

***Microsoft***<sup>®</sup>

***Windows 3.1  
Video Questions & Answers***



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**How does Windows 3.1 improve video support?**

Windows 3.1 offers the following improvements in video support:

- 1) *Speed!* Microsoft's own video drivers have been significantly improved. And, users of all third party drivers benefit from system-wide optimizations made to the Windows GDI. Improved sample source code is included in the Device Development Kit (DDK) for vendors to bring 3.1 performance to their own drivers.
- 2) *More drivers:* Windows now has "in the box" support for a greater variety of standard video adapters and resolutions:
  - \* Super VGA (800x600, 16 colors): This driver supports most Super VGA video adapters by automatically detecting the correct video mode number.
  - \* TIGA: All resolutions of Texas Instruments Graphics Architecture (TIGA) compatible display adapters are supported for monochrome, 16, and 256 colors. You must have TIGA version 2.05 or higher. Contact your display manufacturer for updated TIGA software.
  - \* Video Seven: Support for FastWrite, 1024i, VRAM, and VRAM II 256 color resolutions up to 1024x768.
  - \* XGA: Support for interlaced PS/2 XGA up to 1024x768, 256 colors.
- 3) *Large & small fonts:* All high-resolution drivers included in Windows 3.1 support either small or large fonts. Depending on your monitor size, you may wish to use larger fonts if you find text hard to read at high-resolutions. Otherwise, use smaller fonts to increase your Windows desktop size.
- 4) *"Mouse Trails":* The mouse pointer is often hard to see on LCD displays. Turn on the "mouse trails" feature in the Mouse dialog of the Control Panel to improve pointer tracking. This feature is supported for EGA, VGA, and Super VGA adapters.
- 5) *Easier Setup:* It's easier to switch between different resolution and color display drivers already installed on your PC. Use the Windows Setup icon in the Main Group of the Program Manager. Setup "remembers" drivers previously installed so that you don't need to have the original driver diskette handy.
- 6) *Improved MS-DOS Applications:* Text mode MS-DOS applications can appear larger or smaller in a window according to your preferences. Also, they redraw faster and use more accurate colors.
- 7) *Display Compatibility Tests:* Rigorous and comprehensive video driver tests included in the Windows Device Development Kit (DDK) will be used by all video vendors to make sure their drivers meet Microsoft standards.
- 8) *Windows Driver Library:* Microsoft will make available high-quality third-party video drivers through the Windows Driver Library on CompuServe, GENie, and other on-line services. Also, WDL disks can be purchased from Microsoft Product Support Services for a nominal cost.

**Do I need new video drivers from my PC or display adapter manufacturer in order to run Windows 3.1?**

Many video drivers written for Windows 3.0 run well under Windows 3.1. If you use a third party driver not included in Windows 3.1, Setup will keep this driver in order to use the same resolution installed under Windows 3.0. However, be sure to note the following:

- \* **VGA:** If your standard VGA display worked well under Windows 3.0 but you encounter problems running MS-DOS applications in Windows 3.1, switch to the display type "VGA (Version 3.0)" using Windows Setup.
- \* **Super VGA:** If you use an 800x600 display at 16 colors, try using the "Super VGA (800x600, 16 colors)" display type in Windows 3.1. This improved driver supports most Super VGA adapters.
- \* **TIGA , Video Seven 256 color, XGA:** If you used one of these display types with Windows 3.0, make sure that you are now using the new drivers included with Windows 3.1. Setup might not have installed these updates automatically when you upgraded. Use Custom Upgrade or run Setup after you've already upgraded in order to install the Windows 3.1 versions of these display drivers.
- \* **Setup:** Certain display adapters can cause problems with Windows version 3.1. The most serious problem is a system failure while running Windows Setup. If you encounter this problem, run Custom Setup, and then select one of the standard display types, such as VGA, provided with Windows version 3.1.
- \* **TrueType support:** With some display drivers, Windows may be set up successfully but TrueType fonts may not appear correctly on your screen.
- \* Windows 3.0 drivers for the following display adapters may cause problems when used with Windows 3.1. Updated drivers may be available in the Windows Driver Library or from your display vendor or manufacturer. For information about obtaining the Windows Driver Library, see "Getting Started with Microsoft Windows."

- ATI Graphics Ultra, Graphics Vantage, and 8514 Ultra.

ATI Ultra Crystal font drivers for Windows 3.0 are not compatible with Windows 3.1. Other Ultra drivers do not display TrueType fonts properly. Contact ATI for driver updates. In the meantime, use the Windows 3.1 8514 driver with your ATI Graphics Ultra, Graphics Vantage, or 8514 Ultra adapter.

- DGIS display adapters (Direct Graphics Interface Standard) from Graphic Software Systems, including the following:
  - NEC MultiSynch Graphics Engine (MGE)
  - Zenith Z-649
  - HP IGC-10, IGC-20
  - GSS 1000 Series

NOTE: Some DGIS-based adapters are TIGA-compatible and run well when used with the appropriate TIGACD.EXE MS-DOS driver and with the TIGA driver provided with Windows 3.1.

- HP Ultra VGA

- IBM Image Adapter/A
- Matrox MG Series/M-WIN Series
- Palettized VGA 640x480, 16-color (provided with Windows Multimedia Extensions version 1.0)
- Radius SVGA MultiView
  
- RGD1 (Renaissance Graphics Device Interface) display adapters from Appian, Inc., including the following:
  - Appian Rendition II, IIe, II/XE, and III
  - Appian GV1024
  - Decpc 433
  
- S3 adapters, including the following:
  - Orchid Fahrenheit 1280
  - STB WIND/X
  - Diamond Stealth VRAM

**My video screen is scrambled or out of proportion when I start Windows in a high-resolution video mode. What's wrong?**

If your display is scrambled, then either your adapter or monitor does not support the resolution you have selected. Follow your manufacturer's instructions to select a different video resolution for Windows.

If your display is shrunken or oversized, then your monitor dimensions must be adjusted. Refer to the instructions for your monitor to learn how to do this. Some monitors can "remember" dimensions for different video modes.

**My video screen has a very annoying flicker when I run Windows. How can I avoid this?**

Screen flicker can be caused by several things:

- 1) You may be running an *interlaced* display. Some adapters and monitors support high-resolutions in interlaced modes only. These can cause especially bad flicker under fluorescent lighting.
- 2) Slower video refresh rates can cause flicker at high-resolutions. Your adapter and monitor may support a higher refresh rate for the resolution you are using. See the instructions for your video adapter to learn how to configure your hardware and drivers.

To reduce screen flicker, use solid colors for the Windows desktop, rather than dithers and patterns. Or, switch to a non-interlaced video adapter or mode.

**My screen is not restored properly when I switch between Windows and MS-DOS applications. What's wrong?**

In enhanced mode, Windows uses a "Virtual Display Device" (VDD) file to virtualize video hardware (VDD\*.386). The Windows VGA VDD supports almost all VGA and Super VGA chipsets.

If you are having problems with the standard Windows 3.1 VGA driver, then try using the "VGA (Version 3.0)" display type in Windows Setup instead.

If you are running an IBM PS/2, then your PC probably has XGA video instead of VGA. Use one of the XGA display types listed in Windows Setup, such as "XGA (640x480, 16 colors)". Do not use VGA.

If you are using Windows 3.1 Super VGA (800x600, 16 colors) or another third party Super VGA driver, you should obtain the correct Super VGA drivers from your video manufacturer or the Windows Driver Library.

### **I'm having trouble installing video drivers into Windows 3.1. What should I do?**

Some video manufacturers use installation procedures that work under Windows 3.0 but not Windows 3.1. Contact your display vendor for updated 3.1 drivers and installation disks.

The procedures that are provided by display-adapter manufacturers for installing display adapters may require you to replace or modify the SETUP.INF file in the Windows SYSTEM directory. This will cause problems in Windows version 3.1.

If your third-party display installation replaces or modifies the SETUP.INF file, follow these instructions instead to install the display-adapter drivers:

1. Rename the SETUP.INF file provided with your display-adapter package to OEMSETUP.INF, and place it on the disk and in the directory containing the third-party display driver files.
2. Run Windows Setup from the Main group and select Other Display (Requires disk from OEM) from the list of Display options.
3. Insert the disk that contains the OEMSETUP.INF file and the driver files for your display adapter. Or, if these files are located on your hard disk, type the path to the directory that contains the files in the text box, and then choose the OK button.
4. Select the type of display adapter you want to use, and then choose the OK button.

Windows Setup copies all necessary files from the driver disk, and may request files from the Windows version 3.1 disks.

5. Insert any additional disks that are requested, and then choose the OK button.

If you accidentally overwrite the original SETUP.INF file, you can copy it from Windows Disk 1 back into your Windows SYSTEM directory.

### **How does Windows 3.1 support VESA compatible video adapters?**

Some Super VGA adapters support higher monitor-refresh rates at 800x600 resolution with a special VESA mode. If both your video adapter and monitor support a higher refresh rate and if you are using the Super VGA driver, you may be able to get better video results by including the following setting in the [display] section of the SYSTEM.INI file:

**svgamode=106**

If you encounter problems using this mode, delete this setting from the SYSTEM.INI file, and then restart Windows.

**What display driver should I use for the plasma screen on my IBM PS/2 Model 75?**

Windows will automatically install the "XGA (640x480, 16 colors)" driver on Model 75 PS/2s. This driver works with the plasma screen. When using an external monitor, you may be able to use one of the higher resolution and color XGA display types provided by Windows Setup.

**When I try to run Windows in enhanced mode (by typing "win" or "win /3" or "win /e"), I get the error message "Windows cannot set up an upper memory block at segment B000." What's wrong?**

If you encounter the following message when starting Windows in 386 enhanced mode, your display driver may be accessing the monochrome address range (B000-B7FF), which prevents the memory manager from using this range for upper memory blocks:

"Windows cannot set up an upper memory block at segment B000. Exclude this address space by using the syntax of your memory manager. For more information, see the README.WRI file. Type WIN /S to start Windows in standard mode and choose the Read Me icon,"

To solve this problem, try installing MONOUMB2.386 on your system. MONOUMB2.386 is a device driver provided with Windows that allows certain memory managers to use the monochrome address range for upper memory blocks, even if your display driver is accessing this range.

**When I attempt to run MS-DOS Prompt or another MS-DOS application, I get the error message, "Incorrect system version". What's wrong?**

If you are using a display driver that is not provided with Windows version 3.1 and you receive one of the following messages while trying to run a non-Windows application:

"Incorrect system version. Run the Windows Setup program again."  
or  
"386 System display type mismatch."

contact your display manufacturer for an updated driver. You can also solve this problem manually by installing 3.0 driver files. These files are included on the Windows version 3.1 disks.

If your display driver works in Windows version 3.0 using the standard VGA virtual-display-device file (specified by the **device=\*vddvga** setting in the [386Enh] section of the SYSTEM.INI file), then do the following:

1. Copy and expand the VDDVGA30.386 file from the Windows 3.1 disk to your Windows 3.1 SYSTEM directory.
2. Change the **display=** setting in the [386Enh] section of the SYSTEM.INI file to:  
**display=VDDVGA30.386**

3. Restart Windows.

If your display driver works in Windows version 3.0 using the standard VGA grabber file (specified by the **386Grabber=VGA.GR3** setting in the [boot] section of the SYSTEM.INI file), then do the following:

1. Copy and expand the VGA30.3GR file from the Windows 3.1 disk to your Windows 3.1 SYSTEM directory.
2. Change the **386Grabber** setting in the [386Enh] section of the SYSTEM.INI file to:  
**386Grabber=VGA30.3GR**
3. Restart Windows.

### **Windows crashes when I run other TIGA applications. What's wrong?**

Only one TIGA application can run at a time. If you are running Windows with the TIGA driver, you must exit Windows before running another MS-DOS program that uses the TIGA video modes of your display adapter.

### **How do I install WinSpeed drivers into Windows 3.1?**

The WinSpeed version 1.0 installation program, INSTALL.EXE, does not work properly with Windows version 3.1. It copies an incompatible version of the SETUP.INF file to your Windows directory. To install WinSpeed for use with Windows version 3.1, you must get updated installation disks from Panacea.

If you have already used the INSTALL.EXE program to install the WinSpeed drivers onto your system, the following message will appear when you try to run Windows Setup from the Main group:

"The SETUP.INF file on your system is not valid for use with this version of Setup."

To correct this problem, do the following:

1. If there is a SETUP.INF file in your Windows directory, delete it. (The SETUP.INF file should never be in your Windows directory.)
2. Copy the SETUP.INF file on Windows Disk 1 to your Windows SYSTEM directory.
3. Contact Panacea Inc. for updated WinSpeed installation disks that are compatible with Windows version 3.1, and then reinstall WinSpeed.