PRENTICE COMPUTER CENTRE

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

NEWSLETTER

N-284   19-September-83

CONTENTS

Authorized by the Director of the Computer Centre

Principal Service Centres

	Extensions
Operations Manager	3471
Contract Programming & Feasibility Studies	2921
System Status Automatic Answering	3101
General Enquiries & Course Enrolments	3018
Training & Courses	3021

Consulting

PROBLEM AREA	MAIL BOX	NAME AND EXTENSION	

Operations and Programming

PROBLEM AREA	MAIL BOX	NAME	EXTENSION
Accounts	ACCOUNTS	Carol Walker	2188
Cobol	COBOL	Robert Morrison	2836
Commands, system use and probs	COMMANDS	Ian Otto	2923
Database (VG, 1022)	DATABASE	Brett Peterson	2836
Fortran	FORTRAN	Ellen Farr	2963
Graphics	GRAPHICS	Mark Williams	2962
Micros	MICROS	Geoffrey Dengate	2835
Network	NETWORK	Bryan Claire	2960
Operations	OPERATIONS	Senior Operator	3212
PDP–11 Software	PDP11	Danny Smith	3022
Program Library, Tapes	LIBRARY	Lee MacDonald	3943
Statistics	STATISTICS	Peter Akers	2951
		Greg Lehmann	3020
Text processing, Typesetting	TEXT	Andrew Broughton	2837
Non–specific problems	OPERATIONS	Senior Operator	3212

Engineering and Maintenance

PROBLEM AREA	MAIL BOX	NAME	EXTENSION
Development and communications	ENGIN	Graham Rees	3288
Mini/Micro support	ENGIN	Colin Lythall	3942
		Alan Langdon	2928
Mini and terminal maintenance	MAINT	Maralyn Kenley	3938

Griffith University:

Consulting	7682
Computer Services	7560
Computing Co-ordinator	7561

1. Newsletter Summary

- The long awaited typesetting manual is now available at a price of $8.00. The phototypesetter has 74 fonts and standard terminals can be used to develop your text for phototypesetting. The manual progresses from a beginner's guide to advanced use.

- Further information is provided on our gateway (X.25 CCITT standard) to Telecom Australia's Packet Switched Data Network. Links to overseas networks through AUSTPAC are now available, including file transfer and electronic mail to most UK universities.

- Users of departmental VAX/VMS now have the facility to conduct terminal sessions with other major nodes on the network (i.e. PDP10 systems, CSIRO gateway and AUSTPAC gateway).

- The Program Library again requests users to collect tapes and floppy disks within a week of notification of availability.

- Some outstanding errors in the NAG library of mathematical routines are documented.

- Users are reminded that projects on the PDP10 and VAX expire on 24 December unless renewed in writing.

- At least one hours' notice of cancellation of bookings for specialised terminals is required.

- Information is provided on Prentice Computer Centre courses available to staff and post graduate students.

Director
extension 2189

2. Typesetting Manual

The Typesetting Manual (Technical Manual No. 7) is now available from the Hawken Batch Station. The manual gives full details on the use of the typesetting software on the KL–10 and the in–house Compugraphics 8400 Typesetter.

It contains four sections:

Part A	Beginners Guide to Typesetting
Part B	Use of the KL–10/ITPS Typesetting Package
Part C	Details on operating the package
Appendix Section	Tables of all characters in the 74 fonts available on the Compugraphics 8400 phototypesetter and codes by which these are accessed from a standard terminal.

The price of the manual is $8.00.

John Noad
extension 3017

3. AUSTPAC Gateway

Astute network watchers may have noticed the recent appearance of a new host node AUSPAC (22) on the network. It is a gateway to AUSTPAC, Telecom Australia's national X.25 network. AUSTPAC will allow connection to a variety of host systems including those on overseas X.25 networks such as TELENET and TYMNET (USA) and PSS (UK). At present, the AUSTPAC network is in test and

Telecom are not levying usage charges for terminal sessions within Australia. The AUSTPAC gateway computer AUSPAC is also in test and may be crashed at any time to be reloaded.

Telecom charges for the use of AUSTPAC are based on the volume of data sent and received and the duration of the call. An accounting system is being developed for the gateway so that when Telecom begin charging for AUSTPAC use the Computer Centre will be able to bill its AUSTPAC users. Further details of the accounting system will appear in a subsequent newsletter.

AUSTPAC charges are distance–independent within Australia, so that a terminal session on the University network from AUSTPAC will incur the same AUSTPAC charge regardless of whether the call originated from Brisbane or Perth. Thus, dial–up access to the University network through AUSTPAC is likely to be cheaper than dial–up direct access using an STD call, but more expensive than direct dial–up access using a local call.

In time, it is expected that use of the AUSTPAC gateway will replace the use of the MIDAS program in most circumstances. There will be advantages in using the AUSTPAC gateway rather than the MIDAS program:

1. We have a 4800 baud line to AUSTPAC, the MIDAS program uses a 300 baud line.

2. The MIDAS program may be used by only one user at a time whereas the AUSTPAC gateway may be used by up to 5 users simultaneously and it is likely that we could provide for more simultaneous users if required.

The gateway is a slightly modified version of the X.25 gateway developed at the University of York, UK for use on British Telecom's PSS network and the Science and Engineering Research Council network. We also have a file transfer spooler developed at the Edinburgh Regional Computer Centre which implements the UK "Network Independent File Transfer Protocol" which is in common use in UK research and academic institutions. This spooler has successfully transferred files between the University of York's DEC system 10 and the University of Queensland's DEC10. Software is also available for sending network mail in the UK "grey book" mail format.

Arthur Hartwig
extension 2958

4. RTXPAD Program for VAX/VMS Systems

RTXPAD is a program for the VAX/VMS operating system which will allow a VAX/VMS user to conduct a terminal session on a DEC system 10 or DEC system 10 like host connected to the network. Nodes UQKL10 (1) and UQKA10 (6) are DEC10 hosts on the network. Nodes AUSPAC (22) and CSIRO (70) (both gateways to other networks) are DEC10 like hosts on the network.

This program is not likely to be of much use to users of the central VAX 11/780 but may be of interest to users of departmental VAX/VMS systems which are connected to the campus network.

Further details are available from me.

Arthur Hartwig
extension 2958

5. Library News

All tapes, floppy disks etc., left for processing by the Program Librarian under a small job requisition must be collected promptly by the user after notification of the job's completion.

As the Centre is very short of storage space the above mentioned articles should be collected within one week of notification, or else they will be returned via the internal mail system and, as with most mail systems, there is always the possibility of damage to such delicate items.

Lee MacDonald
extension 3943

6. NAG — Description of Outstanding Errors

The following errors apply to the NAG libraries on the KL and VAX:

Routine	Description of Error
C02ADF	Division by zero may very occasionally occur (actually in A02ACF).
C02AEF	Division by zero may very occasionally occur.
C05ADF	(BEWARE) May converge prematurely if on exit abs(X) > 1.0 and F(X).GE.ETA. (The reason is that the routine is currently applying a mixed convergence criterion abs(X–alpha).LE.EPS* max(1.0,abs(X)), contrary to the specification).
E04UAF	May exit incorrectly with IFAIL = 2 if on entry MAXCAL is close to the largest representable integer. (This is in practice only likely to occur in implementations with 16–bit INTEGER, and results from integer overflow in E04UAQ). Try using a somewhat smaller value of MAXCAL.
G01BBF	Exponent underflow may occur when the probability associated with the upper tail of the F or variance–ratio distribution with M and N degrees of freedom is zero.
G05CFF	(BEWARE)(DEC VAX11 Implementations only) G05CFF sometimes corrupts the state of the basic generator routine G05CAF, so that subsequent random numbers generated by any of the G05 routines will differ from what would have been generated if G05CFF had not been called. (However random numbers generated after a subsequent call of G05CGF agree with those generated after the call of G05CFF).
H01BAF	(BEWARE!) Incorrect values are returned in the array U for the Lagrange multipliers corresponding to any general constraints. (The reason is that the Lagrange multipliers are not rescaled before exit at the same time as the array AGC of constraint coefficients are rescaled).

Any problems concerning these routines may be referred to me.

Lee MacDonald
extension 3943

7. Expiry Date on Project Programmer Numbers

On 24 December each year all PPN's on the DEC-10's and UIC's on the VAX expire, unless the Centre has been notified in writing that a PPN/UIC is required for another year. *The term "expire" means that all files owned by that PPN, both on-line and off-line, are deleted, any balance of commitment is taken to 0 and PPN and charge code are deleted from the system.*

As you can imagine then, it is imperative that if you intend to keep using your account for the following year you must complete the "change of expiry date" form, prior to 24 December each year. Separate forms for KA/KL and VAX users are at the Accounts office.

We do this not to make life difficult for you, but merely to keep disk space clear and overheads down. Each year many people leave the University or go away on the Special Studies Programme, or finish post graduate research and omit to notify us that they have finished with their account. Expiring accounts is our way, then, of keeping the system operating efficiently for the user's continued benefit.

Carol Walker
extension 2188

8. Notice of Cancellation of Terminal Bookings

DIABLO
ACOUSTIC TERMINALS
TEKTRONIX

At least one hours' notice of cancellation of a booking on the above mentioned terminals is required. If this notice is not given the user will incur the full charge for the booking.

Sandra Campbell
extension 3471

9. Information Concerning Courses

The following courses will be offered during the October–December period. Depending on demand and other commitments, it is possible that additional courses will be scheduled and, if so, these will be advised in the next newsletter.

Schedule:

October

Introduction to PDP-10	October 3–6 4 half days 1–4pm each day
RUNOFF	October 10–14 5 half days 9–12am each day
Introduction to TECO Editor	October 20–21 2 half days 1–4pm each day
Introductory BASIC Programming	October 24–28 5 half days 9–12am each day
SPSS	October 24–28 5 half days 1–4.30pm each day
1022	October 31–November 4 5 half days 9–12am each day

Introduction to PDP–10	October 31–November 3 4 half days 1–4pm each day

November

CAD/CAM	November 1–November 4 4 full days 9–12am + 1–4pm each day
Introduction to PDP–10	November 7–8 2 full days 9–12am + 1–4pm each day
Introduction to TECO Editor	November 9 1 full day 9–12am + 1–4pm
VG	November 10–11 2 full days 9–12am + 1–4pm each day
RUNOFF	November 14–18 5 half days 1–4pm each day
Typesetting	November 21–24 4 half days 1–4pm each day
SPSS	November 28–December 2 4 half days 9am–12.30pm each day

December

1022	December 5–9 5 half days 1–4pm each day
CAD/CAM	December 6–9 4 full days 9–12am + 1–4pm each day
Elementary FORTRAN Programming	December 12–December 16 5 full days 9–12am + 1–4pm each day

Notes:

1. Users without basic knowledge and experience of the DEC–10 system, together with some facility in the use of an editor, MUST attend the course "Introduction to PDP–10" before enrolling in any other course (except for the CAD/CAM course).

2. A brief description of the content of each course was provided in Newsletter N–279.

3. All of the above courses will be held in Room G13A – Hawken Building (except for the CAD/CAM course, which is held in the Graphics Room, Hawken Building).

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

Barry Maher
extension 3021

10. Departmental Equipment for Sale

The Prentice Computer Centre has a Gestetner 460 duplicator for sale. Excellent condition - $500 o.n.o.

Dal Anderson
extension 3166

Change of Project Programmer Number Expiry Date

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Change of Project Programmer Number Expiry Date

Dept: ....

UIC's	SYSTEM (VAX)
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Change Expiry Date to: ....

Signature: ....