

**Autodesk®**

Visual Effects and Finishing  
2009 Edition

Red Hat® Enterprise Linux®  
Workstation 4 Update 2  
Installation and  
Configuration Guide

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Published by:

Autodesk, Inc.

111 McInnis Parkway

San Rafael, CA 94903, USA

Title: Linux RHEW 4 Update 2 Installation and Configuration Guide

Document Version: 3

Date: September 18, 2007

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# Introduction

## Summary

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## About This Guide

This guide provides instructions for installing and configuring the Autodesk® distribution of Red Hat® Enterprise Linux® Workstation 4 Update 2 on an Autodesk Linux workstation. The Autodesk distribution contains the Discreet® Kernel Utility (DKU)—a set of drivers, utilities, and a customized Linux kernel—that Autodesk Effects and Editing applications require to run.

Autodesk ships Linux platforms with Linux already installed; if you received your workstation directly from Autodesk, you should not have to install Linux. However, if at any point you must replace the system drive, you will need to install Linux on the new system drive, prior to installing the Effects or Editing application.

**NOTE:** If you must replace the hard disk, you will need to update your product license. Contact Autodesk Media and Entertainment Customer Support for assistance.

Once you complete the installation of Linux described in the current guide, consult the *Software Installation Guide* for your release for help installing your Effects or Editing application.

## Assumptions

This guide assumes you have completed all procedures in the *Hardware Setup Guide* for your platform. It also assumes you have knowledge of the Linux operating system, preferably a distribution from Red Hat Linux. If you are not familiar with Linux you should not attempt to carry out the procedures in this guide.

## Notation Conventions

A number of style conventions are used throughout this guide. These conventions and examples of their use are shown as follows.

Convention	Example
Text that you enter in a command line or shell appears in Courier bold. You must press the Enter key after each command.	<b>rpm -qa</b>
Variable names appear in Courier, enclosed in angle brackets. No spaces are allowed in variable names.	<variable_name>
Variables that appear enclosed in square brackets are optional.	[<filename>]
Feedback from the command line or shell appears in Courier.	limit coredumpsize
Directory names, filenames, URLs, and command line utilities appear in italics.	<i>/usr/discreet</i>

## Contacting Customer Support

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Within the Americas:	Hotline (North America): 1-800-925-6442 Direct dial: 415-507-5256 (Country code = 1) 8 AM to 8 PM EST Monday to Friday, excluding holidays <i>me.support@autodesk.com</i>
Within Europe, Middle-East and Africa:	Hotline (from London, UK): +44-207-851-8080 9 AM to 5:30 PM (local time) Monday to Friday, excluding holidays <i>me.emea.support@autodesk.com</i>
Within Asia Pacific: (Excluding India, China, Australia, New Zealand and Japan)	Hotline (from Singapore): +65-6555-0399 9 AM to 6 PM (local time) Monday to Friday, excluding holidays <i>me.support.singapore@autodesk.com</i>
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Customer support is also available through your Autodesk reseller. To find a reseller near you, consult the reseller look-up database on the Autodesk web site at [www.autodesk.com/resellers](http://www.autodesk.com/resellers).

# Installing Linux on a Workstation



## Summary

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## Installation Workflow

This section describes the major steps involved in installing the Autodesk distribution of Red Hat Enterprise Linux Workstation (WS). The remainder of the chapter provides details on each of these steps.

### To install the Autodesk distribution of Linux:

1. Locate the installation media.
  - (64-bit systems) *Autodesk distribution of Red Hat Enterprise Linux Workstation 4 Update 2*  
One DVD, included with your release shipment. The Autodesk distribution installs the Linux software packages Autodesk Effects and Editing applications require; these applications will not run under the commercial distribution of Red Hat Enterprise Linux WS 4 Update 2. If you received a new workstation with this release, your shipment also included the CD set for the *commercial* distribution of Red Hat Enterprise Linux Workstation 4 Update 2. Do not use this commercial distribution; use the DVD distribution instead. You can use the commercial distribution to activate your Red Hat subscription if it is not already activated.
  - (32-bit systems) *Autodesk distribution of Red Hat Enterprise Linux Workstation 4 Update 2*  
A set of 5 CDs, shipped to all owners of 32-bit workstations. The Autodesk distribution installs the Linux software packages Autodesk Effects and Editing applications require; these applications will not run under the commercial distribution of Red Hat Enterprise Linux WS 4 Update 2.
  - (32- and 64-bit systems) *Discreet Kernel Utility for Linux*  
One CD, included with your release shipment. The Discreet Kernel Utility (DKU) is a set

of drivers, utilities, and a customized Linux kernel, that Autodesk Effects and Editing applications require to run.

**NOTE:** If you do not have the correct CD or DVD distribution, contact Customer Support or your local sales representative.

2. Prepare your system. See [“Preparing Your Workstation”](#) on page 6.
3. Install Linux. See [“Installing Red Hat Enterprise Linux Workstation”](#) on page 7.
4. Install the Discreet Kernel Utility. See [“Installing the Customized Linux Kernel”](#) on page 8.
5. Perform any required post-installation procedures.

Consult the Release Notes for your product to determine whether you must update firmware and/or software drivers for devices, such as the DVS Centaurus board or the Miranda DVI-Ramp. All post-installation procedures are documented in the Release Notes for your product.

## Preparing Your Workstation

The Linux installation procedure assumes that the system disk on your workstation can be reformatted, and that your hardware is in a specific state. The following procedure describes how to prepare your workstation.

### To prepare your workstation for Linux installation:

1. If possible, back up all user settings, project settings, and media from the Linux workstation to another workstation or to a network drive. The installation of Linux erases and formats the system disk of the workstation so this information will be lost if it is not backed up.
2. Make sure your workstation is in the following state:
  - Mouse, keyboard and graphics monitor are connected and the graphics monitor is powered on.
  - Other peripherals, such as the tablet or DVS video breakout box are connected and powered on.
  - The CD-ROM is set as the primary boot device in the workstation’s BIOS.
  - If the DVI-Ramp is part of your Linux workstation configuration, the DVI-Ramp is connected and powered on.
3. Shut down the workstation.
4. Disconnect all framestore storage devices from the workstation.



**WARNING:** All storage devices (such as external disk arrays or internal storage), must be disconnected from the Linux workstation to prevent the Red Hat installer from attempting to reformat them as part of the installation process.

## Installing Red Hat Enterprise Linux Workstation

The following procedure describes how to install the Autodesk distribution of Red Hat Enterprise Linux Workstation on your workstation.

### To install Red Hat Enterprise Linux WS 4.0:

1. Verify the workstation is prepared as described in [“Preparing Your Workstation”](#) on page 6.
2. Insert either the DVD (64-bit platforms) or CD1 (32-bit platforms) of the Autodesk distribution of Red Hat Enterprise Linux WS in the CD-ROM drive.
3. Press the power switch to restart the system.
4. If the workstation is not configured to boot from the CD-ROM drive, configure it as follows:
  - When the workstation starts to boot, press **F12** to enter the BIOS.
  - Change the First Startup Device to CD/DVD-ROM (use the arrow keys to navigate the boot menus, and press **ESC** to exit menus).
  - Select Save Settings and press **ENTER** to reboot the system from the CD-ROM.
5. At the `boot` prompt, launch the installation procedure by typing:  
**linux ks=cdrom** then pressing **ENTER**

**NOTE:** The system will spend several minutes loading drivers.

6. If you replaced your workstation's system disk with an uninitialized disk, when prompted, confirm initialization of the disk.
7. If you are installing on a 32-bit platform, insert each of the remaining Autodesk distribution of Red Hat Enterprise Linux WS CDs as you are prompted. After the last of the four CDs you will be prompted to re-insert CD1 in the CD-ROM drive.
8. When prompted with “Congratulations, the installation is complete”, eject the DVD (64-bit platforms) or CD (32-bit platforms) from the CD-ROM drive, and click Reboot to reboot the system.

**NOTE:** After the system is rebooted, you may be prompted by the Kudzu hardware setup utility to set up new hardware detected for your workstation. You can ignore these prompts and allow the utility's count-down to expire since the hardware for the workstation is unchanged.

9. In the Red Hat login screen, log in as root using the following information:

For:	Enter:
Username	<b>root</b>
Password	<b>password</b>

10. Open a terminal and modify the root password to secure the system. Type:

**passwd**

Change the password when prompted.

11. Configure the following settings for the Linux workstation. If necessary, consult the Red Hat online documentation to configure these settings.

- Network settings for your facility.
- Time zone for your geographic location; the workstation is set to North American Eastern Standard Time (EST) by default.

**NOTE:** By default, the host name of the workstation is set to “discreet”.

## Installing the Customized Linux Kernel

The customized Linux kernel is available from the *Discreet Kernel Utility for Linux* CD. If you are not sure whether the CD you have in hand is the correct one for your release, consult the Release Notes for your product. The Release Notes contain the most recent information about your release. If the Release Notes do not specify the version of the Discreet Kernel Utility (DKU) your release requires, refer to the Software Installation Guide for Linux Workstations.

**NOTE:** You can also download the Discreet Kernel Utility from the FTP site. For information, contact Customer Support.

The installation script for the customized Linux kernel also installs the Discreet Storage Manager (DSM).

### To install the customized Linux kernel:

1. In a graphic desktop, log in as root and open a terminal.

**NOTE:** Installing the customized Linux kernel in graphics mode with the X server running is highly recommended.

2. Insert the *Discreet Kernel Utility for Linux* CD in the CD-ROM drive.

3. Verify that the CD-ROM drive is mounted by typing:

```
df -k | grep cd
```

If you see `/dev/cdrom` in the system response, the CD-ROM drive is mounted. If the drive is not mounted, mount it manually by typing:

```
mount /mnt/cdrom
```

**NOTE:** If your workstation has multiple CD-ROM drives, the drive containing the *Discreet Kernel Utility* CD may not be mapped as `/mnt/cdrom`. You can use any mapped CD-ROM drive for this procedure by using the appropriate mount point for the CD-ROM drive in your workstation in these steps.

4. Go to the root directory of the CD-ROM by typing:

```
cd /mnt/cdrom
```

5. Launch the DKU installation script by typing:

```
./INSTALL_DKU
```

6. Wait for the DKU installation script to complete.

When the script completes, a warning appears for updating the DVS board and DVI-Ramp, and you are returned to the command prompt.

7. Return to the root directory by typing:

```
cd /
```

8. Eject the disk from the CD-ROM drive by typing:

```
eject /mnt/cdrom
```

9. Shut down the Linux workstation by typing:

```
shutdown -g0
```

10. If the shutdown command did not power off the workstation, do so now.

11. Before restarting the workstation, do the following:

- Ensure the Wacom® tablet is connected to the Linux workstation.
- Reconnect the storage devices (external disk arrays or internal storage) to the Linux workstation and power up the devices, if necessary.

**NOTE:** Wait for all the disks in the storage devices to power up before restarting the Linux workstation. The green light for each disk stops flashing once it is fully powered up.

12. Restart the workstation.

## 2 Installing Linux on a Workstation

**NOTE:** If the graphics monitor begins to flash, verify that the Wacom tablet is connected correctly.