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IMPORTANT INFORMATION
for
mach64 Users

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mach64 **Windows Driver**
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1.0   Windows mach64 Display Driver Problem Detail

Multimedia

The majority of known GPFs in the driver have the same work around: In the [macx] section of SYSTEM.INI, set **DeviceBitmap=off.** The following applications are known to cause GPFs when DeviceBitmap=on(default):

QuickTime for Windows, and applications which use the QuickTime runtime can cause a "Viewer caused a GPF in module GDI.EXE at 0001:0F6A" message.   Applications using QuickTime, include The Journeyman Project by Quadra Interactive, Myst by Broderbund, Mighty Morphin Power Rangers by Xiphias, Adobe Premiere, and Wallabee Jack.

Macromedia Action causes a GPF at the same address as QuickTime for Windows. We have not investigated further, but assume it is similarly patching GDI or uses the QuickTime run-time.

Adobe Illustrator. On opening this application, you will receive the message "Illustrator caused a General Protection Fault in module ADOBEVUE.DLL at 0006:3B52." Adobe's direct manipulation of memory bitmaps is incompatible with ATI's device bitmap implementation.

DOS boxes

There are currently several problems with DOS boxes. These usually show up when you try to switch to a graphics mode. Sometimes they show up when you switch from a windowed DOS box to a full-screen DOS box, or vice-versa. Known DOS box problems include:

When you use ALT-ENTER to switch a DOS box to full screen, sometimes the keyboard will stop responding. To reactivate it, simply tap on the ALT key again.

When you use ALT-ENTER to switch a DOS box, sometimes the contents of the DOS box are

incorrect. The condition usually corrects itself if you press ALT-ENTER again.

DOS graphics applications should always be run full-screen. If you start one in a windowed DOS box and your screen goes blank, press ENTER. If you start one in a windowed DOS box and your display is not right, quit the application and run it again as a full screen application.

Using print screen to capture a DOS box does not always work. Sometimes the image in the clipboard is not correct.

Graphics Pro Turbo 1600 has problems in windows at 1600 x 1200. The problem is memory related. On systems with 8 Mb memory, running graphics intensive windows applications results in Page faults, system lock ups or EMM386 exception errors. Two such applications are After Dark 3.0 and Complete Guide to Gardening. We recommend running 1600 x 1200 screen resolutions only on systems with 12 Mb or greater memory configurations.

Debuggers

Many debuggers are also affected by the problems which adversely affect DOS boxes. Usually, the debugger will come up with a blank screen if this occurs.

All Borland debuggers will require the mach64 video dll. This file is available from Borland's CompuServe forum and is named TDSVGA.ZIP.

Monochrome Display cards

The monochrome text display cards are unusable as debug monitors if Windows is configured for the mach64 display drivers.

DIBs (Device Independent Bitmaps)

There are currently some outstanding DIB problems:

In 32 bpp mode, DIBs do not always display the correct color. Sometimes they are black.

Some applications, such as Lotus Freelance, which draw DIBs directly to the screen, do not work properly. Other applications may use DIBs in newer formats than the driver supports. These will not always display properly.

WinSwitch

When you set WinSwitch=on (primarily used for dynamic color switching), Windows (GDI) and all Windows applications are actually running in 24 or 32 bpp mode (automatically selected depending on the resolution and card memory configuration), even when you specify 256, 32K, or 65K colors. This has several consequences:

Graphics performance across various color depths will be negatively impacted. For maximum performance in 256, 32K, and 65K color modes, you should disable WinSwitch.

Any application which reads from the screen will not always get exactly the same information which it wrote, because the pixels can be smaller. This means, for example, that the PaintBrush color eraser will not always work in this mode.

Turning winswitch on causes the driver to use a 3-3-2 color mix when in 256 color mode. Some applications may expect a different color mix. Objects that appear grey or some shades of blue may be displayed as white or purple.

Dithering is not performed when WinSwitch is on.

We do not recommend applications be active during a WinSwitch. Active applications, may not correctly read the new resolution and color depths setting. This can lead to incorrect coloring, windows not properly resizing and portions of windows being painted black.

If you experience distortion in an application after a WinSwitch, close the application and restart it with the new WinSwitch settings.

Applications that require a 256 palletized mode will produce an error, stating that a 256 color driver is required to used this software, if WinSwitch is enabled.

Any application which retrieves the resolution at startup and expects it to stay the same will not work when you change the resolution. AfterDark does this, and should not be running when you are changing DeskTop resolutions.

IMPORTANT: Do not use File.Properties to "fix" black icons. It will delete them in some cases. The reason that the icons are black is that the maximum number of icons that you can have in a group is reduced in higher pixel depth modes. Windows stores all the icons for a given group in a 64K segment, and in 24 bpp mode, each icon requires 3K (4K in 32 bpp mode). In some cases, there is not enough room in the segment for File.Properties to add a picture to the icon, and in these cases it will simply remove the icon from the group.

NORTON ANTI-VIRUS

The Norton AntiVirus will sometimes cause the screen to go blank. If loaded with Norton DeskTop, it may cause the top portion of the screen to appear black.

Palletized Applications

Some applications will only display correctly when in a palletized mode. You may experience incorrect coloring or other failures will occur in 15 bpp and higher color depths. Examples of such applications are: Microsoft's Dinosaurs, Sorcery from Intermission 3.0, Lotus 1-2-3 Guided Tour and Microsoft's Media Browser

VGA Feature Connector

The VGA feature connector, on 64-bit VRAM based graphics accelerators, will only function with Windows VGA display drivers. Attempting to use the accelerated mach64 display drivers may result in black windows.

Designer EPS Files

EPS files exported from Designer 4.0 appears as much as 30%
smaller in Pagemaker 5.0. This problem will not occur with the mach64 driver if the EPS file was created under VGA.

Corel Quick Tour, by COREL Corp.

The introductory screen as well as all other demonstration AVIs appear corrupted. The Quick Tour uses a non-standard AVI RLE format at 570x440/8 bpp, ATI's Multimedia drivers do not support non-standard formats. In order to have the Quick Tour function correctly uninstall the ATI Multimedia drivers.

Printing Problems:

The ATI driver may make printing problems visible that were not present with generic Microsoft drivers because of the additional resources used by the ATI drivers. To minimize the impact we would recommend updating the printer's drivers regularly to ensure you are using the most current version. We would also recommend freeing up as much Windows resources as possible. This includes, increasing Windows' swap file size, increasing conventional memory available and reduce the number of applications active while printing.

AUTOSKETCH v2.0 for Windows by AUTODESK

A GPF is produced when the RESET ORIGIN feature is dragged into the drawing editor. The GPF will occur at the moment the cursor enters the drawing area dragging the RESET ORIGINS button/object.

SMARTCURSOR function of AUTOSKETCH

A GPF is reported when the SMARTCURSOR help feature is toggled. The GPF will only occurs when changing the SMARTCURSOR status.

Visual BASIC 3.0 for Windows

Sizing box using Picture Box tool in Visual Basic 3.0 will result in screen corruption in the form of vertical lines. A workaround is to Set ENGINE=OFF in the [Macx] section of the SYSTEM.INI

MS-Works 3.0 for Windows

Personalizing letterhead, using the WorksWizard function of Microsoft Works, will cause the system to hang, requiring a hard boot.

Harvard Graphics Slide Show

Attempting to run a slide show using Harvard Graphics 2.0 will result in the following error message: Harvard Graphics has encountered a problem with the system (Message 0020).

DPMS

The DPMS feature will not function with Helix Netroom (DOS Memory Manager) installed.

24 BPP Advanced Panel Setting

The 24bpp Mode selection box has been removed from FlexDesk+'s Advance Settings panel. The driver will now use the 32 bpp data format at all supported resolutions. If the configured resolution does not support 32 bpp, due to memory constraints, the data format will be automatically lowered to 24 bpp.

Problems with Graphics Clipped on the Left

Some applications exhibit problems displaying graphics images that go off of the left-hand side of the screen. Some of these are After Dark's Hard Rain, and some graphs in Microsoft Excel 5.0. If your system exhibits this sort of problem, the work around is: In the [macx] section of SYSTEM.INI, set **FixGDIPolygonClip=on.**

2.0   Programming with Device Bitmaps

Note: This section is intended for Application Developers

When an application creates a compatible or discardable bitmap, Windows will ask the FlexDesk+ Windows Driver to create the bitmap (this can be suppressed if DeviceBitmap=off is specified in the [macx] section of system.ini). When Windows does this, the driver "owns" the bitmap. The only legal means to get data into and out of the bitmap are those documented in the Windows SDK.

There will be problems if an application uses undocumented features to directly manipulate the bits in one of these bitmaps, because we CANNOT make our format identical to Windows'.

To avoid this problem, applications which intend to directly manipulate bitmaps should use CreateBitmap or CreateBitmapIndirect (instead of CreateCompatibleBitmap or CreateDiscardableBitmap).