



The **error** of our ways

Tim Nott dives into the murky waters of the UAE, fishes out the most common error messages and shows how to deal with them.

Some 2,400 years ago, Euripides proclaimed: "Those the gods wish to destroy, they first make mad." Were he alive today, he'd probably amend that to "first send error messages" as he watched the first draft of the Orestes vanish into digital oblivion as his word processor collapsed in a Windows GPF. So here follows a not-entirely-serious look at the subject of error messages, what they mean and what to do about them.

The doyen of them all is the UAE: not the United Arab Emirates but Unrecoverable Application Error. This is a throwback to Windows 3.0 days.

The world's biggest UAE occurred at the Hippodrome, Leicester Square in January 1991 at the public launch of Excel 3. Some say it was tempting fate to have the Microsoft UK managing director, David Svendsen, wafting through dry ice in a ballroom at ten o'clock in the morning before a packed audience of eager businessmen and women. Others blame the enormous display screen used for the ensuing demonstration. In any event, the presentation team were adequately prepared and, when the unthinkable happened, were able to continue the demonstration on another well-known, and apparently more stable, software platform.

UAEs could be caused by anything from errant applications to wallpaper that was exactly 1,024 X 768 pixels. As Windows 3.0 matured into Windows 3.1, the UAE matured into the GPF, or General Protection Fault, that we know and love today. This is an example of chaos theory in action and can be caused by anything ranging from an incorrect hardware setup to the wrong type of butterfly beating its wings on Mount Fuji.

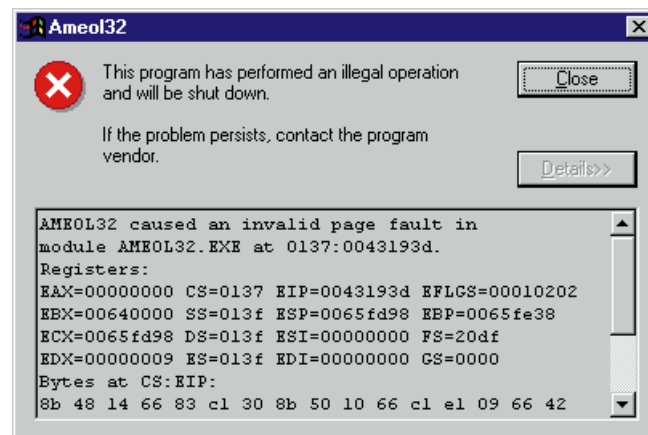


Fig 1 (left) Funny, it was working this morning — but Win95 users get GPFs, too

Fig 2 (middle) The not-very-helpful message

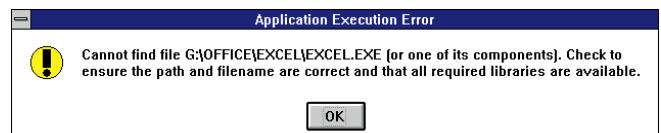
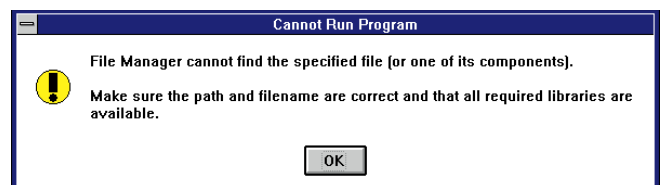
Fig 3 (bottom) Better, but it's probably a DLL, not the EXE

What it means is that an application has written, or attempted to write, to an area of memory already in use by Windows.

A really good GPF can spread like an instant plague. Even if the offending application is closed, others will spring their own GPFs in a merry round of "Atishoo, atishoo, we all fall down".

There are two slim hopes. One is to click the Ignore button if you're given the chance and hope that the problem goes away for long enough to allow you to save your work. You may have to do this several times, so don't give up if the error message returns after the first click.

The other chance is to press Control + Alt + Del to force a "local reboot". You'll get the blue screen of death with instructions to close the offending application and return to Windows. Sometimes, this actually works.



Although GPFs still occur under Windows 95 (Fig 1), personal experience has shown them to be less frequent and you stand a better chance of recovery.

■ "Cannot find the specified file or one of its components" (Figs 2 & 3) leaves it up to you to guess which component, as it probably isn't going to tell you. The most likely cause is that a DLL has gone AWOL. A Dynamic Linked Library is a central collection of routines that can be accessed from Windows applications. These cover everything from File Open/Save dialogues, OLE to bits needed for all those shareware

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Visual Basic applications. One tip here is to try opening the program in a different way: try the Program Manager icon, the File Manager .EXE and an associated data file. One of these may be kind enough to mention the missing DLL.

■ **"Call to undefined dynalink".** The application is looking for a routine in a DLL... It's found the DLL (hooray!) but not the routine (boo!). Almost certainly, one of your DLLs has been overwritten with an older version. A variation on this is that there are two versions of the DLL on your disk and Windows is finding the older one first. This happens, for instance, with the

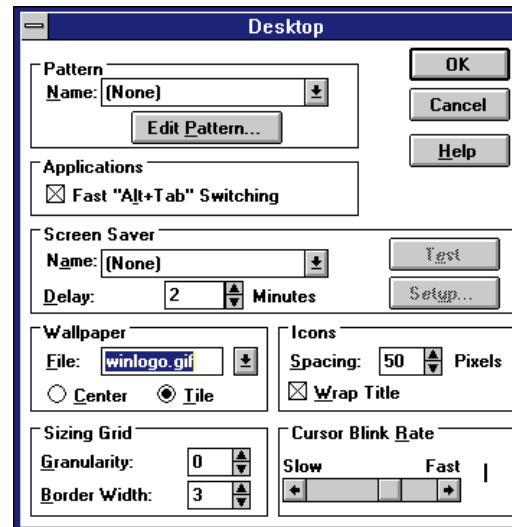


Fig 4 (above) Mission impossible: this will earn you an "out of memory" error

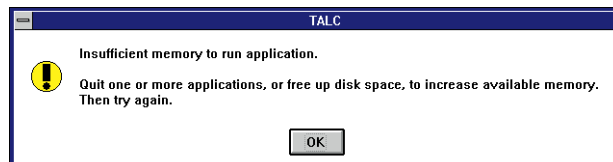


Fig 5 (left) It could mean anything, but I made this one by renaming calc.exe to talc.exe and saving it from Notepad...



Fig 6 (left, bottom) ...and this one means you've got too many icons in high colour depth

Windows 3.1 Dr Watson and TOOLHELP.DLL. Old versions of SHELL.DLL, COMMDLG.DLL and the various OLE DLLs can also cause this problem. If there are duplicates in WINDOWS and WINDOWS\SYSTEM, remove the older versions and make sure the newer ones are in WINDOWS\SYSTEM. ■ **"This application has violated system integrity and will be shut down".** This headmasterly pronouncement is the equivalent of being caught with a packet of B&H fags behind the bike sheds and accused of trying to burn the school down. It's usually caused by an errant DOS application, but an interesting variation is that it can happen if the processing of an MS LAN Manager script takes longer than the allotted thirty seconds.

There's nothing you can do but follow the instructions to save everything else, restart the PC and run the application from plain DOS next time. If a Windows application produces this, it's probably been at something stronger than B&H which has corrupted the .EXE, so reinstall.

■ **"Cannot read from drive X:"** Oh dear, this could mean that your hard/floppy/

Readers' write

Two neat DOS tricks from Steven Nicolaou of Nicosia. First, to find out the number of lines in a text file, use the FIND command with the /V and /C switches and a string of gibberish. For example:

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FIND /V /C "zzyyxyy"
c:\wherever\myfile.txt
This will return the number of lines not
containing "zzyyxyy" which in most texts
will be all of them. If "zzyyxyy" is a word
you use a lot, modify it to suit.
The second is using wildcards in the REN
(rename) command. REN ABC?.BAT
CBA?.BAT will rename ABC1.BAT,
ABC2.BAT and ABCD.BAT (for example) to
CBA1.BAT, CBA2.BAT and CBAD.BAT
```

CD-ROM drive is up the swanny. Or it could mean a loose cable. If it happens in a DOS box, it might just mean that the file DOSAPP.INI is corrupt. This retains a list of settings for Windowed DOS sessions: you can delete it and Windows will recreate it.

■ **"Insufficient memory to complete operation"** (or variations) — (Figs 4, 5 & 6). This one could mean anything. Word for Windows 2 used it as a default error message. Control Panel uses it if you try to

specify a wallpaper file that is not in the .BMP or .RLE format. It can also arise if you've loaded an .EXE file into Notepad, saved it and tried to run it. But you wouldn't do anything quite so daft, would you? Probably the most common cause is Windows running low on resources, like the 64Kb of memory that stores things such as icons, control buttons, cursors and other odds and ends.

Check the About box from any Help menu. If resources are below 20 percent, trouble is looming (see Figs 7 & 8). When they get really low, TrueType displays in the system font and things like buttons and scroll bars disappear. The obvious antidote is to close some applications: heavyweight office suites are the prime offenders. However, some applications leak resources and don't give them all back to the operating system when closed. Save everything and restart Windows.

A related problem is the black icons mentioned in the October column. If you have a high colour depth display and more than around 16 icons in a Program Manager group, you'll get an Out of Memory error if you try to add more icons.

A more obscure variation is that you are

low on the first 640Kb of DOS memory. Every Windows application needs a tiny slice of this, but some are far more greedy. I've found mail and fax software to be particularly so. To get the lowdown on this area of memory, use Matt Pietrik's Fix1Mb, included on this month's cover-mounted CD-ROM (Fix1mb.zip). It could mean just what it says, which is that you are out of common-or-garden global memory. Buy, or at least clear, some hard disk space and defrag to create a bigger swap file.

■ **"Bad or missing command interpreter"** (DOS message). If you get this after quitting Windows, the chances are you've deleted or corrupted COMMAND.COM. First of all, you are going to have to reboot from a

Ten top tips

Last month it was Program Manager. This month it's the turn of File Manager.

1. Hold down the Control key to select multiple files individually.
2. Hold down the Shift key to select everything between two files. (These two tips also work with some dialogue boxes: e.g. adding fonts in Control Panel.)
3. Single click on a drive icon to change the current window to that drive. Double-click to open a new one. Ctrl + Letter also switches drives.
4. Shift + double-click on a directory symbol to open a new window on its contents.
5. Alt + Shift + F4 saves the current arrangement and settings. "Options/Save settings on exit" will override this, so turn it off if you want File Manager to keep your carefully crafted arrangement.
6. Don't save settings, either way, with a window open on a floppy or CD-ROM drive. Next time you open it, it will grind away for a long time before realising the drive is empty.
7. Control + F4 closes the current window.
8. F5 refreshes the contents of a window.
9. Shift + F4 tiles Windows side by side.
10. If you're looking for a file in a large directory, click in the right-hand pane and type the first letter of the filename. The highlight will cycle through all the files starting with that letter.

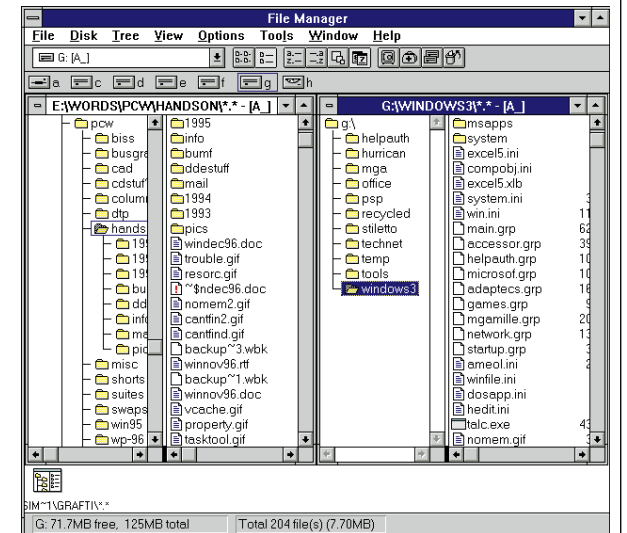


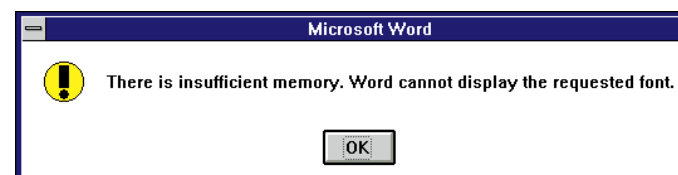
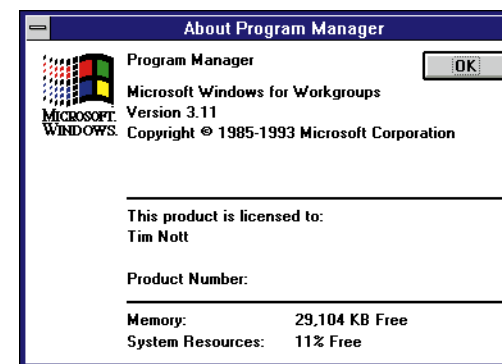
Fig 9 This month's star turn tip is File Manager

Fig 7 (left) Resources down to 11 percent means trouble is on the way...

Fig 8 (below) ...and sure enough, here it comes

in AUTOEXEC.BAT, run PIFEDIT, load DOSPRMPT.PIF and check that it points to the same location. If not, it should normally point to C:\.

Another possibility, especially if the error message occurs repeatedly, is that the SHELL command is being used without the /p switch. This causes COMMAND.COM to unload itself, given the chance. The /p switch should follow the path: SHELL=C:\DOS\COMMAND.COM/p.



floppy system disk. You did make one, didn't you? Then, from the A: prompt, type SYS C: which will restore the DOS system files, namely COMMAND.COM, IO.SYS and MSDOS.SYS. Should you get this from a Windows DOS box (or should a DOS box refuse to load), it's possible that DOSPRMPT.PIF is pointed at the wrong version of COMMAND.COM. If there's a SHELL= line in CONFIG.SYS or COMSPEC

Squeaky speaky

If you're tired of being the only kid on the block without a sound card, then take heart. It is possible to use the built-in speaker on your PC to play .WAV but not .MID files. Quality will depend on the nature of the speaker in the PC but it will probably be more whimper and squeak than Bang and Olufsen. Look on the CD for SPEAK.EXE which is a self-extracting file. It's old but it works, even in Windows 95.

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