Minutes of meeting of the Program Library Sub-Committee held on Wednesday, 25th February 1970 at 3.30 p.m. in the William Robertson Building.

PRESENT Professor D.J. Finney (in the Chair) Professor P. Vandome Mr D.N. Allum Mr D. Kershaw

Dr R.F. Cheeney (for item 3 only) Dr M.A.D. Fluendy (for item 3 only) Dr G.M. Thomas (for item 3 only)

Mr D.T. Muxworthy (secretary)

APOLOGIES FOR ABSENCE Mr R.E. Day Dr J. Fulton Dr F.R. Himsworth

1. MINUTES OF PREVIOUS MEETING The minutes of the previous meeting, held on 16th January 1970, were approved subject to the word 'would' on the next last line of the second page being replaced by 'might usefully'. [refers to 'would work in close consultation with an ERCC programmer']

2. MATTERS ARISING FROM THE MINUTES It was reported that the notices in the University Bulletin and Centre Newsletter had attracted three replies, of which only one was of the type invited. This would be passed to the appropriate group within the Centre for action and a report on progress would be made at the next meeting.

It was decided to ask Messrs Coxon, Lutz and Woolf whether they would have any paper to present to the next meeting of this committee and if so to invite them to circulate the paper and to attend the meeting.

The Chairman asked that the method of control of the fund for program purchase be made known to the committee.

3. LIBRARY PROGRAMS FOR PHYSICAL SCIENCE DEPARTMENT Each of the invited participants made a brief statement of their experience with the library and there followed a general discussion.

Computer users in the departments represented were thought to be satisfied with the services provided but there was general concern about non-users. Often they did not know of the existence of the library and when they did they were put off by the amount of work involved in preparing to use a library program. The committee welcomed a suggestion that there should be a special 'simple' library of about 8-10 programs for non-users (staff, graduate students and undergraduates). Each program in this library should have its own complete description such that it could be used by an inexperienced person without reference to any other document. The description should assume that the user is a beginner both at using a computer and at the method of analysis used and should be written as simply as possible (e.g. for simultaneous linear equation solution it is not necessary to use the word 'matrix'). Programs for this library were suggested at the meeting and later in writing and a list is given in the Appendix to these minutes.

In reply to a suggestion that users new to a mathematical method should consult ERCC staff it was stated that there was a marked reluctance to make appointments and that the earlier method of consultants being always available at stated times was preferred,

Dr Fluendy raised two points of general interest which the committee asked to be referred to the Director of the Centre. These were:

(a) If a department has a program which is working satisfactorily and is well used by several individuals within a department but thought to be of no interest outside the department, could the Centre accept the responsibility of guaranteeing the program across compiler and system changes and making the appropriate program amendments?

(b) Given that a program is used heavily by a department, could the Centre accept the responsibility of making the program as efficient as possible?

4. OTHER BUSINESS The Committee expressed its thanks to Mr Allum for his very valuable work for the Committee and wished him well in his new post.

5. DATE OF NEXT MEETING The next meeting will be held on Friday 24th April 1970 at 3.30 p.m.

(signed D.J. Finney 24 April 1970)

## APPENDIX

## SUGGESTED PROGRAMS FOR 'SIMPLE' LIBRARY

Solution of a single differential equation. 1.

- Least square curvefitting: polynomial. 2.
- Least square curvefitting: arbitrary function. 3.
- Zeros of a polynomial. 4.
- 5. Fourier analysis.
- Simple linear regression, possibly with transformations of variates. Solution of simultaneous linear equations. 6.
- 7.
- Quadrature. 8.
- 9. Evaluation of a continued fraction.