PRENTICE COMPUTER CENTRE

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

NEWSLETTER

N-257 17-November-80

CONTENTS

Authorized by the Director of the Computer Centre

Principal Service Centres

		Extensions
Operations Manager		3471
Consulting - Hawken Building Batch Station	(377)	3025
Contract Programming & Feasibility Studies		3944
Equipment & Data Line Fault Reporting		3938
Accounts		2188
System Status Automatic Answering		3101
General Enquiries		3018
Program Librarian		3943
Training & Courses		3021
Griffith University:		
Consulting	(275)	7561
Computer Services		7560

1.0 EXPANSION OF COMPUTING CAPACITY

A circuit switching system has been delivered and is currently undergoing acceptance tests. This will allow improved capability for remote terminals to access any host computer within the Centre (currently some terminals are connected to the KA system only). It will also reduce overheads on the current communications "front end" computers on the KL10 computer and improve reliability.

Approval has been given for the installation of a VAX 11/780 as a further central host computer system. The aim is to extend the concept of SLOTS to provide a low overhead cost system for general academic work (LOADS system). In the first year of operation it has been approved that charges on the new system will be 75% of the equivalent job cost on the KL. This will enable departments to increase computing usage within current budgets. It should be recognised however, that like SLOTS, the LOADS system will have a minimum of operator functions and not all academic work will be appropriate for its use. A high bandwidth link between LOADS and the KL system will be provided. Current planning is for the new system to be settled during first semester 1931 and be fully operational by second semester.

Director
extension 2189

2.0 CAMPUS COMMUNICATIONS NETWORK

Following a study by representatives of the Computer Centre, the Department of Computer Science and Buildings and Grounds approval has been given to establish a campus data communications network to replace the facilities currently leased from Telecom Australia. We are hopeful that this will be fully implemented in the next 12 to 18 months. The impacts to departments are that it will no longer be necessary for departments to pay lease charges for modems and that wide bandwidth up to 100,000 bits per second will be available for file transfer.

Director
extension 2189

3.0 FILE STORAGE CHARGES

When the File Migration Service was revised on the basis of specifications agreed between a committee of users and the Computer Centre, it was agreed that for the system to be fully effective, the off-line storage charges which were suspended in May 1975, should be reintroduced. The Computer Centre has been reluctant to impose any additional charges and users may recall that on a number of occasions I have personally appealed to users for some self regulation in regard to holding of files on the off-line area. Unfortunately, the situation is that this strategy has not worked and additional costs to the University and poor retrieval response to serious users are the result.

There are approximately 1000 million characters of information stored in the off-line area. We believe much of this is really not wanted, but of course it is not possible for this Centre to determine which files can be deleted. The old charge for off-line storage was a quarter of the on-line rate. We hope that in current circumstances a charge of one-eighth the on-line rate may be sufficient to encourage users to get rid of unwanted files. At this charge a file of 640,000 characters would cost 2.5 cents a day or $9.13 a year.

Approval has been given for the reintroduction of an off-line storage charge at $0.25 per 1000 blocks a day as from 1.1.81.

It would be very helpful to the Centre if users could take action as quickly as possible to delete unwanted files from the off-line area.

Director
extension 2189

4.0 GROWTH IN USE OF THE CENTRE'S SERVICES

In the first half of this year, usage of the Centre's PDP10 system was 44% higher than the corresponding period last year. (Teaching and Research increased by 55% and Administration by 35%). As a result of operational efficiency improvements, including self service facilities, we have managed to hold our operating staff at the same levels as in November 1977 despite these substantial increases in usage.

Maintenance services for departmental equipment increased by 78% in 1980. This has placed a great strain on our ability to provide the grade of service which we believe is appropriate. Orders by departments for additional computing equipment have increased and this

has placed an added burden on our technicians as regards checking out equipment on delivery, installation and acceptance. This work often has to take priority as payment to suppliers depends upon acceptance testing. We are currently maintaining departmental equipment of a capital value of $1,073,000 and there is every indication that this will increase by around $350,000 during 1981. Our technicians have an extremely high work commitment and we know that there are matters outstanding, but I am sure you will appreciate that we are doing our best with our current staff resources.

Our contract programming work also increased by 30%. This work has covered a wide area of work for teaching and research departments and academic support groups. The advantage of this service is that departments have available to them the skills of programmers with detailed knowledge and experience of the University's PDP10, PDP11 and micro-computer systems. The costs charged are the actual salary costs of the staff member employed plus 15%. This 15% surcharge covers the many additional overheads other than salary costs plus technical supervision of projects. The latter we regard as important as it implies a duty of care upon us to ensure that the job is completed successfully.

The appointment of a Computing Education Officer has enabled an increase in the quantity and quality of training to academic staff and post-graduate students - 25 courses were conducted between February and August. The use of our non-charged consulting services for advice on hardware and systems applications feasibility studies has also increased.

The Centre has faced significant annual increases in demand on its services since its inception in 1962. There has been no respite and no indication of any reduction in the growth rate for the foreseeable future. People resources tend to lag behind demand and in the current situation of financial stringency the grade of service in some areas may have to be reduced. Nevertheless, there is a limit to the amount one can trim the ratio of staff resources to productivity. We have 3,000 users who have the right to expect a reasonably reliable system with information held securely and a high availability throughout all hours of the day. Many areas of the University's operations in teaching, research and administration are very dependent on the continuing viability of the central computer system. Computing has to be a fairly disciplined operation as small mistakes have the potential to lead to serious problems.

Director
extension 2189

5.0 EXPIRY DATES ON PPN'S

All PPN's will expire on 23 December 1980. To avoid any inconvenience, please complete a "Change of Expiry Date" form available from the Hawken Batch Station if you wish to renew your PPN for 1981.

Carol Walker
extension 2188

6.0 COMPUTING COURSES 1981

We are now drawing up a provisional schedule of courses for next year. In general a similar range of courses will be offered, but before the schedule is finalised it seems appropriate to ask if any department or users have strong interest in any of the following:

1. Languages other than FORTRAN: The Centre's FORTRAN courses are always well attended, but requests for courses in other languages e.g. BASIC are increasing.

2. Editors other than UQEDIT or TECO: Two video editors, VIDED and VISED have been developed and are becoming more widely used. The DEC editor SOS is also available and is of considerable interest to 1022 users.

3. Statistical packages other than SPSS: Many statistical applications can be handled by using packages other than SPSS e.g. STATPACK, but the existence of these other packages is not widely known.

4. PDP-11 Courses (RSX-11 or RT-11): There are over 40 PDP-11's on campus running one of these operating systems; in order to facilitate change to RSX-11 or RT-11 the Centre is prepared to run courses where sufficient support is forthcoming.

5. Micro-Computers: The Centre supports the Apple and the Sorcerer, and would be interested to learn the likely support for courses covering the operation and simple programming of either of these micro-computers.

If you or your staff would like the Centre to offer courses in these areas, please contact Tony Bird on extension 3944.

Tony Bird
extension 3944

7.0 CHRISTMAS/NEW YEAR ARRANGEMENTS

No work will be processed for users on Wednesday 24 December to allow the Centre to complete end-of-year procedures. Users may collect any work processed previously until noon Wednesday.

The Centre will run unattended on 25 and 26 December and the following weekend. A single shift of attended operation between 9 am and 5 pm will be provided on 29, 30 and 31 December and on 2 January. Unattended operation of both KA and KL systems will be provided as shown.

Thursday 24.12.80	1700 -	unattended
Monday 29.12.80	0900 - 1700	attended
	1700 - 2400	unattended
Tuesday 30.12.80	0000 - 0900	unattended
	0900 - 1700	attended
	1700 - 2400	unattended
Wednesday 31.12.80	0000 - 0900	unattended
	0900 - 1700	attended
	1700 - 2400	unattended
Thursday 1.1.81	0000 - 2400	unattended
Friday 2.1.81	0000 - 0900	unattended
	0900 - 1700	attended
	1700 - *	unattended

* Unattended timesharing should continue until 0700 on 5 January, 1981. However, should a non-recoverable crash occur during the non-attended periods, the affected system will remain unavailable until the next attended session.

For security reasons the Clients and Self-Service Printer Rooms will be locked during unattended hours.

Glenda Black
extension 3471

8.0 SLOTS - PRODUCTION OF CARDS FROM A DISK FILE

This service via the CPUNCH command is not available on the Student Low Overhead Timesharing Service (KA system). Those users who require this service must submit a CPUNCH request on the KL system.

Glenda Black
extension 3471

9.0 NEW VERSIONS OF LINK AND OVRLAY

There are new versions of LINK, the linking loader, and OVRLAY, the overlay handler, on NEW:. They are LINK version 4A(1220) and OVRLAY version 4A(50). LINK version 4A is a maintenance release: very few new features have been added, but it should be significantly more reliable than LINK version 4 when loading user programs.

The changes made since the previous version are described fully in DOC:LINK.DOC. The more important ones are:-

1. error messages have been cleared up, resulting in error messages being more consistent and informative (see DOC:LNKMSG.MAN for a full description of these);

2. a bug which caused LINK version 4 to write overlay files considerably larger than necessary has been fixed;

3. the manual call subroutine REMOVL has been changed to accept only one argument. Users whose programs use a single call to REMOVL to remove multiple overlays should change their programs to call REMOVL once for each overlay to be removed;

4. the manual call subroutine RUNOVL has been changed to allow the caller to be overlaid. The documentation stated that this was legal, but OVRLAY did not permit it.

There is also a much improved help file, HLP:LINK.HLP.

Apart from the change mentioned in 3 above, there are no incompatibilities between the new and current versions. The new version will supersede the current one at the end of November.

Will Gout
extension 3023

10.0 NEW VERSION OF ALGOL

There are new versions of the ALGOL and the ALGOL library ALGLIB compiler, and the ALGOL run-time system ALG145 (version 10A(145)) on NEW:. This is primarily a maintenance release, although some new functionality has been incorporated. The changes and new features are fully described in DOC:ALGOL.DOC. The main improvements are to ALGDDT (see also HLP:ALGDDT.HLP) and include an enhanced UNWIND command, a RETRY command, additions to the PAUSE command, and improved control C handling.

There are no incompatibilities with the current version. The new version will replace the current one at the end of November, at which time the current version will be moved to OLD:, from which it will be deleted at the end of December.

Will Gout
extension 3023

11.0 VIEWPL

Users of plotting software are aware that there are two programs available for previewing plot files on VDU's. SYS:VIEWPL uses the omnigraph package while PLO:VIEWPL uses the Terminal Control System (TCS) supplied by Tektronix.

The latter program has been renamed to PLO:VPLOT and at the same time a number of bugs have been fixed. Also, the method of entering the name of the file to be previewed has been enhanced. Instead of merely asking for a filename and then an extension, VPLOT now accepts a full file specification. For example:

```
.R PLO:VPLOT
File? DSKB:QNN0.PLT[10,505]
```

Greg Ensbey
extension 2833

12.0 LIBRARY NEWS

New versions of the following programs have recently been received from DECUS:

DECUS-257	LINWOOD: Linear Least-Squares Curve-Fitting Program
DECUS-258	NONLINWOOD: Nonlinear Least-Squares Curve-Fitting Program
DECUS-316	TECO-10
DECUS-323	TRAD8: PDP-8 Binary Tapes Translator
DECUS-324	MULREG: Multiple Linear Regression Analysis Program
DECUS-325	ANTE: A Nother Text Editor
DECUS-326	KEYWRD: Word and Phrase Recognition Logic Generator
DECUS-327	PENNZYME: PENNsylvania enZYME Program
DECUS-328	FORMAT: A FORTRAN FORMAT Statement Generator

The following files, originally intended to be moved to SYS: from NEW: during semester, will be moved on the 21st of this month.

FILE	NEWSLETTER
MACRO.EXE	N-254
FORLIB.REL	N-254
SORT.EXE	N-254
COBOL.EXE	N-253

Leonie Roberts
extension 3943

13.0 INFORMATION CONCERNING COURSES

13.1 January-February courses

The next series of courses will be held in the period January 29-February 19, 1981. the timetable is set out in 13.4 below.

13.2 General notes about courses

(a) All courses are conducted in the Client Room, Hawken Building.

(b) Enrolments are made by contacting Barry Maher, ext. 3021.

(c) Staff and post-graduate students are enrolled free; other users

are charged $10.00 per half-day session.

(d) The Introductory Course is designed for users with little or no previous experience of the PDP-10 system, and provides basic instruction in the use of terminals, monitor commands, editing and introduction to batch processing. Prospective users without this background must attend an introductory course before enrolling in other courses.

(e) To ensure that participants obtain sufficient practice on a terminal, all course enrolments are limited.

(f) Courses are normally held in usual office hours during non-lecture periods of the year. However, during 1980, some evening courses were conducted. Where resources exist, evening sessions may be arranged again during 1981.

(g) Short information/demonstration sessions can also be arranged for common-interest groups to explain either general or specific usage of the system and supported packages. Requests for such sessions should be directed to ext. 3021.

13.3 Notes on particular courses being offered

(a) Introductory Course: A two-day course concerned with the elements of computer systems, broad operation of the PDP-10, fundamental monitor commands, editing, and introduction to batch processing.

(b) VG Course: A three-day course on the VG package, which is a simple interactive data-base system suitable for use in a variety of applications associated with the storage, interrogation and retrieval of records such as student records, catalogues and registers, bibliographic material, mailing lists, etc.

(c) SPSS Course: A three-day course on the Statistical Package for the Social Sciences, which is a widely-used general-purpose statistical package. This basic course in SPSS is based on a series of tape-slide presentations prepared at Newcastle-on-Tyne University, designed to assist new users to establish the techniques necessary to perform any of the statistical procedures available within SPSS.

(d) Runoff Course: A three-day course on the text-processing program RUNOFF, which incorporates such operations as automatic pagination and justification (right-hand alignment of text) to user's specifications. It has found wide acceptance in the production of office papers, theses, papers for submission to journals, etc.

(e) STUPID Course: A one-day course on the use of the student

accounting program STUPID (Student Processing Interactive Dialogue). This program is used by supervisors to control the activities and expenditures of groups of students. This course may be of value to those who may wish to have their students perform activities with the system for the first time, and also for those who may have experienced some difficulty in applying this program in the past.

13.4 Course schedule for January-February

(a) Introductory Course — Jan 29-30

9.00-12.00am + 2.00-5.00pm each day

(b) VG Course — Feb 2-4

9.00-12.00am + 2.00-5.00pm each day

(c) Introductory Course — Feb 5-6

9.00-12.00am + 2.00-5.00pm each day

(d) SPSS Course — Feb 9-11

9.00-12.00am + 2.00-5.00pm each day

(e) RUNOFF Course — Feb 16-18

9.00-12.00am + 2.00-5.00pm each day

(f) STUPID Course — Feb 19

10.00-12.00am + 2.00-4.00pm

13.5 Enrolments

To enroll for any of the above courses, please contact:

Barry Maher
extension 3021

Y S T E M P E R F O R M A N C E R E P O R T

For node KA10 there were 30 working days in the period 1/Oct/80 to 31/Oct/80

		< KA10 HHH:MM	> KA10 %
1.	Attended system running time	511:01	
2.	Plus unattended system running time	197:57	
3.	Equals total system running time	708:58	100.0
	less time used for:		
4.	Scheduled maintenance	23:00	3.2
5.	Dedicated operations tasks	10:21	1.5
6.	Dedicated systems development	0:00	0.0
7.	Equals time scheduled for use	675:37	95.3
	less lost time due to:		
8.	Unscheduled maintenance	1:11	0.2
9.	Hardware faults	2:54	0.4
10.	Software faults	1:30	0.2
11.	Unresolved	0:28	0.1
12.	Environmental conditions	1:13	0.2
13.	Equals time available to users	668:21	94.3
14.	Effective user uptime (13./7.)		98.9
15.	Number of crashes		28
16.	Mean availability between crashes		23:52
17.	Mean time to recover crashes (minutes)		10
18.	Total number of Jobs		19850

S Y S T E M P E R F O R M A N C E R E P O R T

For node KL10 there were 30 working days in the period 1/Oct/80 to 31/Oct/80

		< KL10	>	< DN87A	>	< DN87B	>
		HHH:MM	%	HHH:MM	%	HHH:MM	%
1.	Attended system running time	531:30		531:30		531:30	
2.	Plus unattended system running time	139:43		139:43		139:43	
3.	Equals total system running time	671:13	100.0	671:13	100.0	671:13	100.0
	less time used for:						
4.	Scheduled maintenance	25:50	3.8	25:50	3.8	25:50	3.8
5.	Dedicated operations tasks	16:25	2.4	16:25	2.4	16:25	2.4
6.	Dedicated systems development	9:35	1.4	9:35	1.4	9:35	1.4
7.	Equals time scheduled for use	619:23	92.3	619:23	92.3	619:23	92.3
	less lost time due to:						
8.	Unscheduled maintenance	1:38	0.2	0:00	0.0	0:00	0.0
9.	Hardware faults	2:02	0.3	0:37	0.1	0:08	0.0
10.	Software faults	0:31	0.1	0:08	0.0	0:09	0.0
11.	Unresolved	3:30	0.5	0:29	0.1	0:15	0.0
12.	Environmental conditions	2:14	0.3	2:14	0.3	2:14	0.3
13.	Equals time available to users	609:28	90.8	615:55	91.8	616:37	91.9
14.	Effective user uptime (13./7.)		98.4		99.4		99.6
15.	Number of crashes		31		31		25
16.	Mean availability between crashes		19:40		19:52		24:40
17.	Mean time to recover crashes (minutes)		12		2		1
18.	Total number of Jobs		19615				

S Y S T E M P E R F O R M A N C E R E P O R T

For node GRIFFITH there were 27 working days in the period 1/Oct/80 to 31/Oct/80

		< GRIFFITH >	
		HHH:MM	%
1.	Attended system running time	184:17	
2.	Plus unattended system running time	384:00	
3.	Equals total system running time	568:17	100.0
	less time used for:		
4.	Scheduled maintenance	0:00	0.0
5.	Dedicated operations tasks	0:00	0.0
6.	Dedicated systems development	0:53	0.2
7.	Equals time scheduled for use	567:24	99.8
	less lost time due to:		
8.	Unscheduled maintenance	0:00	0.0
9.	Hardware faults	2:32	0.4
10.	Software faults	0:00	0.0
11.	Unresolved	3:24	0.6
12.	Environmental conditions	0:00	0.0
13.	Equals time available to users	561:28	98.8
14.	Effective user uptime (13./7.)		99.0
15.	Number of crashes		36
16.	Mean availability between crashes		15:36
17.	Mean time to recover crashes (minutes)		10

S Y S T E M P E R F O R M A N C E R E P O R T

For node COMMERCE there were 22 working days in the period 1/Oct/80 to 31/Oct/80

		< COMMERCE >	
		HHH:MM	%
1.	Attended system running time	182:25	
2.	Plus unattended system running time	0:00	
3.	Equals total system running time	182:25	100.0
	less time used for:		
4.	Scheduled maintenance	0:00	0.0
5.	Dedicated operations tasks	0:00	0.0
6.	Dedicated systems development	0:00	0.0
7.	Equals time scheduled for use	182:25	100.0
	less lost time due to:		
8.	Unscheduled maintenance	0:00	0.0
9.	Hardware faults	0:00	0.0
10.	Software faults	0:00	0.0
11.	Unresolved	0:19	0.2
12.	Environmental conditions	0:00	0.0
13.	Equals time available to users	182:06	99.8
14.	Effective user uptime (13./7.)		99.8
15.	Number of crashes		6
16.	Mean availability between crashes		30:21
17.	Mean time to recover crashes (minutes)		3