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## **MoreMem**

### **Fixes "Out of Memory Errors" When Loading Windows Programs**

MoreMem  
Version 2.0a  
October 27, 1994  
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Cost is \$10.

by  
Daniel Woo

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You may try the program for thirty days before you must either register the program or delete it from your computer. **Please be honest**, and register the program if you use it for longer than thirty days. See the Payment and Registration and Order Form sections.

### **Summary of Program**

This shareware program is a utility to prevent "Out of Memory Errors" when loading Windows programs. Each new Windows program needs a 512-byte block of conventional DOS memory below 640k for its program segment prefix (PSP), because Windows is basically a DOS extender that still needs to communicate with DOS for things like disk and other hardware interrupts. You should put this program in your startup group or on your load= or run= line in win.ini. You should try to load this program first before other programs.

### **Why the Program Works**

Windows allocates moveable memory from the top of memory, but it allocates

fixed memory from the bottom. Therefore, if fixed memory allocations fill up the DOS memory below 640 k, then no new programs can run, and you get that dreaded "Out of Memory Error," no matter how many megabytes of free extended memory your computer has. Programs should allocate most of their memory as moveable, but some things like interrupt code and data needs to be fixed. Things like screen savers, drivers, 386 enhanced drivers, sound, multimedia, and modem software are notorious for gobbling up DOS memory. Thus, this trick is to fragment DOS memory so those fixed memory allocations are prevented from loading in DOS memory and PSPs can just fit into 512 byte free DOS memory fragments. MoreMem should work with any Windows or DOS program since it just allocates and deallocates memory.

## Running the Program

### Starting the Program

The default number of DOS blocks to reserve is the first argument in the command line or else the previous requested number of DOS blocks. When the program is run, a dialog box will pop up if there is no default number. If the first argument is 0, a dialog box always pop up, even if there was a previous setting. Otherwise, the program starts as an icon.

### Estimating the Number of DOS Blocks To Reserve

Each Windows program needs a 512-byte DOS block, so estimate the maximum number of Windows programs that you will load after MoreMem and then add a few more for safety. I would suggest a number around 25 to 50. Use a higher number if you get Out-of-Memory Errors when loading programs.

### More Memory

You might want to CLOSE MoreMem TEMPORARILY FOR ONE WINDOWS SESSION on the rare occasion that you use up all of the reserved DOS blocks and, therefore, get an Out-of-Memory Error. Closing MoreMem FOR THIS WINDOWS SESSION will free up an equal number of DOS blocks to the number that you reserved. If you get Out-of-Memory Errors on a regular basis, you will probably want to increase the number of reserved DOS blocks.

Reserving a block of memory for a DOS PSP block requires about 1024 bytes of memory, since MoreMem surrounds each reserved DOS block with a 512-byte block of memory. THUS, if you ever get an "Out of Memory Error" while using MoreMem, you can get **EVEN MORE** free DOS memory by just either (1) closing MoreMem to free up MoreMem's DOS memory blocks or (2) by reserving 0 blocks in MoreMem, which also frees MoreMem's DOS memory blocks. This should more or less double the amount of free DOS memory blocks.

### Passwords

A password is required to enter and exit the program in the About dialog box. You will be given a temporary password at entry and exit if you are an unregistered user. When you register by paying \$10, you will get a password that will disable the password requirement. See the Payment and Registration and Order Form sections.

### Hiding the Program

To make the program inconspicuous, you can hide its icon by checking the HIDE ICON checkbox and minimizing the program.

### Error Messages

You can turn off the error messages by checking the NO ERROR MESSAGES checkbox. These error messages indicate (1) if the requested number of DOS blocks could not be allocation or (2) if an invalid number of block were requested.

### Payment and Registration

When you pay the ten dollar shareware registration fee, you will get a password that will disable the password requirement in the About dialog box. The key will work on all future versions. You can send check or money order in the mail, and you will receive your key in the mail. See the Order Form Section.

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### **Future Improvements Planned for Version 3.0**

(1) Automatically free MoreMem's DOS blocks when the number of free reserved DOS Blocks is low. This will reduce the effective program block requirement for each reserved DOS block to 512 bytes.

(2) Automatically increase the number of reserved DOS blocks in hopes of always have some free DOS blocks.

Feel free to make suggestions.

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- MoreMem.exe
- MoreMem.hlp
- MoreMem.txt
- OrderMem.wri

OrderMem.txt

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Comments and suggestions are considered and appreciated.

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### **Future Improvements Planned for Version 3.0**

(1) Automatically free MoreMem's DOS blocks when the number of free reserved DOS Blocks is low. This will reduce the effective program block requirement for each reserved DOS block to 512 bytes.

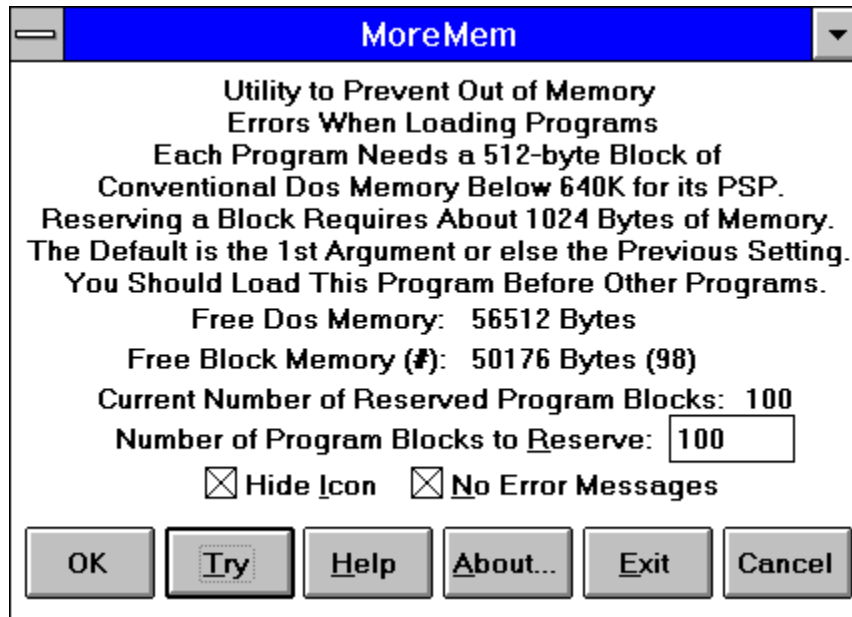
(2) Automatically increase the number of reserved DOS blocks in hopes of always have some free DOS blocks.

Feel free to make suggestions.

## Entering the Number of Blocks

Enter into this edit box the number of DOS program blocks that you want the program to reserve. Each Windows program needs 512 bytes of DOS conventional memory to run (i.e., memory below 640 K). Each reserved program block requires about 1024 bytes of memory.

MoreMem Window



## OK Button

Pressing this button will cause the program to attempt to allocate the requested number of program blocks and, then, it will minimize the program.



Cancel Button

Pressing this button will cause the program to minimize the program.

Help Button

Pressing this button will cause the help file to load.

## Try Button

Pressing this button will cause the program to attempt to allocate the requested number of program blocks. This button is like the OK button, but it does not minimize the program.

About Button

Pressing this button will cause the program popup the About dialog box.

## Exit Button

Pressing this button will cause the program to free all its allocated DOS memory blocks and, then, the program will close.

## DOS Memory

This text show the amount of free DOS memory. Note, that after the program reserves DOS memory blocks, those blocks remain free until a program loads.

## **Block Memory**

This shows the amount of free DOS block memory and the number of free blocks.

## Current Reserved Number

This text displays the number of currently reserved number of DOS program blocks. Some may be free and some may be used by other programs.



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