

University of Queensland

PRENTICE COMPUTER CENTRE

Newsletter

authorization: Director of the Centre

1 CONTENTS OF THIS ISSUE

- 2 NEW PDP1090 SYSTEM IMPLEMENTATION
- 3 SYSTEMS PERFORMANCE
- 4 CARD PUNCHING SERVICE & FACILITIES
- 5 STATISTICAL PACKAGES CONSULTING
- 6 SPRINT REVISITED
- 7 FILE TRANSFER
- 8 PLOTTING MANUAL
- 9 EXTENSIONS TO THE CLUSTR SUITE

2 NEW PDP1090 SYSTEM IMPLEMENTATION

Hardware acceptance tests of the new system have been completed. The next phase of the tests are systems tests to test the reliability of the hardware and software operating in a simulated production situation.

We would not expect these tests to be completed before the beginning of March. Following that, there will be a period of make ready and training of our operating, programming and technical staff. Our plans are to convert the Administration load to the new system during March/April and thus quickly remove a heavy load from the existing KA system. The next stage of conversion will be to connect existing remote batch stations at Commerce and Griffith and associated terminals in each location to the new system.

We are currently working on a 'gateway' to enable terminals connected to the KA system to log into the KL system (but not the reverse). Our target is to have this operational before second semester.

### 3 SYSTEMS PERFORMANCE

Despite constant attention, the existing system has continued to give problems. As a result of the installation and testing of the new system, the KA10 system was shifted to a new location, there are substantially more people in the computer room and there is generally greater activity. This, we believe, has impacted adversely on the operation of the KA10. Although we will do our utmost to keep downtime as low as possible, there will probably continue to be problems until activity in the computer room settles down and current and supplementary airconditioning is properly balanced.

### 4 CARD PUNCHING SERVICE & FACILITIES

Up to the present time, the Centre's card punching service has been located in the basement of the Hawken Building. Users requiring punching to be done have submitted data forms at the Hawken Batch Station on the ground floor and subsequently collected their cards from there also. However, owing to the extreme shortage of accommodation space within the Centre's area of the Hawken Building, it has been necessary to relocate the punching service (amongst others) at the Commerce Batch Station - Room 218 on level 2 of the Commerce Building on Circular Drive.

Relocation will take effect from Wednesday, 1 March 1978. Users who require the same service as is now offered at the Hawken Batch Station should take their data to, and collect their output from, the Commerce Station. The Centre will, however, still receive data and distribute output from the Hawken Station but there will be unavoidable delays of up to three days, depending on timing of the courier system. Obviously a continuous courier system is not economically possible.

For enquiries or booking of punching services, telephone (377) 3963.

For similar reasons, some of the punch machines in the Client Room on the ground floor of the Hawken Building will be moved to the Client Room - Room 220, adjacent to the Commerce Batch Station. There will be one punch machine left in the Hawken area and four machines in the Commerce area. Users are reminded that these machines are provided for corrections only and individual use should not exceed about five minutes whenever anyone else is waiting.

5        STATISTICAL PACKAGES CONSULTING

As from MONDAY, 23 JANUARY 1978, the location for consulting help and enquiries regarding the statistical packages on the system (SPSS etc.) will be changed from the Hawken Building to ROOM 211 of the Commerce Building.

The hours for such consulting will be from 9 a.m. - 12 noon and 2 p.m. to 4 p.m. daily. Preferably, an appointment can be made with the consultant on extension 6963.

All other user problems should, as before, be directed to the existing consulting service at the Hawken Batch Station.

6        SPRINT REVISITED

As mentioned in the last newsletter, there has been a new version of Sprint implemented. It turns out that some of the changes which have been made in this version (taken from that to be used on the new KL10) have caused problems with a few usage styles. In particular, \$FORTRAN <filename> now means use the pre-existing file for program source and any following program cards are not accepted. Thus, either of the following deck layouts should be used -

<u>OLD</u>	<u>NEW</u>	<u>OR</u>
\$JOB	\$JOB	\$JOB
\$FORTRAN name	\$DECK name	\$FORTRAN
Source	Source	Source
.....	.....	.....
Program	Program	Program
\$EOD	\$FORTRAN name	\$EOD
\$EOJ	\$EOJ	\$EOJ

This version also has a problem with the occurrence of monitor commands not prefaced by the \$TOPS10 control card. It is hoped that this version of Sprint would still allow these to exist in a card deck, though a warning message would be issued (on the KL10 they will abort the job). It seems though that there is a problem and such cards are inserted into the log file as comments only; this problem will be investigated further.

7        FILE TRANSFER

For those who wish to transfer files to 9-track magnetic tape for use on the various HP computers in the Institutes of Advanced Education, the program UTI:HPCON may be of assistance. This program reads fixed length Ascii files on the PDP10 and will write a magnetic tape. Its operation proceeds by straightforward dialogue and no problems should be encountered.

## 8 PLOTTING MANUAL

There is a minor error in the Plotting Manual on p.2-18 where the calling sequence for the call to AXIS is described. The fifth line should read -

```
CALL AXIS(XPAGE,YPAGE,IBCD,NCHAR,AXLEN,ANGLE,FIRSTV,DELTAV).
```

## 9 EXTENSIONS TO THE CLUSTER SUITE

The following utility program for manipulating data files input to CLUSTER suite of programs has been provided at the suggestion of Professor Stephenson of the Department of Zoology.

Use of CLUSTER has revealed a number of restrictions, for example:

- (1) The only acceptable fractional power transformations are whole (integer) numbers;
- (2) It does not permit the standardization (by totals) of data transformed using fractional powers;
- (3) The range of permissible standardizations is limited to a single option (by totals).

Two alternatives were available, either to increase the options within CLUSTER, or to manipulate the data prior to entering CLUSTER. The latter was chosen.

This requires that data in the usual matrix form be converted into the somewhat usual form required for input to CLUSTER and the present program does this. It also runs "in reverse" so that data coded up for CLUSTER can be converted into the usual matrix form. This may be the most economical way of producing an ordinary matrix when there are many zeros in the data. Also, it is no longer necessary to prepare two data files, one for CLUSTER and one for other purposes.

Trial runs of CONVRT are given below, with contributions of the operator underlined. Note that only whole numbers (integer) data can be accepted for conversion to the CLUSTER format.

### .RUN STA:CONVRT

This program converts CLUSTER format files (attribute option, 2D) to usual matrix or vice versa.

Usual matrix format consists of the number of rows then number of columns (2I5 format) then on following lines the matrix values in row order (16I5 format).

Name of input file? FOR01.DAT  
Data format (Clustr or Matrix, type C or M)? M  
Name of output file? X.DAT  
Data format (Clustr or Matrix, type C or M)? C  
Scale factor? 1  
Title to be used for CLUSTR? TESTING CONVRT  
CLUSTR options card, column 5 onwards?  
Options card to be used for CLUSTR is  
A 1  
Correct (type Y if OK)? Y

.RUN STA:CONVRT

.  
.  
.

Name of input file? X.DAT  
Data format (Clustr or Matrix, type C or M)? C  
Name of output file? Y.DAT  
Data format (Clustr or Matrix, type C or M)? M  
Matrix will be written as 5 rows by 3 columns and requiring scaling by a  
factor of 1

.TYPE FOR01.DAT

<u>5</u>	<u>3</u>	
1	5	0
0	0	3
1	0	2
0	0	0
0	0	4

.TYPE X.DAT

3 5testing CONVRT

A 1

1	1	2	5
3	3		
1	1	3	2
3	4		

1  
2  
3  
5

.TYPE Y.DAT

<u>5</u>	<u>3</u>	
1	5	0
0	0	3
1	0	2
0	0	0
0	0	4

\* \* \* \* \*