PDP11

FLOAT UTILITY PROGRAM

MD-11-DZFLA-B

EP-DZFLA-B-DL-B

FICHE 1 OF 1

DEC 1977

digital

MADE IN USA

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IDENTIFICATION

PRODUCT CODE: MAINDEC-11-DZFLA-B-D

PRODUCT NAME: FLOAT UTILITY PROGRAM

DATE: SEPTEMBER 1977

MAINTAINER: DIAGNOSTIC ENGINEERING

CONTENTS

1.0 ABSTRACT

FLOAT IS A UTILITY PROGRAM TO AIDE THE OPERATOR WITH DETERMINING THE ADDRESSES AND VECTOR OF DEVICES IN THE FLOATING ADDRESS OR VECTOR AREAS. THE ADDRESSES AND VECTORS GIVEN ARE COMPLETELY COMPATIBLE WITH ALL DEC STANDARD SOFTWARE.

2.0 REQUIREMENTS

2.1 EQUIPMENT

ANY PDP-11 PROCESSOR WITH 4K OF MEMORY AND A TERMINAL.

3.0 LOADING PROCEDURE

3.1 METHOD

THE PROGRAM IS SUPPLIED ON THE DIAGNOSTIC MEDIA. REFER TO THE XXDP OPERATING MANUAL FOR FURTHER INFORMATION.

4.0 STARTING PROCEDURE

4.1 STARTING ADDRESSES

BY STARTING AT ADDRESS 200(8) OR 204(8) THE RESTART ADDRESS IS INITIALIZED, THE PROGRAM TYPES NAME AND VERSION AND WILL PROMPT OPERATOR TO SET UP TERMINAL FILL COUNT.

4.2 RESTART ADDRESS

LOCATION 204(8) IS THE ONLY VALID RESTART ADDRESS.

5.0 OPERATING PROCEDURE

5.1 OPERATOR ACTION

WHEN THE PROGRAM IS LOADED AND STARTED THE TITLE AND VERSION ARE TYPED. THEN THE PROMPTS THE OPERATOR WITH:

```
TERMINAL TYPE (A,L,V)?
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TO THIS THE OPERATOR RESPONDS

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'A'<CR> IF TERMINAL IS AN ASR33 OR REQUIRES NOFILL.
'L'<CR> IF TERMINAL IS A LA30S OR REQUIRES FILL FOR
        A CARRIAGE RETURN.
'V'<CR> IF TERMINAL IS A VT05 @ 300 BAUD OR MORE,
        OR REQUIRES FILL FOR A LINE FEED.
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AFTER THE TERMINAL FILL HAS BEEN ENTERED OR PROGRAM HAS BEEN RESTARTED THE PROGRAM TYPES.

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**FLOAT**
 OPTION:
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AT THIS POINT THE PROGRAM IS WAITING FOR A TWO (2) CHARACTER RESPONSE FOLLOWED BY A CARRIAGE RETURN <CR> DEFINING WHICH OPTION IS WANTED. THE VALID RESPONSES ARE:

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'FA' IF THE FLOATING ADDRESS OPTION IS DESIRED.
'VA' IF THE FLOATING VECTOR OPTION IS DESIRED.
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THE PROGRAM WILL THE ASK:

"HOW MANY OF EACH DOES THE SYSTEM HAVE." AND THEN TYPE A LIST OF DEVICES DEPENDING ON THE "OPTION" SELECTED. THE LIST IS TYPED ONE DEVICE AT A TIME FOLLOWED BY A QUESTION MARK. THE OPERATOR RESPONDS TO EACH QUESTION WITH THE NUMBER OF EACH DEVICE HE HAS IN DECIMAL UNTIL THE LIST IS COMPLETED. (FOR EXCEPTIONS AND CONTROL CHARACTERS SEE MISCELLANEOUS.) AT THE END OF THE LIST THE PROGRAM WILL TYPE THE ADDREESS OR VECTOR INFORMATION BASED ON THE NUMBER SUPPLIED BY THE OPERATOR. (SEE PARA. 5.2 AND 5.3 FOR FORMAT OF DATA.)

5.2 'FA - FLOATING ADDRESS OPTION

THIS OPTION WILL ASK FOR THE DECIMAL NUMBER OF EACH DEVICE IN THE FLOATING ADDRESS RANGE.

AFTER RECEIVING INPUT FOR EACH DEVICE THE PROGRAM WILL TYPE THE DEVICE NAME, THE ADDRESS, THE MODULE NUMBER WITH THE ADDRESSING LOGIC, AND THE JUMPER(S) OR SWITCHES(ES) TO BE CUTOUT OR TURNED OFF IN THE FOLLOWING FORMAT.

```
DEVNAM              BOARD   JUMPER(S) TO CUTOUT
ADDRESS 1                   J
ADDRESS 2                   J,J

DEVNAM              BOARD   SW-SWITCH(ES) IN OFF POSITION
ADDRESS 1                   S,S,S
ADDRESS 2                   S,S

WHERE:
        ADDRESS X = THE ADDRESS OF THE DEVICE
        BOARD = MODULE NUMBER FOR THAT DEVICE THAT
                CONTAINS THE JUMPERS/SWITCHES.
        DEVNAM = ACTUAL DEVICE NAME. (I.E. DJ11)
        J = THE JUMPER TO CUTOUT.
        S = THE SWITCH TO TURN TO THE OFF POSITION.

NOTE:   DEVICES ARE LISTED IN ASCENDING ADDRESS ORDER.
```

5.3 'VA' - VECTOR AND ADDRESS OPTION

THIS OPTION WILL ASK FOR THE DECIMAL NUMBER OF EACH DEVICE IN THE FLOATING VECTOR RANGE.

AFTER RECEIVING INPUT FOR EACH DEVICE THE PROGRAM WILL TYPE THE DEVICE NAME, THE ADDRESSES, AND THE VECTORS IN THE FOLLOWING FORMAT.

```
DEVNAM
ADDRESS 1       VECTOR 1
ADDRESS 2       VECTOR 2

DEVNAM
ADDRESS 1       VECTOR 1

WHERE:
        DEVNAM = ACTUAL DEVICE NAME. (I.E. DC11)
        ADDRESS X = DEVICE ADDRESS
        VECTOR X = DEVICE VECTOR

NOTE:   DEVICES ARE LISTED IN ASCENDING VECTOR ORDER.
```

6.0 ERRORS

6.1 HALTS, TRAPS, OTHER FAILURES.

THIS PROGRAM IS NOT INTENDED TO BE A DIAGNOSTIC OR SYSTEM SIZER. IT DOES NO CHECKING OF DEVICE ADDRESSES PRESENT OR PERFORM ANY OTHER DIAGNOSTIC FUNCTIONS. IF PROGRAM HALTS, TRAPS, GETS CAUGHT IN A LOOP RUN CPU, MEMORY AND/OR TERMINAL DIAGNOSTICS.

"DO NOT USE PROGRAM TO TROUBLE SHOOT ANY FAILURES."

6.2 INVALID RESPONSES

6.2.1 INVALID RESPONSE TO 'TERMINAL TYPE (A,L,V)?'. - THE PROGRAM WILL TYPE:

VALID RESPONSES ARE--
'A' - ASR33 OR NO FILL
'L' - LA30S OR FILL FOR <CR>
'V' - VT05B OR FILL FOR <LF>?

AND WAIT FOR RESPONSE.

6.2.2 INVALID RESPONSE TO "OPTION." - THE PROGRAM WILL TYPE:

FA - FLOATING ADDRESSES (DJ,DH,DQ,DU,DUP)
VA - VECTORS AND ADDRESSES OF DEVICES IN FLOATING VECTOR AREA.

AND WILL ASK AGAIN "OPTION:".

6.2.3 INVALID RESPONSE WHEN TYPING DEVICE COUNTS. - THE PROGRAM WILL TYPE:

"THAT'S NOT A VALID NUMBER!"

IF AN ALPHA CHARACTER OR NEGATIVE VALUE IS ENTERED.

OR

"THAT'S TOO MANY! ONLY XX ALLOWED!"

IF A NUMBER GREATER THAN THE MAXIMUM ALLOWED FOR THAT DEVICE ON A SINGLE SYSTEM IS SUPPLIED.

7.0 RESTRICTIONS

NONE

8.0 MISCELLANEOUS

8.1 USING OTHER THAN CONSOLE TERMINAL.

LOCATIONS 700-706 CONTAIN THE ADDRESSES OF THE TERMINAL STATUS BUFFER REGISTERS. TO USE ANOTHER DL11-A JUST CHANGE THESE FOUR (4) LOCATIONS TO THE DESIRED ADDRESSES.

8.2 RUBOUT FEATURE

THE CHARACTERS RUBBED-OUT ARE PROCEEDED AND FOLLOWED WITH A BACKSLASH "".

8.3 CONTROL/C

PROGRAM IS RESTARTED AT 200 WHEN A CNTRL/C IS TYPED WITH PROGRAM WAITING FOR INPUT.

8.4 DN11'S AND PA611'S

8.4.1 THE DN11 CAN HAVE FOUR (4) LINES PER BLOCK - (1 CONTROL MODULE). SPECIFY THE NUMBER OF LINES.

8.4.2 THE PA611'S CAN HAVE TWO (2) READERS/PUNCHES PER CONTROLLER SPECIFY THE NUMBER OF READERS/PUNCHES.

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ERRORS DETECTED: 0

DZFLAB,DZFLAB/DOC=DZFLAB.SML,DZFLAB.P11
RUN-TIME: 8 8.0 SECONDS
RUN-TIME RATIO: 74/17=4.3
CORE USED: 31K (61 PAGES)

DOCUMENT PAGES: 8