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Registered Charity Number 1164952

Errors and error checking in Windows

Let's first of all look at probably the most serious but least common: Total Windows failure

Earlier versions of Windows used to crash much more frequently than they do today, usually accompanied by the very unfriendly Blue Screen of Death (BSOD) shown on the left below, and/or one of the other error messages shown.

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A problem has been detected and Windows has been shut down to prevent damage
to your computer.

The problem seems to be caused by the following file: kbdhid.sys

MANUALLY_INITIATED_CRASH

If this is the first time you've seen this stop error screen,
restart your computer. If this screen appears again, follow
these steps:

Check to make sure any new hardware or software is properly installed.
If this is a new installation, ask your hardware or software manufacturer
for any Windows updates you might need.

If problems continue, disable or remove any newly installed hardware
or software. Disable BIOS memory options such as caching or shadowing.
If you need to use safe mode to remove or disable components, restart
your computer, press F8 to select Advanced Startup Options, and then
select Safe Mode.

Technical Information:

*** STOP: 0x000000e2 (0x00000000, 0x00000000, 0x00000000, 0x00000000)

*** kbdhid.sys - Address 0x94efd1aa base at 0x94efb000 DateStamp 0x4a5bc705
```

```
Windows

Although you can use CTRL+ALT+DEL to quit an application that has
stopped responding to the system, there is no application in this
state.

To quit an application, use the application's quit or exit command,
or choose the Close command from the Control menu.

* Press any key to return to Windows.
* Press CTRL+ALT+DEL again to restart your computer. You will
lose any unsaved information in all applications.

Press any key to continue _
```

```
Windows

An error has occurred. To continue:

Press Enter to return to Windows, or

Press CTRL+ALT+DEL to restart your computer. If you do this,
you will lose any unsaved information in all open applications.

Error: 0E : 016F : BFF9B3D4

Press any key to continue _
```



Your PC ran into a problem and needs to restart.
We're just collecting some error info, and then
we'll restart for you. (0% complete)

If you'd like to know more, you can search online later for this error: BAD_POOL_CALLER

If you'd like to know more, you can search online later for this error: DRIVER_IRQL_NOT_LESS_OR_EQUAL

If you'd like to know more, you can search online later for this error: HAL_INITIALIZATION_FAILED

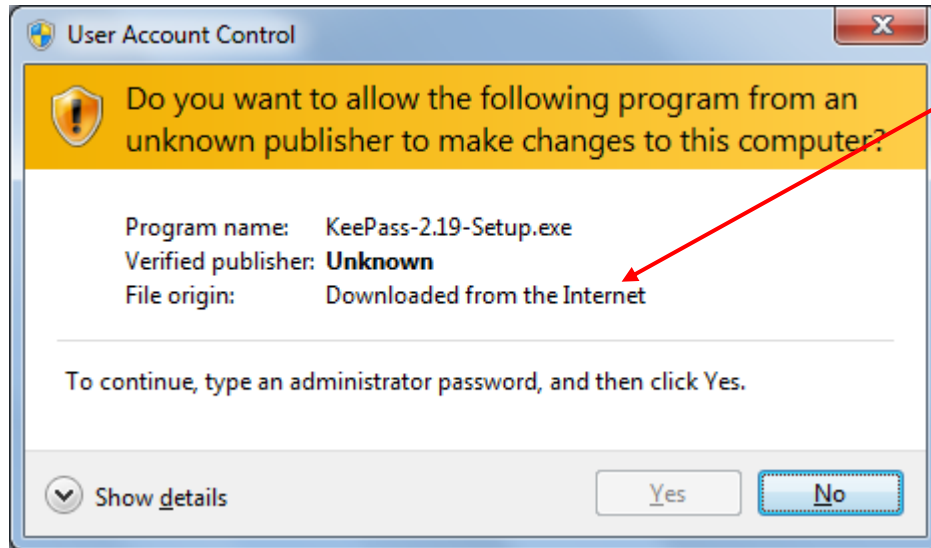
If you'd like to know more, you can search online later for this error: REGISTRY_ERROR

Windows 10 has moved on from there. Apart from anything else the screen is a much friendlier blue and it has a nice emoticon as well! Joking aside, the blue screen in Windows 10 is normally followed by the PC restarting and quite regularly the machine will boot up normally as Windows has adjusted some settings in the background.

It probably doesn't do any harm to make a note of the error details at the bottom of the screen in case the restart fails to solve the problem, but any solutions you find online are likely to be complicated and technical, and may well contradict other suggested fixes. Be warned!

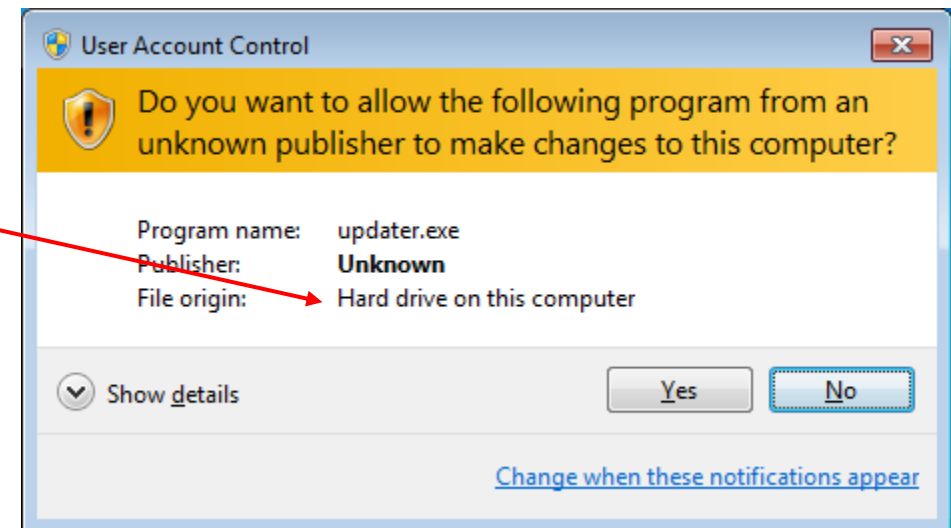
Also be aware that the restart process may take a while.

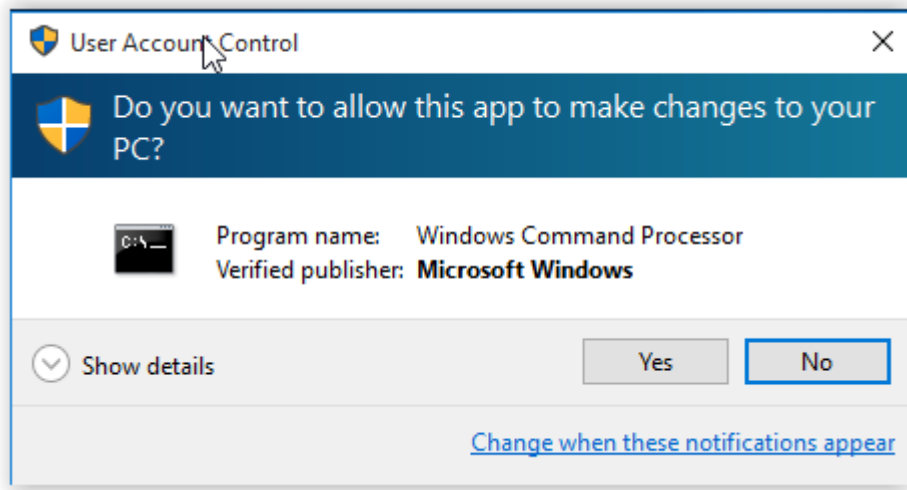
Other errors and warnings are often generated by User Account Control, which is Windows' way of trying to keep you safe, so turn it off at your peril. When a background program tries to do something, Windows will often ask you if you want it to do that.



This program was downloaded, so unless you are absolutely certain that you downloaded it deliberately, and have just clicked on it to start it or make changes, it is probably safer to say "no".

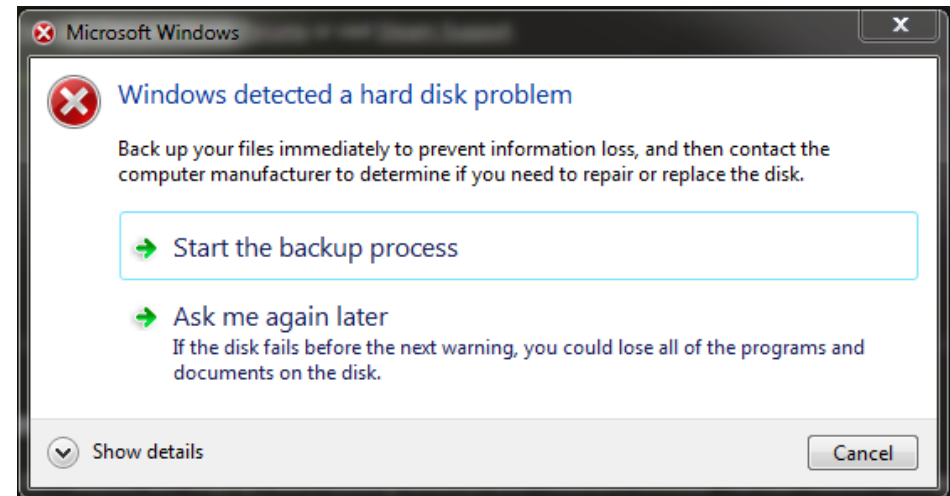
What about this one? It is from the hard drive on your computer, so it must be OK, right? Well, yes, if you are absolutely sure it is a program you installed, rather than a piece of malware.





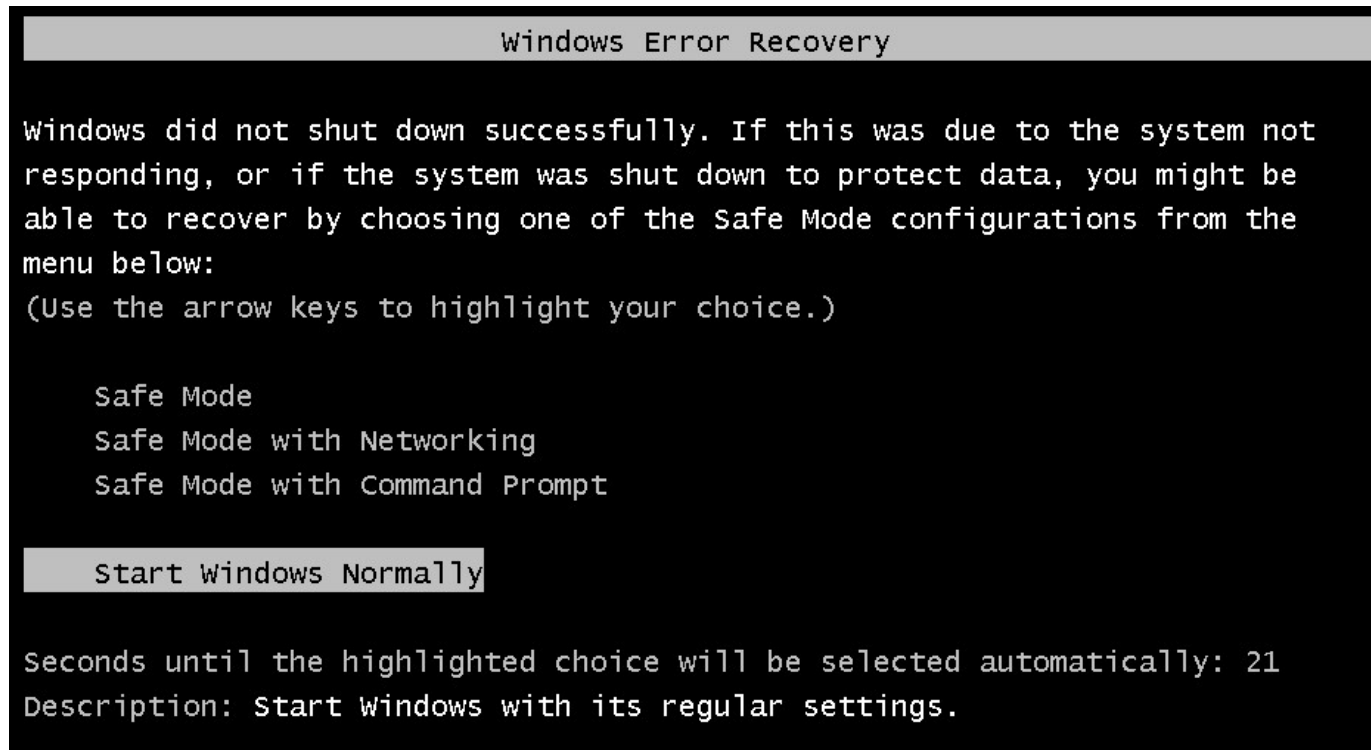
What about this one on the left: it has been verified as being published by Microsoft Windows? Must be safe, mustn't it? Almost certainly yes, but unless you are relying on this program to do something for you NOW, it is perfectly safe to say "no" and use a search engine to find out exactly what "Windows Command Processor" is and does. Then the next time you see this window you will be certain whether or not it is safe.

Ignore messages like the one on the right at your peril! If Windows detects that your hard drive is on the point of failing then thank your God or your lucky stars that it has done so and start backing up your data immediately (to the Cloud, an external hard drive or USB stick). Also forget about the reference to repairing the disk, as a failing or failed hard drive will need to be replaced.



But what if things just stop working without any error message?

The first resort in Windows is always to do a hard reboot. This means you should re-start Windows, but not by the usual method of Start Button/Power/Restart. Instead close any open programs (unless they too are not responding) and press the physical power button on your computer and hold it down until the screen goes black and the hard drive powers down. Leave it for a minute then start the device normally. You may occasionally get the screen shown below but it is usually fine to select “Start Windows Normally” the first time. Use the up and down arrow keys on your keyboard to change the highlighted choice.



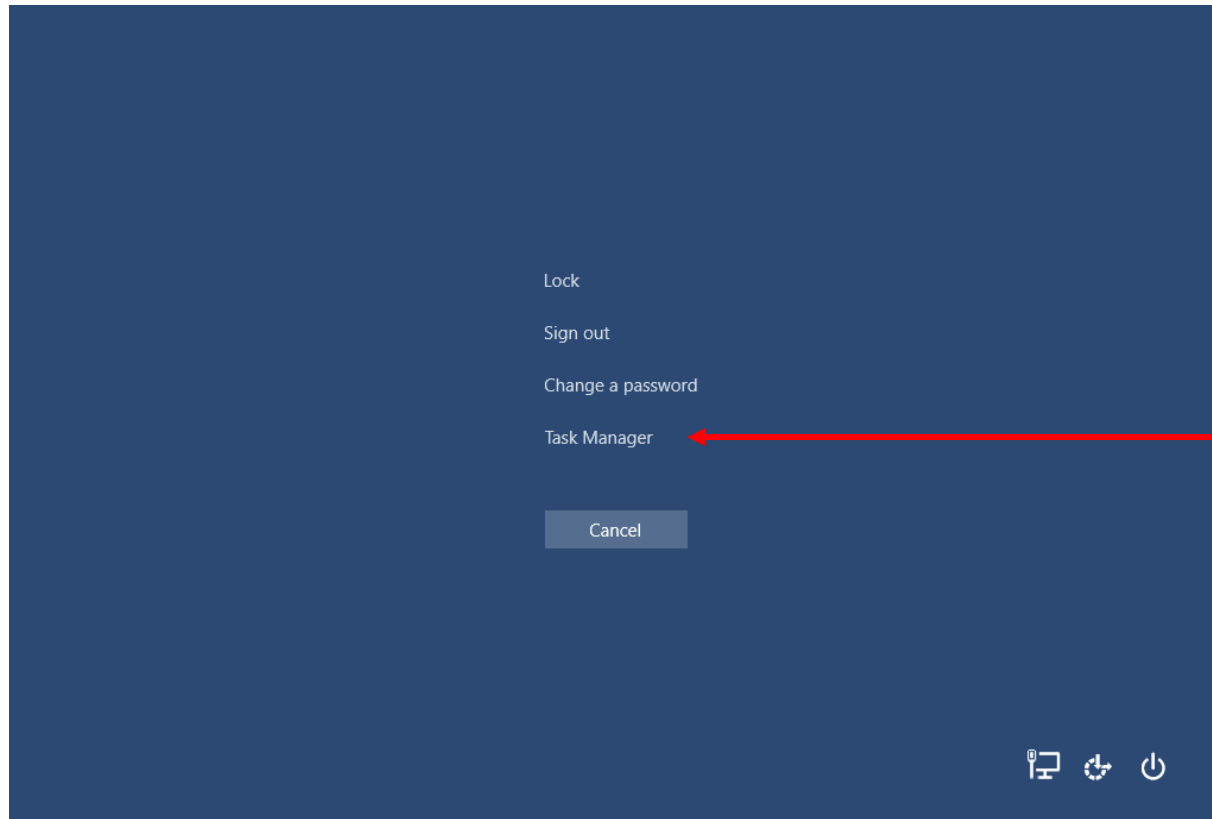
If Windows stubbornly refuses to start normally, “Safe Mode with Networking” is probably the next best, as it will limit programs but still allow you to go online to search for answers.

What if your computer is working well apart from a single program?

In the first instance it is probably worth closing and restarting the problem program. Use one of these methods:

1. Close the program as normal by clicking the cross in the top right corner. Failing that,
2. Right-click the program's icon on the taskbar and click "Close window". If that does not work, open the Task Manager as shown below.

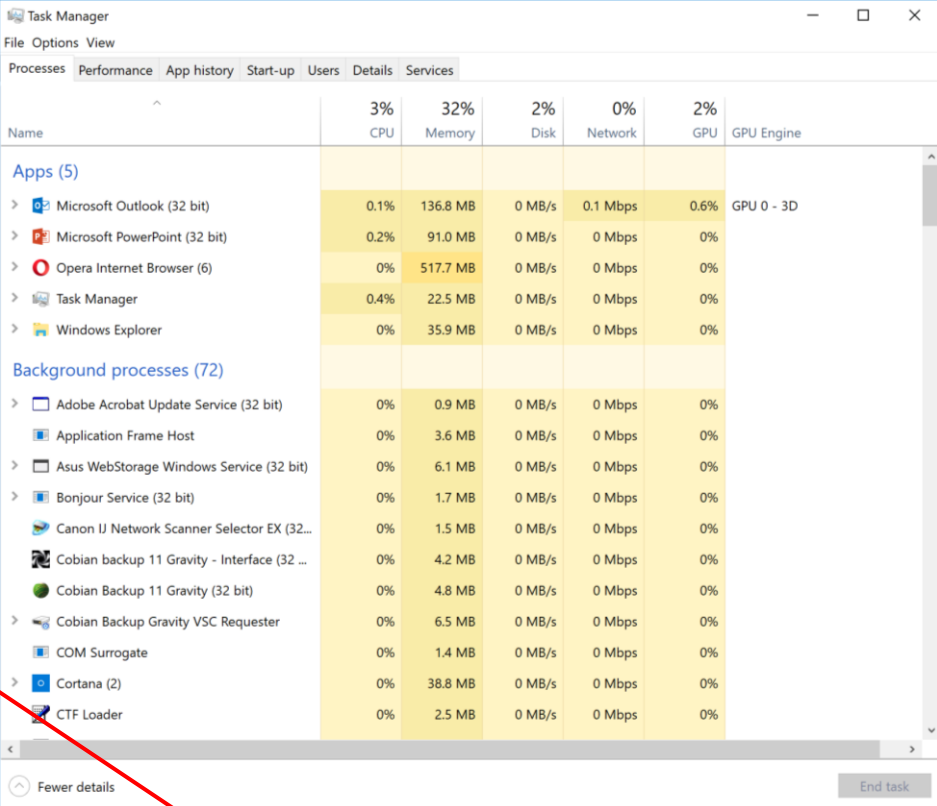
Press the Ctrl, Alt and Delete keys simultaneously to open this screen:



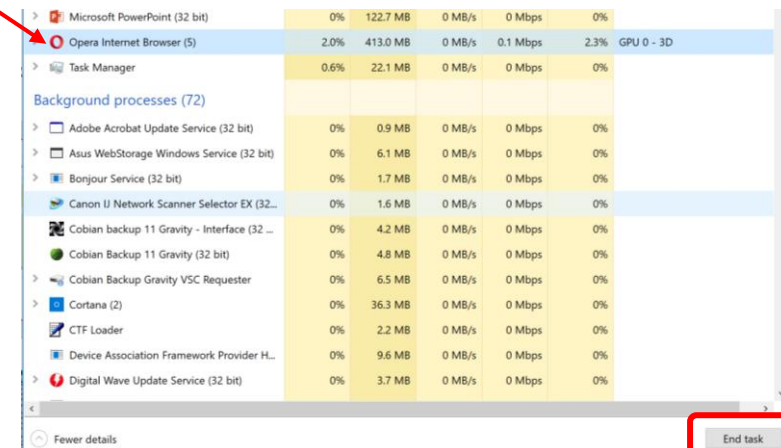
Click on "Task Manager" to open the screen shown on the next slide.

The Task Manager window (which should open with the “Processes” tab open) shows all programs which are open, whether active or not, together with the background processes running. Normally the misbehaving program will be visible near the top of the screen in the “Apps” section and can be closed by clicking on it to highlight it then on the “End task” button at the bottom right of the window.

Occasionally, however, the problem program has closed but left a part of itself behind. In this case it is necessary to find that part in the “Background processes” section of the screen. If nothing there looks remotely like the name of the faulty program (for example *outlook.exe* is the background process for Microsoft Outlook), then rather than doing anything of which you are unsure it is probably safest to exit Task Manager, close any other open programs, and restart Windows normally.

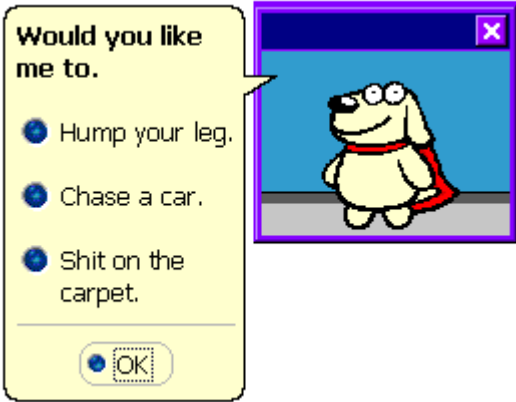
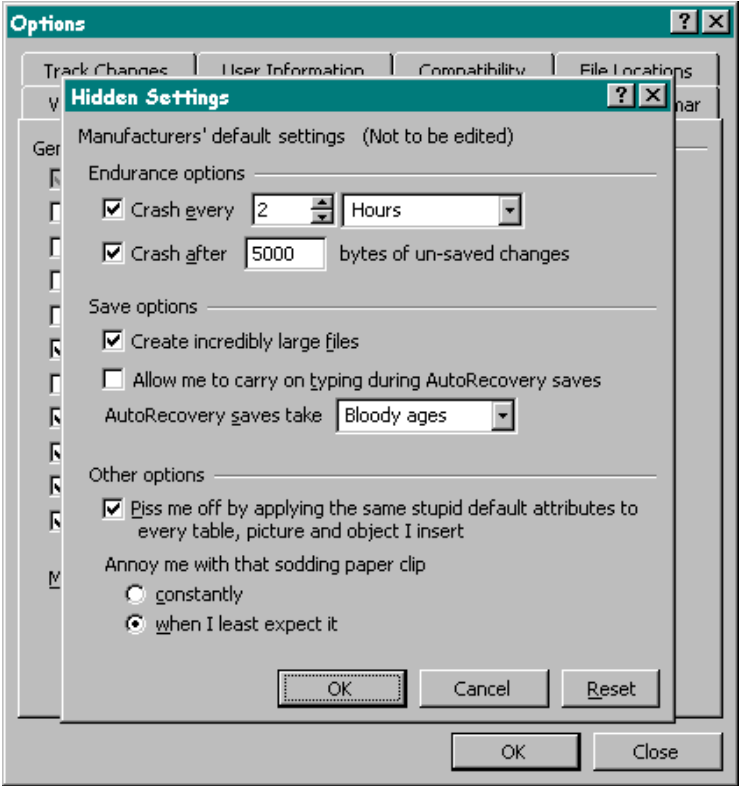
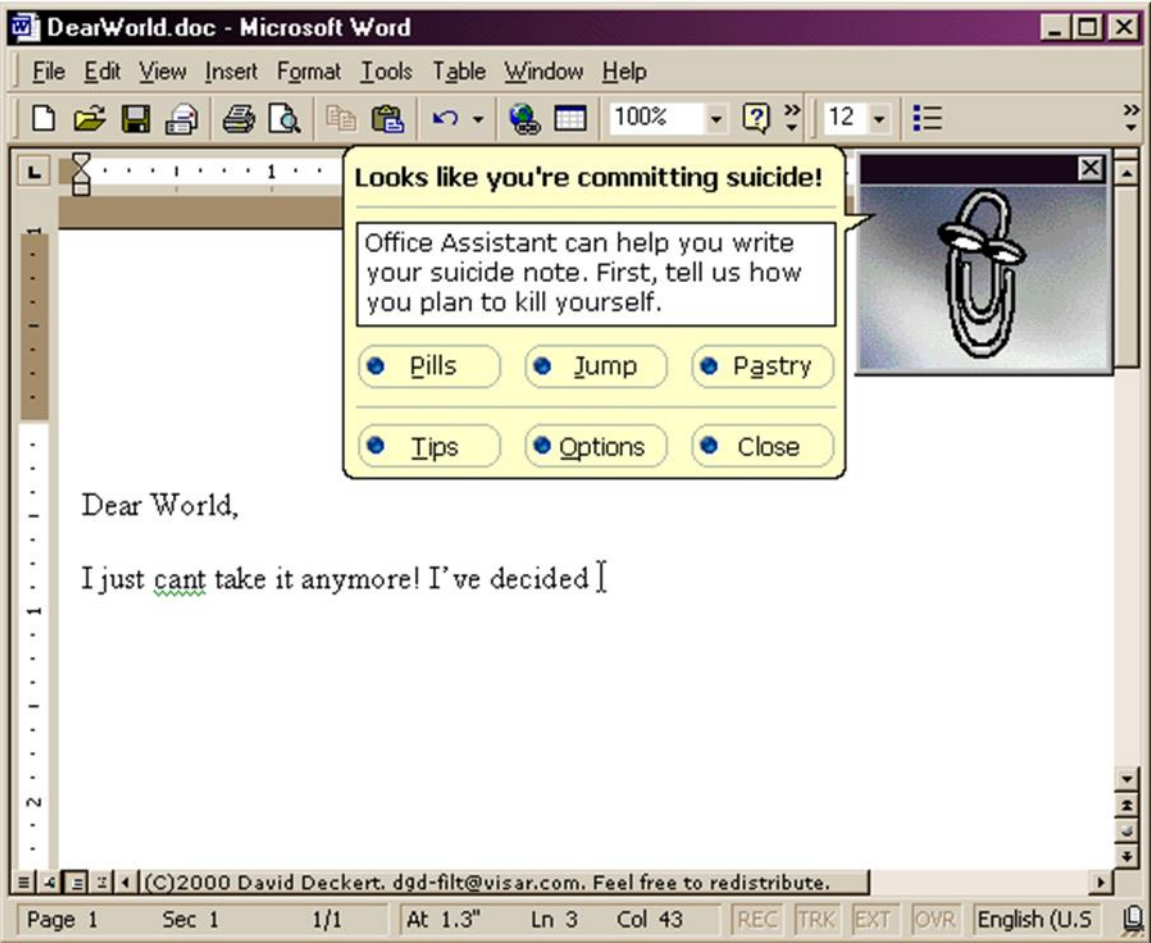


Name	3% CPU	32% Memory	2% Disk	0% Network	2% GPU	GPU Engine
Apps (5)						
Microsoft Outlook (32 bit)	0.1%	136.8 MB	0 MB/s	0.1 Mbps	0.6%	GPU 0 - 3D
Microsoft PowerPoint (32 bit)	0.2%	91.0 MB	0 MB/s	0 Mbps	0%	
Opera Internet Browser (6)	0%	517.7 MB	0 MB/s	0 Mbps	0%	
Task Manager	0.4%	22.5 MB	0 MB/s	0 Mbps	0%	
Windows Explorer	0%	35.9 MB	0 MB/s	0 Mbps	0%	
Background processes (72)						
Adobe Acrobat Update Service (32 bit)	0%	0.9 MB	0 MB/s	0 Mbps	0%	
Application Frame Host	0%	3.6 MB	0 MB/s	0 Mbps	0%	
Asus WebStorage Windows Service (32 bit)	0%	6.1 MB	0 MB/s	0 Mbps	0%	
Bonjour Service (32 bit)	0%	1.7 MB	0 MB/s	0 Mbps	0%	
Canon IJ Network Scanner Selector EX (32...	0%	1.5 MB	0 MB/s	0 Mbps	0%	
Cobian backup 11 Gravity - Interface (32 ...	0%	4.2 MB	0 MB/s	0 Mbps	0%	
Cobian Backup 11 Gravity (32 bit)	0%	4.8 MB	0 MB/s	0 Mbps	0%	
Cobian Backup Gravity VSC Requester	0%	6.5 MB	0 MB/s	0 Mbps	0%	
COM Surrogate	0%	1.4 MB	0 MB/s	0 Mbps	0%	
Cortana (2)	0%	38.8 MB	0 MB/s	0 Mbps	0%	
CTF Loader	0%	2.5 MB	0 MB/s	0 Mbps	0%	



Microsoft PowerPoint (32 bit)	0%	122.7 MB	0 MB/s	0 Mbps	0%	
Opera Internet Browser (5)	2.0%	413.0 MB	0 MB/s	0.1 Mbps	2.3%	GPU 0 - 3D
Task Manager	0.6%	22.1 MB	0 MB/s	0 Mbps	0%	
Background processes (72)						
Adobe Acrobat Update Service (32 bit)	0%	0.9 MB	0 MB/s	0 Mbps	0%	
Asus WebStorage Windows Service (32 bit)	0%	6.1 MB	0 MB/s	0 Mbps	0%	
Bonjour Service (32 bit)	0%	1.7 MB	0 MB/s	0 Mbps	0%	
Canon IJ Network Scanner Selector EX (32...	0%	1.6 MB	0 MB/s	0 Mbps	0%	
Cobian backup 11 Gravity - Interface (32 ...	0%	4.2 MB	0 MB/s	0 Mbps	0%	
Cobian Backup 11 Gravity (32 bit)	0%	4.8 MB	0 MB/s	0 Mbps	0%	
Cobian Backup Gravity VSC Requester	0%	6.5 MB	0 MB/s	0 Mbps	0%	
Cortana (2)	0%	36.3 MB	0 MB/s	0 Mbps	0%	
CTF Loader	0%	2.2 MB	0 MB/s	0 Mbps	0%	
Device Association Framework Provider H...	0%	9.6 MB	0 MB/s	0 Mbps	0%	
Digital Wave Update Service (32 bit)	0%	3.7 MB	0 MB/s	0 Mbps	0%	

Some light relief: computer jokes from Windows 98/ME era



THE END