NEXTSTEP for Intel Processors Release 3.3
Display Driver Overview

Driver: ATI Mach64
Driver Overview: NeXTanswer #1735
Last Update: March 25, 1996

Availability Information

Newer Released Driver in NeXTanswers: Yes, Version 3.37, as NeXTanswer #1734
Newer Beta Driver in NeXTanswers: No, Version 0.00, as NeXTanswer #2057

Driver Name / Installer .pkg: ATIMach64DisplayDriver
Driver Type: Display
Driver Scope: Generic-Chipset
Supported Components: ATI 88800 (Mach64)
PC Bus / Interface Supported by Driver*: Integrated, PCI, VL-Bus

General Overview notes: This new graphics driver is designed to support a variety of graphics adapters using the ATI 88800 graphics controller. Adapters based on the 88800 GX/CX (also known as the Mach64) graphics controller chipset can support 1MB, 2MB or 4 MB of VRAM or DRAM. This driver supports a variety of configurations including high-resolution and high-color (32bit) modes and several RAMDAC, frame buffer and   interface bus (PCI and VL-Bus only) configurations.

Due to the wide range of possible combinations, only a few specific adapters will be tested by NeXT. Although this driver may work with most 88800 GX/CX based adapters, NeXT will only support the specific adapters tested by NeXT.

Supported Products / Add-on Adapters:
ATI Graphics Ultra Pro Turbo (PCI, with 2MB VRAM)
ATI Graphics Ultra Pro Turbo (PCI, with 2MB DRAM)
ATI Graphics Ultra Pro Turbo (PCI, with 4MB VRAM)

ATI Graphics Ultra Pro Turbo (PCI, with 4MB DRAM)
ATI Graphics Ultra Pro Turbo (VL-Bus, with 4MB VRAM)
ATI Graphics Ultra Pro Turbo (VL-Bus, with 4MB DRAM)

Supported Products / Systems (ie integrated into PC System):
AT&T Globalyst 600

Special Features of Driver / Driver Notes:
This device driver provides information in the Configure application's help panel. Choose
Info>Help from the Configure menu and scroll down to find this device driver's help topic.

Display Driver Details

Supported Connectors: 15-pin High Density (VGA)
Access Mode: Linear Framebuffer
Adapter Memory: 2MB DRAM, 2MB VRAM, 4MB DRAM, 4MB VRAM

Display Modes (Number in () after resolution indicates frame buffer size required)

32 Bit Color Modes*:
640x480 (4MB+), 800x600 (4MB+)

16 Bit Color Modes*:
1024x768 (2MB+), 1152x896 (2MB+), 800x600 (1MB+)

8 Bit Color / Greyscale Modes*:
1024x768 (1MB+), 1152x896 (1MB+), 1280x1024 (2MB+), 1600x1200 (2MB+), 800x600
(1MB+)

Known Problems

The Mach64 driver makes use of the board's BIOS to switch modes.   This requires the user
to set up the display adapter as specified in the documentation supplied by ATI.   This will
usually require running a setup utility.   Until this is done, not all supported display modes will

be available.

Driver Version Notes

3.33 Added support for additional hardware
3.34 Added support for ATI 68860 Rev C and ST1703 RAMDACs.
3.36 Beta - Driver rewritten to call Adapter's BIOS to switch modes.
3.37 First Released version that uses the Adapter's BIOS - should be robust to RAMDAC
changes.

Future Planning

Future / Update Planning:
Reason for New Driver / Update:
New Driver / Update Timeframe:

New Driver / Update Description:

Note: Information contained in the "Future Planning" section of this document does not constitute a commitment
on the part of NeXT to complete the planned development work.

* - Indicates information that is inclusive of the entire capability of this driver. Not all devices supported by this
driver may include all features listed. Check any available NeXTanswers and the hardware manual for the device
for additional information.

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