CTSS BULLETIN # 57

SUBJECT: LOAD Command -- A new version

Purpose

The LOAD command has been reorganized in order to provide greater flexibility and speed in loading programs from various libraries. Programs and files may be loaded or searched as libraries in the user's file, Common files and several System files.

Implementation

The new version of LOAD is now available as LOAD SAVED in the public file. The complete new library, as explained in a separate bulletin, is not yet available. CSLIB may be used from the public file and people using CTSET8 version of MAD may use this new loader with NADLIB in the public file. When the new versions of LOAD, MAD and TSS library are put into effect as the standard commands, the message of the day and a corresponding CTSS bulletin will be issued.

In order to provide an easier transition, the new loader will temporarily provide the facility of using the old loader and the old library. This facility will be somewhat slower than the old loader.

LOAD (OLD)...

This will cause the old loader and the old library to be used instead of the new. LOAD may be LOADGO, NCLLOAD, or VLOAD. The
old loader and library will not be actively maintained and may be discontinued or moved to the public file at some later date.

Usage

Call Sequence:

LOAD (ORG) arg1 switch argj

LOAD may be LOAD, LOADGS, NLOAD or VLLOAD.

(ORG) is optional and may appear anywhere in the list of arguments. (ORG) directs the loader to set the starting address to the lowest entry point of the next routine loaded. This allows the execution of a program without a MAIN program or it allows the program to be started at some point other than the (MAIN) entry.

arg1 may be a list of BSS files to be loaded from the current file-directory. Initially, the current file-directory is either the user's file-directory or a common file as set by a COMPILE command.

If any arg1 is (LIBE), the following arg1+1 within the current file-directory is searched as a library in an attempt to find any missing routines.

If any arg1 is (SYS), the following arg1+1 in the system file-directory is searched as a library.

If any arg1 is (NLIB), the system library will not be searched for missing routines after the argument list has been processed. An argument of (LIB) supersedes (NLIB).

switch is an optional argument which switches the loader out of the current file-directory into some other specified file-directory. Switch may be (CFLn) where n is the number of the common file (0,1,2,3,4,...F).

The argj are the same format as arg1.
There may be any number of switches and each one supersedes the previous one.

Once the argument list has been processed, the loader will use only TSLIB1, if allowed, to search for any missing subroutines.

The user is switched to his own file-directory during the NEED messages. Upon completion of the loading, the current file-directory is switched back to its initial status.

Library

The new library will consist of 3 or more files instead of a single file. These files will be searched separately, thus speeding up the loading process.

TSLIB1 BSS is the "STANDARD" library and contains all subroutines except the "DEBUG" library and special users or "RESTRICTED" libraries.

TSLIB2 BSS is the "DEBUG" library which contains FLEXPM, STRACE and FAPDBG.

KLULIB BSS is the first of a series of "RESTRICTED" libraries for special users and it contains all routines used in connection with the KLUDGE.

NOTE: if a user calls TRACE as a subroutine, it will not be found unless he specifies (SYS) TSLIB2 in the LOAD command. On the other hand, TSLIB2 will be searched automatically when the user uses the debug commands such as PM or FAPDBG.

Modifications and Corrections

1. The NEED list is more compact and prints faster.

2. If the user attempts to call a "DEBUG" command
while loading with VLOAD or NLOAD, a comment is printed. A valid request may then be typed.

3. NLOAD will work properly with programs using a COMMON area lower than the ERASABLE.

4. COMMON addresses are relocated with the same parity as on the assembly listing.

5. The keyword of the MOVIE table is available in location 278. The address portion contains the origin of the MOVIE table, and the length of the table is shown in the decrement. This is the same word as that obtained by CAL 3 MOVIE. If VLOAD or NLOAD have been used, location 278 is zero, since the MOVIE table is over-written before execution of the program.

6. The mode of (LIB) or (NLIB) is not altered if one uses PM or any DEBUG command before the loading is completed.

7. The new header is the same length as the previous one and will load starting from the same addresses. There may be variations of 1 or 2 locations due to the modification in COMMON relocation.