CTSS BULLETIN 86

Concurrent with the introduction of the new file system
(MAC2A1 and CTR2A1), a set of write-arounds will be
maintained within the A-core supervisor.   These
write-arounds will allow old file system calls (e.g., .SEEK,
.READK, etc.)   to be used, thereby facilitating the
changeover. Inasmuch as is possible, these write-arounds
re-format the old file calls into the form expected by the
new system. (Reference to CTSS Bulletin 83 explains the
method and limitations in greater detail.)

Due to severe limitations on available core space within the
supervisor, these write-arounds will only be maintained
until October 1. At that time, the write-arounds will be
removed from A-core. Thereafter, all programs which employ
supervisor file calls of the form:

         TSX   NAME,4
           .
           .
           .
  NAME   TIA   =HNAME

will result in Protection Mode Violations due to the absence
of the old file entry points. All the entries which are
being deleted are noted on the last page of this bulletin.

In light of the above remarks, it behooves the user to
examine his programs and edit them to be compatible with the
new file system. There are two ways in which this can be
done.

The first way involves the smaller effort although at the
expense of a slightly larger program.   The system library
(TSLIB1 BSS in comfil S) will _always_ contain the old file
entry points. In the current system, these entry points are
simple TIA's to the supervisor. However, the new TSLIB1
will contain the write-arounds as a _B-core_ package.   Thus,
to be compatible, all programs merely need to take out the

TIA's and declare the file calls to be external symbols via the EXTERN pseudo-operation in FAP. After reloading, the proper library will then route the calls to the supervisor.

Until October 1, TSLIB4 will contain the supervisor entry points as TIA's. This is being done to aid the user during the transition period. Shown below is a sample conversion:

```
       OLD PROGRAM                    NEW PROGRAM


       TSX    .ASIGN,4         EXTERN    .ASIGN
       PZE    FILNAM              o
        o                         o
        o                         o
        o                       TSX    .ASIGN,4
                                PZE    FILNAM
.ASIGN   TIA    =H.ASIGN
```

Notice that the effect of the new program will be unchanged in the present system. However, the new system has a modified library such that the re-formatting of the .ASIGN file call occurs in B-core and then the supervisor is called with the new file calls. Thus, the program will run properly, regardless of which system is used. In addition, the removal of the A-core write-arounds cannot affect this program since the B-core library will call the new entry points in the supervisor.

The second method of conversion simply amounts to re-writing the program to use the new file calls. Many of the system commands, (e.g. MAD, FAP, LOAD, etc.) have been rewritten to take advantage of the greater flexibility and power of the new file system. Reference to CC-241-2 will provide ample information as to the calling sequences, etc. In addition, the new BFREAD, BFWRIT, etc. entry points in the new library provide a simplified method for getting adapted to the new file system. !

Following is a list of the routines which have been altered, and added to TSLIB1 (the standard library) and TSLIB4 and those routines which were delted from TSLIB1 and replaced with the write-arounds along with any important changes.

Altered routines

BREAD: Decreased by (30)8 locations. Uses Erasable Common. Calls BFREAD.

(RST), (EFT), (RWT): Decreased by (13)8 locations.

BWRITE: Increased by 5 locations. Uses Erasable Common. Calls BFWRIT and WRWAIT.

DELETE: Increased by (41)8 locations.

DREAD: Increased by (21)8 locations. Calls BFREAD.

DWRITE: Increased by (26)8 locations. Calls BFWRIT, WRWAIT.

EOFXIT, SETEOF, WRDCNT: Increased by (16)8 locations.

GETCFN, GETCF: Decreased by (6)8 locations. Calls GNAM.

RENAME: Increased by (46)8 locations.

(SCH), (STH), (STHM), PUNCH, PNCHL, TAPWR: Increased by (36)8 locations.

SEEK, ASSIGN, APPEND, ENDRD, FILE: Increased by (152)8 locations. Calls BFOPEN, OPEN and BUFFER.

SETERR: Increased by 2 locations.

SNAP: Increased by (12)8 locations.

SRCH, BLK, FLK, ENDF, CLOUT: Increased by (40)8 locations. Calls FRER and FRET ((237)8 locations).

(TSH), (TSHM), TAPRD: Increased by (11)8 locations.

VREAD, VWRITE, FWRITE, SETVBF SETVB: Increased by (54)8 locations. Calls BFWRIT, BFREAD and WRWAIT.

Routines which have been added

BFOPEN, BFREAD, BFWRIT, BFCODE, BFCLOS: (656)8 locations

CHFILE, DELFIL: 6 locations.

FSTATE: 4 locations.

IODIAG: 4 locations.

LDFIL: (117)8 locations.
T.V.: CLOSE, COLT, EXIT, FRER, FSTATE, OPEN, RDFILE

MOUNT, UNMOUNT, VERIFY, LABEL, TAPFIL: (14)8 locations.

OPEN, FCHECK, FWAIT, BUFFER, CLOSE, UPDATE: (16)8
        locations.

PRNTER: (1037)8 locations
         T.V.: IODIAG, WRFLX

 RDFILE, RDWAIT: 6 locations.

 RESETF, UNLINK: 5 locations.

SETPRI: 4 locations.

STORGE: 4 locations.

TILOCK, FERRTN: 5 locations.

TRFILE: 4 locations.

 UPDMFD, DELMFD, ATTACH, RSFILE, MOVFIL, SETFIL, LINK,
 ALLOT: (22)8 locations.

 WRFILE, WRWAIT: 8 locations

Changes in TSLIB1 only

Deleted: .RESET, .RENAM, .FSTAT, .FILDR: (12)8 locations.

         .DLETE, .ENDRD, .ERASE, .READK, .SEEK: (14)8
         locations.

         .FILE, .ASIGN, .WRITE, .APEND, .RELRW: (14)8
         locations.

         .DUMP, .LOAD: 6 locations.

Replaced by: .WRITE, .DUMP, .LOAD, .ASIGN, .APEND, .RELRW,
         .SEEK, .READK, .READ, .FSTAT, .DLETE, .FILE,
         .RENAM, .RESET, .UPDAT, .ENDRD, .ERASE:
         (660)8 locations.

                                        _clear also