SCIENCE AND ENGINEERING RESEARCH COUNCIL
RUTHERFORD APPLETON LABORATORY

COMPUTING DIVISION

D I S T R I B U T E D   C O M P U T I N G   N O T E   4 9 3

PANEL MEETINGS	issued by Miss G P Jones
Notes on a Panel Meeting held on 13 October 1981 at the Linean Society	27 October 1981

DISTRIBUTION: R W Witty
                       D A Duce
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                       DCS Meeting/Notes file

PRESENT: B Brinkman (acting Chairman)
                       R Milner
                       K Dickson
                       Dr I C Wand
                       R L Grimsdale
                       B Holloway
                       J Monniot (Secretary)
                       F Chambers (Industrial Coordinator)
                       Dr D A Duce (Academic Coordinator)
                       T Hinde
                       Miss G P Jones (Technical Secretary)

1. ATTENDANCE

Apologies were received from Professor Needham, Mr Newey and Mr Portman.
Mr Brinkman took the chair and welcomed Mr Chambers, the new Industrial
Coordinator, and Mr Dickson from Ferranti Computer Systems, Cwmbram.

2. MINUTES

The minutes of the meeting held on 14 July 1981 were approved.

3. MATTERS ARISING

The Secretary reported that the DoI had been approached about the
possibility of funding the Industrial Coordinator position full-time.
Informally they had indicated that this was not possible but the matter
will be taken up again for future reference.

Dr Duce was asked about Mr Shepherd's reaction to the panel's decision to
supply three rather than five Cambridge Ring Interfaces he requested.
Dr Duce replied that Mr Shepherd was well satisfied with the Panel's
decision. The secretary reported that the Panel's views on rolling grants
had been reported to Computing and Communications Sub-Committee.

The Secretary also reported that Professor Kirstein had been informed that his rolling grant will not be extended for a further two years. No reaction had been received from Professor Kirstein. Dr Duce reported that he had met Professor Kirstein at a conference and had been told that the Panel may expect an application from Mr Higginson for the December round.

The Secretary reported that the Fellowship of Engineering report had now been received by SERC. The report is of a highly critical nature and it was felt that the panel should reply to it. Messrs Portman or Newey plus Brinkman, the coordinators, the Chairman (Prof Needham) and past Chairman (Prof Pyle) were nominated (if they are willing) to draft such a reply.

4. CHAIRMAN'S REPORT

There was some discussion of the proposed Industrial Workshop to be organised by the Industrial Coordinator. The Academic Coordinator reported that Computing and Communications Sub-Committee at their policy meeting had asked to see plans for evaluation of the DCS Programme, and that draft proposals would be considered at the DCS Panel's Policy Meeting, July 1982.

There was discussion of NRDC's involvement in the exploitation of results of SERC grants. The Panel were generally unhappy with the time it takes NRDC to reach a decision on exploitation. The Industrial Coordinator reported that he had arranged a meeting with NRDC representatives and would report back in due course. He pointed out that the Cooperative Research Awards Scheme circumvents the problems of NRDC, but though a useful short term expedient was not regarded as a satisfactory solution to the problem.

5. ACADEMIC COORDINATOR'S REPORT

Dr Duce presented this report in addition to the written report. He noted that the prototype Manchester Dataflow machine had now executed its first programme with a single processor. Commissioning work proceeds. Dr Duce reported on the successful outcome of negotiations between ICL and the Three Rivers Company concerning the Perq computer, and also on SERC's new Software Technology Initiative and the Common Base Policy. The Common Base Policy was well received by all Panel Members except Mr Dickson.

Dr Duce reported that three of the Panel's six Perq computers had already been allocated. After discussion it was agreed that the fairest way to allocate the remaining three was to request bids from all investigators and the Coordinator was instructed to write to all investigators announcing the availability of Perq computers in the DCS equipment pool.

The Panel endorsed the proposal to follow the JNT interim standard mail protocol proposal for usage by DCS investigators.

6. DCS CONFERENCE 1982

Dr Duce presented the revised paper on proposals for a DCS Conference in 1982. The Panel endorsed the revised proposal. The Industrial Coordinator

was asked to help with publicity to industry.

7. RESEARCH GRANTS

Aspinall

There was lengthy discussion whether the roll of this grant should be
allowed. Professor Aspinall was essentially asking for two research
assistants beyond 1983 at a cost of about £50,000 in addition to funds
already committed. Dr Duce reported that this application was the result
of lengthy discussion between Professor Aspinall, himself and Professor
Needham. After discussion it was agreed to recommend a roll of the grant
with a low alpha 2 rating.

Darlington

Both Mr Milner and Dr Wand were impressed by Dr Darlington's grant
application which they felt to be the most interesting of the day.
Comments from Dr Watson and Professor Lanigan were read out, both of
whom expressed reservations about the scale of the project and whether
Dr Darlington could actually achieve his programme with the resources
requested; in particular they were concerned about the efforts that
would be required for the hardware construction programme. The Coordinator
reported that this application was the result of a considerable amount
of work already by Dr Darlington and two good PhD students. The Panel
were agreed that Professor Lanigan's comments about the novelty of this
work were invalid as far as the Distributed Computing content was concerned.

It was decided a small panel should visit Dr Darlington to consider
specifically the scale of his proposed programme and the available
resources for the hardware construction work. Mr Milner, Professor
Lanigan, Dr Gurd or Dr Watson, Bill Turner, the representative from the
University of Edinburgh, device fabrication line will be invited to sit
on this panel. A rating was deferred until the Panel had met.

Hoare (VF)

This application was a re-submission for Dr C Morgan of the University of
Sidney, Australia, to visit the Oxford project for a period of three
months. Professor Grimsdale reported that he was very impressed with the
material that Professor Hoare had sent in support of this application
which showed Dr Morgan to be a competent researcher with a good knowledge
of his field. Dr Wand endorsed the remarks. The Panel agreed to
recommend an award which they rated as high alpha 2.

Needham (VF)

This is an application for Dr J Morris from Xerox Palo Alto Research
Centre to visit Cambridge for a period of nine months. The Panel agreed
to recommend an award rated alpha 1.

Wage (VF)

This was an application for Professor Ashcroft from the University of
Waterloo to visit Warwick for a perod of two months. The Panel agreed to
recommend an award rated high alpha 2.

Page

This application was for funds to evaluate the disarray processor. Mr Portman in a written comment expressed reservations that Dr Page's ability to run the project but on balance recommended support in the alpha 2 category. The Panel whilst sharing Mr Portman's reservations about Page's ability to manage the project were of the opinion that the Disarray work was still worth completing. Dr Duce reported on the construction work that Dr Page had completed with assistance from the Rutherford Laboratory. Three of the required boards had been completed and a further eight were under construction. The Panel agreed to recommend an award graded alpha 2.

Grimsdale/Halsall

The spokesmen were of the opinion that this was a very well constructed grant application from a group that has a very good track record of sensible practical work. The Panel had no hesitations about recommending an award rated high alpha 1.

Lauer(VF)

Mr Milner felt that Professor Janicki was perhaps rather more formal in his approach than Dr Lauer's group but felt that the Newcastle group would benefit from this visit. The Panel agreed to recommend an award graded alpha 1.

Garratt

The Panel had some reservations about this application in that it appeared to be an application for a departmental ethernet and little emphasis was being placed on the portability of the resulting software. This was a new project to the DCS programme and the Panel felt that it should be referred to the higher committee. The Panel felt a manufacturer eg Systime should be involved in the project. The Panel also felt that the referee's comments should be solicited from Professor Needham, Dr Rosner of the Joint Network Team and Mr Tucker of Logica before the C&C meeting.

Clarke

Mr Milner expressed reservations about this application. He did not think it was useful as a contribution to the semantics of parallel processing and contained too little reference to ease of use and ease of expression to be a useful contribution to programming methodology. On balance he advised support in the low alpha 2 category but felt that further evidence from Dr Clarke should be solicited covering:

1. The emphasis to be placed on ease of use of the relational language and expressive power in the proposed reseach.

2. Further details of the operating system it was proposed to build.

The Panel agreed that this application should be put to the higher committee as it was from a group not already within the DCS programme and was not a project they would wish to see within the DCS portfolio. The coordinator was asked to solicit further information from Dr Clarke before the C&C meeting.

Wilkinson

This application was again a re-submission from a group new to the DCS programme. The Panel were not wildly excited by the proposal but felt it would perhaps serve to start up a new research group in Cardiff. The Panel felt it was not something they would wish to see in their portfolio but referred to C&C with an alpha 2 rating.

The mention in the proposal of electrocardiogram analysis led to the suggestion from the Secretary that the application should be brought to the attention of SERC's biomedical engineering panel. It was felt that the application would not merit funding by that panel but could be brought to their attention for information.

Wetherill

This was also an application from a group not already in the DCS programme. Mr Milner thought that the idea in the application was a simple one, the outcome of which could be interesting or depressing. He was not wildly enthusiastic about the application. The Panel agreed to recommend funding rated alpha 3.

The proposal bore some resemblence to Dr Darlington's proposal though the proposed implementation strategy was very different.

Bell, Willis & Kerridge

This application was also a re-submission from a group not already in the DCS programme. Mr Milner reported that he had a useful discussion with the applicants following their last rejection. The application had changed quite considerably since the last time, principally the involvement of industry in the provision of specific application examples. The Panel had some reservations about the project, principally the proposed scale of the project (involving five different inter-connection technologies) and the fact that they proposed using Z80 hardware which Pascal Plus and Edison would need to be ported. This could represent a considerable amount of effort.

After lengthy discussion it was agreed that Dr Wand and Dr Duce should visit the group with a view to modifying their programme along the lines suggested above (reducing the scale of the programme and using LSI1 rather than Z80 hardware). If Mr Brinkman is satisfied with the outcome of these discussions the Panel agreed to recommend an award rated alpha 2. The Panel felt that the project although from a group not already in the DCS programme should be a part of the DCS portfolio.

Ranking

alpha 1	alpha 2	alpha 3
1. Grimsdale	1. Hoare	1. Wetherill
2. Needham	2. Wadge	
3. Lauer	3. Page	
	4. Bell, Willis & Kerridge	
	5. Wilkinson	
	6. Clark	
	7. Aspinall	

8 APPLICATIONS FOR COMMENT

Winter

The Panel felt that this application was rather thin. Professor Grimsdale said he could not see how the objectives of the grant were to be achieved. He thought the Ferranti hardware proposed was possibly not right for the job. He was not clear why the proposed inter-connection topology was a good one nor was it clear how the resulting engine would be programmed. The Panel felt that a one year fesibility study was more appropriate at this stage than a three year award. These views were to be relayed to the Cooperative Awards committee.

Weston

Dr Duce reported on his visit to Redfearn National Glass Limited at Barnsley. The Panel were pleased to see this application although they regretted that a DCS investigator was not involved in the proposals.

Sterling

This project was welcomed by the Panel. They asked that the investigator be put in touch with Dr Sloman at Imperial College who might be able to advise them. The project was felt to be more of a control problem than a Distributed Computing problem.

9. PROGRESS REPORTS

Hanna

Professor Grimsdale said that he felt the work had been completed satisfactorily and that no special comment was required.

Hunter

There are no comments on this report as the spokesman was not present at the meeting.

Paker

Professor Grimsdale said that he felt the group had achieved what they had set out to do.

Wadge

There are no comments as the spokesman was absent.

10. ANY OTHER BUSINESS

The Secretary tabled a late paper outlining proposals for the teaching companies scheme which he had been instructed by the office to bring to the attention of the DCS Panel. The Secretary reported that the Panel were being asked to come up with a proposal for a teaching company within the DCS programme. The Panel members were asked to write to the Secretary if they had any suggestions for companies or groups to be involved in such a scheme.

jg-wp