

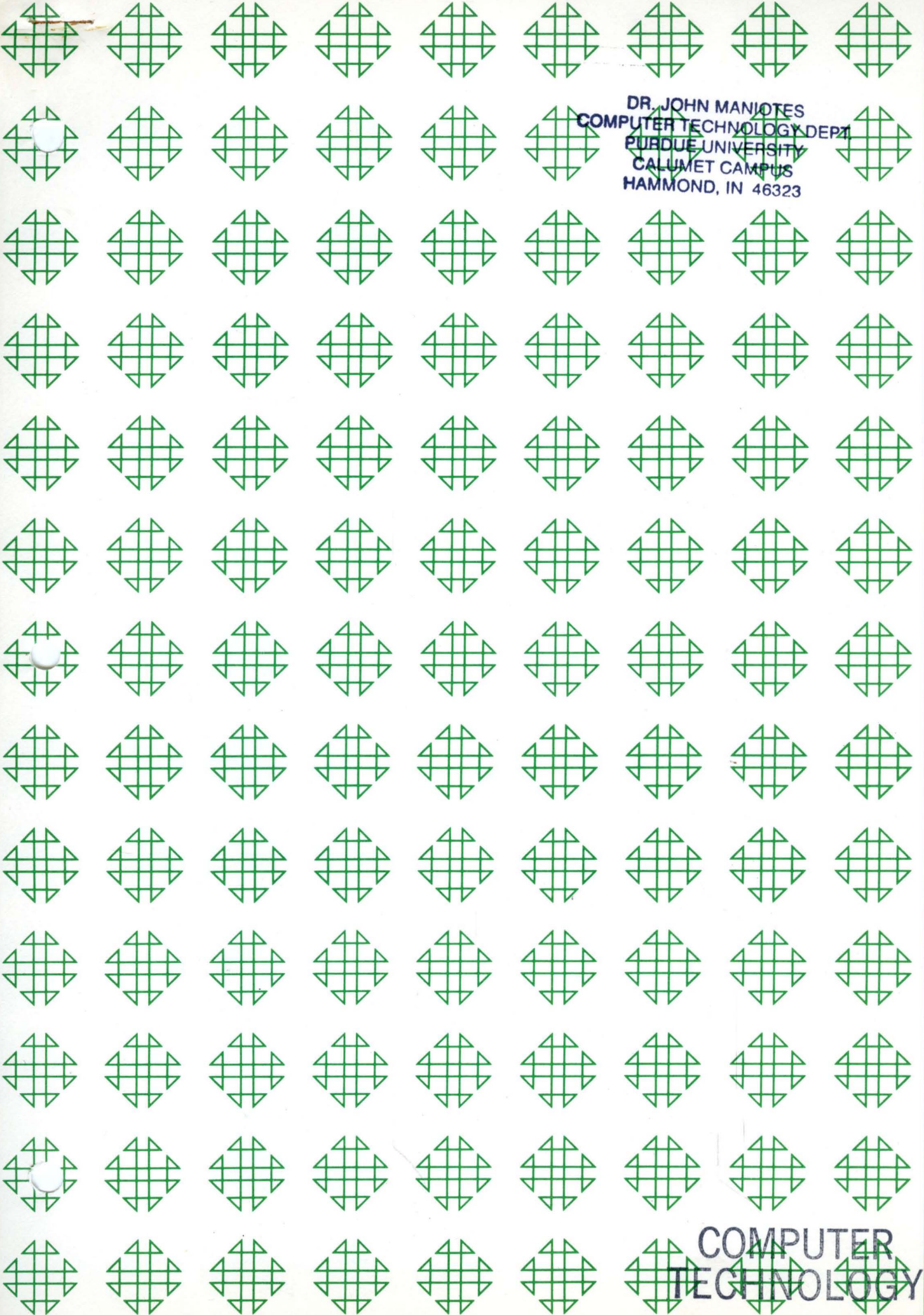


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1620 GENERAL PROGRAM LIBRARY

1620/407 Flag Indicator Program

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1620 USERS GROUP PROGRAM REVIEW AND EVALUATION

Program No. _____

Date _____

Program Name: _____

1. Does the abstract adequately describe what the program is and what it does? Yes ___ No ___
Comment _____

2. Does the program do what the abstract says? Yes ___ No ___
Comment _____

3. Is the Description clear, understandable, and adequate? Yes ___ No ___
Comment _____

4. Are the Operating Instructions understandable and in sufficient detail? Yes ___ No ___
Comment _____
Are the Sense Switch options adequately described (if applicable)? Yes ___ No ___
Are the mnemonic labels identified or sufficiently understandable? Yes ___ No ___
Comment _____

5. Does the source program compile satisfactorily (if applicable)? Yes ___ No ___
Comment _____

6. Does the object program run satisfactorily? Yes ___ No ___
Comment _____

7. Number of test cases run _____
Are any restrictions as to data, size, range, etc. covered adequately in description? Yes ___ No ___
Comment _____

8. Does the Program meet the minimal standards of the 1620 Users Group? Yes ___ No ___
Comment _____

9. Please list any suggestions to improve the usefulness of the program. These will be passed on to the author for his consideration.
Comment _____

Please return to:

Mr. Robert J. Robinson (PREP)
Marquette University
Computing Center
1515 W. Wisconsin Avenue
Milwaukee 3, Wisconsin

Your Name _____
Company _____
Address _____
User Group Code _____

THIS REVIEW FORM IS PART OF THE 1620 USER GROUP ORGANIZATION'S PROGRAM REVIEW AND EVALUATION PROCEDURE. NONMEMBERS ARE CORDIALLY INVITED TO PARTICIPATE IN THIS EVALUATION.



1620/407 Flag Indicator Program

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Beloit Corporation
Beloit, Wisconsin



DECK KEY

1. 1620/407 Flag Indicator Program
2. Resulting Object Program
3. Flag Indicator Program Output Using
its own object deck for Input



1620 USERS GROUP LIBRARY
PROGRAM ABSTRACT

1. TITLE (If subroutine, state in Title): 1620/407 FLAG INDICATOR PROGRAM

2. Author; Organization: ANTHONY AMORT, BELOIT CORPORATION
BELOIT, WISCONSIN

Date: MARCH 23, 1964 Users Group Membership Code: 3164

3. Direct Inquiries to Name: ANTHONY AMORT, BELOIT CORPORATION
BELOIT, WISCONSIN Phone: EM-5-3311

4. I
PURPOSE/DESCRIPTION: VERY OFTEN IT IS DESIRABLE TO LIST A
PORTION OF AN OBJECT PROGRAM, OR A PORTION OF CORE DUMP FOR
DE-BUGGING PURPOSES ON THE 407 PRINTER. HOWEVER, THE 407 LISTS
ALL FLAGGED NUMBERS AS ALPHABETICAL CHARACTERS "J" THRU "R",
AND INTERPRETS A FLAGGED ZERO AS PLAIN ZERO. THIS PROGRAM WILL
STRIP ALL FLAGS FROM THE CARDS, AND INDICATE THEIR PRESENCE BY
A NUMBER "1" DIRECTLY ABOVE THE RESPECTIVE CHARACTERS SIMILAR
TO THE WAY A 1410 LISTING SHOWS THE WORD MARKS.

7. Specifications (Check or fill in appropriate spaces):

a. Storage used by program: 1091 CORE LOCATIONS

b. Equipment required by program:
Card System X; Magnetic Tape System _____; No. of Tapes _____;

Paper Tape System _____; Disk File System _____; No. of Packs _____;

TNS, TNF, MF _____; Auto divide _____; Indirect addressing X; Floating point hardware _____;

Other (specify) 407 WITH STANDARD 80-80 BOARD.

Can program be used on lesser Machine? YES. Specify which requirements can be easily removed INDIRECT ADDRESSING

c. Programming type (Check appropriate spaces); UTILITY PROGRAM

Fortran without Format _____; Fortran with Format _____;

Fortran II _____; Mainline, Complete _____; Subroutine or function subprogram(S or F) _____;

Is the program a library (ie, SPS) function to the Fortran system checked? _____;

SPS _____; SPS - 1620/1710 X;

Mainline, Complete X; Macro _____; Subroutine _____;

Other programming language: _____; Give details _____

d. Language used in the writeup: _____

8. Additional Remarks: NONE

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TITLE: 1620/407 FLAG INDICATOR PROGRAM.

PURPOSE/DESCRIPTION: VERY OFTEN IT IS DESIRABLE TO LIST A PORTION OF AN OBJECT PROGRAM, OR A PORTION OF CORE DUMP FOR DE-BUGGING PURPOSES ON THE 407 PRINTER. HOWEVER, THE 407 LISTS ALL FLAGGED NUMBERS AS ALPHABETICAL CHARACTERS "J" THRU "R", AND INTERPRETS A FLAGGED ZERO AS PLAIN ZERO. THIS PROGRAM WILL STRIP ALL FLAGS FROM THE CARDS, AND INDICATE THEIR PRESENCE BY A NUMBER "1" DIRECTLY ABOVE THE RESPECTIVE CHARACTERS SIMILAR TO THE WAY A 1410 LISTING SHOWS THE WORD MARKS.

INPUT/OUTPUT: THIS PROGRAM WILL PRODUCE TWO CARDS FROM EACH INPUT CARD; A FLAG INDICATOR CARD, AND A NUMERIC EQUIVALENT CARD SAME AS THE INPUT, BUT WITHOUT FLAGS.

EXAMPLE: ASSUME THAT A CARD CONTAINS THE FOLLOWING;

170029000682.....

THE OUTPUT PRODUCED WILL BE;

CARD (1) 11 11 1...

CARD (2) 170029000682...

THESE OF COURSE WILL APPEAR ON A LISTING THE SAME WAY.

A RECORD MARK STILL LISTS AS A "Z".

A STANDARD 80-80 BOARD IS REQUIRED FOR THE 407.

METHOD: N/A

RESTRICTION/RANGE: IF THIS PROGRAM IS USED FOR OTHER CARDS THAN SPECIFIED ABOVE, BLANK SPACES ON INPUT CARDS WILL APPEAR AS ZEROES ON THE NUMERIC EQUIVALENT CARD. HOWEVER, THIS IS NO PROBLEM ON OBJECT PROGRAM OR DUMP CARDS BECAUSE THERE ARE NO BLANKS ON THESE CARDS.

REMARKS: THE PROGRAM RUNS APPROXIMATELY AT PUNCH SPEED.



** FLAG INDICATOR PROGRAM 1620/407 **

```

START TD BLANK+162,400
NOW TFM AD1,OUT,7, AD1=ADDRESS OF OUT
RNCD INPUT-79
DODO TFM AD2,INPUT-79,7,AD2=ADDRESS OF FIRST DIGIT IN READ FIELD
AGAIN BNF GONE,AD2,11, IS THERE A FLAG
TFM AD1,71,610, YES,PUT 71 IN AD1 INDIRECT
GONE AM AD1,2,10, UP AD1 BY 2
CF AD2,,6, CLEAR FLAG OVER DIGIT
AM AD2,1,10, UP AD2 BY 1
CM AD2,INPUT,7, IS ADDRESS OF INPUT=CONTENTS OF AD2
BH QUIT,,, AD2 IS MORE SO BRANCH TO QUIT
B AGAIN,,, AD2 IS LESS OR EQUAL SO GO TO AGAIN
QUIT WACD OUT,,, PUNCH FLAG INDICATOR CARD
TR OUT-1,BLANK-1,, CLEAR OUT FIELD
WNCD INPUT-79,,, PUNCH STRIPPED INPUT FIELD
B NOW,,, GO ALL OVER AGAIN
AD1 DS 5
AD2 DS 5
OUT DAS 82
BLANK DAS 82
INPUT DS 80
DEND START

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END OF PASS I I

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00402 START 00414 NOW 00438 DODO 00450 AGAIN 00474 GONE
00546 QUIT 00598 AD1 00603 AD2 00605 OUT 00769 BLANK
01011 INPUT

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**          FLAG INDICATOR PROGRAM  1620/407          **
START TD  BLANK+162,400
NOW      TFM AD1,OUT,7,          AD1=ADDRESS OF OUT
        RNC DINPUT-79
DODO     TFM AD2,INPUT-79,7,AD2=ADDRESS OF FIRST DIGIT IN READ FIELD
AGAIN    BNF GONE,AD2,11,        IS THERE A FLAG
        TFM AD1,71,610,         YES,PUT 71 IN AD1 INDIRECT
GONE     AM  AD1,2,10,           UP AD1 BY 2
        CF  AD2,,6,             CLEAR FLAG OVER DIGIT
        AM  AD2,1,10,           UP AD2 BY 1
        CM  AD2,INPUT,7,        IS ADDRESS OF INPUT=CONTENTS OF AD2
        BH  QUIT,,,            AD2 IS MORE SO BRANCH TO QUIT
        B   AGAIN,,,          AD2 IS LESS OR EQUAL SO GO TO AGAIN
QUIT     WACDOUT,,,            PUNCH FLAG INDICATOR CARD
        TR  OUT-1,BLANK-1,,     CLEAR OUT FIELD
        WNC DINPUT-79,,,       PUNCH STRIPPED INPUT FIELD
        B   NOW,,,            GO ALL OVER AGAIN

AD1     DS  5
AD2     DS  5
OUT     DAS 82
BLANK   DAS 82
INPUT   DS  80
        DENDSTART

```



RESULTING OBJECT PROGRAM

360007200500360020100500440001200276260005900274250001100000260009000269 00000
26000950026431000000020026001140027425000000001149000120440559203331490592200001
25009310040016005980060536009320050016006030093244004740060L20010040200462 00002
160059Q000P1110059800002330060L0000011006030000114006030101120010046200522 00003
460054601100490045000000390060500400310060400768380093200400Z0010052200582 00004
490041400000Z 0010058200594 00005
00000 L600000005004900000Z12057230000133057230000049057120000080009600115 00006
360010000500360017200500360024400500360031600500360000000500 00007
000000000000102030400020406080003060902100408021610050015102006021814200Z 00008
7041128200806142230090817263000000000506070809001214161815181124272024Z 00009
822363520353045403632484455324946536048465462754453627180123456789123456Z 00010
7890234567890J34567890JK4567890JKL567890JKLM67890JKLMN7890JKLMNO890JKLMNZ 00011
M8000000000049004020P90JKLMNOPQZ L10038800019M90000000000M9000360000 00012



O P E R A T I O N

- 1). CLEAR CORE TO ZEROES.
- 2). PLACE OBJECT DECK IN READER.
- 3). PLACE CARDS THAT ARE DESIRED TO BE STRIPPED OF
FLAGS ON TOP OF OBJECT DECK IN READER.
- 4). PRESS PUNCH START.
- 5). PRESS LOAD KEY.

NOTE: AN UNMODIFIED SPS PROCESSOR WILL PRODUCE
AN OBJECT DECK THAT WILL HALT AFTER BEING LOADED
AND PRESSING THE START KEY ON THE CONSOLE IS
NECESSARY TO READ THE INPUT CARDS. IT IS SUG-
GESTED THAT IF THIS IS THE CASE, CHANGE COL. 1 AND 2
ON CARD NO. 12 FROM 48 TO 41 TO ELIMINATE THIS.

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