SysMeter

SysMeter allows you to monitor some of the memory resources in the Microsoft Windows 3.1 environment. Three graphs show the percentage of free resources available as:

Green when plenty of the resource is available.
Yellow when the resource is low.
Red when the resource is so low that it might affect your system's speed and functionality.

The three graphs in SysMeter are:

USER: Shows the percentage of free USER resource space, which includes handles to objects such as windows and menus.

GDI: Shows the percentage of free GDI resource space, which includes handles to device contexts, brushes, pens, regions, and bitmaps.

MEMORY: Shows the percentage of free global memory. This represents memory available to Windows programs, and includes physical memory plus swappable memory that Windows stores in its swap file.

From the Control menu in SysMeter, you can choose these additional menu items:

Always On Top: Causes SysMeter to appear on top of other windows at all times.

About SysMeter: Displays a dialog box that identifies this program and its version number.

Help: Displays this SysMeter Help. You can also get help by pressing F1 whenever SysMeter has the current input focus.

SysMeter uses TOOLHELP.DLL, a Windows 3.1 dynamic-link library. So you must run Windows 3.1 (or later) in order to run SysMeter.

USER

This is the amount of free USER resource space. This resource space includes <u>handles</u> to objects such as windows and menus.

When this value is low, try closing applications that display a large number of windows or that have complex menus. This may free the USER resource space you need.

If resources are low and remain low after you close all applications except Program Manager, then you might have a "badly behaved" application that is not releasing resources properly.

The "System Resources" value in the Program Manager Help About dialog box shows the lower value of USER and GDI resources available.

GDI

This is the amount of free GDI resource space, which includes handles to <u>device contexts</u>, <u>brushes</u>, <u>pens</u>, <u>regions</u> and <u>bitmaps</u>. GDI is an abbreviation for graphics device interface, which provides the internal tools that applications use to present information visually.

When this value is low, try closing applications that display complex toolbars or that perform intense graphical operations. This may free the GDI resource space you need.

If resources are low and remain low after you close all applications except Program Manager, then you might have a "badly behaved" application that is not releasing resources properly.

The "System Resources" value in the Program Manager Help About dialog box shows the lower value of USER and GDI resources available.

MEMORY

This is the amount of free global memory available to applications.

Windows can actually allocate more memory than your system physically has installed. Windows does this by maintaining a swap file on the hard disk, which allows you to run more applications than you would otherwise be able to. Memory is swapped in and out of the swap file when applications request access to it. Idle applications are swapped out to disk, and therefore do not affect the memory usage and requirements of applications currently running.

However, if you access applications whose combined memory requirements are greater than your system's physical memory, then memory will be constantly swapped in and out of the swap file. Such memory swapping is time consuming and slows the overall performance of Windows.

When the value for free global memory is low, try closing applications that you don't need to run at this moment.

If memory is low and remains low after you close all applications except Program Manager, then you might have a "badly behaved" application that is not releasing resources properly.

Handle
The internal Windows identifier for an object, which is a collection of data that, for example, defines a part of the user interface. A handle is similar to a file handle in conventional MS-DOS programs.

Device Context
A data structure that identifies the display device such as a printer or video display. For a video display, the device context is usually associated with a specific window. Windows uses values from the device context plus GDI functions to display information. Also called a display context, or DC.

Brush
A GDI object that Windows uses to fill an area with a solid color or a pattern. A device context can only use one brush at a time.

Pen
A GDI object that Windows uses to draw a line in a specific style, width, and color. Only one pen is selected at a time.

Region
A GDI object that describes an area of the display that is a combination of rectangles, polygons, and ellipses. An application uses a region for drawing by selecting the region into the device context.

Swap file
A hidden file on a hard disk that Windows uses to store information that it has temporarily swapped from active memory. Windows can swap memory to a swap file for Windows applications only when running in 386 enhanced mode. Windows also swaps memory to a swap file whenever you run non-Windows applications in either standard mode or 386 enhanced mode.

Bitmaps
A GDI object that provides storage for pixel oriented pictures (as might be created with PaintBrush). An application will use bitmaps for displaying fancy images, icons, or other types of pictures.