

## SuperMonitor Help Contents

To learn how to use Help, press F1...

Your Windows 3.1, Windows For Workgroups, Windows 95, and Windows NT resource monitor...

### **Menu Commands:**

<a href="#">File</a>	<a href="#">Actions</a>
<a href="#">View</a>	<a href="#">Window</a>
<a href="#">Options</a>	<a href="#">Help</a>

### **Topics of interest:**

- [Supported Windows operating systems](#)
- [Installation and removal instructions](#)
- [A bug is found in Windows 95](#)
- [Windows 95 and Windows NT resource issues](#)
- [Windows NT icon issues and the /i command line option](#)
- [Monitoring your system resources](#)
- [Reported resource usage accuracy](#)
- [How SuperMonitor computes resource levels](#)
- [Resource colors and what it all means](#)
- [Choosing the optimal monitoring, updating, and logging rates](#)
- [What you want is exactly what you see -customizing your views](#)
- [How to use SuperMonitor's multiple document capabilities to determine exactly how much resources a specific program uses](#)
- [Evaluation program limitations](#)

### **File menu commands**

The File menu offers the following commands:

<a href="#">New</a>	Open a new document.
<a href="#">Open</a>	Open an existing document.
<a href="#">Close</a>	Close an open document.
<a href="#">Save As</a>	Save a document with a new name (renames the document and its log file).
<a href="#">Print</a>	Print current document's view (window).
<a href="#">Print</a>	Display current document's view (window) exactly as it would appear on your printer.
<a href="#">Preview</a>	
<a href="#">Print Setup</a>	Setup your printer.
<a href="#">MRU 1-4</a>	Open most recently used document.
<a href="#">Exit</a>	Exit <b>SuperMonitor</b> .

## **View menu commands**

The View menu offers the following commands:

- [Toolbar](#) Shows or hides the toolbar.
- [Statusbar](#) Shows or hides the status bar.

## Options menu commands

The Options menu offers the following commands:

<a href="#">Log to Disk</a>	Log file options.
<a href="#">Stay on Top</a>	Stay on top or normal window behavior.
<a href="#">Position</a>	Remember last window position upon startup.
<a href="#">Rates</a>	Rates options.
<a href="#">Views</a>	View window options.

## **Actions menu commands**

The Actions menu offers the following commands:

[Start](#)  
[Stop](#)  
[Reset](#)  
[Restart](#)

## Window menu commands

The Window menu offers the following commands:

<a href="#">New Instants Window</a>	Create new Instants view (window) of current document.
<a href="#">New Averages Windows</a>	Create new Averages view (window) of current document.
<a href="#">New Minimums Window</a>	Create new Minimums view (window) of current document.
<a href="#">Cascade</a>	Cascade all views.
<a href="#">Tile</a>	Tile all views.
<a href="#">Arrange Icons</a>	Arrange all views.

## Help menu commands

The Help menu offers the following commands:

<a href="#">Contents</a>	Offers you an index to topics on which you can get help.
<a href="#">Search for Help on</a>	Searches for a Help topic by typing or selecting a keyword.
<a href="#">Using Help</a>	Provides general instructions on using help.
<a href="#">Product Support</a>	Where to get technical and sales support.
<a href="#">About</a>	Displays the version number of this application.

## **New command (File menu & Toolbar)**

Opens a new (non-existent) document and its associated views as defined in the [Views command \(Option menu\)](#) dialog.

Remember, **SuperMonitor** is a multiple-document aware program. You may have an unlimited number of documents open and monitoring your system resources.

The document name is used as the name of the log file (if logging to disk). It is not used anywhere else in the program.

### **Shortcuts**

Mouse: Click this button to open a new file (document)



## Open command (File menu & Toolbar)

Opens an existing document and its associated views as defined in the [Views command \(Option menu\)](#) dialog.

Remember, **SuperMonitor** is a multiple-document aware program. You may have an unlimited number of documents open and monitoring your system resources.

The document name is used as the name of the log file (if logging to disk). It is not used anywhere else in the program.

### Shortcuts

Mouse: Click this button to open an existing file (document)



**Close command (File menu)**

Closes the active document and all of its views. If the document was monitoring your system resources, you will first be prompted for permission to stop monitoring your system.



**Save As command (File menu)**

Renames (saves) the current document.

The document name is used as the name of the log file (if logging to disk). It is not used anywhere else in the program.

### **Print command (File menu & Toolbar)**

Prints the active document's active view to the printer. Only the active view of the document is printed. If your document has all three views open, you must activate each view, print it, and repeat the process for the remaining views.

#### **Shortcuts**

Mouse: Click this button to print the active document's active view



## **Print Preview command (File menu & Toolbar)**

Displays the active document's active view as it will appear on the printer. Only the active view of the document is displayed. If your document has all three views open, you must activate each view, print it, and repeat the process for each remaining view.

### **Shortcuts**

Mouse: Click this button to preview the active document's active view



**Print Setup command (File menu)**

Displays the printer setup dialog box for your printer.

## **Exit command (File menu)**

Use this command to end your session. You can also use the Close command on the application Control menu.

### **Shortcuts**

Mouse: Double-click the application's Control menu button.



Keys: ALT+F4

**MRU 1-4 command (File menu)**

Displays the last four documents that were accessed. Click on one of these to quickly open the file (document).

### **Toolbar command (View menu)**

Use this command to display and hide the Toolbar, which includes buttons for some of the most common commands in the program. A check mark appears next to the menu item when the Toolbar is displayed.

See [Toolbar](#) for help on using the toolbar.

## Toolbar



The toolbar is displayed across the top of the application window, below the menu bar. The toolbar provides quick mouse access to many tools used in this program,

To hide or display the Toolbar, choose Toolbar from the View menu (ALT, V, T).



**Status Bar command (View menu)**

Use this command to display and hide the Status Bar, which describes the action to be executed by the selected menu item or depressed toolbar button. A check mark appears next to the menu item when the Status Bar is displayed.

See [Status Bar](#) for help on using the status bar.

## Statusbar



The status bar is displayed at the bottom of the program window. To display or hide the status bar, use the Status Bar command in the View menu.

The left area of the status bar describes actions of menu items as you use the arrow keys to navigate through menus. This area similarly shows messages that describe the actions of toolbar buttons as you depress them, before releasing them. If after viewing the description of the toolbar button command you wish not to execute the command, then release the mouse button while the pointer is off the toolbar button.

## Log to Disk command (Options menu)

This command displays a dialog box that allows you to customize log files. Click on any of the dialog options for more help...

The image shows a dialog box titled "Log Data to Disk Options". At the top left, there is a checkbox labeled "Log (save) data to disk" which is currently unchecked. Below this, there are several sections of options:

- Save to disk via:** Two radio buttons are present: "Fast writes" (selected) and "Slow writes".
- Data delimiter:** Three radio buttons are present: "Commas", "Spaces", and "Tabs" (selected).
- Save in units of:** Two radio buttons are present: "Bytes" and "MBytes" (selected).
- What to save:** Three checked checkboxes are present: "Include log file name and time stamp", "Include installed memory summary", and "Include field headers".

On the right side of the dialog, there are three buttons: "Instants...", "Averages...", and "Minimums...". At the bottom right, there are two buttons: "OK" and "Cancel".

### **Stay on Top command (Options menu, System menu)**

Forces **SuperMonitor** to always be on top of all other programs. When you want to monitor your system while a wide variety of programs are executing, we suggest that you minimize **SuperMonitor** and make it stay on top so that its information is always visible. You may also execute **SuperMonitor** full screen while it is on top.

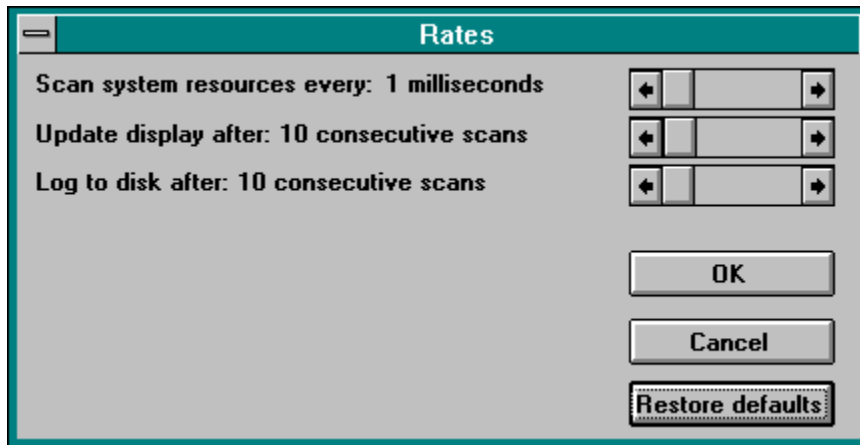
Note that when **SuperMonitor** is minimized (as an icon) you can access its system menu and perform a variety of useful commands (Stay on Top, Start, Stop, etc.) without having to maximize **SuperMonitor**, issue the command, and then re-minimize it.

### **Position command (Options menu)**

With Position disabled (not checked), **SuperMonitor** always starts executing almost full screen. If you want **SuperMonitor** to remember its last size and position right before it terminated, so that the next time you execute it, it will display in the same place as during its previous execution, enable this option (check it).

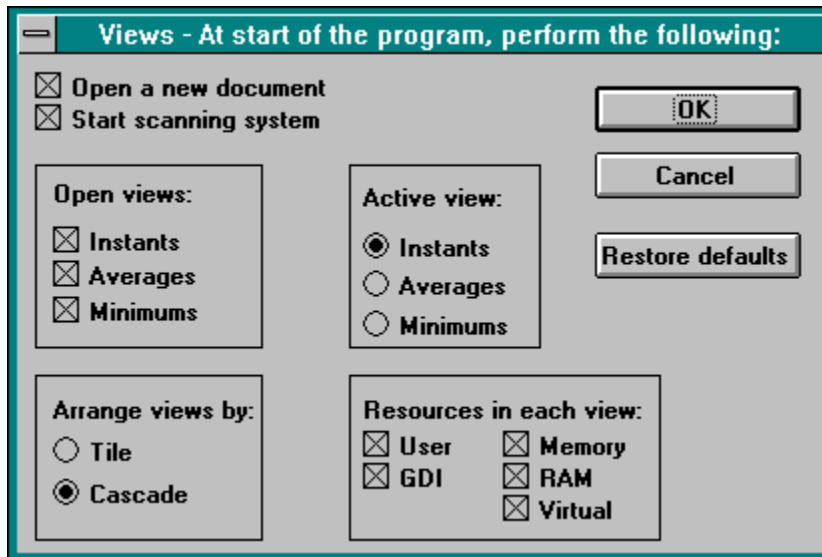
### Rates command (Options menu)

This command displays a dialog box that allows you to customize the sampling rates of **SuperMonitor**... Click on any of the dialog options for more help...



## Views command (Options menu)

This command displays a dialog box that allows you to customize the start up behavior of **SuperMonitor**... Click on any of the dialog options for more help...



### **Open a new document**

If this option is checked, then at the start of the program, **SuperMonitor** will automatically open a new document. If not checked, then you will have to manually open a new or existing document before monitoring may begin.



### **Start scanning system**

If this option is checked, then at the start of the program, **SuperMonitor** will automatically instruct the new document to start monitoring your system's resources. If not checked, then you will have to manually start your document.

**Open views: Instants**

If this option is checked, each document will automatically display your system's instantaneous (Instants) resource usage. If not checked, then you will have to manually open this view through the Window menu.

**Open views: Averages**

If this option is checked, each document will automatically display your system's average (Averages) resource usage. If not checked, then you will have to manually open this view through the Window menu.

**Open views: Minimums**

If this option is checked, each document will automatically display your system's minimum (Minimums) resource usage. If not checked, then you will have to manually open this view through the Window menu.

**Active view: Instants**

This group of choices determines which view will automatically be made active when **SuperMonitor** first executes. Only one view may be selected.

This choice makes the Instants view be active upon program startup.

**Active view: Averages**

This group of choices determines which view will automatically be made active when **SuperMonitor** first executes. Only one view may be selected.

This choice makes the Averages view be active upon program startup.

**Active view: Minimums**

This group of choices determines which view will automatically be made active when **SuperMonitor** first executes. Only one view may be selected.

This choice makes the Minimums view be active upon program startup.

**Arrange views by: Tile**

If this option is checked, **SuperMonitor** will tile (side by side) your views upon program startup.



### **Arrange views by: Cascade**

If this option is checked, **SuperMonitor** will cascade your views upon program startup.

**Resources in each view: User**

If checked, causes the User resource vertical usage bar to appear in all future document's views. If not checked, then the resource won't appear.

Checked resources always appear left to right within a view in the following order:  
User, GDI, Memory, RAM, Virtual

**Resources in each view: GDI**

If checked, causes the GDI resource vertical usage bar to appear in all future document's views. If not checked, then the resource won't appear.

Checked resources always appear left to right within a view in the following order:  
User, GDI, Memory, RAM, Virtual

**Resources in each view: Memory**

If checked, causes the Memory resource vertical usage bar to appear in all future document's views. If not checked, then the resource won't appear.

Checked resources always appear left to right within a view in the following order:  
User, GDI, Memory, RAM, Virtual

**Resources in each view: RAM**

If checked, causes the RAM resource vertical usage bar to appear in all future document's views. If not checked, then the resource won't appear.

Checked resources always appear left to right within a view in the following order:  
User, GDI, Memory, RAM, Virtual

**Resources in each view: Virtual**

If checked, causes the Virtual resource vertical usage bar to appear in all future document's views. If not checked, then the resource won't appear.

Checked resources always appear left to right within a view in the following order:  
User, GDI, Memory, RAM, Virtual

**View: Restore defaults**

Pressing this button restores the dialog box options to the state that the program was shipped in.

**View: OK**

Saves your changes (if any) to the program's INI file and immediately alters the operation of the program.



**View: Cancel**

Disregards any changes that you made in this dialog box.

### **Start command (Actions menu, System menu, & Toolbar)**

Selecting this command tells the active document to start monitoring your system resources.

Note that when **SuperMonitor** is minimized (as an icon) you can access its system menu and perform a variety of useful commands (Stay on Top, Start, Stop, etc.) without having to maximize **SuperMonitor**, issue the command, and then re-minimize it.

#### **Shortcuts**

Mouse: Click this button to start the active document.



## **Stop command (Actions menu, System menu, & Toolbar)**

Selecting this command tells the active document to stop monitoring your system resources.

If the document was logging data to disk, this command stops the logging, and closes the disk file.

Note that when **SuperMonitor** is minimized (as an icon) you can access its system menu and perform a variety of useful commands (Stay on Top, Start, Stop, etc.) without having to maximize **SuperMonitor**, issue the command, and then re-minimize it.

### **Shortcuts**

Mouse: Click this button to stop the active document.



## **Reset command (Actions menu, System menu, & Toolbar)**

Selecting this command tells the active document to stop monitoring your system resources and then resets the document's data.

Note that when **SuperMonitor** is minimized (as an icon) you can access its system menu and perform a variety of useful commands (Stay on Top, Start, Stop, etc.) without having to maximize **SuperMonitor**, issue the command, and then re-minimize it.

### **Shortcuts**

Mouse: Click this button to reset the active document.



## **Restart command (Actions menu, System menu, & Toolbar)**

Selecting this command tells the active document to stop monitoring your system resources, resets the document's data, and then starts again.

Note that when **SuperMonitor** is minimized (as an icon) you can access its system menu and perform a variety of useful commands (Stay on Top, Start, Stop, etc.) without having to maximize **SuperMonitor**, issue the command, and then re-minimize it.

### **Shortcuts**

Mouse: Click this button to restart the active document.



**New Instants Window command (Window menu)**

This command opens a new Instants view for the active document. Only one view of this type may be opened per document.

**New Averages Window command (Window menu)**

This command opens a new Averages view for the active document. Only one view of this type may be opened per document.

### **New Minimums Window command (Window menu)**

This command opens a new Minimums view for the active document. Only one view of this type may be opened per document.



**Cascade command (Window menu)**

Cascades (overlaps) all views of all documents on your screen.

**Tile command (Window menu)**

Tiles (displays side-by-side) all views of all documents on your screen.

**Arrange Icons command (Window menu)**

Arranges all iconic views on your screen.

## **Contents command (Help menu)**

Use this command to display the opening screen of Help. From the opening screen, you can jump to step-by-step instructions for using this program and various types of reference information.

Once you open Help, you can click the Contents button whenever you want to return to the opening screen.

## **Search for Help on... command (Help menu)**

Use this command to search for help on a topic or keyword of your choosing.

## **Using Help command (Help menu)**

Use this command for instructions about using Help.

## **Product Support command (Help menu)**

**SuperMonitor** is NOT free. Unregistered evaluation versions may be freely shared. Registered, purchased versions may NOT be shared. Unregistered versions are limited to 3 minutes of consecutive monitoring per document. Purchased versions are fully functional.

Site licenses and quantity discounts are available upon request. Feel free to contact us for a complete description of all of TNT's 35 programs in the collection.

Tessler's Nifty Tools (TNT) Release 5.0  
430 Canyon Woods Place Suite A  
San Ramon, Ca. 94583  
(510) 244-5449

CompuServe: 71044,542  
Internet: 71044.542@compuserve.com

More information on using this program may be found in the SuperMon.Doc or SuperMon.Txt files...

### **About command (Help menu & System menu)**

Use this command to display the copyright notice and version number of your copy of this program.



## **Installation and removal instructions**

### **To install:**

Copy the following files to any single area of your PC's disk:

- SuperMon.exe
- SuperMon.hlp
- Super32.dll

A typical destination might be: C:\TNT\SUPERMON

### **To uninstall:**

Delete the above files along with SuperMon.ini from your Windows directory (typically c:\windows).

## Monitoring your system resources

**SuperMonitor** can monitor your system's USER, GDI, Memory, RAM, and Virtual memory resources. You can customize your views to show precisely the resources that you are interested in. See [Views command \(Option menu\)](#) for more information.

**SuperMonitor** can display the following resource information each within its own view window:

- Instantaneous resource usage (in percent free) of your system.
- Average resource usage (in percent free) of your system.
- Minimum resource usage (in percent free) of your system.

Each view displays the resources that you chose above.

[USER resource](#)

[GUI \(Graphics Device Interface\) resource](#)

[Memory resource](#)

[RAM resource](#)

[Virtual resource](#)

**USER resource:**

This is a 64 KByte resource that includes handles to windows and menu objects, etc.

The System Resources number reported by Program Manager's Help About dialog box reports the lower of the USER and GUI resources currently available.

**GUI (Graphics Device Interface) resource:**

This is a 64 KByte resource that includes handles to brushes, pens, bitmaps, device contexts, and regions, etc.

The System Resources number reported by Program Manager's Help About dialog box reports the lower of the USER and GDI resources currently available.

**Memory resource:**

This is the summation of real physical memory and virtual memory which is your swap file located on your fixed disk.

**RAM resource:**

RAM (random access memory) is the physical memory chips installed in your PC. Real physical memory is significantly faster than virtual disk based memory. In systems that don't have enough physical memory installed, Windows must swap programs in and out of real memory and into the virtual memory which slows down your applications.

**SuperMonitor** is ideal for users and PC administrators need to determine how much physical memory to purchase for the user's PC. Simply monitor the RAM and Virtual resources!

**Virtual resource:**

This is pseudo memory that Windows creates from your disk swap file in 386-enhanced mode. Programs don't actually execute in virtual memory. Programs only execute in real physical RAM memory. Programs are swapped to RAM physical memory when they need to execute, and are swapped to virtual memory when Windows is low on RAM physical memory and needs more free RAM physical memory.

## Resource colors and what it all means

**SuperMonitor**'s vertical resource status bars change color based upon their percentage free level. The colors and their meanings are as follows:

<u>Color</u>	<u>% free</u>	<u>Resource condition</u>
Green	60 - 100	Excellent
Yellow	30 - 59	Fair
Red	0 - 29	Critical

Resources that become **red** may cause instability in Windows...



## Reported resource usage accuracy

**SuperMonitor** accurately reports USER, GDI and Memory utilization because Windows provides well-documented resource information to **SuperMonitor**.

In order to compute RAM and Virtual memory utilization, **SuperMonitor** must resort to using poorly documented Windows functions that are not as accurate as they should be.

**SuperMonitor's** Memory free value will not be the same as Program Manager's Help About memory free number because **SuperMonitor** uses a more accurate algorithm than Program Manager uses. Usually, **SuperMonitor** and Program Manager will have very similar answers.

**SuperMonitor** usually reports 100% accurate resource utilization numbers, but occasionally its RAM and Virtual answers are off by 1-5% by stating that you are using more memory than you actually using. This small error should be insignificant in your assessment of your PC's resource usage.

Since Memory is the summation of RAM plus Virtual memory, you would think that your RAM and Virtual resources would precisely add up to the size of your Memory resource. This isn't exactly true. Since Memory, RAM and Virtual resources all use different algorithms with different computational precisions, Memory approximately equals RAM plus Virtual memory.

If Microsoft improves their functions, we will immediately incorporate them into **SuperMonitor** and will notify you of the upgraded product. Thank you for understanding...

Keep in mind that both **SuperMonitor's** and Program Manager's Memory free number (and SuperMonitor's RAM free number) is memory/RAM that is available to Windows programs after Windows has finished loading any device and LAN drivers (VxDs). If you think SuperMonitor has incorrectly reported your memory/ram, you have probably forgot to subtract any RAM used by any disk caching software (like SmartDrv), RAM disk memory, DOS memory resident software, and memory used by Windows device drivers in your computation...

## Evaluation program limitations

Evaluation versions of **SuperMonitor** are fully functional except that each document is limited to five consecutive minutes of system resource monitoring. After five minutes, **SuperMonitor** will automatically stop the document. The document can not be restarted. You may however, open a new document and monitor your system for another five minutes. You may freely share unregistered evaluation versions of **SuperMonitor**.

Remember! Purchased **SuperMonitor** programs are not limited in any way. You may not share purchased copies of **SuperMonitor**.

### **Scan system every N milliseconds**

Determines how often **SuperMonitor** will attempt to monitor your system's resources.

In order to "catch" resource allocation "spikes", we recommend that you monitor your system every 50 milliseconds. Slow PCs may not be able to monitor every 50 milliseconds, but will automatically monitor as fast as possible.

### **Update display after N consecutive scans**

Determines how often **SuperMonitor** will update its display with current resource usage statistics. To reduce **SuperMonitor** processor overhead on your PC's CPU, we recommend that you update your display as infrequently as possible. If you only need to see updated statistics every one second, don't update more frequently. At 50 milliseconds, sample rate, the default display update after 18 scans is equal to approximately once every second ( $18 * 50 = 900$  msec).

### **Log to disk after N consecutive scans**

Determines how often **SuperMonitor** will write a snapshot of your system's resource utilization to your disk log file. The less frequent you write to disk, the smaller your log file will be. At 50 milliseconds, sample rate, logging to disk after 18 scans is equal to approximately once every second ( $18 * 50 = 900$  msec).

Remember: You must enable logging to disk through the [Options](#) dialog box.

**Rates: OK**

Saves your changes (if any) to the program's INI file and immediately alters the operation of the program.

**Rates: Cancel**

Disregards any changes that you made in this dialog box.

**Rates: Restore defaults**

Pressing this button restores the dialog box options to the state that the program was shipped in.



**Log (save) data to disk**

Checking this box enables logging of system resource usage to a disk file. The name of the disk file is the name of the document. To change the name of the log file, rename your document via the [Save As](#) command.

### **Save to disk via: Fast writes**

Select this option for fast disk writes. If your Windows session crashes while you happen to be logging to disk, your **SuperMonitor** log file will most likely be empty and your collected data will be lost. For safer but slower logging, see [Save to disk via: Slow writes](#) .

### **Save to disk via: Slow writes**

Select this option for slow (safe) disk writes. If your Windows session crashes while you happen to be logging to disk, your **SuperMonitor** log file will most likely still contain your data.

Only use this option if you have Windows stability problems. **Slow writes** significantly slows down your data logging rate. For faster but less safe logging, see [Save to disk via: Fast writes](#) .

**Include log file name and time stamp**

Check this box to include the name of the log time and the date and time of its creation at the top of your log file.

**Include installed memory summary**

Check this box to include a summary of the amount of memory in your system at the top of your log file.

**Include field headers**

Check this box to include descriptions of the data fields that will appear in your log file. These descriptions help you understand the columns of data that you are analyzing.

**Data delimiter: Commas**

Select this option for a comma delimited log file. When importing this file into your spreadsheet, tell your spreadsheet that the delimiter is a comma.

**Data delimiters: Spaces**

Select this option for a space delimited log file. When importing this file into your spreadsheet, tell your spreadsheet that the delimiter is a space.



**Data delimiters: Tabs**

Select this option for a tab delimited log file. When importing this file into your spreadsheet, tell your spreadsheet that the delimiter is a tab.

**Save in units of: Bytes**

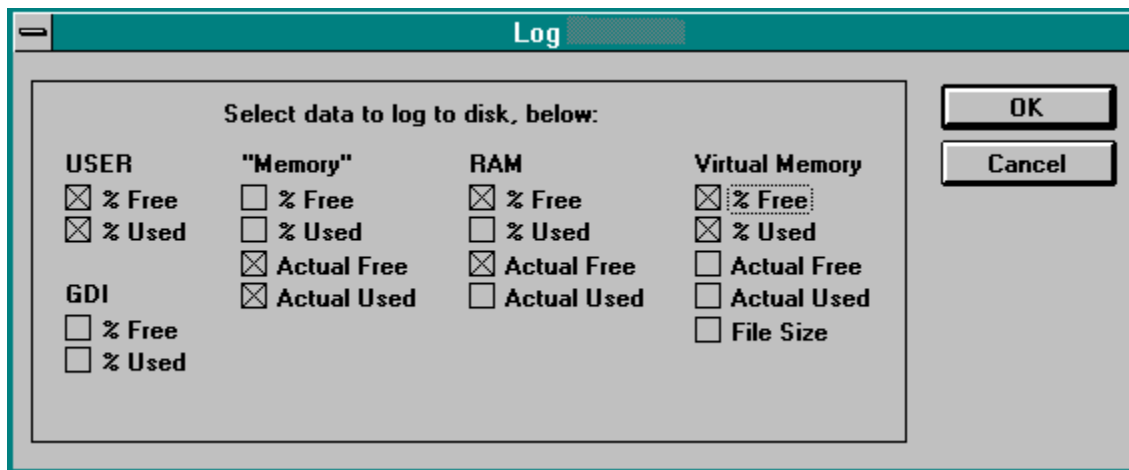
Select this option when you need a high degree of accuracy in your data. This high degree of accuracy significantly increases the size of your log file. Since most people don't need this precision, don't use it unless you need it. The data is reported in units of bytes -like 16462643 rather than in megabytes which would be 15.7 .

**Save in units of: MBytes**

Select this option when you need a less accurate reporting of your data. This setting is best for most people. The data is reported in units of megabytes -like 15.7 rather than in bytes which would be 16462643.

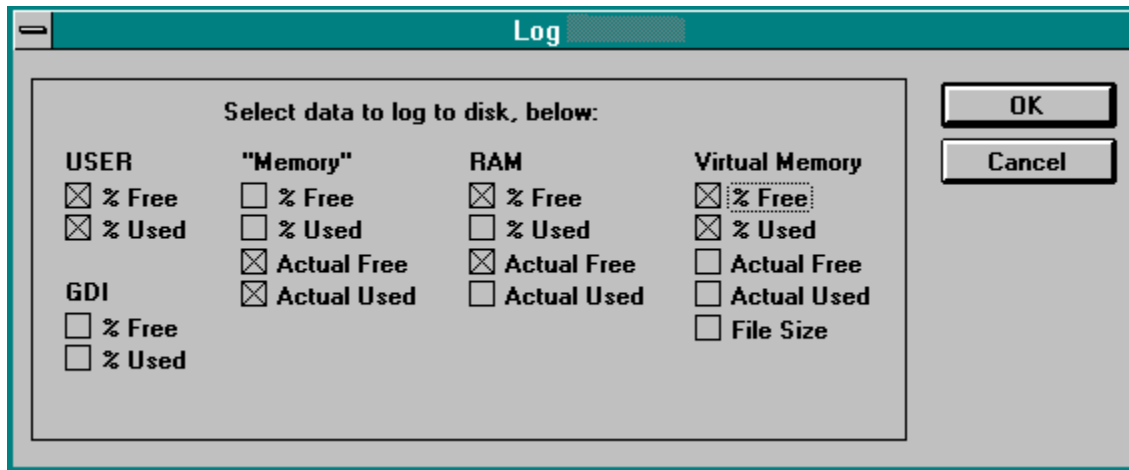
### What to save: Instants

Brings up the Instants resource data fields dialog box where you may choose which fields to actually log to disk.



## What to save: Averages

Brings up the Averages resource data fields dialog box where you may choose which fields to actually log to disk.

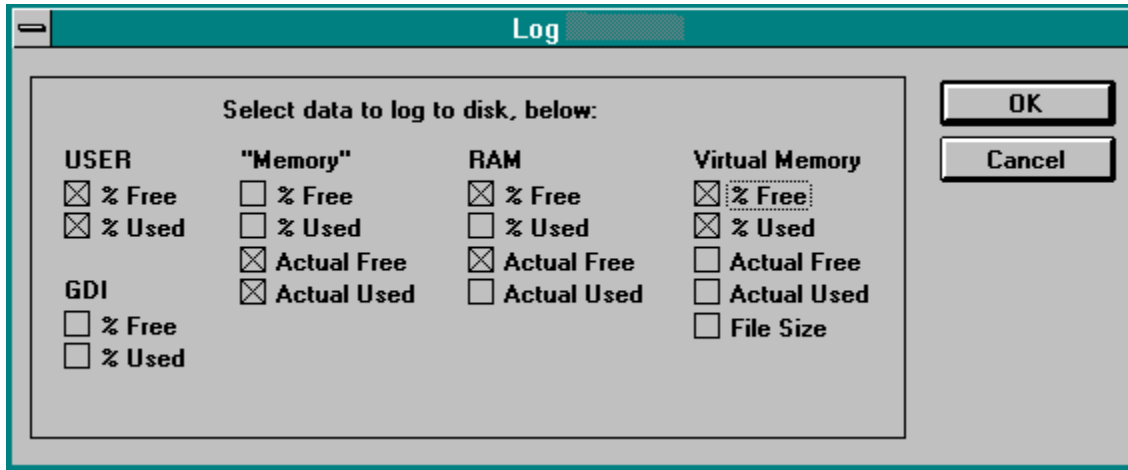


The image shows a dialog box titled "Log" with a teal header bar. Inside the dialog, there is a section titled "Select data to log to disk, below:" which contains four columns of checkboxes. The columns are labeled "USER", "'Memory'", "RAM", and "Virtual Memory". The "Virtual Memory" column has a dotted border around its first checkbox. To the right of the selection area are two buttons: "OK" and "Cancel".

USER	"Memory"	RAM	Virtual Memory
<input checked="" type="checkbox"/> % Free	<input type="checkbox"/> % Free	<input checked="" type="checkbox"/> % Free	<input checked="" type="checkbox"/> % Free
<input checked="" type="checkbox"/> % Used	<input type="checkbox"/> % Used	<input type="checkbox"/> % Used	<input checked="" type="checkbox"/> % Used
	<input checked="" type="checkbox"/> Actual Free	<input checked="" type="checkbox"/> Actual Free	<input type="checkbox"/> Actual Free
	<input checked="" type="checkbox"/> Actual Used	<input type="checkbox"/> Actual Used	<input type="checkbox"/> Actual Used
<b>GDI</b>			<input type="checkbox"/> File Size
<input type="checkbox"/> % Free			
<input type="checkbox"/> % Used			

## What to save: Minimums

Brings up the Minimums resource data fields dialog box where you may choose which fields to actually log to disk.



The image shows a dialog box titled "Log" with a teal header bar. Inside the dialog, there is a section titled "Select data to log to disk, below:" containing four columns of resource data fields. Each field consists of a checkbox followed by the field name. The fields are:

USER	"Memory"	RAM	Virtual Memory
<input checked="" type="checkbox"/> % Free	<input type="checkbox"/> % Free	<input checked="" type="checkbox"/> % Free	<input checked="" type="checkbox"/> % Free
<input checked="" type="checkbox"/> % Used	<input type="checkbox"/> % Used	<input type="checkbox"/> % Used	<input checked="" type="checkbox"/> % Used
	<input checked="" type="checkbox"/> Actual Free	<input checked="" type="checkbox"/> Actual Free	<input type="checkbox"/> Actual Free
	<input checked="" type="checkbox"/> Actual Used	<input type="checkbox"/> Actual Used	<input type="checkbox"/> Actual Used
<b>GDI</b>			<input type="checkbox"/> File Size
<input type="checkbox"/> % Free			
<input type="checkbox"/> % Used			

On the right side of the dialog, there are two buttons: "OK" and "Cancel".

**Log data: OK**

Saves your changes (if any) to the program's INI file and immediately alters the operation of the program.

**Log data: Cancel**

Disregards any changes that you made in this dialog box.



## **Choosing the optimal monitoring, updating, and logging rates**

The following options in the [Log to disk](#) dialog box discuss optimal rates:

[Scan system every N milliseconds](#)

[Update display after N consecutive scans](#)

[Log to disk after N consecutive scans](#)

## **What you want is exactly what you see -customizing your views**

The [Views command \(Option menu\)](#) dialog box discuss viewing exactly what and only what you want to monitor.

## **How to use SuperMonitor's multiple document capabilities to determine exactly how much resources a specific program uses**

Since **SuperMonitor** monitors your overall system resources at any moment in time, you might think that its impossible to determine the exact resource requirements of a specific program. Well, you're wrong!

By opening multiple documents and starting multiple monitoring sessions, you can precisely determine any program's resource requirements by performing the following steps:

1. Open a new document and for the sake of this example, call it BaseDoc1.
2. Command BaseDoc1 to start monitoring.
3. Command BaseDoc1 to stop monitoring. This document's views now show baseline resource levels before running your program.
4. Open another new document and for the sake of this example, call it Doc2.
5. Command Doc2 to start monitoring.
6. Execute your program and use it for as long as you wish.
7. When you are ready to terminate your program, stop Doc2 from monitoring.
8. Exit your program.

The exact resources that your program required may be determined by subtracting Doc2 values from BaseDoc1 (for example, if BaseDoc1 had 75% GDI free, and Doc2 had 70% GDI free, then your program required  $75 - 70 = 5\%$  **GDI**). Cool!

## Windows 95 and Windows NT issues

Windows 95 resource usage more closely mirrors Windows NT than Windows 3.1 !

In Windows 3.1, your "Memory" resource was defined as an approximate summation of the available memory in RAM and in virtual memory (swap file). Per Microsoft, in Windows 95 and NT, the "Memory" resource is now the amount of memory available in the global heap. Don't expect to see the same "Memory" free values in Windows 95 and NT as you often saw in Windows 3.1 .

Windows 95 "grabs" a significant amount of your RAM for caching of its components. It is typical for **SuperMonitor** to report as little as 10-30% of RAM free (on a 16 MByte system) because of Windows 95's caching. Windows 95 will release some of its cached components and thus free up some RAM when an application program needs more RAM. When this happens, you will see **SuperMonitor's** percentage RAM free increase!

In Windows 3.1, the virtual memory (swap file) was fixed in size. In Windows 95, you can either choose to have a fixed size swap file or let Windows 95/NT manage your swap file. In Windows NT, it is always variable. If you let Windows 95 manage your swap file, the size of your swap file is equal to the amount of free disk space on your hard disk. Windows 95/NT will shrink the swap file when another application needs more disk space. If you are using dynamic swap file sizing, and are logging your swap file usage percentages rather than the actual bytes used to disk, you might want to include the size of the swap file in your log file so that your percentages can reference the size of the swap file at the time of the data sampling.

## **Supported Windows operating systems**

**SuperMonitor** accurately reports resource usage under Windows 3.1, Windows For Workgroups 3.11, Windows 95 and Windows NT. **SuperMonitor** automatically detects which Windows operating system it is executing under and adjusts it's resource monitoring algorithms to always give you the most accurate answers.

## Icon issues and the /i command line option

Since Windows 3.1n supports dynamically changing icons for its minimized applications, **SuperMonitor** (when executed under Windows 3.1) automatically uses dynamic icons that contain vertical resource usage bars.

Since Windows 95 does not support dynamically changing icons for its minimized applications, **SuperMonitor** (when executed under Windows 95) automatically uses static icons.

Since Windows NT will soon be receiving the same user interface look and feel of Windows 95, **SuperMonitor** automatically uses static icons.

You may force **SuperMonitor** to use dynamic icons by appending a **/i+** to the end of **SuperMonitor's** command line. E.g. **SuperMonitor.exe /i+**

You may force **SuperMonitor** to use static icons by appending a **/i-** to the end of **SuperMonitor's** command line. E.g. **SuperMonitor.exe /i-**

This command line option is useful for Windows NT users who want dynamic icons and realize that once Windows NT gets the new Windows 95 GUI, they'll have to forgo dynamic icons and remove the **/i+** option from their **SuperMonitor** command line.

## How SuperMonitor computes resource levels

**SuperMonitor** uses different algorithms to compute resources when executed under different operating systems...

### Under Windows 3.1n:

**USER & GDI** data is calculated with GetFreeSystemResources() and ToolHelp SystemHeapInfo() functions.

**Memory** data is calculated by examining the global heap.

**RAM** and **Virtual** data is calculated with Win32's MemManInfo() function and a lot of special secret hush-hush knowledge.

### Under Windows 95 and NT:

**USER & GDI** data is calculated with GetFreeSystemResources() and ToolHelp SystemHeapInfo() functions.

**Memory** data is calculated by examining the global heap.

**RAM** and **Virtual** data is calculated with GlobalMemoryStatus and a lot of special secret hush-hush knowledge.

## **A bug is found in Windows 95**

In the process of testing **SuperMonitor** under Windows 95, we discovered a significant bug in Windows 95! Any application that runs minimized (iconic on the TaskBar) under Windows 95 will behave improperly! When Microsoft acknowledges and fixes this bug (we hope in the first upgrade package sometime in 1996), we will release a new version of **SuperMonitor** that works 100% perfectly. Check CompuServe or the InterNet for new versions of **SuperMonitor**.

The bug is as follows: When any program is run "minimized", Windows 95 should tell the application that it is now iconic (as it does in Windows 3. 1 and NT). Instead, it mistakenly tells the application that it is windowed. For **SuperMonitor**, this means that **SuperMonitor** can not always correctly change its iconic title. We get around this bug by opening **SuperMonitor** as a windowed application and then we minimize it. In this manner, we can tell that we have gone iconic. This results in a flash of **SuperMonitor's** main window before it goes iconic.

Once iconic, pulling up **SuperMonitor's** system menu via a right mouse click, and choosing Start or Reset doesn't always update its title. Even though the title isn't correct, the program has indeed started or reset itself. When it is restored to a window, the title and data are always correct.



