

# Camera Control Pro 2 Reference Manual

## Overview

This section describes the structure of this manual, outlines the main functions of Camera Control Pro 2, and gives the system requirements and installation instructions.

## Using Camera Control Pro 2

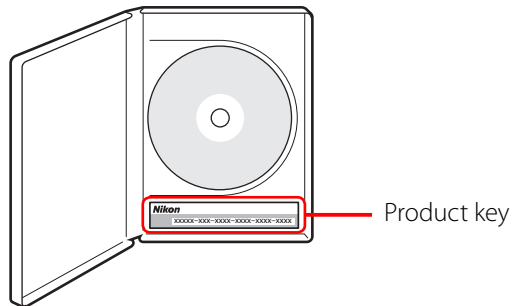
This section describes how to use Camera Control Pro 2.

## Appendices

This section lists preferences and describes how to uninstall the software.

### Important Information on the Product Key

The product key may be found on the CD-ROM case. **Do not lose this key.** It is required when installing or upgrading this software and can not be replaced if lost.



# Overview

<b>Introduction</b>	<b>3</b>
<b>About This Manual</b>	<b>6</b>
<b>System Requirements</b>	
<i>Windows</i>	<b>7</b>
<i>Macintosh</i>	<b>8</b>
<b>Installing Camera Control Pro</b>	<b>9</b>
<i>Windows</i>	<b>10</b>
<i>Macintosh</i>	<b>16</b>
<b>Getting Started</b>	
<b>Starting and Exiting Camera Control Pro</b>	<b>21</b>
<b>Getting Help</b>	<b>28</b>
<b>Software Updates</b>	<b>29</b>

Click a page number to view.

# Introduction

1/3

This manual has been written to help you take advantage of the many features included in Camera Control Pro 2. Be sure to read this manual thoroughly, and to keep it handy when using Camera Control Pro 2.

## Conventions

This manual assumes basic knowledge of cameras and Windows or Finder operations. Refer to the documentation provided with your computer or camera for more information. Where the Windows and Macintosh versions of the program use differing commands, the Windows menu name is listed first, followed by the Macintosh menu name in square brackets. Where multiple menu items or folders are selected in sequence, the menu items are separated by a ">".

Throughout this manual, Windows Vista Home Basic, Home Premium, Business, Enterprise, and Ultimate 32-bit editions are referred to as "Windows Vista." Windows XP Professional and Windows XP Home Edition are referred to as "Windows XP." Windows 2000 Professional is referred to as "Windows 2000." D1, D1X, and D1H cameras are referred to as "D1-series cameras," D2Xs, D2X, D2Hs, and D2H cameras as "D2-series cameras," D70s and D70 cameras as "D70-series cameras," and D40 and D40X cameras as "D40-series cameras." Except where necessary to distinguish it from older versions of Camera Control Pro, Camera Control Pro 2 is referred to as "Camera Control Pro."

## Illustrations

This manual is for use with both Windows and Macintosh. While the majority of the illustrations come from Windows Vista Ultimate, save where otherwise noted the operations described are the same in other operating systems. Depending on the operating system used, the dialogs and menus may differ from slightly from those shown here. Some illustrations are composites.

## Printing This Manual

To print this manual, select **Print** from the **File** menu in Adobe Reader. This manual is A5 size, allowing facing pages to be printed on a single sheet of A4 paper (to print facing pages, start printing from an even-numbered page).

## Installing/Uninstalling Camera Control Pro 2

Use an account with administrator privileges to install or uninstall Camera Control Pro 2.

# Introduction

2/3

## Camera Control Pro

Changes made to settings in the Camera Control Pro window only apply to photographs taken after the changes are made, not to photographs that have already been taken. Camera Control Pro can not be used to modify existing photographs.

The controls in the Camera Control Pro window vary with the type of camera connected. More information on camera settings may be found in the documentation provided with your camera.

## Illustrations

Save where otherwise noted, the illustrations in this section show the dialogs displayed when the D3 is connected.

## Camera Control Pro 2 for D100 Cameras (Macintosh)

Before using Camera Control Pro with a D100 digital camera under Mac OS X, confirm that the camera firmware is version 2.00 or later. Users of earlier versions will need to upgrade the camera firmware before using Camera Control Pro. Contact a Nikon-authorized service representative for information on firmware upgrades.

# Introduction

3/3

## Customer Support and Registration

To link to a Nikon customer support website, click **Link to Nikon** in the Camera Control Pro 2 installer window and click the link for your region. Click [here](#) for more information.



### Notices

- No part of the manuals included with this product may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language in any form, by any means, without Nikon's prior written permission.
- Nikon reserves the right to change the specifications of the hardware and software described in these manuals at any time and without prior notice.
- Nikon will not be held liable for any damages resulting from the use of this product.
- While every effort has been made to ensure that the information in these manuals is accurate and complete, we would appreciate it were you to bring any errors or omissions to the attention of the Nikon representative in your area (address provided separately).

### Note

The copying or reproduction of copyrighted creative works such as books, music, paintings, woodcut prints, maps, drawings, movies, and photographs is governed by national and international copyright laws. Do not use the camera for the purposes of making illegal copies or to infringe copyright laws. Do not use in venues where photography or recording is prohibited.

### Trademark Information

Microsoft, Windows, and Windows Vista are registered trademarks of Microsoft Corporation. Adobe Reader and Acrobat are registered trademarks of Adobe Systems, Inc. Macintosh, Mac OS, and QuickTime are registered trademarks of Apple Computer, Inc. All other trade names mentioned in this manual or the other documentation provided with your Nikon product are trademarks or registered trademarks of their respective holders.

# About This Manual

## How to Use This Manual

The pages of this manual are structured as shown here:

**1** Overview

**2** **Camera Controls** **3/18**

**The Exposure 2 Tab**  
The following settings can be adjusted from the Exposure 2 tab.

**3**

<b>Focus Point Focus Area</b>	The focus point and focus area can be selected using the arrow buttons; see the camera manual for details. For information on AF-area mode and focus mode, see <a href="#">"The Mechanical Tab."</a> <b>4</b>
<b>Metering Mode</b>	The metering mode can be selected from this menu (D3, D2 series, D300, D200, D80, D70 series, D50, and D40 series only). Metering mode defaults to the option selected with the camera. If a D1-series or D100 camera is connected, the current metering mode will be shown, but changes can only be made using camera controls. See the camera manual for details.
<b>Flash Sync Mode</b>	This option controls the camera flash sync mode. See the camera manual for details.

**5** **Return to first page** **Camera Control Pro 2** **56**

**1** Click here to go to the beginning of each of the three chapters. The chapter you are currently viewing is displayed in a darker color.

**2** Page title

**3** Description

**4** **Blue underlined text** indicates a link to another part of this manual or the World Wide Web. Click the text to follow the link (note that a web browser and an Internet connection are required to link to the World Wide Web). To return to the previous topic, click the button in Adobe Reader.

**5** Click here to return to the first page.

# System Requirements

## Windows

Before installing Camera Control Pro, be sure that your system meets the following requirements:

<b>CPU</b>	Intel Celeron, Pentium 4, or Intel Core series processor with a clock speed of 1 GHz or faster recommended
<b>OS</b>	Preinstalled versions of Windows Vista (32-bit Home Basic/Home Premium/Business/Enterprise/Ultimate editions), Windows XP (Home Edition/Professional), Windows 2000 Professional
<b>Hard-disk space</b>	50 MB required for installation, with an additional 1 GB of free disk space available when Camera Control Pro is running
<b>RAM</b>	<ul style="list-style-type: none"> <li>• <b>Windows Vista:</b> 512 MB (768 MB or more recommended)</li> <li>• <b>Other versions of Windows:</b> 256 MB (768 MB or more recommended)</li> </ul>
<b>Video resolution</b>	1,024 × 768 pixels or more with 24-bit color (True Color) or higher
<b>Interface*</b>	<b>USB:</b> Only built-in USB ports supported <b>IEEE 1394:</b> OHCI-compliant IEEE 1394 interface board or card required <sup>†</sup>
<b>Supported cameras</b>	D3, D2-series, D1-series <sup>‡</sup> , D300, D200, D100, D80, D70-series, D50, and D40-series cameras
<b>Miscellaneous</b>	<ul style="list-style-type: none"> <li>• CD-ROM drive required for installation</li> <li>• Internet connection required for Nikon Message Center</li> </ul>

\* Connect the camera directly to the computer. The camera may not function as expected when connected via a hub, extension cable, or keyboard.

† See the website below for the latest information on boards that have been tested and approved for use.

‡ D1-series cameras not supported under Windows Vista.

Check the support information at the website below for the latest on compatible cameras and operating systems.

**Europe, Africa:** [www.europe-nikon.com/support](http://www.europe-nikon.com/support)

**Asia, Oceania, Middle East:** [www.nikon-asia.com](http://www.nikon-asia.com)

**U.S.A.:** [www.nikonusa.com](http://www.nikonusa.com)

Additional information may be available from the Nikon representative in your area. Visit <http://nikonimaging.com/> for contact information.

# System Requirements

*Macintosh*

Before installing Camera Control Pro, be sure that your system meets the following requirements:

<b>CPU</b>	PowerPC G4 or G5 model, Intel Core, or Intel Xeon with a clock speed of 1 GHz or faster recommended
<b>OS</b>	Mac OS X version 10.3.9 or 10.4.10
<b>Hard-disk space</b>	100 MB required for installation, with an additional 1 GB of free disk space available when Camera Control Pro is running
<b>RAM</b>	256 MB (768 MB or more recommended)
<b>Video resolution</b>	1,024 × 768 pixels or more with 24-bit color (millions of colors) or higher
<b>Interface*</b>	<b>USB:</b> Only built-in USB ports supported <b>FireWire:</b> Only built-in FireWire ports supported
<b>Supported cameras</b>	D3, D2-series, D1-series†, D300, D200, D100, D80, D70-series, D50, and D40-series cameras
<b>Miscellaneous</b>	<ul style="list-style-type: none"> <li>• CD-ROM drive required for installation</li> <li>• Internet connection required for Nikon Message Center</li> </ul>

\* Connect the camera directly to the computer. The camera may not function as expected when connected via a hub, extension cable, or keyboard.

† D1-series cameras not supported on computers with Intel CPUs running Mac OS X version 10.3.9.

Check the support information at the website below for the latest on compatible cameras and operating systems.

**Europe, Africa:** [www.europe-nikon.com/support](http://www.europe-nikon.com/support)

**Asia, Oceania, Middle East:** [www.nikon-asia.com](http://www.nikon-asia.com)

**U.S.A.:** [www.nikonusa.com](http://www.nikonusa.com)

Additional information may be available from the Nikon representative in your area. Visit <http://nikonimaging.com/> for contact information.



# Installing Camera Control Pro

Before installing Camera Control Pro:

- Confirm that the computer satisfies the [system requirements](#) for Camera Control Pro.
- Exit any other applications that may be running, including anti-virus software.

Follow the links below to view installation instructions for your operating system:

[Windows](#)

[Macintosh](#)

## Existing Versions of Camera Control Pro

If an earlier version of Camera Control Pro is installed, uninstall the existing version before installing Camera Control Pro 2. If an existing copy of Camera Control Pro 2 is detected during installation, a notification will be displayed. Follow the on-screen instructions.

# Installing Camera Control Pro

**Windows 1/6**

Use an account with administrator privileges when installing Camera Control Pro.

## Camera Control Pro 2 Install Options

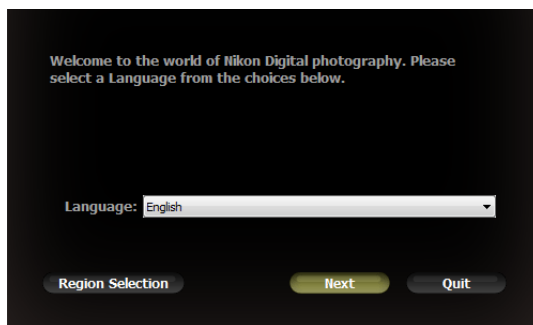
To display install options for Camera Control Pro:

**1** Insert the installer CD in a CD-ROM drive.

### **Windows Vista**

An AutoPlay dialog will be displayed; click **Run Welcome.exe**. A "User Account Control" dialog will be displayed; click **Allow**.

**2** A language-selection dialog will be displayed; select a language and click **Next**. If the desired language is not available, click **Region Selection** to choose a different region and then choose the desired language .



### If the Language Selection Dialog Is Not Displayed

To display the language selection dialog, select **Computer** or **My Computer** from the **Start** menu (**Windows Vista** or **Windows XP**) or double-click the **My Computer** icon on the desktop (**Windows 2000**) and double-click the CD-ROM (Camera Control Pro) icon in the My Computer window.

# Installing Camera Control Pro

## Windows 2/6



**Easy Install:** Install the minimum software needed to run Camera Control Pro.

**Custom Install:** Install selected software (not displayed in Windows Vista).

**Link to Nikon:** Download ViewNX or trial versions of Nikon software or visit Nikon technical support websites (Internet connection required).

**Instruction Manual:** Open the "Manuals" folder, which contains software instruction manuals. Double-click **INDEX.pdf** to view a region selection screen.

**Quit:** Close this dialog.

To uninstall Camera Control Pro, see [Uninstalling Camera Control Pro](#).

# Installing Camera Control Pro

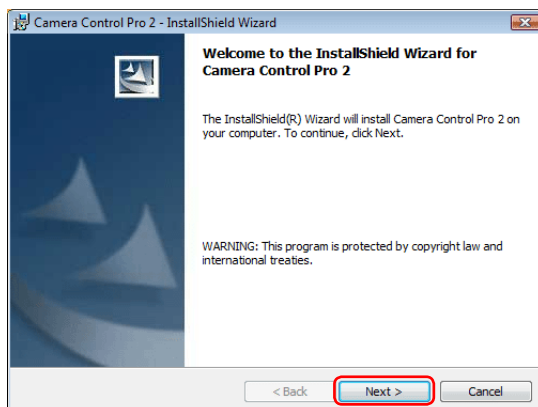
**Windows 3/6**

Follow the steps below to install Camera Control Pro:

## 1 Click **Easy Install**.



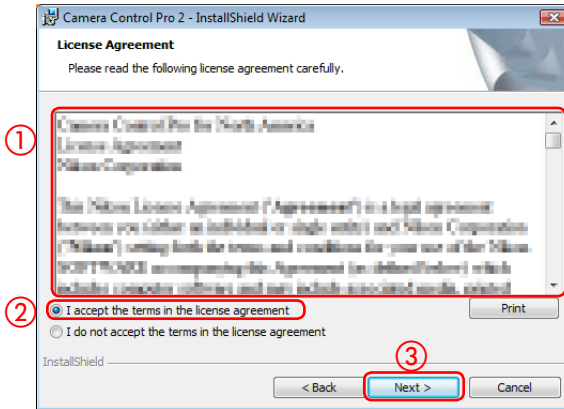
## 2 Click **Next**.



# Installing Camera Control Pro

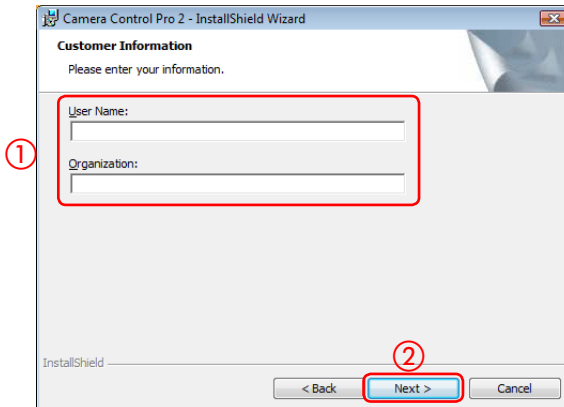
**Windows 4/6**

- 3** After reading the license agreement (①), select **I accept the terms of the license agreement** (②) and click **Next** (③) to proceed with installation.



A "ReadMe" file will be displayed. Take a moment to read this file, which may contain information that could not be included in this manual, and then click **Next**.

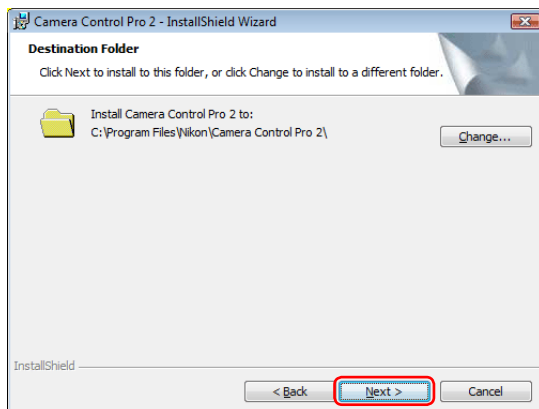
- 4** Personalize your copy of Camera Control Pro (①) and click **Next** (②).



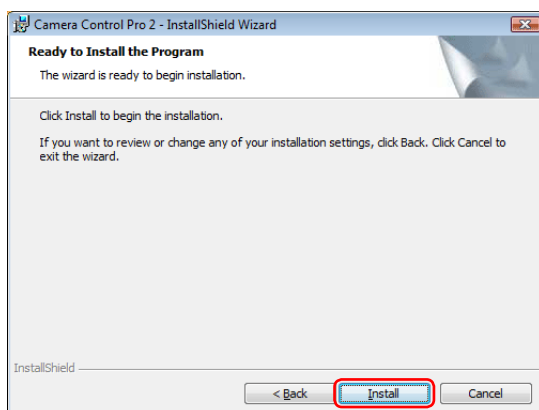
# Installing Camera Control Pro

**Windows 5/6**

- 5** The destination folder for Camera Control Pro will be displayed under “Install Camera Control Pro to.” Click **Next** to install Camera Control Pro to this folder, or click **Change...** to select another destination.



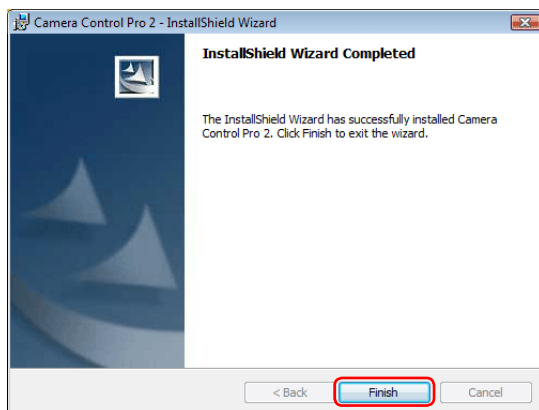
- 6** Click **Install**.



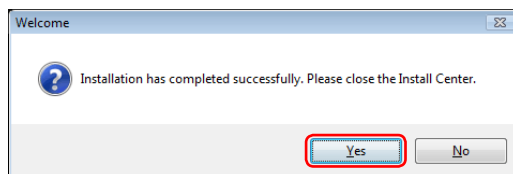
# Installing Camera Control Pro

*Windows 6/6*

**7** Click **Finish**.



**8** Click **Yes** and remove the installer CD from the CD-ROM drive.



If a dialog is displayed directing you to restart the computer, follow the on-screen instructions.

This completes installation of Camera Control Pro.



# Installing Camera Control Pro

**Macintosh 1/5**

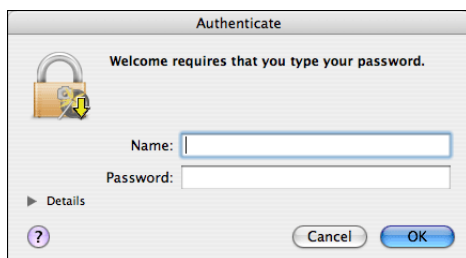
Use an account with administrator privileges when installing Camera Control Pro.

## Camera Control Pro 2 Install Options

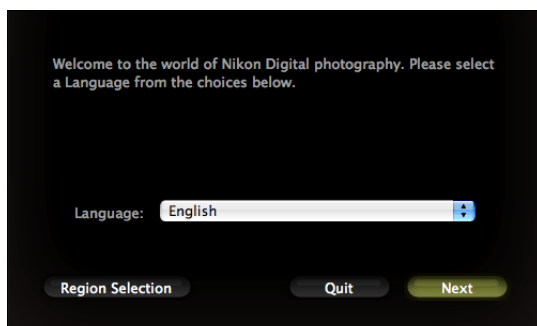
To display install options for Camera Control Pro:

- 1 Insert the installer CD in a CD-ROM drive. Double-click the Camera Control Pro CD-ROM icon (  ) on the desktop and then double click the **Welcome** (  ) icon.

- 2 The following dialog will be displayed; enter an administrator name and password and click **OK**.



- 3 A language-selection dialog will be displayed; select a language and click **Next**. If the desired language is not available, click **Region Selection** to choose a different region and then choose the desired language.





# Installing Camera Control Pro

**Macintosh 2/5**

**Easy Install:** Install the minimum software needed to run Camera Control Pro.

**Link to Nikon:** Download ViewNX or trial versions of Nikon software or visit Nikon technical support websites (Internet connection required).

**Instruction Manual:** Open the "Manuals" folder, which contains software instruction manuals. Double-click **INDEX.pdf** to view a region selection screen.

**Quit:** Close this dialog.

To uninstall Camera Control Pro, see [Uninstalling Camera Control Pro](#).

# Installing Camera Control Pro

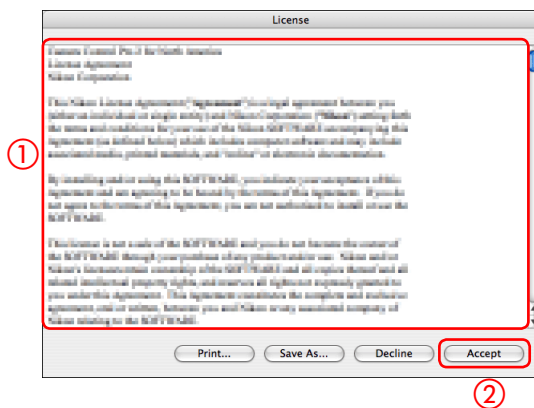
*Macintosh 3/5*

Follow the steps below to install Camera Control Pro:

**1** Click **Easy Install**.



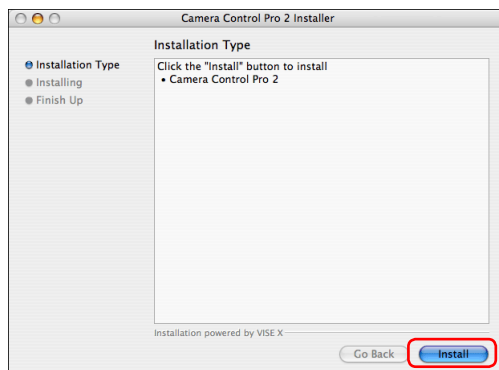
**2** After reading the license agreement (①), click **Accept** (②).



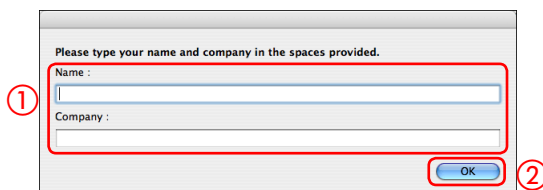
# Installing Camera Control Pro

**Macintosh 4/5**

**3** Click **Install**.



**4** Personalize your copy of Camera Control Pro (1) and click **OK** (2).



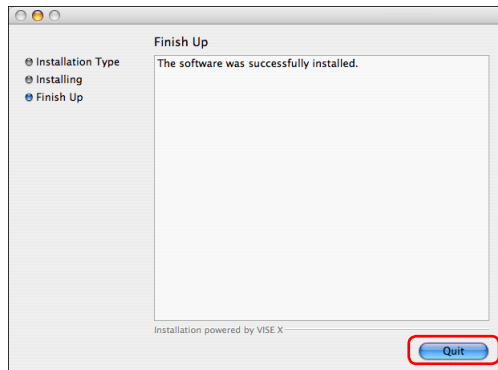
**5** Click **Yes**.



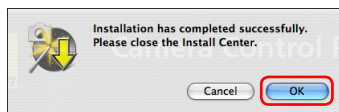
# Installing Camera Control Pro

*Macintosh 5/5*

## 6 Click **Quit**.



## 7 Click **OK** and remove the installer CD from the CD-ROM drive.



This completes installation of Camera Control Pro.

# Starting and Exiting Camera Control Pro

1/7

## Starting Camera Control Pro

- 1 Turn the camera off and use the interface cable to connect the camera to the computer as described in the camera manual. If you are using a D1-series camera, choose "PC" as the operating mode. If you are using a D100, choose P, S, A, or M mode. Users of D3, D2-series, D300, and D200 cameras can select any mode other than **M-up** (mirror up). Other cameras can be connected in any shooting mode.

### LANs

See the wireless transmitter user's manual for information on controlling cameras connected to local area networks (LANs) using WT-2, WT-3, or WT-4 wireless transmitters.

### USB

When using the D100 under Windows 2000, log in to an administrator account and set the camera **USB** option to **Mass Storage**; otherwise, set the camera **USB** option to **PTP**. When using other cameras equipped with a USB interface, set the camera **USB** option to **PTP** or **MTP/PTP**. D1-series cameras do not support USB.

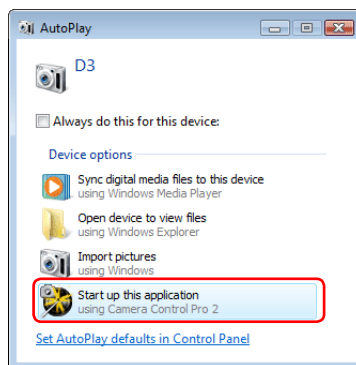
# Starting and Exiting Camera Control Pro

2/7

- 2 Turn the camera on. If Nikon Transfer or PictureProject Transfer starts, click the close button.

## USB Connection to Windows Vista/XP Computers

When a camera with USB interface is connected to a Windows XP computer, an AutoPlay dialog may be displayed.



Select the Camera Control Pro option to start Camera Control Pro.

# Starting and Exiting Camera Control Pro

3/7

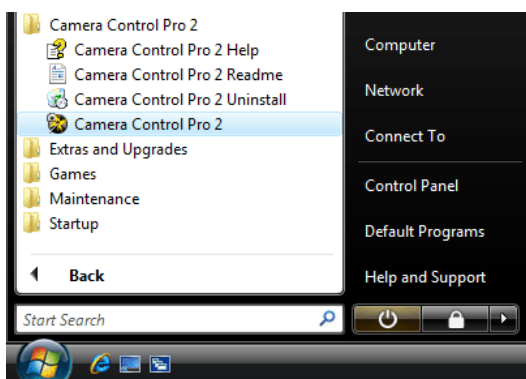
**3** Start Camera Control Pro.

## Windows

**Method 1:** Double-click the Camera Control Pro 2 shortcut on the desktop.



**Method 2:** Click **Start** and select **Camera Control Pro 2** in the program list.



## Macintosh

**Method 1:** Click the **Camera Control Pro 2** icon in the Dock (if available).



**Method 2:** Open the "Nikon Software/Camera Control Pro 2" folder in the "Applications" folder and double-click the **Camera Control Pro 2** icon.



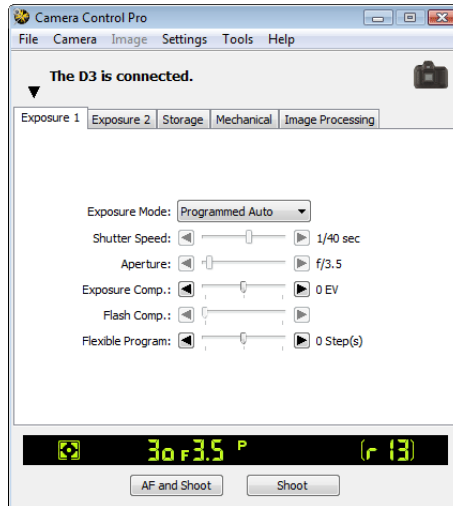
## Product Key

If prompted to supply a **product key**, enter the key found on the product packaging and click **OK**. Be sure not to lose the key or the key for any existing versions of Camera Control Pro, as they may be required when re-installing or upgrading the product.

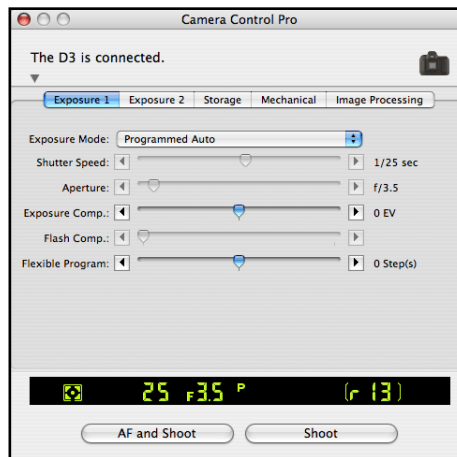
# Starting and Exiting Camera Control Pro

4/7

4 The Camera Control Pro window will be displayed.



*Windows*



*Macintosh*



# Starting and Exiting Camera Control Pro

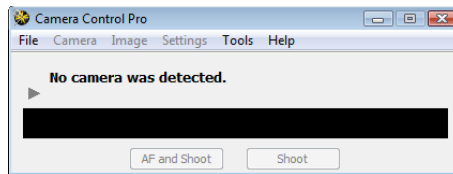
5/7

## Product Key

If prompted to supply a [product key](#), enter the key found on the product packaging and click **OK**. Users of the trial version will see a dialog listing the time remaining in the thirty-day trial period; click **Trial** to use the trial version or **Buy** (if available) to visit a website where you can purchase a product key (Internet connection required). Be sure not to lose the key, as it may be required when re-installing or upgrading the product.

## No Camera Connected

Most features of Camera Control Pro are only available when a camera is connected and turned on. If no camera is detected, the message shown below will be displayed. Connect the camera and turn it on.



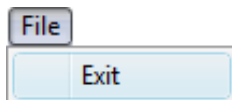
# Starting and Exiting Camera Control Pro

6/7

## Exiting Camera Control Pro

### Windows

Select **Exit** from the **File** menu.



### Macintosh

Select **Quit Camera Control Pro** from the application menu.



# Starting and Exiting Camera Control Pro

7/7

## Disconnecting the Camera

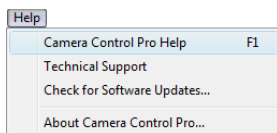
To disconnect the camera:

- **USB (PTP or MTP/PTP)/IEEE 1394 (FireWire)**: Turn the camera off and disconnect the interface cable.
- **USB (Mass Storage)**: When using a D100 camera under Windows 2000 with the camera **USB** option set to **Mass Storage**, click the "Unplug or Eject Hardware" icon in the taskbar and select **Stop USB Mass Storage Device** from the menu that appears, then turn the camera off and disconnect the interface cable.

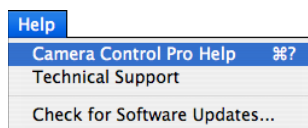


# Getting Help

To view help on Camera Control Pro, select **Camera Control Pro Help** from the **Help** menu.



**Windows**



**Macintosh**

# Software Updates

Camera Control Pro is equipped with an automatic update function known as Nikon Message Center. Nikon Message Center checks for updates to a variety of Nikon digital products, including Camera Control Pro. If the computer is connected to the Internet, Nikon Message Center will automatically check for updates when Camera Control Pro starts. You can also check for updates by selecting **Check for Software Updates...** from the **Help** menu. If an update is available, an update dialog will be displayed.

## Downloading Updates

An Internet connection is required to download updates. The user bears all applicable fees charged by the phone company or Internet service provider.

## Dial-up Connections

When using a dial-up connection, be aware that the connection is not automatically terminated when download is complete. Be sure to terminate the connection manually.

## Privacy

Information provided by the user as part of this service will not be given to third parties without the user's permission.

# Using Camera Control Pro

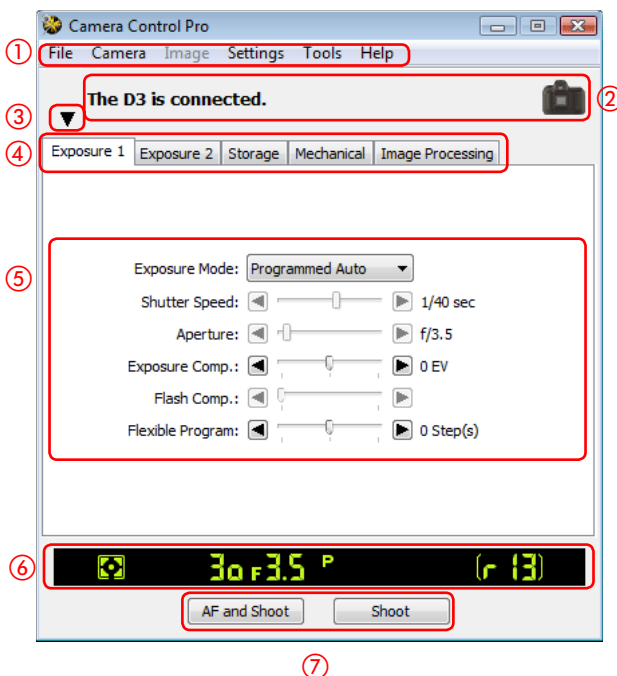
<b>Screen Layout</b>	<b>31</b>
<b>Capturing Photographs to Disk</b>	<b>33</b>
<b>Viewing Captured Photographs</b>	<b>39</b>
<b>Time Lapse Photography</b>	<b>42</b>
<b>Live View</b>	<b>46</b>
<b>The Camera Control Pro Window</b>	<b>50</b>
<b>Camera Controls</b>	<b>54</b>
<b>Saving and Loading Camera Control Settings</b>	<b>72</b>
<b>The Camera Menu</b>	<b>73</b>
<b>Custom Settings</b>	<b>77</b>

# Screen Layout

1/2

Camera Control Pro screen layout is described below using the D3 as an example.

## Windows



① **Menu bar**

② **Connection status:** Shows the status and name of any cameras connected.

③ **▼/▶:** View or hide camera controls. Camera controls can also be displayed or hidden by selecting **Show/Hide Camera Control Panels** in the **Tools** menu.

④ **Camera control tabs:** Click to view the associated camera controls.

⑤ **Camera controls**

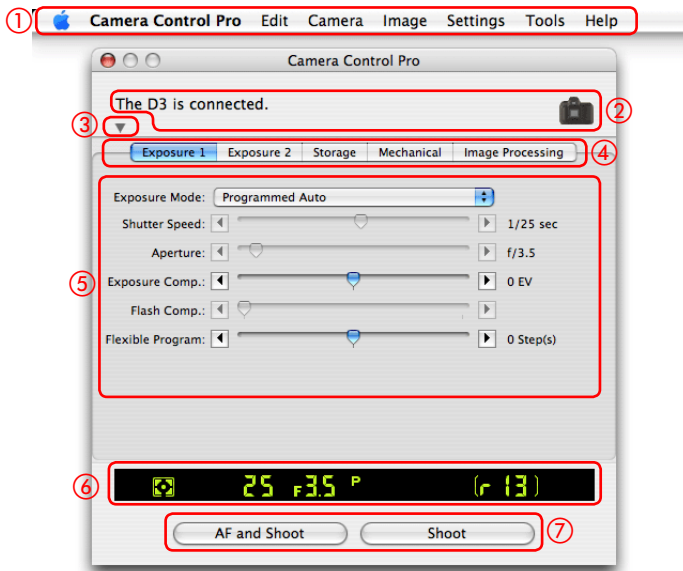
⑥ **Simulated LCD panel:** Performs the same function as the information display in the camera viewfinder.

⑦ **Shoot buttons:** Click these buttons to take pictures.

# Screen Layout

2/2

## Macintosh



- ① **Menu bar**
- ② **Connection status:** Shows the status and name of any cameras connected.
- ③ **▼/▶:** View or hide camera controls. Camera controls can also be displayed or hidden by selecting **Show/Hide Camera Control Panels** in the **Tools** menu.
- ④ **Camera control tabs:** Click to view the associated camera controls.
- ⑤ **Camera controls**
- ⑥ **Simulated LCD panel:** Performs the same function as the information display in the camera viewfinder.
- ⑦ **Shoot buttons:** Click these buttons to take pictures.

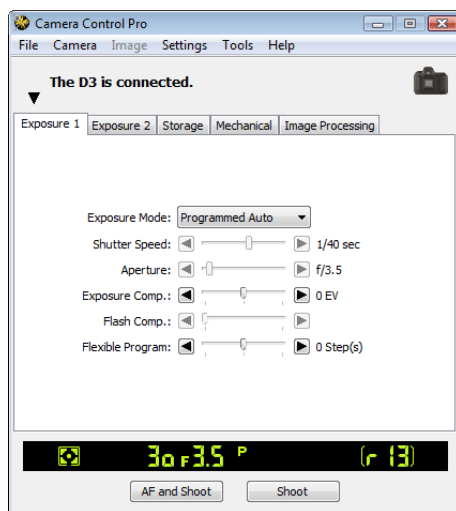


# Capturing Photographs to Disk

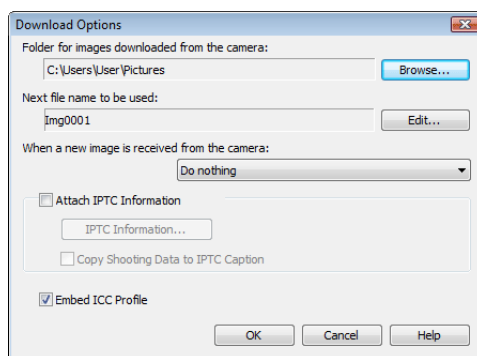
1/6

If Camera Control Pro is running when a supported camera connected, pictures taken with the camera will be stored on your computer hard disk, not the camera memory card.

## 1 Start Camera Control Pro.



## 2 Select **Download Options...** in the **Tools** menu to display download options.



# Capturing Photographs to Disk

2/6

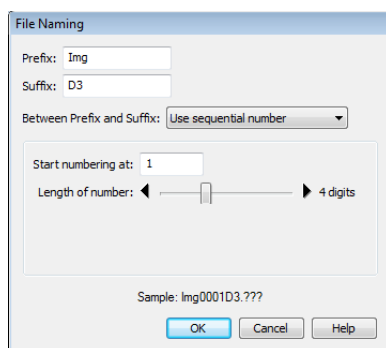
3 Adjust capture options:

## Folder for images downloaded from the camera

Select the folder to which photographs will be downloaded as they are taken.

## Next file name to be used

Shows how images download to the computer will be named. To change how files are named, click **Edit...** The dialog shown at below will be displayed. Using the sample file name as a guide, enter a prefix and suffix and choose the starting number and number of digits for automatic file numbering. You can also use the shooting date and time in the file name.



[Step 3 continues on the next page](#)

## File Naming Conventions

**Windows:** File names may not contain quotes or any of the following characters: "\ " / " : " \* " ? " < " > " and | ". Periods (".") may not appear at the beginning or the end of file names.

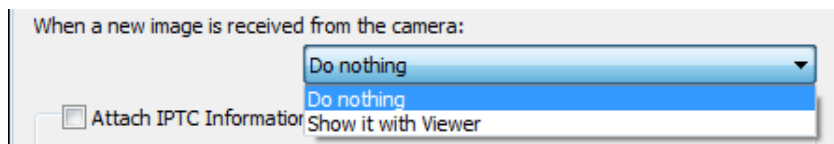
**Macintosh:** The maximum length for Macintosh file names is thirty-one characters. Colons (":") are not allowed.

**Extensions:** Extensions are assigned automatically. The following extensions are used: ".JPG" (JPEG images), ".TIF" (TIFF images), ".NEF" (NEF/RAW images), and ".NDF" (Image Dust Off reference data).

# Capturing Photographs to Disk

3/6

## When a new image is received from camera



Choose the application that will be used to display captured photographs after they are saved to disk.

- **Do nothing:** Photographs are not displayed after being saved to the computer hard disk.
- **Show it with Viewer:** Photographs are displayed in the [viewer window](#).
- **Show it with ViewNX** (available only if ViewNX is installed): ViewNX starts automatically and displays the captured images. See ViewNX help for details. Use the latest version of ViewNX.
- **Send it to Capture NX watched folder** (available only if Capture NX is installed and the "Watched folder" is selected): If CaptureNX (available separately) is running, photographs will be saved in the folder currently selected as the "Watched folder" (be sure that Capture NX supports the camera; see the Capture NX manual for details). Capture NX will automatically process the pictures according to the batch settings in Capture NX.

[Step 3 continues on the next page](#)

# Capturing Photographs to Disk

4/6

## Attach IPTC Information

Check this option to add IPTC information to captured images and enable the **Copy Shooting Data to IPTC Caption** option.

## IPTC Information...

Clicking this button displays a dialog where you can select the IPTC information, including keywords and captions, that will be added to images as they are captured.

## Copy Shooting Data to IPTC Caption

Check this option to copy shooting data to the caption field of images as they are captured.

## Embed ICC Profile

Select this option to embed an ICC profile according to the camera Color Space settings. The ICC profile is embedded in JPEG and TIFF images as they are captured.

**Image Authentication**  D3  D2Xs  D300  D2X\*  D2Hs\*  D200\*

The **Attach IPTC Information** and **Embed ICC Profile** options do not apply to photographs taken with Image Authentication on. Image authentication information is not embedded in TIFF photographs when capturing images using the Camera Control Pro.

\*Image Authentication supported from camera firmware version 2.00.

Download from [www.Somanuals.com](http://www.Somanuals.com). All Manuals Search And Download.

# Capturing Photographs to Disk

5/6

- 4** After adjusting options as described in Step 3, click **OK** to exit the dialog and apply settings to subsequent photographs. Note that if **On** or **Automatic** (the default setting) is selected for the auto image rotation option in the camera setup menu, D3, D2-series, D300, D200, D80, D70-series, D50, and D40-series cameras will detect camera orientation and automatically embed this information in photographs (note that in continuous mode, the orientation for the first image in each burst applies to all images in the series, even if camera orientation is changed during shooting). If **Off** is selected, camera orientation will not be recorded. To add information on picture orientation during download, open the **Image** menu and selecting **Rotate all downloaded images by 90 degrees CCW** to mark pictures as being rotated 90° to the right, or **Rotate all downloaded images by 90 degrees CW** to mark pictures as being rotated 90° to the left.

## Image Authentication

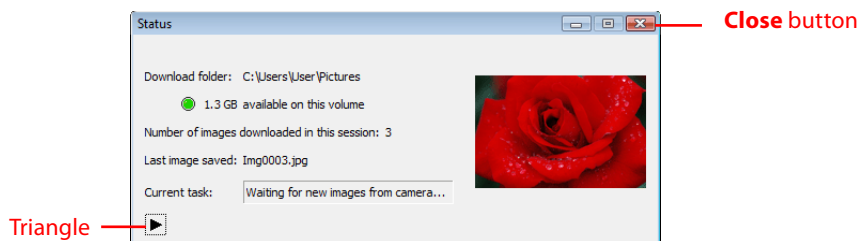
The "Rotate all downloaded images..." options do not apply to photographs taken with Image Authentication on. Image authentication information is not embedded in TIFF photographs when capturing images using the Camera Control Pro.

\*Image Authentication supported from camera firmware version 2.00.

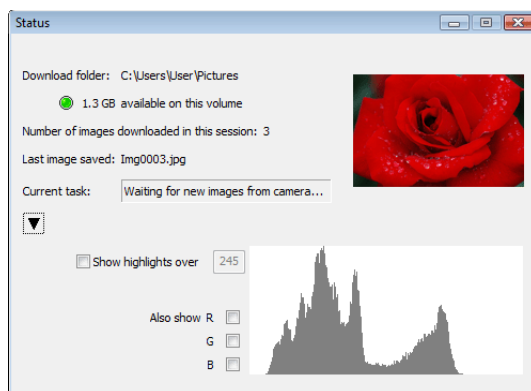
# Capturing Photographs to Disk

6/6

- 5 Take pictures using the camera shutter-release button or the **AF and Shoot** or **Shoot** buttons in the Camera Control Pro window. The Status dialog shown below will be displayed.



To display a histogram of the current image, click the triangle at the bottom of the Status dialog.



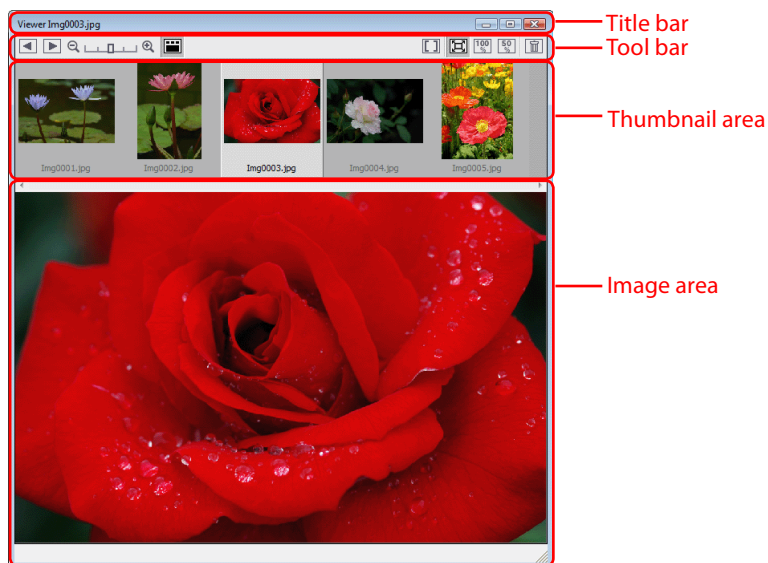
If the **Show highlights over** option is checked, any areas of the preview image with a brightness over the value entered in the neighboring text box will be indicated by a flashing border. To display *histograms* (graphs showing the distribution of pixels of different brightnesses in the image) for the red (**R**), green (**G**), and blue (**B**) channels, put a check in the corresponding box.

- 6 Click **Close** to close the Status dialog.

# Viewing Captured Photographs




1/3

If **Show it with Viewer** is selected for [When a new image is received from camera](#) in the **“Download Options” dialog**, pictures will automatically be displayed in the “Viewer” window after capture. The “Viewer” window can also be started by selecting **Show Viewer** from the **Tools** menu. The most recent image in the folder selected for **Folder for images downloaded from the camera** in the “Download Options” dialog will be displayed.



## The Title Bar

The title bar contains the following items:










Item	Description
Img0003.jpg	The file name of the image currently displayed in the image area. If the image was recorded at an image quality of NEF (RAW)+JPEG, both extensions will be displayed (e.g., "Img0001.jpg/nef").
	Click to minimize the “Viewer” window.
	Click to maximize the “Viewer” window.
	Click to close the “Viewer” window.

# Viewing Captured Photographs

2/3

## The Toolbar

The toolbar contains the following items:

Item	Name	Description
	<b>Back</b>	Click this button or press the left arrow on the keyboard to select the next image to the left in the thumbnail area.
	<b>Next</b>	Click this button or press the right arrow on the keyboard to select the next image to the right in the thumbnail area.
	<b>Thumbnail slider</b>	Choose the size of the thumbnails displayed in the thumbnail area.
	<b>Thumbnail</b>	View or hide the thumbnail area.
	<b>Show focus point</b>	Display focus point or focus area used when taking picture. Focus area is displayed in red.
	<b>Fit to screen</b>	Fit image to viewing area (maximum zoom ratio is 100%).
	<b>100%</b>	View image at 100%.
	<b>50%</b>	View image at 50%.
	<b>Delete</b>	Click this button or press the <b>Delete</b> key on the keyboard (Macintosh users press <b>command+delete</b> ) to delete the current image.

### Show Focus Point

Focus point (focus area) display is only available with photographs taken with Nikon digital SLR cameras. It will not be displayed in photographs taken with a non-CPU lens, manual focus, or when focus areas not displayed in the viewfinder.



# Viewing Captured Photographs

3/3

## The Thumbnail Area

Lists the images in the folder selected for [Folder for images downloaded from the camera](#) in the “Download Options” dialog, sorted by date of modification with the most recent images on the right.

## The Image Area

Shows the image currently selected in the thumbnail list. If **Show it with Viewer** is selected for [When a new image is received from camera](#) in the “Download Options” dialog, the most recent picture will automatically be displayed in the image area after capture.

## The D3 and D300 Buffer

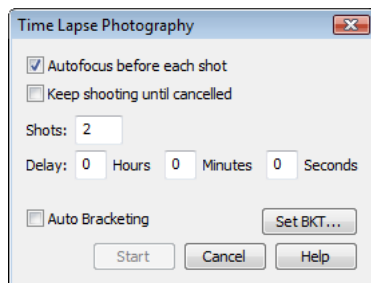
If **Show it with Viewer** is selected for **When a new image is received from camera** in the “Download Options” dialog, the images in the camera buffer will be displayed on the right of the thumbnail area before being downloaded to the computer. To preview an image in the image area, select it in the thumbnail list (no file name will appear in the title bar). Images deleted from the buffer will not be downloaded to the computer.

# Time Lapse Photography

1/4

Using Camera Control Pro, you can take a series of photographs automatically at a time interval you select.

- 1 Select **Time Lapse Photography...** from the Camera menu. The Time Lapse Photography dialog will be displayed.



# Time Lapse Photography

2/4

**2** Before shooting starts, adjust the following settings:

## Autofocus before each shot

If this option is checked, the camera will perform an autofocus operation before each shot. If the selected focus mode is AF-A (D80, D50, and D40-series cameras) or single-servo AF, an autofocus operation will be performed even when the check box is off.

## Keep shooting until cancelled

If this option is checked, the camera will continue to take photographs until you click **Stop Shooting** in the Time Lapse Photography dialog.

## Auto bracketing

D3

D2 series

D300

D200

D80

D70 series

D50

Select this option to perform exposure, flash, or white balance bracketing during shooting. To change bracketing options, click **Set BKT...** The dialog shown at right will be displayed.

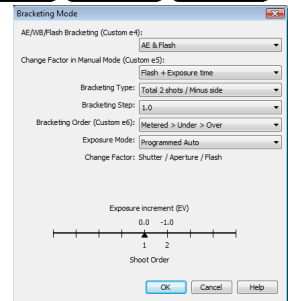
<b>AE/WB/Flash Bracketing</b>	Choose the type of bracketing performed.
<b>Change Factor when Exposure Mode is set to Manual</b>	Choose how bracketing is performed in manual exposure mode.
<b>Bracketing Type/ Bracketing Step/ Bracketing Order/ Exposure Mode</b>	Choose the bracketing program, exposure or white balance increment, bracketing order, and exposure mode. Bracketing type and bracketing order are not available with the D50.

D3

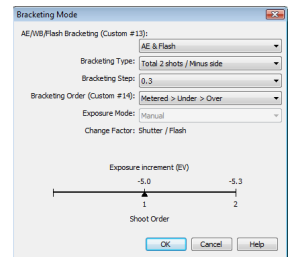
D2 series

D300

D200



D3/D2 series/D300/D200



D80/D70 series/D50

# Time Lapse Photography

3/4

**3** Use the **Shots** box to choose a number of shots from 2 to 9,999. This option is not available when **Keep shooting until cancelled** is selected.

**4** The delay between shots can be set to any value between 00:00:01 (one second) and 99:59:59 (ninety-nine hours, fifty-nine minutes, and fifty-nine seconds).

**5** Click **Start**. If **Send it to Capture NX watched folder** is selected for **When a new image is received from camera** in the **“Download Options” dialog**, photographs will be saved to the “watched” folder selected in Capture NX (available separately; see the Capture NX manual for details). Capture NX will automatically process the pictures according to the batch settings in Capture NX.

## Time Interval Settings

If the delay is shorter than the time required to record each photograph, the actual interval between photographs will be longer than that specified in the “Time Lapse Photography” dialog.

### Auto Off D1 series

When the camera is operated on battery power and **for 15 minutes** has been selected for “While Camera Control Pro is running, keep camera awake” in the General tab of the Preferences dialog, choose a delay of fifteen minutes or less. When taking photographs at longer intervals, use an AC adapter (available separately) to power the camera.

## During Time-Lapse Photography

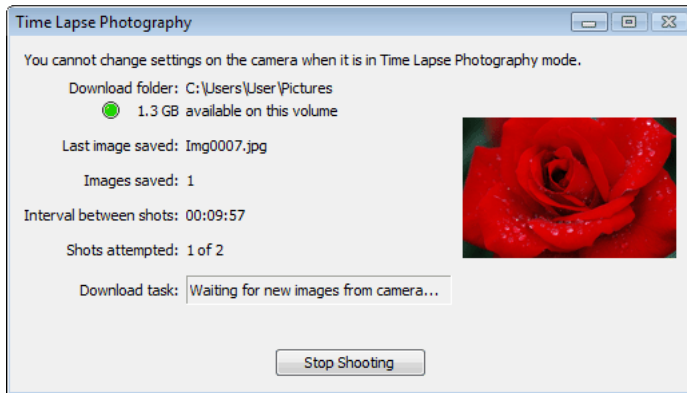
No operations can be performed in the “Camera Control Pro” window until the “Time Lapse Photography” dialog is closed.

# Time Lapse Photography

4/4

6 Follow the progress of time lapse photography in the progress dialog.

Click **Stop Shooting** to end time lapse photography at any time. If a number of shots was specified in the “Time Lapse Photography” dialog, shooting will end when the specified number of shots has been taken.



7 Once the specified number of shots has been taken, the **Stop Shooting** button will change to **Shooting Complete**. Click **Shooting Complete** to exit the “Time Lapse Photography” dialog.

## Error Logs

If an error occurs during shooting, an error log will be displayed; click **OK** to close the log and return to the Camera Control Pro window.

## The Time Lapse Photography Dialog

If you make a mistake in entering settings in the “Time Lapse Photography” dialog, a warning will be displayed. Return to the “Time Lapse Photography” dialog and adjust settings as directed.

## Hard Disk Full

A warning will appear when space is no longer available on the destination disk for photographs taken using time lapse photography. Use the information in the warning to reduce the number of photographs or change the destination drive.

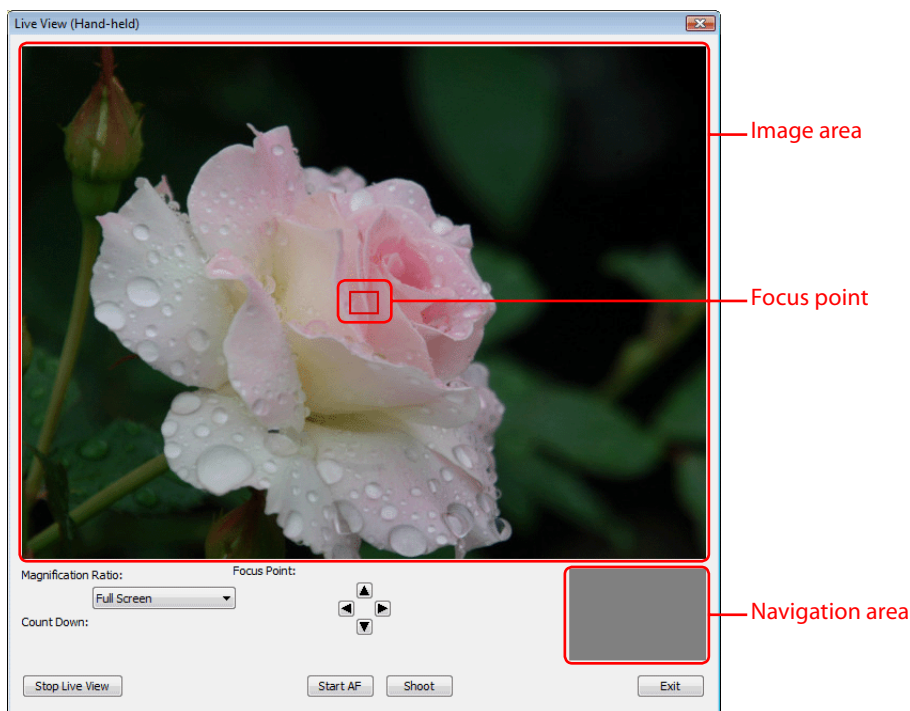
# Live View

1/4

When a camera that supports live view is connected, **Live View (Hand-Held)** and **Live View (Tripod)** options are available in the **Camera** menu. Selecting either of these options opens the “Live View” window. Camera controls can not be used while the “Live View” window is displayed; the “Live View” window will close automatically if the camera is disconnected.

## Live View (Hand-Held)

The following window is displayed when **Live View (Hand-held)** is selected in the **Camera** menu.



# Live View

2/4

The image area shows the view through the camera lens, updated in real time, with the current focus point superimposed. The other controls in the “Live View (Hand-held)” window are described below:

Item	Description
<b>Start/Stop Live View</b>	Click to start or stop live view.
<b>Focus Point</b>	Click the arrows to move the focus point.
<b>Count Down</b>	To prevent damage to the its internal circuits, the camera will automatically end live view if the temperature inside the camera becomes too high. The count-down timer shows the time remaining until live view ends.
<b>Start AF</b>	Focus the camera using normal (phase-detection) AF.
<b>Shoot</b>	Take a picture.
<b>Exit</b>	Close the “Live View (Hand-held)” window.
<b>Magnification Ratio</b>	Zoom the view in the image area in or out. The navigation area shows the portion of the image currently displayed in the image area.

# Live View

3/4

## Live View (Tripod)

The following window is displayed when **Live View (Tripod)** is selected in the **Camera** menu.

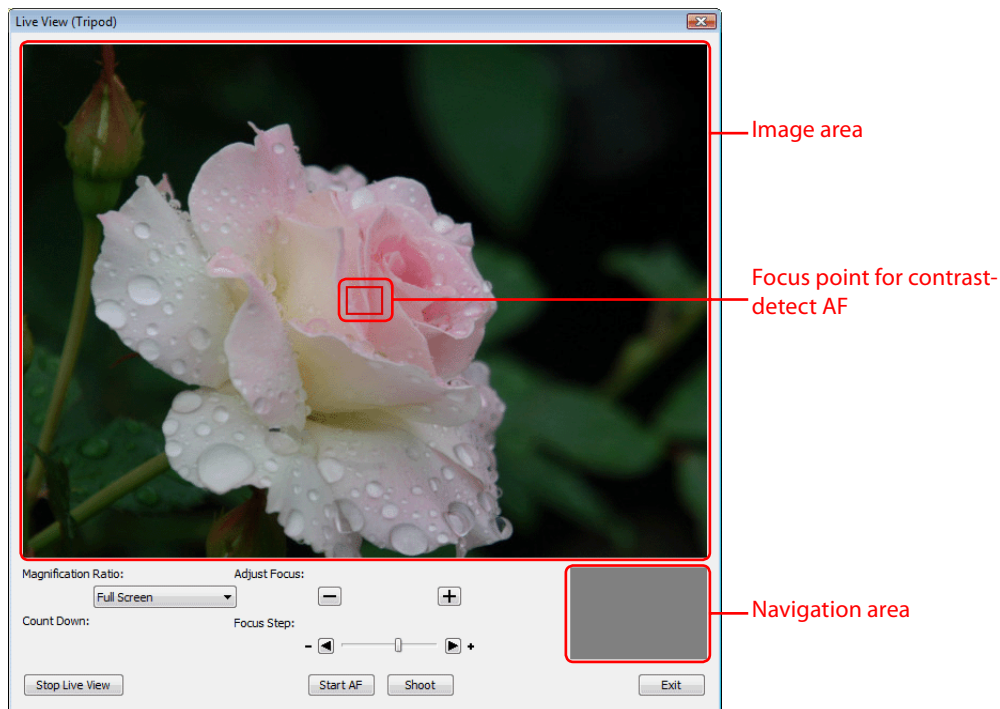


Image area

Focus point for contrast-detect AF

Navigation area



# Live View

4/4

The image area shows the view through the camera lens, updated in real time, with the focus point for contrast-detect AF superimposed. Click anywhere in the image area to move the focus point to that spot. The other controls in the “Live View (Tripod)” window are described below:

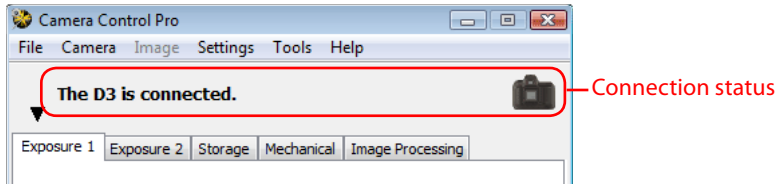
Item	Description
<b>Start/Stop Live View</b>	Click to start or stop live view.
<b>Count Down</b>	To prevent damage to the its internal circuits, the camera will automatically end live view if the temperature inside the camera becomes too high. The count-down timer shows the time remaining until live view ends.
<b>Magnification Ratio</b>	Zoom the view in the image area in or out. The navigation area shows the portion of the image currently displayed in the image area.
<b>Adjust Focus</b>	Click these buttons to adjust focus by the amount selected with the <b>Focus Step</b> slider. Click <b>+</b> to move the focal point away from the camera, <b>-</b> to bring it toward the camera.
<b>Start/Stop AF</b>	Click <b>Start AF</b> to initiate contrast-detect autofocus. The button will change to <b>Stop AF</b> ; click again to end autofocus. The <b>Adjust Focus</b> buttons and <b>Focus Step</b> slider are not available while autofocus is in progress.
<b>Shoot</b>	Take a picture.
<b>Exit</b>	Close the “Live View (Tripod)” window.

# The Camera Control Pro Window

1/4

The Camera Control Pro window shows current camera settings, which may be viewed by clicking the five page selection tabs. Camera settings can be altered using the controls in each tab as in "[Camera Controls](#)." The other settings in this window are described below.

## Connection Status



This area shows the following information about the camera currently connected:

- **Camera name**
- **Camera orientation**        : If **On** or **Automatic** is selected for the auto image rotation option in the camera setup menu, camera orientation will be indicated by an icon as shown below. No icon will be displayed if **Off** is selected.



Horizontal



Rotated 90° clockwise



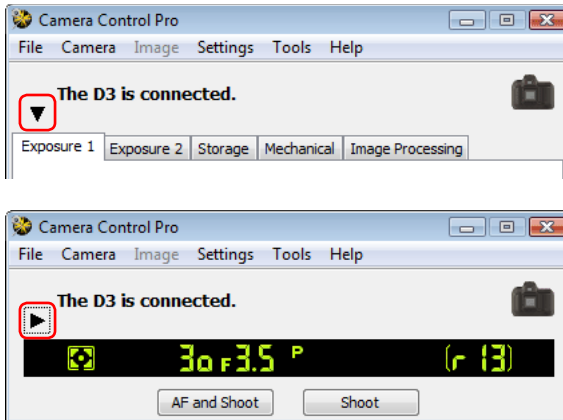
Rotated 90° counterclockwise

# The Camera Control Pro Window

2/4

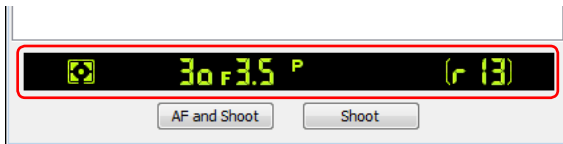
## The ▼ / ▶ Button

Click this button to view or hide camera controls.



## Simulated LCD Panel

This panel shows the information displayed in the camera's viewfinder, with the exception of camera errors. Clicking on an indicator in the panel opens the Camera Control Pro window to the tab that controls the selected option, where adjustments can be made.



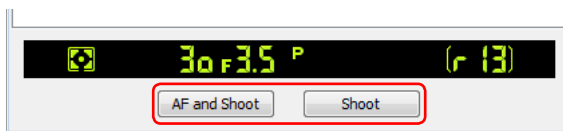
The amount of memory remaining in the camera memory buffer is displayed at the right edge of the simulated LCD panel (this information is not displayed when a D1-series or D100 camera is connected). This information is updated at regular intervals, but temporary discrepancies may exist between the display and the actual amount of memory remaining in the buffer.

# The Camera Control Pro Window

3/4

## Shoot Buttons

Click either of these buttons to take a photograph at current settings. If a D3, D2-series, D300, D200, D80, D70-series, D50, or D40-series camera is connected, photos can be taken in continuous shooting mode; in this case, the **AF and Shoot** and **Shoot** buttons will instead be labeled **AF and Start** and **Start**. Continuous shooting with D1-series and D100 cameras can only be performed with shutter-release button on the camera body; the shooting buttons in the “Camera Control Pro” dialog can only be used to take pictures one at a time.



<b>AF and Shoot/ AF and Start</b>	When this button is clicked, the camera will perform an autofocus operation and then release the shutter to take a photograph.
<b>Shoot/Start</b>	Click this button to take a photograph. If the selected focus mode is AF-A (D80, D50, and D40 series cameras) or single-servo AF, an autofocus operation will be performed before the shutter is released.

## The Function Dial D100

The D100 can only be used to take photographs when the function dial is set to P, S, A, or M. At other settings, the shoot buttons in the “Camera Control Pro” dialog will be disabled and the simulated LCD panel will not be displayed.

# The Camera Control Pro Window

4/4

## Camera Settings That Can Not Be Adjusted from Camera Control Pro

The following operations can only be performed using the controls on the camera body:

	Operation	Camera
Status not displayed	Burst photography (continuous shooting mode)	D1 series D100
	Continuous servo autofocus	All supported models
	Pressing the shutter-release button halfway to check focus	All supported models
	Autofocus-only operation (use AF and Shoot to perform autofocus)	All supported models
	Manual aperture adjustment using the lens aperture ring	D3 D2 series D1 series D300 D200
	Reactivating the camera after it has entered sleep mode	D1 series
	Depth-of-field preview	All supported models
	Auto bracketing	D1 series D100
	Compression options for NEF (RAW) images	D100
	Operation assigned to FUNC./Fn button	D3 D2 series D300 D200
	Remote (D80, D70 series, D50, and D40 series only) and self-timer mode selection	D3 D2 series D300 D200 D80 D70 series D50 D40 series
Status displayed	Focus mode selection using camera focus-mode selector	All supported models
	Metering	D1 series D100
	Exposure mode (can be adjusted if <a href="#">Enable controls on camera body</a> is not selected when D80, D70 series, D50, or D40 series is connected)	D100 D80 D70 series D50 D40 series
	Shooting mode	D100
	Shutter-speed lock	D3 D2 series D1 series
	Aperture lock	D3 D2 series D1 series
	Autoexposure lock	All supported models
	Flash compensation	D3 D2 series D1 series D300
	M-up (mirror up) mode selection	D3 D2 series D300 D200
	Selection of second center focus area group (group dynamic-AF)	D2 series D200

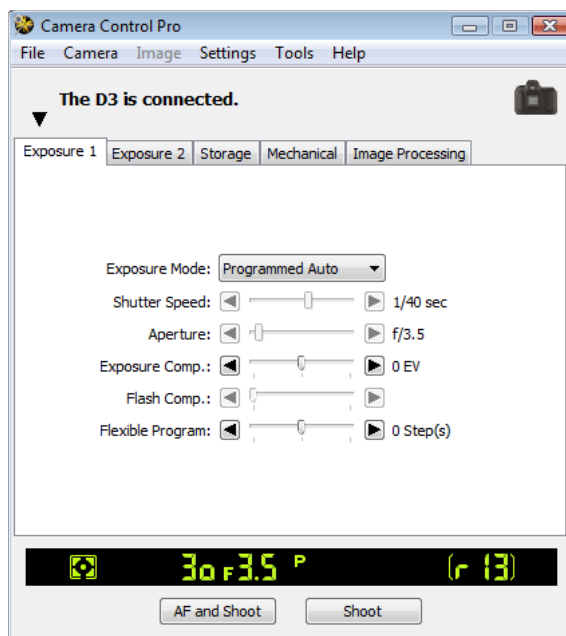
# Camera Controls

1/18

Camera controls are described below using the D3 as an example:

## The Exposure 1 Tab

The following settings can be adjusted from the Exposure 1 tab:



<b>Exposure Mode</b>	Choose an exposure mode. If a D100 is connected, or if <a href="#">Enable controls on the camera body</a> is checked when a D80, D70-series, D50, or D40-series camera is connected, it will show the current exposure mode but the mode itself must be selected using the camera function dial. See the camera manual for details.
<b>Shutter Speed</b>	Shutter speed can only be adjusted in <b>Manual</b> and <b>Speed Priority</b> modes, when it can be set to values between the maximum and minimum values supported by the camera. Use high shutter speeds to freeze motion, low shutter speeds to suggest motion by blurring moving objects.
<b>Aperture</b>	Aperture can only be adjusted in <b>Manual</b> and <b>Aperture Priority</b> modes, when it can be set to values between maximum and minimum aperture (small apertures have high f-numbers, wide apertures low f-numbers; the actual apertures available depend on the lens used). Aperture can not be controlled from Camera Control Pro when Custom Setting 22 has been set to allow aperture to be adjusted manually using the lens aperture ring (D1-series only).

# Camera Controls

2/18

The Exposure 1 Tab	
<b>Exposure Comp.</b>	Exposure compensation is useful when shooting subjects containing sharp lighting contrasts, or on other occasions when you want to modify the exposure value determined by the camera. Exposure compensation is available in all exposure modes.
<b>Flash Comp.</b> <input type="button" value="D300"/> <input type="button" value="D200"/> <input type="button" value="D100"/> <input type="button" value="D80"/> <input type="button" value="D70 series"/> <input type="button" value="D50"/> <input type="button" value="D40 series"/>	This option is used to adjust the level of the camera's built-in Speedlight.
<b>Flexible Program</b>	Flexible program can only be used in Program Mode, when it allows you to choose from predetermined combinations of shutter speed and aperture appropriate to current lighting conditions.

## The Function Dial

The D100 can only be used to take photographs when the function dial is set to **P**, **S**, **A**, or **M**. At other settings, the controls in the Exposure 1 tab will be disabled.

## Bulb

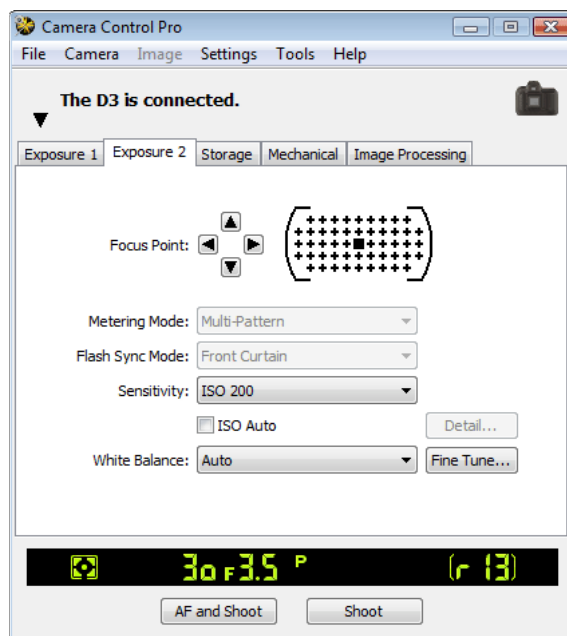
At a shutter speed of Bulb, the shutter remains open while the shutter release button is held down. Use the camera shutter-release button to take photos at this setting. Clicking either of the shoot buttons will display an error message.

# Camera Controls

3/18

## The Exposure 2 Tab

The following settings can be adjusted from the Exposure 2 tab.



### Focus Point Focus Area

The focus point and focus area can be selected using the arrow buttons; see the camera manual for details. For information on AF-area mode and focus mode, see [“The Mechanical Tab.”](#)

### Metering Mode

The metering mode can be selected from this menu (D3, D2 series, D300, D200, D80, D70 series, D50, and D40 series only). Metering mode defaults to the option selected with the camera. If a D1-series or D100 camera is connected, the current metering mode will be shown, but changes can only be made using camera controls. See the camera manual for details.

### Flash Sync Mode

This option controls the camera flash sync mode. See the camera manual for details.



# Camera Controls

The Exposure 2 Tab	
<p><b>ISO Sensitivity</b></p>	<p>ISO sensitivity can be raised when taking photographs in low light conditions. See the user's manual provided with your camera for details.</p>
<p><b>Auto</b> <b>ISO Sensitivity Auto Control</b></p> <p>D3   D2 series   D300</p> <p>D200   D100   D80</p> <p>D70 series   D50   D40 series</p>	<p>When this option is checked, the camera will adjust ISO sensitivity automatically. If this option is selected when a D3 or D300 camera is connected, the maximum sensitivity and minimum shutter speed can be set by clicking the <b>Details...</b> button.</p>
<p><b>White Balance</b></p>	<p>White balance is used to ensure that colors which appear white when viewed directly are white in the final photograph. It can also be used to produce an intentionally unbalanced rendering of a scene. If <b>Fluorescent</b> is selected when a D3 or D300 is connected, a menu of bulb types will be displayed. If <b>Choose color temp.</b> is selected when a D3, D2-series, D300, or D200 camera is connected, a menu of color temperatures will be displayed. See the camera manual for details.</p>
<p><b>Fine Tune...</b></p> <p>D3   D2 series   D1 series</p> <p>D300   D200   D100</p> <p>D80   D70 series   D40 series</p>	<p>Click <b>Fine Tune...</b> to make fine adjustments to white balance. Fine tuning is not available with <b>Choose color temp.</b> (D2 series and D200 only) or preset white balance. If a D3 or D300 is connected, white balance can be fine-tuned on the <b>Green-Magenta</b> and <b>Blue-Amber</b> axes as described in the camera manual; to restore default settings, click <b>Reset</b>.</p> <div style="display: flex; justify-content: space-around;"> <div data-bbox="369 973 649 1204"> <p><b>D2 series/D1 series/D200/D100/D80/D70 series/D40 series</b></p> </div> <div data-bbox="660 973 1069 1284"> <p><b>D3/D300</b></p> </div> </div>

# Camera Controls

5/18

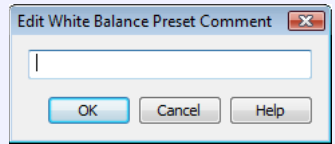
## The Exposure 2 Tab

Comment





This field lists the comments for all white balance presets. Clicking **Edit...** when **Preset** is selected for white balance displays the dialog shown at right, where the comments for each of the white balance presets can be edited. Click **OK** to copy the comments to the camera. Comments can be up to thirty-six characters long and contain letters, numbers, quotes, apostrophes, spaces, and any of the following characters: `," . ! " ? " # " $ " % " & " ( " ) " [ " ] " { " } " * " + " - " / " : " ; " < " = " > " _ " and "@`.

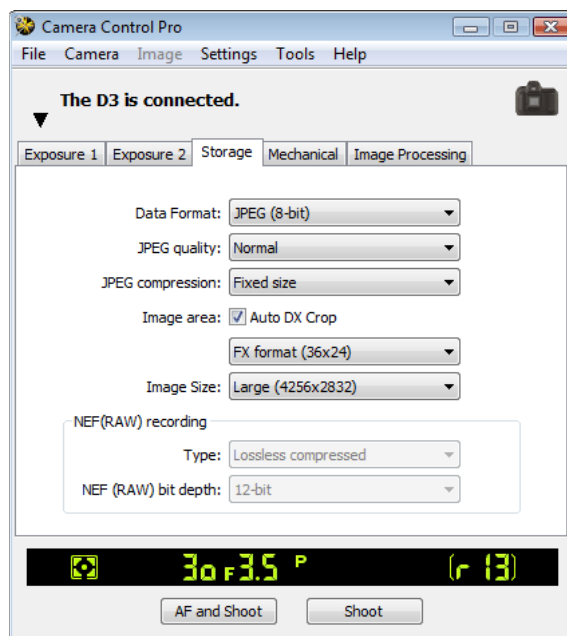


# Camera Controls

6/18

## The Storage Tab

The following settings can be adjusted from the Storage tab:



### Data Format

Choose from the file types supported by the camera (see the camera manual for details). This setting determines pixel bit depth and file size. If an option that includes JPEG is selected, the compression ratio can be selected from the **JPEG quality** menu and other compression options (D3, D2 series, D300, and D200 only) from the **JPEG compression** menu. Note that **JPEG quality** is fixed at **Basic** when **RAW (12-bit) + JPEG (8-bit)** is selected with D70-series, D50, and D40-series cameras.

### Color D1 series

Choose from **Color** and **Black & White**. **Black & White** is not available when **RAW** is selected for **Data Format**.

### Image area D3

If **Auto DX crop** is selected, the camera will select DX format automatically when a DX lens is attached. If this option is not selected, the format can be selected from the menu.

# Camera Controls

7/18

The Storage Tab	
<b>Image Size</b>	Choose image size. See the camera manual for details.
<b>NEF RAW Compression</b> <b>NEF (RAW) recording</b>	Choose bit depth (D3 and D300 only) and compression settings for NEF (RAW) images. These options are only available when an option that includes NEF (RAW) is selected <b>Data Format</b> .
<input type="button" value="D3"/> <input type="button" value="D2 series"/> <input type="button" value="D1X"/> <input type="button" value="D1H"/> <input type="button" value="D300"/> <input type="button" value="D200"/>	
<b>High-speed crop</b>	Select this option to enable high-speed crop. See the camera manual for details.
<input type="button" value="D3"/> <input type="button" value="D2 series"/>	

# Camera Controls

8/18

## The Mechanical Tab

The following settings can be adjusted from the Mechanical tab:



### Release Mode Shooting Mode

Sets the shooting mode for D1-series cameras connected in PC mode to **Single** or **Continuous**. Changes to this setting also apply to Custom Setting 30. The shooting mode for D80, D70-series, D50, or D40 series cameras can be selected from **Single** and **Continuous**. Unless [Enable controls on the camera body](#) is checked in the connection status area, the shooting mode for D3, D2-series, D300, and D200 cameras can be selected from **Single**, **Continuous low speed**, and **Continuous high speed**. If **Continuous** is selected for D80, D70-series, D50, or D40 series cameras or if **Continuous low speed** or **Continuous high speed** is selected for D3, D2-series, D300, or D200 cameras, the **AF and Shoot** and **Shoot** buttons will instead be labeled **AF and Start** and **Start** and the maximum number of shots that can be taken in a single burst can be entered in the **Shots** text box (see below). If [Enable controls on the camera body](#) is checked or a D100 camera is connected, the current shooting mode will be shown, but changes can only be made using camera controls. See the camera manual for details.

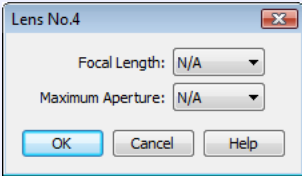
# Camera Controls

9/18

The Mechanical Tab	
<p><b>Shots</b></p> <p>D3    D2 series</p> <p>D300    D200</p> <p>D80    D70 series</p> <p>D50    D40 series</p>	<p>Use the arrows to choose the maximum number of shots that can be taken in a single burst in continuous mode, or enter a value directly in the text box. The maximum permitted value varies with the current image-quality setting; the value chosen should not, however, exceed the capacity of the camera memory buffer as shown at the right edge of the LCD display. Values larger than the capacity of the camera memory buffer will be shown in red. This setting only applies when the camera is connected, and differs from the maximum selected in the Custom Settings menu.</p>
<p><b>Auto Bracketing</b></p> <p>D3    D2 series</p> <p>D300    D200</p> <p>D80    D70 series</p> <p>D50</p>	<p>Select this option to perform exposure, flash, or white balance bracketing during shooting. See "<a href="#">Time Lapse Photography</a>" for details.</p>
<p><b>AF-Area Mode</b></p>	<p>Choose the AF-area mode. If <a href="#">Enable controls on the camera body</a> is checked (D3, D2 series, D300, and D200 only), the current AF-area mode will be shown, but changes can only be made using camera controls. See the camera manual for details.</p>
<p><b>Focus Mode</b></p>	<p>Choose the focus mode for D80, D50, or D40-series cameras (see the camera manual for details). The focus mode for other cameras is displayed but can not be changed from Camera Control Pro.</p>

# Camera Controls

10/18

The Mechanical Tab	
<b>Lens</b>	<p>Displays the focal length and maximum aperture of the lens currently attached to the camera. Depending on the lens type, some information may not be displayed. If the lens focal length or maximum aperture have been specified manually, an asterisk will appear next to these values. If a D3 or D300 is connected with a non-CPU lens attached, lens data can be selected.</p>
<b>Edit...</b> <input type="button" value="D3"/> <input type="button" value="D2 series"/> <input type="button" value="D300"/> <input type="button" value="D200"/>	<p>This button is only available when a non-CPU lens is mounted on the camera. Clicking <b>Edit...</b> displays the dialog shown at right, where the lens focal length and maximum aperture can be entered. Click <b>OK</b> to copy the values to the camera.</p> 
<b>Main Battery Level</b>	<p>Displays the level of the main camera battery. Green indicates that the battery has enough charge for continued operation. Yellow indicates that battery level is low; ready a fully charged spare battery pack. Red indicates that the battery is exhausted, and that no further photographs can be taken until the battery pack has been replaced. You may not be able to control the camera from Camera Control Pro when the battery is exhausted. Replace with a fully charged spare battery pack or use an AC adapter (available separately).</p>
<b>Clock Battery Level</b> <input type="button" value="D1 series"/>	<p>Displays the level of the camera clock battery. Should this display turn yellow or red, have the clock battery replaced by an authorized Nikon service representative (a fee is charged for this service).</p>

## Self-Timer and Remote Modes

When a D3, D2-series, D300, D200, D100, D80, D70-series, D50, or D40-series camera is set to self-timer mode, or when a D80, D70-series, D50, or D40-series camera is set to delayed remote or quick-response remote mode, the Mechanical tab will show a shooting mode of **Single**, and any photographs taken with the Camera Control Pro shoot buttons will be taken in single-frame mode with no shutter-release delay. To take pictures in self-timer or remote mode, use the shutter-release button on the camera or remote control.

## Live View

When the camera release mode dial is set to **Lv**, the Mechanical tab will show a shooting mode of **Single**, and any photographs taken with the Camera Control Pro shoot buttons will be taken in single-frame mode. To take pictures in live view mode, use the live view options in the **Camera** menu.

# Camera Controls

11/18

## Continuous Mode (All Models Except D1 series D100)

The amount of memory remaining in the camera memory buffer is displayed at the right edge of the simulated LCD panel. This information is updated at regular intervals, but temporary discrepancies may exist between the display and the actual amount of memory remaining in the buffer.

## Non-CPU Lenses

The following restrictions apply to Camera Control Pro when a non-CPU lens is mounted on the camera (the operations listed can still be performed using the controls on the camera body; see the camera manual for details):

	<span>D3</span> <span>D2 series</span> <span>D300</span> <span>D200</span>				<span>D80</span> <span>D70 series</span> <span>D50</span> <span>D40 series</span>
	With lens data	No data	<span>D1 series</span>	<span>D100</span>	
<b>Exposure Mode</b>	Can be selected from <b>Aperture-priority auto</b> and <b>Manual</b> .			Can not be adjusted. Mode selected with camera displayed. Photos can only be taken in mode M.	Can only be adjusted if <a href="#">Enable controls on the camera body</a> is not checked. Otherwise same as D100.
<b>Shutter Speed</b>	Can only be adjusted in manual exposure mode.				
<b>Aperture</b>	Shown with asterisk.	Aperture shown as "f/--". Can not be adjusted.			
<b>AF and Shoot</b>	Can not be used.				
<b>Shoot</b>	Can be used.				Can be used.*

\* Warning will be displayed in exposure modes other than M.

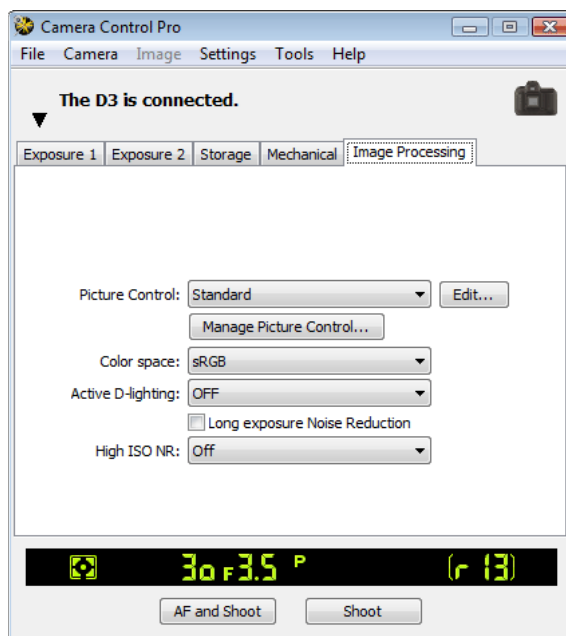


# Camera Controls

12/18

## The Image Processing Tab (D3/D300)

The following settings can be adjusted from the Image Processing tab:



<b>Picture Control</b>	Choose a Picture Control (see the camera manual for details), or click <b>Edit...</b> to <a href="#">modify the selected Picture Control</a> .
<b>Manage Picture Control</b>	<a href="#">Select, rename, or delete custom Picture Controls</a> .
<b>Color space</b>	Choose a color space. See the camera manual for details.
<b>Active D-lighting</b>	Choose active D-lighting options. See the camera manual for details.
<b>Long exposure Noise Reduction</b>	Select this option to reduce noise at slow shutter speeds. See the camera manual for details.
<b>High ISO NR</b>	Choose a noise reduction option for high ISO sensitivities. See the camera manual for details.

### Nikon Picture Controls

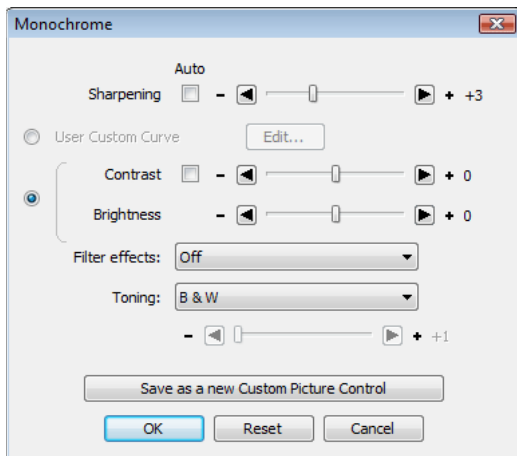
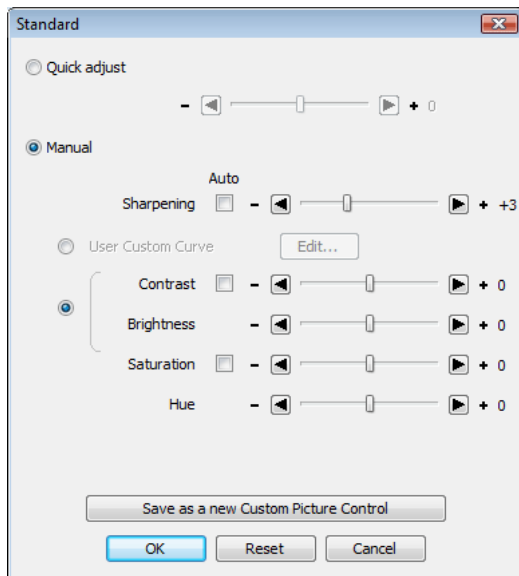
Picture Controls provided by Nikon are known as “Nikon Picture Controls.” They include the Picture Controls provided with the camera and optional Picture Controls available for download from Nikon websites. See the camera manual for details.

# Camera Controls

13/18

## Editing Picture Controls

Clicking **Edit...** in the Image Processing tab displays options for the selected Picture Control (monochrome controls are shown at right, other controls at left).



<b>Quick adjust</b> (Non-monochrome only)	Select this option and drag the slider to the left or right to reduce or exaggerate the effect of the selected Picture Control.
<b>Manual</b> (Non-monochrome only)	Select this option to make separate adjustments to the settings listed below.
<b>Sharpening</b>	Select the <b>Auto</b> checkbox to adjust sharpening automatically, or choose a value with the slider.
<b>User Custom Curve</b>	Select this option and click <b>Edit...</b> to <a href="#">manually edit the tone curve</a> for the selected Picture Control. Note that changes can only be saved using <b>Save as a new Custom Picture Control</b> .
<b>Contrast/Brightness/Saturation</b>	Select the radio button and adjust the sliders (saturation is not available with monochrome controls). Select the <b>Auto</b> checkboxes for automatic contrast or saturation. Contrast and brightness can not be adjusted when <a href="#">active D-lighting</a> is on.
<b>Hue</b> (Non-monochrome only)	Use the slider to adjust hue.
<b>Filter effects</b> (monochrome only)	Choose a filter effect. See the camera manual for details.
<b>Toning</b> (monochrome only)	Choose a monochrome tint. Tint can be adjusted with the slider.

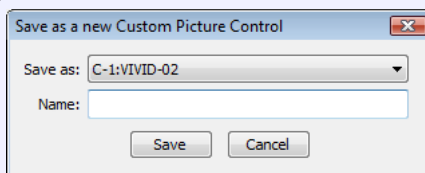
# Camera Controls

14/18

## Editing Picture Controls

### Save as a new Custom Picture Control

Click this button to save settings as a new custom Picture Control. The following dialog will be displayed; name the new control and click **Save**.



### OK

Save changes and exit.

### Reset

Undo any changes to the selected Picture Control. Custom Picture Controls are reset to the values in effect when the Picture Control was first created.

### Cancel

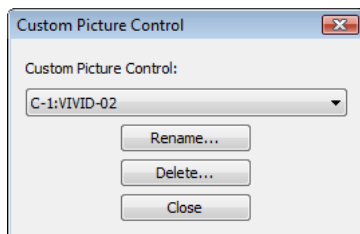
Exit without saving changes.

# Camera Controls

15/18

## The “Custom Picture Control” Dialog

Clicking **Manage Picture Control...** in the Image Processing tab displays the dialog shown below.



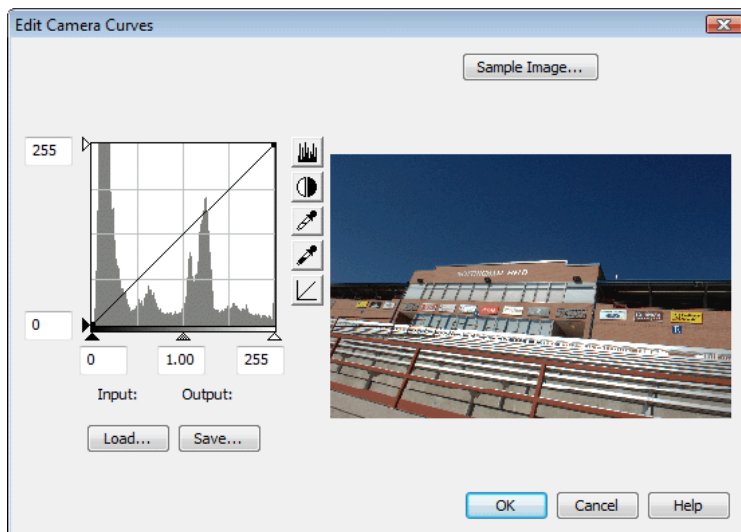
<b>Custom Picture Control</b>	Select a custom Picture Control.
<b>Rename...</b>	Rename the selected custom Picture Control. The following dialog will be displayed; rename the control and click <b>OK</b> . <div data-bbox="476 662 873 790" style="border: 1px solid gray; padding: 5px; margin: 10px auto; width: fit-content;"> </div>
<b>Delete...</b>	Delete the selected custom Picture Control.
<b>Close</b>	Close the “Custom Picture Control” dialog.

# Camera Controls

16/18

## The “Edit Camera Curves” Dialog

Clicking **Edit...** when **User Custom Curve** is selected in the Picture Control settings dialog displays the dialog shown below.



The controls in the Edit Camera Curves window are similar to those used to edit tone curves in Adobe Photoshop and other imaging software, except in the following respects: (1) only the master channel, not individual RGB channels, may be edited; (2) there is a limit of 20 spline points; (3) the midpoint may not be edited; and (4) a user-defined sample image can be selected by clicking **Sample Image...** (the sample image must be an NEF (RAW) image created with a supported Nikon digital camera). Any changes to curves are reflected in the sample image. To copy the edited curve to the Picture Control, click **OK**.

The upper left section of the Edit Camera Curves window contains **Load...** and **Save...** buttons. Click **Load...** to load previously stored curves created with Camera Control Pro, Nikon Capture (available separately), or Capture NX (available separately; settings must include “Levels and Tone Curves” data). Look for files with the “.ntc”, “.ncv”, or “.set” extension.

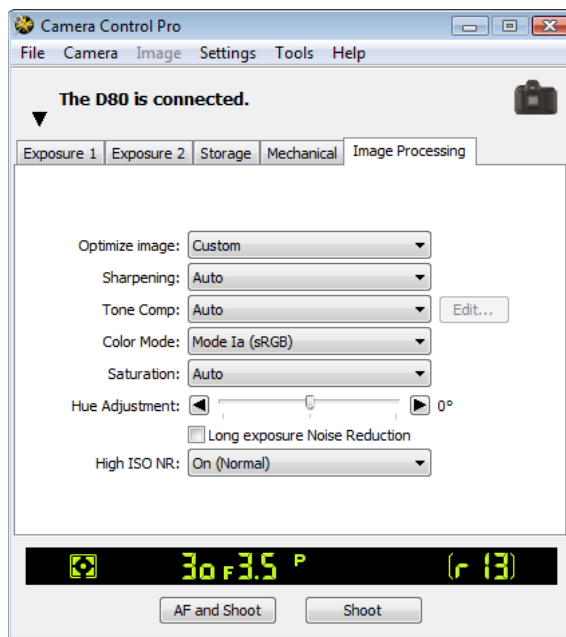
The **Save...** button opens the “Save As” dialog, where you can save the current curve.

# Camera Controls

17/18

## The Image Processing Tab (Other Cameras)

The following settings can be adjusted from the Image Processing tab:



<b>Image Optimize</b> D200   D80   D70 series D50   D40 series	Choose the type of image optimization performed. See the camera manual for details.
<b>Sharpening</b>	Choose how much the camera sharpens outlines. See the camera manual for details.
<b>Tone Comp</b>	Adjust contrast. See the camera manual for details. Selecting "Custom" or "Custom 1-3 " (D2Xs only) and clicking <b>Edit</b> will display <a href="#">"Edit Camera Curves" dialog</a> .
<b>Filter Effects</b> D80	Choose a filter effect for black-and-white photographs. This option is only available when <b>Black-and-white (Custom)</b> is selected for <b>Image Optimize</b> .
<b>Color space</b> D2X   D2Xs   D200	Choose a color space. See the camera manual for details.

# Camera Controls

18/18

## The Image Processing Tab

### Color Mode

Choose a color mode. See the camera manual for details. With the D1, colors are optimized for the NTSC color space, regardless of the option chosen.

### Saturation

Adjust color saturation. See the camera manual for details.

### Hue Adjustment

Modify hue while leaving brightness and chroma unaffected. Adjustments can be made in the range  $-9^\circ$  to  $9^\circ$ , with  $0^\circ$  representing the original hues as recorded by the camera (in D1-series cameras,  $-9^\circ$  is equivalent to a camera hue setting of 0,  $0^\circ$  to a setting of 3, and  $9^\circ$  to a setting of 6).

### Long Exposure Noise Reduction

Select this option to reduce noise at slow shutter speeds. See the camera manual for details.

### High ISO Noise Reduction

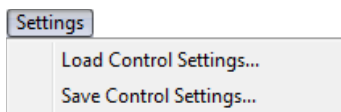
Choose a noise reduction option for high ISO sensitivities. See the camera manual for details.

### Noise reduction

Select this option to reduce noise at slow shutter speeds and high ISO sensitivities. See the camera manual for details.

## Saving and Loading Camera Control Settings

The Camera Control Pro option in the **Settings** menu is used to save Camera Control Pro settings and to load and apply previously saved settings.



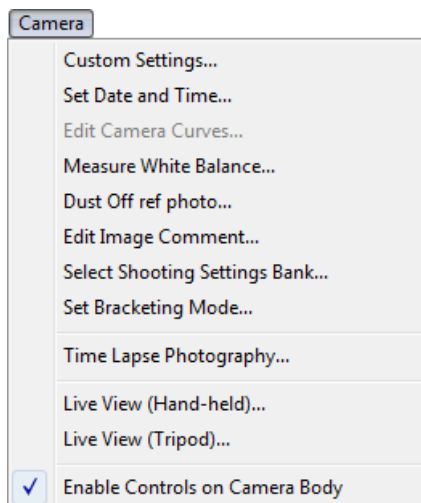
<b>Load Control Settings...</b>	Select this item to load camera settings previously saved using <b>Save Control Settings...</b> (see below). A dialog will be displayed where you can navigate to the drive (volume) and directory containing the desired settings file (only files with the extension ".ncc" will be displayed; choose settings created with the camera currently connected). The settings in the Camera Control Pro window will instantly revert to the saved settings. Bracketing settings are not affected.
<b>Save Control Settings...</b>	Select this item to save the settings in the Camera Control Pro window to a named file. These settings can later be recalled using <b>Load Control Settings...</b> . Choosing <b>Save Control Settings...</b> displays a dialog where you can choose a destination and file name for current camera settings. Camera Control Pro settings are saved with the extension ".ncc". Note that bracketing settings, non-CPU lens settings, and changes to settings for the current Picture Control are not saved.



# The Camera Menu

1/4

The **Camera** menu contains the following options:

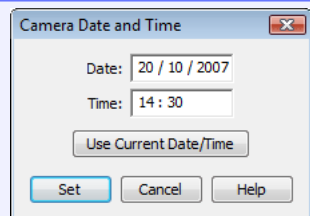


## Custom Settings...

Selecting this option opens the [Custom Settings dialog](#), where camera Custom Settings can be adjusted.

## Set Date and Time...

Selecting this option opens the dialog shown at right, where you can set the camera's clock calendar to the current date and time. To view the current time and date settings, click **Use Current Date/Time**. Click **Set** to set the clock calendar to the time and date shown.

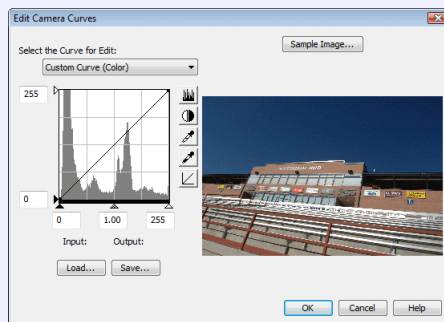


# The Camera Menu

2/4

## Edit Camera Curves... (all cameras except )

This option is used to create a custom tone compensation curve and download it to the camera, where it applies when "Custom" is selected for the camera tone compensation option.



The controls in the Edit Camera Curves window are similar to those used to edit tone curves in Adobe Photoshop and other imaging software, except in the following respects: (1) only the master channel, not individual RGB channels, may be edited; (2) there is a limit of 20 spline points; (3) the midpoint may not be edited; (4) a user-defined sample image can be selected by clicking **Sample Image...** (the sample image must be a RAW image created with a supported camera). Any changes to curves are reflected in the sample image. In the case of the D2Xs, up to three curves can be edited using the **Select the Curve for Edit** menu. To copy the edited curve to the camera, click **OK**.

The upper left section of the Edit Camera Curves window contains **Load...** and **Save...** buttons. Click **Load...** to load previously stored curves created with Camera Control Pro, Nikon Capture (available separately), or Capture NX (available separately; settings must include "Levels and Tone Curves" data). Look for files with the ".ntc", ".ncv", or ".set" extension.

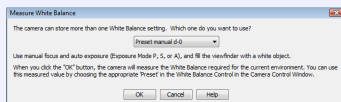
The **Save...** button opens the "Save As" dialog, where you can save the current curve.

# The Camera Menu

3/4

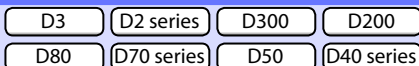
## Measure White Balance...

Use this option to measure preset white balance. If the camera currently connected supports multiple values for preset white balance, the setting that will be used to store the measured value can be chosen from the pop-up menu at the top of the dialog. Adjust camera settings as described in the section on preset white balance in the camera user's manual and click **OK** to measure a value for white balance.

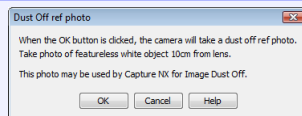


**D2Xs (dialogs for other cameras may differ)**

## Dust Off Ref Photo

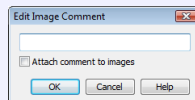


Choose this option to take a reference photo for the Image Dust Off option in Capture NX (available separately) and other Nikon software. The dialog shown at right will be displayed. With the camera lens ten centimeters (four inches) from a featureless white object, frame the object so that it fills the viewfinder and click **OK** to record an Image Dust Off reference photo. See the camera manual for details.



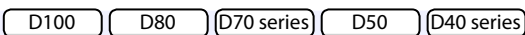
## Edit Image Comment...

Selecting this option displays the dialog shown at right, where you can enter a comment or title for subsequent photographs. If the camera currently connected is in the D1-series, enter a title of thirty-eight characters or less and click **OK**. The title will be used for all subsequent photographs taken while the camera is connected. When any other camera is connected, the title is stored in the camera as an image comment of thirty-six characters or less which is appended to photographs only when the **Attach comment to images** box is checked.



**D2Xs (dialogs for other cameras may differ)**

## Choosing a Mode



The **Measure White Balance...** option is only available in P, S, A, and M modes.

# The Camera Menu

4/4

## Select Shooting Settings Bank...

D3

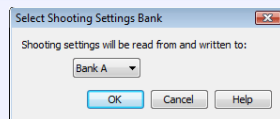
D2 series

D300

D200

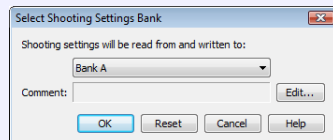
D100

Selecting this option displays the dialog shown at right, where you can choose the shooting menu bank in which changes to settings will be stored while the camera is controlled from Camera Control Pro. See the camera manual for details.

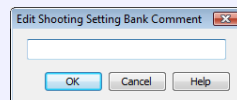


D100

The D3, D2 series, D300, and D200 allow a descriptive comment to be added to the name of each shooting menu bank. Clicking **Edit...** displays the dialog shown at right, where the comments for each bank can be edited. Click **OK** to copy the comments to the camera. Comments can be up to twenty characters long and contain letters, numbers, quotes, apostrophes, spaces, and any of the following characters: ", " ! " ? " # " \$ " % " & " ( " ) " [ " ] " { " } " \* " + " - " / " : " ; " < " = " > " \_ " and "@".



D3/D2 series/D300/D200



Edit Comment dialog

## Set Bracketing Mode

D3

D2 series

D300

D200

D80

D70 series

D50

Selecting this option displays the BKT Mode dialog. See "[Time Lapse Photography](#)" for details.

## Time Lapse Photography...

Selecting this option opens the "[Time Lapse Photography](#)" dialog.

## Live View (Hand-held)...

D3

D300

Selecting this option opens the "[Live View \(Hand-held\)](#)" dialog.

## Live View (Tripod)...

D3

D300

Selecting this option opens the "[Live View \(Tripod\)](#)" dialog.

## Enable controls on the camera body

(all cameras except

D1 series

D100)

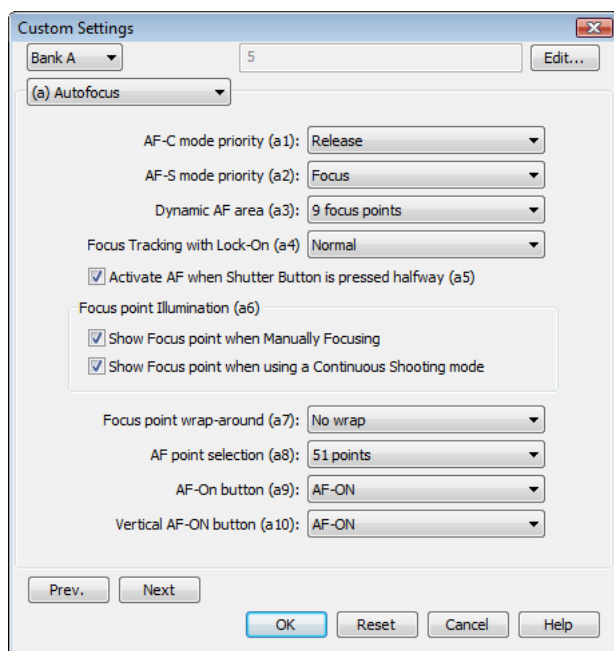
Check this option to enable camera controls, allowing settings to be adjusted and photographs taken directly from the camera. If this option is not checked, only the power switch and AF-area mode selector can be used.

# Custom Settings

1/4

Most of the custom settings stored in camera memory can be viewed and adjusted from the Custom Settings window in Camera Control Pro. For more information on Custom Settings, see the documentation provided with your camera.

- 1 Select **Custom Settings...** from the **Camera** menu. The Custom Settings dialog for the current camera will be displayed.



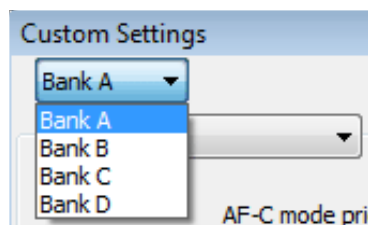
## Changes to Custom Settings

Changes made to settings in the Custom Settings dialog are stored in the camera, not on the computer hard disk. This means that changing settings in the Custom Settings dialog has the same effect as changing Custom Settings using camera controls.

# Custom Settings

2/4

- 2 Choose a Custom Settings bank (Custom Settings set) from the pop-up menu at the top right corner or the Custom Settings dialog (see the camera manual for details).



- 3 After making any changes to Custom Settings, click **OK** to save changes in the camera Custom Settings bank and exit the Custom Settings dialog.

## Custom Settings

Custom Settings can not be saved to a separate file. Clicking the **Reset** button resets all Custom Settings to their default values.

## Settings That Can Not Be Adjusted from the Custom Settings Window

The Custom Settings listed below can not be adjusted in the Custom Settings window.

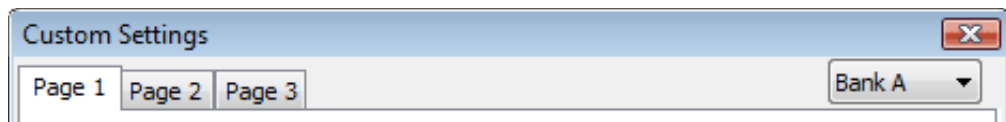
- Mirror lock-up for CCD cleaning (D1-series Custom Setting 8)/Cleaning mirror up (D100 setup menu): can only be adjusted from the camera
- RAW (NEF) image save (D1-series Custom Setting 28): if this option is set to "0" (off) when Camera Control Pro is started, a message will be displayed. Clicking OK in this dialog sets Custom Setting 28 to "1" (uncompressed RAW image save enabled). Custom Setting 28 can only be returned to "0" from the camera.
- ISO Auto (D100 Custom Setting 3)/ISO Boost (D1-series Custom Setting 31): can be adjusted from the Exposure 2 tab of the Camera Control Pro window.
- PC Shooting Mode (D1-series Custom Setting 30): this option is adjusted from the Mechanical tab of the Camera Control Pro window.
- Tone Compensation (D1-series Custom Setting 24)/Color Mode (D1X/D1H Custom Setting 32)/Hue Adjustment (D1X/D1H Custom Setting 33)/Noise Reduction (D100 Custom Setting 4): can be adjusted from the Processing tab of the Camera Control Pro window.

# Custom Settings

3/4

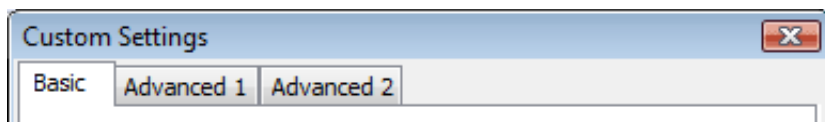
## Custom Settings for D1-Series and D100 Cameras

Custom Settings for D1-series and D100 cameras are divided among three tabs: Page 1, Page 2, and Page 3. See the camera manual for details.



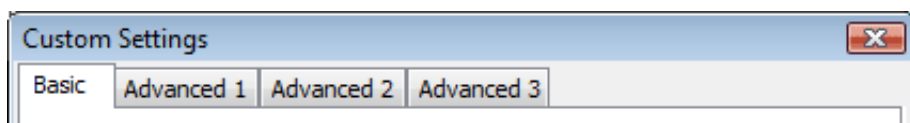
## Custom Settings for D70-Series and D50 Cameras

Custom Settings for the D70 series and D50 are divided among three tabs: Basic, Advanced 1, and Advanced 2. See the camera manual for details.



## Custom Settings for D80 Cameras

Custom Settings for the D80 are divided among four tabs: Basic, Advanced 1, Advanced 2, and Advanced 3. See the camera manual for details.

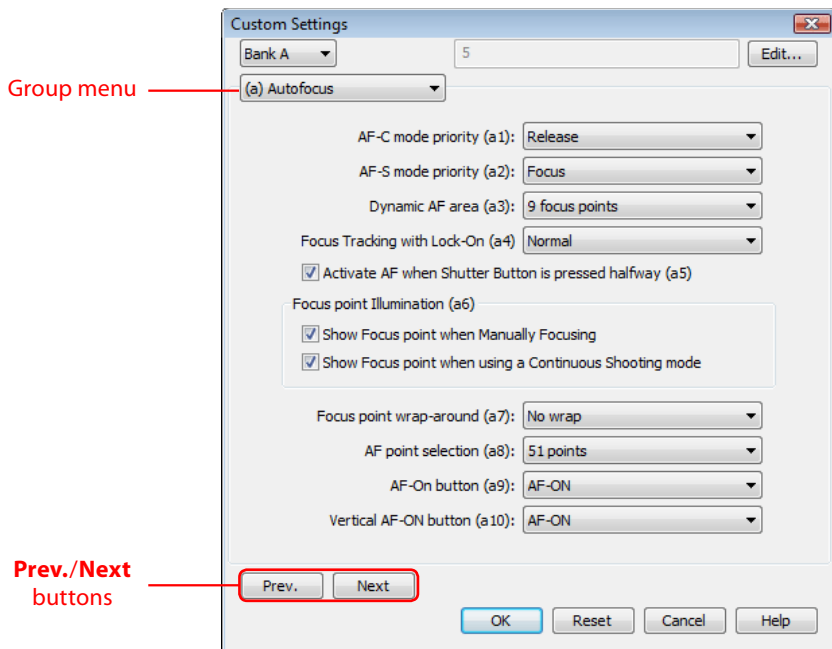


# Custom Settings

4/4

## Custom Settings for D3, D2-Series, D300, and D200 Cameras

Custom Settings in each bank are divided into six groups. The group can be chosen from the group menu or by clicking the **Next** and **Prev.** buttons.



A descriptive comment can be added to the name of each Custom Settings bank. Clicking **Edit...** displays an "Edit Custom Settings Comment" dialog, where the comments for each bank can be edited. Click **OK** to copy the comments to the camera. Comments can be up to twenty characters long and contain letters, numbers, quotes, apostrophes, spaces, and any of the following characters: `,"'!"?"#" "$" "%" "&" "(" ")"" "[" "]"" "{" "}" "*" " + " - " / " : " ; " < " = " > " _ " and "@".`



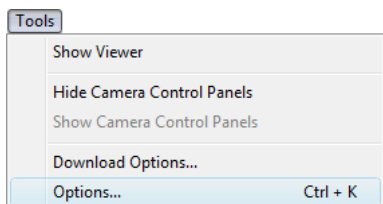
# Appendices

<b>Camera Control Pro Preferences</b>	<b>82</b>
The General Tab	<b>83</b>
The Color Management Tab	<b><i>Windows</i></b> <b>84</b>
The Color Management Tab	<b><i>Macintosh</i></b> <b>86</b>
<b>Uninstalling Camera Control Pro</b>	
	<b><i>Windows</i></b> <b>88</b>
	<b><i>Macintosh</i></b> <b>89</b>
<b>RGB Color Space Profiles</b>	<b>90</b>
<b>Device Registration</b>	<b>92</b>
	<b><i>Windows XP</i></b> <b>93</b>
	<b><i>Windows 2000</i></b> <b>97</b>
<b>Customer Support</b>	<b>105</b>

# Camera Control Pro Preferences

1/6

To view the Preferences (Options) dialog for Camera Control Pro, select **Options...** from the **Tools** menu (*Windows*) or select **Preferences...** from the application menu (*Macintosh*).

*Windows**Macintosh*

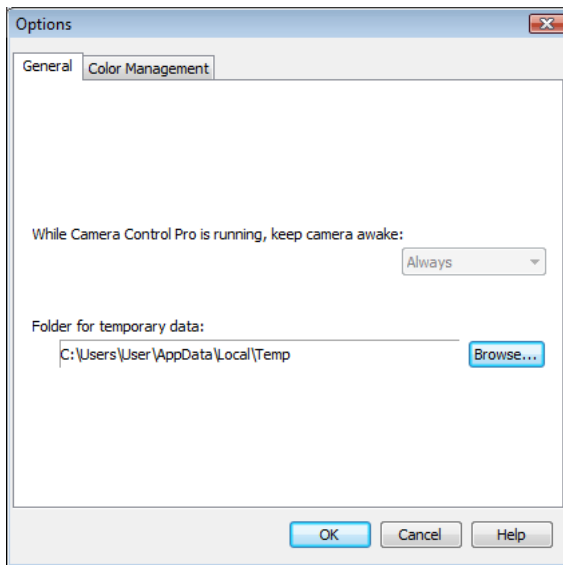
The Preferences dialog contains [General](#) and [Color Management](#) tabs.

# Camera Control Pro Preferences

2/6

## The General Tab

The General tab contains the following items:



### While Camera Control Pro is running, keep camera awake

Choose how long the exposure meters remain on when the camera is operated on battery power. This setting only takes effect when a D1-series camera is connected and powered on with Camera Control Pro running, and takes precedence over the auto meter off option chosen using camera Custom Settings. D1-series cameras powered by an AC adapter and all other supported camera models will stay awake indefinitely, regardless of the setting chosen here.

**for 15 minutes** (D1-series only): The exposure meters turn off automatically if no operations are performed for 15 minutes.

**Always:** The exposure meters remain on indefinitely. Note that this will increase the drain on the battery.

### Folder for temporary data/ Volume for temporary data

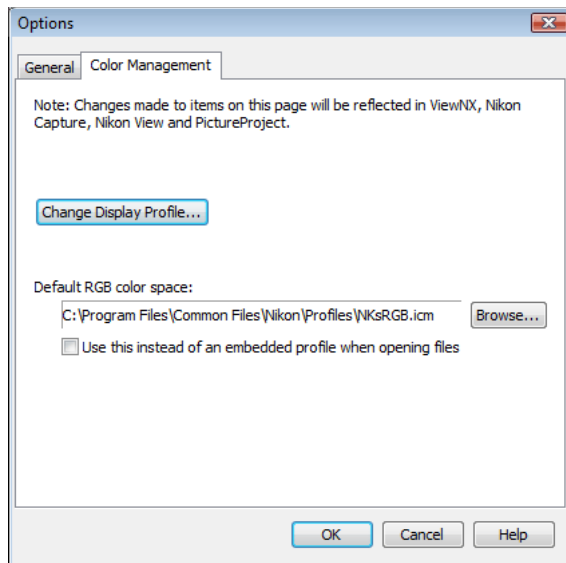
Specify the folder or volume in which temporary data, such as image cache data, will be stored. The default folder for Windows is the "TEMP" folder in the Windows directory, while the default volume for the Macintosh is the start-up disk. To choose a different folder in the Windows version of the program, click the **Browse...** button and navigate to the desired location. In the Macintosh version, a new volume can be chosen from the pop-up menu.

# Camera Control Pro Preferences

3/6

## The Color Management Tab (Windows)

The Color Management tab is where you specify the color management profiles used for displaying images on your monitor and for editing and saving RGB images.



### Change Display Profile

To choose a display profile, click **Change Display Profile...** The Windows “Display Properties” dialog will be displayed; open the Settings tab and click **Advanced...** to open the display adapter properties dialog. To select a display profile, open the Color Management tab and click **Add**.

### Default RGB color space

The output color-space profile used when working with RGB images is displayed here. Click **Browse...** to choose a new default RGB profile. If **Use this instead of an embedded profile when opening files** is checked, this RGB color space profile will be used for all images. If it is not checked, the profile embedded in each image will be used.

# Camera Control Pro Preferences

4/6

## Multiple Displays

In a multiple display environment, choose a single profile suited to all displays.

## Default Display Profile

The default Windows display profile is "NKMonitor\_win.icm." This profile is equivalent to sRGB.

## Supported Color Profiles

See "[RGB Color-Space Profiles](#)" for a list of the RGB color-space profiles supplied with Camera Control Pro.

## The Color Management Tab

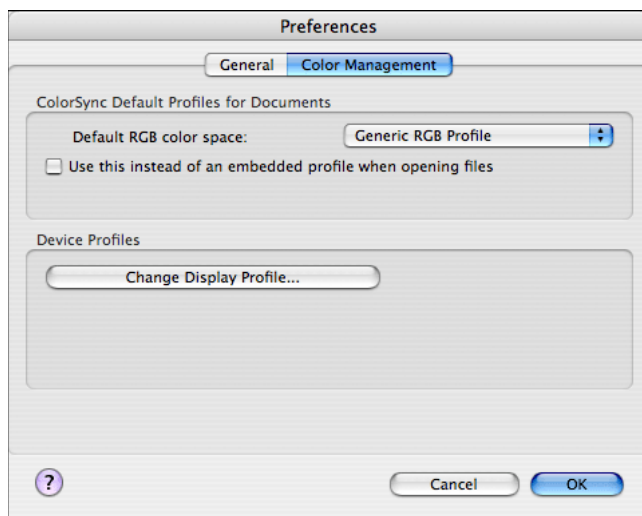
Changes to settings in the Color Management tab also apply to ViewNX, Nikon Capture (available separately), Nikon View, and PictureProject. They are not reflected in Capture NX (available separately).

# Camera Control Pro Preferences

5/6

## The Color Management Tab (Macintosh)

The Macintosh version displays the following options.



### ColorSync Default Profiles for Documents

Lists the ICC color-space profile used to display images.

**Default RGB color space:** Choose the output color-space profile used when working with RGB images. If **Use this instead of an embedded profile when opening files** is checked, this RGB color space profile will be used for all images. If it is not checked, the profile embedded in each image will be used.

### Device Profiles

Lists the default color-space profiles for monitors.

**Change Display Profile...:** If this button is displayed, you can click it to open the Displays section of the System Preferences dialog. Open the Color panel (Mac OS X) to choose a display profile.

# Camera Control Pro Preferences

6/6

## Input Profiles

If an input profile is selected for the default RGB color space, images will be displayed in the sRGB color space.

## Supported Color Profiles

See "[RGB Color-Space Profiles](#)" for a list of the RGB color-space profiles supplied with Camera Control Pro.

## The Color Management Tab

Changes to the display profile apply system wide. Changes to other settings in the Color Management tab apply to ViewNX but are not reflected in Capture NX, Nikon Capture (available separately), Nikon View, and PictureProject.

## Multiple Displays

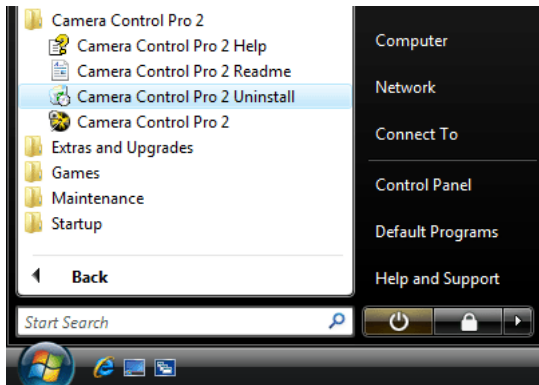
Camera Control Pro will identify and list the profiles for all monitors in an extended desktop display, allowing you to choose a separate profile for each monitor.

# Uninstalling Camera Control Pro

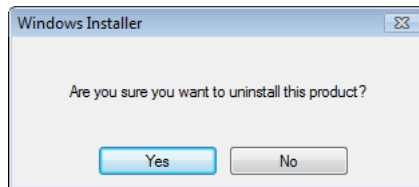
*Windows*

Use an account with administrator privileges to perform the uninstall.

- 1 Click **Start** and select **Camera Control Pro 2 > Camera Control Pro 2 Uninstall** from the program list.



- 2 Click **Yes** to begin removing Camera Control Pro and all of its components.



- 3 If the uninstaller encounters read-only files or components shared by another application, a confirmation dialog will be displayed. Read the information displayed carefully before deciding what to do with the affected components.

- 4 Click **Finish**. Restart the computer if so directed.



# Uninstalling Camera Control Pro

*Macintosh*

Use an account with administrator privileges to perform the uninstall.

- 1 Open the "Applications:Nikon Software:Camera Control Pro 2" folder and double-click the **Camera Control Pro 2 Uninstaller** icon.



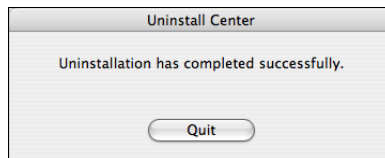
- 2 Enter the administrator name and password and click **OK**.



- 3 Click **Yes**.



- 4 Click **Quit** to exit the uninstaller once Camera Control Pro has been removed.



# RGB Color Space Profiles

1/2

## Profiles with a Gamma Value of 1.8

Profile	Windows	Macintosh	Description
Apple RGB	NKApple.icm	Nikon Apple RGB 4.0.0.3000	This profile is used in desk-top publishing applications and in Adobe Photoshop versions 4.0 or earlier, and is the typical RGB profile for Macintosh monitors. The corresponding RGB setting in Adobe Photoshop is "Apple RGB." This profile is suitable for working with images displayed on the Macintosh.
Color-Match RGB	NKCMatch.icm	Nikon Color-Match RGB 4.0.0.3000	The ColorMatch profile is native to Radius PressView monitors. It has a wider gamut than Apple RGB, with a particularly wide area devoted to the reproduction of blues. The corresponding RGB setting in Adobe Photoshop is "Color Match RGB."

## Profiles with a Gamma Value of 2.2

Profile	Windows	Macintosh	Description
sRGB	NKsRGB.icm	Nikon sRGB 4.0.0.3001	This RGB profile is used in the majority of Windows monitors. It closely resembles the RGB commonly used in color television, and is also used in the digital television broadcasting system that is on its way to becoming the industry standard in the United States of America. Software and hardware manufacturers use it as a default color profile and guarantee operation when it used. It is also on its way to becoming the standard for images on the web. This profile is suited to users who plan to use their digital images "as is," without editing or printing them. It however suffers from the drawback of a narrow gamut with a limited area available for reproducing blues. The corresponding RGB setting in Adobe Photoshop 5.0 and 5.5 is "sRGB," the corresponding setting in Adobe Photoshop 6.0 "sRGB IWC61966-2.1."
Bruce RGB	NKBruce.icm	Nikon Bruce RGB 4.0.0.3000	This color profile attempts to expand on the ColorMatch RGB gamut by defining the chromaticity for G as lying between the values for G in the Adobe RGB and ColorMatch color-space profiles. It was proposed by Bruce Fraser, who claims that it includes most of the colors in the SWOP CMYK gamut. The R and B used in the Bruce RGB and Adobe RGB color-space profiles match.
NTSC (1953)	NKNTSC.icm	NTSC (1953) 4.0.0.3000	This is the color space for video defined by the National Television Standards Committee (NTSC) in 1953 and used in early color televisions. This color space is also used in some Far-East newspaper and printing organizations. The corresponding RGB setting in Adobe Photoshop is "NTSC (1953)."

# RGB Color Space Profiles

2/2

Profile	Windows	Macintosh	Description
Adobe RGB (1998)	NKAdobe.icm	Nikon Adobe RGB (1998) 4.0.0.3000	A color-space profile defined in Adobe Photoshop 5.0. It has a wider gamut than sRGB and includes the colors found in most CMYK gamuts, making it suitable for users involved in desktop publishing. The corresponding RGB setting in Adobe Photoshop 5.0 is "SMPT-240M," the corresponding setting in Adobe Photoshop 5.5 or later "Adobe RGB (1998)."
CIE RGB	NKCIE.icm	Nikon CIE RGB 4.0.0.3000	A video color-space profile established by the <i>Commission Internationale de l'Éclairage</i> (CIE). While it boasts a fairly wide gamut, it suffers from the drawback that the area devoted to the reproduction of cyan is relatively small. The corresponding RGB setting in Adobe Photoshop is "CIE RGB."
Adobe Wide RGB	NKWide.icm	Nikon Adobe-Wide RGB 4.0.0.3000	This color-space profile, designed by Adobe, incorporates most of the visible colors. This however has the consequence that most of the colors it can express can not be reproduced on standard monitors and printers. The corresponding RGB setting in Adobe Photoshop 5.0 or later is "Adobe Wide RGB."

# Device Registration

If D1-series cameras are not recognized by the computer to which Camera Control Pro is installed, the camera or IEEE 1394 (FireWire) board may not be correctly registered with the Windows Device Manager. To check whether a device is registered with the Device Manager, click on the links below.

***Windows XP  
Professional/Home Edition***

***Windows 2000 Professional***

## Opening the Device Manager

Devices are registered with the Windows Device Manager. To open the Device Manager:

- **Windows XP:** Select **Control Panel** from the **Start** menu to open the "Control Panel" window, then click **Performance and Maintenance** icon to open the **Performance and Maintenance** control panel. Click the **System** icon to open the **System Properties** window. Open the "Hardware tab" and click **Device Manager**.
- **Windows 2000:** Right-click the **My Computer** icon on the desktop and select **Properties** from the menu that appears. In the "System Properties" dialog, open the "Hardware" tab and click the **Device Manager** button.

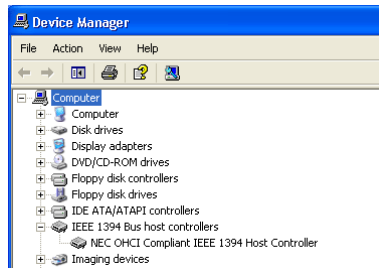
# Device Registration

## Windows XP 1/4

### Registering the IEEE 1394 Interface Board

Confirm that the OHCI-compliant IEEE 1394 interface board or card has been correctly registered with the system.

- 1 Open the Device Manager.** If the camera has been correctly registered with the system, the controller for your camera should appear under "1394 Bus Controller."



If "IEEE 1394 Bus host controllers" is not listed in the Device Manager, or if the IEEE 1394 interface board or card is listed as an unknown or miscellaneous device or is preceded by a red or yellow warning icon, follow the instructions in the manual provided with the board to ensure that the drivers are properly installed.

- 2** Install the driver for D1-series cameras from the Camera Control Pro CD, then connect the camera to the computer using an IEEE 1394 cable and turn the camera on. The camera will be registered automatically.

### Logging On

Log on as the "Computer Administrator" when registering the camera.

### Before Connecting the Camera

Be sure to install Camera Control Pro before connecting the camera to the computer.

# Device Registration

## Windows XP 2/4

### Registering the Device Driver

Follow the instructions below to check that the camera has been correctly registered with the system.

- 1 **Open the Device Manager** and confirm that “Nikon 1394 Protocol Device” and the camera is listed.



If the camera is listed under “Other devices,” **reinstall the device drivers**. If “Nikon 1394 Protocol Device” is not listed in the Device Manager and the camera does not appear under “Other devices,” disconnect the camera and restart the computer. Reconnect the camera after the computer has restarted.

- 2 Double-click the listing for the camera that appears under “Other devices.” Click the “General” tab and confirm that “This device is working properly” appears under “Device status.”



### Troubleshooting

If “1394 Bus host Controller” is listed in the Device Manager but the entry for the Nikon D1 (D1X/D1H) does not appear, check the following:

- Is the camera on?
- Is the battery fully charged? If you are using an AC adapter (available separately), is it properly connected?
- Is the mode dial set to “PC”?
- Is the IEEE 1394 cable properly connected?

# Device Registration

## Windows XP 3/4

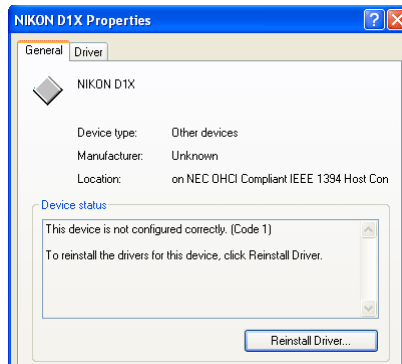
### Reinstalling the Device Driver

If the camera is listed under "Other devices," reinstall the device drivers as instructed below.

- 1 Double-click the listing for the camera that appears under "Other devices."



- 2 Open the "General" tab and click **Reinstall Driver...**



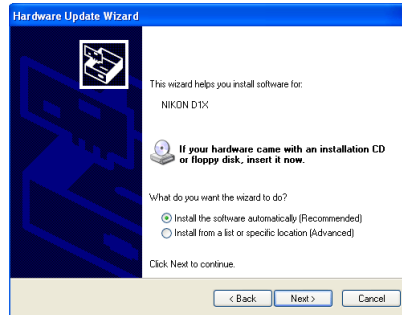
- 3 Select **No, not this time** and click **Next**.



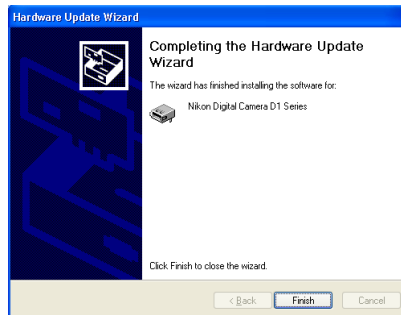
# Device Registration

## Windows XP 4/4

- 4 Pressing the shift key to prevent the language-selection dialog from opening automatically, insert the Camera Control Pro CD (if the language-selection dialog appears, click **Quit**). Select **Install the software automatically** and click **Next**.



- 5 Click **Finish**.



- 6 Confirm that "This device is working properly" appears under "Device status" in the "General" tab of the camera "Nikon Digital Camera D1 Series Properties" dialog.





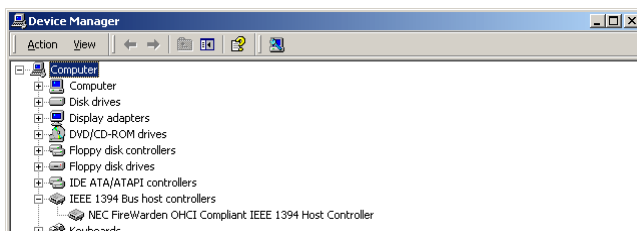
# Device Registration

**Windows 2000 1/8**

## Registering the IEEE 1394 Interface Board

Confirm that your OHCI-compliant IEEE 1394 interface board or card has been correctly registered with the system.

- 1** **Open the Device Manager.** If the camera has been correctly registered with the system, the controller for your camera should appear under “1394 Bus host Controller.”



If “1394 Bus host Controller” is not listed in the Device Manager, or if the IEEE 1394 interface board or card is listed as an unknown or miscellaneous device or is preceded by a red or yellow warning icon, follow the instructions in the manual provided with the board to ensure that the drivers are properly installed.

- 2** Install the driver for D1-series cameras from the Camera Control Pro CD, then connect the camera to the computer using an IEEE 1394 cable and turn the camera on. The camera will be registered automatically.

### Logging On

Log on as the “Administrator” when registering the camera.

### Updating Drivers for the D1

If you are already using the D1 with Nikon View DX or Nikon Capture, [you will need to update the camera drivers.](#)

### Before Connecting the Camera

Be sure to install Camera Control Pro before connecting the camera to the computer.

# Device Registration

## Windows 2000 2/8

### Registering the Device Driver

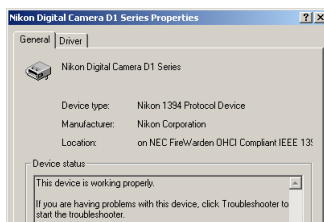
Follow the instructions below to check that the camera has been correctly registered with the system.

- 1 **Open the Device Manager** and confirm that “Nikon 1394 Protocol Device” and the camera are listed.



If the camera is listed under “Other devices,” **reinstall the device drivers**. If “Nikon 1394 Protocol Device” is not listed in the Device Manager and the camera does not appear under “Other devices,” disconnect the camera and restart the computer. Reconnect the camera after the computer has restarted.

- 2 Double-click the listing for the camera that appears under “Other devices.” Click the “General” tab and confirm that “This device is working properly” appears under “Device status.”



### Troubleshooting

If “1394 Bus host Controller” is listed in the Device Manager but the entry for the Nikon D1 (D1X/D1H) does not appear, check the following:

- Is the camera on?
- Is the battery fully charged? If you are using an AC adapter (available separately), is it properly connected?
- Is the mode dial set to “PC”?
- Is the IEEE 1394 cable properly connected?

# Device Registration

## Windows 2000 3/8

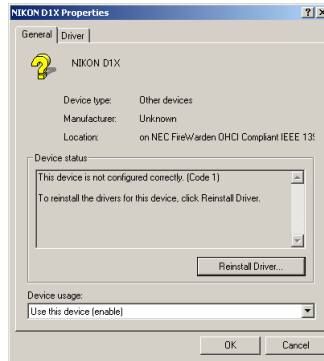
### Reinstalling the Device Driver

If the camera is listed under "Other devices," reinstall the device drivers as instructed below.

- 1 Double-click the listing for the camera that appears under "Other devices."



- 2 Open the "General" tab and click **Reinstall Driver**.



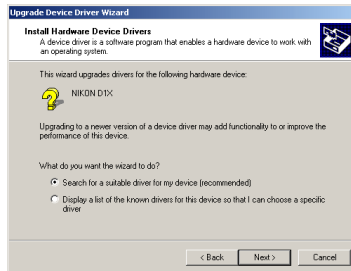
- 3 Click **Next**.



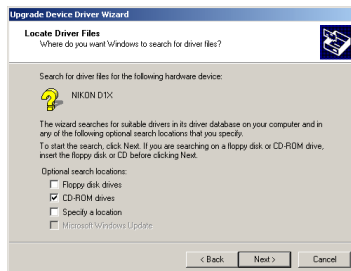
# Device Registration

## Windows 2000 4/8

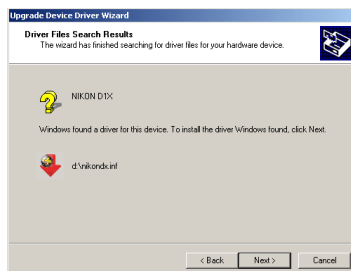
**4** Select the search option and click **Next**.



**5** Pressing the shift key to prevent the language-selection dialog from opening, insert the Camera Control Pro CD (if the language-selection dialog appears, click **Quit**). Select **CD-ROM drives** and click **Next**.



**6** Click **Next**.



If the message "Windows was unable to find a suitable driver for this device" is displayed, the CD was not correctly inserted or the correct search location was not selected. Click **Back** to return to the dialog shown in Step 5 and confirm that the search location is correct.

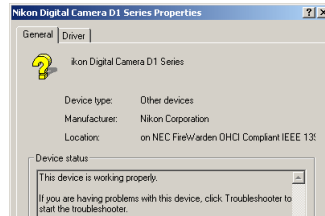
# Device Registration

## Windows 2000 5/8

7 Click **Finish**.



8 Confirm that "This device is working properly" appears under "Device status" in the "General" tab of the "Nikon Digital Camera D1 Series Properties" dialog.



# Device Registration

## Windows 2000 6/8

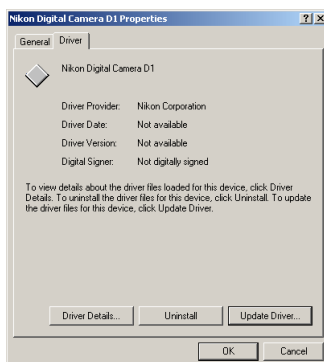
### Updating the Device Driver

If you are already using the D1 with Nikon View DX or Nikon Capture, you will need to update the camera drivers.

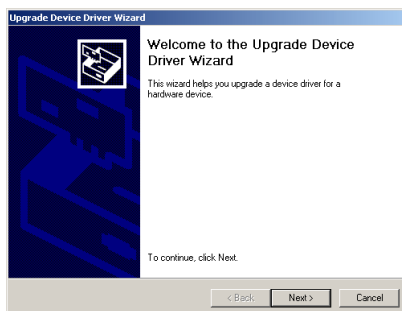
- 1 **Open the Device Manager.** Expand the "Nikon 1394 Device" entry and double-click **Nikon Digital Camera D1**.



- 2 Open the "Driver" tab and click **Update Driver...**



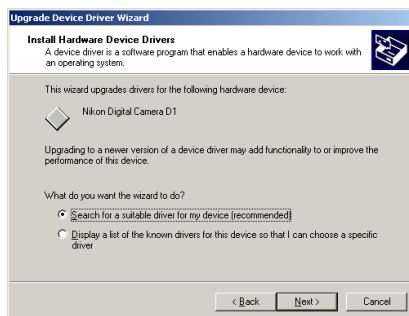
- 3 Click **Next**.



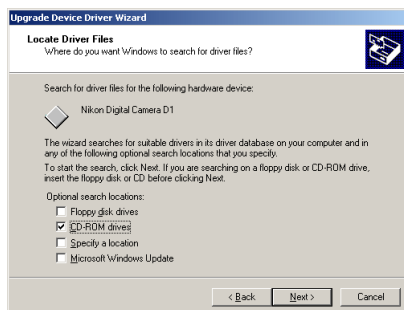
# Device Registration

## Windows 2000 7/8

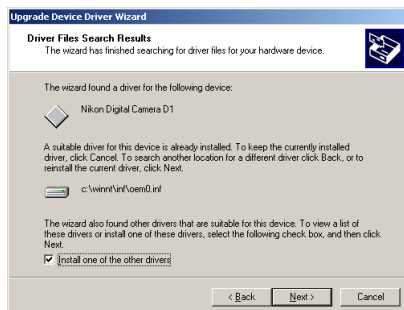
**4** Select the search option and click **Next**.



**5** Pressing the shift key to prevent the language-selection dialog from opening, insert the Camera Control Pro CD (if the language-selection dialog appears, click **Quit**). Select **CD-ROM drives** and click **Next**.



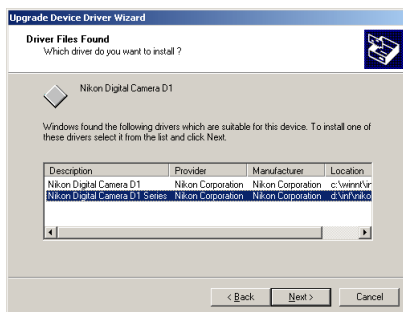
**6** Select **Install one of the other drivers** and click **Next**.



# Device Registration

## Windows 2000 8/8

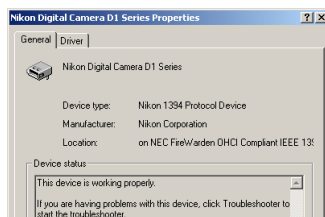
**7** Select **Nikon Digital Camera D1 Series** and click **Next**.



**8** Click **Finish**.



**9** Confirm that "This device is working properly" appears under "Device status" in the "General" tab of the "Nikon Digital Camera D1 Series Properties" dialog.





# Customer Support and Registration

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We are confident your Nikon product will meet and exceed the high level of quality, reliability and innovative design you have come to expect from Nikon.

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