



PRENTICE COMPUTER CENTRE

UNIVERSITY OF QUEENSLAND

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NEWSLETTER

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1.0 STATISTICAL PACKAGES - NYBMUL

Two versions of NYBMUL, the multivariate package are now available on STA: on the KL: .

1. NYBMUL This version is unchanged and provides 4000 words of workspace.
2. NYB600 This version is merely an expanded version of NYBMUL and provides 6000 words of workspace.

Should any users require the expanded version for use on the KA: they should contact me.

Users should also note that the five work files are created on logical units 20,21,...24 and not 10,11,...,14 as indicated in the Statistical Packages manual. Hence to delete these work files the command becomes:-

.DELETE FOR2?.DAT

Geoffrey Dengate
extension 3021

2.0 OUTPUT TO A TERMINAL WITH SUPPRESSION OF OPERATOR MESSAGES

Two new switches to the TYPE program provide the option of typing files with suppression of messages from all other users including operators. The switches are /NOGAG (default) and /GAG.

The action of /GAG is to set TTY GAG and SLAVE for the output device which is sufficient to suppress type-out of messages sent by any other user. One side effect of setting TTY SLAVE is that the monitor will not accept any type-in from the terminal as a command; even control-C does not have its usual effect. Thus once a "GAG" type-out has begun it cannot be stopped even by typing many control-C's except when the program stops output to wait for input such as after typing a "*" prompt to indicate readiness to accept another command, or on waiting for the user to position the paper to the top of a page (if /PAUSE was given). This could cause problems if TYPE is aborted due to an error condition such as COST LIMIT EXCEEDED in that anything the user types on the terminal (including control-C) will have no effect. The only way out of this state is for the system operators to "unslave" the terminal by means of the command:

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SET TTY TTYN: NO SLAVE

where TTYN: is the terminal used as the output device. The moral of this explanation is that the /GAG switch must be used with care if trouble is to be avoided.

For users who require it, /GAG may be set as a default by entering into SWITCH.INI a line of the form:

TYPE /GAG

Example: (This sequence of commands types the file LST.LST on the controlling terminal, suppressing messages from other users and pausing at page boundaries)

.R TYPE
*LST.LST/PAU/GAG

Further information on TYPE may be obtained by issuing the command:

HELP TYPE

or by printing the file DOC:TYPE.DOC

Note: As foreshadowed in a previous newsletter, on August 6 the TOPS-10 monitor will be changed to use the TYPE program to process the TYPE command rather than the currently used COMPIL/PIP combination.

Arthur Hartwig
extension 3021

3.0 PRENTICE COMPUTER CENTRE SEMINARS

Seminars are held each Wednesday afternoon from 4 pm to 5 pm in Room 214 of the Hawken Engineering Building. All interested users are welcome, there is no limit on attendance at these seminars. Suggestions for future topics are also welcome, please contact Sarah Barry (ext 3941). The next seminars scheduled by the Computer Centre are as follows.

July 25 Plotting Facilities available from Fortran
This seminar will briefly discuss the plotting system available on the PDP-10. As well as this there will be a discussion on the basic plotting routines. The seminar is intended for those who have little or no experience with plotting on the PDP-10, and assumes

only a knowledge of Fortran.

August 1 Further Terminal Commands

This seminar covers more easy to do and often useful features of the system available to the user. They couldn't all be included during the first seminar on Terminal Features, so we're presenting those left out. The seminar WILL discuss SWITCH.INI, the SETSRC and QUOLST programs, different ways of logging in and out, plus a few other details for typing files and printing them.

August 8 CHESTR - file dumping and examining program

CHESTR is a file dumping program which allows the user to examine files word by word or bit by bit if need be. The files can be on disk, tape, dectape or any other device the user has access to. CHESTR also allows the user to change the file on a word by word basis, scan the file for particular bit patterns and examine words in any mode (ascii, integer, sixbit, date, time, ebcdic, bcd, macro, etc.)

The seminar will include examples of these features and a generalised discussion on other features that can aid the user in pulling apart a file at the basic level. Beginners to computing tend to consider a file a string of characters, this is relatively true for ascii files but not true of all files. With CHESTR it is possible to handle any type of file, from ascii to binary.

August 15 Exhibition Day

There will be no seminar as this is a public holiday.

4.0 MID SEMESTER COURSES

The Prentice Computer Centre is organizing a number of courses during the mid-semester break (August 20 to August 31). Two of these courses (Advanced Fortran and Runoff) have already been advertised in the Newsletter, but places are still available for interested people. These two courses will be mornings only, and the afternoons have therefore been scheduled for a number of other topics.

All courses will be held down at the Computer Science Terminal Laboratory. This will enable users to practice on the terminals and put some of the procedures they have learnt into operation. Time has not been allocated in these courses for an introduction to the computer, and it would be preferable if you

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were already familiar with the use of terminals and the concept of logging in a job.

4.1 Advanced Fortran

August 20 - Aug 24 (Mon to Fri) 9 am - 12 am

The Centre has several times attempted to schedule advanced Fortran programming courses. This has usually happened at the request of a particular user or users, but we have found that most courses in the past have failed to attract an adequate attendance and so have not eventuated.

This course is intended more explicitly for users of the PDP-10 system than the Introductory Fortran Course (which is a generalized introduction to Fortran). Members of staff or post graduate students currently with programming experience, who wish to improve their knowledge and programming skill are invited to attend. The Centre does not feel that people who have only just attended the Introductory Fortran course scheduled in July will have had sufficient practical experience to benefit from this course.

A number of topics have been considered already but if users wish to have other possible areas covered please would they contact the Centre.

Planned Course Outline

Random input/output
Fortran linking with other language subroutines (e.g. Cobol and Macro)
Overlaying large programs
Plotting (including plotting with overlaid programs)
Reentrant Fortran
Debugging programs and use of FORDDT
Efficient programming
Defensive programming
Portable programming (i.e. transfer of programs to other machines)
Use of standard libraries (e.g. IMSL)

4.2 QDATA - General Purpose Data Entry

August 20 - August 23 (Mon- Thur)

2 pm - 5 pm

QDATA is a package designed for general purpose data entry, catering for small to moderate requirements. It enters data directly into the PDP-10 system, avoiding the necessity of card reading. During data entry, checking can be made to ensure that the correct type of characters (e.g. only numeric) are being keyed. The package is an alternative to the traditional keypunching of data, and we believe it offers greater flexibility and less errors.

The course is designed to familiarise users with the package, though they may not have used the computer before. It is intended for people who will either be wanting to enter data for their own purposes, or will be performing data entry for another person. Sessions will be conducted for four afternoons of a week, with the intended course outline -

Session 1 (Monday) - Introduction to data entry - what it is. Concepts of how QDATA is used. Starting QDATA and entering data. Some simple commands.

Session 2 (Tuesday) - Further commands to aid data entry. Entering data in different forms. Updating and Verifying.

Session 3 (Wednesday) - Supervisor's commands to control batches of data - removal, output, etc. Introduction to the job definition.

Session 4 (Thursday) - Creating job definitions to allow different forms of data to be entered.

4.3 RUNOFF

August 27 - August 30 (Mon - Thur)

9 am - 12 am

Runoff is the text processing program available on the PDP-10. This course covers the processing options available with the RUNOFF system. However, it is assumed that people attending this course will have some experience in the use of the PDP-10 system and at least one of the system editors.

4.4 VG - Generalized Data Base System

August 27 - August 28 (Mon - Tues)

2 pm - 5 pm

VG is a generalized data base system. It is designed for people with little or no programming experience so that users can store information, update and modify it, and retrieve it in a number of various forms. It is an ideal system for the use and maintenance of name and address files, student result files, catalogue or parts lists, inventories, attendance lists and so on.

The course will give an outline into the way the VG system works and clients will be able to setup the fields and files required for a simple job, and produce various types of output. This course is intended as an introduction to VG and instructions on how to use the system. It is intended to hold a seminar later on in the year where users can discuss their various applications and any possible enhancements to this very flexible system.

Further information may be obtained from Ms. Barry of the Computer Centre, on ext. 3941. Please note that both staff and equipment are in short supply, PLEASE REGISTER FOR ANY COURSES with Ms Barry or the Secretary on extension 2189.

5.0 KAl0 MONITOR EXTENSIONS

From Monday July 16 the KAl0 monitor will include a new module to emulate in software a DN87 communications front-end. The inclusion of this module makes it possible to include both the DECl0s in a network with some users having access to the computer system (or "host") of their choice. Users of both systems will notice some differences which will be described:

(a) Users of the KAl0 system

1. The KAl0 system is now node (station) number 6 and has a node name of "UQKAl0".
2. The NODE, LOCATE and WHERE commands all behave a little differently

(b) Users of the KLl0 system

1. The NODE command will generally show the presence of the KAl0 system in the network.
2. The "SET HOST" command will allow users to "connect" to either the KAl0 or the KLl0.
3. Terminals previously connected to the KLl0 exclusively will now connect to either the KAl0 or the KLl0 in apparently random fashion.

The SET HOST command

This command is available only to users working on a terminal connected to a PDP-11 running the DEC DN80 series network software. Therefore this command is available to all users working on terminals which previously accessed the KLl0. This command is not available to users whose terminals are connected to the KAl0 through the PDP-8. If a user issues the command from a terminal which cannot be switched to a different host, the message ?DECsystem-l0 TTYS can not be switched via HOST

will be typed on the user's terminal.

The form of the command is

SET HOST arg

where arg may be a node number (currently 1 for the KLl0 and 6 for the KAl0 are the only valid numbers) or a node name (currently UQKLl0 and UQKAl0 are the only valid names). If the user's terminal can not be connected to the specified host, the message:

tty not connected

will be typed on the terminal which will indicate:

1. the specified host can not accept any more connections (initially a maximum of 15 applies)

or

2. the communications channel between the node to which the terminal is attached and the specified host has failed.

Arthur Hartwig
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6.0 SELF-SERVICE PRINTING FACILITIES

The self-service printing facilities foreshadowed in Newsletter N-239 will become available on Monday July 23. The facility is located in the clients' area on the ground floor of the Hawken Building and is available for printing files from either the KL10 or the KA10. Only jobs with a limit of 20 pages or less will be scheduled for printing on the self-service printer.

Files may be queued for printing on the self-service printer by specifying the output device as

LPT20: eg.

PRINT LPT20:=file-list/LIMIT:20

or by issuing the command

LOCATE 20

then the print commands.

Further details on the use of the self-service printer will be published in the next newsletter but until then may be obtained by giving the command HELP SSLPT or by printing the file HLP:SSLPT.HLP

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