint AI/CS degree.

7. Matters arising from June meeting.

Knowledge Representation and Inference 1
Lisp
Knowledge Representation and Inference 2
Vision

and in 4th year:

Expert Systems
Natural Language Processing
Mathematical Reasoning
Robotics

This joint degree is one of the components of our proposals under the Engineering and Technology Programmes, for which we are requesting new resources.

Peter Schofield

Notes for Departmental Meeting to be held on Friday 5th July, 1985

Item 2 : The Engineering and Technology Programme

We now expect to hear in mid-July whether or not we are still in the running for money under the Engineering and Technology Programmes, which was formally referred to as "The Shift to Science". If we are selected, it will be conditional upon us giving a clear indication of a satisfactory level of support from industry within eight weeks of the announcement. Guidelines on the forms of industrial support that will count are attached. A curious feature of this requirement seems to be that industrial support now quoted must consist of new offers which were not quoted in our previous submission. We believe that the Gould machine comes in this category since, although we have written about it before, the letter was sent after the main submission! It is now important that we endeavour to obtain further promises of industrial support.

Item 3 : A Possible CAD/CAM Initiative

A letter about a CAD/CAM initiative is attached.

Item 4 : Progress with Gould PN9080.

Sidney Michaelson will report verbally on progress with the Gould PN9080.

Item 5 : Equipment Allocation for 1985/86.

Peter Schofield will give a verbal report.

Item 6 : Proposals for Joint AI/CS degree

A group within AI have produced a discussion document outlining their thoughts on their contribution to a Joint AI/CS Honours Degree. Their full document is too lengthy to duplicate for inclusion with this agenda, but copies are available from Heather Carlin's desk. They suggest modelling this degree after the manner of our existing "Thin" structure for Joint Honours Degrees, namely that used in CS & Electronics and with CS & Physics, but not the fat structure we still use for CS & Mathematics. As I read it, they are recommending that AI1 be "highly recommended" but not compulsory and that AI2 be compulsory. They propose that they should contribute the following modules to 3rd year:

Knowledge/....

For item 2.

ANNEX

GUIDELINES FOR INDUSTRIAL SUPPORT

Appropriate forms of direct industrial support for institutions contributing to the Engineering and Technology Programme include:

- (i) assistance (financial or in kind) with relevant equipment;
- (ii) financial assistance with accommodation;
- (iii) financial assistance with teaching staff (eg supplements to salary; joint appointments);
- (iv) additional sponsorship of students on courses;
- (v) loan of staff for part-time teaching (including visiting professorships);
- (vi) provision of additional training places (eg for sandwich courses).

2. Less direct forms of assistance to departments contributing to the Programme may include:

- (i) commissioning of research work;
- (ii) consultancy arrangements;
- (iii) "teaching company" arrangements (joint work on research or development between industrial firms and universities).

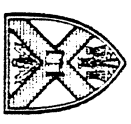
3. Assistance in these forms should either be directly related to the institution's contribution to the Programme, or directly benefit the department(s) concerned. Relevant support should be additional to, and capable of distinction from, any existing support arrangements or implementation of earlier commitments.

4. The information on this additional assistance should include details of the financial value of commitments secured, of any other relevant quantitative indices, and the duration of the assistance offered. It would be helpful if other relevant existing support could be quantified for comparison.

5. If there are other relevant forms of support not covered by paras 1 or 2 above, please indicate their nature and the particular benefit to the course or department concerned.

For item 3

DEAN: Professor J.M. Michigson F.R.S.
 VICE-DEAN: Dr. J.C.P. Schwarz
 ASSOCIATE DEANS: Dr. D.W. Arthur, Dr. J.M. Hannah
 SENIOR ADMINISTRATIVE OFFICER: Mr. M.H. Lucas, BSc.



UNIVERSITY OF EDINBURGH
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28th June 1985

TO: HEADS OF DEPARTMENTS OF:

- Artificial Intelligence
- Civil Engineering & Building Science
- Chemical Engineering
- Computer Science
- Electrical Engineering
- Mechanical Engineering
- Physics

CAD/CAM Facilities for Teaching

I enclose a copy of a letter which has just been received from the UGC. Our office has been asked to explore the implications of this in the Science Faculty; Mr Woodburn will be consulting the Department of Architecture.

Our preliminary view is that Mechanical Engineering should be given high priority in our submission. However, the letter has a more general flavour and, indeed, mentions 'a general CAD/CAM facility'. Clearly, we need to work out how the University's submission is to be put together and to this end it would be helpful to have by Monday 8th July at the latest a quick preliminary response to the questions posed by the UGC (an earlier telephone reaction would be helpful).

Additional points which come to mind and on which it would be helpful to have comments include:-

- a) Whether you think that 'a general CAD/CAM facility' makes sense in the Edinburgh context.
- b) Whether you have any comments on the scope of the letter which mentions CAD/CAM in two places, but also refers to CAD which is presumably of wider relevance. Do we have any information as to what is in the mind of Professor Forty's group? If there is no information inside the University, we could ask Mr Woodburn to take soundings in the UGC.
- c) Whether you think that there is any scope for collaborating with the Heriot-Watt.

Peter Schwarz

Dr J C P Schwarz
Vice-Dean



UNIVERSITY GRANTS COMMITTEE
14 Park Crescent London W1N 4DH

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2921

RECEIVED	AF4:4
25 JUN 1985	sub:11
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SUC	AF4
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GEN	
ADM	

Your reference

Our reference 5003/071

Date 21 June 1985

Dear Registrar

CAD/CAM FACILITIES FOR TEACHING

On advice from its Technology Sub-Committee the Committee has decided to use some money from its uncommitted reserve in the next academic year for the provision of computer-aided design/computer-aided manufacture (CAD/CAM) facilities for teaching. Because of the rapid growth in the use of CAD facilities in industry, there is a need to improve the standard of undergraduate and postgraduate training in CAD in departments of engineering and architecture and those science departments in which electronics is taught. A group under the chairmanship of Professor Forty, University of Warwick, will advise the UGC how funds should be allocated for the purpose. The general object will be to provide assistance to all universities where there is a need for CAD teaching.

There will be a need for some coordination in the purchase of both hardware and software to ensure that the money is spent in the most effective way. The group needs to know what has already been done in individual universities so that it can support the further development of their investments in this area. I am writing to invite you to consult as necessary with your academic colleagues and send details of:

- (i) Any needs you have identified for CAD facilities;
- (ii) Any special requirements which could not be met by a general CAD/CAM facility to meet the needs of the engineering faculty in your university;
- (iii) The provision you have already made for this purpose and any plans you have for making provision in the future (with the dates of any major investments planned);
- (iv) How you would propose to use a grant of, say, £100,000 towards meeting your needs.

I should also be pleased to receive any views you have to offer about the merits of particular hardware or software for teaching CAD, and the extent to which standardisation is necessary or desirable. The advisory group will want to consider, and perhaps discuss with manufacturers, whether by limiting the range of options it may be feasible to make advantageous arrangements for bulk purchase.

The advisory group hopes to meet before the next academic year, and a reply by 1 September would be helpful. Please address it to the Secretary of the Technology Sub-Committee. Any questions you may have on this letter should be addressed to Miss Anne Lawson or Mr Garvin Mike (Exts 266 and 262 respectively).

Yours sincerely

Anne Lawson

ANNIE LAWSON (Miss)

Present: GLC, FDC, IBH, GM, RDW, MCP, FS, P.J.L, J.J, RAM, RNP,
FK, MCN, RC, DTS, SM, RNI, PDS, KBD, CL, JHB, AB.
Apologies: CPS, DWB, RB

1. Chairman's Business

(a) New money for Computer Science
PDS reported that at Senatus the Principal had said a letter was on its way from
UGC to inform the University about new money.

(b) Staffing

The meeting congratulated Matthew Hennessy on his appointment to a Chair at
University of Sussex from 1st December.

PDS welcomed Don Samella, who had been appointed to the joint CS/AI lectureship
as from 1st October. PDS expected shortly to appoint to a new I T Lectureship for
VLSI; Clemens Lautemann's and Rainer Thomes' contracts had been extended.

As a result of advertising in ERCC, saying there would probably soon be
opportunities for posts in CS, several enquiries have been received.

(c) ICL Studentships

GDP had negotiated an agreement with ICL to fund 2 postgraduate studentships in
the department. This offer would enable the department to take up our full quota
of studentships.

(d) Report of new Alvey Projects

George Milne had been awarded an Alvey Grant which covered 2 RA posts. The
meeting congratulated him.

The Alvey money for the Assistant Director of the new Foundations lab had been
provided and the post would be advertised shortly.

2. The Engineering & Technology Programme (see Agenda notes No 2)

CS would be told by mid July whether the department had been selected for
provisional funding under this scheme. If so selected, we shall still be required to
furnish proof of significant new industrial funding. The following were discussed:

- (i) \$750,000 from Gould Inc.'s British subsidiary for Gould Machine.
- (ii) 2 Studentships from ICL. (GDP)
- (iii) ICL Courses. (MCH)
- (iv) Equipment for hardware teaching lab. from Hewlett Packard. (RNI/IBH)
- (v) Undergraduate Prizes from Industry.
- (vi) Industrial support for VLSI Workshop. (SM)
- (vii) Harwell funding for MSc Module on CAD. (AD)
- (viii) New Case Studentships from Lattice Logic (Oct.84/Oct.85). (DJR)
- (ix) UNICAB had made an approach on funding 2 MSc studentships. (RAM)

but would be agreeable to some of the above being diverted for Real-Time course equipment. PDS hoped to find other funds (e.g. UGC New CS Money) for the real-time equipment.

20 Terminals for Gould	12.8K
DMAcs Board for production	3K
5 APMs for Hardware Teaching	2.75K
35 Terminals for CSI	22.4K
Microtext II-Circuit Emulator	11.4K
Terminal Multiplexor for ECSVAX	3.1K
STAG Universal PROM programmer	6.3K
PCBs for APMs	7.7K
Met Filestore	3.5K
Total	97K

The Dean's committee had allocated funds for:

5. Equipment Allocation for 1985/86

There will also be either a Users Committee or departmental users' committees. ML would soon be available on Gould.
Steering Committee (Top Committee)
Implementation Committee (Sub of Steering Committee)
Management Committee (Sub of School of I T)

SM told meeting that the 3 departments of School of I T would provide maintenance funding and Edinburgh Computing Committee would fund the Management Staff. School of I T would be in charge of overall resource allocation. Basis was 10% for general service, 90% for teaching in School of I T and providing available software for this. Anything developed on Gould Machine must be offered to Gould with 50% of profits from it coming to University. SM said the Committee structure would be as follows:

4. Progress with Gould

SM agreed to investigate a proposal for a Mask Making Project from School of I T.
Action SM

Letter from Vice Dean was discussed. Meeting was in favour of making proposals in response to the letter. RNI suggested an approach to Ferranti to ask them to send someone to teach our students. GM agreed to put forward a proposal for CAD for design, after discussion with DJR.
Action GM

3. Possible CAD/CAM initiative (See Agenda Note 3)

Meeting felt that someone should coordinate our approach to industry and liaise with the new Assistant Director of the Foundations Lab, when appointed. RNI agreed to take this on.
Action - RNI

PDS said SDA had offered, on our behalf, to approach any company we wish to contact. He also wished to up date the list of consultancies and would circulate a note on this to staff.
Action - PDS

- (x) PDS to check with D of S's on any new student sponsorship.
- (xi) GM said he was negotiating with DEC for 50% discount on equipment.

6. Proposals for Joint AI/CS degree (See agenda note 6)

The AI paper on the proposed new joint degree was discussed. Meeting agreed that the proposal should be generally welcomed. PDS and SM would talk to AI on Monday 8th July but meeting agreed that the choice of CS modules for this degree needed re-consideration. Meeting also agreed that CS should also form a Working Party to consider the CS details. RC,AB,SM & RNI were named for the Working Party.

Action - RC,AB,SM,RNI

RNP agreed to produce a proposal on paper for combined teaching involving AI, ISI and EE to be considered by the Working Party.

Action - RNP

GLC asked PDS to consult KK on the subject of AI Teaching. Meeting agreed CS should go for greater AI content in our 1st year course.

7. Matters arising from June meeting

Alvey Week

PDS thanked those on staff who put effort into Alvey Week and said the Principal had written a thank you letter to all involved, with apologies for lack of visitors to the exhibits. Meeting made two proposals:

(i) a Publicity Officer should be appointed.

(ii) an Assistant to the Head of Department should be appointed.

Action - PDS

6th Floor Laboratory.

RC considered that this was unsuitable for the real-time course.

CS Syllabus

It was proposed to set up a Working Party under the Chairmanship of RNI to review the CS syllabus. The proposal was accepted. Membership of the Working Party was left to RNI.

P.T.O.

1. Progress report on UGC "New CS Money"
2. Use of Block O/P, rooms 6301, 2308, 3316 for 1985/86.
3. Implications of "The Shift to Science" for 1986/87.
4. Wider circulation of minutes of IT School committee, etc.
5. Possibility of contention switch.
6. Matters arising from July meeting.

*
* NOTE NON-STANDARD TIME AND VENUE *
*

TIME: 14.00
VENUE: ROOM 3309

AGENDA FOR DEPARTMENTAL MEETING
TO BE HELD ON
FRIDAY 2nd AUGUST, 1985.

From PETER SCHOFIELD
Date 1ST AUGUST 1985.

To ALL STAFF
POSTGRADUATES

Memorandum

Department of Computer Science



Item 1: UGC "New CS Money"

P. Schofield will report verbally.

Item 2: Room use for 1985/86

The following are proposed:-

- (a) Block OP (West) - Coffee Room
- (b) Block OP (East) - General Terminals
- (c) Room 6301 - M.Sc. workroom and terminals
- (d) Room 3316 - CS4 workroom and terminals
- (e) Room 2308 - for discussion

G.Clelland will bring to the meeting a diagram of proposed layouts for (b) and (c).

Item 4: Circulation of minutes

G.Milne has suggested that minutes of the IT School committee should have wider circulation. The meeting could have a brief discussion of desirability and mechanism, noting that a good few other committees might also be relevant.

Item 5: Contention switch

R.Ibbett and G.Clelland have been discussing mechanisms for switching terminals between machines (VAX, Gould, APM, EDNET, etc). A paper from G. Clelland will either be attached to this Agenda or circulated at the meeting.

Notes on Departmental Meeting held on Friday 2nd August 1985
at 2 p.m. in Room 3309, JCMRB

Present: FDC, JCD, RAM, GLC, RNI, DWB, NWB, MCN, RDW, KVSP, MRJ, IMW, GM, ALI, MCP, SM, RWT, IBH, ASW, AD, PTL, KBD, JN, PDS (Chairman)

Apologies: RM, GDP, RNP.

0. Chairman's Business

New Appointments

(a) Chairman congratulated the following upon new appointments to the department:

(i) Gordon Brebner appointed to IT1 Lectureship.
(ii) Nigel Topham appointed to a lectureship in 1 year's time. During 1985/86 he will hold an SERC postdoctoral fellowship.

(iii) 3 Computing Officer appointments from ERCC staff - Ken Chisholm, Archie Howitt and Ann Mackintosh.

(b) PDS congratulated Moira Norrie would be taking up a lectureship at UMIST as from 1st January 1986. Mark Jertum would take over the Departmental Library and ordering of books, journals etc. from Moira Norrie.

1. Progress Report on UGC New CS Money

The CS New Money had arrived at last.

(a) The Principal had determined that for 1985/86, £15K of this money should go to the Library for CS, AI and Epistemics' needs. He would like to see a joint proposal from the 3 departments. PDS observed that on the basis of FTE's, the CS share would be about £10K. He asked MCN/MRJ to co-ordinate our request with AI and Epistemics. Meeting suggested the purchase of multiple copies of textbooks for our students and that it would be helpful to compile a complete list of all the textbooks used in department. MCN had circulated staff asking for suggestions for books with, however, little response.

Action MCN/MRJ

(b) The Principal had allocated £18.8K of the new money to cover heating, lighting, administrative overheads etc. which represented 4.8% of the total amount.

(c) The CS share of the remainder was £256K p.a.; the details of the formula for costing posts had yet to be agreed with the Finance Officer.

Following an earlier departmental meeting, PDS had, in conjunction with the Professors, prepared a provisional plan of our staff and other needs. This included administrative, technical and secretarial staff, 8 CO's and 8 Lecturers, and further established Chairs in Computation Theory and Software Systems.

The plan required considerably more money than the present allocation, and could only be partly implemented unless "The Shift" money also became available.

There was a discussion of building plans with "The Shift" money. Possibilities were:

(i) Lower floor of Block O/P and create 2 levels.

(ii) As above, but build a third level.

Real-Time Course - SM asked about a plan to use space in the Machine Halls. JCD said there was a possible safety hazard involved with the real-time equipment which the meeting decided should be investigated.

Action - PDS,JCD

Room 3316 (CS4 Workroom) should be upgraded with new furniture and some terminals connected to Departmental Machines only.

Action - GLC,KBD

6th Floor Lab - PDS and GLC propose to turn this into the MSC Workroom by the use of portable partitioning. The room should be ready by October. This was agreed.

Action - GLC,KBD

Meeting discussed the need for new types and quality of furniture for terminal users in Block O/P. A matter of University policy might be involved; as furniture came under the allocation of equipment and SM would bring this to the attention of the UGC Court Equipment Committee at the next meeting.

Action - SM

JCD would look into the state of the walls in the new Coffee Room in Block O/P.

Action - JCD,GLC

Use of Block O/P, Rooms 6301,2308,3316 for 1985/86

2.

PDS said if the 'Shift' money came in full it should include money to provide all the staff in the previously mentioned plan, plus running expenses, equipment money and building money. PDS stressed that this money was linked with the teaching of additional students.

Shift to Science

Action - PDS,SM,RMB,RM,RNI

In the light of the 'new money', There was some discussion on the relationship of new building for the department as a whole and for the Foundations Laboratory. There was also discussion about the department appointing someone to a post which would be concerned with publicising the department and obtaining research support from Industry. The meeting approved the idea but felt that this post could appear to be in competition with the Assistant Director for the Foundations Lab. There was a suggestion that it might be possible to have the Assistant Director's post combined with a departmental role. It was agreed that this matter could not usefully be discussed further in the absence of all the senior people from the Foundations Laboratory. It was agreed that all the Professors and PDS should discuss this further.

RNI suggested that we should allow for some accommodation for visitors from Industry. PDS agreed.

Action PDS/SM

Build inwards in the Quadrangle.

(v)

Action - PDS

Move the Sub Station. PDS and SM agreed to look into this.

(iv)

Build from Coffee Room out towards the Wave Tank.

(iii)

It was agreed that SM and JHB should look at the requirements for the Real-Time course.

Action - SM/JHB

Room 6204 could be used for 3rd and 4th year project work and terminals would be needed in both 6204 and 2308.

Action GLC

3. Implications of The Shift to Science for 1986/87.

This item had been covered in item 1 above.

4. Wider circulation of minutes of IT School Committee, etc.

It was agreed that the two other Heads of Department (AI & EE) should be approached and, if agreeable, a note would be placed in the Newsletter giving the filename of the Minutes for staff who wished to read them on line.

Action - SM/KBD

5. Possibility of contention switch

GLC tabled a paper supporting this item. A copy is attached with these Minutes. After discussion, it was agreed that RNI, JHB and GLC would continue to investigate the Gandalf switch.

Action - RNI, JHB, GLC

6. Matters arising from July Meeting

RNI asked staff to send him and PDS written details of any industrial funding for the list he is compiling.

Action - RNI/ALL

CAD/CAM Proposal

(1) The Dean had asked SM to chair a (Faculty) Working Party to discuss CAD/CAM in Edinburgh.
(2) RNI would be CS spokesman on this.

It was agreed that Matters Arising from the Notes of the previous meeting should be held over until the next Departmental Meeting.



Department of Computer Science

DEPARTMENTAL TEXT HANDLING

George Cleland, 4 September 1985

Memorandum

To All Staff Postgraduates

From Peter Schofield

Date 5th September, 1985

AGENDA for DEPARTMENTAL MEETING

to be held on Friday 6th September

** PLEASE NOTE NON-STANDARD TIME AND VENUE **

Time: 09.30
Venue: Room 3309

- 1. Chairman's Business
(a) Staffing
(b) CS New Money and "The Shift to Science"
(c) Allocation of duties 1985/86
(d) Information required by Roland Ibbett

2. Report from Technical Resources Committee

3. The Gould Service

4. Allocation of Computing Services for teaching in 1985/86.

5. Departmental Text Handling.

6. Matters arising from previous meetings.

7. Any other Business.

* * * * *

For some time the department has lead the University in provision of facilities for text processing. From the fist high quality, multi-font printer used by the department 3 years ago under Scribe software (Sanders S-700), we have moved to having 8 printers capable of "letter quality" output. The range of software on these systems is as varied as the diversity of the hardware itself. The amount of effort expended in beautifying documents is almost as great as the effort spent in composing them. A large amount of this effort goes into basic system maintenance and development to make it suitable for a particular task. It is time that a certain basic level of support is supplied to reduce the need for document by document 'hacking' of these systems.

The various systems used have also been picked up by several of the secretarial staff, largely at the behest of academic staff who's requirements have not been met by more traditional systems.

The current pattern of use is confused, results in large overheads in user's time to learn and use systems, is frustrating to more inexperienced users, is poorly documented and results in unpredictable quality and consistency of output. Some consolidation has occurred during the summer because of efforts by a student programmer but the situation is still far from stable.

The importance of text processing facilities must not be underestimated. Virtually everone in the department uses them in one form or another. The saving of only a small amount of time in learning or using the systems will result in a large increase in total available departmental effort and will greatly improve personal satisfaction in producing documents.

A meeting was held recently to discuss technical aspects of text processing. Discussion was meant to focus primarily round TeX improvements but discussion ranged widely and a number of generally felt proposals are presented here.

1. TeX

a. It was felt that TeX would be a suitable vehicle on which to base the department's long term text processing needs. It's capabilities in the mathematical area in particular are appropriate for the increased complexity of papers.

b. A package such as LaTeX is particularly useful but LaTeX itself still leaves a great deal to be desired. It was noted that there were a large number of groups working world wide on development of TeX based systems and the long term future of these was thought to be very hopeful indeed. A close watch should be kept on these and useful and

generally accepted packages introduced as appropriate.

- c. TeX should be examined for its suitability for use by secretaries. Despite some misgivings it was noted that it was in regular use by secretaries in UCSD.

2. Scribe

- a. Scribe should continue to be available for a further two years in order that the investment already made there should not be lost. Purchase of a Scribe licence for the new Gould system should be encouraged. Availability of Scribe on this machine would allow termination of the ECSVAX Scribe licence.
- b. Further and new use of Scribe should be discouraged but it was noted that active support will be needed to promote use of TeX in its place.

3. Secretarial Support

- a. Secretaries should be properly trained in use of text processing systems and should not be expected to "pick it up" as they go along. This includes editors and other basic operating system features.
- b. A single, orthogonal selection of utilities should be identified for secretarial use. These should all be maintained, fully documented and packaged in a consistent way for all users. There should be guidelines on combinations of systems to use to achieve specific results.
- c. While recognising that all the systems in the department present a differing range of facilities. Efforts should be made to identify facilities common to all in as far as this is practical.

4. Output Facilities

- a. It is vital that an efficient preview facility is available and is reserved for this function. A graphics APM system should be placed in an accessible position and reserved primarily for this use. In the medium term it would be more appropriate to buy a high resolution screen based system, such as a SUN-2 work-station and existing software improved to provide similar facilities to the APM system.
- b. Printers must be located at points easily accessible from the whole department. The alcoves on each corridor are ideal place for laser printers and it may be worth considering re-siting a number of the other printers in the department. (For example the C.Itoh printer recently bought will provide adequate quality of output for student reports.)

5. Computing Officer Support.

All the above will not be accomplished without investment in manpower. The current TeX system is the result of one student project and about 1 man month of summer student effort. It is estimated that about half a CO should be invested in work of this type. His duties would include:

- a. Importing and mounting new system.
- b. Developing new software. (But only where this is not obtainable from elsewhere)
- c. Ensuring an adequate level of documentation.
- d. Training both secretarial and other staff at appropriate levels.
- e. It may also be appropriate that editor maintenance be included under this heading.

Provisional Allocation of Teaching and other Duties - 1985/86.

1. Course organisers.

Information Systems 1
Computer Science 1
Computer Science 2
Computer Science 3
Computer Science 4
M.Sc.
Theory P.G.
CS4 Projects
M.Sc. Projects
1st year Pg project reviews
RNP, ALM, KMH
FK, KMH
RC, MRJ
CL
GJB
FS
DTS
RNI, SM, ASW
SM, RNI, RAM
GDP, SM with others

2. Joint Degree Tutors.

CS & EE, also CS & Physics
CS & Management Science

RAM
ASW

3. Computer Science 4 Lecture Modules.

Complexity
Concurrency
Semantics
VLSI
VLSI practical module
Performance
Compilers
Communications
Graphics
Conceptual modelling
Computer Architecture
GJB
MCH, GM
CPS
RAM, GJB
DJR (+ helpers)
ASW
PD Stephens (ERCC)
GJB
RAM
MCH ?
RNI

4. Computer Science 3 Lecture Modules.

Computer Structures 1
Computer Structures 2
Operating Systems
Database systems
System Modelling
Analysis of Algorithms
Computability
Programming Methodology
Hardware practical
Op. System practical
IBH
RNP
DJR
MCH ?
ASW, SM
MRJ
CL
FS, CL
IBH, RNI

5. Computer Science 2 Lectures.

(a) Systems
 Architecture
 ML, Compilers
 Graphics
 FS
 PDS
 KJC

(b) Real-time

(c) Foundations

RC, JHB, J. Ponton

MRJ, DCM

6. Computer Science 1 Lectures.

(a) 1Ah.
 Pascal
 Systems

(b) 1Ch.

FK, KK (+ review)

RC
 FK

7. Information Systems 1 Lectures.

22: RNP
 13: CPS
 ALM
 AB, JEW, DMB
 FS
 External

8. M.Sc. Lectures.

Preliminary Programming Co.
 Software tools
 VLSI 1
 VLSI 2
 CAD for VLSI

Operating Systems
 Performance
 Database systems
 Analysis of Algorithms

Communications
 Graphics
 Compilers

Parallel computation

ALM
 FS
 DJR
 GM
 AD

DJR (with CS3)
 ASW (with CS3)
 MCN (with CS3)
 MRJ (with CS3)

GJB (with CS4)
 RAM (with CS4)
 PD Stephens (with CS4)

RNI (Physics organising)

9. Theory PG Lectures.

Algebraic Complexity KK (18)
 Further topics in Complexity CL (6)
 Program Logic CPS (10)
 Operational Semantics RM (8)
 LCF RM (4)
 Further topics DTS (4)
 Domains GDP (18)

+ Modules by non-teaching staff
 + Modules with CS3/CS4

10. Student Admissions.

Undergraduates ASW
 M.Sc. RAM
 Research students GDP

11. General.

Computing Policy Group SM
 Technical Resources Committee RNI
 Software Resources Committee PDS
 Director of Theory Laboratory RM
 Management of APM services JHB
 Management of Non-APM services GLC
 RNI, A. Howitt
 JCD
 Production of APM's JJ
 Equipment ordering JCD, GLC

Directors of Studies RC, ASW, FS
 Boards of Studies papers ASW
 Open Days (Teaching matters) ...
 Open Days (Equipment) GLC, JHB, AUS
 Departmental Seminars SM
 Technical Discussion Groups GLC
 Departmental Handbook ASW

EMAS Allocations JHB
 Filstore allocations KMH
 Room allocations, Telephones RAM (FS until Oct)
 Furniture KBD
 Rutherford Lab. Liaison KJC
 Library Committee MRJ
 Edin. Comp. Users Committee ...
 Journals (Room 1616) FS
 Appleton Tower Users Ctee RNP
 Training on secretarial software ALM

Undergraduate syllabus review RNI
 PG Theory Syllabus review ...

Notes on Departmental Meeting held on Friday 6th September 1985
at 9.30 a.m. in Room 3309, JCMB

Present: CL,FS,RAM,HLB,KK,RC,JCD,RNI,GLC,KMH,GDP,AH,FRED,KVSP,FDC,
OS,MCP,KM,KJC,DWB,ALM,LL,DB,MRJ,EAK,PDS (Chairman)

Apologies: JJ,MCN,GDMR.

1. Chairman's Business

(a) Staffing

PDS welcomed Archie Howitt to the meeting, reporting that he would be joining us from ERCC as a C.O. from 1 October. He also reported that Ken Chisholm would be joining us as a C.O. (part-time until Christmas and full-time from 1 January), taking over from Gordon Hughes. Ann Macintosh was also welcomed to the meeting as a new C.O.

John Wexler is being loaned to us from ERCC for approx. one year. There will be some operators to spare when the Bush machine room closes down. One will be loaned to C.S.

(b) CS New Money and "The Shift to Science"

Clemens Lautemann had been re-appointed and Nigel Topham would be appointed to a Lectureship in 1 year's time (during 1985/86 he will be an SERC postgraduate fellow).

With the extra money now available the Department is employing more secretaries for longer hours. EAK's post would now be fully UGC-funded, DAM and MWM would be working full-time; and HLC and AMF had been promoted to CN3.

JCD had been appointed Laboratory Superintendent and JJ was now in charge of APM production and maintenance.

There would still be enough money to appoint 2 more Lecturers and C.O.'s within the coming year, but not before next summer for the Lecturers and not before January or April for the C.O.'s

There is now money to build corridor 16.

Although the "Shift to Science" details are not yet known, PDS reported that he is confident we are on the provisional list.

(c) Allocation of duties 1985/86

ALM has replaced MCN on the ISI team. The following were appointed to co-ordinate and look after the interests of joint degree students as follows:

CS & EE, also CS & Physics	-	RAM
CS & Management Science	-	ASH
CS & AI	-	DTS
CS & Mathematics	-	GDP

DTS will co-ordinate the Theory PG course. GDP will convene a group to review this course syllabus for the future. KK would take over the CS3 database course from MCN. RAM will be taking over room allocation from FS after the present round of changes.

(d) Information required by Roland Ibbett

Roland Ibbett reminded members of staff of various pieces of information he had asked for. He suggested that an Annual Report, perhaps in addition to the Deptl. Handbook, might be a good idea in order to keep up our image and publicise each year's achievements, publications, etc. He expressed interest in knowing to which professional institutions members of staff subscribed and felt that this should be included in some document. GLC pointed out that he and SM had started discussions with the Information Officer on publicity - perhaps these requirements could be combined?

Action GLC/RNI

2. Report from Technical Resources Committee

RNI reported on the technical staff's wish to have the out-of-term annual leave rule relaxed. The period prior to the start of autumn term is a particularly busy one for technical staff, and they find it difficult to use up all their annual leave in the vacation because of this. RNI will co-ordinate this with PDS.

Action RNI

At this point, FK raised the subject of annual leave for computing officer staff. He felt that they should be encouraged to take leave at slack periods during term since they are frequently kept busy during certain vacation periods. PDS will also look into this.

Action PDS

3. The Gould Service

GLC reported that the big machine would not arrive until the end of October, and the small one has only 6 mb memory (although ERCC are talking of getting 16 mb onto the small machine). The Pascal compiler works on the Gould, but not on the GEC machine. GLC will send out VAX mail concerning this matter, and a meeting will be arranged for 17 September to discuss it with the teaching resource computing people.

Action GLC

4. Allocation of Computing Services for teaching in 1985/86

There was very little discussion on this except to emphasise the desire to offload the resources required from VAX VMS onto the Gould.

5. Departmental Text Handling

GLC reported that TeX is not yet in a condition to take over from Scribe, but would be a suitable replacement in time. Scribe would continue for a further two years, but new usage should be discouraged. ALM offered to undertake the training of secretaries in new text handling. GLC thought ERCC might be prevailed upon to provide half the cost of Scribe on the Gould (around £2700 plus).

With regard to APMs, it was suggested that we set aside two graphics machines for staff use; the need for two to be reviewed, with a view to returning one to public service if possible. The suggested reserved hours for this facility were 9.00-6.00 (staff and research students, but excluding M.Sc. students). Another laser printer is due shortly, and the existing one will be moved to the copier room. 4th year projects should be done on the C.Itoh printer and spinwriter and M.Sc. student copying should be done by the secretaries.

Action PDS, GLC

6. Matters arising from previous meetings

As far as the CS new money is concerned, our Library requests will go in along with AI and Cognitive Science.

Action MCN, MRJ

With regard to the relationship of the Alvey Lab. to the Department, the meeting felt that we should wait until the Assistant Director of the Lab. is appointed before the rest of the Department make decisions on "going out to industry". It was felt that any involvement of Assistant Director would depend upon the person who will fill it.

JCH reported that Alex Deas had seen evidence of water on some of the walls in Block O/P. JCD had written to the Master of Works in this connection, and condensation appeared to be the cause. Repairs had been carried out previously, and a visit by the Master of Works resulted in their being no immediate cause for concern.

Furniture and terminals for the Lab. are in the hands of GLC and PS, and Corridor 16 is currently in the hands of the Works Department.

Concerning the contention switch, meetings had been held with two companies and a quote had been obtained from a third for approx. £35000. Money had been set aside for this item.

Action GLC

PDS apologised that he had not yet circulated a document asking people to list their consultancies and industrial links.

Joint CS and AI degree. The people involved were waiting to hear back from SM and PDS before setting up a working party. RNI will investigate our Syllabus, including the joint degree and what people are currently teaching. Names to be added to the joint degree teaching were: DTS, RC and AB.

Action SM/PDS

PDS will look into the matter of moving the sub-station, and GLC will raise it with Neil Oliver.

Action PDS/GLC

7. Any Other Business

None.

**Notes on Departmental Meeting held on Friday 4th October 1985
at 2 p.m. in Room 5210, JCMB**

1. Chairman's Business

Apologies were received from MCN,GDP,RB

PDS announced the appointment of George Cleland as Assistant Director of the Laboratory for the Foundations of Computer Science. The meeting congratulated GLC on obtaining this important post. GLC's departmental activities would be re-scheduled and the transition from his CS to the Lab would be phased over six months. AJS would take over running the CS VAX and JCD would be responsible for the allocation of terminals to rooms.

Hewlett Packard are expected to invite our students to visit S. Queensferry on 4th December; it was likely that staff are also be invited. PDS recommended the meeting that RNI was negotiating with H P for some funding for the department.

PDS told meeting that RB and GLC had decided against putting in a bid for a grant but there was a possibility that Xerox would put some money into the 1108s. A meeting had been arranged and two representatives from the Information Technology departments had been nominated to attend. They were Henry Thompson from AI and Peter Ross from Cognitive Science. It was agreed that this would provide sufficient representation for the department.

PDS had some information on a Distance Learning Video course and anyone interested could look at them. Heriot Watt were pioneering work on this and 250K of equipment was involved.

Science Student Council

The council had asked for an allocation of students from our classes. Course coordinators were asked to read the statement provided to each class.

Head of Department

PDS told meeting that his period as H of D had now lapsed. He had been reappointed for one year from April 1984 and in the minutes of the 1985 March meeting he had been asked to carry on for a further 18 months and had agreed, with the approval of the whole meeting, to do so. He has proposed to Senatus that a Computing Officer appointment with special responsibility for administrative matters should be approved. This appointee should assist with the H of D duties. SM would write to Dean of Science to report that PDS would be H of D for one more year.

Action - SM

2. VAX Service

(a) Freshers' Week

GLC reported that there had been some difficulties due to Version 4 and to the two courses which were running. ICL had been moved to the APMs and the service had improved. Version 4 would be complete by the 1st week of term.

After some discussion it was agreed that course numbers should be looked at before any agreements were signed next year.

(b) In Future

The meeting discussed the question of running the ML course on VAX.

(c) Request for CS2 etc.

This was agreed (if this is incorrect I apologise - I have nothing written down)

3. Gould Service

J Stewart had been appointed Gould Manager. GLC said the Gould Machine should be installed in second week of November and he would circulate a document on the machine. CS2 would be put on to the Gould.

Action - GLC

4. Library Grant

(a) 'Mathematics of Computing' Journal

MRJ's proposal to reinstate the subscription to 'Mathematics of Computation' (see item 4(a) attached to Agenda) was agreed. He would check with Maths about back numbers of the Journal. MRJ asked anyone interested at meeting to look at a sample copy of Journal of Complexity and asked for comments on this.

Action - MRJ/AII

(b) Use of New Money

PDS reminded the meeting that the Principal wished to spend some of the new money on Library purchases. SM suggested that the department seek permission to use some of the money allocated for library purchases to employ a part-time Librarian. Meeting agreed with this proposal and it was suggested that the appointee could deal with departmental reports, papers, databases etc. RNP asked if Video equipment could be considered a Library purchase and agreed to explore this. PDS agreed to follow-up the part-time Library post proposal.

Action - PDS/RNP/MRJ

5. Progress report on Foundations Laboratory

RM reported:

- 1) Success so far
- 2) Set backs so far
- 3) Current emphasise of Lab
- 4) General remarks

1. Cooperation between lab and department will be ensured by the appointment of George Cleland as Assistant Director. Two projects are now running; (i) Development of standard ML (now an Alvey Project) (ii) joint project with Software Sciences Ltd. ICL have given 10K as a starter to the lab. Alvey are giving 100K for a computer (possibly Pyramid). As

department has been able to allocate some rooms the problem of building is not so immediate.

2. Alvey had run out of funds but have now found the money for the 100K for computing resources and to cover a few research projects. No more money would be available until November. The Alvey money extends over 3 years and there is a possibility that SERC and Alvey can provide dual support. A large number of applications from the lab are to be considered by SERC with Alvey Software Engineering in assistance. An SERC/Alvey Panel are coming to visit the department shortly. RM displayed some detailed information on the blackboard and concluded by saying that he was optimistic at the way things were proceeding.

PDS expressed congratulations of the department on the progress so far and said that it had been agreed that the lab should be known as The Laboratory for the Foundations of Computer Science (or Foundations Laboratory) and not as the Alvey Laboratory as previously described.

6. Control of Department's Keys

JCD raised the loss of keys and put forward a suggestion that the department might charge a deposit to encourage people to return keys. The meeting discussed this but generally was not in favour of the deposit. PDS recognised that there was a problem and asked people to be more responsible in the handling of keys.

7. Matters for Board of Studies

(a) Proposed new 1st year half course

Proposal for Computer Course for Non-CS Specialists made by Ann Mackintosh was attached to Agenda. The proposed course lay between the existing CSI and ISI courses. PDS reminded meeting that more money would be available to provide extra staff. The meeting discussed this proposal and it was felt that there should be safeguards in the system to prevent students taking half courses as a way of passing to CS3. PDS reminded meeting that it was in the interest of the department to keep our CSI classes as available to students as possible.

KBD then handed over the notes to Alex Wight.

AM - reported "Engineers feel 1AH is too hard"
RNP - suggested we should be leading more of specialist packages.
Prasad - Does Science Faculty want Fortran and Numerical Analysis
RNI - Syllabus descriptions for working party please!
GLC - How much other support is there?
FK - What to we want in a 'pure' CSI?

(b) No description of AI1 yet available.

SM - CS should consider their contribution to 3rd
ASW - Simply putting existing modules together is unsatisfactory
RM - Do we in fact talk amongst ourselves?
KK - Caution. AI tendency to have little practical work on programming courses
GM - Caution!
SM - Make more AI material available to CS students as soon as possible

PDS - reported AI experimenting with splitting into two half courses
MRJ - supported listed courses
KK - more on LISP implementation (and PROLOG)
RC - Should modules be smaller to give better coverage
General view that we should seriously reconsider number of modules

Action - Push withdrawing 3rd and 4th year calendar entries.
RC - Is an I T Degree a better bet?
GLC - Keep compulsory maths in mind

8. Matters arising from previous meeting

RNI - Blacklists. Course descriptions. CS4 project proposals. Publication lists.
Moving sub-station reported as 'out of the question'. Power would be off for weeks.

Department of Computer Science



Memorandum

To ALL STAFF
POSTGRADUATES

From Peter Schofield

Date 31st October, 1985

AGENDA for DEPARTMENTAL MEETING

to be held on

FRIDAY 1st November 1985

Time: 3.30 p.m.
Venue: Room 5210

Raised by
PDS

1. Chairman's Business
 - (a) Staffing
 - (b) Implications of "The Shift to Science"
 - (c) Dates of future meetings
2. Matters arising from October meeting
3. Brief reports, if relevant, from:
 - (a) Technical Resources Committee
 - (b) Software Resources Committee
 - (c) Director/Assistant Director of LFCS
 - (d) Any other groups
4. MUSS on the APM
5. Emergency action on Computing Services
6. Journals for JCMB Library
7. Syllabus Matters
 - (a) Preliminary report of Syllabus Working Party
 - (b) Joint degree with Mathematics
 - (c) Joint degree with AI
 - (d) Proposal to re-structure CS1 (etc)
 - (e) 1st year course for non-CS specialists
 - (f) Information Systems 2
8. Dates of future meetings (again)

RNI
GDP
ASM
KVSP
ALM
RNP
PDS

RNI
PDS
MRJ

Notes for Departmental Meeting, 1st November 1985

Item 1 (b) : The Shift to Science

The Architects are examining again the various possibilities for extending this building for accommodating more Computer Science. Several possible plans, including extending into Block O/P courtyard will be produced.

PDS

Item 1 (c) : Dates of meetings

The next meeting is due on Friday 6th December. We might need an extra early meeting on 29th November to catch the deadline for Boards of Studies papers. I note that SM is not available that day. Anyone else? Alternatively, (or in addition), I have sent a request for an extra meeting of the Board of Studies towards the end of term 2.

PDS

Item 4 : MUSS on the APM

During the past couple of months Gary Law has spent 3,1/2 working weeks porting MUSS to an APM. The MUSS team at UMIST have agreed to our duplicating MUSS on other APM's in the Department. Under the terms of this agreement any enhancements made here to MUSS will be made available to the UMIST team. While MUSS may be freely used within the Department, however, it must be treated like any other commercial software product and not copied in whole or in part for use by any other organisation.

RNI

Item 5 : Emergency Action on Computing Services

Vax is crippled by Version 4; the Gould is later than originally expected; we have been short of technical staff to commission APM's as fast as required; despite the large increase in processing power, the ERCC services for CSI and ISI are presently probably worse than in previous years.

Drastic action is needed - but what?

- (a) If money could be found (perhaps by deferring staff appointments), would we get extra memory for VAX (£25K?). Buy Macintoshes, QL's or BBS micros?
- (b) Re-schedule practical work? Cancel some modules and send the students to pure Theory courses?!

Item 5 : continued.

- (c) Institute booking sheets for APM's.
- (d) Ban text processing (some kinds - or all kinds)?
- (e) Set up a working group of experts to look at the above?
- (f) All go off to a South Sea Island?
(DJR spoke first!)

PDS

Item 6 : Journals

I have received the following requests for journals for the JCM Library:

- (a) Journal of Complexity (Academic Press)
- (b) Annals of the History of Computing (AFIPS Press, Arlington VA)
- (c) Radical Science (Free Association Books, London)

MRJ

Item 7(b)

Year
Proposal for a B.Sc. Honours in Computer Science and Mathematics

Curriculum

- 1st year Computer Science 1; Mathematics 1A; Applied Mathematics 1Ah; another half-course
- 2nd year Computer Science 2A; Mathematics 2A; another course
- 3rd year Computer Science and Mathematics 3
- 4th year Computer Science and Mathematics 4.

(Note Students who wish to reserve the option of Honours in Mathematics alone must also take Applied Mathematics 1Bh.)

Computer Science and Mathematics 3

M-F 9,10,11 as arranged. Tutorials, laboratory and practical work as arranged.

The lecture topics are:

From Computer Science 3: Computer structures 1, operating systems, formal languages and computability, programming methodology, analysis of algorithms.

From Mathematics 3: Probability, algebra, mathematical programming, real analysis, set theory.

In addition there will be laboratory and practical work and an exercise in the Department of Computer Science, the latter being either the implementation of an operating system or computer structures.

The degree examination will consist of appropriate parts of the written papers set for Computer Science 3 and Mathematics 3, together with an assessment of laboratory and practical work and exercise. To be counted for Honours, the examinations must be passed in June at the first attempt. A candidate failing in Computer Science and Mathematics 3 (Honours) may be awarded a pass in Computer Science and Mathematics 3 (Ordinary).

See the entries for Computer Science 3 and Mathematics 3.

† Computer Science 2A, with either a merit certificate or the permission of the Head of Department, Mathematics 2A.

Computer Science and Mathematics 4

Full Time

Seven lecture modules from the Department of Computer Science and from the Department of Mathematics, as approved by the Heads of Department, including at least three from each Department and including two in Theoretical Computer Science, and also Mathematical Logic. Up to two third-level modules may be taken.

In addition to the lecture courses, each student will carry out a project relating computer science and mathematics.

In awarding honours the marks gained in Computer Science and Mathematics 3 will be taken into account.

† Computer Science 1 or Computer Science 1Ah with a merit certificate in Computer Science 1Ah. Computer Science 2A. Computer Science and Mathematics 3. Mathematics 1A. Applied Mathematics 1Ah. Mathematics 2A.

Assessment The third and fourth year courses count equally. In the third year Computer Science and Mathematics are weighted equally. In Computer Science the relative weightings are:

Written Examinations (June)	5/7
Course Practical Work	1/7
Operating Systems/Computer Structures	1/7

In the fourth year the relative weightings are:

Written Examinations (April and June)	7/10
Project	3/10

Class Examinations (to be discussed - possibly in third year)

Supervision (to be discussed)

Timetabling

Currently Mathematics is looking at their possibilities given the current Computer Science timetable. For the project timetable there is an issue.

Item 7 (c)

ARTIFICIAL INTELLIGENCE & COMPUTER SCIENCE

Minutes of the Joint Honours Working Party Meeting

Wednesday 9th October 1985

Peter Schofield indicated that CS3 will probably expand from 8 modules to 10 (plus 1 large operating systems practical), incorporating the 2 obligatory modules from CS4 (VLSI Circuit Design, Digital Communications), leaving CS4 with optional courses only.

He suggested that AI & CS4 students be allowed a free choice of 4th year modules from AI and CS, provided that they each select at least 2 modules from each department. This was agreed.

Present: Andrew Blake, Alan Bundy, Rosemary Candlin, Ken Dawson,
Roland Ibbett, Sidney Michaelson, Helen Pain, Graeme Ritchie,
Don Sannella, Peter Schofield.
Not present: Pat Ambler
Secretary : Don Sannella

The meeting began with a review of the minutes of the previous meeting.

It was agreed that a whole module just for LISP was unnecessary; it could be covered in some other 3rd year AI module (e.g. by having one of the practicals done in LISP). Alan Bundy indicated that the Natural Language Processing module would be shifted from AI4 to AI3 to fill the gap left by the LISP module.

Alan Bundy has added some comments to his draft proposal to reflect the usual practice of the CS department regarding ordinary degrees.

Alan Bundy and Alex Wight will meet to draft a submission to the Board of Studies.
Action : Alan Bundy & Alex Wight

Rosemary Candlin and Pat Ambler will think about how to tie together the CS2 Real time course and the AI Robotics module.
Action : Rosemary Candlin & Pat Ambler

Helen Pain will send the AI2 proposal she will be submitting to the Board of Studies and a summary of the AI1 syllabus to Peter Schofield and Sidney Michaelson.
Action : Helen Pain

It was suggested that AI needs a director of studies to supplement the existing ones in CS. CS needs another director of studies anyway. Alan Bundy will raise this point at the AI teaching committee meeting.
Action : Alan Bundy

The structure of the AI & CS joint degree course was then discussed, with the following result:

	<u>Artificial Intelligence Dept.</u>	<u>Computer Science Dept.</u>	<u>Other Depts.</u>
<u>1st Year</u>	(AI1)*	CS1	(Maths 1)*
	* = highly desirable but not compulsory		
<u>2nd Year</u>	AI2	CS2 (including CS2 Real Time and CS2 Foundations)	Logic 1h
<u>3rd Year</u>	Knowledge Representation and Inference 1 (including a large practical) Knowledge Representation and Inference 2	Computer Structures Operating Systems (plus a large practical) Compiler Construction (CS4) Database Systems Programming Methodology Computability	
	Natural Language Processing Vision		

The 2 large practicals should fall in different terms; the operating systems practical is in the 3rd term and the KR & I1 practical would probably be in the 1st term.

<u>4th year</u>	Expert Systems	Advanced Graphics
	Mathematical Reasoning	Analysis of Algorithms (CS3)
	Robotics	Denotational Semantics
		Digital communications (CS3)
		VLSI Circuit Design (CS3)
		VLSI Practical
		Computational complexity
		Performance Evaluation
		Architecture
		Conceptual Modelling
		Theory of Communicating Systems
		System Modelling (CS3)

Choose any 6 with at least 2 from each department. Complete a project in one department and a dissertation in the other.

Alan Bundy and Don Sannella will find out about the present content of Logic 1h and CS2 Foundations (the part on logic); maybe Logic 1h is redundant.

Action : Alan Bundy and Don Sannella

The entry requirements for the course should be discussed with Alex Wight.

Action : Alan Bundy and/or Peter Schofield
(???)

Everybody should look through the University calendar to find other suitable half courses to replace Logic 1h. Possibilities include Physics 2B1h (Electricity, Electronics and Modern Optics).

Action : Everybody

Item 7(d)

A proposal to restructure CS1 (and the rest of the curriculum)

Computer Science is becoming a coherent intellectual discipline with a sizeable core of concepts, strongly linked to other branches of knowledge (notably mathematics, logic, epistemics, AI, electrical engineering and linguistics). As more computer scientists acquire this core, a broader and deeper dialogue will become possible, not only between "theory" and "practice", but also between computer science and neighbouring disciplines.

Sadly, much of this dialogue is still missing. It is still possible for a computer science graduate to lack several prerequisites to bridging the "theory-practice" gulf, and also to be essentially mathematically illiterate, and thus cut off from other sciences. Our PG Theory Course, in response, **actually directs** itself more or less explicitly as a conversion course for mathematicians, and very few of our graduates take it.

To cure this, we have to build the core into our curriculum. We must start with CS1, which must introduce the concepts of computation (not just programming). This emphasis should continue through CS2 at least. Even engineering students study science first. Later courses can build on this foundation for both "core science" and "engineering practice".

The proposed CS1 would use ML as a vehicle. Functional programming does not divorce students from their mathematical background, unlike imperative programming with its "assignment-variable" problem. It will be possible to deal mathematically (yet simply) with semantics - with imperative programming, this has to wait for at least two years, whether you choose axiomatic or denotational semantics. The higher level of ML, and the comparative unimportance of special forms (in the syntax) make it easier to concentrate on computing rather than programming. We can keep the students in a mathematical culture, and the transition to imperative programming (assignment) can be put on a sound footing. The reverse transition (our present setup) is difficult; we also have to gather our students back into the mathematical fold.

This proposed Computer Science 1 is meant not only for CS specialists, but for all students who want an introduction and overview of our subject. Engineering students etc. who want a programming course in the imperative tradition (i.e. for immediate use in applications) will take Ann Mackintosh's course. Thus you will be advised to take the new CS1 if you think you might want to go on to CS2. However, the course will be rounded off (include a few weeks Pascal, for example to also serve those who leave Computer Science after CS1.)

The resources for such a slimmed down "pure" course are available (25 APMs; and the Gould). There is an excellent new book ("The Structure & Interpretation of Computer Programs" by Abelson and Sussman) to serve as course text: it prompted this note.

Many details need to be discussed. Part of "foundations" will move down to CS1, presumably, and much of CS2 is also catered to by the book. Other courses will be affected... In a lighter vein, CS1 will shock "chipheads" out of their complacency, and put all on an equal footing.

Our subject has come of age. Our curriculum should reflect it.

Prasad

COMPUTER COURSE FOR NON-CS SPECIALISTS

Introduction

At the request of the last departmental meeting I have spoken to a number of Directors of Studies representing a cross-section of departments whose students opt for CS1. This report summarises these discussions and highlights the important issues.

Main Points Arising

- There is a requirement for a less rigorous CS1 course for students not wishing to continue with four years CS. Every departmental representative I spoke to either said how demanding CS1 was or commented on the heavy workload imposed by the course.
- There is a requirement for a course for students wishing to learn to program. For students, particularly experimental scientists, there is a clear demand for them all to have some knowledge of computer programming, and a short fat half course would meet the majority of the departments requirements. There are other appropriate half courses for students to match up with.
- There is a requirement for a course to teach computer programming using Pascal. The majority of the people I spoke to said that a good grounding in programming techniques was very worthwhile for their students, and they felt Pascal was appropriate for this. (Only one department, Chemical Engineering, would not welcome Pascal.)

Student Numbers

Next academic year it is anticipated that the number of students wishing to take CS1 will rise above the 300 mark. Clearly there are the obvious problems of just handling this many students in the one class. Apart from these there are three other logistical problems.

- Firstly, that of finding lecture theatres big enough to hold that number. Rosemary is already experiencing problems with the 100 engineering students who have to take the Monday class.
- Secondly, of perhaps more relevance to other departments is the work load on EMAS this increase will cause. If the class was split into an 'A' and 'B' stream one way to alleviate this problem would be to set different practical deadlines for the two classes.
- Doug Mills who is the course organiser for Eng-1 is concerned about the future timetabling/organisation of courses with the

expected extra entry into CS and Engineering next year. Forecasts suggest that there could be 240 Eng students of which 170 could take CS. Currently he is able to split the class so that half have practicals on Tuesday and the other half on Thursday, and those taking CS get a Monday CS lecture. However next year he feels that some students will not have the option of taking CS because of the timetabling difficulties.

Chemical Engineering - Jack Pontin

In first year Chemical Engineering students are required to take Chemistry-1, Engineering-1, Mathematics-1. It is only in very unusual cases that a student would have the option of CS1.

Sometimes in the second year students are given the option of CS1, but again it is very unusual. It is considered a too demanding course to fit in with the rest of the students work. In Chem Eng-2 students are taught by the department how to program in IMP. The aim is to get the students to program very quickly, and also there is a lot of IMP material already existing in the Department.

Mechanical Engineering - Allan Linnett

A large number of the Mechanical Engineering students currently take the CS1 course and of these the majority take just CS1A. The reason for this is that it is the programming part of the course they are interested in.

Mechanical Engineering would consider a general CS course very useful in teaching the basic computing techniques and would not be worried what language was taught. There is a feeling among their students that the CS1A course imposes a heavy work load.

Physics - Norman Fancy

CS is not a compulsory course for physics students, and it is unlikely that it would become one as there are too many other competing courses. However a large proportion of physics students do take CS1 as it is clearly valuable to any future physicist. Currently the department teaches FORTRAN programming to third year students.

With regard to a general CS half course, the department would be interested. They would not be bothered which language is taught, as they feel if the student is given a proper grounding in how to program he will easily be able to transpose that knowledge to any language.

The Physics department have two first year courses - 1A and 1B, the 1B course is less rigorous than 1A as the students are not going on to a four

year honours course in the subject. If CS were to offer a 'B' stream course it could be improved at the general level, with the emphasis on 'how to' accomplish tasks rather than on the 'reasons for'. Conversely it would give CS the opportunity to intensify the 'A' stream course.

Mathematics - Derek Arthur

First year maths students are constrained to take maths and applied maths and then they have an option for their 3rd course. The majority of students opt for CS course as they may want to eventually take a CS degree. However, there is a definite feeling both by the directors and the students that the CS1 course has a very heavy work load. If there was a less rigorous CS course then some students would take this.

Geography - Tom Waugh

The department recommends its students do a computer science course. A less demanding CS half course teaching Pascal programming would be welcome for second year students. They could then choose from Oceanography or Topography as other half courses. (Tuesday and Thursday afternoons are not available for 2nd year Geography students.)

Psychology - Chris Brand

For students wishing to concentrate on the cognitive sciences it is obvious for them to have some knowledge of computer science. Therefore a 'B' stream CS-1 would be welcome. However as far as half courses are concerned, social sciences tend to opt for long thin courses rather than short fat ones.

Points raised by Engineering - J.Mavor, D.Mills, J.Dripps

During discussions with Engineering the following points were raised.

- They would welcome a "slower pace" CS1A for their students to learn programming design using Pascal.
- They would like a more relevant second half course for their students that contained material more relevant to experimental scientists than students studying for CS Honours.
- They expect a considerable increase in their students next year and because of the difficulties with timetabling they may be forced to limit the number of students allowed to take CS.

General points raised by Associate Deans

Both John Hannah and Derek Arthur are responsible for interviewing weak students and students who are not being allowed to continue. It would appear that a lot of these students have problems with CS1. Either they find they have to work so hard to pass it that they fall their other subjects or they just cannot manage to pass CS1. These students are usually interested in computer science, but do not want to learn about it for its own sake. They tend to be experimental scientists that understand the relevance of CS for their particular discipline, but who need to spend the majority of their time on their honours subject.

Conclusion

There is a demand for an extra first-level course for non-CS specialists. The course should teach computer programming techniques based on a structured programming language such as Pascal. In this respect it would be similar to the current CS1A but more time would be devoted to programming. The course would comprise 3 lectures a week throughout the first half session with tutorials and practicals. Timetabling is still under consideration.

Information Systems II : A Proposal for a New CourseIntroduction

This document is very much a first draft and makes no claims to be a finished proposal. I submit it to provoke discussion and as an invitation to comment upon its contents.

Motive for Presentating a New Course

Firstly, the scope of IT is expanding. This is an attempt, in part, to define the extent of what we currently understand to constitute IT as a subject of academic study.

The course is aimed at students who have gained basic knowledge and skills of IT use. These basic skills are all that a first year course can realistically hope to achieve. In IS1, students acquire a view of IT which is essentially a snap-shot of the subject, consolidated by some understanding of its technological inheritance. Although the fact that IT is changing at a rapid rate is stressed, there is no time to present and explain all the factors that will influence those changes in the future, nor to provide students with the opportunity to experiment with new and in some cases advanced applications.

Secondly, it is clear that there are a significant number of students whose interest is aroused sufficiently to both wish for and benefit from an opportunity to explore the world of IT further. Some past IS1 students have gone on to careers in the computing industry, because they discovered a new interest and some self confidence to pursue it.

Thirdly, I believe that there will be a demand for the expertise that the course offers. Industry badly needs IT skills, if the results of countless surveys and stated government policies have any credibility.

Prerequisites for Admission

Probably a lot or second class merit gained in IS1 or CS1.

Teaching Resources

The syllabus outline that follows will confirm that, given the present departmental divisions of expertise within the School of IT, the course has a strong interdisciplinary flavour. The M.Sc. in IT, in as much as it is a precedence for the current proposal, shares this feature. Given the nature of the subject, this is probably inevitable and suggests that some of the teaching resources required can be met by judicious selection of existing course modules on offer by other School of IT members. However, I would suggest that the department's relative weakness in what are now well established areas is unfortunate and in the long term damaging to the department. For this reason, I argue that the department should be prepared to recruit staff to teach those areas presently surrendered to the other members of the School.

Practical Work and Technical Resources

From an organisational view point and to provide students with the freedom to learn by their own efforts, it is essential for access to equipment to be free from timetabling constraints. A necessary condition to achieve this is reliable resources, both hardware and software. If we aim to provide all our software from our own resources, there is a danger that we spend too much time providing and maintaining basic services and not enough time in thinking how to use the services for effective teaching.

For the reasons outlined, my case is that this course will depend for the most part upon commercial software and this will entail a substantial financial outlay.

As for the hardware resource, high performance single user workstations are the most attractive solution. Ultimately this decision should be dictated by the kind of software environments we wish to provide.

Practical work will consist of a series of short practicals on topics, some of which might be:

logic programming
expert systems
MMIS
Robotics
Program Generators
CAD tools

These would be followed by a substantial project, probably occupying the second term in which students apply the techniques they have learnt to an application drawn from their main subject(s).

Course Assessment

Following established lines? There is no point attempting to be precise about percentages at this stage; clearly, assessment should be weighted quite heavily upon short practicals and the project(s).

Outline Syllabus

This outline assumes that ISI will stay as it is. This will probably turn out to be incorrect, since a second year course offers the opportunity to reconsider what we should be attempting to do in ISI. I would expect, therefore, that substantial changes will follow.

Module 1

State of the Art: IT Today (9 lectures)

Hardware :- cost/performance trends, complexity and speed;
distributed computers;
'super' computers;

Software :- Operating systems, single and multi-user;
multi-tasking;
distributed systems;
the market, major contenders;
trends towards standardisation;

Communications :- Networks, LANS and WANS;
Satellite and cable;
Voice and image transmission;
Network standards;

Industry :- Manufacturing and design techniques;
Cutting costs;
Problems caused by lack of standards;

Module 2

The 'Enabling' Technologies for the Next Generation Of IT Products (12 lectures)

VLSI :- Relationship between technology and performance;
Packing more onto the chip;
Packaging limits;
Going faster;
Wafer scale integration;
Increasing yields, fault tolerance;
Managing design complexity, CAD for VLSI;
Design management and verification;

Software Engineering :- The problems of S/W reliability;
Nature of the problem, growing complexity,
applications intolerant of failure;
Better languages;
Formal proving techniques;
Automatic program generation;
IPSE, project management tools;

Module 3

The Next Generation of Applications - Making AI work for users (36 lectures)

AI Techniques :- Intelligent Knowledge Base Systems;
Knowledge representation;
Inference techniques and their use in problem solving;
AI languages, Prolog & Lisp;
Techniques for building expert systems;

Man-Machine Interface :- Problems of adapting machines to people;
Computer voice recognition and speech,
Computer vision;
Adaptive MMIs, role of IKBS in MMI;

Applications of MMI & IKBS :- CAM, robotics;
CAD, software engineering and hardware
design, the 'enabling' technologies
revisited;

Module 4

The Future is a Matter of Choice, Not Technology (12 lectures)

IT Industry :- Formation;
Development;
Structure;

Government Policy and IT :- Uk, Alvey;
Japan, MITI;
Europe, Esprit & Eureka;

The Limits of IT :- Is AI literally possible?
The 'hard' and 'soft' AI schools compared;
Is there a limit to the role of IT?
Is technical feasibility the only limit?

Rob Procter

**Notes on Departmental Meeting held on Friday 1st November 1985
in Room 5210, JCMB at 3.30 p.m.**

Present:

PDS, TMH, GDL, LL, MIC, NPT, NWB, LD, FRED, FS, GM, KJC, GDP, SM, DIR, KM, KK,
DWB, MRJ, RM, IBH, GLC, AJS, JCD, KVS, JHB, RC, IMN, FDC, NICK, AM, MCP, JW, RNI, KBD,
RNP, TBH, RWT

Apologies received from: DMC, RDW, ERIC, ASW, CS.

1. Chairman's Business

(a) Staffing

PDS reported that, as from 1st January, George Ross would be appointed to a departmental C O vacancy. A temporary vacancy would then exist in the Lab.

(b) Implications of the Shift to Science

PDS said the department should know by end of term about money for 6 lecturers, 5 COs, 3 technical staff and 2 secretaries plus possible 3 further lecturers. £400K expected for building needs and architects were drafting several schemes. Space coming available from a move by Statistics and ARCUS was very uncertain.

A extra meeting to look at Syllabus would held on 29th November. PDS had written to Convener of Board of Studies asking for a later date for their meeting. [this extra meeting was later cancelled].

Action - PDS/All staff

2. Matters arising from October Meeting

PDS drew attention of Course Coordinators to Science Council request for student representatives.

Co-ordinators

Gould Service

GLC said Gould Machine expected on Monday 4th November at 9.30 am.

3. (a) Report from Technical Resources Committee

RNI reported 4 technicians now in workshop. 2 more new technicians expected in 3 or 4 weeks and extra space would be taken from North Machine Hall for technical staff. A request form for technical work has been produced. This is to be used for all requests apart from fault reporting. Faults to be reported on VAX mail or directly to JCD.

(b) Report from Software Resources Committee

Small working group of ALM, GLC and Duncan Baillie has been set up to look at text processing. ALM would train secretaries in use of suitable editors.

Allocation of Duties of COs

PDS had drawn up a list of duties, which included a priority list, and would tell each CO what was involved. All requests for software were to be made to JHB and work which required maintenance should be notified to Software Resources Committee in advance. Anyone who wished to run a course with new software requirements should submit details to the committee; if the support was not available the course requirements might have to be modified. SM asked for list of COs supporting existing software to be provided on HELP information.

Action PDS/JHB/ALL

(c) Director/Assistant Director of New Lab

RM gave meeting a definition of the Lab. He estimated that a fairly substantial number of projects, and researchers, funded by SERC would be established in the lab by next year. The two support posts of the Assistant Director and a secretary were already funded by Alvey. The Department had provided further support, both secretarial and technical, and it was hoped to appoint a Computer Manager, funded by SERC. RM as to withdraw from his BP Research Fellowship in order to devote more time to the Directorship of the Lab. This fellowship could be resumed at a later date. Assistant Director said SERC and Alvey had reacted most favourably to Lab proposal. The meeting congratulated RM and GLC on the excellent progress so far. GLC emphasised the aim of the Lab was to work closely within the Department and to provide departmental services.

4. MUSS on the APM

This would run on 68010 machines and was available for evaluation and research within the department but was not 'exportable'. RNI anticipated collaboration with UMIST in future. Department should decide whether it goes on UNIX and APMs. Revised documentation available shortly. PDS congratulated those responsible for this effort.

6. Journals for JCMB Library

This item was taken out of turn. PDS said that as the Library money might not continue into 1986/87, it would not be possible to appoint a part-time librarian or to order a large number of journals. PDS asked MRJ to draw up a list of requests, including video material, and pass list to himself and RNI as convener of the Syllabus Committee. PDS would consult the Dean for clarification with regard to this money.

The following journals were mentioned:

Journal of Complexity: MRJ recommended this one.

Annals of History of Computing - MRJ looking into back copies of this.

Radical Science - Copy to be circulated to staff for comments

Euro Micro Journal and Journal of Systems & Software - MRJ to investigate.

Action MRJ/RNI/PDS

5. Emergency Action on Computing Service

Meeting discussed possibility of imposing restrictions on use of VAX and transfer of CS2 to Gould Machine. It was decided that

1. GLC would investigate purchase of second-hand memory from DEC
2. We should transfer work to Gould where possible.
3. ML on Gould for CS3

It was also agreed that JHB should issue booking forms for machines based on 1/2 hourly slots, maximum of 2 hours in any one day.

Action GLC, JHB, ALL.

Other comments

It was suggested that we should consider buying a micro-vax II system at the cost of 30-40K. Multiple access by way of a contention switch should help to alleviate the overload. Graphics APM's appear to be over-stretched. JHB's questionnaire on APM's had been circulated. More information later.

7. Report from Syllabus Working Party.

(a) RNI stressed the importance of our courses receiving accreditation from BCS in order to meet the requirements of the new Engineering Council. His Committee felt that our CS3 course was too light, and ought to go to 10 modules. The meeting agreed in principle that a report should go to Board of Studies quickly. CS1 should contain a full course of CS which students must take. The proposal for Board of Studies was:

1. 2 compulsory half courses in CS1
2. CS2 remain but some Real-time material be moved in CS2 systems.
3. 10 modules for CS3.

Meeting discussed a number of problem areas. It was agreed that all our syllabuses should be written down prior to accreditation. Proposals that that CS students should take both halves of CS1 and some courses should be run twice were put forward. SM suggested that we should separate the students who want to do CS from the others in 1st year. PDS agreed to ask Board of Studies to look at our proposals again in Spring.

(b) Joint Degree with Mathematics

Action PDS/RNI

GDP reported that Maths had received a copy of our timetables and were looking at theirs. Wednesday mornings would be taken up. GDP/ASW would put the Joint Degree with Mathematics to Board of Studies.

Action GDP/ASW

(c) Joint Degree with AI

RNI said we should make some AI modules for our CS4. This item should be discussed at the Departmental Syllabus Meeting on 29th November.

(d) Proposal to re-structure CS1 (etc)

Prasad's proposal aroused considerable interest and led to a lively discussion. (Proposal attached to Agenda) SM and RNI did not support the proposal but SM agreed that a higher content of theory should be included in the course. RM referred to the idea of modularity in Computer Science and Modern Introduction. Prasad told meeting that Abelson & Sussman's book "The Structure & Interpretation of Computer Programs" was written in a way which could be understood by 1st year students. It was generally agreed that people in the department should look at the book. Meeting referred the matter to Syllabus Working Party.

Action RNI

(c) 1st year course for non-CS Specialists

Document attached to Agenda. It was agreed to refer this proposal to the Syllabus Working Party.

Action RNI/Working Party

(f) Information Systems 2

Document attached to Agenda. Meeting discussed this and it was agreed that it should be referred to the Syllabus Working Party. There was a feeling that this material might be better propagated in ways other than introducing a new course..

* * * * *

- 8. Syllabus Matters
 - (a) Report from Syllabus Working Party
 - (b) Policy on AI teaching
 - (c) Other Matters

RNI
GM

7. Rebuilding Block O/P

PDS, GLC, RAM

B. Potentially longer items

- 1. Chairman's Business
- 2. Matters arising from November meeting
- 3. Visits by prospective undergraduates
- 4. Departmental T-Shirt
- 5. Journals for Library
- 6. Date of January, February meetings

ASW
CS2
MRJ
PDS

A. Hopefully, quick minor items.

Raised by

Time: 15.30
Venue: Room 5210

FRIDAY 6TH DECEMBER 1985

DEPARTMENTAL MEETING
to be held on

Date 5th December, 1985

From Peter Schofield

To All Staff
Postgraduates

Memorandum

Department of Computer Science



Item 4 : Departmental T-Shirt

An unusual item was raised at the CS2 Staff/Student Liaison Committee - a proposal that a Departmental T-Shirt should be designed and sold.

Peter Schofield

Item 5 : Journals for the Library

I have received three further suggestions for journals to be taken by

JCM Library:

1. Journal of Systems & Software, North Holland (\$?)

2. Microprocessing & Microprogramming - The Euromicro Journal, North Holland (\$168)

(proposer: Frank Cringle)

3. Journal of Information Technology, Kogan Page (£45.00)

(proposer: Rob Procter)

It should be remembered when considering these proposals that three journals

are already queued for consideration by the University Library Committee.

(The total cost of these is \$333.)

Mark Jerrum

Item 6 : Dates of January & February Meetings

(a) The first Friday in January is Friday 3rd, the day the JCM re-opens.

In many ways it would be nice to get our meeting out of the way before teaching

resumes, but would people have items prepared?

(b) The natural February date is Friday 7th February. However, this is two

days after the Board of Studies in Physical Science meets in decision-taking mode.

If there are any issues that we want to discuss again internally, prior to any

possible vote at Board of Studies, Friday 31st January would perhaps be a convenient

early date.

Peter Schofield

Item 7 : Rebuilding Block O/P

Staff will have seen my VAX mail and notes in a recent newsletter. GLC

and RAM have been asked to start thinking about detailed layout and will come to

the meeting armed with some overhead projector slides for discussion.

A further thought has occurred to me. Although preliminary comments from

the Architect suggested that planning permission would not be forthcoming, it

seems to me there would be some advantages in sitting the extra width of Block O/P

to the South of the present block rather than to the North. Rooms occupied by

Heather Carlin, Eric McKenzie, Matthew Hennessy and Ken Chisholm would, for example, no longer be obliterated. It may be, however, that the additional corridors necessary would cancel out this gain. I have not looked at this in detail.

Peter Schofield

Notes on Departmental Meeting held on Friday 6th December 1985
in Room 5210, JCMB

Present:

KBD, RNI, JW, AJS, FDC, GMC, ALM, CPS, NPI, TMH, ACH, RDW, JCD, RAM, DB, MCN, MRJ, FRED, MCP, JJ, KJC, KK, ASW, RC, JHB, SM, RM, PDS, KVS, ALI, RNP, CL.

Apologies from Don Sanella, George Milne, Andrew Blake and Gordon Plotkin.

1. Chairman's Business

Maintenance Work

PDS had received a letter referring to the JCMB maintenance week-end 14/15 December. There was the possibility of disruption to the cooling system and the air conditioning might not be working by Monday 16th December. Further maintenance would take place from 28-29th June 1986.

Fire Alarm

Comment had been made on the timing of the alarms. This would be taken up by the Safety Committee. RNI stressed that CS should have been notified before an alarm takes place. PDS agreed to write to Safety Committee about this point and also to make a strong protest at the Users Committee meeting on the following Wednesday.

Action PDS

Moira Norrie

PDS was pleased to report that Moira Norrie would not now be going to UMIST. She had been reappointed here until September 1987.

2. Matters arising from previous meeting

Extra meeting on 29th November

This had been cancelled.

Allocation of duties of COs

PDS had spoken to the COs. Action was underway to provide on-line information on

HELP.

Doug More

PDS welcomed Doug More who has been seconded to the department from ERCC. He would take some of the load off AJS and JHB. Staff are asked to go to DM about passwords etc. either by Mail (OPs) on VAX or ring Ext. 6783.

3. Visits by Prospective Undergraduates

ASW appealed for assistance with the student visits. RC,FS and CS4 as guides are usual helpers. ASW said we would need to spend more effort to attract future students and commented on lack of interest in the subject by girl students. PDS suggested female members of CS might speak to schoolgirls on the attractions of the subject. After some discussion it was agreed that a definite plan was needed. WEX thought that the problem arose in the schools with the boys taking over the machines and elbowing the girls out.

It was agreed that a list of schools in Edinburgh and the surrounding area should be drawn up and volunteers were requested to visit possibly one school per year. These visits should be made before students are filling in their UCCA forms or even at the stage when they are choosing the subjects for their Highers (or equivalent) Certificate.

CS,NGT,SM,PM,KJC,Bob Harper, PDS, RNI, JHB, JW, RNP were all willing to support this. RDW mentioned BCS Organisation called AYCE which was aimed at young computer enthusiasts.

SM/CS - to produce a list of suitable teachers.

RNI - BCS Publicity on the involvement of young people in computing.

GLC - some visual material for each person.

JHB - contact Ray Footman, Information Director, for some input for this.

Action SM,CS,RNI,GLC,JHB

RC reminded staff that there would be a TLA meeting in the Microlab AT on Wednesday 18th December showing a demonstration of people's work, covering a wide range of applications. This item should be put into the newsletter.

Action RC

4. Departmental T-Shirt!

PDS said CS2 has asked for a departmental T-shirt. It was proposed that ideas for a departmental logo should be invited from staff and students. When some basic ideas had

been received, GLC would pursue the matter of professional development, of (probably related) logos for the Department and the Foundations Laboratory.

Action GLC

5. Journals for Library (Note attached to minutes)

MRJ's notes were discussed. Cost of item (1) would be \$83. Item (3) had wholly British content. A trial issue would appear and PDS asked staff to read it and make comments at a later date when it would be discussed again. Item (1) - FDC told meeting that he wished to withdraw his proposal to acquire this journal.
Item (2) - FDC was in favour of this journal and MRJ agreed to see if one could be made available for staff to look at. Matter to be discussed again.

Action MRJ/ALL

6. Date of January, February meetings

(a) Departmental Meeting: Friday 3rd January at 3.30 in Room 5210.

(b) PDS asked teaching staff to keep Tuesday 31st January available for meeting of teaching staff to consider any policy issues due to arise at Board of Studies. This was agreed.

(c) Departmental Meeting: Friday 7th February at 3.30 in Room 5210 for next departmental meeting.

7. Rebuilding Block O/P

RAM showed the meeting a number of versions of the proposed building plans on slides. The meeting agreed that we should build to the South if this were feasible rather than to the North.

Action PDS/GLC/RAM

8. Syllabus Matters

(a) Report from Syllabus Working Party

The following proposals went to the Board of Studies:

(a) CS1 will consist of an A and B course in the Calendar, each split into a first and second half. The decision to make the CS1B course different for non-CS students has been left to ourselves.
It will be described as being more applications orientated.

(b) The proposal for CS3 was for 10 modules rather than the 8 made up of the existing ones, plus VLSI and Communications. Compilers might be considered but the department lacks expertise at present. If it were introduced system modelling would probably move to CS4.

There is a need for a course on Professional Studies to cover items such as Codes of conduct, codes of practice, management and structure, involved with B Eng degree. We would look at the way this was done in other departments.

RNP had submitted a document to the Syllabus Committee and RNI said that some items in it might well be included in the course. The size of the module could be determined at a later stage.