COMPUTER

CENTRE

BULLETIN

RECEIPT/DISPATCH WINDOW

[WN-88]

The present system of inputting card decks into the card trays and collecting work from the output shelves has temporarily been changed. The foyer of the Computer Centre has been reorganized; Both the input trays and output shelves have been placed inside the machine room. Users and clients will hand in their work and collect the results from the window marked 'RECEIPT/DISPATCH'.

Operational and administrative enquiries should still be directed to Mr Jauncey at the ENQUIRIES window.

CARD PUNCH

[WN-85]

The fifth card punch has now arrived and is installed in the clients' room at the Computer Centre.

BMDØ2R

[WN-86]

A new version of BMDØ2R was released 2 May 1972. The changes made are as follows:

(a) G type output is used more extensively to eliminate 'OUTPUT FILED WIDTH OVERFLOW' messages.

(b) Negative arguments are checked for, to eliminate the possibility of attempting to take the square root of a negative number.

(c) The 'PROBLM' card format has been corrected so that the input filename is read from columns 75-79.

MATINV

[WN-88]

The subroutine MATINV is now available on disk. Users on the PDP-10 may use it directly rather than obtaining a card deck as was necessary before.

To run a program using MATINV users can say

    RUN program-name $MATRIX.MATINV

RUN COMMAND

[WN-87]

When the RUN command is specified without arguments the filenames on the loadlist are assumed to be the files required. They are checked for compilation errors and, if satisfactory, are loaded and executed.

However, if arguments are specified with the RUN command, the files so named are not checked for compilation errors, and an attempt will be made to execute these programs even if they do have compilation errors.

PDP-10 SOFTWARE RELEASES

[WN-86]

1.   LOGIN

Login version 2C(25)-3 was released on 27 April 1972. This version corrects some errors, and notifies users if mail is waiting.

2.   IDENT AND QUIT

A new version of Ident and Quit, released on 2 May, improves reliability.

3.   LOADER

A new version of the Loader, version 55(71)-2, was implemented 4
May 1972. This version allows for loading relocatable files
created by version 3 of the Cobol compiler and version 2 of the
Algol compiler.   It uses a new format for indexed library files
(users will have to reindex any of their own indexed library
files).

4.   SYMBOL

Symbol version 1A(6)-3 was implemented 4 May 1972. This version
handles suppressed internals from MACRO.

5.   FUDGE2

Fudge2, version 14(22), was implemented 4 May 1972. This uses a
new format for indexed library files.

[WN-87]

6.   COBOL COMPILER

Version 3 of the COBOL compiler and other associated programs
were installed on the system on 9 May 1972, in lieu of version 2
as previously used. The Computer Centre has made no changes to
this system. For those interested there is a memorandum, TM-22,
available from the Centre secretary detailing the differences in
this new system. These notes have been compiled largely from
Digital documentation accompanying the release.   COBOL will
receive type 1 support from this version.

7.   ALGOL COMPILER

An ALGOL compiler (version 2) was implemented on the system on 9
May 1972. ALGOL is released as a type 4 program. A preliminary
ALGOL manual is available in the binders in the clients' room.

8. MACRO

On 11 May Version 47(115)-2 of MACRO, the assembler for the PDP-10 was installed on the system in place of version 43 which has been in use previously. The new version corrects all reported errors and includes all patches given in software bulletins up to volume XII no 3.

There should be no change in most circumstances, although it is possible that some programs that used special features of version 43 may yield different results. The new version uses a slightly different presentation for the code created; the output is divided into the fields specified in the source program, for example, instruction, index, accumulator and operand fields. rather than the half word used previously. The listing of literals at the end of the program is also suppressed unless the explicit pseudo instruction LIT is used.

This version offers a number of additional features, which are described in Digital manual DEC-10-NRZA. These facilities are not of general applicability and their presence should not affect the use of MACRO by the ordinary user.

9. BATCH

Batch, version 2D(67) -3 was implemented 11 May 1972. This version incorporates a minor change made to correct an error that occurred under some circumstances with the student job system.

PDP-10 FORTRAN

[WN-86]

1. T FORMAT SPECIFICATION

(a) Any T format specification on output to a disk file is treated as if it is 1X.

(b) On output to the job output device T specifications are successful on forwards or backwards position but the next output filed will be lost if a T specification requiring no position change is given.

(c) If the printer control character on the line is '+', 'Ø', or '-', the T position will be incorrect.

A combination of the cases (b) and (c) results in unexpected effects on the output.

2.   CALL RELEAS AND BACKSPACE

The sequence

```
READ (1Ø)
CALL RELEAS (1Ø)
READ (1Ø)
BACKSPACE (1Ø)
```

will not result in the expected positioning of the scratch file.

CALL RELEAS does not clear the pointer used by BACKSPACE. IFILE, REWIND and ENDFILE do clear it, so should be used instead (or as well).

                                                            [WN-88]

3.   ROUNDING ERROR

On output of real numbers under F type format, the least significant digit in the output field is rounded.

example:
        If A has the value 3.Ø7 then the sequence
                PRINT 5, A
        5   FORMAT (F5.1)
        will produce the result 3.1.

However, if the value to be output is such that no significant digits will be output unless rounding occurs, the value is output as zero.

example:
    If A has the value 0.07 the sequence
            PRINT 5, A
        5   FORMAT (F5.1)
    will produce the result 0.0.

This error will be corrected as quickly as possible.

PDP-10 COBOL

[WN-88]

1.   PROGRAM RECOMPILATION

Users are advised to recompile any COBOL programs with the new
version of the COBOL compiler. This is recommended even if old
programs appear to be running successfully under the new system.

2.   RESERVED WORDS

The COBOL manual, MNT-13, lists as appendix A reserved words that
are reserved in PDP-10 COBOL and other COBOL compilers.

Words marked with a single asterisk are not reserved in PDP-10
COBOL but should be reserved for compatibility with other
compilers. The only one-asterisk words left are as follows:

        ALPHANUMERIC
        APPLY
        CLOCK-UNITS
        HOLD
        PROCESS
        REVERSED
        SA
        SIGN

Words marked by a double asterisk are of special significance to
PDP-10 COBOL only. Several new words are reserved and these are
as follows:

        ASCII
        BINARY
        EBCDIC
        EVEN

FORTRAN-IV
ODD
RECORDING
REWRITE
SYMBOLIC
USER-NUMBER

STUDENT ACCOUNTING SYSTEM

[WN-88]

Project administrators running student jobs under the student
accounting system should check the deck setups to ensure that the
last student job is terminated by a file separator card and a
QUIT command card. If an EOJ card is encountered and the last
student job has not been completed, it will not be properly
accounted for and the SADAT file will not be updated.

MANUALS

With the increasing number of manuals and documentation being
made available at the Computer Centre, users are quite often
unaware of which manuals have been released or the current status
of a particular manual. It is intended that a HELP MANUAL
command will become available soon. This will print out the
current state of all manuals and will be preceded by any new
releases as they become available, as below:

.HELP MANUAL<cr>

COMPUTER CENTRE MANUALS

Manual	Title	Status	Date	Price
MNT-5	FORTRAN	ed1-rev2	22Jun71	$1.50

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MNT-6      EDIT            ed1        1Nov70        .80
MNT-8      SYSTEM USER'S   ed1-rev2   1Mar72      $3.60
             GUIDE
MNT-9      BASIC           ed1        1Dec70      $2.40
MNT-10     AID             ed1        7Dec70      $3.00
MNT-11     PLOTTING        ed1        16Feb72     $2.80
MNT-12     OVERLAYS        ed1        12Apr71       .90
           DDT             ed1        9Aug71      $1.30
MNT-13     COBOL           ed1        1Jul71      $4.20
MNT-14     RUNOFF          ed1        10Mar72     $1.00
```

Currently in Preparation

```
MNT-7      MACRO
MNT-15     SNOBOL
MNT-16     ALGOL
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RUNOFF MANUAL

[WN-86]

The Runoff manual, MNT-14, is now available from the Computer Centre at a cost of $1.00.

SYSTEM USER'S GUIDE REVISION 2

[WN-88]

The second revision to the System User's Guide is available from the Computer Centre.