

C.S.I.R.O.

COMPUTING RESEARCH SECTION

NEWSLETTER NO. 20 - 1.2.67

I. GENERAL

Publications Issued since the last Newsletter

NL Newsletter No. 20

LM Library Accession List No. 11 - November 1966.

Part II. DAD System Programmer's Manual. (This manual consists of: Part I, Part II, Addendum to Part I, Manual Supplement 27 (overlays) and Manual Supplement 28 (SNAP) (in preparation)).

Other Publication Available

I4 CSIR NEXTCHAR Packed character mode paper tape input.

Author: T.S. Holden, C.R.S., Canberra.

Basic Fortran Course

A Fortran course is to be given in Adelaide on 20th February. Anyone wishing to attend should apply to Mr. D.R. Ross, C.R.S., Adelaide (Phone 235511).

VISTA Subroutines

Further subroutines are now available for use with the display device VISTA. These routines (DISPCODE and VEDIT) enable strings of mathematical symbols to be generated and edited. A preliminary description of these routines is available from the C.R.S. Librarian.

AUTODEQ Subroutine

The original 3600 program for AUTODEQ has been superseded by a new edition. Those using this routine should obtain a copy of the new edition through an SRLIST call. The 3200 version is called AUTDEQ32.

Which Machine?

Users of the C.S.I.R.O. network are encouraged to write programs which will run on either the 3200 or the 3600. In some cases it is convenient to determine from within a program which machine is being used to execute the program. Mr. D.R. Ross of Adelaide has suggested the following interesting function to do this.

```
FUNCTION MACHTYPE (I)
  DIMENSION K(2)
  EQUIVALENCE (A,K)
  K(2)=1
  A = 0
  MACHTYPE = K(2)+1
END
```

This function returns a value of 1 or 2 if run on the 3200 or 3600 respectively and can be used as

```
K=MACHTYPE (I)
GO TO (2,6), K
```

which will transfer to statement 2 if run on the 3200 and to statement 6 if run on the 3600.

Staff News

We very much regret having to report that Mr. P.H. Frost, an Experimental Officer with the Section in Canberra, died on Monday 5th December, 1966. Our sympathy goes to his wife and two sons in their tragic loss.

Mr. B.P. McDowall will take up duty in Adelaide this month as an Experimental Officer to work on 3200 software development.

Mr. B.T. Savvas has begun work in Adelaide as a programming Consultant.

Mrs. B.L. Rye has been appointed Supervisor of Data Preparation in Canberra in place of Mrs. A. Steer who has left the Section.

### Puzzle Corner

We were pleased to receive correct answers to the puzzle in the last Newsletter from V.A. Chadim, D.H. Colless, D. Evesson, G. McMahon, G. Petru and R.I. Tilley.

Readers were asked to supply the digits to replace the letters in the multiplication;

$$\begin{array}{r} \text{L Y N D O N} \\ \text{B} \\ \hline \text{J O H N S O N} \end{array}$$

The correct answer is:

$$\begin{array}{r} 570140 \\ 6 \\ \hline 3420840 \end{array}$$

This month's problem concerns an encounter with a Venusian - they are very like us, even having a predilection for brainteasers, but of course they have only one eye and have two fingers less on each hand. When asked his age the Venusian replied; "My wife's age is represented by the figures of my own age reversed. She is five years my junior and the sum of our ages is a perfect square". What is his age?

### II. 3600

#### SNAP Dump

The ability to dump selected areas of storage when a particular instruction is encountered has been added to DAD. This SNAP facility resembles that available under SCOPE, but is more general and is not intended to be compatible. A full description of the SNAP option will shortly be available as a supplement to the DAD System Programmers' Manual.

### DESC Statement

This DAD control statement provides a description of certain characteristics of the job to which it applies as an aid in scheduling the job.

The operators will have the option of re-ordering EL2 on the basis of criteria which they select (e.g. Melbourne jobs first, or jobs without plotting first). Where a DESC statement is required to provide the necessary information, and where the user has not supplied such a statement, the job will be scheduled to run last. The DESC statement format is:

\*DESC, d<sub>1</sub>, d<sub>2</sub>, d<sub>3</sub>, ....

where each "d" is a declaration and \*DESC, is also legal.

The DESC statement should appear immediately after the JOB statement of a job deck. As with other DAD control statements, it is free-field.

No check is made of the honesty of the declarations. Unrecognizable declarations are ignored and do not cause job termination. Initially, the only declaration recognised will be:-

DI      which means that the job is not to be started  
         unless the Displays are Inactive.

In future it will be possible to specify that execution should take place under other special conditions, or the use of special facilities (such as breakin).

### Notes:

1. The DESC card will be recognised from 1st February, 1967.
2. From 20th February, 1967 the display system will remain active in the evenings until 2200 hours, if any display users are in the building. Jobs which fail to load because the displays are active, and which do not have a DESC, DI declaration will not be re-run.