University of Queensland

PRENTICE COMPUTER CENTRE

Newsletter

authorization: Director of the Centre

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2   NEW SYSTEM IMPLEMENTATION

The new PDP1090 system was delivered on schedule during December and has now been installed by the supplier.   Acceptance test procedures commence this week.   Each item of hardware delivered is individually tested that it meets specifications and that all necessary engineering diagnostics and drawings etc. are supplied. Following this, a system reliability test is conducted over a period of 12 days.

Assuming that the system meets the requirements of the acceptance tests on the first pass, the tests should be completed by mid-February.   The Centre will then require the equipment for a couple of weeks for making ready for operational use.

We will keep you informed of progress.

3   COURSES

In line with previous practice, the Computer Centre will again be holding a course prior to the start of semester.   The course is aimed at users who have little or no experience with the system. Staff and post-graduate students of Griffith and Queensland Universities are eligible to attend, free of charge.   A fee of $100 will be charged for each external user attending.

The course will be held during orientation week, February 13-17, and will consist of ten one-hour sessions:

Monday	9.30 a.m.	Introduction, Hardware, Computer Centre Services
	10.45 a.m.	Accounting
Tuesday	9.30 a.m.	Software, Login, Monitor Commands
	10.45 a.m.	Terminal Usage, Useful features
Wednesday	9.30 a.m.	Edit I
	10.45 a.m.	Edit II
Thursday	9.30 a.m.	Introduction to SPSS
	10.45 a.m.	Statistical Packages
Friday	9.30 a.m.	Standard Packages, e.g. Labels
	10.45 a.m.	Other topics, user queries, etc.

In order to provide users with a chance to interact on each topic a seminar format has been chosen for each session, thus necessitating us imposing a limit of 20 per session. To meet the expected demand for the course, it will be repeated in the afternoon with sessions starting at 2.00 p.m. and 3.15 p.m.

To help us plan the courses, you are requested to register. Would you also indicate which sessions you wish to attend and whether you would prefer the morning or afternoon time slot. Registration forms may be obtained from the Computer Centre and should be returned not later than Tuesday, January 31. The venue will be notified to attendees after registration.

4   REMOVAL OF OLD FILES FROM THE OFFLINE AREA

All offline files not accessed since January 1977 have been transferred to magnetic tape. If you wish to retrieve any of these files, please contact the Centre on extension 3471.

5   GRAPHICS

The graphics laboratory currently consists of a Tektronix 4014 graphics display, a GT42 refresh graphics unit and a sonic digitiser. A description of each item of equipment and the possible areas of application are as follows:

1)   Tektronix 4014 Graphics Display Unit

This device has a storage type screen, that is, the displayed
figures are stored in the phosphor on the screen. Because of
this, the number of vectors displayed on the screen is only
limited by the resolution of the electron beam in the storage
screen. (Theoretically, there is no limitation at all.) However,
to delete any vector, the whole screen has to be cleared and those
vectors that are still required have to be regenerated by program.
Because of this, it is recommended that this device be used for
non-time-critical interactive uses, e.g.

   (a)   previewing plots

   (b)   computer aided instruction

   (c)   visual comparison of plotted and theoretical curves

   (d)   drafting system (hardware generated cross-hairs are
          available with thumb-wheel controls).

Software for the Tektronix is outlined in the DISMAN manual
(OMNIGRAPH) available from the Hawken Batch Station.

2)   GT42 Refresh Graphics Unit

This system is based on a PDP11 mini-computer which is connected
to the PDP-10 by high speed TTY line. Any figures that are
displayed on the screen are stored in the PDP11s memory. The
screen itself has no storage capability, so the picture, once
drawn, has to be refreshed regularly (>30 times per second) to
remain visible. The number of vectors that can be displayed is
governed by the length of each vector (time taken to draw each
vector), the time taken to access the memory to get the necessary
information for each vector and process it, and the quantity of
memory available. If the total time taken to generate one
picture is too great, the picture will appear to flicker.

Because the picture is being updated at such a rate, it is possible
to introduce changes into the picture to produce "smooth motion".
With the communication link to the PDP-10, a controlling program
can perform tasks such as motion simulations. With the aid of the
"light pen", it is also possible to interact with screen as well
as the keyboard. Lists of specialized commands can be displayed
at, say, one edge of the screen to assist the operator in
performing a specialized task.

3) Sonic Digitiser

This device is capable of converting charts, maps and other visual data into sequences of co-ordinates suitable for subsequent analysis by computer.   The model available works on a sonic principle by producing a spark at the tip of a tracing pen. The time taken for the sound of the spark to travel to a pair of microphones (mounted at right angles on two adjacent sides of the square digitising surface) is used to determine the position of the pen. A microprocessor controller sends these co-ordinate pairs to the PDP-10, which stores them in a file for later analysis. A variety of pens are available for drawing or tracing. The tablet is 1m square and generated points are in 10ths of mm units.

Availability

The equipment is located in the graphics room behind the duty programmer's office in the Hawken Batch Station. At this stage, it is desired that the equipment be available to as many academic departments as possible to enable developments in its use in research.   Thus, at this stage, bookings will only be accepted from members of the academic staff.   If student exercises are involved, academic supervisors should book time on behalf of students.   Bookings will be accepted in 60 minute time slots with a maximum of four hours in any one day for any one department. Unfortunately, we have little space available, so no more than 2 or 3 people should be using any one item of equipment at the one time.   The co-operation of Departments is requested to ensure that booked time is properly used.   Expensive graphics equipment should not be used for editing.

All time is to be booked by academic staff at least two days in advance and such advance bookings should be no more than four hours daily for any one department.   Time not so booked becomes available for usage on first-come-first-served basis by hourly time slots.

6   SPRINT V2B   (9 Jan 78)

An experimental version of Sprint was introduced for evaluation. It is primarily a maintenance release and incorporates in excess of 40 reported patches. Inevitably a change of this magnitude has the potential of introducing additional bugs and we ask for your assistance in reporting any problems you may have.

To assist in conversion to the new KL10 system, this version
was developed in close conjunction with the Galaxy version of
Sprint and some preparatory work has been done to assist in
conversion.

There should be little noticeable change to the user. Some
improvements have been made to the handling of /Suppress and
request protection; there is now a new /JOBNAME:name switch
to give the same facilities as the present naming facilities.
The /LIB switch on the $INCLUDE card, which was provided as a
conversion aid several years ago, has now been removed leaving
/SEARCH as the only means of initiating a library search.

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