PRENTICE COMPUTER CENTRE

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

NEWSLETTER

N-306 January 1986

CONTENTS

1.0 Newsletter Summary.

2.0 Central Computing Facilities.
- 2.1 Problems with Systems Software or Packages.
- 2.2 New Version of 1022 on KL.
- 2.3 NAG — Description of Outstanding Errors.

3.0 Distributed Computing.
- 3.1 KERMIT (Columbia University Centre for Computing Activities).

4.0 Engineering & Communications.
- 4.1 New Network Mail Facilities — ACSNET.
- 4.2 AUSTPAC Gateway Expansion.
- 4.3 Increase in Maximum Record Length for Network File Transfers from VAX/VMS Systems to DEC-10.
- 4.4 New Dial-Up Service — V.23 (1200/75 bps).
- 4.5 AUSTPAC Access to MICOM Circuit Switch and IBM 3083.

5.0 Applications Development.
- 5.1 Information Concerning Courses.

Attachment — Index to Prentice Computer Centre Newsletters 1985

Authorized by the Director of the Computer Centre

COMPUTING SUPPORT CENTRE FOR UNIVERSITY OF QUEENSLAND AND GRIFFITH UNIVERSITY

Phone Numbers for Enquiries

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

Principal Service Centres	**Extension**
Contract Programming & Feasibility Studies	3944
System Status Automatic Answering	3101
General Enquiries & Course Enrolments	3018
Training & Courses Information	3021
Dial-up modem numbers	(300 bps) 377 3977
	(1200 bps) 377 2922
	(1200/75 bps) 377 2655

Service Advice & Problem Reporting	**Mail Box**	**Extension**
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

Engineering and Maintenance

Development and communications	ENGIN

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 275.

Consulting	7796
Computer Services	7560
Computing Co-ordinator	7561

1. Newsletter Summary

- Please advise the 'HELP' Desk if you have problems with systems software or packages supported by the Centre.
- A new version of the database package 1022 is now available on the KL10.
- Outstanding errors for the NAG (numerical algorithm) package are listed.
- Details are provided of versions available of "KERMIT" – a program which allows your personal computer to communicate with other computers.
- A mail service between host computers on the Australian Computer Science Network and the DEC–10 and VAX/VMS systems on the UQ network became operational on 20.12.85.
- The number of logical channels to support access to and from public data networks has been increased from 5 to 10.
- The record size for file transfers between the KL10 and VAX/VMS has been increased.
- A new dial up service V.23 providing 75 bits/sec for input and 1200 bits/sec for output from hosts is now available.
- Users operating through the Telecom Australia public data network (AUSTPAC) can now gain access to our MICOM Circuit Switch.
- Details of Prentice Computer Centre training courses are provided.

Director
extension 2189

2. Central Computing Facilities – Allan Woodland, ext. 4017

Operations – Sandra Campbell, ext. 3471
Client Information – Ian Burgess, ext. 4074

2.1 Problems with Systems Software or Packages

It has come to my attention that there have been occasions when people making use of one of our central systems have, for whatever reason, chosen to live with a problem rather than lodge a complaint about it. For your own benefit, as well as that of others, please report any problems with Systems Software or Packages to the HELP Desk. We can then endeavour to have it rectified.

Allan Woodland
extension 4017

2.2 New Version of 1022 on KL

Version 116B of 1022, the database package on our DEC10 system, has arrived and is currently available on NEW:. There is a total of 9 changes, details of which can be obtained by printing the file 116B.MEM on NEW:.

Some of the changes users may find useful are the COMPILE and PERFORM commands and the HELP command. The new COMPILE command allows the user to compile and save PL1022 routines and report programs in disk files for future

execution, thereby avoiding recompilation prior to each run. Such compiled procedures are executed with the PERFORM command. The HELP command will display on–line information about SYSTEM 1022 features and commands. To access the list of 1022 features and commands for which there are HELP messages available, type HELP at the * (1022) prompt. All changes are explained in detail in the file 116B.MEM.

Users should also examine the file 1022.BWR on NEW: before using the new version. The beware file contains incompatibilities between the new and previous versions of 1022.

A list of online documentation for V116 can be obtained by typing HELP NEW: 1022.

Lee MacDonald
extension 3943

2.3 NAG – Description of Outstanding Errors

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

Routine	***Description of Error***
D02BAF D02BBF D02BDF D02BGF D02BHF D02HAF D02HBF D02KAF D02KDF D02KEF D02PAF D02SAF	May very occasionally return with an error exit indicating that an initial step cannot be taken, or an initial stepsize could not be determined, in circumstances when this error exit is not warranted. This is an obscure error which may occur if a long initial step has already been taken (so the problem must be simple) and this step includes a point at which an interrupt occurs and the algorithm then requires to shorten the stepsize.
D02HAF D02HBF D02SAF	Can get into an infinite loop when computing the final solution after the iteration has converged.
E02GBF	Array bound error in E02GBN if the routine is required to perform a rescaling, in practice this will be necessary only on rare occasions.
F04MBF	Undefined variables will be referenced if the routine is called with all elements of vector B equal to 0.0.

Any problems concerning these routines may be directed to the Help Desk.

Lee MacDonald
extension 3943

3. Distributed Computing – Geoffrey Dengate, ext. 3391

3.1 KERMIT (Columbia University Centre for Computing Activities)

KERMIT is a free program which allows your personal computer to act as a terminal to a larger computer and to transfer files without error to and from any other computer which has Kermit.

Kermit versions currently available on floppy disk:

	Computer	*Operating system*	*Kermit version*
	Apple II	DOS 3.3	2.1a
	Apple II	CP/M	3.9a
*	MicroBee	CP/M	3.9a
*	Osbourne	CP/M	3.9a
*	Kaypro II & 4	CP/M	4.05
*	NEC APCII	CP/M–86	2.7m
	DEC Rainbow–100	CP/M–86	2.7
	DEC Rainbow–100	MS–DOS	LC–TERM 2.31
	IBM PC & clones	MS–DOS	2.27
	Sirius	MS–DOS	1.18
*	HP150	MS–DOS	2.26
	Macintosh		0.8
	PDP–11	RT–11 & TSX+	2.26
	PDP–11	RSX–11M+	2.22

These Kermits are available free from the Centre. We only ask that you bring along your own floppy disk for us to copy onto, or for those with asterisks, borrow, copy and return ours. To arrange to get your copy, ring David Keenan on extension 4166.

Recent additions are:

Macintosh: MacKermit version 0.8 complete with pull down menus, dialog boxes and you guessed it, Kermit–the–frog icons. If only all Kermits were this easy to use!

MicroBee CP/M: Please see Phil Webb, Entomology Department, for this one.

HP–150 MS–DOS: On micro–floppy. You will need to borrow and copy our disk, as we don't have a HP–150.

PDP–11 TSX+: Working at last! Many thanks to Ray DiMarco of SEQEB.

General information on Kermit is available in the file DOC:KERMIT.MAN (78 pages) on the KL10. Kermit source files and machine–specific documentation, for these and other Kermits, are available on DSKX:[10,213,KERMIT]. First read the file 00READ.TXT for a 'Who's who' guide to the other files on this area.

As for the rumours about how Kermit got its name. I am told that it *is* a Gaelic word meaning "free", but in the sense of "unconstrained" rather than "you don't have to pay for it". I also had a suggestion from someone at Griffith University who would probably like to remain nameless. He said that there was actually a little green frog who ran up and down the lines carrying the packets. I guess someone had to say it!

David Keenan
extension 4166

4. Engineering & Communications Services — G. Rees, ext. 3288

4.1 New Network Mail Facilities — ACSNET

The mail service between hosts on ACSNET (Australian Computer Science Network) and the DEC–10 and VAX/VMS systems on the University network became operational on 20 December 1985. The service operates as described in article 4.2 of

newsletter N–304 with the exception that VAX/VMS may now use the REPLY command since the VAX/VMS mailer is now given sufficient information to correctly construct a return address for mail from ACSNET hosts.

Arthur Hartwig
extension 4079

4.2 AUSTPAC Gateway Expansion

The number of logical channels available on the AUSTPAC gateway to support access to or from the public data networks has recently been increased by Telecom from 5 to 10. This should reduce the occurrence of attempts to call up the University from AUSTPAC failing with message

> CLR OCC.

Also, users attempting to place calls from the gateway to other systems should be less likely to get the message

> ?[AUSPAC(22)Call Failed, Reason – 80 (No available logical channels for outgoing call).

Arthur Hartwig
extension 4079

4.3 Increase in Maximum Record Length for Network File Transfers from VAX/VMS Systems to DEC–10

NFT–10, the Network File Transfer program on the DEC–10, has recently been enhanced to allow the transfer of files with larger record lengths FROM VAX/VMS systems TO the DEC–10.

NFT–10 performs a network file transfer by co-operating with FAL (the File Access Listener) on the VAX/VMS system. When the two programs establish communication they exchange configuration information which includes the size of the buffers they will use for the transfer. The smaller of the two sizes is that used for the transfer and this buffer size determines the length of the largest file record that can be exchanged between the two systems. Previously NFT quoted a buffer size which allowed a maximum record size of 512 bytes.

The /RECSIZ:n switch has been added to NFT to allow specification of the maximum record size to be transferred. The argument may be specified as a number (e.g. 4072) or as nK to mean n*1204 (e.g. 4K means 4096). If NFT cannot complete a transfer because the file on the VAX/VMS system has records which are too large, NFT attempts to suggest a suitable value for the /RECSIZ switch; but is able to do so only if the VAX/VMS system supplies the information. The switch argument can be a value up to about 16K (VAX/VMS V4.1 or later) or 4K (VAX/VMS V3.7 or earlier).

The maximum record size for transfers to or from RSX–11/M and RSX–11/M+ systems remains at 512 bytes.

Arthur Hartwig
extension 4079

4.4 New Dial–Up Service – V.23 (1200/75 bps)

New modems have been installed in the Computer Centre to provide a V.23 (1200/75 bps) service. The telephone number is 377 2655.

The V.23 service offered provides an "inbound" channel to the host at 75 bps and an "outbound" channel from the host at 1200 bps. A microprocessor between the modem and the MICOM circuit switch converts the inbound channel to operation at 1200 bps so that the service appears to the MICOM and host computers to be a line running at 1200 bps for both receive and transmit.

V.23 modems are commercially available now at prices comparable to those of V.21 modems (300 bps each way). For operation with terminals the V.23 service gives a four fold increase in output speed while the input rate is still more than sufficient for type–in by an operator. However, for file transfers from a micro computer to a host, the V.21 service provides faster input to the host (300 bps vs 75 bps). Intending purchasers of V.23 modems who also wish to use their modems for file transfers would therefore be advised to purchase a modem capable of operating in both V.21 and V.23 modes (300 bps and 1200/75 bps).

Arthur Hartwig
extension 4079

4.5 AUSTPAC Access to MICOM Circuit Switch and IBM 3083

An X.25 card has recently been installed in the MICOM circuit switch. This card has been configured to provide two modes of operation:

1) a line mode with ability to select any host available through the MICOM;
2) a mode optimised for use with VM/CMS on the IBM 3083. If this mode is selected the user is connected directly into the IBM 3083 bypassing the usual MICOM "select host" dialog.

Selection of mode is done by calling particular addresses and again there are two ways of doing this:

1) If you are calling from a dedicated AUSTPAC line or from a public PAD and quoting a NUI, call the address

   2 737 20000 87

   to select the "IBM mode" and connect directly to the IBM host or call

   2 737 20000 80

   to select the "line" mode and enter the MICOM select host dialog.

2) If you are making a reverse charge call (the default from dial up AUSTPAC PADs) the procedure is as follows:

   (a) Call the University AUSTPAC gateway in the normal fashion.

   (b) After quoting your password give the command

   SET HOST AUSPAC

   (c) Then give the command

   CALL UQVM

   to select the IBM mode and connect directly to the IBM host or

CALL MICOM

to select the line mode and enter the MICOM select host dialog.

Arthur Hartwig
extension 4079

5. Applications Development – Sarah Barry, ext. 3944

5.1 Information Concerning Courses

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

The following courses will be offered during the period February – July 1986:

February

Introduction to IBM	February 3–6 4 half days 9–12am each day
SPSS	February 3–7 5 half days 1–4.30pm each day
SQL	February 10–14 5 half days 1–4pm each day
Introduction to PDP–10 (GU)	February 17–20 4 half days 9–12am each day
SAS	February 17–21 5 half days 2–5pm each day
Introduction to IBM	February 25–28 4 half days 9–12am each day

March

SCRIPT	March 3–7 5 half days 1–4pm each day
1022	March 10–14 5 half days 1–4pm each day
Introduction to PDP–10	March 17–20 4 half days 9–12am each day
Typesetting	March 24–27 4 half days 9–12am each day

April

RUNOFF	April 1–4 4 half days 1–4pm each day
SAS	April 7–11 5 half days 9–12am each day
SQL	April 14–18 5 half days 1–4pm each day
Conversion to IBM	April 22–24 3 half days 9–12am each day

SPSS	April 28–May 2 5 half days 9am–12.30pm each day

May

SCRIPT	May 6–9 4 half days 1–4.30pm each day
Introduction to IBM	May 12–15 4 half days 9–12am each day
Introduction to PDP–10	May 19–22 4 half days 1–4pm each day
Conversion to VAX	May 27 1 full day 9–12am + 1–4pm
Using PC on the Network	May 29 1 half day 9–12am

June

Elementary programming in BASIC	June 2–6 5 half days 9–12am each day
Introduction to PDP–10	June 10–13 4 half days 9–12am each day
STATPACK	June 11–12 2 half days 2–4pm each day
Conversion to IBM	June 16–18 3 half days 9–12am each day
1022	June 16–20 5 half days 1–4pm each day
Introduction to IBM	June 23–26 4 half days 9–12am each day
SPSS	June 23–27 5 half days 1–4.30pm each day
RUNOFF	June 30–July 4 5 half days 9–12am each day
SAS	June 30–July 4 5 half days 1–4pm each day

July

Elementary programming in FORTRAN	July 7–11 5 full days 9–12am + 1–4pm each day
SQL	July 14–18 5 half days 1–4pm each day

General Notes:

1. Intending users of the PDP–10 system must be familiar with the content of the course *Introduction to PDP–10* (i.e. terminal usage, file–management, editing) before attending other PDP–10 courses.
2. In corresponding fashion, for the IBM system, users should have attended either *Conversion to IBM* (for previous PDP–10 users) or *Introduction to IBM* (for completely new users) before attending other IBM courses.

3. Courses held at St Lucia (with the exception of CAD/CAM courses) are conducted in the Computer Centre's teaching area near the Physics Annexe. Courses designated (GU) are held in Room 1.49, East Wing, SIA Building at Griffith University.

4. Staff and post–graduate students are admitted free to courses. The charge for internal users is $10.00 per half day; $17.00 per half day for affiliated users; and $37.00 per half day for external persons.

5. Enrolments for all courses may be made by phoning ext. 3018.

Barry Maher
extension 3021

Index to Prentice Computer Centre Newsletter

Dates of Issues Published in 1985

N–296	January 1985
N–297	February 1985
N–298	March 1985
N–299	April 1985
N–300	May 1985
N–301	June 1985
N–302	July 1985
N–303	August 1985
N–304	Sept/Oct 1985
N–305	Nov/Dec 1985

	issue	*pages*
A		
Accounts – computer		
Expiry date	N–304	1–2
	N–305	2
Security	N–296	7
Apple LaserWriter	N–305	4–5
Apple Macintosh public domain software	N–302	5
Apple Tertiary Buy Program	N–302	4
AUSTPAC		
Access to MICOM Circuit Switch from AUSTPAC	N–305	8–9
Access to MINERVA through AUSTPAC gateway	N–296	3–4
Access to overseas countries	N–296	1–2
Changes to AUSTPAC gateway	N–305	8
New AUSTPAC charges	N–297	1
Auto answer modems	N–298	2
V.23 dial–in service	N–300	2
AVCC – copyright and computer programs	N–298	15–16
B		
BACKUP facilities		
Disk pack	N–297	2
On UQVM	N–296	13–14
C		
CALF77 Plotting Library – extensions to	N–304	3–4
Central machines – non–conforming use	N–296	6–7
	N–305	2
Charging for IBM 3083E System	N–297	1–2
Closure of Client Room – Commerce Building	N–305	1–2
Communications		
High speed link between St Lucia and Griffith campuses	N–300	2–3
Computer equipment – potential damage	N–300	1
Copyright – AVCC copyright and computer programs	N–298	15–16
Courses Information	N–296	17–18
	N–297	3–4
	N–298	11–12
	N–299	10–11
	N–300	5–6

	N–301	4
	N–302	7–8
	N–303	4–5
	N–304	8–9
	N–305	9–10
CYBARITE Bulletins from CSIRO's CYBER–76	N–296	5
CSIRONET		
New gateway	N–301	3
	N–302	6
	N–303	3–4
New gateway evaluation	N–296	5–6
Removal of current gateway	N–303	2–3
Summaries	N–298	2
The future of CSIRONET access	N–304	6–7
D		
Data files		
Editing 1022(TM) data files	N–302	6–7
DECNET		
Switched DECNET services	N–298	2
Diablo replacement	N–297	2
Disk pack backup facilities	N–297	2
E		
Equipment for sale (departmental)	N–296	18
	N–299	11
	N–300	7
	N–301	5
	N–302	8
	N–304	9
	N–305	10
Ethernet	N–300	3
EVALX – a cardless version of EVAL on the KL10	N–296	8–9
F		
FACIT printer	N–298	6–7
	N–300	4–5
	N–301	1–2
Change of print wheels	N–298	7
Failure of large jobs – liability & safeguards	N–298	6
File BACKUP and RECOVERY facilities on UQVM	N–296	13–14
Files – sending from UQVAX:: to UQVM	N–304	2
File Storage		
Use of "T–DISK" and "READER files" on UQVM	N–296	12–13
Floppies to go	N–304	5
G		
GKS (Graphics Kernel System) on the VAX	N–300	4
H		
HELP desk		
Fault reporting and Distributed Computing	N–298	9
I		
IFPS on UQVM and UQVAX	N–305	4
IMSL		
On the IBM	N–299	4–5
On the KL10	N–298	6
	N–299	5
Warning for users on the KL	N–299	6

K

KERMIT — N–299 7–8
- KERMIT–86 for IBM–PC — N–296 16–17
- For VM/CMS — N–296 15–16
- New versions — N–298 9

L

LaserWriter (Apple) — N–305 4–5
Liability for failure of large jobs — N–298 6

M

Mail – electronic — N–305 7
- New mail system for the DECsystem–10 — N–298 3–5; N–300 3–4
- New network mail facilities — N–304 7–8

MICOM Circuit Switch – access from AUSTPAC — N–305 8
MINERVA – Access through AUSTPAC gateway — N–296 3–4
MITHRIL — N–302 4
MLP for your PDP–11 — N–302 4
Modems – Auto answer — N–298 2

N

NAG
- New version for the VAX — N–296 9–10
- On the KL — N–296 10; N–299 5
- Outstanding errors — N–296 10–11; N–302 2–3
- Warning for users on the KL — N–299 6

Network File Transfer Utility (NFT) – New version — N–296 4
Newsletter – Summary — N–296 1; N–297 1; N–298 1–2; N–299 1; N–300 1; N–301 1; N–302 1; N–303 1; N–304 1; N–305 1

O

OTC tariffs
- Reducing costs for access to international computer systems — N–299 8–9
- Reductions in call charges to overseas countries — N–296 2–3

Output collection — N–302 1–2

P

PDP–11 – New lease of life — N–298 9–10
Personal Computers — N–298 13
- Survey database — N–300 2; N–302 5; N–305 5–6
- Word processing packages — N–304 6

Plotting
- Cost of plotting to the HP plotters from UQVAX:: — N–301 2
- Enhancements to HP plotter spoolers and CALF77 Library — N–303 2

Extensions to CALF77 plotting library
– opening windows N–304 3-4
On the IBM 3083E N–299 6–7
SASHPCON – Plotting from SAS/GRAPH on the IBM N–304 2
VUEPLT N–304 4–5
N–305 3
Prentice Computer Centre
Improper use of facilities N–296 6–7
N–305 2
Organisation and accommodation N–298 13–14
Renovations N–301 1

R

Rates
IBM student rate N–299 1
"READER files" for file storage on UQVM N–296 12–13
RUNOFF – new command N–302 3

S

Sargasso C compiler N–303 1
SASHPCON – Plotting from SAS/GRAPH on the IBM N–304 2
Software
Inquiries N–304 2
Problem reporting N–303 2
SPICE on the VAX N–302 2
SPSS^{X}: Some introductory notes N–298 7–8
STAIRS on CMS N–301 3

T

Tapes – Private N–298 5
TEKGKS – new version on UQVAX:: N–301 2
TYPE command on KL – new switch N–299 4
"T–DISK" for file storage on UQVM N–296 12–13

U

User groups on campus N–304 5
N–305 5

V

VAX 11/780
Availability N–296 14
What every user should know N–299 2–3
New program – SPICE N–302 2
Problem with command procedures N–303 1–2
System disk rearrangements N–296 14
VG – additional feature N–298 10
VIATEL N–302 5–6
VUELPT
Keeping GIGI pretty N–304 3–4
More graphics software enhancement N–305 3

W

Word processing packages for PCs N–304 6

X

XTEC Modifications – KL10 N–297 3