

dMon v 1.21

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1 Introduction

dMon is a system monitoring device for programmers and others who want to know what system resources are available/being consumed by their Windows applications. **dMon** measures six things: GDI heap space, User heap space, memory, number of tasks running, number of timers used, and available disk space on any number of drives.

dMon lets you set upper and lower limits for each of the things it measures, warning you when they (the limits) are breached.

dMon has been tested on Compaq 386/20e, 386s and Portable 386 machines as well as a small number of clones.

dMon is a medium model C program written using the Windows SDK and Microsoft C compiler v5.1. Three named code segments are used in order to keep memory requirements down.

This document was written with Microsoft Write and is intended for printing on a Laserjet III using Helvetica 10 point.

2 Installation

To install **dMon** simply copy the file **dMon.exe** into any directory on your path. **dMon** will create it's own .ini file (**dMon.ini**) in your Windows directory and **will not touch your Win.ini file**.

3 What it Monitors

User and GDI Heap Space:

The Windows API is administered to applications through three system libraries, User, GDI and Kernel. The first two of these each have a single data segment of 64kb allocated at start up. These data segments are used for Windows static data items and heap space, in practice 60-63kb is available per library for heap space. When a library runs out of heap, it is unable to satisfy requests and fails. The GDI library handles (as its name suggests) all Graphics Device Interface calls, the User library handles Window Manager type calls and the Kernel handles the rest.

By using an undocumented library call (published by one of the kind souls on CIX) **dMon** is able to monitor the available free heap space for the User and GDI libraries. **dMon** returns the figures as percentages of respective heap size.

The 'Free resources' figure supplied by the Program Manager About function is the minimum of the two percentage figures.

Memory:

dMon monitors the amount of memory available to Windows.

Tasks:

Windows is a multi-tasking environment; it enables more than one process (task) to run apparently at the same time by swapping them in and out of main memory and switching process control to them. **dMon** lets you monitor how many tasks are running at once.

Timers:

Timers are an agreement between Windows and an application for messages to be passed by Windows to the application with a fixed period (eg every 5 seconds). Programs use times for a variety of things - the clock uses one to tell time, Tetris uses one to make the blocks fall at constant speed, Windows itself uses one whenever you open the Program Manager File Run option (no, I don't know why either). There are only 16 timers available, **dMon** helps you use them wisely.

Disk Space:

dMon lets you monitor available disk space on any or all disks.

NB the shareware version will not monitor disk space on Network or removable (floppy) drives. This feature is available in the registered version.

4 Display

dMon displays available system resources in a window or when iconised. Pressing the Escape key or right-clicking the display area while in a window makes it change to an icon.

In a window, **dMon** shows each of the things it measures as a bar-chart. As an icon **dMon** only has room to display one measure at a time - right clicking will advance to the next measure (or choose the Advance Display option on the system menu).

dMon can be configured to 'stay on top' as an icon or a window.

dMon will automatically size itself to accommodate bar-charts for all the items you wish to monitor.

dMon will note the size and position of its window when it exits and use that size when it is next run.

5 Limits and Colours

dMon can be configured to warn you when it detects a breach of the user-supplied limits. Warnings can consist of (at your option) a beep, a message box or 'jumping to the top'.

The colours used by **dMon** for the bar charts can be altered; this should enable users of portables or other monochrome screens to generate usable graphs.

6 How to pay for/register dMon

This version of **dMon** is ShareWare. You may use it for a period of 21 days for the purpose of evaluation only. If you decide to use it 'for real' you must register it. Please do so, I enjoy writing this stuff but it is still my living. Use of this program in a business environment, for or by a business requires a site license; these aren't expensive either so drop me a line and we can talk about it - customisation, source code, support etc ... can be arranged.

You may copy this program and give it to others provided you include this documentation and alter neither.

Registered copies of **dMon** version 1.21 are available for £10 including floppy disk (add £5 if registering from outside the United Kingdom). Please include your name, address, and floppy disk format. See below for my address. Make cheques payable to Andrew Walsh.

Server licenses for **dMon** version 1.21 are available for £75 including floppy disk (add £5 if registering from outside the United Kingdom). Please include your name, company name, company address, and floppy disk format. See below for my address. Make cheques payable to Andrew Walsh.

Note that registered users will receive the latest version with all features enabled.

7 How to contact me

Whether or not you register this software, I would be glad to receive any comments, suggestions or bug reports - if you want **dMon** to monitor something else or do it differently, let me know and I'll try to put it in the next release.

I can be contacted via Royal Mail at :

Andrew Walsh
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Royal Victoria Patriotic Building,
London. SW18 3SX.
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or via gorgias@CIX.

8 Liability

The author of this software is not responsible for any damages or loss of data due to the use of or malfunctioning of this program. No warranties are given, either express or implied.

9 The Wandsworth Software Foundation

The Wandsworth Software Foundation believes that PC software should be simple, easy to use and affordable (show us someone who doesn't!). It distributes its products on the ShareWare principle in order to keep costs down; and supplies all documentation as Write files for the same reason. Strenuous efforts are made to keep the software simple to use.

If you've enjoyed **dMon** you might like to look at the other products available from the Wandsworth Software Foundation:

- dAgent:** Provides tools to examine your Windows configuration and aid systems development. £10
- MsgEdit:** An easy to use Windows Email system. £75 (16-user license).
- LockSmth:** Lets you set the status of your numlock, scroll-lock and caps-lock keys on entry to Windows. £2 or free with any other program.
- dFend:** No-frills password protected system lock - prevent others prying into your system whilst you make a cup of coffee. £5.
- dSist:** Exit windows by double clicking on a Program Manager icon. No second chance, no friendly dialog box, just exits. £2 or free with any other program.