# TSS PP DUMP

## I. GENERAL DESCRIPTION

'TSS PP DUMP' IS A DEADSTART PP PROGRAM LOADED FROM CARDS INTO PP Ø. IT DEMANDS AN OUTPUT TAPE ON DRIVE Ø, AND THEN PROCEEDS TO DUMP THE PPUS, CENTRAL MEMORY, THE CPU EXCHANGE PACKAGE, AND THE TSS PORTION OF ECS ONTO THE TAPE. UPON COMPLETION OF THE DUMP, THE TAPE IS UNLOADED AND THE MESSAGE 'DONE' DISPLAYED ON THE SCREEN.

## II. OPERATING PROCEEDURE

### A. NORMAL DUMP

1. LOG THE TAPE NUMBER AND REASON FOR THE DUMP
2. MOUNT AND READY THE TAPE ON DRIVE Ø.
3. DEADSTART AND LOAD 'TSS PP DUMP' DECK
4. WAIT FOR TAPE TO STOP OR UNLOAD
5. SEE IF DISPLAY SAYS 'DONE'. IF NOT, SEE SECTION II-C.

### B. DUMP DISPLAYS

1. 'MOUNT DUMP TAPE (OUTPUT)' -- READY TAPE ON DRIVE Ø
2. 'DUMPING...PPUS N' -- CURRENTLY DUMPING PP N
3. 'DUMPING...CM N' -- DUMPING ADDRESS N*10000B IN CM
4. 'DUMPING...XPACK Ø' -- DUMPING EXCHANGE PACKAGE
5. 'DUMPING...ECS N' -- DUMPING ECS ADDRESS N*10000B
6. 'DONE Ø' -- DUMP COMPLETE, TAPE UNLOADING...PROCEED
7. 'ECS ERROR N' -- ERROR AT ADDRESS N*10000B, SEE SEC. II-C.
8. 'UNRECOV. PARITY ERROR...SORRY N' -- SEE SECTION II-C.
9. 'PARITY ERROR, NO TRAILER WRITTEN, BEWARE' -- SEE SEC. II-C.

### C. ERRORS, AND WHAT TO DO ABOUT THEM

1. ECS ERRORS -- NOTE THE ADDRESS AND THE ERROR, MANUALLY UNLOAD THE TAPE, AND GIVE UP. ECS ERRORS CANNOT USUALLY BE RECOVERED.

2. PARITY ERRORS -- NOTE THE TYPE (UNRECOV. OR NO TRAILER) AND RETRY THE DUMP ON ANOTHER TAPE. BOTH TAPES MUST BE SAVED, AS THE DUMP PROGRAM USES CENTRAL MEMORY AND THE CPU AND THUS CM AND THE XPACK MAY BE WRONG ON THE SECOND TAPE. IF THE PROGRAM FAILS AGAIN, IT IS PROBABLY ALLRIGHT TO GIVE UP. HAVE THE TAPES CLEANED AND TESTED EVENTUALLY.

3. IF ANYTHING ELSE STRANGE HAPPENS, (TAPE STOPS, SCREEN GOES OUT, ETC.) NOTE CONDITIONS AND FOLLOW PARITY ERROR PROCEEDURES.

# TSS PP DUMP-TAPE SCANNER

## I. GENERAL DESCRIPTION

THE TSS PP DUMP-TAPE SCANNER IS A PROGRAM WHICH RESIDES ON THE DISK UNDER THE NAME 'DMPSCN,S'. IT IS DESIGNED TO ALLOW INTERPRETATION OF DUMPS MADE BY THE 'TSS PP DUMP' PROGRAM. IT IS CAPABLE OF POSITIONING THE TAPE AND DISPLAYING ANY PORTION OF THE DUMP AT RANDOM. IT INTERFACES TO THE TTY OR TO A DISPLAY SCREEN AND KEYBOARD. DATA MAY BE DISPLAYED AT THE CURRENT INTERACTIVE I/O DEVICE, OR WRITTEN INTO A PRINT DISPOSITIONED FILE ON REQUEST. THE PRINT FILE IS NAMED 'DUMPX',CURRENT USER. IT CONTAINS SCOPE FORMATTING CHARACTERS.

## II. GENERAL OPERATING PROCEEDURE

A. FIND THE DUMP TAPE, NOTE ANY ERRORS OCCURRING DURING DUMP.
B. MOUNT THE TAPE ON DRIVE 0
C. GET AND CALL DMPSCN,S.
D. WAIT FOR READY TO TYPE OUT.

## III. COMMAND STRUCTURE

A. COMMAND LINE IS A SERIES OF UP TO 6 PARAMETERS SEPERATED BY COMMAS. EACH PARAMETER IS UP TO 10 CHARACTERS LONG. THE FIRST PARAMETER IS THE COMMAND. COMMAND LINES ARE ACCEPTED FROM THE CURRENT INTERACTIVE I/O DEVICE.

B. COMMANDS ACCEPTED

1. FIN -- UNLOAD THE TAPE, WRITE EOI IN DUMP FILE, BLANK SCREEN IF IN USE, AND RETURN TO BEAD.
2. STOP -- MAKES ..STOP CALL TO BEAD
3. TTY -- USE TTY AS INTERACTIVE I/O DEVICE HENCEFORTH.
4. DISPLAY,X -- USE DISPLAY SCREEN X AND CORRESPONDING KEYBOARD AS INTERACTIVE I/O DEVICE HENCEFORTH. ( NOTE THAT BOTH THESE COMMANDS BLANK THE CURRENT SCREEN FIRST, IF THERE IS ONE.)
5. PRINT,[ADDRESS LIST] -- WRITE DATA DELINIATED BY THE ADDRESS LIST INTO THE PRINT FILE
6. TYPE,[ADDRESS LIST] -- DISPLAY DATA DELINIATED BY THE ADDRESS LIST AT THE CURRENT INTERACTIVE I/O DEVICE

## IV. THE ADDRESS LIST

A. GENERAL FORM IS -- 'TYPE,AD1,AD2,AD3,AD4'

B. TYPE IS A ONE CHARACTER KEY AS FOLLOWS

1. 'P' - DUMP PPUS
2. 'C' - DUMP CENTRAL MEMORY
3. 'X' - DUMP EXCHANGE PACKAGE
4. 'E' - DUMP ECS

C. ADDRESSES -- AD1-AD4

1. IF TYPE = 'P' THEY ARE INTERPRETED AS FOLLOWS:

AD1 = FIRST PPU NUMBER
AD2 = START ADDRESS IN THAT PPU
AD3 = LAST PPU NUMBER
AD4 = LAST ADDRESS IN LAST PPU

AND DATA IS DUMPED FROM THE FIRST ADDRESS IN THE FIRST PPU THROUGH THE LAST ADDRESS IN THE LAST PPU, INCLUSIVE.

2. TYPE NOT 'P', ADDRESSES ARE AS FOLLOWS:
   AD1 = START ADDRESS OF DUMP
   AD2 = LAST ADDRESS TO DUMP, INCLUSIVE.

3. NULL ADDRESSES - A NULL ADDRESS HAS SPECIAL SIGNIFICANCE. IF ANY DESIRED PARAMETER IS NULL, OTHER THAN AD1, THE PARAMETER FOLLOWING IS INTERPRETED AS A COUNT AND APPLIED TO THE PREVIOUS PARAMETER.

4. DEFAULT PARAMETERS -- NULL COUNTS ARE ASSUMED TO BE 1 EXCEPT WHEN TYPE IS 'X', WHERE 200 WILL BE ASSUMED. IF AD1 IS NULL, 0 IS ASSUMED.

V. RESPONSES

. POSSIBLE RESPONSES

. 'READY'
. 'SYNTAX ERROR IN COMMAND'
3. 'PARAMETER > 10 CHARACTERS'
4. 'TOO MANY PARAMETERS'
5. '[X N ] NOT ON TAPE' X:= P,C,X,E AND N IS ADDRESS
6. 'READING PAST RECORDED DATA'
7. 'SKIPPING' APPEARS AT DISPLAY ONLY

B. SIGNIFICANCE OF SELECTED RESPONSES

1. '... NOT ON TAPE' -- THE PROGRAM HAS BEEN ASKED TO FIND DATA NOT ON THE TAPE. THE DUMP MAY HAVE CRASHED AND WRITTEN TRAILER LABELS, THE SCANNER MAY HAVE MADE AN ERROR, OR THE USER HAS MADE AN ERROR. THE LAST LINE OF DATA OUTPUT IS ZERO. RE-TRY THE COMMAND IF THERE IS ANY DOUBT AS TO THE CAUSE OF THIS MESSAGE.

2. 'READING PAST RECORDED DATA' -- THE TRAILER RECORD WAS NOT WRITTEN OR HAS BEEN SKIPPED BY THE SCANNER. IF THERE ARE NO NOTES ABOUT THE DUMP TAPE, IT IS THE SCANNER'S ERROR. CURRENTLY THIS RESULTS IN A BAD STATE. RECALL THE SCANNER.

3. 'SKIPPING' -- IS SEEN ONLY AT THE DISPLAY CONSOLE. IT MEANS THAT THE TAPE MUST BE, AND IS BEING MOVED IN ORDER TO LOCATE THE DATA REQUESTED.

VI. THE DISPLAY

. FORMAT

1. TITLE LINE AT TOP OF SCREEN
2. 24 LINE SCROLL OF DATA OUTPUT
3. 'STATUS-'[LAST RESPONSE]
4. 'LINE- '[LAST LINE INPUT FROM KEYBOARD]

B. CORRESPONDING KEYBOARD TO SCREEN 'E' IS KEYBOARD 'A'

C. NOTE THAT THE KEYBOARD-DISPLAY DRIVER WILL ACCEPT ANY LEGAL COMMAND.

VII. ERRORS DURING DUMPPING

NOTE THAT IF ERRORS OCCURRED DURING THE DUMP, THINGS COULD BE DIFFICULT. SOME DATA MAY NOT BE ON THE FIRST TAPE. CM AND THE XPACK ON THE SECOND TAPE MAY NOT BE GOOD. USE DISCRETION!

VIII. GOOD LUCK!!