

## **Installing Update 1 of the #9GXE Display Adapter Device Driver for NEXTSTEP Release 3.2 for Intel Processors**

These instructions show you how to install the #9GXE display adapter device driver on an Intel-based computer running NEXTSTEP™ Release 3.2. The driver is distributed in an Installer package file named **Number9GXEDriver.pkg**.

### **Supported Display Adapters**

The #9GXE display adapter device driver supports a variety of VL-Bus display adapters from the Number Nine Computer Corp. The following tables show the models of adapters and display modes supported by this driver.

**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.

**#9GXE-VL Level 10 Display Adapter Display Modes**  
**BT485 110 MHz RAMDAC with 1 MB VRAM**

**8-bit Grayscale**

800x600  
60 or 72 Hz

1024x768  
60 or 72 Hz

**#9GXE-VL Level 11 & Level 12 Display Adapter Display Modes**  
**BT485 135 MHz RAMDAC with 2 MB VRAM**

<b>8-bit Grayscale</b>	<b>16-bit Color</b>
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800x600 60 or 72 Hz	800x600 60 or 72 Hz
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1024x768 60 or 72 Hz	1024x768 60 or 72 Hz
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1152x819 60 or 72 Hz	
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1280x1024	
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60 or 72 Hz

**#9GXE-VL Level 14 Display Adapter Display Modes**  
**TI3020 135 MHz RAMDAC with 4 MB VRAM**

8-bit Grayscale	16-bit Color	32-bit Color
800x600 60 or 72 Hz	800x600 60 or 72 Hz	640x480 60 or 72 Hz
1024x768 60 or 72 Hz	1024x768 60 or 72 Hz	800x600 60 or 72 Hz
1152x819 60 or 72 Hz	1152x819 60 or 72 Hz	1024x768 60 or 72 Hz
1280x1024 60 or 72 Hz	1280x1024 60 or 72 Hz	
1600x1200 60 Hz		

**#9GXE-VL Level 16 Display Adapter Display Modes**  
**TI3020 200 MHz RAMDAC with 4 MB VRAM**

8-bit Grayscale	16-bit Color	32-bit Color
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800x600  
60 or 72 Hz

800x600  
60 or 72 Hz

640x480  
60 or 72 Hz

1024x768  
60 or 72 Hz

1024x768  
60 or 72 Hz

800x600  
60 or 72 Hz

1152x819  
60 or 72 Hz

1152x819  
60 or 72 Hz

1024x768  
60 or 72 Hz

1280x1024  
60 or 72 Hz

1280x1024  
60 or 72 Hz

1600x1200  
60, 66, or 72 Hz

## Supported Displays

NeXT designs and tests its display adapter device drivers using 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 **Number9GXEDriver.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 **Number9GXEDriver.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 **Number9GXEDriver.pkg** package. Otherwise the drivers you add may not appear in Configure's Add Display Devices panel.
4. Double-click the **Number9GXEDriver.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 #9GXE 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

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 #9GXE adapter, and then start up the computer and log in again as **root**.

## Configuring the #9GXE 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.
4. Click Add.
5. Select the appropriate model of #9GXE display adapter (whichever matches the display adapter in your computer) in the scrolling list 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:** The display modes for the 4 megabyte driver are different from those of the 1,2,3 megabyte driver. If you have a display adapter with 4 megabytes of VRAM, you can add the 1,2,3 megabyte version if you want to pick a lower resolution display mode instead of using those provided by the 4 megabyte version.

7. Choose Save from Configure's Configuration menu and then choose Quit.
8. If you created a copy of the **Number9GXEDriver.pkg** file in step 1,

drag the copy to the recycler.

9. 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 Release 3.2 for Intel Processors*.

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