Your application documentation contains some suggestions for optimizing the computer's memory. To learn about memory management utilities, review this chapter, and then review the appropriate chapters in your application documentation.

Some memory management terms are defined below:

BASE RAM--Memory below 640KB; used by MS-DOS and all MS-DOS applications.

SHADOW RAM--Memory from  $640 \, \text{KB}$  to  $1024 \, \text{KB}$  (1MB); used by the system BIOS, video BIOS, and other extensions.

EXTENDED MEMORY--Contiguous memory above 1MB; can be addressed directly by i486 microprocessors. Often used for software disk caches, RAM disks, and software print spoolers. MS-DOS 5.0 includes an extended memory manager called HIMEM.SYS. Refer to your MS-DOS 5.0 documentation for information about HIMEM.SYS.

Extended
Memory
(Up to 31 MB)

Shadow RAM
(384KB)

Base RAM
(640KB)

0 KB

Base RAM, Shadow RAM, and Extended Memory:

In addition to the three areas of memory illustrated previously, your computer supports the creation of expanded memory, or EMS memory, from extended memory. EMS memory increases your system's efficiency by paging large sections of memory in and out of an area called a page frame. Many application programs are designed to use EMS memory; such programs require the installation of an expanded memory manager driver.

EMM386.EXE is an expanded memory manager driver included with MS-DOS 5.0. Refer to MS-DOS 5.0 documentation for instructions on installing and using EMM386.EXE.

(smm 08/06/93)