

Installing the Prerelease Version 1 of the ATI Mach32 Display Adapter Device Driver for NEXTSTEP Release 3.2 for Intel Processors

These instructions show you how to install the ATI Mach32 display adapter device driver on an Intel-based computer running NEXTSTEP™ Release 3.2. The driver is distributed in an Installer package file named **ATIMach32DisplayDriver.pkg**.

This graphics driver is designed to support on-board as well as VL-bus, and EISA bus display controller subsystems based on the ATI68800AX graphics controller from ATI Corporation which uses the Mach32 Graphics controller chipset and support both VRAM and DRAM variants (note that DRAM adapters are susceptible to video "noise").

This driver supports the following display modes.

ATI Mach32 Display Adapter Display Modes

8-bit Grayscale

16-bit Color

800x600
60 or 72 Hz

800x600
60 Hz

1024x768
60, 72, 76 Hz

1024x768
60, 72, 76 Hz

1120x832
60 or 68 Hz

1120x832
60 or 68 Hz

1280x1024
60 Hz

Warning: Some vendors claim that you can use their display adapters at display modes with resolutions and refresh rates that exceed what their RAMDACs can support. You can permanently damage your display adapter and computer by doing this. Read the owner's guide that comes with your display adapter or contact its manufacturer to ensure that your adapter's RAMDAC can support the display mode you set in Configure.

Supported Displays

NeXT designs and tests its display adapter device drivers using very high frequency displays that can support display modes with very high resolutions and non-interlaced refresh rates, such as the NEC 5FG, NEC 6FG, and Nokia Multigraph 445X. Read the owner's guide that comes with your display to ensure it can support the display mode you set in Configure.

Installing the Device Driver

1. If you received the **ATIMach32DisplayDriver.pkg** file via NeXTmail™ or another electronic source, place a copy of the file in a location where you can access it when you log in as **root**.
2. Log in as **root**.
Only the superuser, **root**, can install the device driver. If you're not sure how to log in as **root**, see your system administrator.
3. If you received the **ATIMach32DisplayDriver.pkg** file on a floppy disk, insert the disk in the floppy disk drive and choose Check for Disks from

the Workspace Manager™ application's Disk menu. When the disk icon appears in the File Viewer, double-click it to open it.

Note: Make sure Configure isn't running while you install the **ATIMach32DisplayDriver.pkg** package. Otherwise the drivers you add may not appear in Configure's Add Display Devices panel.

4. Double-click the **ATIMach32DisplayDriver.pkg** file.
5. Click the Install button in the Installer package window. When the panel asks you to confirm that you want to install software for Intel-based computers, click Install.
6. When the installation is complete, choose Quit from the Installer menu.
7. Start up the Configure application by double-clicking **Configure.app** (it's in **/NextAdmin**).
8. Click the Display icon at the top of Configure's Summary window. Your current adapter appears in the list at the top of Configure's Display Devices window. If the current adapter is the Default VGA Adapter, then skip the next section and continue following steps in the section "Configuring the ATI Mach32 Display Adapter." If the existing adapter is anything other than Default VGA, then continue by following the steps in the next section "Replacing an Existing Display Adapter."

Replacing an Existing Display Adapter

Note: If your system provides an on-board display adapter subsystem, you can ignore these instructions.

1. Click the Display icon at the top of Configure's Summary window. The current adapter appears as the only name in the list at the top of Configure's Display Devices window.
2. Select the current adapter in the list and click Remove.
3. Click Add.
4. In the Add Display Devices panel, click Default VGA Adapter and click Add.
5. Choose Save from Configure's Configuration menu and choose Quit.
6. Log out, turn off your computer, replace the existing display adapter with the ATI Mach32 display adapter, and then start up the computer and log in again as **root**.

Configuring the ATI Mach32 Display Adapter

1. If it's not already running, start up the Configure application.
2. Click the Display icon at the top of Configure's Summary window. The current adapter name should be Default VGA Adapter.
3. Select the Default VGA Adapter and click Remove.

Caution: Because of a known bug in Configure, at this point you have to click save, ignore the warning that there is no display adapter chosen, quit, then restart Configure, and click the display icon. The current display will report as "no display." Now continue to step 4.

4. Click Add.
5. Select the ATI Mach32 Based Display Adapter (if the display adapter in your computer is on an expansion card) or the ATI Mach32 On-Board Display Adapter (if the display adapter in your computer is built into the motherboard) in the Add Display Devices panel. Then click Add.
6. Click Select in the Display Mode area of the Display Devices window, and in the Select Display Mode panel, select the combination of color, resolution, and refresh rate appropriate for your adapter and display (for details, see the charts earlier in this document). Then click OK.

Note: Higher resolution modes may require higher resolution displays. Refer to the manual for your display to determine valid modes.

7. Choose Save from Configure's Configuration menu and then choose Quit.

Removing the Install Package and Restarting the Computer

1. If you had created a copy of the **ATIMach32DisplayDriver.pkg** file in step 1, drag the copy to the recycler.
2. Choose Log Out from the Workspace menu and then click the Restart button in the Login window.

Note: You must restart your computer after installing and configuring the device driver. The next time you start up your computer, it will use the new driver to display NEXTSTEP in the display mode you selected in Configure.

For information about logging in and out, the Workspace Manager application, and the Installer application, see the *NEXTSTEP User's Guide*. For information about the Configure application, see *Installing and Configuring NEXTSTEP Version 1 for Intel Processors*. For information

concerning compatibility issues and bugs, refer to NeXTanswers. If you notice anomalies or bugs, please contact bug_next@next.com.

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