

Installing Version 1 of the Canon Objectstation 41 Display Adapter Device Driver for NEXTSTEP Release 3.2 for Intel Processors

These instructions show you how to install the Canon Objectstation 41 display adapter device driver on an Intel-based computer running NEXTSTEP® Release 3.2. The driver is distributed in an Installer package file named **CanonObjectstation41DisplayDriver.pkg**.

This new graphics driver supports the on-board Chips and Technologies Wingine graphics controller on the Canon Objectstation 41 PC. The graphics subsystem of Canon's Objectstation 41 was custom-designed to operate with NEXTSTEP. The system uses a RAMDAC design modified to support NEXTSTEP's 4-4-4 internal 16-bit color representation for improved graphics performance. This design includes 2Mb VRAM and supports a variety of high resolution and high color (32 bit) modes.

This driver supports the following display modes.

Canon Objectstation 41 Display Adapter Display Modes
PCI or VL-Bus 2 MB VRAM Lo-res

8-bit Grayscale

1024x768
60, 70, 72 Hz

1120x832
60, 70, 72, 76 Hz

1280x1024
60 or 72 Hz

16-bit Color

800x600
60, 70, 72, 76 Hz

1024x768
60, 70, 72 Hz

1120x832
60, 70, 72, 76 Hz

1152x900
60, 70, 72, 76 Hz

32-bit Color

640x480
60, 70, 72, 76 Hz

800x600
60, 70, 72, 76 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 **CanonObjectstation41DisplayDriver.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 **CanonObjectstation41DisplayDriver.pkg** file on a

floppy disk, insert the disk in the floppy disk drive and choose Check for Disks from the Workspace Manager's 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 **CanonObjectstation41DisplayDriver.pkg** package. Otherwise the drivers you add may not appear in Configure's Add Display Devices panel.

4. Double-click the **CanonObjectstation41DisplayDriver.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 name is Default VGA Adapter, 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."

9. Click Add.
 10. Select the "Canon Objectstation 41 display adapter" in the Add Display Devices panel. Then click Add.
 11. 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.
12. 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 **CanonObjectstation41DisplayDriver.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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