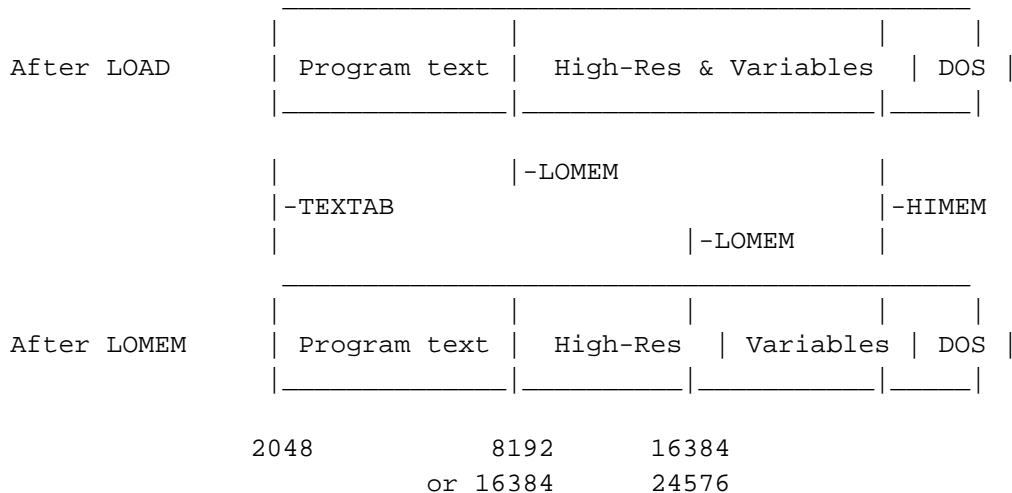## Applesoft: About the LOMEM command

The LOMEM command in Applesoft can be used to relocate the adresses where Applesoft stores its variables in memory. LOMEM is automatically set to the top of the program when the LOAD command is executed.

```
                   _____
                  |              |               |       |      |
  After LOAD      | Program text |  High-Res & Variables | DOS  |
                  |_____|_____|_____|

                  |                |-LOMEM                |
                  |-TEXTAB                                |-HIMEM
                  |                        |-LOMEM        |
                   _____
                  |              |          |          |      |
  After LOMEM     | Program text |  High-Res | Variables | DOS |
                  |_____|_____|_____|_____|

              2048            8192       16384
                        or 16384         24576
```

Most commonly, users employ LOMEM when a short program's variables collide with the High-Res screen memory. Employ the statements below depending on which page of High-Res you use, HGR or HGR2:

For HGR
10 LOMEM: 16384

For HGR2
10 LOMEM: 24576

LOMEM executes a CLEAR, so you must call it before any variables are defined.

WARNING: the CHAIN program that comes with DOS 3.3 will reset LOMEM to the end of the program.

Take note that LOMEM moves the adresses of the variables but it does not move the address of the program. Another pointer, TEXTAB, tells Applesoft where to start loading the program. The following programs relocate the program and variables above the High-Res buffers by changing TEXTAB. DOS and CHAIN will continue to load programs there until the system is re-booted or the FP command is executed.

For HGR

```
10 POKE 103,1                    : REM THIS CHANGES
20 POKE 104,64                   : REM TEXTAB TO 16385
30 POKE 16384,0                  : REM (NEEDED BY APPLESOFT)
40 PRINT CHR$(4);"RUN PROGRAM"
```

For HGR2 or both pages

```
10 POKE 103,1                    : REM THIS CHANGES
20 POKE 104,96                   : REM TEXTAB TO 24577
30 POKE 24576,0                  : REM (NEEDED BY APPLESOFT)
40 PRINT CHR$(4);"RUN PROGRAM"
```

Note: Modifying TEXTAB can be dangerous. The DOS RUN command employs an
Applesoft NEW to re-initialize the rest of Applesoft's pointers. Cassette
users will have to type "NEW" from the keyboard before loading their programs.
Failure to do a NEW will cause unpredictable results.
Apple Tech Notes

Keywords: <None>

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