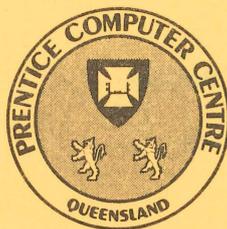


# PRENTICE COMPUTER CENTRE

UNIVERSITY OF QUEENSLAND, ST. LUCIA, QUEENSLAND, AUSTRALIA. 4067.



## NEWSLETTER

N-311

December 1986

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Authorized by the Director of the Computer Centre

## Phone Numbers for Enquiries

External users may dial direct by prefixing these extension numbers with 377.

<b>Principal Service Centres</b>	<b>Extension</b>
Contract Programming & Feasibility Studies	3944
System Status Automatic Answering	3101
General Enquiries & Course Enrolments	3018
Dial-up moden numbers	(300 bps) 377 2977 (1200 bps) 377 2922 (1200/75 bps) 377 2655

<b>Service Advice &amp; Problem Reporting</b>	<b>Mail Box</b>	<b>Extension</b>
Central Services HELP Desk (0830-1630)	CCHELP	3025
Program Librarian		3943
Distributed Computing and Network HELP Desk	CCDCHELP	3938
Accounts (0830-1630)		2188
Operations		3212
Data Entry		3967

### **Engineering and Maintenance**

Development and Communications	ENGIN
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### **Management**

Director	2189
Deputy Director	3017
Manager, Applications Development	3944
Manager, Central Computing Facilities	4017
Manager, Distributed Computing	3391
Manager, Engineering and Communications Services	3288
Manager, Finance and Administration	3963

### **Griffith University**

External users may dial direct by prefixing these extension numbers with 175.

Consulting	7796
Computer Services	7560
Computing Co-ordinator	7561

## **1. Newsletter Summary**

This final newsletter for 1986 has been published late in the year primarily to:

- Advise of new charge rates for 1987
- Introduce some of our plans for new services in 1987
- Remind users of the new accounting systems to be introduced at the University of Queensland from 1st January and consequential changes to the Centre's accounting mechanisms.

The newsletter also gives details of:

- PROREF software for bibliographic data on P.C's
- New P.C. maintenance services
- Changes to sales tax rules
- Power supply protection for P.C's
- File back-up on the Macintosh
- Software for mathematical equation set-up on the Macintosh
- Courses for January and February 1987

Publication of the newsletter has been somewhat erratic during the year due to the loss of key staff. However specific arrangements have now been made to ensure regular publication of the newsletter in 1987.

I would like to extend the compliments of the season to all our clients; I wish you all a Happy Xmas and a Prosperous New Year.

*Alan Coulter  
Director  
extension 2189*

## **2. Revised Charges 1987**

Over the past five years, the Centre has managed to introduce a fairly wide range of new services within a constrained budget. Cost increases have been met in part by improved efficiencies in many areas and in part by staffing reductions with a consequent reduction in the level (rather than range) of service. The Centre recognises that service level is now less than satisfactory and cannot be further reduced. Thus in the light of the Computing Policy Committee's decision to retain real money charging for central computing services, the only option for the 1987 budget was a moderate price increase across a range of services to meet inflationary costs.

The Centre's 1987 budget was approved by the Senate at its meeting of 2nd December. This memo is to advise the changes to services and charge rates for 1987.

### **2.1 IBM machine charges**

Following the installation of the IBM machine in 1984, the excess computing capacity was made available to researchers very cheaply, viz. the 'kit' changing mechanism which allowed virtually unlimited use for a small monthly fee. However with the present demand on the IBM, a more equitable sharing of the resources for all users is necessary and so the 'kit' mechanism has been restructured to:

- (a) provide larger basic kits which can run a wider range of packages

- (b) remove the large cost step involved in moving to larger kits; costs now increase fairly smoothly with kit size
- (c) introduce some upper limits on kit use to provide a better sharing of the IBM capacity across a spectrum of users.

The following kits will be available:

Kit	Size (Mbytes)	Maximum CPU minutes/month	Maximum IO operations/month	Cost
A	1.5	10	50,000	\$ 40 per month disk & SQL charges
B	2	50	100,000	\$ 75 per month disk & SQL charges
C	4	100	250,000	\$150 per month disk & SQL charges
D	6	250	500,000	\$250 per month disk & SQL charges
E	>6	>250	>500,000	By negotiation

Note: The monthly limits on CPU time and IO operations (Start IO:) are independent upper limits; the first limit reached will terminate the use of the kit for the remainder of the month (unless the user upgrades the kit). Hence a kit must be chosen so that all limits are greater than or equal to a user's requirements.

In addition two new 'Student Kits' have been created. These can be purchased directly by individual students (or by departments for student use). It is anticipated that students will obtain a single kit which can be used in all subjects rather than having a separate computing account for each subject.

These kits are:

Kit	Size	Max CPU minutes/month	Max IO operators/month	Cost
S1	1.25	8	30,000	\$40 per semester (or 4 months) including 1 cyl of disk
S2	1.25	8	30,000	\$53.50 per semester (or 4 months) including 2 cyls of disk/SQL

These student kits are subject to the following special conditions:

For student use ONLY

The semester contract is only available to undergraduate students, and the four-month contract only available to post-graduate students.

The maximum SQL disk space available for each kit is 2 units.

Can only be purchased by a single payment in advance for the whole semester or whole four-month contract.

## 2.2 VAX machine charges

All VAX machine usage charges will increase by 5%. The CPU time charge for the VAX 8650 is five times that of the VAX 11/780. The Centre plans to extend the kit charging concept to the VAX for student use during 1987.

### **2.3 KL-10 machine charges**

These will remain unchanged.

### **2.4 New charge rates for other services**

The charges for a number of the Centre's other services have been set as follows:

Small Job rate: \$36/hour (from 1st January 1987)

Data Entry rate: \$20/hour (from 1st January 1987)

Typesetting Output: 0.6 cents/mm or \$1.80 per A4 page (from 1st December 1987)

Laser Printer (on 3083) : 4cents/sheet plus 6 cents per printed side (from 1st December 1987)

4250 Electro-erosion Printer: 0.4 cents/mm or \$1.20 per A4 page (from 1st January 1987)

*John Noad  
Deputy Director  
extension 3017*

### **3. New Services for 1987**

As well as the 'Student Kit' mentioned above, the Centre will introduce a number of new services next year.

Personal Computer maintenance contracts and services will be available from January 1987 for the more popular makes of Personal Computers on campus. A Personal Computer hire service will also be available for those who want a machine for a limited period or who would like to try one before deciding to buy their own. Details and prices of both these services will be circulated to departments.

The introduction of a file archived service (or file migration service) on both the IBM and VAX machines is a priority in 1987, and this service should be available by mid-year. In conjunction with TEDI we hope to obtain an Optical Mark Sheet reader specifically for survey work and multi-choice test marking early in 1987 and this device, together with suitable software should be available for the end of first semester. Another early project will be to better integrate the IBM machine into the overall network. With a comprehensive network we will then address the problem of providing services across the network, particularly services to give the PC user access to central services such as typesetting, laser printing and optical mark sheet reading. The Centre's education courses will be revised and extended to support the additional services and cover a broader range of topics particularly for the post-graduate researcher. During semester breaks and particularly during orientation week, we will be mounting a number of courses to teach undergraduates the use of the 'Student Kits' so that they are familiar with the basic operations, commands and packages.

The 4250 electro-erosion printer on the IBM 3083 will be available from the 1st January 1987. This printer was mentioned briefly in the November newsletter. The IBM 4250 electro-erosion printer is for producing quality typeset masters on the IBM machine. The output from this printer can be used for making electrostatic plates for short run jobs (up to 1000 copies). As there is no photographic process involved, IBM 4250 output is produced more quickly and cheaply than phototypesetter output.

The IBM 4250 is basically a raster device with resolution of 600 × 600 dots per square inch. This means that all points on the page are addressable and makes the device capable of producing documents containing graphics and text. There are

approximately 22 type faces available on the device with character sizes from 6 point to 72 point. Document layout can be done using the IBM Document Composition Facility. This document containing the G.M.L. tags is then processed by Script and sent to the 4250 for printing of the master. More detailed usage instruction will be available at the Computer Centre Help Desk. The costs are calculated from the length of paper used, and charged at the rate of 0.4 cents per mm.

*John Noad  
Deputy Director  
extension 3017*

#### **4. Prentice Computer Accounting 1987**

In 1987 a new accounting system is being introduced within the University of Queensland. The Centre's accounting and charging mechanisms are tightly interfaced to the present QUBAC system and, given that the Bursar intends that the new system is to be implemented from 1.1.87, there will no doubt be a few teething problems in changing this interface.

The IBM charging system will conform to the University of Queensland's new accounting requirements from January 1987. We are working on changes to the rest of the Centre's accounting mechanisms (VAX, KL-10, small jobs, contracts etc) to conform with the new University requirements and, on present plans, this work should also be completed during January 1987.

The current interface to Griffith University's accounting system is being preserved so no significant difference should be observed at Griffith.

Details of the change-over arrangements for the University of Queensland users will be advised to departments in conjunction with Business Services.

*John Noad  
Deputy Director  
extension 3017*

#### **5. Release of New Version of Reference Management Software PROREF**

The Teletraffic Research Centre at The University of Adelaide is pleased to announce the new PROREF Version II.

PROREF is a database management system designed to handle bibliographic information obtained from journals, books, conference proceedings, reports, etc., and is aimed at the professional researcher.

PROREF runs on IBM microcomputers (and compatibles) with a minimum of 320K ram DOS 2.0 and hard disk.

PROREF has been designed with ease of operation, speed of access, and database integrity predominantly in mind. A new feature of PROREF Version II is its ability to dynamically alter field lengths.

Also available for use with PROREF is the database of tele-traffic references, TELREF, which has of 4000 keyworded references. A further 2000 references will be added in March, 1987.

A brochure describing some of the features, such as search options, reference addition, editing, posting checks, printing and prices (currently a single copy of PROREF is \$290) is available from The Teletraffic Research Centre, c/- Department of Applied Mathematics, The University of Adelaide, North Terrace, Adelaide, 5000 – Telephone: (08) 228.5409 OR Luminis Pty. Ltd., P.O. Box 149, Rundle Mall, S.A., 5000.

*Ellen Jenkins*  
extension 3025

## **6. Distributed Computing**

### **6.1 Sales Tax**

The Sales Tax exemption previously available under certain circumstances to members of staff and students purchasing Personal Computers has been revoked as part of the 1986/87 Federal budget.

This however does not affect official University orders which are still exempt from sales tax.

*Geoffrey Dengate*  
extension 3391

### **6.2 Mains Transient Protection for Personal Computers**

While Campus 240 volt mains power supply is usually very stable and transient free, micromputer users may still feel that they would like to add a suppression device at the power supply point to their system.

The Personal Computer Support Group (ext 4233) have a few of these devices. At \$35, containing three Metal Oxide Varistors, as clamping elements, they are simply plugged into a power distribution board to which you connect the individual units of the system.

If you would like to discuss the forms of protection available please call me on extension 4018.

*Alan Langdon*  
extension 4018

### **6.3 Personal Computer Maintenance**

The Personal Computer Support Group has expanded the range of Personal Computer Systems it will maintain on a contract basis. The systems now include the IBM, Apple Macintosh and Cleveland range of Personal Computers, and selected third party products.

Departments can choose from three alternatives for having the Prentice Computer Centre attend Personal Computer faults.

#### **1. Full on-site maintenance agreement**

This covers all parts and labour. It offers maximum protection with minimum disruption. Departments will not be involved with the cumbersome task of packing and returning the system to the Prentice Computer Centre. When a fault is reported, a technician will attend to the problem on-site.

#### **2. Return to base maintenance agreement.**

This also covers all parts and labour, however, Departments will be responsible for packing and returning the system to the Prentice Computer Centre for repair.

### 3. Parts and Labour only (return to base only)

When a fault occurs, the department can pack and return the system to the Prentice Computer Centre for repair. Costs will depend on the nature of the fault, but will include the cost of any replacement parts and labour (\$36/hr). Note that this service is **not** available on-site. Departments electing to use the parts and labour service must return the systems to the Prentice Computer Centre.

If your system is not currently under a maintenance agreement, or is out of warranty, a pre-maintenance inspection will have to be carried out. Pre-maintenance inspections cost \$40 plus any parts needed to bring the system up to a satisfactory condition.

Pricing for some typical systems follow:

	System	Cost Per Annum	
		Return to Base	Full on-site
1.	Cleveland-PC, 640KB, 2 × 360KB drives, monochrome/graphics monitor	135	180
2.	Cleveland-PC, 640KB, 1 × 360KB drive, 1 × 20MB hard disk, monochrome/graphics monitor	215	285
3.	IBM-JX, 512KB, 2 × 360KB drives (3.5"), colour/graphics monitor	160	210
4.	IBM-PC1, 640KB, 2 × 360KB drives, monochrome display, MFC	235	310
5.	IBM-PCXT, 512KB, 1 × 360KB drive, 1 × 20MB hard disk, monochrome display	350	465
6.	Macintosh, 512KB, external drive	255	340
7.	Mac Plus, 1MB, external drive	300	400

If you have any queries or require pricing for your particular system please call either Mr Chris Barker on ×4233 or myself on ×3391.

Geoffrey Dengate  
extension 3391

### 6.4 Backing up Files – the 11th Commandment

A little known piece of biblical history. A short time after taking delivery of the original stone tablets, Moses' luggage went through an airport x-ray machine and wiped the lot. So God saw fit to hand down a new set with the additional Commandment *THOU SHALT MAKE BACKUPS*.

In later centuries this was dropped from the Canon of the scriptures because nobody knew what it meant. With the invention of Personal Computers it has become more and more important to obey this Commandment, especially with large database files, and hard disks.

My favourite method follows. It is suited to backing up files which are updated often and possibly irregularly.

I will refer to three disks:

1. The work disk. This disk has the copy of the file that you actually use, and may be a hard disk.
- 2&3 Backup disks A and B.

After each work session or update:

1. Write-protect the work disk (if possible).
2. Choose the Backup disk (A or B) which has the oldest date (or no date, for the first two times).
3. Copy your updated file from the work disk to this oldest backup disk.
4. Write the new date (and time if necessary) on the label of this backup disk (use a soft pencil), so that next time you will choose the other backup disk.

By alternating backups in this way, you always have two copies of the current version of your file and one copy of the previous version. This latter is important because you sometimes don't discover that corruption has occurred until you start the next session, i.e., after you have made a backup of the corrupted file. If you are particularly pessimistic, three or more backup disks could be used.

If possible, backups should be kept at a different location to the work disk, e.g., at home. This is precaution against fires, floods and the rest of the seven plagues.

Far too often people come to me with files on disk that represent days or weeks of work which has been made unreadable by some hardware or software glitch. They have not heard of the 11th Commandment.

In a few cases such as word processor files, it is possible to recover some of the text. Usually however, the internal structure of the files is such that it is either impossible or extremely difficult to recover any useful information.

So heed the 11th Commandment or someday ye may be judged and found wanting.

*Dave Keenan*  
*extension 4166*

### **6.5 MacEqn for the Macintosh**

MacEqn is a Macintosh Desk accessory which allows mathematical equations to be constructed (type-set?) ready for pasting (electronically) into existing Macintosh documents. It produces excellent results on a LaserWriter. It allows combined super and subscripts nested to any depth and it knows about integrals, summations, roots, matrices etc.

MacEqn is available from Software for Recognition Technologies, 110 University Park, Rochester NY 14620, U.S.A. US\$35.00.

We have a copy if you wish to evaluate this product.

*Dave Keenan*  
*extension 4166*

### **6.6 Mac Public Domain**

We have approximately 15 disks (single sided) of software which is either public domain (free) or shareware (small fee to be mailed to the author).

The software is grouped on disks as tools, utilities, fonts, resources, desk accessories, demonstrations and games.

Notable recent additions are:

- Scientists helper. A powerful but unfriendly data manipulation and graphing program. It does FFTs and convolutions and is programmable.
- RAM disk plus. A self loading RAM disk that works on a 512K Mac or a Mac Plus and makes it feasible to use a Mac Plus without an external drive.

Due to the time involved, we can't allow browsing, so if you want copies you should bring enough blank disks to copy all the disks you are interested in. Thanks to the many people who have provided this software.

Dave Keenan  
extension 4166

### 6.7 Site Licence for the SAS/PC Statistical Package

The University has signed a Site License Agreement with SAS Software Pty Ltd for the supply of SAS/PC. An annual license fee is payable and this has been paid by the Prentice Computer Centre for the initial period ending 18th December 1987.

The fee for each copy will be \$50 (excluding documentation) in the first year. The charge for subsequent years may vary depending on demand and SAS/pricing policy.

Prices of the appropriate documentation for SAS/PC is at the end of this article. This documentation can be purchased through the Prentice Computer Centre. The Personal Computer Support Group will keep a master copy of the documentation for perusal.

It should be noted that SAS/PC requires a fully-configured Personal Computer with a hard disk and a minimum 512KB of memory. A report evaluating SAS/PC is available from the Computer Assisted learning Unit.

Copies of SAS/PC can be obtained from the Personal Computer Support Group by performing the following:

1. Supply an Equipment and Materials Order for \$50
2. Bring along 21 floppy disks (formatted and empty)
3. Copy the 21 disks yourself using our IBM-PC and our copy of the master disks.

If desired, the process of installing these floppy disks containing SAS onto a departmental hard disk system can be performed by us. Expected installation time is two hours and departments would be charged accordingly.

The terms of the license agreement require the University to keep a list of the location and number of copies of SAS/PC distributed. The Prentice Computer Centre is the only agent authorized to supply such copies. We will keep the appropriate records, and will perform the coordinating role between SAS/PC users and SAS Software Pty Ltd.

#### *SAS/PC Documentation*

SAS Introductory Guide for Personal Computers, Version 6 Edition #5710	\$18.00
SAS Language Guide for Personal Computers, Version 6 Edition #5711	\$23.00
SAS Procedures Guide for Personal Computers, Version 6 Edition #5712	\$24.00
SAS/STAT User Guide for Personal Computers, Version 6 Edition #5714	\$23.00
SAS/IML User Guide for personal Computers, Version 6 Edition #5713	\$27.00
P-144 Writing RLINK Files for the Micro-to-Mainframe Link #5975	\$8.00
P-145 SAS MACRO Facility #5972	\$7.00
P-161 Additional SAS/Stat Procedures: CANCECORR and ORTHOREG	\$9.00

If you have any queries, please give me a call on x3391 or the Personal Computer Support Group on x4166 or x4233.

Geoffrey Dengate  
extension 3391

## 7. Information Concerning Courses

Enrolments for all courses may be made by phoning extension 3018.

The following courses will be offered during the period January–February, 1987 (i.e. prior to the beginning of Semester 1):

### January

•Introduction to IBM	January 6–9 4 half-days 9–12am each day
†Conversion to VAX	January 7–8 2 half-days 1–4pm each day
†RUNOFF – VAX version	January 12–16 5 half-days 9–12am each day
•Conversion to IBM	January 13–15 3 half-days 1–4pm each day
•Introduction to SQL	January 19–23 5 half-days 9–12am each day
‡PC Overview	January 21 1 half-day 9–12am
‡Introduction to PCDOS/MSDOS	January 28–30 3 half-days 9–12am each day
†Conversion to SPSS–X	January 28–29 2 half-days 1–4pm each day

### February

†SPSS–X	February 2–6 5 half-days 9–12am each day
•Conversion to VAX	February 9–10 2 half-days 9–12am each day
•Introduction to SAS	February 9–13 5 half-days 1–4pm each day
‡Introduction to DBASE III	February 11–13 3 half-days 9–12am each day

- denotes IBM course
- † denotes VAX course
- ‡ denotes PC course

### General Notes:

1. It is intended that, in general, courses directed at the PDP–10 machine will be discontinued.  
For new users, from February onwards, introductory courses will be given for both the IBM and VAX machines – the VAX course will be a new offering; for old friends, conversion-type courses will continue to be offered for both IBM and VAX machines to allow for easy transition.
2. As previously, it is expected that users attending courses on specific packages (SQL, SAS, SPSS–X, DBASE III, etc) will be familiar with terminal-usage, file-management and editing on the relevant machine (IBM, VAX or PC). Attendance at such short courses without this background provides many problems, as all courses are hands-on. Introductory/conversion courses are given frequently to allow familiarity with the fundamentals *before* attending courses on particular application packages.

3. All courses in January–February will be held in the Centre’s teaching rooms near the Physics Annexe.
4. Staff and post-graduate students are admitted free to courses. The charge is \$10.00 per half-day session for other internal users; \$17.00 per half-day session for affiliated users; and \$37.00 per half-day session for external users.
5. Enrolments for all courses may be made by phoning ext. 3018.

*Explanatory Notes for Specific Courses:*

1. The Course *Conversion to SPSS–X* is designed for those who have worked previously with SPSS and need to know the essential differences between the two packages; the course *SPSS–X* (February 2–6) is a *full course* for those who have used neither SPSS nor SPSS–X previously.
2. *PC Overview* – a short discussion of PC’s with regard to current applications, likely developments, hardware and software limitations, maximizing their potential, and popular software; this course should appeal to Departmental personnel with the responsibility for advising on suitability of PC’s for departmental usage.
3. *PCDOS/MSDOS* – an introduction to PC’s generally with a fairly extended development of PC/MSDOS operating systems. Additionally, an examination of PC hardware and software limitations and what is applicable to our current needs.
4. *Introduction to DBASE III* – DBASE III is a widely-used PC database package. This course is designed for those who want to know about its potential, need to begin using it fairly soon, or have become fed-up with trying to learn it for themselves!!!

Barry Maher  
extension 3021

## **8. Equipment For Sale**

4 × DEC–LA36 Hardcopy Terminals

2 × DEC–LA34 Hardcopy Terminals

*Best Offers* –

Contact: Dal Anderson – ext. 3166  
or General Enquiries – ext. 3018