



**Edinburgh
Regional
Computing
Centre**

User Note 88

(June 1986)

Title:

Microcomputing Support Policy for Edinburgh University

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Contact:

Advisory service

Software Support

Category: n/a

Synopsis

This Note presents the University's Microcomputing Support Policy as it relates to ERCC and CAST and the support units within the Centre which are responsible for putting the policy into effect. Contacts are identified for users seeking help or more information.

The policy itself is subject to review on an annual cycle with any revisions being agreed in February. It is not expected, however, that major changes will be made; rather that fine tuning will be desirable. On the other hand, the two support matrices which appear at the end of this Note will be updated from time to time to reflect mainly additions to the range of supported products.

Keywords

Hardware, languages, machine environments, microcomputing, micros, operating systems, packages, software

1 Objective

The objective of the Microcomputing Support Policy is to provide a framework within which the several support agencies within Edinburgh University which are active in the area of personal computing can coordinate and operate effectively and to the benefit of their user communities.

2 Support Agencies

2.1 The Support Agencies involved in microcomputing support in the University are:

Centre for Applications Software and Technology (CAST)

Data Processing Unit (DPU)

Personnel Office (PO)

Edinburgh Regional Computing Centre (ERCC, several support groups)

The report of the ERCC Review Committee, published in October 1985, recommended changes in the nature of the relationships between ERCC and CAST. These changes are designed to improve direct support to users, especially in the area of microcomputing. If and when they are implemented, then their effect should be to enhance the application of this policy.

2.2 In presenting a policy, the University faces two difficulties. On the one hand, it has to retain enough control and stability (strengths of the previous policy) to ensure that meaningful support can be given to users across the range of approved activity. On the other, it wishes to liberate the situation sufficiently to enable users to take advantage of new and often exciting developments available in the market. The task is further complicated by the much increased interaction now required between the different support agencies, and within different parts of ERCC.

3 Aspects of policy

3.1 Time Scales

The original ERCC support policy applied for four years. This was too long, and instead there now exists a mechanism for an annual review of the policy to ensure that it:

- a) keeps up-to-date with technology, thereby ensuring a smooth progression of users to new software and hardware offerings;
- b) remains fully relevant to the user communities' needs;
- c) has received and will continue to receive adequate support resources, (these are people, hardware and software), to remain effective.

3.2 Activities to be supported

Personal computers are now being applied in many sectors of the University. Users in each of these sectors are looking for at least some central support for their work. It is convenient to bear in mind the following broad categories of activity when determining support arrangements.

- a) Application development
- b) Package applications
- c) Office/administrative computing
- d) Real time/laboratory computing
- e) Teaching

3.3 Support tasks to be resourced

Support to a user will involve one or more of the following tasks:

- a) Requirements analysis
- b) Purchasing hardware and software, including advice on machine configuration to support particular applications
- c) Installation service, to take delivery of hardware and software, test and install them
- d) Installation support, that is, the tailoring of applications packages to local requirements
- e) Demonstrations of both supported and future facilities
- f) Training
- g) Seminars on the use of advanced facilities
- h) Scheduled advisory
- i) Consultancy assistance for less tractable problems
- j) Application development
- k) Operating system Support
- l) Provision of networking facilities
- m) Provision of hardware and software maintenance
- n) Provision of up-to-date documentation
- o) On-line information service (View or Viewer on BUSH or EMAS)

4 Support Structure

Rather than attempt to replicate the expertise already available, in each field the structure relies upon the existing services. This means one agency assuming responsibility for each activity throughout the University, in order to cope with the increasing demand and the steadily increasing diversity of software requiring support. Thus, technical support for each package is provided by one agency only, irrespective of the place, or type of use, involved. Similarly, the change which took place in 1985 when Personnel Office assumed responsibility for all staff, is being used to improve coordination of training for all staff, regardless of their grading as academic, clerical or administrative. The following arrangements also assume a sound infrastructure providing operating system and communications support.

4.1 Requirements Analysis

This is undertaken by CAST, DPU and ERCC, with coordination provided by ERCC Service Support.

4.2 Purchasing

ERCC Administration has this responsibility for both hardware and software on a University wide basis, in order to obtain the best terms and availability, with appropriate help from the technical experts in the University who have been evaluating the products, and hence are in touch with the suppliers. This service handles ordering and delivery, which includes chasing delayed orders and incomplete or incorrect deliveries, handling of payments and maintenance of appropriate records. In parallel, departments are being more firmly guided towards use of this service.

4.3 Installation Service

ERCC Administration provides a hardware delivery service. Where an order has been placed via DPU, the delivery is to DPU or direct to the end user, as requested by DPU. If the user needs help with setting up his hardware, this is available on request from Service Support.

4.4 Installation Support

No agency at present provides a comprehensive software installation and configuration service throughout the University but each package is the responsibility of a single agency. Specifically, DPU has responsibility for the configuration of approved packages used in office environments throughout the University. For systems delivered by ERCC, if the user needs additional help in planning or getting going on his system, then Service Support will arrange a visit by the appropriate consultant from DPU, CAST or ERCC.

4.5 Training

The ERCC Training Group is responsible for provision of training in the use of ERCC's services and facilities, including uses of microcomputers. CAST mounts some of the courses. Courses are provided for academic, research, post-graduate and administrative staff, though not in general for undergraduate students. ERCC Receptionists have details of courses currently offered. New courses are introduced in response to changing requirements.

Personnel Office coordinates the provision of training for all administrative users and not solely those within Central Administration where there is a large scale requirement. All the support agencies collaborate, as appropriate on the provision of required courses, including the use of their teaching/demonstration facilities. In addition, there is close cooperation with the installation and support functions.

4.6 Advice

Whilst it is certainly desirable that there be a single point of contact for users, which can call upon the services of any relevant agency, in practice, organizational problems make this difficult.

A single support desk would be able either to route a query to an adviser who can handle it over the telephone, or to send a support person to the site to investigate

the problem or arrange for guidance in better use of the application, or to arrange for maintenance and supplies. Historically, this support has been available to the majority of users from the ERCC Advisory service and to others (mainly in the University's Administration) from DPU; this arrangement continues and is being strengthened. ERCC has reinstated its full daily Advisory service at George Square, as well as continuing it at JCMB.

Backup arrangements, although usually not available directly to users, are of great importance. Backup support from ERCC includes operating system support, language support, communications support, requirements analysis, equipment evaluation and planning for upgrades. More backup to the microcomputing activities, in particular the use of application packages, comes from the relevant staff in CAST. In addition to providing advice to users within the University Administration, DPU also provides backup advice to all users of specified administrative packages.

5 Supported Environments

5.1 Machine Environments

Under the policy, no one system is exclusively supported and promoted. Instead, a small number of systems receive support and their use is encouraged in the appropriate situations. Operating systems which receive support will usually be available on different personal computers. The support offered to each combination of machine and operating system – that is 'machine environment' – is separately specified. In addition, support levels change and the policy indicates for each machine environment what changes in support are anticipated. Such intentions, which are not guarantees, are of the form:

- improved support (i.e., further development, increased experience among support staff and provision of more of the tasks listed in 3.3)
- sustained support (i.e., continue existing support, but commit no extra support effort)
- declining support (i.e., limit support effort to maintenance only, to be followed after due notice by transfer to a lower support level)

The three levels of support currently identified are specified fully in Section 6. They are:

M1 Full support

M2 Basic support

M3 Minimal support

5.2 Hardware

In the past, submissions to the Computing Equipment Panel (CEP) were more readily approved if they were based on fully supported hardware. This implied a narrow choice. It remains an objective that any submission is assessed for its suitability as a solution to the problem in hand, the actual choice of hardware is less important than the combination of hardware and operating system, that is the machine environment. For dedicated applications, there may be no choice of machine environment, and such turnkey systems must have separate and careful consideration as to their support. Even so, it will be much easier for both users and support staff and will help group purchasing if new micros are chosen from within the list of approved, and hence well understood, systems. The Support Matrix (see

Appendix) shows what machine environments are receiving support at any time. (The matrix was prepared on an Apple Macintosh using Multiplan, and printed on an Apple Laserwriter.)

5.3 Application software

An important consideration is the relationship between the Language/ Package support level and the Machine Environment support level. Whilst one might normally expect languages/packages to be at the same, or lower, support level than the host machine environment, it is not difficult to conceive of situations where a language/package could enjoy a higher support level than its host. For example, packages which provide a range of integrated facilities (graphics, database, statistics, word-processing, etc.) and which place minimal demands on the user's knowledge of the operating system in order to utilize them, do not of necessity require the machine environment support level to be at the same or higher level of the package itself. It is not obviously possible to define some simple formula specifying the relationship between language/package support levels and those of their hosts, and the minimum host support level for any particular language/package will depend very much on the nature of the language/package facilities. As a general rule, the greater the knowledge of the host machine environment that the language/package demands of the user, then the higher will be the minimum support level for the machine environment in relation to that language/package.

Languages have an additional link with the support of machine environments. Level M1 requires the provision of general support to at least one main line language. These languages are Pascal and Fortran at present. The preferred compiler or interpreter on a chosen system is indicated in the Package/Language Support matrix, (see Appendix).

5.4 Investigation of new systems

In addition to meeting current support commitments, the support agencies must put effort into investigating new systems which offer prospects of meeting users' requirements. This work will often be done in cooperation with appropriate users. It should always lead to the writing of evaluation reports. Details of which systems are being studied, and what reports are available are publicized, particularly for the benefit of those users who have to plan their future purchases well in advance. Advice is given to the Computing Equipment Panel on future equipment policy relating to microcomputers. Also under investigation at any time will be new releases of supported environments, prior to their replacing the supported version, or discarded as the case may be.

A specific instance is that of look-alike or compatible alternatives to the IBM PC. Price, delivery and performance considerations have made it worthwhile to look seriously at a selection of these but, until a specific recommendation is made, the support agencies are not committed to giving any support to such micros.

6 Machine Environment Support Levels

The microcomputing policy takes account of several systems for which differing levels of support have to be identified and allocated to each recognized system, and to different machine environments available with each system. The support offered to the IBM PC applies specifically to that hardware and not to any of its 'look-alike' or so-called compatibles, though one or more of these may be added at a later date. Three levels of support are covered by the policy; they are as follows.

Level M1 (Full Support)

Level M1 has the highest level of support offered. The label 'Full Support' does not imply unlimited support; rather it indicates that there is fuller support provided at this level than at other levels, as is spelled out below.

- (a) Support Agency (or agencies) identified.
- (b) Security of support will be given by one year's notice of intention to downgrade from Level M1. (Where an aspect of support is dependent on an external agency, it may not always be possible to give full notice.)
A distinction is drawn between operating systems and specific machine environments. Elevating an operating system to Level M1 normally implies its support on a number of different microcomputers. As hardware changes, the support effort may have to move from one machine environment to another to ensure continuity and to retain value for money in new purchases.
- (c) General system and application development effort to provide and support:
 - operating system and its utilities. (Full support may only be given to current release. Earlier releases are normally downgraded)
 - terminal emulation program with file transfer
 - at least one main line language
 - at least one word-processing package
 - recommended local and network printers (draft, letter and graphics)
- (d) Front line advisory support for each of the headings in (c) above.
- (e) Back-up support provided by the relevant agencies for each of the items in (c) above.
- (f) Evaluation reports will be prepared and made available for each of the headings in (c) above.
- (g) Other user assistance provided:
 - courses (which may be computer based)
 - tutorials
 - demonstrations
 - departmental loan system (or general user access to a system, e.g., in a laboratory or demonstration area)
 - documentation (supplier's and local supplements as appropriate)
 - central ordering
 - advice on choice of configuration for different needs
 - installation and check out service
 - maintenance support arrangement established
- (h) Additional services provided may include:
 - bulk purchasing discounts negotiated
 - verification of configuration
 - system software distribution, including updates.

Level M2 (Basic Support)

This level includes only a minority of the components of Level M1.

- (a) Evaluation report available
- (b) Terminal emulation available and supported
- (c) At least one preferred local printer configured
- (d) Limited advice available
- (e) Reference site identified
- (f) Central ordering
- (g) For each machine environment, there will be an indication of whether:
 - support is planned to be improved to Level M1, and by what target date
 - support will continue at Level M2
 - support will be downgraded to Level M3 (6 months notice to be given).

Level M3 (Minimal Support)

This bottom level covers all those other systems on which any of the support agencies have worked and consider may be useful to some users.

- (a) Machine independent terminal emulation source program (probably in Pascal) available with documentation, but no certainty of any support effort towards its implementation.
- (b) Supplier's literature and any evaluation reports available for reference.

7 Package/Language Support Levels

At each support level, for each package/language, the following basic information is identified:

- (i) Support agency
- (ii) Package/language version
- (iii) Host machine environment

The support features at levels P1, P2 and P3 are then defined as follows:

Level P1

- (a) Evaluation report available. This report will normally derive from the initial investigation into the package and so may not relate directly to the current version or machine environment on which it runs.
- (b) Documentation (supplier's and, if necessary, local supplements)
- (c) Advice given on problems of use
- (d) Advice given on suitability for applications
- (e) Demonstrations
- (f) Courses
- (g) Tutorials
- (h) Front line advisory support

- (i) Effect of machine environment support level on package language support level
- (j) Intention in respect of package/language
- (k) Security of support will be given by 6 month's notice of intention to downgrade from P1; however, where the maintenance support arrangement is provided by an external agency and is withdrawn at short notice by that agency, then it will be necessary to downgrade the support level at shorter notice than normal.
- (l) Additional services provided may include:
 - bulk purchasing discounts negotiated
 - central ordering
 - software distribution, including updates
 - maintenance support arrangement in force
 - application development and support.

Level P2

- (a) Evaluation report available.
- (b) Documentation (supplier's and, if necessary, local supplements)
- (c) Advice given on problems of use
- (d) Advice given on suitability for applications
- (e) Demonstrations
- (i) Effect of machine environment support level on package language support level
- (j) Intention in respect of package/language
- (k) Security of support will be given by 6 months notice of intention to downgrade from P2; however, where the maintenance support arrangement is provided by an external agency and is withdrawn at short notice by that agency, then it will be necessary to downgrade the support level at shorter notice than normal
- (l) Additional services provided may include:
 - bulk purchasing discounts negotiated
 - central ordering
 - software distribution, including updates
 - maintenance support arrangement in force
 - application development and support.

That is Courses, Tutorials, and Front Line Advisory support are dropped at level P2.

Level P3

- (b) Documentation (supplier's and, if necessary, local supplements)
- (c) Advice given on problems of use
- (i) Effect of machine environment support level on package language support level
- (j) Intention in respect of package/language
- (k) Security of support will be given by 6 month's notice of intention to downgrade.
- (l) Additional services provided may include:
 - bulk purchasing discounts negotiated
 - central ordering
 - software distribution, including updates
 - maintenance support arrangement in force
 - application development and support.

Machine Environment Support Matrix - 1/5/86

Microcomputer	Operating System	Versn.	Support Agency	Support Level	Supp. Intent.	Terminal Emulation	File Transfr.	Text Proc.	Langs.	Printers	Scheduled Advisory	Local Documents	Eval. Report	Training	Demos.	Dept. Loan / Lab. System	Install. Service	Maint. Expense	Microcomputer
Apple 2	Pascal	2.1	ERCC	M2	Down	ascii	X-t	U	P,F	A	Yes	Yes	Yes	I,T	Yes	Yes	Yes	Yes	Apple 2
Apple Macintosh	Apple		CAST	M3		ascii	K		P	A					Yes	Yes	Yes	Yes	Apple Mac.
Apricot	P-S(D)	4.13	ERCC	M1		ascii	X-t	U	P,F	A	Yes	Yes	Yes	I,T	Yes	Yes	Yes	Yes	Apricot
Apricot	MSDOS	2.x	ERCC	M2	Up	ascii	X-t,K	V,WC	P,F	D,L	Yes			I,T	Yes		Yes	Yes	Apricot
BBC 'B'	MOS	1.2	ERCC	M1		ascii	X-t,K	WW	B	A	Yes	Yes	Yes	I,T	Yes	Yes	Yes	Yes	BBC 'B'
Cromemco	CDOS		ERCC	M3		User	User	W											Cromemco
Cromemco	P-S	2.0	ERCC	M3		ascii	X-t	U	P										Cromemco
IBM-PC	PCDOS	2.x	DFU	M1		3270	IRMA	W,M,WC		A	Yes	Yes		C,I,S,T	Yes	Yes	Yes	Yes	IBM-PC
IBM-PC	PCDOS	3.x	ERCC	M1		ascii	X-t,K	V,WC	P,F	A	Yes	Yes	Yes	C,I,S,T	Yes	Yes	Yes	Yes	IBM-PC
IBM-PC	P-S(D)	4.1	ERCC	M1		ascii	X-t	U	P,F	D,L	Yes	Yes	Yes	I,T	Yes	Yes	Yes	Yes	IBM-PC
Kay-pro	P-S	4.12	ERCC	M2	Down	ascii	X-t	U	P,F	D,L			Yes	I		Yes	Yes	Yes	Kay-pro
PDP-11	RT11	4.0	ERCC	M3		ascii	X-t		F										PDP-11
Sirius	MSDOS	2.11	ERCC	M2		ascii	X-t,K	V,WC		D,L	Yes			I,T	Yes	Yes	Yes	Yes	Sirius
Sirius	P-S,p-S(D)	4.13	ERCC	M1		ascii	X-t	O	P,F	A	Yes	Yes	Yes	I,T	Yes	Yes	Yes	Yes	Sirius
Superbrain	P-S	4.0	ERCC	M3		ascii	X-t	U	P,F	D,L				I		Yes	Yes	Yes	Superbrain
Abbreviations:																			
Operating Systems:																			
P-S	UCSD p-System							Training						Printers (local):					
P-S(D)	DOS Hosted p-System								C	Commercial course					D	Draft			
									I	Internal course					G	Graphics			
File Transfer/Terminal Emulation:									S	Self-teach course					L	Letter			
ascii	ASCII scroll mode				terminal emulation				T	Tutorial					A	All three			
IRMA	File transfer and 3270 emulation							Language											
K	Kermit								B	Basic				Text Processing:					
User	Private user								F	Fortran					O	Offload			
X-t	X-talk file transfer protocol								P	Pascal					U	UCSD utilities			
3270	IBM 3270 terminal emulation														W	Wordstar			
								Support	Intention:						M	Multimate			
									Blank	Sustaining					V	Vnuwriter			
									Up	Increasing					WC	Wordcraft			
									Down	Decreasing					WW	Worldwise			

Package/Language Support Matrix - 1/5/86

Package/ Language	Version	Machine	Environment	Support Agency	Support Level	Supp Intent.	Sched. Advice.	Local Docmnt.	Advice on Use	Advice on Application Suitability	Eval. Report	Training	Demos.	Central Ordering	Software Updates	Applic. Develop. & Suppl.	Package/ Language
Communication Utilities																	
Kermit		Apricot	MSDOS	ERCC	P2		Yes	Yes	Yes	Yes			Yes	Yes	Yes		Kermit
Kermit	1.3	BBC	MOS	ERCC	P2		Yes		Limited	Yes			Yes	Yes	Yes		Kermit
Kermit		IBM-PC	PCDOS	ERCC	P2		Yes	Yes	Yes	Yes			Yes	Yes	Yes		Kermit
Kermit		Macintosh	Apple	ERCC	P3				Limited	Limited			Yes				Kermit
Kermit	2.38	PDP11	RT11	ERCC	P2		Yes		Limited	Yes			Yes	Yes	Yes		Kermit
Kermit		Sirius	MSDOS	ERCC	P2		Yes	Yes	Yes	Yes			Yes	Yes	Yes		Kermit
X-talk		Apricot	MSDOS	ERCC	P1		Yes	Yes	Yes	Yes		I,T	Yes	Yes	Yes		X-talk
X-talk		Apricot	p-S(D)	ERCC	P1		Yes	Yes	Yes	Yes		I,T	Yes	Yes	Yes		X-talk
X-talk	2.1	BBC	MOS	ERCC	P1		Yes	Yes	Yes	Yes		I,T	Yes	Yes	Yes		X-talk
X-talk		IBM-PC	PCDOS	ERCC	P1		Yes	Yes	Yes	Yes		I,T	Yes	Yes	Yes		X-talk
X-talk		IBM-PC	p-S(D)	ERCC	P1		Yes	Yes	Yes	Yes		I,T	Yes	Yes	Yes		X-talk
X-talk		Sirius	MSDOS	ERCC	P1		Yes	Yes	Yes	Yes		I,T	Yes	Yes	Yes		X-talk
X-talk		Sirius	p-S,p-S(D)	ERCC	P1		Yes	Yes	Yes	Yes		I,T	Yes	Yes	Yes		X-talk
Database Packages																	
Aladin	2.6	Sirius	p-S	CAST	P3				Limited	Limited	Yes					Limited	Aladin
Dbase-III	1	IBM-PC	PCDOS	CAST	P2				Yes	Yes	Yes		Yes	Yes		Limited	Dbase-III
Delta 4		Apricot	MSDOS	DPU	P1		Yes		Yes	Yes		C,I,S,T	Yes	Yes	Yes	Yes	Delta 4
Delta 4		IBM-PC	PCDOS	DPU	P1		Yes		Yes	Yes		C,I,S,T	Yes	Yes	Yes	Yes	Delta 4
Delta 4		Sirius	MSDOS	DPU	P1		Yes		Yes	Yes		C,I,S,T	Yes	Yes	Yes	Yes	Delta 4
K-Man	1.07	IBM-PC	PCDOS	CAST	P3				Limited	Limited	Yes		Yes	Yes		Limited	K-Man
Keep-IT	2.23	IBM-PC	PCDOS	DPU	P3		Yes		Yes	Yes		S,T	Yes	Yes	Yes	Yes	Keep-IT
Omni 2	2.1	Apricot	p-S, p-S(D)	CAST	P3				Limited	Limited	Yes	C		Yes		Limited	Omni 2
Omni 2	2.1	Sirius	p-S	CAST	P2				Yes	Yes	Yes	C	Yes	Yes		Limited	Omni 2
Omni 3	3.1	Apricot	p-S,p-S(D)	CAST	P3				Limited	Limited	Yes	C		Yes		Limited	Omni 3
Omni 3	3.1	Sirius	p-S	CAST	P2				Yes	Yes	Yes	C	Yes	Yes		Limited	Omni 3
PC-File III	3	IBM-PC	PCDOS	CA/ER	P2				Yes	Yes	Yes	I,T	Yes	Yes		Limited	PC-File III
PC-File III	3	Apricot	MSDOS	CA/ER	P3	Up			Limited	Limited	Yes	I,T	Yes	Yes		Limited	PC-File III
Graphics Packages																	
Chart	1.01	IBM-PC	PCDOS	CAST	P3	Up				Limited		I	Yes				Chart

Package/Language Support Matrix - 1/5/86

Package/ Language	Version	Machine	Environment	Support Agency	Support Level	Support Intent	Sched. Advice	Local Docmnt.	Advice on Use	Advice Application	Eval. Report	Training	Demos.	Central Ordering	Software Updates	Applic. Develop.	Package/ Language
Languages																	
Basic BBC	2	BBC	MOS	ERCC	P1		Yes		Yes	Yes	Yes	I	Yes	Yes	No		Basic B
Fortran UCSD		P-S	P-S	ERCC	P2		Yes		Limited	Yes	Yes		Yes	Yes	Yes		Fortran UCSD
Pascal UCSD		P-S	P-S	ERCC	P1		Yes		Yes	Yes	Yes	I,T	Yes	Yes	Yes		Pascal UCSD
Pro Pascal	1142.1	MS/PCDOS	MS/PCDOS	ERCC	P2		Yes		Yes	Yes	Yes		Yes	Yes	Yes		Pro Pascal
RM Fortran	1.0	MS/PCDOS	MS/PCDOS	ERCC	P2		Yes		Limited	Yes	Yes		Yes	Yes	Yes		RM Fortran
Spreadsheets																	
Lotus-123		Apricot	MSDOS	CA/BER	P3	Up			Limited	Limited		C,I,S,T		Yes		Limited	Lotus-123
Lotus-123		Apricot	MSDOS	DPU	P1		Yes		Yes	Yes		C,I,S,T	Yes	Yes	Yes	Yes	Lotus-123
Lotus-123		IBM-PC	PCDOS	CA/BER	P3	Up			Limited	Limited		C,I,S,T	Yes	Yes		Limited	Lotus-123
Lotus-123		IBM-PC	PCDOS	DPU	P1		Yes		Yes	Yes		C,I,S,T	Yes	Yes	Yes	Yes	Lotus-123
Lotus-123		Sirius	MSDOS	CA/BER	P3		Yes		Yes	Yes		C,I,S,T	Yes	Yes	Yes	Yes	Lotus-123
Lotus-123		Sirius	MSDOS	DPU	P1		Yes		Yes	Yes		C,I,S,T	Yes	Yes	Yes	Yes	Lotus-123
Multiplan	2.0	Apricot	MSDOS	CA/BER	P3	Up			Limited	Limited		C	Yes	Yes			Multiplan
Multiplan	2.0	IBM	PCDOS	CA/BER	P3	Up			Limited	Limited		C	Yes	Yes			Multiplan
Multiplan	2.0	Sirius	MSDOS	CA/BER	P3	Up			Limited	Limited		C	Yes	Yes			Multiplan
Supercalc 3	2	IBM	PCDOS	CA/BER	P3	Up			Limited	Limited		C	Yes	Yes			Supercalc 3
Statistics Packages																	
Minitab		Apricot	MSDOS	CAST	P3	Up			Limited	Limited	Yes			Yes			Minitab
Minitab		IBM-PC	PCDOS	CAST	P3	Up			Limited	Limited	Yes			Yes			Minitab
Minitab		Sirius	MSDOS	CAST	P3	Up			Limited	Limited	Yes			Yes			Minitab
SPSS/PC	1	IBM-PC	PCDOS	CAST	P3	Up			Limited	Limited	Yes						SPSS/PC
Word Processing																	
Multimate	3.22	IBM-PC	PCDOS	DPU	P3		Yes		Yes	Yes		S,T	Yes	Yes	Yes	Yes	Multimate
Offload		Sirius	P-S, P-S(D)	ERCC	P1		Yes	Yes	Yes	Yes	Yes	T	Yes	Yes	Yes		Offload
Vuwriter		Apricot	MSDOS	ERCC	P2		Yes		Yes	Yes		C	Yes	Yes	Yes		Vuwriter
Vuwriter		IBM-PC	PCDOS	ERCC	P2		Yes		Yes	Yes		C	Yes	Yes	Yes		Vuwriter
Vuwriter		Sirius	MSDOS	ERCC	P2		Yes		Yes	Yes		C	Yes	Yes	Yes		Vuwriter
Wordcraft	2.47	Apricot	MSDOS	BR/DP	P1		Yes	Yes	Yes	Yes	Yes	I,S,T	Yes	Yes	Yes	Yes	Wordcraft
Wordcraft	2.47	IBM-PC	PCDOS	BR/DP	P1		Yes	Yes	Yes	Yes	Yes	I,S,T	Yes	Yes	Yes	Yes	Wordcraft
Wordcraft	2.47	Sirius	MSDOS	BR/DP	P1		Yes	Yes	Yes	Yes	Yes	I,S,T	Yes	Yes	Yes	Yes	Wordcraft
Wordstar		IBM-PC	PCDOS	DPU	P1	Down	Yes		Yes	Yes		I,S,T	Yes	Yes	Yes	Yes	Wordstar
Wordwise-plus		BBC	MOS	ERCC	P1		Yes		Yes	Yes	Yes	I	Yes	Yes		Yes	Wordwise-plus
Abbreviations		Support Agency:			Support	Intention:				Training:		C	Commercial course				
		CA	CAST			Blank	Sustaining					I	Internal course				
		ER	ERCC			Up	Increasing					S	Self-teach course				
		DP	DPU			Down	Decreasing					T	Tutorial				

Appendix 2

ERCC Contacts

ERCC has a role in all the support functions defined in Section 4. The contacts for each of these services are:

1. Requirements Analysis: Service Support Unit
 Contact: John Livingstone
 Mail: J Livingstone
 Telephone: 667 1081 ext. 2624 or 2641
2. Purchasing: ERCC Administration
 Contact: Hamish Robertson
 Mail: J Robertson
 Telephone: 667 1081 ext. 2613
3. Installation Service: Service Support Unit
 Contact: George Logan
 Mail: G Logan
 Telephone: 667 1081 ext. 2641 or 2635
4. Installation Support: Service Support
 (Word-processing) Contact: Mrs Anne Kelly or Mrs Kathleen Russell
 Mail: Anne Kelly or K Russell
 Telephone: 667 1011 ext. 6408
5. Maintenance & Warranty: ERCC Administration
 Contact: Jim Duncan
 Mail: Jim Duncan
 Telephone: 667 1081 ext. 2622
6. Training: Training Group
 Contact for information: Morton Ogilvie
 Mail: M Ogilvie
 Telephone: 667 1011 ext. 2303

 Contact for bookings: Miss Jean Hardy
 Mail: J Hardy
 Telephone: 667 1011 ext.2300
7. Advice: Advisory service
 Contact: Reception
 Mail: Advice
 Telephone: 667 1081 ext. 2976-7
 667 1011 ext. 2300

Note that these contacts are appropriate to all users except those in the University Administration who receive their support direct from the Data Processing Unit.