

Dell™ UPS Upgrade Software Utility

# Installation and Configuration User's Guide

# Notes and Warnings



NOTE: A NOTE indicates important information that helps you make better use of your product.

---

**Information in this document is subject to change without notice.**

**© 2009 Dell Inc. All rights reserved.**

Reproduction in any manner whatsoever without the written permission of Dell Inc. is strictly forbidden.

Trademarks used in this text: *Dell* and the *DELL* logo are trademarks of Dell Inc.; *Microsoft*, *Vista*, *Windows*, *Windows Server*, and *Windows XP* are registered trademarks of Microsoft Corporation.

Other trademarks and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. Dell Inc. disclaims any proprietary interest in trademarks and trade names other than its own.

November 2009 • 164201891 1

# Table of Contents

- 1 Introduction
  - Supported Platforms** ..... 4
  - Supported UPS Models** ..... 5
  - Supported Languages** ..... 5
- 2 Installing the Utility
  - Installing the Utility** ..... 6
  - Uninstalling the Utility** ..... 14
- 3 Using the Utility
  - Exploring the Dell UPS Upgrade Software Window** ..... 17
  - Before You Begin** ..... 20
- 4 Upgrading UPS Firmware

# Introduction

The Dell™ UPS Upgrade Software utility is a user interface (UI) program for updating uninterruptible power system (UPS) firmware. The Dell UPS Upgrade Software utility can upgrade the UPS firmware locally using an RS-232 or USB port, or over a network using an Ethernet connection through the Dell™ Network Management Card. The utility resides on your PC.

 **NOTE:** Upgrades over a network require a Dell Network Management Card with a firmware version of v01.04.0000 or greater.

The Dell UPS Upgrade Software utility allows you to perform each upgrade through an easy-to-use upgrade management screen. You connect to the UPS you intend to upgrade, select the firmware version, and set the utility to upgrade locally or over a network. Then, before the upgrade begins, the Dell UPS Upgrade Software utility checks the viability of the upgrade in the following ways:

- Validates all required settings
- Verifies the new firmware version is compatible with the UPS model you intend to upgrade
- Confirms the new firmware version is more recent than the version currently on the UPS
- Determines that communication is established with the UPS

After all upgrade conditions are evaluated, the utility displays the result. If setup errors are detected, error messages help you determine the problem. If there are no errors, you can begin the upgrade.

## Supported Platforms

The Dell UPS Upgrade Software utility supports the following operating system platforms:

- Microsoft® Windows Server® 2008, Standard Edition
- Microsoft Windows Server 2008, Standard x64 Edition
- Microsoft Windows Server 2003 R2, Standard Edition with SP2
- Microsoft Windows Server 2003 R2, Standard x64 Edition with SP2
- Microsoft Small Business Server 2003 R2 with SP2
- Microsoft Windows XP® Professional with SP3
- Microsoft Windows XP Home with SP3
- Microsoft Windows Vista® Home Premium with SP1
- Microsoft Windows Vista Business with SP1
- Microsoft Windows Vista Ultimate with SP1
- Microsoft Windows 7®

## Supported UPS Models

The Dell UPS Upgrade Software utility supports the Dell UPS System models listed in Table 1.

**Table 1. Supported UPS Models**

<b>Product</b>	<b>Models</b>
500W to 2700W Line Interactive (LI) UPS Systems	Dell 500T LV, Dell 500T HV, Dell 1000T LV, Dell 1000T HV, Dell 1920T LV, Dell 1920T HV, Dell 1000R LV, Dell 1000R HV, Dell 1920R LV, Dell 1920R HV, Dell 2700R/T LV, Dell 2700R/T HV-US, Dell 2700R/T HV
2700W Online (OL) UPS Systems	Dell 2700R Telco LV, Dell 2700R Telco HV-US, Dell 2700R Telco HV
3750W and 4200W Online (OL) UPS Systems	Dell 3750R HV-US, Dell 3750R HV, Dell 4200R HV-US, Dell 4200R HV
5600W Line Interactive (LI) and Online (OL) UPS Systems	Dell 5600R LI HV-US, Dell 5600R LI HV, Dell 5600R OL HV-US, Dell 5600R, OL HV

## Supported Languages

The Dell UPS Upgrade Software utility supports the following languages:


- English
- French
- Spanish
- German
- Simplified Chinese
- Japanese
- Russian
- Korean
- Traditional Chinese

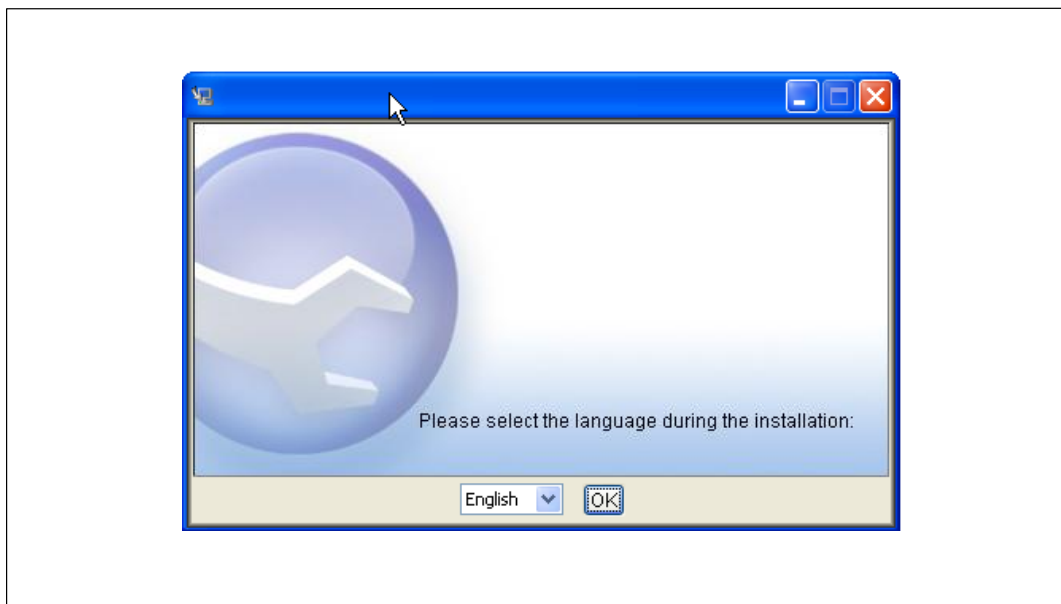
# Installing the Utility

This chapter describes how to install and uninstall the Dell UPS Upgrade Software utility.

## Installing the Utility

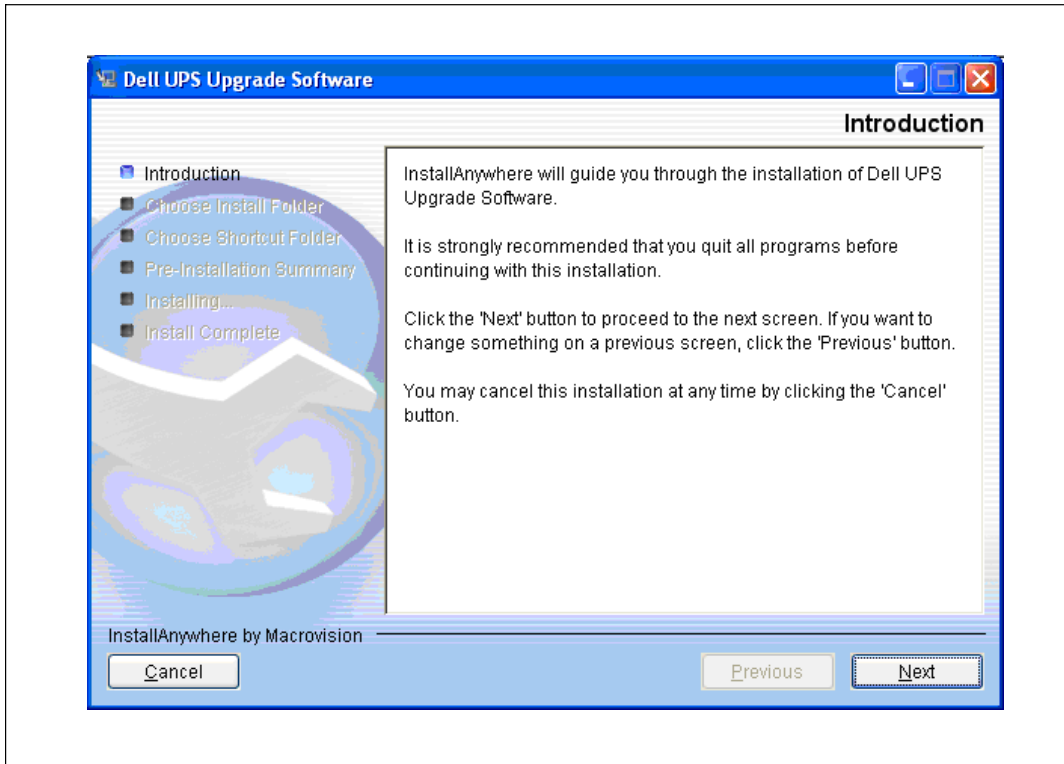
This section includes instructions for installing the Dell UPS Upgrade Software utility.

- 1 Double-click the setup icon  to run the `setup.exe` program and begin installation.
- 2 Select the language to display during installation and click **OK** (see Figure 1).



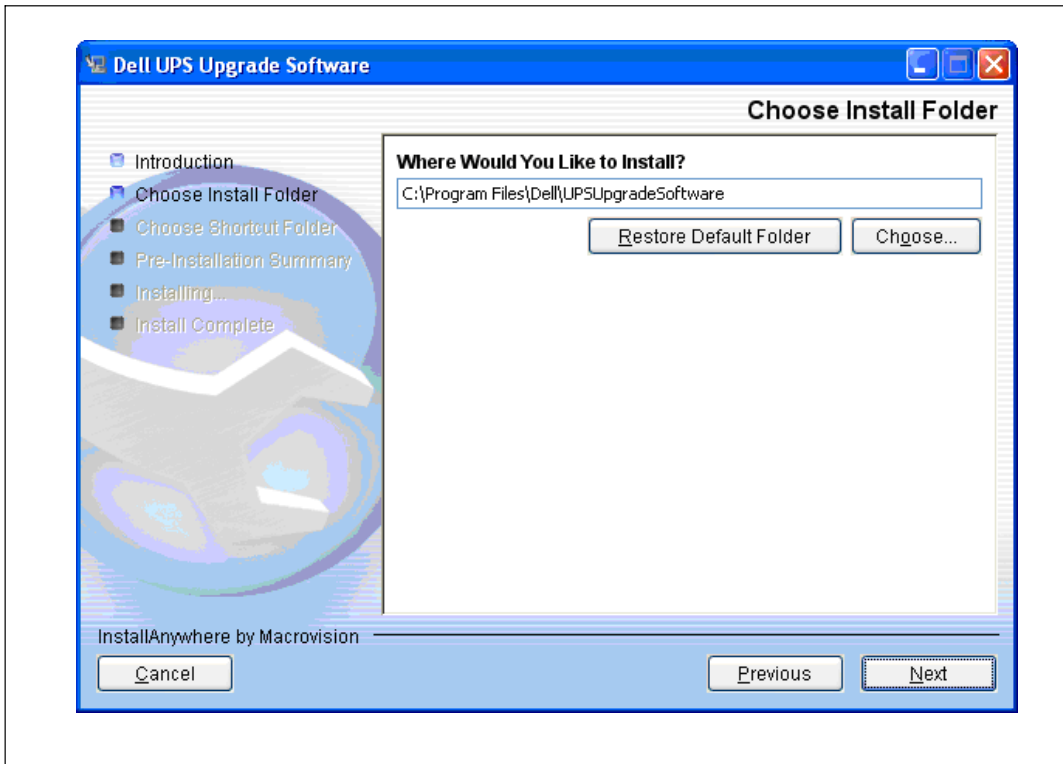
**Figure 1. Selecting the Language**

3 Review the Introduction window content and click **Next** (see Figure 2).



**Figure 2. Introducing Utility Installation**

- 4 By default, the software installs to C:\Program Files\Dell\UPSUpgradeSoftware. Change the location if needed and click **Next** (see Figure 3).



**Figure 3. Choosing an Installation Location**



- 5 Select the option you will use to start the utility, then click **Next** (see Figure 4). See Table 2 for a description of each startup option in the **Choose Shortcut Folder** window.

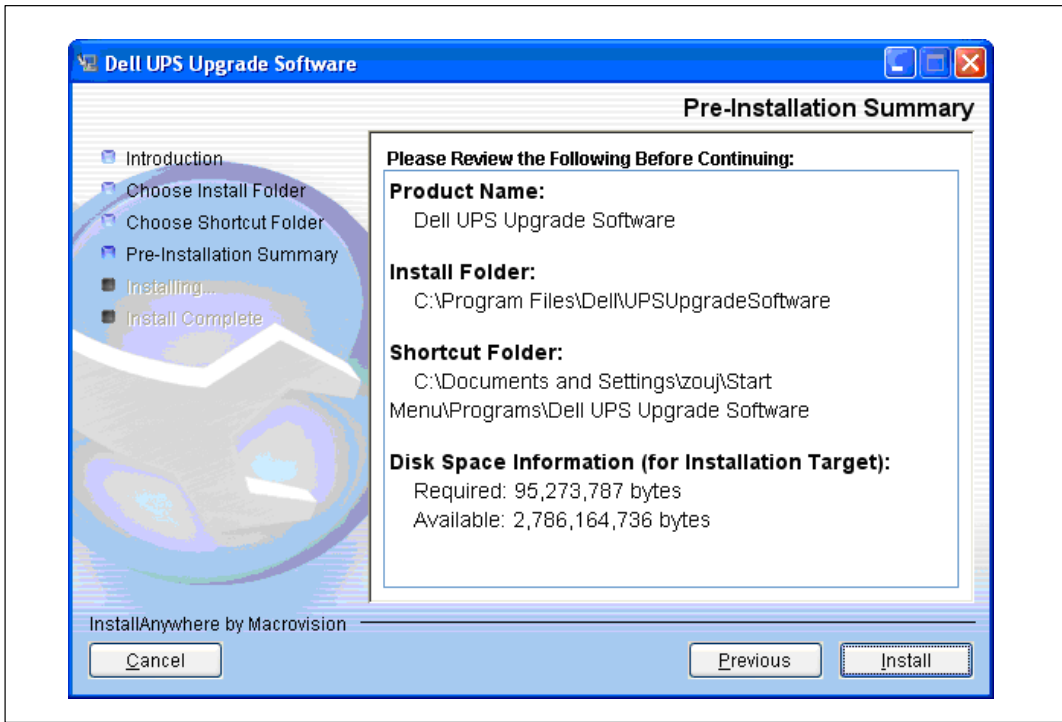


**Figure 4. Choosing a Utility Startup Option**

**Table 2. Choose Shortcut Folder Settings**

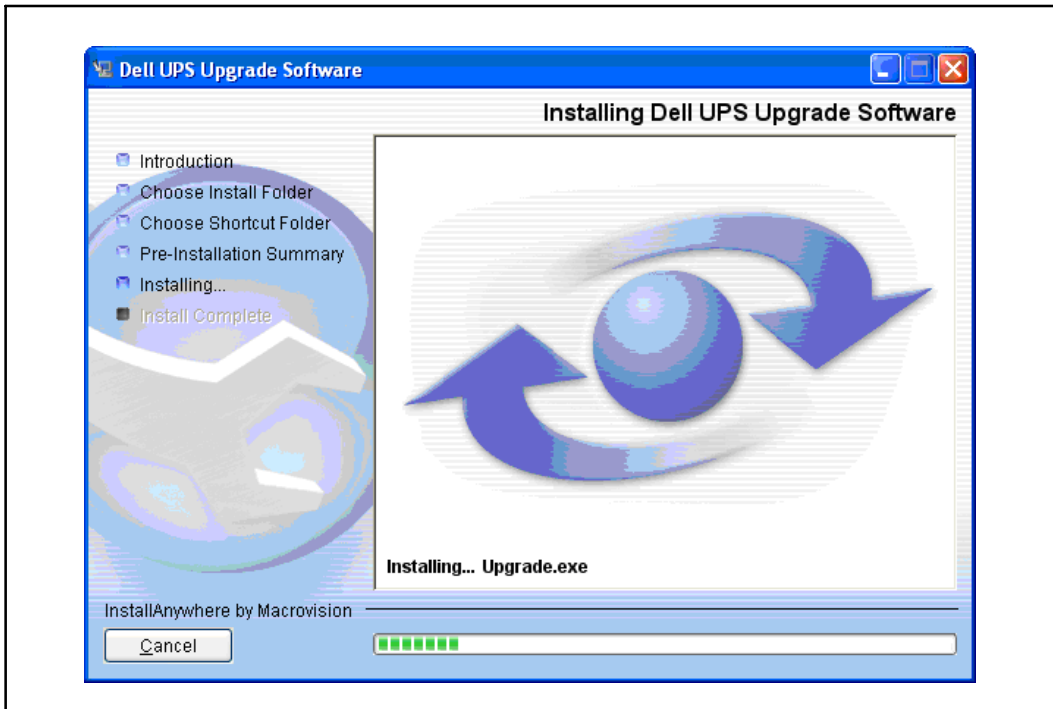
<b>Startup Option</b>	<b>Activation</b>	<b>Action</b>
<b>In a new Program Group</b> (Default)	<ul style="list-style-type: none"><li>• To disable the <b>Create Icons for All Users</b> feature, deselect the checkbox.</li><li>• Click <b>Next</b> to accept the default.</li></ul>	Start the utility from the <b>Start menu &gt; All Programs &gt; Dell UPS Upgrade Software</b> path.
<b>In the Start Menu</b>	<ul style="list-style-type: none"><li>• Select the option.</li><li>• To disable the <b>Create Icons for All Users</b> feature, deselect the checkbox.</li><li>• Click <b>Next</b>.</li></ul>	Start the utility from the <b>Start menu &gt; All Programs</b> path. The selection is not under a program group.
<b>On the Desktop</b> (Default)	<ul style="list-style-type: none"><li>• Select the option.</li><li>• To disable the <b>Create Icons for All Users</b> feature, deselect the checkbox.</li><li>• Click <b>Next</b>.</li></ul>	Start the utility by clicking the upgrade icon on the desktop.
<b>In the Quick Launch Bar</b>	<ul style="list-style-type: none"><li>• Select the option.</li><li>• To enable the <b>Create Icons for All Users</b> feature, select the checkbox.</li><li>• Click <b>Next</b>.</li></ul>	Start the utility by clicking the upgrade icon on the <b>Quick Launch Bar</b> .
<b>Create Icons for All Users</b> (Default)	<ul style="list-style-type: none"><li>• Select an option.</li><li>• Select or deselect the <b>Create Icons for All Users</b> checkbox.</li><li>• Click <b>Next</b>.</li></ul>	The selected shortcut option is available to other privileged users who log on to this computer.

- Review the installation option selections. If the selections are correct, click **Install** to install the utility (see Figure 5).



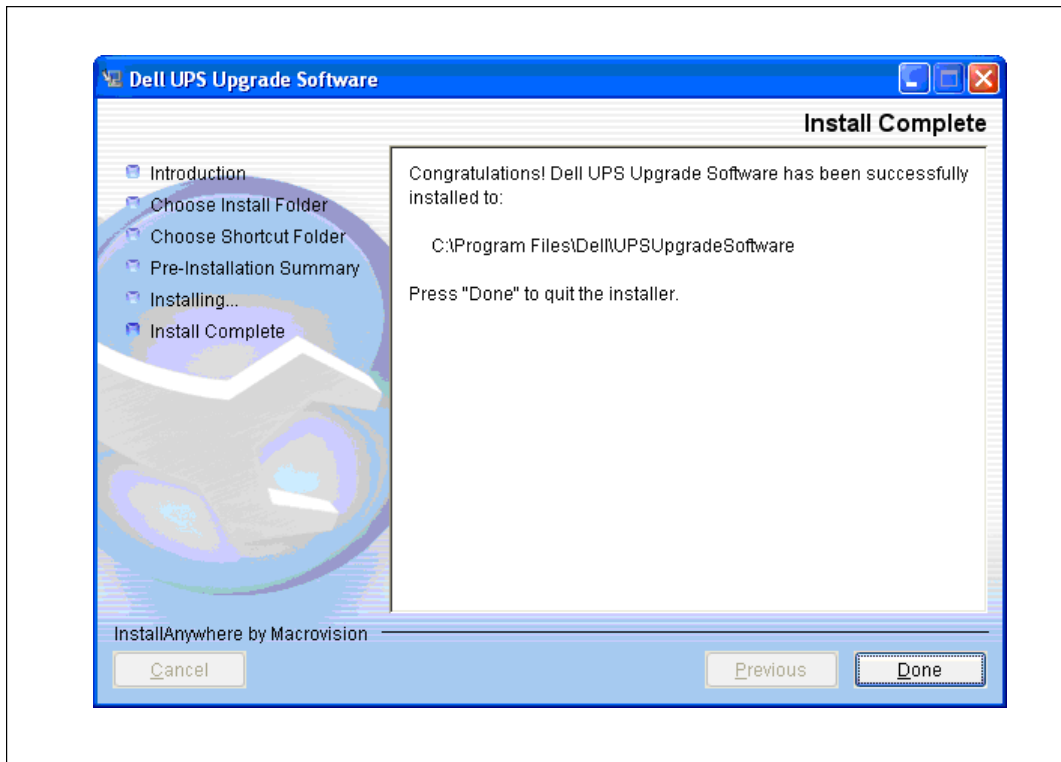
**Figure 5. Installing the Utility**

- 7 Monitor installation progress using the progress bar on the Dell UPS Upgrade Software window until installation completes (see Figure 6).



**Figure 6. Monitoring Progress as the Utility Installs**

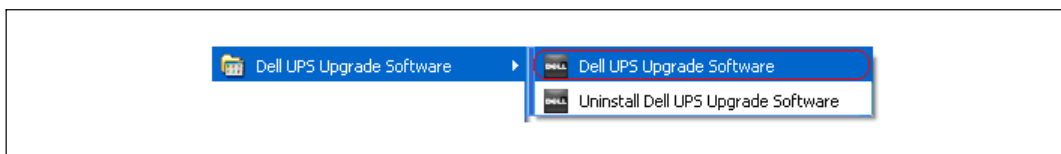
- 8 Click **Done** to exit (see Figure 7).



**Figure 7. Completing the Utility Installation**

- 9 Once installed, you can start the Dell UPS Upgrade Software utility using the start-up option you specified on the **Choose Shortcut Folder** window (see Figure 4 on page 9).

For example, if you accepted the default start-up method (**In a new Program Group**), you will start the utility using the **Start menu > All Programs > Dell UPS Upgrade Software** path (see Figure 8).

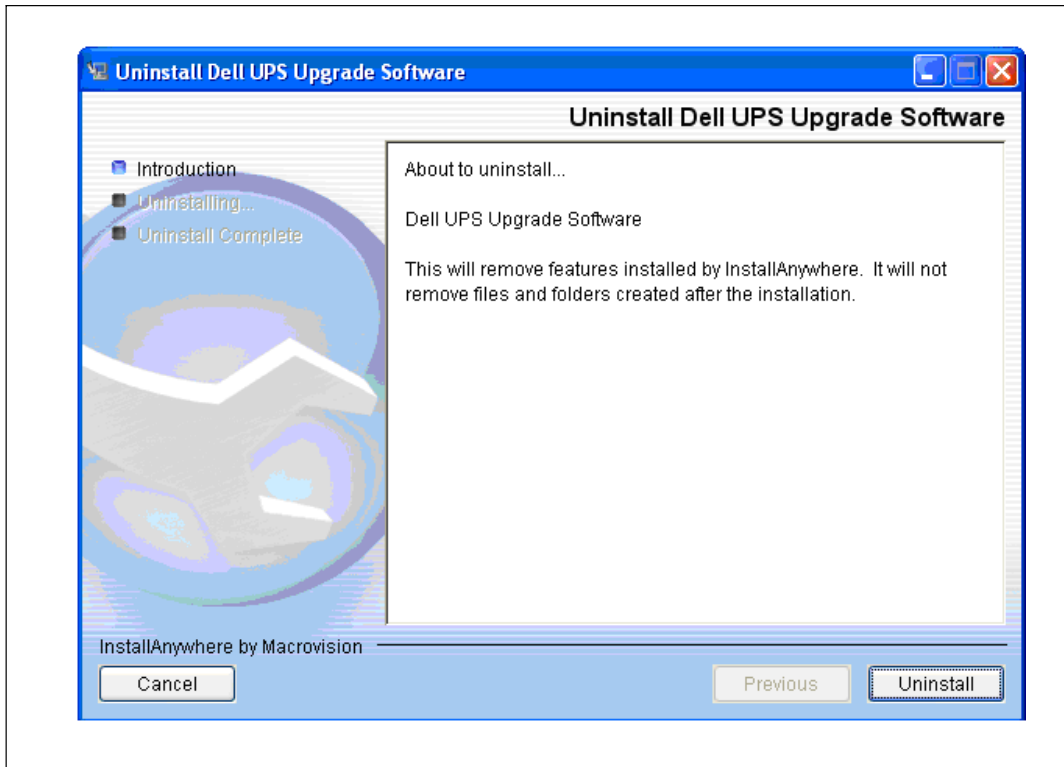


**Figure 8. Selecting the Utility from the Start Menu**

## Uninstalling the Utility

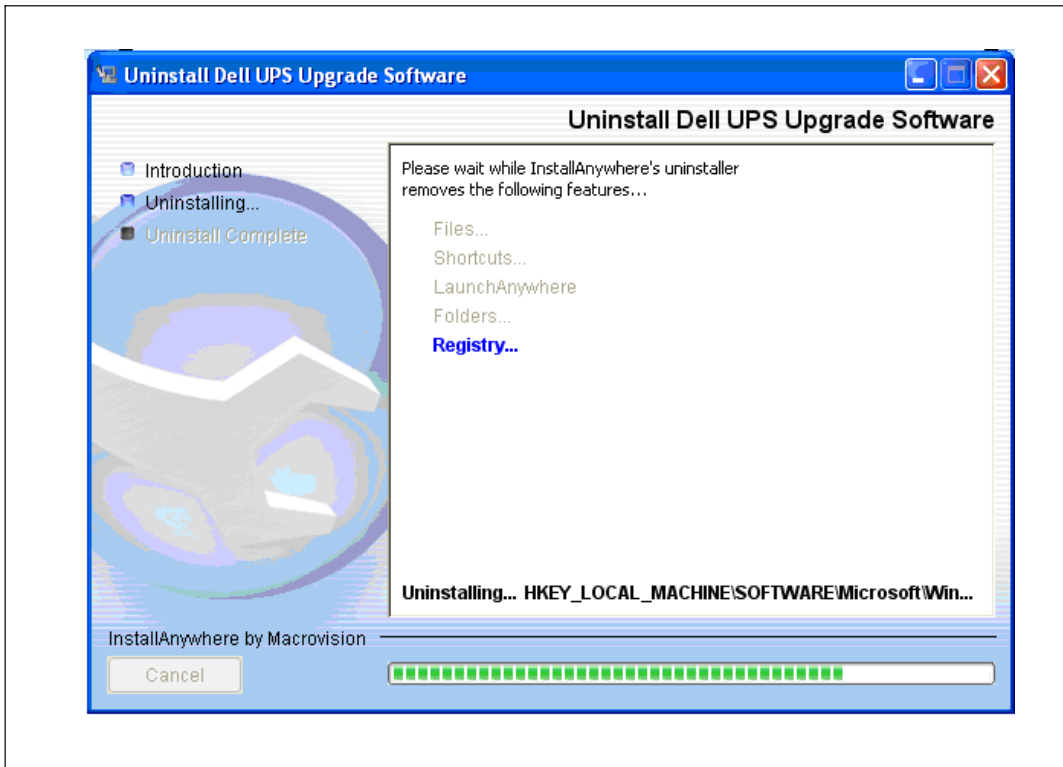
This section includes instructions for uninstalling the Dell UPS Upgrade Software utility.

- 1 Exit the Dell UPS Upgrade Software utility.
- 2 Begin uninstalling the software in one of the following ways:
  - If you chose to start the utility using a **Start menu** selection, follow the appropriate **Start menu > All Programs** path and select **Uninstall Dell UPS Upgrade Software**.
  - If you chose to start the utility from an icon or by using the **Upgrade.exe** file, select **Start menu > Control Panel > Add/Remove Program**. Select **Dell UPS Upgrade Software** and click **Change/Remove**.
- 3 The Uninstall Dell UPS Upgrade Software window opens. Click **Uninstall** to continue (see Figure 9).



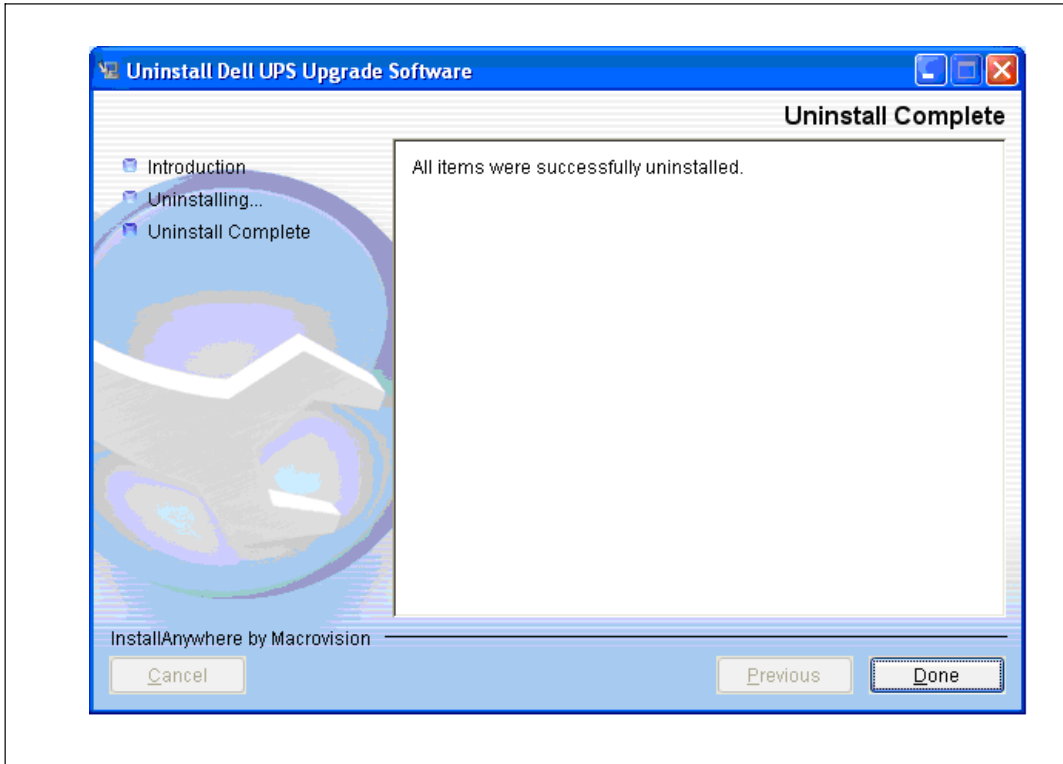
**Figure 9. Introducing Utility Removal**

- 4 The Uninstall Dell UPS Upgrade Software window displays a progress bar while the utility uninstalls (see Figure 10).



**Figure 10. Monitoring Progress as the Utility Uninstalls**

- 5 After the Dell UPS Upgrade Software utility uninstalls completely, click **Done** (see Figure 11).



**Figure 11. Completing the Utility Removal**



## Using the Utility

This chapter describes the Dell UPS Upgrade Software window and provides prerequisites for upgrading the UPS using the Dell UPS Upgrade Software utility.

### Exploring the Dell UPS Upgrade Software Window

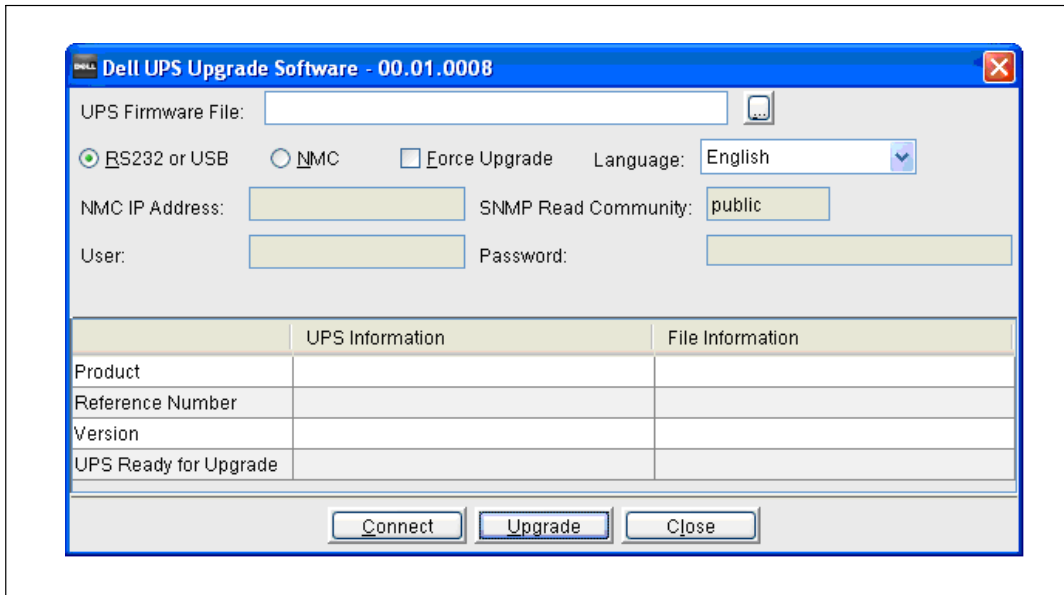
Use the Dell UPS Upgrade Software window to perform the following:

- Select upgrade settings and set upgrade preferences
- Verify unique UPS and firmware file version identification data before you upgrade the UPS
- Initiate the UPS firmware upgrade

 **NOTE:** You must reconfigure upgrade settings each time you upgrade the UPS firmware.

The Dell UPS Upgrade Software window allows you to select upgrade settings. For example, use this window to select the firmware version for the UPS upgrade. You can also direct the upgrade through either the RS-232 or USB port, or use the Dell Network Management Card Ethernet interface to upgrade the firmware (see Figure 12).

See Table 3 on page 19 for descriptions of the fields and buttons on the Dell UPS Upgrade Software window.



**Figure 12. Dell UPS Upgrade Software Window**

**Table 3. Upgrade Software Window Selections**

<b>Field</b>	<b>Purpose</b>	<b>Description</b>
UPS Firmware File	Upgrade Setting	Produces a list of UPS firmware versions. The program reference number and firmware version display in the <b>UPS Information</b> column for the file you select.
RS232 or USB	Upgrade Setting	Updates the UPS firmware through the RS-232 or USB port.
NMC	Upgrade Setting	Enables the <b>NMC IP Address</b> and <b>SNMP Read Community</b> fields for updating the UPS firmware through the Ethernet.
Force Upgrade	Upgrade Setting	Forces a subsequent upgrade after a processing problem prevents the upgrade from completing. Force Upgrade mode validates only the program reference number before upgrading the UPS firmware.
Language	Upgrade Setting	Changes the language. The default language depends on the operating system language selected on your computer.
NMC IP Address	Upgrade Setting	Provides the Dell Network Management Card IP address to direct the utility to upgrade the UPS over an Ethernet network.
SNMP Read Community	Upgrade Setting	Provides the community string for communicating over an Ethernet network.
User	Upgrade Setting	Provides the user name for communicating over an Ethernet network.
Password	Upgrade Setting	Provides the password for communicating over an Ethernet network.
<b>Display Only</b>	<b>Purpose</b>	<b>Description</b>
UPS Information	Information	Provides unique identification data for the currently connected UPS before the upgrade starts.
File Information	Information	Provides unique identification data for the currently selected firmware file before the upgrade starts.
<b>Button</b>	<b>Purpose</b>	<b>Description</b>
Connect	Action	Generates data in the <b>UPS Information</b> column when selected.
Upgrade	Action	Starts the UPS firmware upgrade.
Close	Action	Closes the utility window without saving your changes.

## Before You Begin

Before you begin the upgrade, verify that you can provide a proper connection to the UPS as follows:

- If you are upgrading the UPS firmware through an RS-232 or USB port, connect only to the UPS you intend to upgrade—even if you are using a multi-port PC. A single connection ensures that the upgrade utility communicates only with the UPS that you intend to upgrade.
- If you are using an Ethernet interface to upgrade the UPS firmware, verify the **NMC IP Address** and **SNMP Read Community** values for the UPS you intend to upgrade. Correctly entering these values ensures that the upgrade utility will know which UPS to upgrade, even if there are several UPSs online at the same time.



**NOTE:** Because the Dell UPS Upgrade Software utility receives UPS information through Simple Network Management Protocol (SNMP), SNMP must be enabled to use the Dell Network Management Card as an Ethernet interface to upgrade the UPS. Refer to the *Dell Network Management Card (NMC) User's Guide* for more information.




**NOTE:** You can use the Connect button on the Dell UPS Upgrade Software window to display UPS details and verify that you are connected to the correct UPS before you begin upgrading the UPS firmware.

AC input must be available and within the UPS operating range to begin the upgrade.

## Upgrading UPS Firmware

This chapter describes how to use the Dell UPS Upgrade Software utility to upgrade Dell UPS firmware. The instructions describe the upgrade procedure in the following sequence:

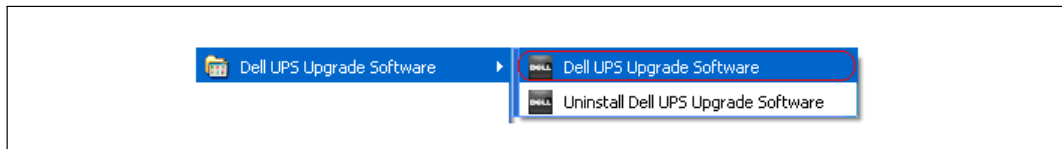
- Selecting upgrade settings
- Validating the operating state of the UPS and the upgrade settings you selected
- Completing the upgrade process

 **NOTE:** You can upgrade only one UPS at a time.

To select upgrade settings, perform the following:

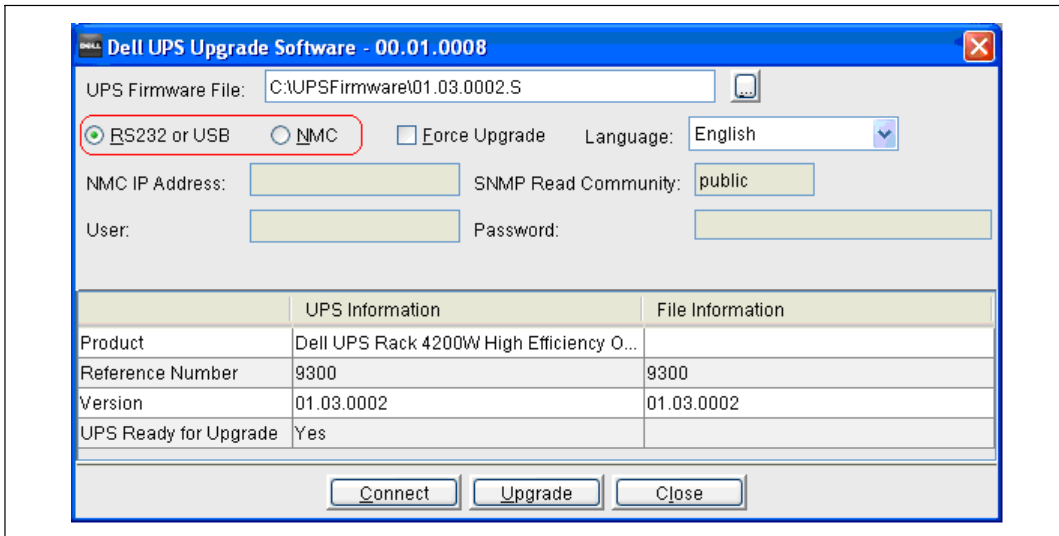
- 1 Review the important information in “Before you Begin” on page 20.
- 2 Start the Dell UPS Upgrade Software utility using the option you selected on the **Choose Shortcut Folder** window during installation.

For example, if you accepted the default start-up method (**In a new Program Group**), select the utility using the **Start menu > All Programs > Dell UPS Upgrade Software** path (see Figure 13). The Dell UPS Upgrade Software window opens.




**Figure 13. Starting the Utility from the Start Menu**

- 3 Choose one of the following communication methods through which to upgrade the UPS firmware (see Figure 14):
- Select **RS232 or USB** to use the PC COM port or USB port to upgrade locally.
  - Select **NMC** to use the Dell Network Management Card Ethernet interface to upgrade over the network.



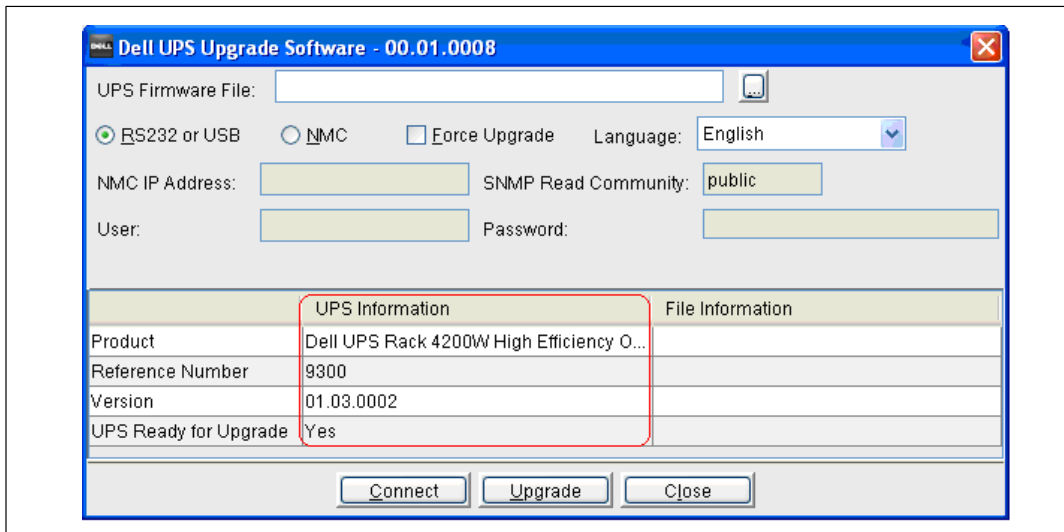
**Figure 14. Selecting the Communication Method**

- 4 **NMC option only.** Enter the IP address of the Dell Network Management Card, and either enter the **SNMP Read Community** value or accept the default value (**public**).

 **NOTE:** Unless SNMP is enabled, you cannot use the Dell Network Management Card as an Ethernet interface to upgrade the UPS.

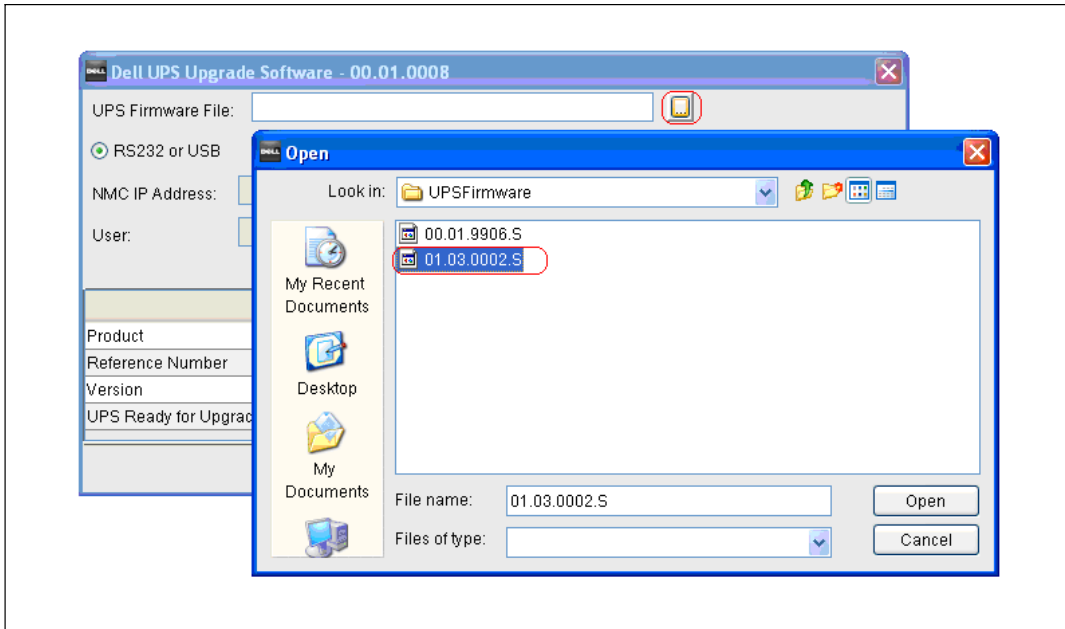
- 5 Complete the **User** and **Password** fields.

- 6 Click **Connect** to establish a connection to the UPS.
- 7 Verify that the UPS listed in the **UPS Information** column is the UPS you intend to upgrade (see Figure 15).



**Figure 15. Verifying the UPS to Upgrade**

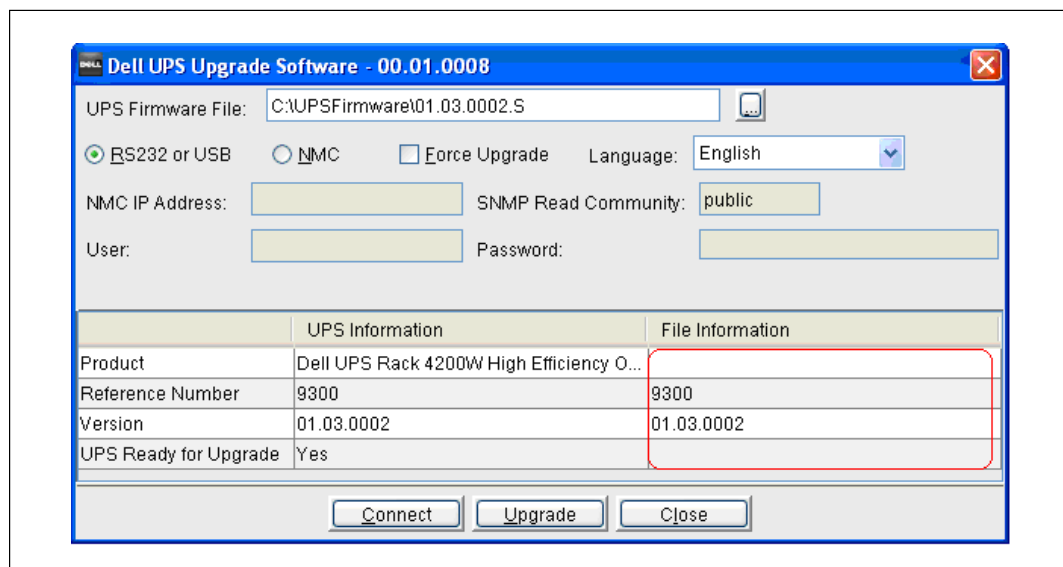
- Click the browse button beside the **UPS Firmware File** field. Select the upgrade file with the appropriate firmware version for this upgrade. Click **Open** (see Figure 16).



**Figure 16. Selecting the UPS Firmware File**



- 9 Ensure that the firmware version was correctly selected by verifying the program reference number and firmware version number in the **File Information** column (see Figure 17).



**Figure 17. Identifying the Firmware Version**


**NOTE:** Before the upgrade begins, the Dell UPS Upgrade Software utility validates the operating state, the upgrade settings you selected, firmware version compatibility with the selected UPS model, and the UPS connection.

- 10 Review the validation notification of the results to determine if the UPS is ready to be upgraded with the firmware you selected. (See Table 4 for descriptions of validation notifications.)
- If the validation results are successful, **Yes** displays in the **UPS Ready for Upgrade** field. Go to Step 12.
  - If the validation results are unsuccessful, **No** displays in the **UPS Ready for Upgrade** field. Resolve all errors (see Table 4). Go to Step 12.

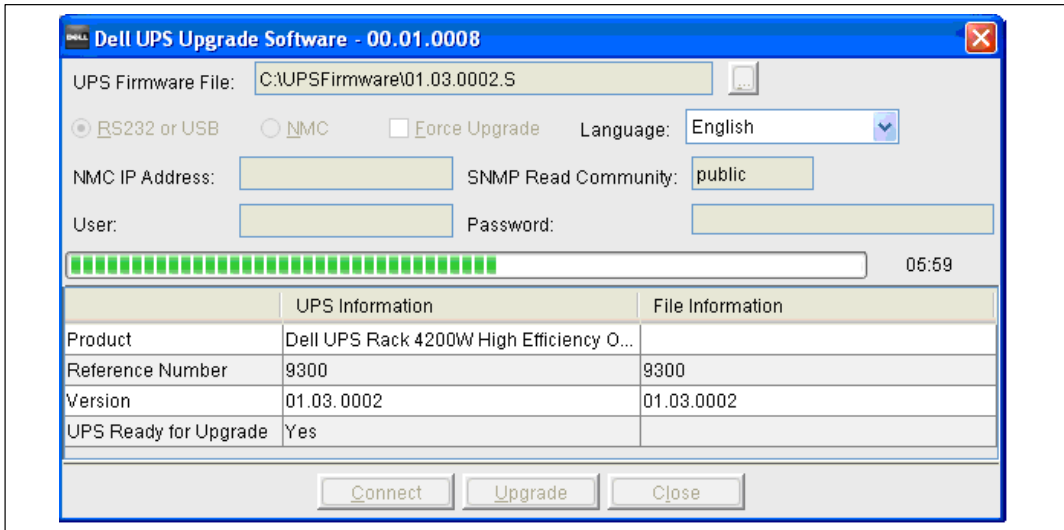
**Table 4. Validation Notification**

Notification	Description										
<table border="1"> <thead> <tr> <th colspan="2">UPS Information</th> </tr> </thead> <tbody> <tr> <td>Product</td> <td>Dell UPS Rack 4200W High Efficiency O...</td> </tr> <tr> <td>Reference Number</td> <td>9300</td> </tr> <tr> <td>Version</td> <td>01.03.0002</td> </tr> <tr> <td>UPS Ready for Upgrade</td> <td>Yes</td> </tr> </tbody> </table>	UPS Information		Product	Dell UPS Rack 4200W High Efficiency O...	Reference Number	9300	Version	01.03.0002	UPS Ready for Upgrade	Yes	<p>The UPS Ready for Upgrade field in the UPS Information column displays <b>Yes</b>. The UPS is ready for upgrade. The Dell UPS Upgrade Software utility begins upgrading the UPS firmware.</p>
UPS Information											
Product	Dell UPS Rack 4200W High Efficiency O...										
Reference Number	9300										
Version	01.03.0002										
UPS Ready for Upgrade	Yes										
<table border="1"> <thead> <tr> <th colspan="2">UPS Information</th> </tr> </thead> <tbody> <tr> <td>Product</td> <td>Dell UPS Rack 4200W High Efficiency O...</td> </tr> <tr> <td>Reference Number</td> <td>9300</td> </tr> <tr> <td>Version</td> <td>01.03.0002</td> </tr> <tr> <td>UPS Ready for Upgrade</td> <td>No</td> </tr> </tbody> </table>	UPS Information		Product	Dell UPS Rack 4200W High Efficiency O...	Reference Number	9300	Version	01.03.0002	UPS Ready for Upgrade	No	<p>The UPS Ready for Upgrade field in the UPS Information column displays <b>No</b>. The UPS is not ready for upgrade. The UPS is not in the correct operating mode, communication is not established with the UPS, there is a firmware version error, or the UPS cannot accept the command from serial port currently. To continue the upgrade, resolve the error.</p>
UPS Information											
Product	Dell UPS Rack 4200W High Efficiency O...										
Reference Number	9300										
Version	01.03.0002										
UPS Ready for Upgrade	No										
<p>Error Message Text:  <b>File Format Error</b></p>	<p>An incompatible UPS firmware version is selected. Click <b>OK</b>. Reselect the firmware version.</p>										
<p>Error Message Text:  <b>No UPS connected or unable to open connection</b></p>	<p>Communication with the UPS is lost. Click <b>OK</b>. Check the UPS connection.</p>										
<p>Error Message Text:  <b>The UPS firmware version you selected is the same or older than the firmware presently in the UPS. Are you sure that you want to proceed?</b></p>	<p>The firmware version is not more recent than the firmware version on the UPS. Click <b>Yes</b> to continue the upgrade. Click <b>No</b> to cancel the upgrade. Reselect a newer firmware version.</p>										
<p>Error Message Text:  <b>The user or password you typed is not correct</b></p>	<p>The user or password communicating over the Dell Network Management Card is not correct. Click <b>OK</b>. Check the user name and password.</p>										

**11** Click **Upgrade** on the Dell UPS Upgrade Software window (see Figure 17).

 **NOTE:** After you click **Upgrade**, the UPS requires several seconds to prepare for the upgrade. As a result, the progress bar on the Dell UPS Upgrade Software window will not be synchronized with the UPS progress bar. This is normal.

**12** Monitor the progress of the upgrade using the progress bar in the Dell UPS Upgrade Software window (see Figure 18).

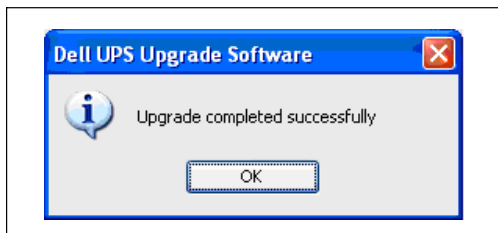


**Figure 18. Monitoring Progress as the UPS Firmware Upgrades**

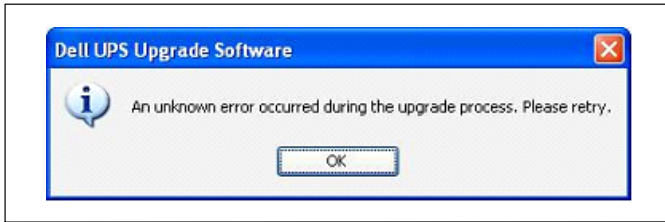
**NOTE:** While upgrading, the UPS LCD displays the message Flash Update in Process. A progress bar with the upgrade percentage completed also displays.

**13** Determine the upgrade completion status as follows:

- If the UPS firmware upgrade is successful, a notification message displays and this procedure is completed (see Figure 19).
- If errors occur during the upgrade, an error message displays (see Figure 20). Continue to Step 14.



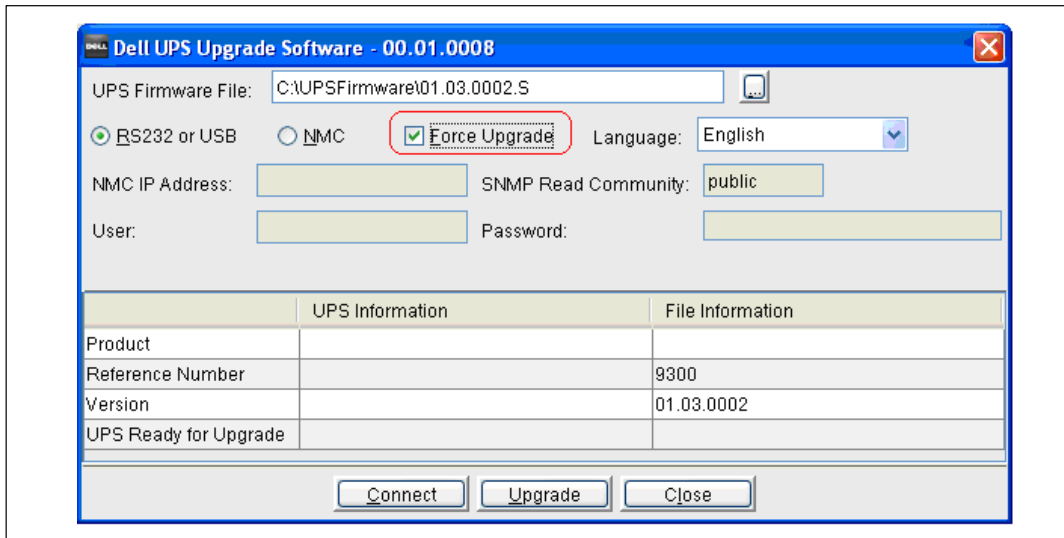
**Figure 19. Successful Upgrade Message**



**Figure 20. Upgrade Processing Error Message**

**14** Select **Force Upgrade** on the Dell UPS Upgrade Software window (see Figure 21).

**NOTE:** When you select Force Upgrade, only the program reference number is validated before the upgrade begins.



**Figure 21. Forcing the Upgrade**

**15** Click **Upgrade** to retry the UPS firmware upgrade.

**16** Determine the upgrade completion status as follows:

- If the UPS firmware upgrade is successful, a notification message displays (see Figure 19 on page 27).
- If retrying the UPS upgrade fails, contact Dell User Support at [www.support.dell.com](http://www.support.dell.com).