

C.S.I.R.O.
COMPUTING RESEARCH SECTION

NEWSLETTER NO. 12 - 1.5.66

I. GENERAL

Mailing System

The envelope in which your Newsletter (and other relevant publications) was supplied has a name and address label printed by the line printer. Above the name is an indication of the types of publication you have requested and the number of each type required. If any of the information on the label is incorrect or if you wish to change it will you please contact

The Librarian,
Computing Research Section,
C.S.I.R.O.,
P.O. Box 109,
CANBERRA CITY A.C.T.

Publications issued this month

NL Newsletter No. 12
LM Library Accession List No. 7 and No. 8
M2 Manual Supplement No. 23 (3200 users)

Mailing System Reply Forms

So far 340 users have completed a reply form and will therefore receive the above publications. Others wishing to enrol should obtain a form from their local centre. Previous to this issue the Section despatched over 1000 Newsletters each month.

Seminars

Canberra: Thursday 12th May at 3.30 p.m., Lecture Room

"A Pure Mathematician's Use of a Computer"

Dr. D.H. Lehmer, Uni. of California, Berkley.
(A.N.U.)

Tuesday 24th May at 10.30 a.m., Lecture Room

"The Linguists' Requirements of a Programming
Language"

R. Zatorski, Linguistics Department,
Melbourne University.

II. 3600

The DAD System Demonstrations

The new system which was noted in Newsletter No. 11 is now being checked out and will be demonstrated during the ANCCAC Conference.

Demonstration times are:-

Wednesday May 18th 2 p.m. - 4 p.m.

Thursday May 19th 10 a.m. - 12 noon and 2 p.m. - 4 p.m.

Friday May 20th 10 a.m. - 12 noon.

III. 3200

Mixing of 3200 and 3600 Program Cards

Under the control of the job stacking program at the subsidiary areas it is now possible to mix 3200 and 3600 program cards within the deck to give a slight extension of compatibility.

The columns used are 73-80, normally used for sequence numbering, which have in them the characters

3200~~ONLY~~
or 3600~~ONLY~~

Those for the 3600 must also have a C in column 1, so that they are treated by the 3200 as comment cards. On transliteration for the 3600, the C is deleted from the 3600~~ONLY~~ cards, and a C is added to 3200~~ONLY~~ cards. One example of this is a card which reads

C TYPE LOGICAL list 3600~~ONLY~~

It is emphasized that this feature, and many other features introduced to improve network compatibility, do so only by means of the above-mentioned job stacking program. If decks are taken or sent physically to Canberra to run as cards on the 3600 some amendment may be necessary.

Provision of 3200 card punch facilities

No on-line card punches appear in the hardware configuration at any subsidiary. However, it is possible for the network staff to reserve a regular period during which card punch output may be prepared on a magnetic tape, and the records from this tape may be sent for punching on the central computer at Canberra.

A user may, then, define card output on his appropriate control card (e.g. FORTRAN, L,X,P), making sure that his job request card is clearly marked.

The job will be run at a time suitable to each subsidiary, depending largely on the maintenance of schedules. The deck may then have removed from it the job and job request cards which will be used for transferring the job to the Canberra job stack.

PUBLICATIONS

The following is a list of Computing Research Section publications to date:-

New Publications since the issue of Newsletter No.6 are shown **

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|----------------------------------|---|--|
| Educational Publication No.1 | E.P.1 | Lecture Notes for Basic Fortran Course. J.S. Armstrong.
Rev. March 1966. |
| Educational Publication No.2 | E.P.2 | Glossary of Computing Terms.
November, 1964. |
| Educational Publication No.A1 | E.P.A.1 | Notes on the Use of the Calcomp Plotters. J.S. Armstrong. |
| Educational Publication No.A2 | E.P.A.2 | Notes on Word Structure, Relational and Logical operations and Masking.
J.S. Armstrong - April, 1965. |
| Educational Publication No.A3 | E.P.A.3 | Magnetic Tape Usage.
J.S. Armstrong - April, 1965. |
| ** Educational Publication No.A4 | E.P.A.4 | Error Analysis in Fortran Programs. J.S. Armstrong.
January, 1966. |
| ** Educational Publication No.A5 | E.P.A.5 | Interpretation of the Assembly Listings of 3600 Fortran Programs.
J.S. Armstrong - January, 1966. |
| Library Accession List No.1 | Up to August 1963.) | |
| Library Accession List No.2 | July 1964.) Out of Print | |
| Library Accession List No.3 | Feb. 1965.) | |
| Library Accession List No.4 | July 1965. | |
| Library Accession List No.S.P.1 | Preliminary List of Serial Publications.
March, 1965. | |
| ** Library Accession List No.5 | August 1965 - October, 1965. | |
| ** Library Accession List No.6 | November, 1965 | |
| ** Library Accession List No.7 | December, 1965 - February, 1966. | |
| Manual Supplement No. 1 | Addenda and Errata to CDC 3600 FORTRAN Reference Manual (Pub.No. 60053700).
D.J. Langridge. 18th June, 1964. | |
| Manual Supplement No. 2 | Structure of Standard CDC 3600 FORTRAN Decks.
(Pub.No. 60053700). J.P. Penny, 30th June, 64. | |
| Manual Supplement No. 3 | Structure of Standard CDC 3600 COMPASS Decks.
(Pub.No. 60052500a). J.P. Penny.
30th June, 1964. | |

- Manual Supplement No. 4 Basic FORTRAN II, Reference Manual.
(Pub.No. 60056900) Preferred Usage.
T.S. Holden. July, 1964. Superseded.
- Manual Supplement No. 5 FORTRAN-32 As a Compatible overset of Basic
FORTRAN II, and a Compatible Subset of CDC
3600 FORTRAN. (Pub.No. 600537). J.J. Russell.
August, 1964. Superseded & O./P.
- Manual Supplement No. 6 Revision of Line Printer Facilities. Ref.
CDC (Pub.No. 60053700). D.J. Langridge.
October, 1964. Superseded by Man.Sup. No. 15
- Manual Supplement No. 7 Additional 3600 FORTRAN Compiler Errors.
Ref. CDC (Pub.No. 60053700).
J.R. Pendleton. October, 1964.
- Manual Supplement No. 8 Additions to FORTRAN Library Functions.
Ref. CDC (Pub. No. 60053700 & Pub. No.
60056400). J.G. Cleary. July, 1964.
- Manual Supplement No. 9 Additional Entry Points to the Execution
Error Routine. Q8QERROR. Ref. CDC (Pub.
No. 60053700). D.J. Langridge. November,
1964.
- Manual Supplement No.10 3200 FORTRAN. Standard Deck Structure.
(CDC Pub.No. 60057600). D.C. Knight.
November, 1964.
- Manual Supplement No.11 Algol for the 3600. Ref.(CDC Pub.No.
60083400a). T.S. Holden. February, 1965.
- Manual Supplement No.12 Paper Tape Input for Algo. (Ref. CDC Pub.
No. 60083400a). P.H. Frost. March, 1965.
- Manual Supplement No.13 Additional Fortran functions and subroutines
for the Control Data 3200. (Pub.No.
60057600).
- Manual Supplement No.14 Amendment to 3200 Binary Read/Write. (Ref.
Fortran Manual Pub.No. 60057600). D.C. Knight.
- Manual Supplement No.15 Revision of Line Printer facilities on the
CDC 3200 & 3600. (Pub.No. 60057600 and
60053700). D.C. Knight. August, 1965.
- Manual Supplement No.16 Use of EQUIP cards on the CDC 3200. (Pub.
No. 60057600 and 60057700). D.C. Knight.
July, 1965.
- Manual Supplement No.17 Addition of Library Subroutines. (Pub.No.
60057600 and 60053700). J.J. Russell.
Sept. 1965.
- Manual Supplement No.18 Use of Overlay on the 3200. (Ref. 3200
Computer System Scope/Compass Ref.Man.
Pub.No. 60057700). D.C. Knight. August, 1965.
- **Manual Supplement No.19 Additions to the 3200 System Library. (Ref.
Pubs. 3200 SCOPE/COMPASS Manual 60057700,
Technical Note No. 10, Manual Supplement No.
8) D.C. Knight. October, 1965.

- ** Manual Supplement No.20 Supplement to Michigan University Statistical Program Description. (Ref. A.E.S. 1-15, C.R.S. Man. Supl. No. 2) G.S. Masters. November, 1965
- ** Manual Supplement No.21 ADDITIONAL FEATURES TO 3200 FORTRAN. (Ref. Pub.No. 60057600). J. Tindale, C.R.S. Melbourne.
- ** Manual Supplement No.22 3400/3600 FORTRAN Reference Manual. (Pub. No. 60132900). D.J. Langridge. Jan, 1966.
- ** Manual Supplement No.23 Additional Features for 3200 Computer Users. (Ref. 3200 SCOPE/COMPASS Reference Manual, Pub.No. 60057700, 3200 Computer System Library Routines, Pub.No. 60058100, 3200 FORTRAN Reference Manual, Pub.No. 60057600, Manual Supplement Nos. 8,13,17,18, and 19). D.C. Knight. March, 1966.

- Memorandum No. 1)
- Memorandum No. 2) - Superseded by Memorandum No. 4
- Memorandum No. 3 Character and Code Sets. T. Pearcey. June, 1963.
- Memorandum No. 4 Revised Equipment Configurations. T.S. Holden. July, 1964. Out of print. Under Revision.

- Miscellaneous Publication No. 1 Standard B.C.D. characters which are now available directly on the 26 I.B.M. Card Punch.
- Miscellaneous Publication No. 2 Procedure for Submission of Jobs.
- Miscellaneous Publication No. 3 Reply form for Fortran Programming Courses.
- Miscellaneous Publication No. 4 Algol for the Control Data 3200/3600.
- Miscellaneous Publication No. 5 Reply form for Algol Programming Courses.
- Miscellaneous Publication No. 6 Publication Mailing List. Reply Form

- Newsletter No. 1 T.S. Holden. July, 1964.
- Newsletter No. 2 J.S. Armstrong. October, 1964. Out of print.
- Newsletter No. 3 J.S. Armstrong. January, 1965.
- Newsletter No. 4 J.S. Armstrong. April, 1965.
- Newsletter No. 5 J.S. Armstrong. June, 1965. Addendum.
- Newsletter No. 6 J.S. Armstrong. October, 1965.
- Newsletter No. 7 J.S. Armstrong. December, 1965.
- ** Newsletter No. 8 J.S. Armstrong. January, 1966.

**Newsletter No. 9 J.S. Armstrong. February, 1966.

**Newsletter No.10 J.S. Armstrong. March, 1966.

**Newsletter No.11 J.S. Armstrong. April, 1966.

Technical Note No. 1 Planned Subroutines for the CSIRO CDC 3200
Subsidiary Computing System. T. Pearcey.
May, 1964.

Technical Note No. 2 Specifications of FORTRAN II/4K Language for
the CDC 3200 (as known at 16/4/64).
T. Pearcey. May, 1964. Superseded & O./P.

Technical Note No. 3 Representation of Line Printer Characters on
other Media. T.S. Holden. June, 1964.

Technical Note No. 4 Instructions for Conversion of I.B.M. 1620
FORTRAN II Programs for use on a CDC 3600.
S.R. Albright. June, 1964.

Technical Note No. 5 Use of the 3600 CALCOMP PLOTTERS. R.H. Hudson.
August, 1964. (Revised 22.6.65). O./P. and
being revised.

Technical Note No. 6 The Use of Paper Tape on the CDC 3600.
T.S. Holden. October, 1964.

Addendum

Technical Note No. 6 T.S. Holden, J.W. Marquet. C.D.A. February,
1965.

Technical Note No. 7 Paper Tape Standards. J.P. Penny. May, 1965.
O./P. and under revision.

Technical Note No. 8 Plotting at the CSIRO Subsidiaries. J. Penny.
(Not available yet, under revision).

Technical Note No. 9 Input of double precision constants on the
Control Data 3200. J.K. MacKenzie. July, 1965.

Technical Note No.10 Direct tape control routines. P.H. Frost.
August, 1965.

Technical Note No.11 Specification of program CENTROID. G.N. Lance
and W.T. Williams. 31st August, 1965.

Technical Note No.12 Specification of program QUALNEAR. G.N. Lance
and W.T. Williams. 31st August, 1965.

Technical Note No.13 Specification of program NUMENEAR. G.N. Lance
and W.T. Williams. 31st August, 1965.

Technical Note No.14 Specification of program MULTIST. G.N. Lance
and W.T. Williams. 31st August, 1965.

**Technical Note No.15 RECOMMENDATIONS FOR WRITING COMPATIBLE 3200/
3600 FORTRAN. J.J. Russell. October, 1965.

**Technical Note No.16 Compatible Paper Tape Facilities in the CSIRO
Network. D. Ross. January, 1966.

