CTSS BULLETIN 61

Subject: New CTSS Library

The CTSS library is being split into three libraries:

KLULIB, which contains the KLUDGE routines

TSLIB2, which contains debugging programs
(FLEXPM, TRACE, and FAPDBG)

TSLIB1, which contains the rest of the CTSS library

Concurrent with the splitting of the CTSS library, many programming changes have been made. These changes fall into two categories.

1. Changes which make this library compatible with the new MAD.
(CTEST8)

2. Incorporation of the disk package described in CC-242-1.

Users who have BSS or saved files compiled by the old MAD (the current MAD command) cannot use TSLIB1 and TSLIB2 if their programs call (I$\emptyset$H). (Any MAD program which either reads or writes formatted data calls (I$\emptyset$H)). These users must use the old library TSSLIB.

For information on how to load with any library, see CTSS Bulletin 57. This new library of three files is now available in the public file.

Most of the changes involve TSLIB1; however, TSLIB2 contains one change:

FLEXPM has been changed to make it compatible with the new (I$\emptyset$H) contained in TSLIB1. This has increased its size from $(4630)_8$ to $(4676)_8$.

TSLIB1 contains the following new programs (see background writeups for the calling sequences):

Entry Name: .PC$\emptyset$MT

Purpose: To print a comment from a MAD program on the user's console.

Length: $(22)_8$ locations

Transfer Vector: .SPRNT

Entry Name:	.PRSLT, .PRBCD, .PRØCT
Purpose:	To print on the user's console, without specifying a format statement, the variables given in the list of a MAD program.
Length:	$(667)_8$ locations
Transfer Vector:	.PRINT, .SPRNT, ENDJØB
Error Procedure:	In case of an error, ENDJØB (EXIT) is called.
Entry Name:	.RDATA, .RPDTA
Purpose:	To read lines from the user's console when no list of variable names nor format statement is necessary in MAD programs. The variables and variable names can be typed in free-field form. The data read may be printed immediately.
Length:	$(1065)_8$ locations
Transfer Vector:	.SPRNT, ENDJØB, .SCRDS, .03311
Error Procedure:	In case of an error, ENDJØB (EXIT) is called.
Entry Name:	DFAD, DFSB, DFMP, DFDP, SFDP, DCEXIT
Purpose:	To perform double-precision floating-point operations on numbers stored in consecutive locations.
Length:	$(153)_8$ locations
Transfer Vector:	ENDJØB
Error Procedure:	In case of division by zero, ENDJØB is called.

There have been several additions and changes to the programs which handle MAD and FØRTRAN input/output. There has also been a major reorganization of the programs. The following is a list of the programs as they exist in TSLIB1 (see background write-ups for calling sequences):

Entry Name:	(TSH), (TSHM), .TAPRD
Purpose:	To simulate reading of BCD tape by reading a disk file, .TAPE. N, where N represents logical tape number.
Length:	$(274)_8$ locations
Transfer Vector:	.READK, EØFXIT, SEEK, (IØH), ENDRD, SNAP
Error Procedure:	If end-of-file is encountered while reading, EØFXIT is called.

Entry Name: (SCH), (STH), (STHM), .PUNCH, .PNCHL, .TAPWR

Purpose: To simulate writing of BCD tape by writing a disk file, .TAPE. N, where N represents the logical tape number. (SCH), .PUNCH, and .PNCHL write into disk file .TAPE. 3.

Length: $(325)_8$ locations

Transfer Vector: .WRITE, .FSTAT, APPEND, ASSIGN, (IØH), SNAP

Entry Name: (SPH), (SPHM), .PRINT, .CØMNT, .SPRNT

Purpose: To print on the user's console.

Length: $(133)_8$ locations

Transfer Vector: (IØH), WRFLX

Entry Name: (CSH), .READ, .READL, .LØØK, .SCRDS

Purpose: To read from the user's console.

Length: $(177)_8$ locations

Transfer Vector: (IØH), RDFLX

Entry Name: (IØH), STQUØ, (FIL), (RTN), IØHSIZ

Purpose: Handles the transmission and conversion cf BCD data according to list and format specifications.

Length: $(4647)_8$ locations

Transfer Vector: .03311, DFMP, DFDP, .SPRNT, (EXE), (LFTM), (EFTM)

   TSLIB1 contains the new disk package described in CC-242-1. The following is a list of the disk programs as they exist in TSLIB1:

Entry Name: DREAD

Length: $(301)_8$ locations

Transfer Vector: GNAM, CØLT, (RTN), (IØH), .READK, ENDF, EØFXIT, WRFLX, SNAP

Entry Name: BREAD

Length: $(246)_8$ locations

Transfer Vecotr: GNAM, CØLT, GETMEM, SETMEM, .READK, ENDF, EOFXIT, SNAP, WRFLX, EXIT

Entry Name: BWRITE

Length: $(165)_8$ locations

Transfer Vecotr: GNAM, CØLT, GETMEM, SETMEM, .WRITE, SNAP, WRFLX, EXIT

Entry Name: SETVBF, VREAD, VWRITE, FWRITE

Length: $(465)_8$ locations

Transfer Vector: GNAM, CØLT, .READK, .WRITE, ENDF, EOFXIT, SNAP, WRFLX, EXIT

Entry Name: SEEK, ASSIGN, APPEND, ENDRD, FILE

Length: $(265)_8$ locations

Transfer Vector: SEEK, GNAM, CØLT, SRCH, BLK, FLK, .ASIGN, .APEND, .ENDRD, ENDF, .FILE, WRFLX, RECØUP, SNAP

Entry Name: SRCH, BLK, FLK, ENDF, .CLØUT

Length: $(262)_8$ locations

Transfer Vecotr: GETMEM, SETMEM, .FILE, .ENDRD

Entry Name: (RWT), (EFT), (BST)

Length: $(100)_8$ locations

Transfer Vector: .FILE, .ENDRD, WRFLX, DEFBC, BEEL, FILE, SRCH, ENDF, SNAP

Entry Name: CLØUT

Length: $(3)_8$ locations

The program EXIT has been changed for compatability with the new disk package:

Entry Name: EXIT, CLKØUT, DUMP, ENDJØB, EXITM, PDUMP

Length: $(76)_8$ locations

Transfer Vector: WRFLX, CLØUT, DØRMNT, CHNCØM, DEAD