

EDINBURGH REGIONAL COMPUTING CENTRE

Minutes of meeting of the  
Program Library Sub-Committee  
held on Wednesday 28th February,  
1968, at 3.30 p.m. in the  
William Robertson Building.

PRESENT:

Prof. D.J. Finney (in the Chair)  
Prof. P. Vandome  
Mr. D.N. Allum  
MR. R.E. Day  
Dr. J. Fulton  
Mr. D. Kershaw  
Mr. D.T. Muxworthy

1. MINUTES OF PREVIOUS MEETING

It was decided that the word 'unsophisticated' should be substituted for the word 'crude' in line 3 of the paragraph entitled 'Matrix operations'.

2. REPORT ON PROGRESS

Mr. Day reported on progress on programs discussed at the previous meeting.

Matrix operations

It was recommended that mrlneq should replace eqn solve k in the matrix pack and that a version of compfact using double length words should be written. As much work as possible should be done on matrix routines whilst Mr. H. Burema was available for consultancy.

Complex arithmetic

A request was made for a fast complex arithmetic pack in which it would be necessary to refer to only one variable name for each complex number pair. Dissatisfaction was felt with the speed of the current complex arithmetic pack.

Statistical functions

For most uses functions of low accuracy were adequate but high accuracy was sometimes needed. It was more important to have the low accuracy functions available first.

A need exists for Student's t, chi-squared and more accurate normal probability routines, and their inverses. Some of these are available, or are under development in Statistics department,

Special functions

It was felt that special functions should have low priority unless there was a definite demand. A comparison of the methods of approximation and of tabulation should be undertaken; splines could be used for storing tables.

Mr. Kershaw reported on progress on testing the KDF9 permanent library functions for accuracy.

Linear Programming

Mr. Day said that the Centre did not intend to write any programs for L.P. until a senior programmer with appropriate experience had been engaged. The committee accepted this statement.

3. STATE OF PROGRAMS

The committee considered a document entitled "State of programs" (stencil RCC402) prepared by Mr. Allum and recommended the class into which each routine should be put. These are shown in an appendix to the minutes.

4. DATE OF NEXT MEETING

It was agreed to hold the next meeting on Friday 19th April 1968 at 3.30 p.m.

(signed D.J. Finney 19 April 1968)

APPENDIX TO PROGRAM LIBRARY SUB-COMMITTEE MEETING OF  
28 FEBRUARY 1968

LIBRARY PROGRAM CLASSES

Abstract no.	Name	Class	Abstract no.	Name	Class
49	Aitken	1	18,19	Fprob	1
68	Cheb	2	71	Gamma (Alg 31)	2
67	Chebarray	2	31	Gamma (Alg 221)	1
70	Chebcbf	2	48	Hermite	1
44	Chebint	1	73	Inversion 2	2
20,21	Chipr	1	38	Invtp	2
33	Compline intgri	2	1	Kutta Merson	1
61	Curvefit	1	47	Lagrange	2
5	Davidon	1	51	Mag. tape sorts	2
45	Determinant 1 *	1	72	Minimum	2
46	Determinant 2 *	2	62	Minwig	2
36	Ekz	1	60	Minwig p	2
35	Expint	1	74	Simplex	2
			59	Simplex b	1

\* the order was not decided.

Other programs available were not considered because of either lack of time at the meeting or lack of information on the programs.