

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

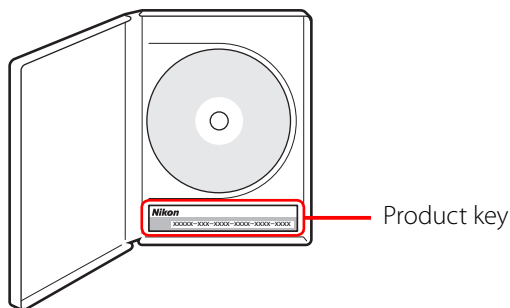
This section describes how to use Camera Control Pro 2.

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

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Click a page number to view.

Introduction

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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.

Camera Control Pro 2

Camera Control Pro 2 can be used to control cameras connected via interface cables or (with all wireless transmitters in the WT series apart from the WT-1) in a local-area network (LAN). Pictures can be downloaded to the computer or saved to the camera memory card and shared with applications such as ViewNX 2 and Capture NX 2. Live view and movie recording are available with supported models.

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 Mac OS versions of the program use differing commands, the Windows menu name is listed first, followed by the Mac OS 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 7 Home Premium, Professional, Enterprise, and Ultimate are referred to as "Windows 7." Windows Vista Home Basic, Home Premium, Business, Enterprise, and Ultimate editions are referred to as "Windows Vista." Windows XP Professional and Windows XP Home Edition are referred to as "Windows XP." D3S, D3X, and D3 cameras are referred to as "D3-series cameras," D300S and D300 cameras as "D300-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 Mac OS. 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

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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 D3S is connected.

Camera Control Pro 2 for D100 Cameras (Mac OS)

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

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Customer Support

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.

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About This Manual

How to Use This Manual

The pages of this manual are structured as shown here:

1 Overview

Using Camera Control Pro

Appendices

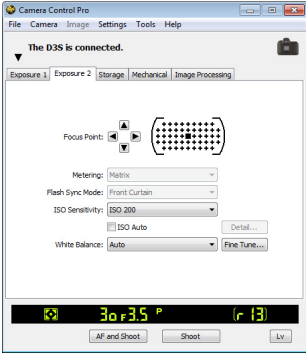
2

Camera Controls

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The Exposure 2 Tab

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




Focus Point	The focus point and focus area can be selected using the arrow buttons; see the camera manual for details.
Focus Area	For information on AF-area mode and focus mode, see The Mechanical Tab.
Metering	The metering mode can be selected from this menu (D100 excluded). Metering mode defaults to the option selected with the camera. If a 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 mode. See the camera manual for details.
ISO Sensitivity	ISO sensitivity can be raised when taking photographs in low light conditions. See the user's manual provided with your camera for details.

5 Return to first page

Camera Control Pro 2

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- 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:

CPU	Intel Celeron, Pentium 4, or Intel Core series processor with a clock speed of 1 GHz or faster recommended
OS	Preinstalled versions of Windows 7 Home Basic/Home Premium/Professional/Enterprise/Ultimate, Windows Vista Home Basic/Home Premium/Business/Enterprise/Ultimate (Service Pack 2), Windows XP Home Edition/Professional (Service Pack 3). Camera Control Pro runs as a 32-bit application in 64-bit editions of Windows 7 and Windows Vista.
Hard-disk space	A minimum of 500 MB (1 GB or more recommended) of free disk space available on the system startup disk for installation and when Camera Control Pro is running.
RAM	<ul style="list-style-type: none">• Windows 7/Windows Vista: 1 GB (1.5 GB or more recommended)• Windows XP: 512 MB (1 GB or more recommended)
Video resolution	<ul style="list-style-type: none">• Resolution: 1,024 × 768 pixels (XGA) or more• Color: 24-bit color (True Color) or higher
Interface	USB: Only built-in USB ports supported. Connect the camera directly to the computer; the camera may not function as expected when connected via a hub or other device.
Supported cameras	D3-series, D2-series, D700, D300-series, D200, D100, D90, D80, D70-series, D60, D50, D40-series, D7000, and D5000 cameras
Miscellaneous	<ul style="list-style-type: none">• CD-ROM drive required for installation• Internet connection required for some options

Use the latest version of Camera Control Pro 2. Check the support information at the website below for the latest on compatible cameras and operating systems.

Europe, Africa: www.europe-nikon.com/support/

Asia, Oceania, Middle East: www.nikon-asia.com/

U.S.A.: www.nikonusa.com/

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

System Requirements

Mac OS

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

CPU	PowerPC G4 or G5 model, Intel Core, or Intel Xeon with a clock speed of 1 GHz or faster recommended
OS	Mac OS X version 10.4.11, 10.5.8 or 10.6.4
Hard-disk space	A minimum of 500 MB (1 GB or more recommended) of free disk space available on the system startup disk for installation and when Camera Control Pro is running.
RAM	512 MB (1 GB or more recommended)
Video resolution	<ul style="list-style-type: none">• Resolution: 1,024 × 768 pixels (XGA) or more• Color: 24-bit color (millions of colors) or higher
Interface	USB: Only built-in USB ports supported. Connect the camera directly to the computer; the camera may not function as expected when connected via a hub or other device.
Supported cameras	D3-series, D2-series, D700, D300-series, D200, D100, D90, D80, D70-series, D60, D50, D40-series, D7000, and D5000 cameras
Miscellaneous	<ul style="list-style-type: none">• CD-ROM drive required for installation• Internet connection required for some options

Use the latest version of Camera Control Pro 2. Check the support information at the website below for the latest on compatible cameras and operating systems.

Europe, Africa: www.europe-nikon.com/support/

Asia, Oceania, Middle East: www.nikon-asia.com/

U.S.A.: 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

Mac OS

Existing Versions of Camera Control Pro

If an existing copy of Camera Control Pro or Camera Control Pro 2 is detected during installation, a notification will be displayed. Follow the on-screen instructions.

Installing Camera Control Pro

Windows 1/5

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

Camera Control Pro 2 Install Options

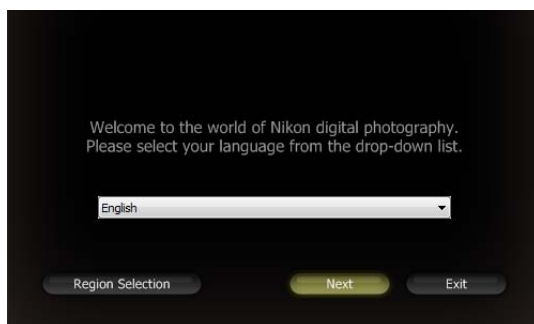
To display install options for Camera Control Pro:

- 1 Insert the installer CD in a CD-ROM drive. If an existing copy of Camera Control Pro or Camera Control Pro 2 is detected, installation options will be displayed; proceed to the following page. Otherwise, proceed to Step 2.

Windows 7/Windows Vista

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

- 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 Installation Options Are Not Displayed

Select **Computer** or **My Computer** from the start menu and double-click the CD-ROM (Camera Control Pro) icon.

Installing Camera Control Pro

Windows 2/5

“Welcome” dialog



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

ViewNX 2 Download: Displays the download page for ViewNX 2 in your web browser (Internet connection required). Camera Control Pro 2 is not equipped with an image browser; download [ViewNX 2](#) to view pictures captured with Camera Control Pro.

Link to Nikon: Download Nikon NEF Codec 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.

Exit: Close this dialog.

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

Existing Versions of Camera Control Pro

You will not be able to display images in earlier versions of Camera Control Pro after Camera Control Pro 2 is installed. We recommend that you download and install ViewNX 2.

Installing Camera Control Pro

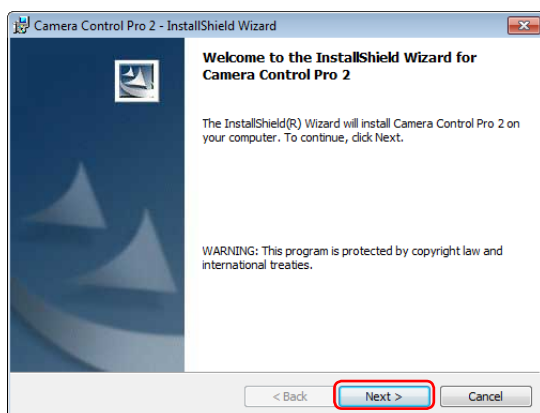
Windows 3/5

Follow the steps below to install Camera Control Pro:

1 Click **Install**.



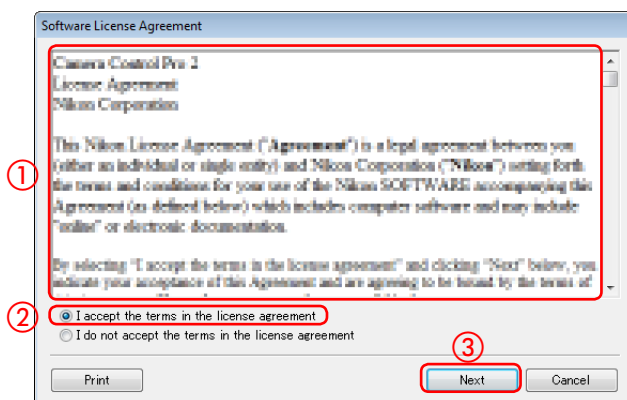
2 Click **Next**.



Installing Camera Control Pro

Windows 4/5

- 3 After reading the license agreement (①), select **I accept the terms in 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**.

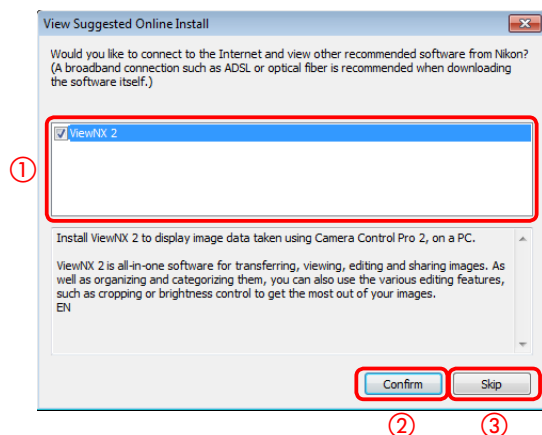
- 4 Follow the on-screen instructions.

Installing Camera Control Pro

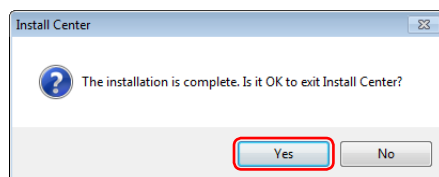
Windows 5/5

“View Suggested Online Install”

If the following dialog is displayed, select the desired software (①) and click **Confirm** (②) to view the website for the selected software (Internet connection required). Click (③) to proceed without checking for additional software.



5 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

Mac OS 1/4

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:

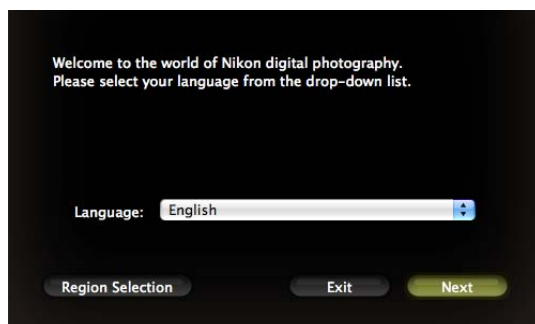
- 1 Insert the installer CD in a CD-ROM drive. Double-click the Camera Control Pro CD-ROM icon () on the desktop and then double click the **Welcome** () icon.

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



If an existing copy of Camera Control Pro or Camera Control Pro 2 is detected, installation options will be displayed; proceed to the following page. Otherwise, proceed to Step 3.

- 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

Mac OS 2/4

“Welcome” dialog



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

ViewNX 2 Download: Displays the download page for ViewNX 2 in your web browser (Internet connection required). Camera Control Pro 2 is not equipped with an image browser; download [ViewNX 2](#) to view pictures captured with Camera Control Pro.

Link to Nikon: Download 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.

Exit: Close this dialog.

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

Existing Versions of Camera Control Pro

You will not be able to use earlier versions of Camera Control Pro after Camera Control Pro 2 is installed. We recommend that you download and install ViewNX 2.

Installing Camera Control Pro

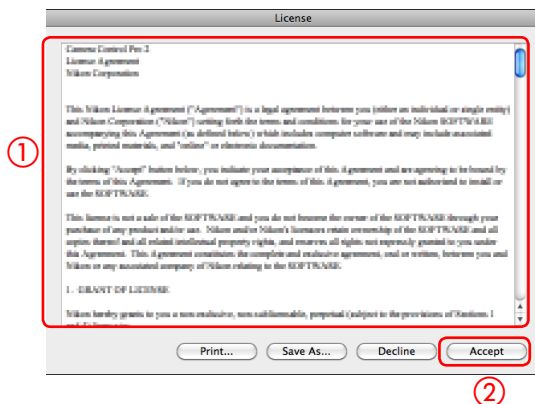
Mac OS 3/4

Follow the steps below to install Camera Control Pro:

1 Click **Install**.



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



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 **OK**.

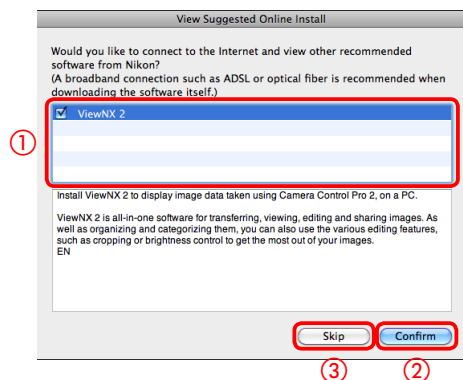
Installing Camera Control Pro

Mac OS 4/4

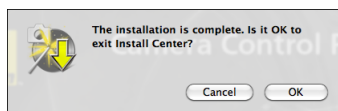
3 Follow the on-screen instructions.

“View Suggested Online Install”

If the following dialog is displayed, select the desired software (①) and click **Confirm** (②) to view the website for the selected software (Internet connection required). Click (③) to proceed without checking for additional software.



4 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

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Starting Camera Control Pro

- 1 Turn the camera off and use the USB cable to connect the camera to the computer as described in the camera manual. If you are using a D100, choose P, S, A, or M mode. Users of D3-series, D2-series, D300-series, D200, and D7000 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 connecting to cameras via local area networks (LANs) using WT-2, WT-3, or WT-4 wireless transmitters.

USB

If there is a **USB** option in the camera setup menu, select **PTP** or **MTP/PTP** before starting Camera Control Pro.

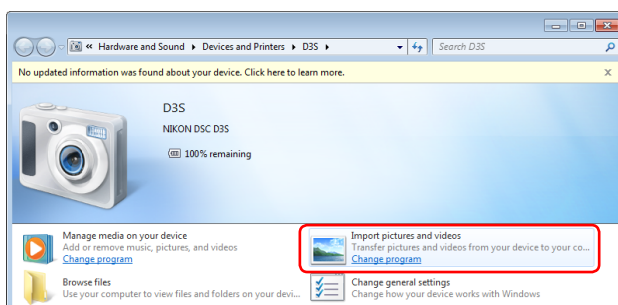
Starting and Exiting Camera Control Pro

2/7

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

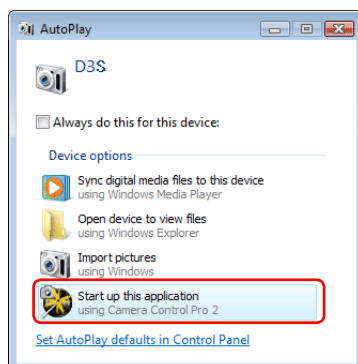
USB Connection to Windows 7 Computers

If the following dialog is displayed, click **Change program** under “Import pictures and videos” and follow the on-screen instructions to select Camera Control Pro 2.



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

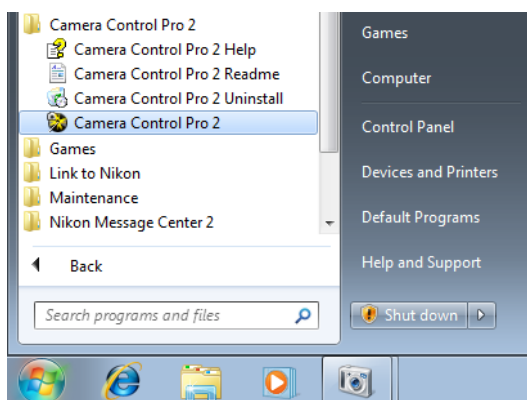
3 Start Camera Control Pro.

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.



Mac OS

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.



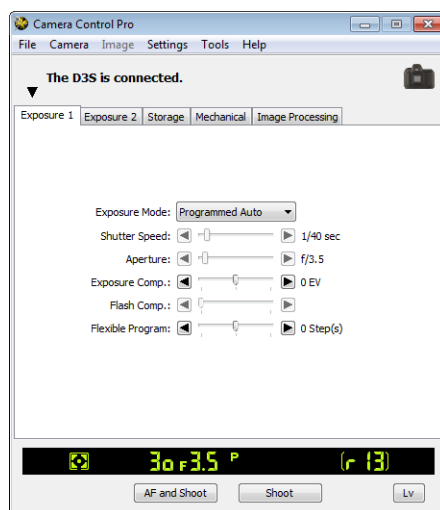
Product Key

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.

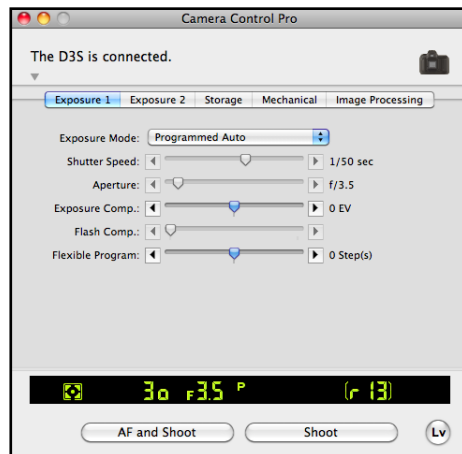
Starting and Exiting Camera Control Pro

4/7

4 The Camera Control Pro window will be displayed.



Windows



Mac OS

Starting and Exiting Camera Control Pro

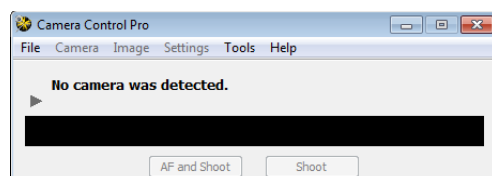
5/7

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.



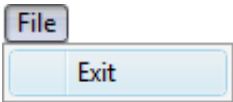
Starting and Exiting Camera Control Pro

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Exiting Camera Control Pro

Windows

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



Mac OS

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



Starting and Exiting Camera Control Pro

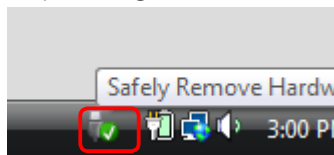
7/7

Disconnecting the Camera

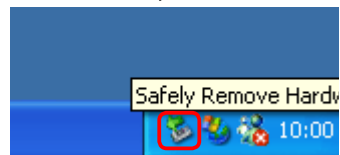
Turn the camera off and disconnect the USB cable. Note that if a camera that supports only Mass Storage is connected via USB, you will first need to click the “Safely Remove Hardware” icon in the taskbar (see below) and select the removable disk or USB Mass Storage device corresponding to the camera (Windows only).



Windows 7



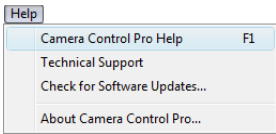
Windows Vista



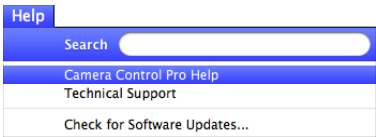
Windows XP

Getting Help

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



Windows



Mac OS

Software Updates

Camera Control Pro is equipped with an automatic update function known as Nikon Message Center 2. Nikon Message Center 2 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 2 will automatically check for updates and display an update dialog when an update is available. See the Nikon Message Center 2 **Help** menu for more information.

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

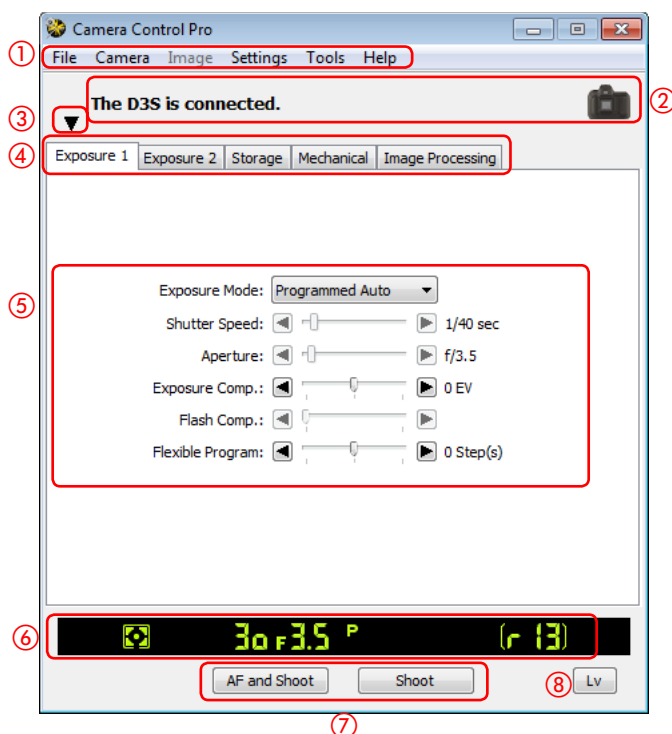
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Screen Layout

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Camera Control Pro screen layout is described below using the D3S as an example.

Windows

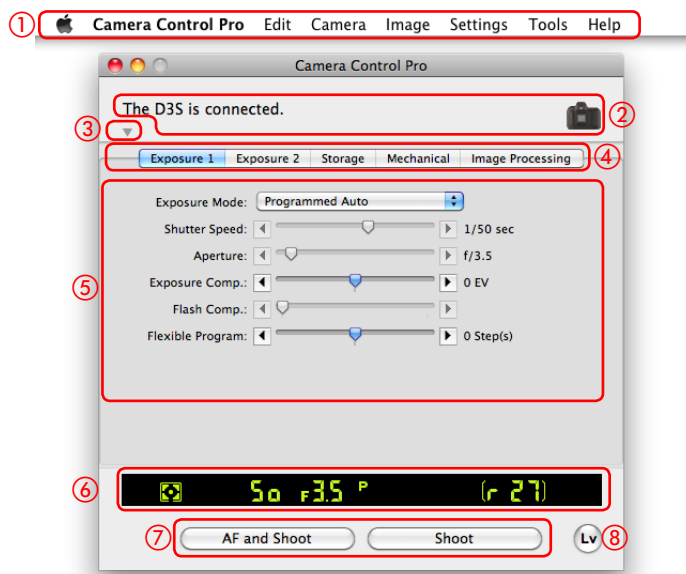


- ① **Menu bar**
- ② **Connection status:** Shows the status and name of any cameras connected.
- ③ **▼/▶:** View or hide camera controls. Camera controls can also be displayed or hidden by selecting **Show/Hide Camera Control Panels** in the **Tools** menu.
- ④ **Camera control tabs:** Click to view the associated camera controls.
- ⑤ **Camera controls:** Adjust camera settings.
- 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. These buttons can also be assigned **keyboard shortcuts**.
- ⑧ **Live view button:** Opens the live view window and/or starts live view. Available only with cameras that support live view.

Screen Layout

2/2

Mac OS



- 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.
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- ⑦ **Shoot buttons:** Click these buttons to take pictures. These buttons can also be assigned **keyboard shortcuts**.
- ⑧ **Live view button:** Opens the live view window and/or starts live view. Available only with cameras that support live view.

Capturing Photographs to Disk

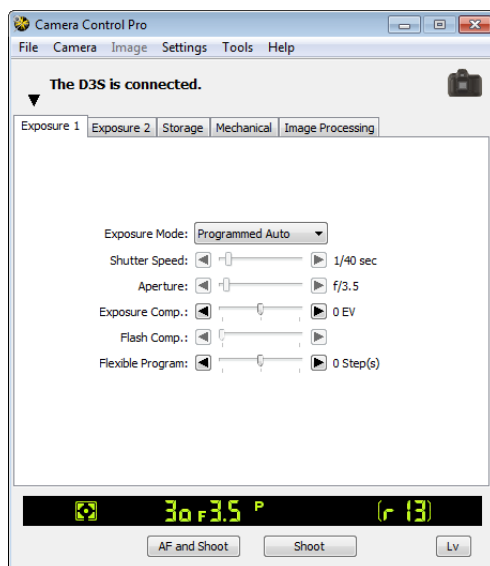
1/7

If Camera Control Pro is running when a supported camera connected, pictures taken with the camera will be stored on your computer hard disk instead of (or, in some cases, in addition to) the camera memory card. Pictures can be taken using either the “shoot” buttons in the Camera Control Pro window or, if [Enable Controls on Camera Body](#) is selected in the **Camera** menu, using the camera shutter-release button.

The D3S and D7000

If a D3S or D7000 is connected, photographs can be recorded simultaneously to both the computer hard disk and camera memory cards, or separately to either the computer hard disk or camera memory cards. See [Record to](#) for details.

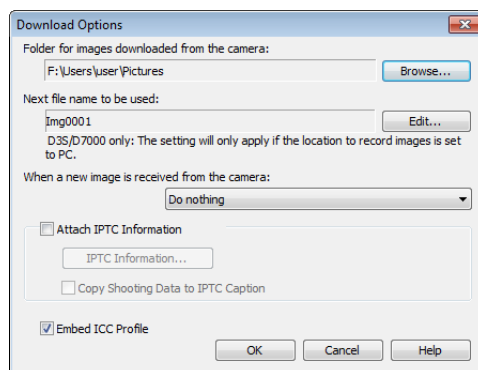
1 Start Camera Control Pro.



Capturing Photographs to Disk

2/7

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



Capturing Photographs to Disk

3/7

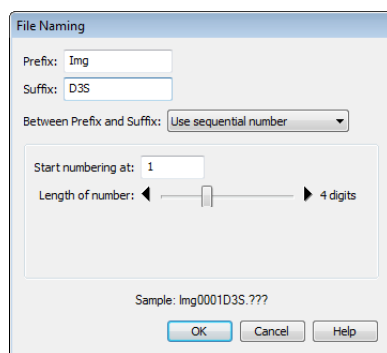
3 Adjust capture options:

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 downloaded to the computer will be named. To change how files are named, click **Edit...** The dialog shown 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 should contain no more than one hundred characters. 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.

Mac OS: The maximum length for Mac OS file names is twenty 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).

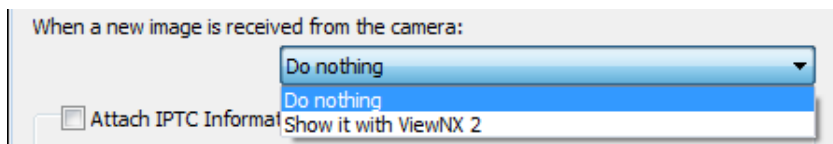
"PC+CARD"/"CARD" D3S D7000

Photographs saved to camera memory cards when **PC+CARD** or **CARD** is selected for [Record to](#) will be assigned the same name as the photographs saved to the computer. An underscore and a four-digit number will automatically be added if a file with the same name already exists.

Capturing Photographs to Disk

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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 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.
- **Show it with ViewNX 2** (available only if ViewNX 2 is installed): ViewNX 2 starts automatically and displays the captured images. See ViewNX 2 help for details. Use the latest version of ViewNX 2.
- **Send it to Capture NX 2 watched folder** (available only if Capture NX 2 is installed and a “Watched folder” has been selected): If Capture NX 2 (available separately) is running, photographs will be saved in the folder currently selected as the “watched” folder in Capture NX 2 (see the Capture NX 2 manual for details; see the camera or Capture NX 2 manual for information on whether the camera is supported under Capture NX 2). Pictures will automatically be processed according to the batch settings in Capture NX 2.
- **Send it to Capture NX watched folder** (available only if Capture NX is installed and a “Watched folder” has been selected; if Capture NX 2 is installed, this item will not be displayed): If Capture NX (available separately) is running, photographs will be saved in the folder currently selected as the “watched” folder in Capture NX (see the Capture NX manual for details; see the camera or Capture NX manual for information on whether the camera is supported under Capture NX). Pictures will automatically be processed according to the batch settings in Capture NX.

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

Capturing Photographs to Disk

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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 series D2XS D2X* D2HS* D700 D300 series 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 images are captured using Camera Control Pro. IPTC information and ICC color profiles are not embedded in images saved to the camera memory cards when **PC+CARD** or **CARD** is selected for [Record to](#) (D3S and D7000 only).

*Image Authentication supported from camera firmware version 2.00.

Capturing Photographs to Disk

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- 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 or during live view, the camera will detect camera orientation and automatically embed this information in photographs (note that except for the D3 series, D700, D300S, D100, and D7000, the orientation for the first image in each burst taken in continuous mode 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 select **Rotate all downloaded images by 90 degrees CW** to mark pictures as being rotated 90° to the right, or **Rotate all downloaded images by 90 degrees CCW** to mark pictures as being rotated 90° to the left.

Image Authentication D3 series D2XS D2X* D2HS* D700 D300 series D200*

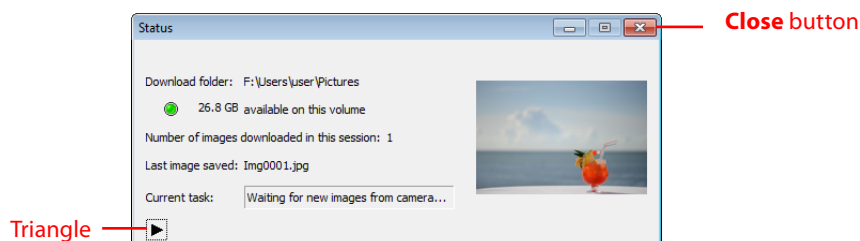
The “Rotate all downloaded images...” options do not apply to photographs taken with Image Authentication on. Image authentication information is not embedded in TIFF photographs when images are captured using Camera Control Pro.

*Image Authentication supported from camera firmware version 2.00.

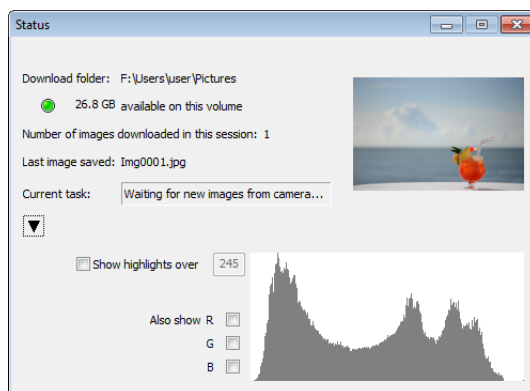
Capturing Photographs to Disk

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- 5 Take pictures using the camera shutter-release button or the “shoot” buttons in Camera Control Pro. The Status dialog shown below will be displayed.



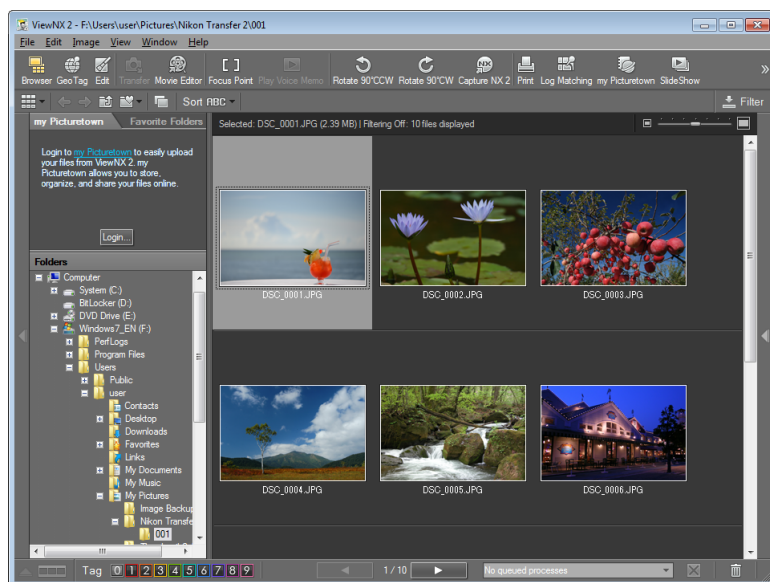
To display a histogram of the current image, click the triangle at the bottom of the Status dialog.



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.

Viewing Captured Photographs

If **Show it with ViewNX** or **Show it with ViewNX 2** is selected for [When a new image is received from camera](#) in the “[Download Options](#)” dialog, pictures will automatically be displayed in the selected application after capture (for details, see the on-line help for the selected application; be sure to always use the latest version). The images in the folder selected for **Folder for images downloaded from the camera** in the “Download Options” dialog will be displayed.



Viewing Pictures in ViewNX or ViewNX 2

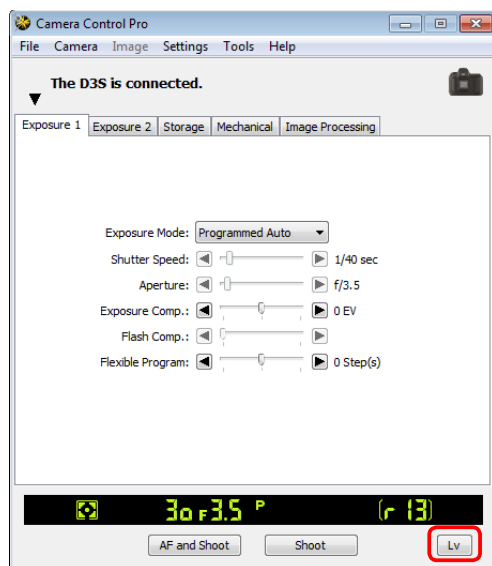
If **Show images captured by Camera Control Pro 2** is selected in the ViewNX or ViewNX 2 **File** menu, picture captured by Camera Control Pro 2 will automatically be displayed in the image area.

Live View

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When a camera that supports live view is connected, photographs can be framed in the “Live View” window.

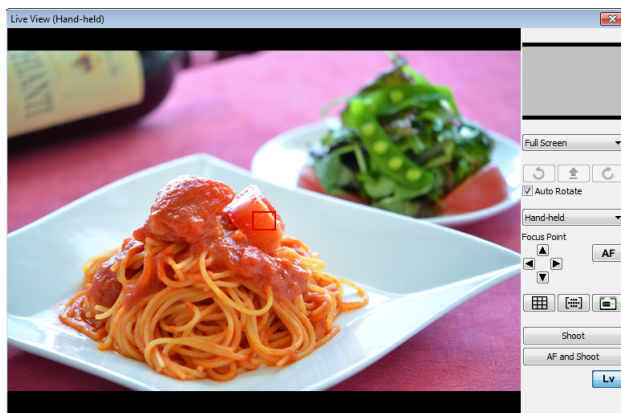
1 Click the **Lv** (live view) button.



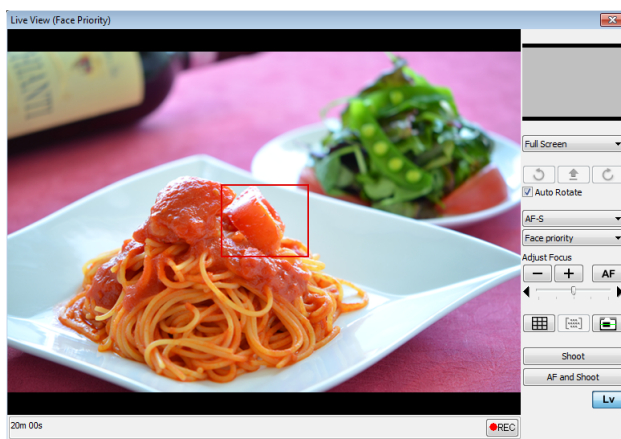
Live View

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- 2 Adjust settings in the “Live View” window as described in “[Live View for D3-series, D700, and D300-series Cameras: Hand-held](#),” “[Live View for D3-series, D700, and D300-series Cameras: Tripod](#),” or “[Live View for D90, D7000, and D5000 Cameras](#).” Note that the controls on the camera body can not be used while the “Live View” window is displayed.



D3 series/D700/D300 series



D90/D7000/D5000

- 3 Take pictures using the **Shoot** or **AF and Shoot** buttons in the “Live View” window. A [status dialog](#) will be displayed.


Live View

3/7

- 4 Click the **Lv** button to end live view (note that the “Live View” window will close automatically if the camera is disconnected). Live view can be started again at any time by clicking the **Lv** button.

Live View for D3-series, D700, and D300-series Cameras: Hand-held



① Image area	Shows the view through the camera lens, updated in real time, with the current focus point () superimposed.
② Navigation area	When the live view display is zoomed in, the navigation window shows the position of the area currently displayed in the monitor.
③ Magnification ratio	Choose a zoom ratio to zoom the view in the image area in or out.
④ Rotate buttons	Rotate the live view display in the image area.
⑤ “Auto Rotate”	If this option is selected, the live view display will automatically be rotated with the camera.
⑥ Live view mode	Choose from Hand-held and Tripod .
⑦ “Focus Point”	Click the arrows to move the focus point.
⑧ AF button	Set exposure and focus the camera using normal (phase-detection) AF.
⑨ Framing grid button	Display or hide a framing grid.
⑩ AF area button	Display or hide the focus area.
⑪ Virtual horizon button	Display or hide a virtual horizon. Available with the D3 from firmware version 2.00 and with the D3X, D3S, D700, and D300S.
⑫ “Shoot”	Take a picture.
⑬ “AF and Shoot”	Focus and then take a picture. No picture will be taken if the camera is unable to focus.
⑭ “Lv”	Click to start or stop live view.




Live View for D3-series, D700, and D300-series Cameras: Tripod



① Image area	Shows the view through the camera lens, updated in real time, with the focus point () superimposed.
② Navigation area	When the live view display is zoomed in, the navigation window shows the position of the area currently displayed in the monitor.
③ Magnification ratio	Choose a zoom ratio to zoom the view in the image area in or out.
④ Rotate buttons	Rotate the live view display in the image area.
⑤ “Auto Rotate”	If this option is selected, the live view display will automatically be rotated with the camera.
⑥ Live view mode	Choose from Hand-held and Tripod .
⑦ “Adjust Focus”	Click these buttons to adjust focus by the amount selected with the slider. Click + to move the focal point away from the camera, - to bring it toward the camera.
⑧ AF button	Click to initiate contrast-detect autofocus; click again to end autofocus.
⑨ Framing grid button	Display or hide a framing grid.
⑩ Virtual horizon button	Display or hide a virtual horizon. Available with the D3 from firmware version 2.00 and with the D3X, D3S, D700, and D300S.
⑪ “Shoot”	Take a picture.
⑫ “AF and Shoot”	Focus using contrast-detect AF and then take a picture. No picture will be taken if the camera is unable to focus.
⑬ “Lv”	Click to start or stop live view.

Live View for D90, D7000, and D5000 Cameras



① Image area	Shows the view through the camera lens, updated in real time, with the focus point () superimposed. The focus point can be moved to a new location by clicking in the image area. In face-priority AF, faces detected by the camera are indicated by a border () and the current focus point by a  .
② Navigation area	When the live view display is zoomed in, the navigation window shows the position of the area currently displayed in the monitor.
③ Magnification ratio	Choose a zoom ratio to zoom the view in the image area in or out.
④ Rotate buttons	Rotate the live view display in the image area.
⑤ “Auto Rotate”	If this option is selected, the live view display will automatically be rotated with the camera.
⑥ AF-servo mode	Choose an AF-servo mode for live view or movie recording (D7000 only).
⑦ Autofocus mode	Choose an autofocus mode option for live view autofocus. Subject-tracking AF (D7000 and D5000 only) is not supported.
⑧ “Adjust Focus”	Click these buttons to adjust focus by the amount selected with the slider. Click + to move the focal point away from the camera, – to bring it toward the camera.
⑨ AF button	Click to initiate contrast-detect autofocus; click again to end autofocus.
⑩ Framing grid button	Display or hide a framing grid.

⑪ Virtual horizon button	Display or hide a virtual horizon (D7000 only).
⑫ "Shoot"	Take a picture.
⑬ "AF and Shoot"	Focus using contrast-detect AF and then take a picture. No picture will be taken if the camera is unable to focus.
⑭ "Lv"	Click to start or stop live view.
⑮ "REC" button	Start or stop movie recording (D7000 only). Movie recording ends automatically when you end live view, the maximum length is reached, or there is no additional space on the storage device.
⑯ Time available	The amount of additional movie footage that can be recorded (D7000 only).

The Live View Countdown Display

The camera's internal temperature may rise if live view is used for extended periods. To prevent damage to the camera's internal circuits, live view will end automatically before the camera overheats. A countdown display will appear 30 s before live view ends. At high ambient temperatures, this display may appear immediately when live view mode is selected. For more information on live view, see the camera manual.

Live View

The following Camera Control Pro options can not be used during live view:

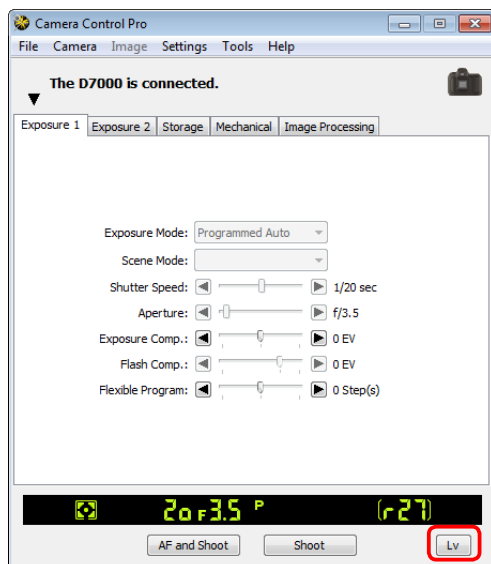
- The **Camera menu**: All options except for **Live View...**
- The **Settings menu**: All options
- The **Tools menu**: **Download Options...** and **Options...** (Windows only)
- The **application menu**: **Preferences...** (Mac OS only)
- The **Exposure 2 tab**: **Focus Point** (contrast-detect AF only), **Metering**, and the options in the **Fluorescent** sub-menu (D3 only)
- The **Storage tab**: Image area (including **Auto DX Crop**)
- The **Mechanical tab**: **AF-Area Mode** (contrast-detect AF only), **Focus Mode** (D90/D7000/D5000), and the lens **Edit...** button
- The **Image Processing tab**: the Picture Control **Edit...** button and **Manage Picture Control...**

Recording Movies

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When camera that supports movie recording using Camera Control Pro 2 is connected, movies can be recorded (with sound) in the “Live View” window. Note that movies can only be recorded when a memory card is inserted in the camera. Be sure a memory card is inserted before proceeding.

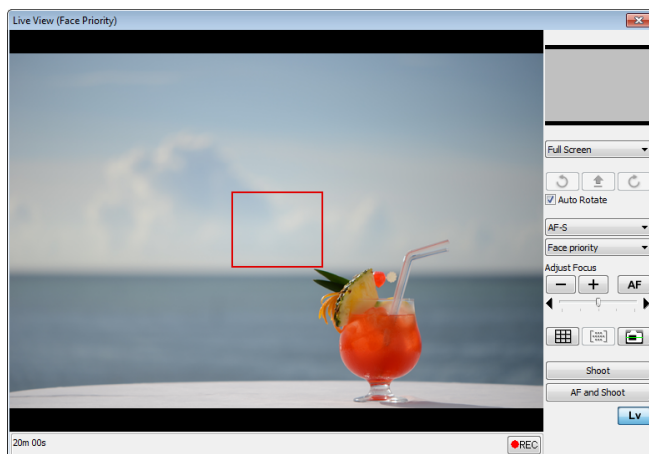
1 Click the **Lv** (live view) button.



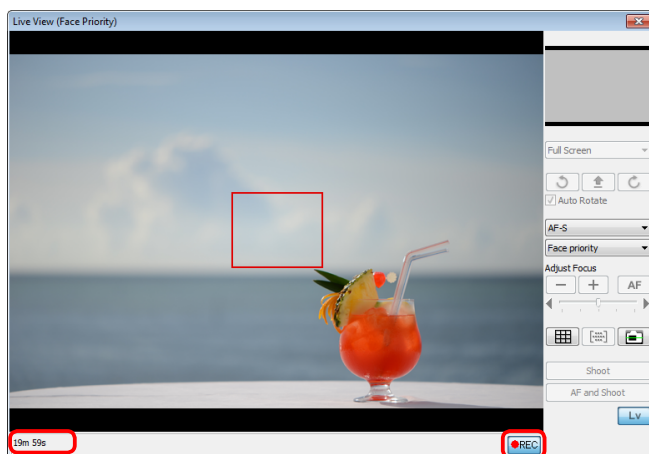
Recording Movies

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- 2 Adjust settings in the “Live View” window and the [Storage](#) > [Movie](#) sub-tab. Note that **Auto Rotate** and **Adjust Focus** controls in the “Live View” can not be used during recording.



- 3 Click **REC** to begin recording.

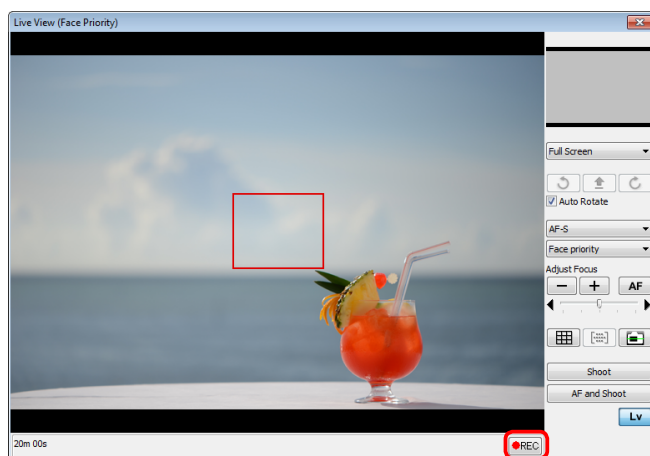


The time remaining is shown in the lower left corner of the “Live View” window. If no memory card is inserted, a warning will be displayed and no movie will be recorded.

Recording Movies

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- 4 To end recording, click **● REC** again. Recording ends automatically when the time remaining expires or the memory card is full.



The Live View Countdown Display

The camera's internal temperature may rise if live view is used for extended periods. To prevent damage to the camera's internal circuits, live view will end automatically before the camera overheats. A countdown display will appear 30 s before live view ends. At high ambient temperatures, this display may appear immediately when live view mode is selected. For more information on movie recording, see the camera manual.

Copying Movies to the Computer

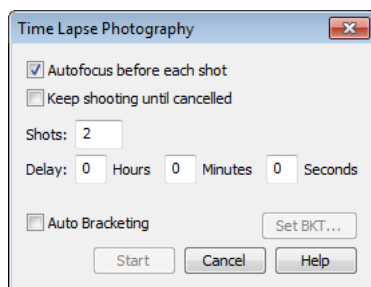
If **Download to PC** is selected in the [Storage](#) > [Movie](#) sub-tab, movies will automatically be copied to the computer after recording. If this option is not selected, movies will be saved only to the camera memory card.

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 (supported cameras only) or single-servo AF, an autofocus operation will be performed even when the check box is off.

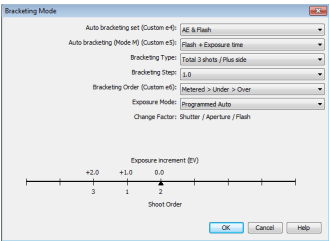
Keep shooting until cancelled

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

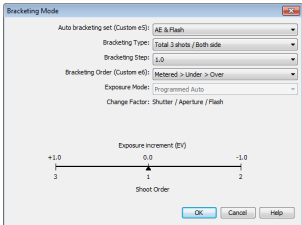
Auto bracketing (D100 D60 D40 series **excluded**)

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.

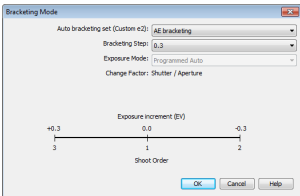
Auto bracketing set/ AE/WB/Flash Bracketing	Choose the type of bracketing performed.
Auto bracketing (Mode M) D3 series D2 series D700 D300 series D200	Choose how bracketing is performed in manual exposure mode.
Bracketing Type/ Bracketing Step/ Bracketing Order/ Exposure Mode	Choose the bracketing program, exposure or white balance increment, bracketing order, and exposure mode. Bracketing order is not available with the D50 and D5000. Bracketing type and bracketing order are not available with the D5000.



D3 series (shown)/D2 series/
D700/D300 series/D200



D90/D80/D70 series/D50/
D7000 (shown)



D5000

Time Lapse Photography

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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**. New photographs will be processed according to the option selected for [When a new image is received from the camera](#) in the [“Download Options” dialog](#).

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.



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.

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

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- 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

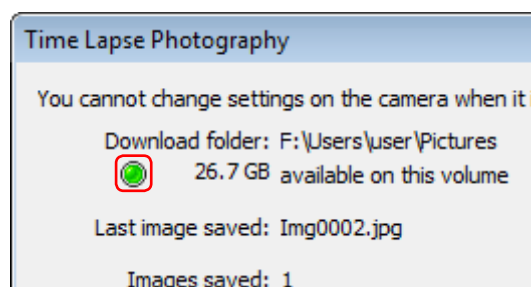
If an error occurs during shooting, an error log will be displayed; click **OK** to close the log and return to the Camera Control Pro window.

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

The download folder indicator in the “Time Lapse Photography” dialog changes from green to yellow to red as the destination fills. If necessary, suspend shooting and [change the destination drive](#).

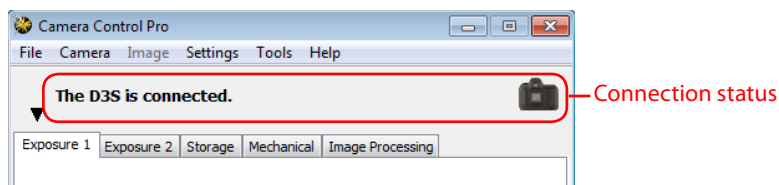


The Camera Control Pro Window

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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** (excluded): 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



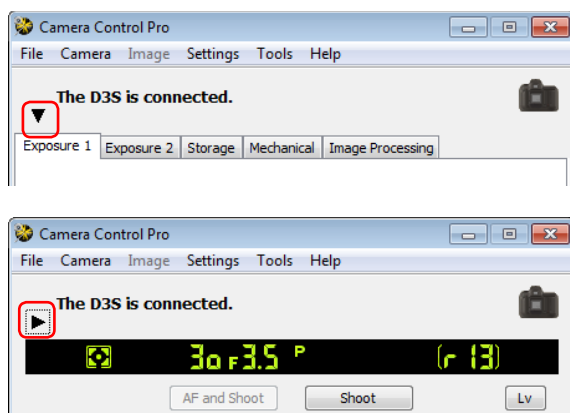
Rotated 90 ° counterclockwise

The Camera Control Pro Window

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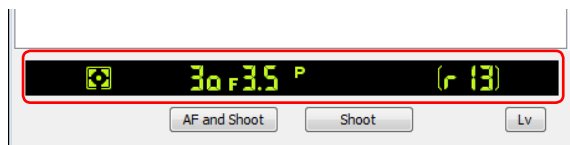
The ▼ / ► Button

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.



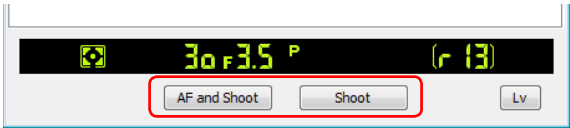
The amount of memory remaining in the camera memory buffer is displayed at the right edge of the simulated LCD panel (this information is not displayed when a D100 camera is connected). This information is updated at regular intervals, but temporary discrepancies may exist between the display and the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

The Camera Control Pro Window

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Shoot Buttons

Click either of these buttons to take a photograph at current settings. If a D3-series, D2-series, D700, D300-series, D200, D90, D80, D70-series, D60, D50, D40-series, D7000, or D5000 camera is connected, photos can be taken in continuous shooting release mode; in this case, the **AF and Shoot** and **Shoot** buttons will instead be labeled **AF and Start** and **Start** and you can choose [the number of pictures that can be taken in a single burst](#). Continuous shooting with 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.



AF and Shoot/ AF and Start	When this button is clicked, the camera will perform an autofocus operation and then release the shutter to take a photograph.
Shoot/Start	Click this button to take a photograph. If the selected focus mode is AF-A (supported cameras only) 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

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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)	D100
	Continuous servo autofocus	All supported models
	Focus lock	All supported models
	Autofocus-only operation (use AF and Shoot to perform autofocus)	All supported models
	Manual aperture adjustment using the lens aperture ring (available via Custom Setting)	D3 series D2 series D700 D300 series D200
	Depth-of-field preview	All supported models
	Auto bracketing	D100
	Compression options for NEF (RAW) images	D100
	Operation assigned to FUNC./Fn button	D3 series D2 series D700 D300 series D200 D90 D80 D7000 D5000
	Remote (D80, D70 series, D60, D50, D40 series, D7000 and D5000 only) and self-timer mode selection	All cameras except D100
	Multiple exposure	All supported models
Status displayed	Focus mode selection using camera focus-mode selector	All supported models
	Metering	D100
	Exposure mode (can be adjusted if Enable controls on camera body is not selected when a camera other than the D100 is connected)	D100 D90 D80 D70 series D60 D50 D40 series D7000 D5000
	Shooting mode	D100
	Shutter-speed lock	D3 series D2 series D700
	Aperture lock	D3 series D2 series D700
	Autoexposure lock	All supported models
	Flash compensation	D3 series D2 series
	M-up (mirror up) mode selection	D3 series D2 series D700 D300 series D200
	Selection of second center focus area group (group dynamic-AF)	D2 series D200

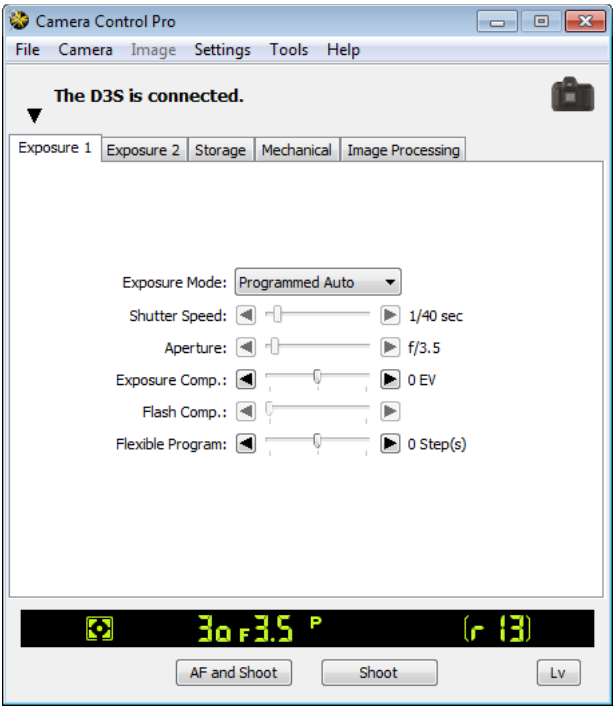
Camera Controls

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Camera controls are described below using the D3S as an example:

The Exposure 1 Tab

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



Exposure Mode	Choose an exposure mode. If a D100 is connected, or if Enable Controls on Camera Body is checked when a D90, D80, D70-series, D60, D50, D40-series, D7000, or D5000 camera is connected, it will show the current exposure mode but the mode itself must be selected using the camera mode dial or function dial. See the camera manual for details.
Scene Mode	Choose a scene when Scene Mode is selected for Exposure Mode . See the camera manual for details.

“U1”/“U2” D7000

Frequently-used camera settings, including scene mode, are assigned to the **U1** and **U2** positions on the D7000 mode dial. If **U1** or **U2** is selected for **Exposure Mode**, the scene mode will appear in the **Scene Mode** field. It can not be changed using Camera Control Pro.

The Exposure 1 Tab	
Shutter Speed	Shutter speed can only be adjusted in Manual and Speed Priority 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.
Aperture	Aperture can only be adjusted in Manual and Aperture Priority 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).
Exposure Comp.	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. Depending on the camera, exposure compensation may not be available in some exposure modes; see the camera manual for details.
Flash Comp.	This option is used to adjust the level of the camera's built-in flash (note that the flash level for D3- and D2-series cameras can not be adjusted using Camera Control Pro).
Flexible Program	Flexible program can only be used in Programmed Auto mode, when it allows you to choose from predetermined combinations of shutter speed and aperture appropriate to current lighting conditions.

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 controls in the Exposure 1 tab will be disabled.

Bulb

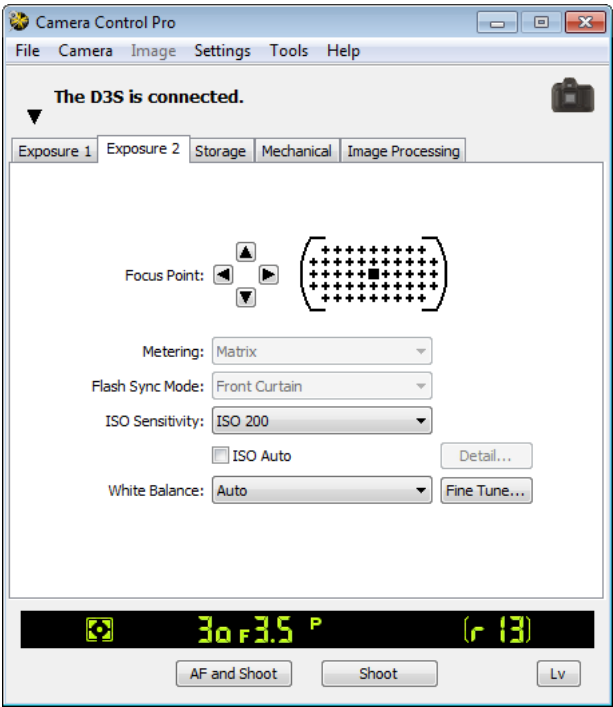
At a shutter speed of Bulb, the shutter remains open while the shutter release button is held down. Use the camera shutter-release button to take photos at this setting. Clicking either of the shoot buttons will display an error message.

Camera Controls

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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	The metering mode can be selected from this menu (D100 excluded). Metering mode defaults to the option selected with the camera. If a 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 mode. See the camera manual for details.
ISO Sensitivity	ISO sensitivity can be raised when taking photographs in low light conditions. See the user’s manual provided with your camera for details.

The Exposure 2 Tab	
Auto ISO Auto	When this option is checked, the camera will adjust ISO sensitivity automatically. If this option is selected when a D3-series, D700, D300-series, D90, D7000, or D5000 camera is connected, the maximum sensitivity and minimum shutter speed can be set by clicking the Detail... button.
White Balance	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 Fluorescent is selected when a D3-series, D700, D300-series, D90, D60, D7000, or D5000 camera is connected, a menu of bulb types will be displayed. If Choose color temp. is selected when a D3-series, D2-series, D700, D300-series, D200, D90, or D7000 camera is connected, a menu of color temperatures will be displayed. If Auto is selected when a D7000 is connected, a menu of auto white balance types will be displayed. See the camera manual for details.
Fine Tune... <div>D50</div> excluded)	<p>Click Fine Tune... to make fine adjustments to white balance. Fine tuning is not available with Choose color temp. (D2 series, D200 and D80 only) or preset white balance. If a D3-series, D700, D300-series, D90, D60, D7000, or D5000 camera is connected, white balance can be fine-tuned on the Green-Magenta and Blue-Amber axes as described in the camera manual; to restore default settings, click Reset.</p> <div><div><div>Fine Tune White Balance</div><div><div>Auto</div><div>Incandescent</div><div>Fluorescent</div><div>Direct Sunlight</div><div>Flash</div><div>Cloudy</div><div>Shade</div></div><div><div>OK</div><div>Reset</div><div>Cancel</div><div>Help</div></div></div><div><div>D2 series/D200/D100/D80/ D70 series/D40 series</div></div><div><div>Fine Tune White Balance</div><div><div>Preset manual d-0</div><div><div>A - B: 0</div><div>G - M: 0</div></div></div><div><div>OK</div><div>Reset</div><div>Cancel</div><div>Help</div></div></div><div><div>D3-series/D700/D300 series/ D90/D60/D7000/D5000</div></div></div>

The Exposure 2 Tab

Comment

D3 series

D2 series

D700

D300 series

D200

D90

D7000

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 `@`.

Edit White Balance Preset Comment

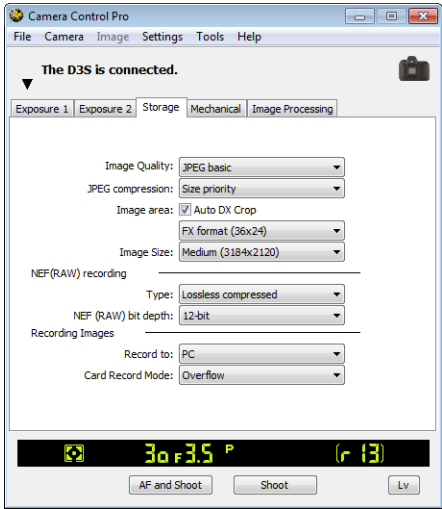
OK

Cancel

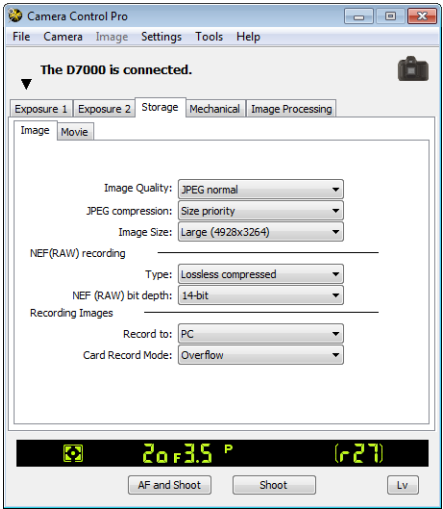
Help

The Storage Tab

The following settings can be adjusted from the Storage tab (the Storage tab displayed when a D7000 is connected contains Photo and Movie sub-tabs; the Photo sub-tab offers the same options as the Storage tab for other cameras):



Cameras other than the D7000



D7000

Image Quality	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 Image Quality menu and other compression options (D3 series, D2X, D2XS, D2HS, D700, D300 series, D200, and D7000 only) from the JPEG compression menu.
Image area	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.

The Storage Tab	
Image Size	Choose image size. See the camera manual for details.
NEF (RAW) recording	Choose bit depth (D3 series, D700, and D300 series only) and compression settings for NEF (RAW) images.
D3 series	
D2 series	
D700	
D300 series	Select this option to enable high-speed crop. See the camera manual for details.
D200	
D7000	
D2X	
D2XS	Choose a destination (Record to) from PC (photographs are recorded only to the computer), PC+CARD (photographs are recorded both to the computer and to the camera memory cards) and CARD . If PC+CARD or CARD is selected, you can choose the role played by the card in slot 2 (Card Record Mode) from Overflow (the card slot 2 is used only after the card in slot 1 is full), Backup (each photograph is recorded twice, once to each card), and RAW Slot1 and JPEG Slot2 (as for Backup , except that the NEF/RAW copies images recorded at image qualities of NEF/RAW+JPEG are recorded to slot 1, the JPEG copies to slot 2).
High-speed crop	
D3S	
D7000	
Recording Images	

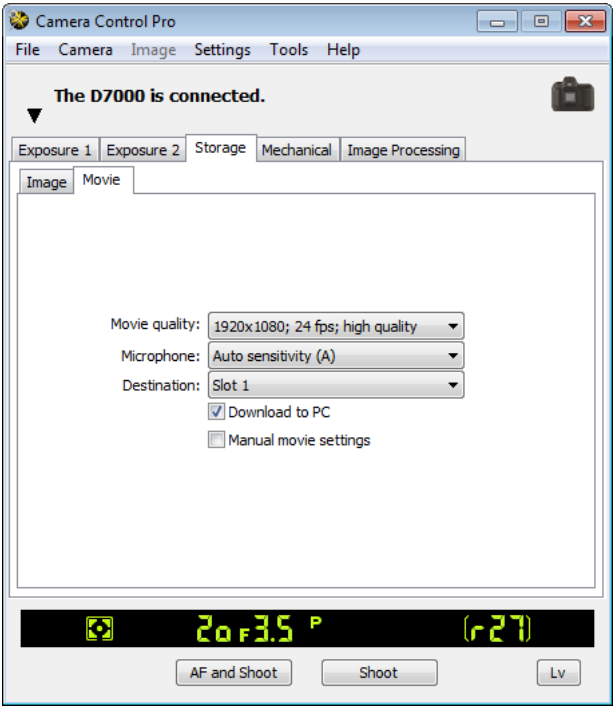
"PC+CARD"/"CARD"

D3S

D7000

IPTC data and ICC profiles are not embedded in the photographs stored on the camera memory cards. Photographs can not be taken if the memory cards are full, while a memory card is being formatted, or if no memory card is inserted in the camera. Exchange or insert memory cards as appropriate or select **PC**. If the space on the computer destination drive is insufficient to record additional photographs, a warning will be displayed; follow the on-screen instructions to [choose a new destination](#).

The Movie Sub-tab (D7000)



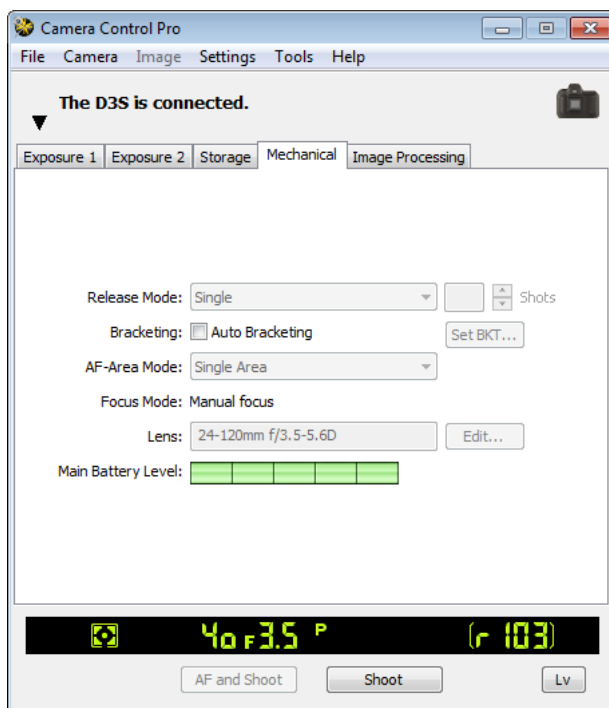
Movie quality	Choose a frame size.
Microphone	Adjust microphone sensitivity. Choose Off to disable audio recording.
Destination	Choose whether movies are recorded to the card in Slot 1 or Slot 2. If no memory card is inserted in the selected slot, an error message will be displayed when recording begins and no movie will be recorded.
Download to PC	Select this option to copy movies to the computer when recording is complete.
Manual Movie settings	If this option is selected, shutter speed and ISO sensitivity can be adjusted during recording in Manual exposure mode .

Camera Controls

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The Mechanical Tab

The following settings can be adjusted from the Mechanical tab:



Release Mode Shooting Mode

The shooting mode for D80, D70-series, D60, D50, D40-series, or D5000 cameras can be selected from **Single** and **Continuous**. Unless [Enable Controls on Camera Body](#) is checked in the connection status area, the shooting mode for D3-series, D2-series, D700, D300-series, D200, D90, and D7000 cameras can be selected from **Quiet** (D3S, D300S, and D7000 only), **Single**, **Continuous low speed**, and **Continuous high speed** (note that **Single** will be selected if a self-timer or remote control mode is selected with the D90). If **Continuous** is selected for D80, D70-series, D60, D50, D40-series, or D5000 cameras or if **Continuous low speed** or **Continuous high speed** is selected for D3-series, D2-series, D700, D300-series, D200, D90, and D7000 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 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.

The Mechanical Tab	
<div>Shots</div> <div><div>D100</div>excluded)</div>	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.
<div>Auto Bracketing</div> <div><div>D100</div><div>D60</div><div>D40 series</div>excluded)</div>	Select this option to perform exposure, flash, or white balance bracketing during shooting. See “ Time Lapse Photography ” for details.
<div>AF-Area Mode</div>	Choose the AF-area mode. If Enable Controls on Camera Body is checked (D3 series, D2 series, D700, D300 series, 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.
<div>Focus Mode</div>	Choose the focus mode for D90, D80, D60, D40-series, D7000, or D5000 cameras (see the camera manual for details). The focus mode for other cameras is displayed but can not be changed from Camera Control Pro.

The Mechanical Tab	
Lens	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-series, D700, D300-series, or D7000 camera is connected with a non-CPU lens attached, lens data can be selected.
<div>Edit...</div> <div><div>D3 series</div><div>D2 series</div><div>D700</div><div>D300 series</div><div>D200</div><div>D7000</div></div>	<p>This button is only available when a non-CPU lens is mounted on the camera. Clicking Edit... displays the dialog shown at right, where the lens focal length and maximum aperture can be entered. Click OK to copy the values to the camera.</p> <div><div>Lens No.1</div><div>Focal Length: N/A</div><div>Maximum Aperture: N/A</div><div>OKCancelHelp</div></div>
Main Battery Level	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 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 or use an AC adapter (available separately).

Self-Timer and Remote Modes

When the camera is set to self-timer mode or to delayed remote or quick-response remote mode (supported cameras only), 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.

Continuous Mode (All Models Except

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

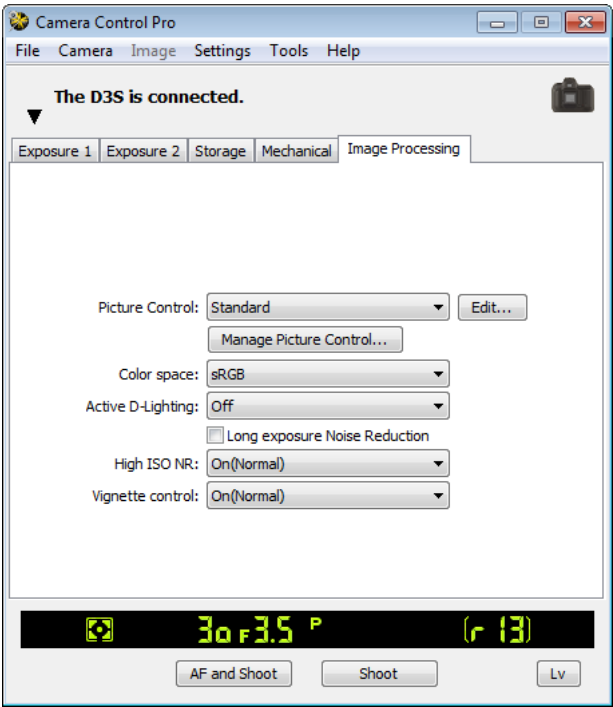
The following restrictions apply to Camera Control Pro when a non-CPU lens is mounted on the camera (the operations listed can still be performed using the controls on the camera body; see the camera manual for details):

		<div>D3 series</div> <div>D700</div>	<div>D2 series</div> <div>D300 series</div> <div>D200</div>	<div>D7000</div>		<div>D90</div> <div>D70 series</div> <div>D50</div>	<div>D80</div> <div>D60</div> <div>D40 series</div> <div>D5000</div>	<div>D100</div>
		With lens data	No data	With lens data	No data			
Exposure Mode	Can be selected from Aperture Priority and Manual .		Can only be adjusted if Enable Controls on Camera Body is not checked. Photos can be taken in modes A and M only (D7000) or mode M only (other cameras).					Can not be adjusted. Mode selected with camera displayed. Photos can only be taken in mode M.
	Can only be adjusted in manual exposure mode.							
Shutter Speed								
Aperture	Shown with asterisk.	Aperture shown as "f/--". Can not be adjusted.	Shown with asterisk.	Aperture shown as "f/--". Can not be adjusted.				
AF and Shoot	Can not be used.							
Shoot	Can be used.					Can be used.*		

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

The Image Processing Tab (Cameras with Picture Controls)

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



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

The Image Processing Tab	
<div><div>Vignette control</div><div><div>D3</div> firmware version 1.10 or later/<div>D3X</div><div>D3S</div><div>D700</div></div></div>	Reduce vignetting. See the camera manual for details.
<div><div>Auto distortion control</div><div><div>D7000</div><div>D5000</div></div></div>	Enable or disable auto distortion control. See the camera manual for details.

Nikon Picture Controls

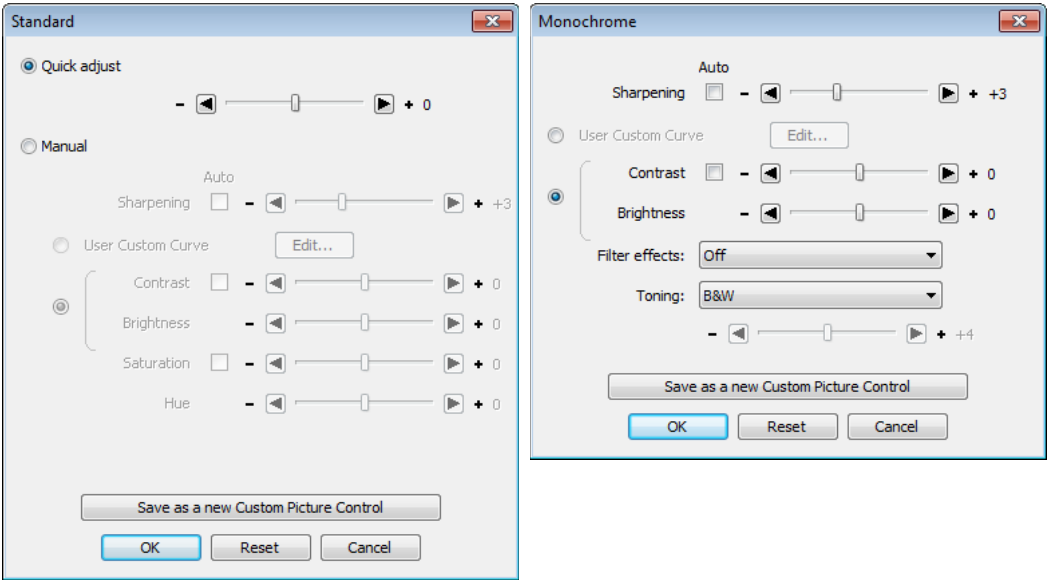
Picture Controls provided by Nikon are known as “Nikon Picture Controls.” They include the Picture Controls provided with the camera and optional Picture Controls available for download from Nikon websites. See the camera manual for details.

Camera Controls

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Editing Picture Controls

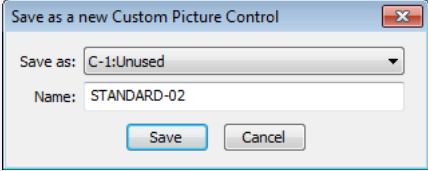
Clicking **Edit...** in the Image Processing tab displays options for the selected Picture Control (monochrome controls are shown at right, other controls at left).



Quick adjust (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. Not available when Neutral is selected in the Picture Control menu.
Manual (Non-monochrome only)	Select this option to make separate adjustments to the settings listed below.
Sharpening	Select the Auto checkbox to adjust sharpening automatically, or choose a value with the slider.
User Custom Curve	Select this option and click Edit... to manually edit the tone curve for the selected Picture Control. Note that changes can only be saved using Save as a new Custom Picture Control .
Contrast/Brightness/Saturation	Select the radio button and adjust the sliders (saturation is not available with monochrome controls). Select the Auto checkboxes for automatic contrast or saturation adjustment. With the exception of the D7000, contrast and brightness can not be adjusted when Active D-Lighting is on.

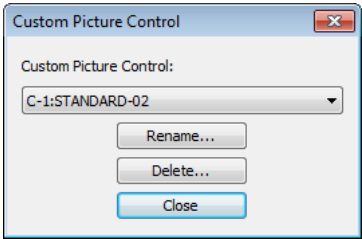
Camera Controls

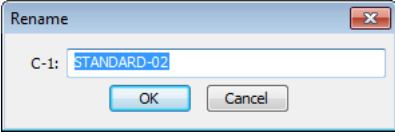
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Editing Picture Controls	
Hue (Non-monochrome only)	Use the slider to adjust hue.
Filter effects (monochrome only)	Choose a filter effect. See the camera manual for details.
Toning (monochrome only)	Choose a monochrome tint. Tint can be adjusted with the slider.
Save as a new Custom Picture Control	<div>Click this button to save settings as a new custom Picture Control. The following dialog will be displayed; name the new custom Picture Control and click Save.</div> <div></div>
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.

The “Custom Picture Control” Dialog

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



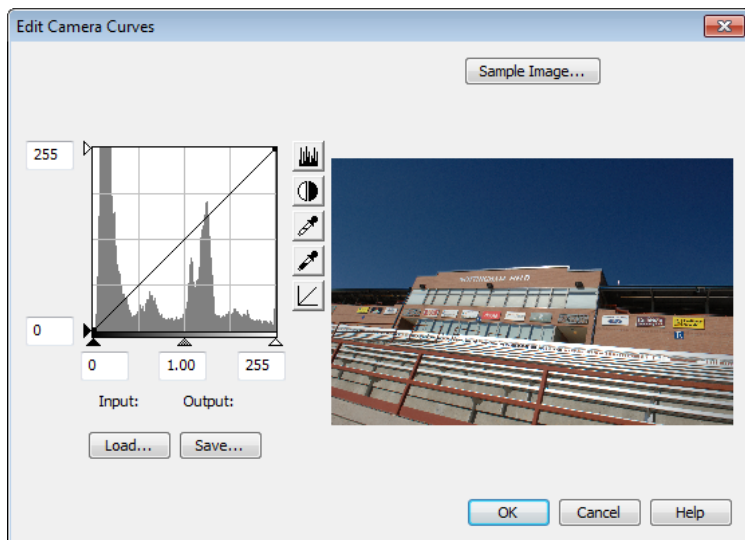
Custom Picture Control	Select a custom Picture Control.
Rename...	Rename the selected custom Picture Control. The following dialog will be displayed; rename the custom Picture Control and click OK . <div></div>
Delete...	Delete the selected custom Picture Control.
Close	Close the “Custom Picture Control” dialog.

Camera Controls

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The “Edit Camera Curves” Dialog

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



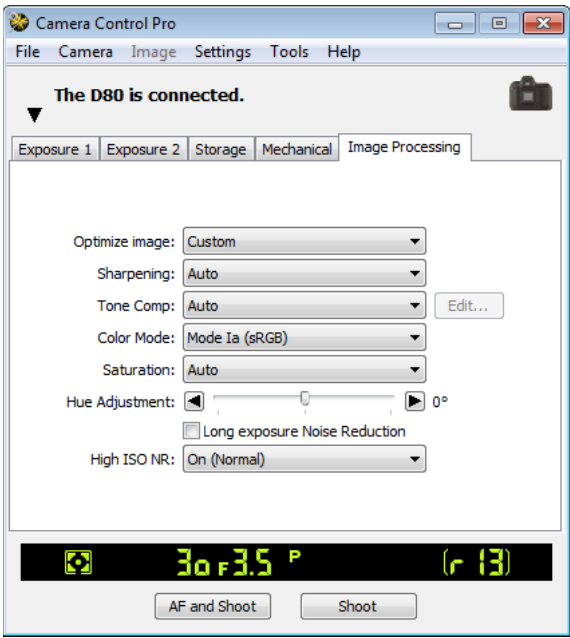
The controls in the Edit Camera Curves window are similar to those used to edit tone curves in Adobe Photoshop and other imaging software, except in the following respects: (1) only the master channel, not individual RGB channels, may be edited; (2) there is a limit of 20 spline points; (3) the midpoint 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 current Picture Control, click **OK**.

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 2 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 Image Processing Tab (Other Cameras)

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

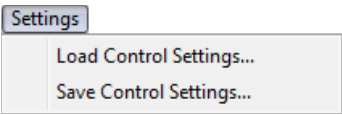


<div>Optimize image</div> <div><div>D200</div><div>D80</div><div>D70 series</div><div>D60</div><div>D50</div><div>D40 series</div></div>	Choose the type of image optimization performed. See the camera manual for details.
<div>Sharpening</div>	Choose how much the camera sharpens outlines. See the camera manual for details.
<div>Tone Comp</div>	Adjust contrast. See the camera manual for details. Selecting “Custom” or “Custom 1–3 ” (D2XS only) and clicking Edit will display “Edit Camera Curves” dialog .
<div>Filter Effects</div> <div><div>D80</div></div>	Choose a filter effect for black-and-white photographs. This option is only available when Black-and-white (Custom) is selected for Optimize image .
<div>Color space</div> <div><div>D2X</div><div>D2XS</div><div>D200</div></div>	Choose a color space. See the camera manual for details.

The Image Processing Tab	
<div><div>Color Mode</div><div><div>D2 series</div><div>D200</div><div>D100</div><div>D80</div><div>D70 series</div><div>D60</div><div>D50</div><div>D40 series</div></div></div> <div><div>Choose a color mode. See the camera manual for details.</div></div>	
<div><div>Saturation</div><div><div>D200</div><div>D80</div><div>D70 series</div><div>D60</div><div>D50</div><div>D40 series</div></div></div> <div><div>Adjust color saturation. See the camera manual for details.</div></div>	
<div><div>Hue Adjustment</div><div><div>D2 series</div><div>D200</div><div>D100</div><div>D80</div><div>D70 series</div><div>D60</div><div>D50</div><div>D40 series</div></div></div> <div><div>Modify hue. Adjustments can be made in the range -9° to 9° in seven steps of 3° each, with 0° representing the original hues as recorded by the camera. If red is taken as the starting point, raising hue above 0° would introduce a yellow cast, making colors that would appear red at 0° appear more orange. Lowering hue below 0° would introduce a blue cast, making colors that would appear red at 0° appear increasingly purple.</div></div>	
<div><div>Long exposure Noise Reduction</div><div><div>D2 series</div><div>D200</div><div>D100</div><div>D80</div><div>D70 series</div><div>D50</div></div></div> <div><div>Select this option to reduce noise at slow shutter speeds. See the camera manual for details.</div></div>	
<div><div>High ISO NR</div><div><div>D2X</div><div>D2XS</div><div>D2HS</div><div>D200</div><div>D80</div></div></div> <div><div>Choose a noise reduction option for high ISO sensitivities. See the camera manual for details.</div></div>	
<div><div>Noise reduction</div><div><div>D60</div><div>D40 series</div></div></div> <div><div>Select this option to reduce noise at slow shutter speeds and high ISO sensitivities. See the camera manual for details.</div></div>	
<div><div>Active D-Lighting</div><div><div>D60</div></div></div> <div><div>Enable Active D-Lighting.</div></div>	

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.

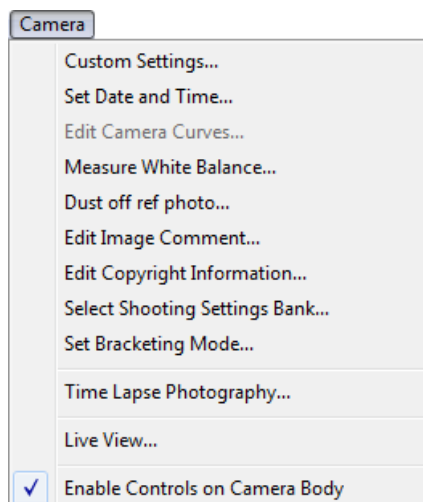


Load Control Settings...	Select this item to load camera settings previously saved using Save Control Settings... (see below). A dialog will be displayed where you can navigate to the drive (volume) and directory containing the desired settings file (only files with the extension ".ncc" will be displayed; 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.
Save Control Settings...	Select this item to save the settings in the Camera Control Pro window to a named file. These settings can later be recalled using Load Control Settings.... Choosing Save Control Settings... 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

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

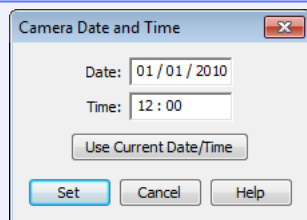


Custom Settings...

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.

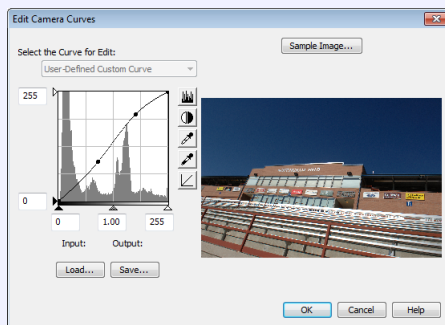


The Camera Menu

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Edit Camera Curves... (all cameras except **D3 series** **D700** **D300 series** **D90** **D7000** **D5000**)

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 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 2 or Capture NX (available separately; settings must include “Levels and Tone Curves” data). Look for files with the “.ntc”, “.ncv”, or “.set” extension.

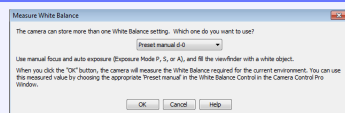
The **Save...** button opens the “Save As” dialog, where you can save the current curve.

The Camera Menu

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Measure White Balance...

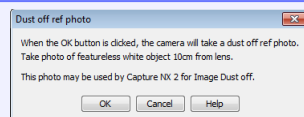
Use this option to measure preset white balance. If the camera currently connected supports multiple values for preset white balance, the setting that will be used to store the measured value can be chosen from the pop-up menu at the top of the dialog. Adjust camera settings as described in the section 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 (all cameras except D100)

Choose this option to take a reference photo for the Image Dust Off option in Capture NX 2 (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.



D2XS
(dialogs for other cameras may differ)

Edit Image Comment...

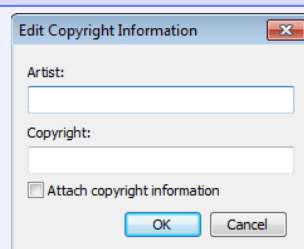
Selecting this option displays the dialog shown at right, where you can enter a comment or title for subsequent photographs. The title will be used for all subsequent photographs taken while the camera is connected. When the camera is connected, the title is stored in the camera as an image comment of 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)

Edit Copyright Information... (D3 firmware version 2.00 or later / D300 firmware version 1.10 or later/ D3X D3S D700 D300S D7000)

Selecting this option displays the dialog shown at right, where you can enter photographer and copyright holder names for subsequent photographs. This information is appended to photographs only when **Attach copyright information** is selected.



Choosing a Mode D100 D90 D80 D70 series D60 D50 D40 series D7000 D5000

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

Select Shooting Settings Bank...

D3 series

D2 series

D700

D300 series

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.

Select Shooting Settings Bank

Shooting settings will be read from and written to:

Bank A

OK

Cancel

Help

D100

D3-series, D2-series, D700, D300-series, and D200 cameras 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 contain letters, numbers, quotes, apostrophes, spaces, and any of the following characters: " ' ! " ? " # " \$ " % " & " (") " ["] " { " } " * " + " - " / " : " ; " < " = " > " _ " and "@".

Select Shooting Settings Bank

Shooting settings will be read from and written to:

Bank A

Comment:

Edit...

OK

Reset

Cancel

Help

D3-series/D2 series/D700/
D300-series/D200

Edit Shooting Setting Bank Comment

OK

Cancel

Help

Edit Comment dialog

Set Bracketing Mode (all cameras except

D100

D60

D40 series

)

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...

D3 series

D700

D300 series

D90

D7000

D5000

Selecting this option opens the "[Live View](#)" window.

Enable Controls on Camera Body (all cameras except

D100

)

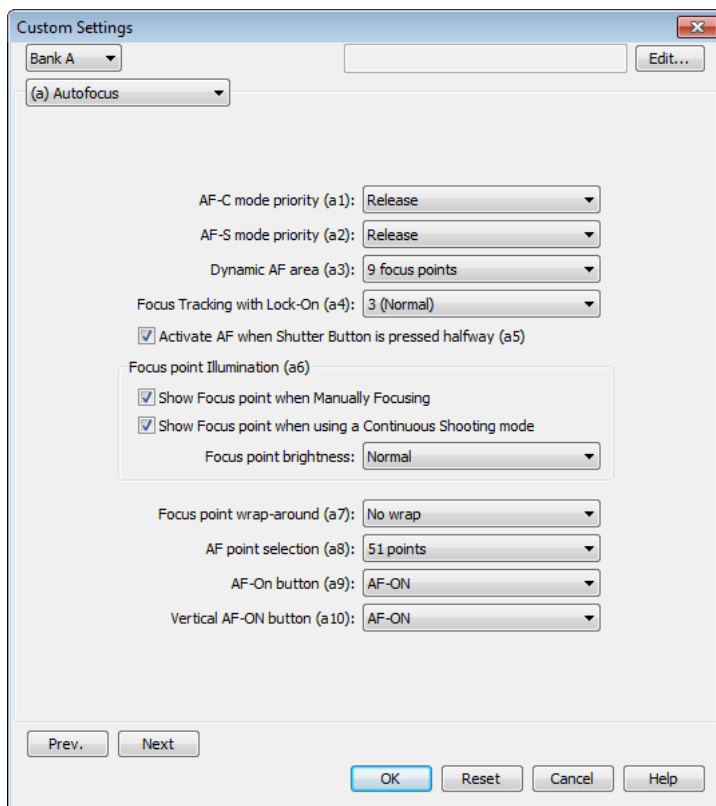
Check this option to enable camera controls, allowing settings to be adjusted and photographs taken directly from the camera. If this option is not checked, only the power switch and AF-area mode selector can be used.

Custom Settings

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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.



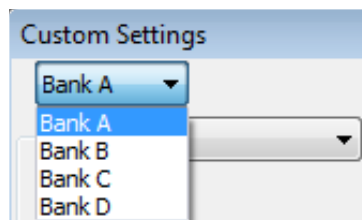
Changes to Custom Settings

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

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- 2 Choose a Custom Settings bank (Custom Settings set) from the pop-up menu of 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.

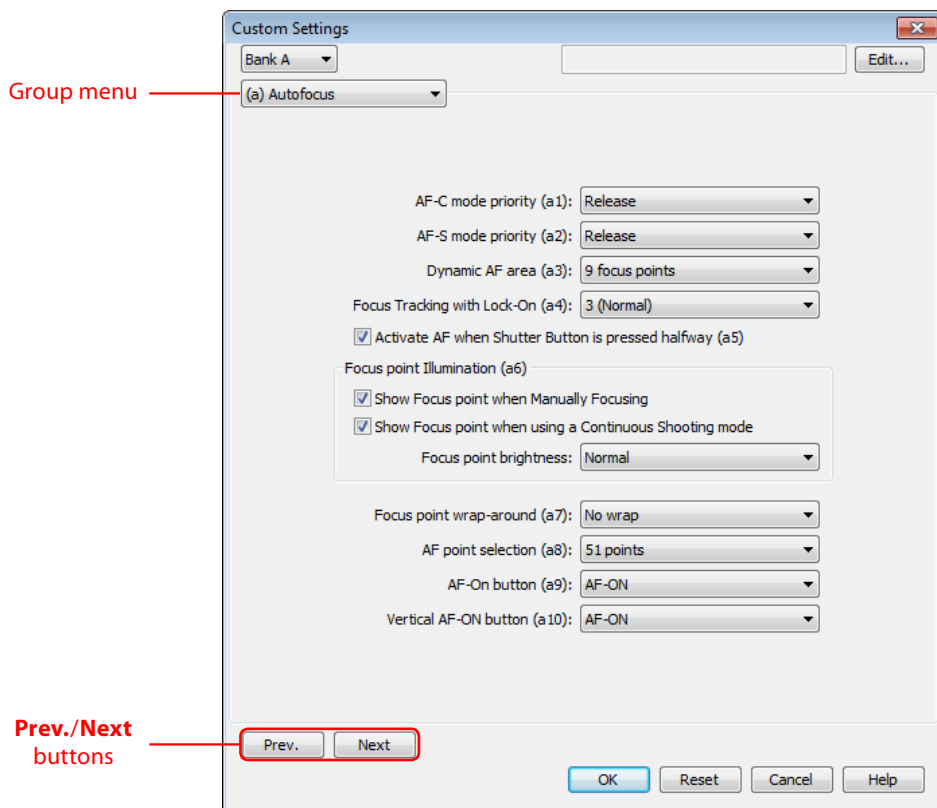
- ISO Auto (D100 Custom Setting 3): can be adjusted from the Exposure 2 tab of the Camera Control Pro window.
- Noise Reduction (D100 Custom Setting 4): can be adjusted from the Processing tab of the Camera Control Pro window.

Custom Settings

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Custom Settings for D3-series, D2-series, D700, D300-series, D200, D90, D7000, and D5000 Cameras

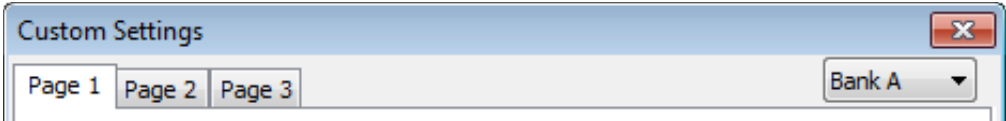
Custom Settings in each bank are divided into six groups. The group can be chosen from the group menu or by clicking the **Next** and **Prev.** buttons.



With the exceptions of the D90, D7000, and D5000, 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 "@".

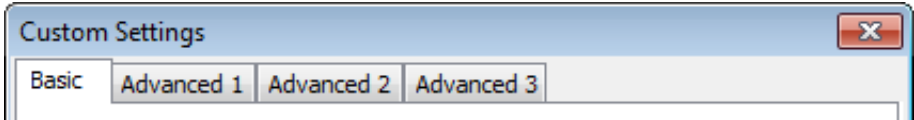
Custom Settings for D100 Cameras

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



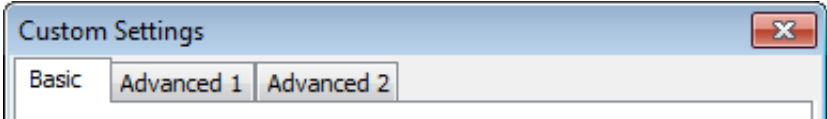
Custom Settings for D80 and D60 Cameras

Custom Settings for the D80 and D60 cameras are divided among four tabs: Basic, Advanced 1, Advanced 2, and Advanced 3. See the camera manual for details.



Custom Settings for D70-Series, D50 and D40-Series Cameras

Custom Settings for the D70-series, D50 and D40-series are divided among three tabs: Basic, Advanced 1, and Advanced 2. See the camera manual for details.



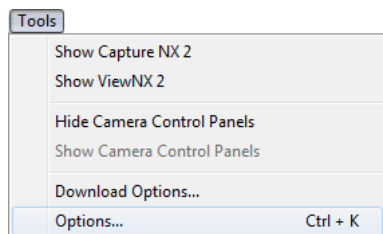
Appendices

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Camera Control Pro Preferences

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



Windows



Mac OS

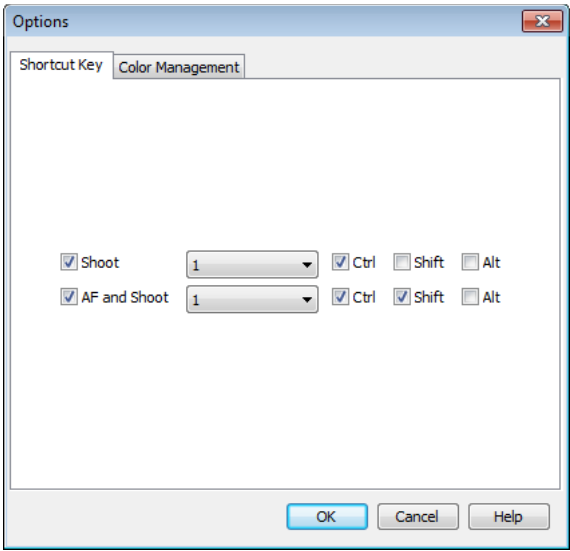
The Preferences dialog contains [Shortcut Key](#) and Color Management ([Windows](#), [Mac OS](#)) tabs.

Camera Control Pro Preferences

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The Shortcut Key Tab

The Shortcut Key tab is used to assign keyboard shortcuts to the “shoot” buttons. Changes to keyboard shortcuts take effect immediately.



Shoot	If this option is selected, the keyboard shortcut chosen in the pop-up menu can be used in place of clicking the Shoot button. Key combinations can include the Ctrl , Shift , and Alt keys (Windows) or control , shift , option , and command keys (Mac OS).
AF & Shoot	If this option is selected, the keyboard shortcut chosen in the pop-up menu can be used in place of clicking the AF & Shoot button. Key combinations can include the Ctrl , Shift , and Alt keys (Windows) or control , shift , option , and command keys (Mac OS).

Keyboard Shortcuts

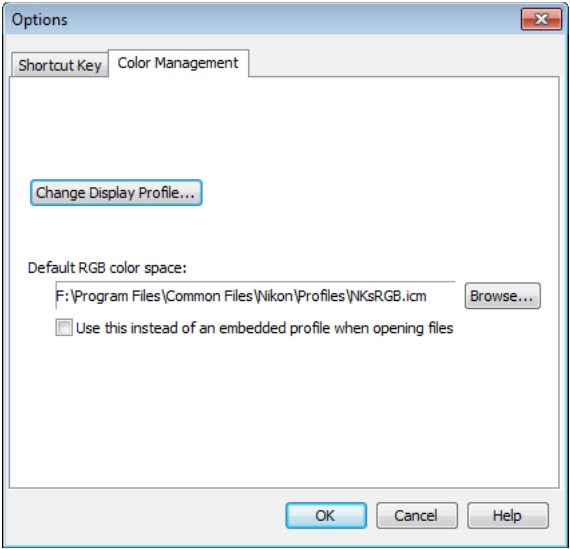
Keyboard shortcuts can not be used when a dialog is displayed or images are being downloaded to a computer. Keyboard shortcuts that are the same as those used in the operating system or other applications may fail to function and are not recommended. If you attempt to assign identical shortcuts to both the **Shoot** and **AF & Shoot** buttons, a message will be displayed. Choose a different shortcut for the remaining button.

Camera Control Pro Preferences

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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...
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

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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

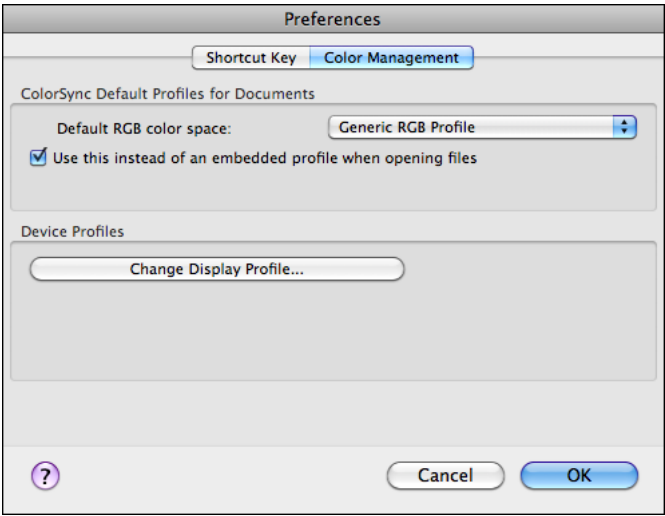
Changes to settings in the Color Management tab also apply to ViewNX, ViewNX 2, Nikon Capture (available separately), Nikon View, and PictureProject. They are not reflected in Capture NX 2 or Capture NX (available separately).

Camera Control Pro Preferences

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The Color Management Tab (Mac OS)

The Mac OS version displays the following options.



ColorSync Default Profiles for Documents	<p>Lists the ICC color-space profile used to display images.</p> <p>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.</p>
Device Profiles	<p>Lists the default color-space profiles for monitors.</p> <p>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.</p>

Camera Control Pro Preferences

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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 and ViewNX 2 but are not reflected in Capture NX 2, Capture NX, Nikon Capture (available separately), Nikon View, and PictureProject.

Multiple Displays

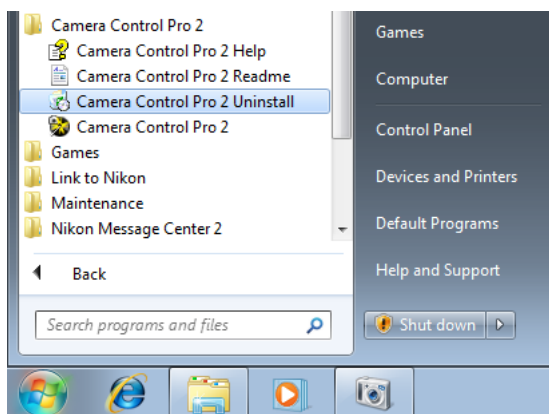
Camera Control Pro will identify and list the profiles for all monitors in an extended desktop display, allowing you to choose a separate profile for each monitor.

Uninstalling Camera Control Pro

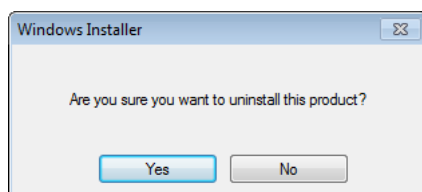
Windows

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.

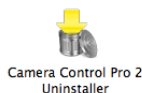
- 4 Click **Finish**. Restart the computer if so directed.

Uninstalling Camera Control Pro

Mac OS

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.



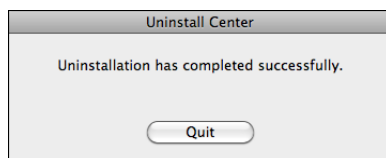
- 2 Enter the administrator name and password and click **OK**.



- 3 Click **Yes**.



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



RGB Color Space Profiles

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Profiles with a Gamma Value of 1.8

Profile	Windows	Mac OS	Description
Apple RGB	NKApple.icm	Nikon Apple RGB 4.0.0	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 Mac OS monitors. The corresponding RGB setting in Adobe Photoshop is "Apple RGB." This profile is suitable for working with images displayed on the Mac OS.
Color-Match RGB	NKCMatch.icm	Nikon Color-Match RGB 4.0.0	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	Mac OS	Description
sRGB	NKsRGB.icm	Nikon sRGB 4.0.0	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	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	Nikon NTSC 4.0.0	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	Mac OS	Description
Adobe RGB (1998)	NKAdobe.icm	Nikon Adobe RGB 4.0.0	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 "SMPTE-240M," the corresponding setting in Adobe Photoshop 5.5 or later "Adobe RGB (1998)."
CIE RGB	NKCIE.icm	Nikon CIE RGB 4.0.0	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 AdobeWide RGB 4.0.0	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."

Troubleshooting

Captured Images Are Not Displayed

Captured images will not be displayed if **Do nothing** or **Send it to Capture NX** (or **Capture NX 2**) **watched folder** is selected for [When a new image is received from camera](#) in the “Download Options” dialog. Select **Show it with View NX** (or **ViewNX 2**).

Camera Controls Can Not Be Used

Select [Enable controls on camera body](#) in the **Camera** menu. Note that camera controls can not be used in live view.

The Camera Can Not Be Controlled from Camera Control Pro 2

Deselect [Enable controls on camera body](#) in the **Camera** menu.

Customer Support

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Nikon User Support Information

If you are in need of technical assistance with the installation or operation of your Nikon product(s), please do not hesitate to contact one of the following Nikon representatives. When calling support, you will be asked to supply the serial and/or version number(s) of your Nikon software. For efficient communication, it is highly recommended that you have your Nikon product in front of you.

Europe and Africa

Austria

Nikon GmbH Austrian Branch Office
Nikon GmbH Zweigniederlassung Wien
Wagenseilgasse 5, A-1120 Wien
Tel: 09001-50066 (0,45 €/min aus dem österreichischen Festnetz)

Belgium

Nikon Belux
Avenue de Bourget 50 - Bourgetlaan 50
1130 Bruxelles, Brussel
Tel: +32 (0)2-626-45-05

Bosnia & Herzegovina

REFOT BH
Tarasa Ševčenka 1, 78000 Banja Luka
Tel: +387 51 324-440
Fax: +387 51 324-445

Bulgaria

Profiled Ltd
Tzar Boris III 126, Sofia, 1612
Tel: +359 (0)2 850 0350

Croatia

Fototeh d.o.o.
Prisavlje 2, 10 000 Zagreb
Tel: +385 (0)1 6196 609
Fax: +385 (0)1 6196 608

Czech Republic

Nikon SRO
Kodanska 46, 100 10 Praha 10
Tel: 800 900 980

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Nikon Nordic AB, dansk filial
Ørestads Boulevard 67, 1,
DK-2300 København S
Tel: +45-32452000

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Räsundavägen 12, 8 tr, 169 67 Solna
Tel: 800 22 38

Finland

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Tel: +358 (0)20 758 9570

France

Nikon France S.A.S.
191, Rue du Marché Rollay, 94504 Champigny
Sur Marne Cedex
Tel: +33-(0)8-25-82-10-10

Germany

Nikon GmbH
Tiefenbroicher Weg 25, 40472 Düsseldorf
Tel: 0900-1225564 Phone line costs
(# 0,24 €/min)

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D. & J. Damkalidis S.A.
44 Zefyrou St. 17564
Tel: +30-210-9410888
Fax: +30-210-9427058

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Räsundavägen 12, 8 tr, 169 67 Solna
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Tel: 09001-225564 (09001-CALLNIKON)

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Nikon Nordic AB NUF
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Tel: +47-67-82-74-00

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ul. Postępu 14, 02-676 Warszawa
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Atlant Photo Image, S.L.
Rua Alexandre Herculano, 51 4º-A,
1250-010 Lisboa
Tel: +34-(0)93-2649095
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Strada Ocna Sibiului 46-48,
Bucuresti 1, 014011
Tel: + 4021-313.45.66
Fax: + 4021-316.81.94

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Nikon (Russia) LLC
19 Leninskaya Sloboda str., Moscow, Russian
Federation, 115280
Tel: +7(495)733 9170

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REFOT B
Pčinjska 15a, 11000 Belgrade
Tel: +381 11 744-7036, 744-7038

Asia, Oceania, Middle-East and Canada

Australia
Nikon Australia Pty Ltd.
Unit F1, Lidcombe Business Park,
3-29 Birnie Avenue, Lidcombe NSW 2141
Tel: +61-(0)2-8748-5200
Fax: +61-(0)2-8748-5274

Canada
Nikon Canada Inc.
1366 Aerowood Drive, Mississauga,
Ontario L4W 1C1
Tel: +1-(0)905-625-9910
Fax: +1-(0)905-625-6446

China
Nikon Imaging (China) Sales Co., Ltd.
Tel: 4008-20-1665
(within the Chinese mainland)
Tel: +86-(0)21-3428-4634
(from other countries and regions)

Nikon Square (Shanghai)
Rm.102B, Tian An Center, No. 338,
West Nan Jing Road, Shanghai 200003
Tel: +86-(0)21-6327-8001

Nikon Square (Beijing)
Shop PW1-(11-12), Podium Lever of the Malls
at Oriental Plaza, No.1 East Chang An Ave.,
Dong Cheng District, Beijing China 100738
Tel: +86-(0)10-8515-2268

Hong Kong
Nikon Hong Kong Ltd.
Suite 1001, 10F, Cityplaza One,
1111 King's Road, Taikoo Shing
Tel: +852-(0)2902-9000
Fax: +852-(0)2907-0378

India
Nikon India Pvt. Ltd.
Plot No. 17, Sector 32, Institutional Area,
Gurgaon 122002, Haryana
Tel: +91-(0)124-4688-500
Fax: +91-(0)124-4688-527

Indonesia
Pt Alta Nikindo
Kompleks Mangga Dua Square
Block H 1 &2 Jl.Gunung Sahariraya,
Jakarta Utara 10730
Tel: +62-(0)21-6231-2700
Fax: +62-(0)21-6231-2777

Israel
Hadar Photo Supply Agencies Ltd.
36 - 38 Achad Haam St., Tel-Aviv
P.O. Box 1686
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Fax: +972-(0)3-5603905

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Nikon Imaging Korea Co., Ltd.
12th Floor, Seoul Chamber Of Commerce &
Industry Building, 4-45, Namdaemoon-Ro,
Jung-Ku, Seoul 100-743
Tel: +82-(0)2-6050-1800
Fax: +82-(0)2-6050-1801

Lebanon
Gulbenk Trading Co.
Hamra-Makdessi Street, Adhami Building,
5th Floor, Beirut
P. O. Box 113-6645
Tel: +961-(0)1-353742
Fax: +961-(0)1-347613

Malaysia
Nikon (Malaysia) Sdn. Bhd.
11th Floor, Block A Menara PKNS
No. 17, Jalan Yong Shook Lin, 46050
Petaling Jaya, Selangor Darul Ehsan
Tel: +60-(0)3-7809 3688
Fax: +60-(0)3-7809 3600

New Zealand
T.A. Macalister Ltd.
34 Vestey Drive, Mount Wellington,
Auckland 1060
Tel: +64-9-573 1650
Fax: +64-9-573 1651

Philippines
Columbia Digital Sales Company
#46 Sta. Rosa St., Brgy. Manresa,
SFDM Quezon City, 1115
Tel: +63-(0)2-363-5315
Fax: +63-(0)2-364-3334

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Nikon Singapore Pte. Ltd.
80 Anson Road #10-01/02 Fuji Xerox Towers
Singapore 079907
Tel: +65-6559-3618
Fax: +65-6559-3665

Taiwan
Lin Trading Co., Ltd.
8F, 272 Nanking Road, Sec. 3, Taipei 10566
Tel: +886-(0)2-2740-3366
Fax: +886-(0)2-2781-2525

Thailand
Niks (Thailand) Co., Ltd.
166 Silom Road 12, Bangkok 10500
Tel: +66-(0)2-235-2929-39
Fax: +66-(0)2-236-7240

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