

Contents
GOTO MoreMem Window
GOTO Index
About

MoreMem

Fixes "Out of Memory Errors" When Loading Windows Programs

MoreMem
Version 2.0a
October 27, 1994
Copyright © 1994. All Rights Reserved.
Cost is \$10.

by
Daniel Woo

Gamma Research, Inc.
904 Bob Wallace Avenue Suite 212
Huntsville, AL 35801
(205) 533-7103
Compuserve: Daniel N. Woo [73324,3027]

Windows is a trademark of Microsoft Corporation.

Shareware Terms

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.

Order Form

To: Gamma Research, Inc.
904 Bob Wallace Avenue Suite 212
Huntsville, AL 35801

(205) 533-7103

From: Name: _____

Company: _____

Street Address: _____

City, State, Zip: _____

Phone Number: _____

Price: \$10

Quantity: _____

Total: _____

Suggestions: _____

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.

License Agreement

The use of MoreMem is subject to the following terms and conditions:

MoreMem is copyrighted material. It is protected by the copyright laws of the United States. You may not make any changes or modifications to MoreMem. You may not decompile, disassemble, or otherwise reverse-engineer the software in any way. You may use MoreMem on a trial basis provided you do not violate the protection afforded the licensed software by the copyright laws, and you agree to the terms of the license agreement. If you use MoreMem longer than thirty (30) days, you are obligated to purchase a license for its use.

Send your \$10 registration fee to:

Gamma Research, Inc.
904 Bob Wallace Avenue Suite 212
Huntsville, AL 35801

See the Payment and Registration and Order Form sections.

Title to the licensed software is NOT transferred to the end user. The end user is granted an exclusive license to use the software on one computer or computer work station at any given time.

Limited Warranty

Gamma Research does not warrant that the licensed software will meet your requirements or that the operation of the software will be uninterrupted or error free. The warranty does not cover any media or documentation which has been subjected to damage or abuse by you or others. The software warranty does not cover any copy of the licensed software which has been altered or changed in any way. ANY IMPLIED WARRANTIES INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO THE TERM OF THE EXPRESS WARRANTIES. Some States do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

The warranties set forth above are in lieu of any and all other express or implied warranties, whether oral, written, or implied, and the remedies set forth above are the sole and exclusive remedies.

Gamma Research is not responsible for any problems or damage caused by the licensed software that may result from using the licensed software. This includes, but is not limited to, computer hardware, computer software, operating systems, and any computer or computing accessories. End user agrees to hold Gamma Research harmless for any problems arising from the use of the software.

Gamma Research SHALL NOT IN ANY CASE BE LIABLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL, INDIRECT OR OTHER SIMILAR DAMAGES ARISING FROM ANY BREACH OF THESE WARRANTIES EVEN IF Gamma Research OR ITS AGENTS OR DISTRIBUTORS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

In no case shall Gamma Research's liability exceed the license fees paid for the right to use the licensed software.

MoreMem Distribution

You are granted a limited license to copy MoreMem only for a trial period of thirty (30) days subject to the terms of this software license agreement described herein, and the conditions described below are met:

MoreMem MUST be copied in an unmodified form and MUST contain the following files:

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

OrderMem.txt

No fee, charge or other compensation may be accepted or requested by anyone without the express written permission of Gamma Research

Public Domain Disk Vendors may not charge a fee for MoreMem itself. However you may include MoreMem on a diskette for which you charge a nominal distribution fee. The purchaser of said diskette must be informed in advance that the fee paid to acquire the diskette does NOT relieve said purchaser from paying the Registration Fee for MoreMem if said purchaser uses MoreMem.

Operators of electronic bulletin board systems (Sysops) may post MoreMem for downloading by their users without written permission only as long as the above conditions are met. A fee may be charged for access to the bbs as long as no specific fee is charged for downloading MoreMem files without first obtaining express written permission from Gamma Research to charge such a fee.

Distributors of public domain and user supported software, such as disk vending services, may not charge a fee for MoreMem itself. However you may include MoreMem on a diskette for which you charge a nominal distribution fee. The purchaser of said diskette must be informed in advance that the fee paid to acquire the diskette does NOT relieve said purchaser from paying the Registration Fee for MoreMem.

The above constitutes the license agreement for MoreMem. It supercedes any and all previous license agreements.

Comments and suggestions are considered and appreciated.

Compuserve: Daniel N. Woo [73324,3027]

About

MoreMem

Fixes "Out of Memory Errors" When Loading Windows Programs

MoreMem
Version 2.0a
October 27, 1994
Copyright © 1994. All Rights Reserved.
Cost is \$10.

by
Daniel Woo

Gamma Research, Inc.
904 Bob Wallace Avenue Suite 212
Huntsville, AL 35801
(205) 533-7103
Compuserve: Daniel N. Woo [73324,3027]

Windows is a trademark of Microsoft Corporation.

Index

Contents

About

Shareware Terms

Program Summary

Why the Program Works

Running the Program

Starting the Program

MoreMem Window

More Memory

Passwords

Hiding the Program

Error Messages

Payment

Registration

Order Form

Future Improvements Planned for Version 2.0

MoreMem Distribution

You are granted a limited license to copy MoreMem only for a trial period of thirty (30) days subject to the terms of this software license agreement described herein, and the conditions described below are met:

MoreMem MUST be copied in an unmodified form and MUST contain the following files:

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

No fee, charge or other compensation may be accepted or requested by anyone without the express written permission of Gamma Research

Public Domain Disk Vendors may not charge a fee for MoreMem itself. However you may include MoreMem on a diskette for which you charge a nominal distribution fee. The purchaser of said diskette must be informed in advance that the fee paid to acquire the diskette does NOT relieve said purchaser from paying the Registration Fee for MoreMem if said purchaser uses MoreMem.

Operators of electronic bulletin board systems (Sysops) may post MoreMem for downloading by their users without written permission only as long as the above conditions are met. A fee may be charged for access to the bbs as long as no specific fee is charged for downloading MoreMem files without first obtaining express written permission from Gamma Research to charge such a fee.

Distributors of public domain and user supported software, such as disk vending services, may not charge a fee for MoreMem itself. However you may include MoreMem on a diskette for which you charge a nominal distribution fee. The purchaser of said diskette must be informed in advance that the fee paid to acquire the diskette does NOT relieve said purchaser from paying the Registration Fee for MoreMem.

The above constitutes the license agreement for MoreMem. It supercedes any and all previous license agreements.

Comments and suggestions are considered and appreciated.

Compuserve: Daniel N. Woo [73324,3027]

Shareware Terms

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.

More Memory

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 section.

Hiding the Program

To make the program inconspicuous, you can (1) hide it by clicking the HIDE button in the MoreMem dialog box or (2) 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.

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.

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 allocated or (2) if an invalid number of blocks 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.

Order Form

To: Gamma Research, Inc.
904 Bob Wallace Avenue Suite 212
Huntsville, AL 35801

(205) 533-7103

From: Name: _____

Company: _____

Street Address: _____

City, State, Zip: _____

Phone Number: _____

Price: \$10

Quantity: _____

Total: _____

Suggestions: _____

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.

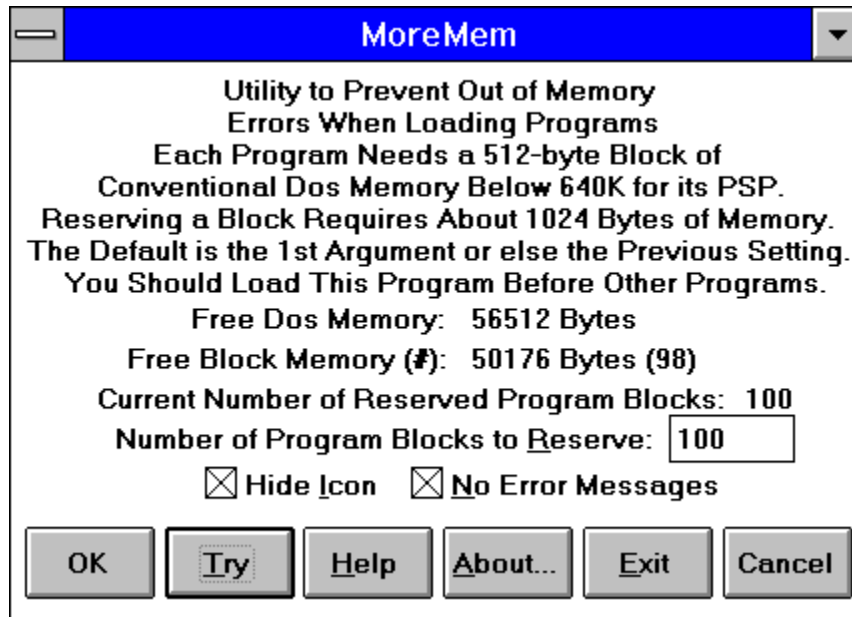
(2) Automatically increase the number of reserved DOS blocks in hopes of always have some free DOS blocks.

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.

Limited Warranty

Gamma Research does not warrant that the licensed software will meet your requirements or that the operation of the software will be uninterrupted or error free. The warranty does not cover any media or documentation which has been subjected to damage or abuse by you or others. The software warranty does not cover any copy of the licensed software which has been altered or changed in any way. ANY IMPLIED WARRANTIES INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED TO THE TERM OF THE EXPRESS WARRANTIES. Some States do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

The warranties set forth above are in lieu of any and all other express or implied warranties, whether oral, written, or implied, and the remedies set forth above are the sole and exclusive remedies.

Gamma Research is not responsible for any problems or damage caused by the licensed software that may result from using the licensed software. This includes, but is not limited to, computer hardware, computer software, operating systems, and any computer or computing accessories. End user agrees to hold Gamma Research harmless for any problems arising from the use of the software.

Gamma Research SHALL NOT IN ANY CASE BE LIABLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL, INDIRECT OR OTHER SIMILAR DAMAGES ARISING FROM ANY BREACH OF THESE WARRANTIES EVEN IF Gamma Research OR ITS AGENTS OR DISTRIBUTORS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

In no case shall Gamma Research's liability exceed the license fees paid for the right to use the licensed software.

License Agreement

The use of MoreMem is subject to the following terms and conditions:

MoreMem is copyrighted material. It is protected by the copyright laws of the United States. You may not make any changes or modifications to MoreMem. You may not decompile, disassemble, or otherwise reverse-engineer the software in any way. You may use MoreMem on a trial basis provided you do not violate the protection afforded the licensed software by the copyright laws, and you agree to the terms of the license agreement. If you use MoreMem for longer than thirty (30) days, you are obligated to purchase a license for its use.

Send your \$10 registration fee to:

Gamma Research, Inc.
904 Bob Wallace Avenue Suite 212
Huntsville, AL 35801

See the Payment and Registration and Order Form sections.

Title to the licensed software is NOT transferred to the end user. The end user is granted an exclusive license to use the software on one computer or computer work station at any given time.

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.

