Boot Camp
Installation & Setup Guide

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Installing and Setting Up Boot Camp

This document shows you how to install and set up Boot Camp so you can use Microsoft Windows on a Mac computer.

Introduction

Boot Camp lets you install Windows on a Mac computer in its own partition, using a Microsoft Windows installation disc that you provide. After installation, you can use either Windows or Mac OS X on your Mac computer.

The Boot Camp Assistant application and this guide walk you through the steps needed to create a Windows partition on your Mac and then restart your Mac using your Windows installation disc. Then, follow this guide to install Windows and install software drivers that let Windows work with your Mac hardware.

What You Need

- A printed copy of this document, which contains information you need to refer to when installing Windows. The information in this document is for specific computer models. If you're not sure this is the document for your computer, go to www.apple.com/support/bootcamp for more information.
- The keyboard and mouse or trackpad that came with your computer. (If they aren't available, use a USB keyboard and mouse.)
- A built-in optical disc drive or a compatible external optical drive.

  For information on using your computer with an external optical drive, see the documentation that came with your computer.
- Windows 7 Home Premium, Professional, or Ultimate

Important: You must use a single full-install Windows installation disc. You cannot use an upgrade version of Windows. To see how much free space you need on your disk for Windows, refer to the documentation that came with Windows.

- The Mac OS X install DVD that came with your Mac, a blank CD or DVD, or an external drive formatted as MS-DOS (FAT).

  After you install Windows, you need to install software drivers that let Windows work with your Mac hardware. You can use the drivers that are on your Mac OS X install disc, or you can download the drivers to a blank CD, blank DVD, or external drive. To format an external drive as MS-DOS (FAT), use Disk Utility in the Utilities folder in the Applications folder.

Installation Overview

Installing Windows on your Mac computer involves the following steps:

Step 1: Check for updates

Step 2: Prepare your Mac for Windows
Boot Camp Assistant (in the Utilities folder in your Applications folder) prepares your Mac for Windows by creating a partition for Windows and then starting the Windows installer.

Step 3: Install Windows

Step 4: Install the Windows support software

Important: Before you begin, make sure you have a backup of the important information on your computer.

Step 1: Check for Updates

Be sure to install all Mac OS X updates so Windows installs successfully.

To check for updates:

1 Log in to an administrator account on your computer, quit all open applications, and log out any other users on your computer.

2 Choose Apple () > Software Update.

   Install all available updates. If your computer restarts after installing an update, choose Apple () > Software Update again to install any additional updates.

3 Go to http://www.apple.com/support/bootcamp and check whether you need additional updates.

Step 2: Prepare Your Mac for Windows

Boot Camp Assistant helps prepare your Mac for Windows by creating a new partition for Windows and then starting the Windows installer.

If you don't have the Mac OS X install disc that came with your computer, make sure you have a blank CD or DVD or an external drive formatted as MS-DOS (FAT). Boot Camp Assistant lets you download the Windows support software that's on the Mac OS X install disc to that CD, DVD, or external drive. To format an external drive as MS-DOS (FAT), use Disk Utility in the Utilities folder in the Applications folder.

Important: If you're using a portable computer, connect the power adapter before continuing.

To prepare your Mac for Windows:

1 Open Boot Camp Assistant (in the Utilities folder in the Applications folder).

2 If you don't have the Mac OS X install disc that came with your computer, follow the onscreen instructions for downloading the Windows support software and saving it to a CD, DVD, or external disk.

   In a later step, you'll install the Windows support software on your Windows partition.

3 Follow the onscreen instructions for creating a partition for Windows.

   If you need help determining the best size for your Windows partition, refer to your Windows installer documentation.

   In a later step, you'll format the partition you just created.

If You Have Problems Creating a Partition

If you have problems creating a Windows partition, check the following:

- Your Mac's disk must be a single partition, formatted as Mac OS Extended (Journaled).
  If the disk already has more than one partition, you must repartition it.

- Your Mac's disk must be an internal disk. You cannot use Boot Camp Assistant to install Windows on an external disk.

- If your Mac has more than one internal disk and you want to install Boot Camp on a disk that isn't in the first hard drive bay, remove the drives in the lower numbered bays. You can reinstall the drives after you install Boot Camp.

- If a dialog appears saying "The disk cannot be partitioned because verification failed," try repairing the disk using Disk Utility and opening Boot Camp Assistant again. If that doesn't work, back up all the information on your computer, start up from your Mac OS X installation disc, and erase the disk using Disk Utility. Restore the information to your computer from the backup and try opening Boot Camp Assistant again.

Step 3: Install Windows

Read and carefully follow these instructions for installing Windows on your Mac computer. Refer to your Windows documentation for general information about installing and setting up Windows.

If you already quit Boot Camp Assistant without installing Windows, open Boot Camp Assistant and continue from where you left off.

To install Windows on your Mac computer:

1 Insert your Windows 7 installation disc.

2 In Boot Camp Assistant, click Start Installation.

   Your computer starts up from the Windows installation disc.

3 Follow the onscreen instructions, until you're asked where to install Windows.

4 When you're asked where to install Windows, select "Disk 0 Partition 3 BOOTCAMP."

NOTICE: Do not create or delete a partition, or select any other partition. Doing so may delete the entire contents of your Mac OS X partition.
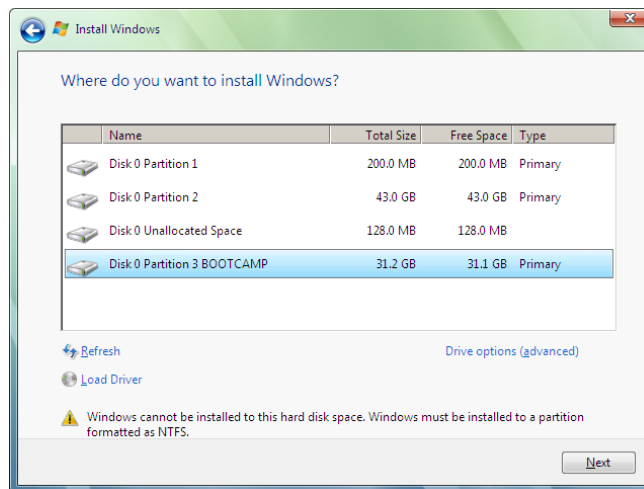
5 Click "Drive options (advanced)."

6 Click Format, and then click OK.
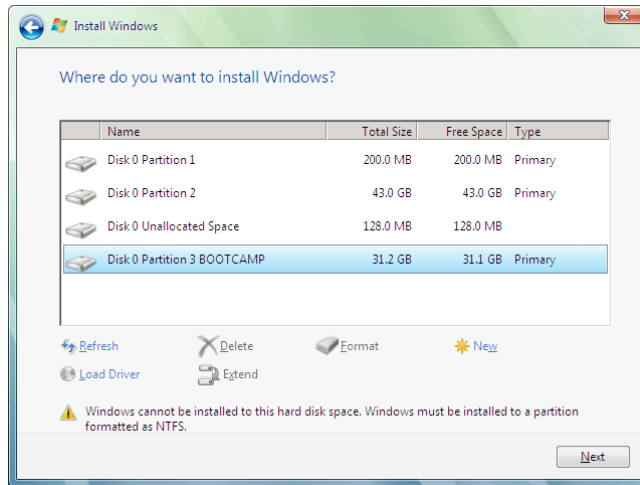
7 Click Next.

The Windows partition is formatted using the NTFS file system.

8 Follow the onscreen instructions to finish installing and configuring Windows.

After you install the Windows software, your computer automatically restarts using Windows. Use the Windows setup screens to configure Windows.

If You Have Problems Installing Windows

If you have problems installing Windows, try the following solutions.

If you get a message saying "Installer Disc Not Found" when installing Windows
Make sure you're logged in to Mac OS X as an administrator.

If Windows didn't install properly
Verify that you're using an original, full version of Windows 7 Home Premium, Professional, or Ultimate.

Restart your computer and hold down the Option key until one or more disk icons appear on your screen. Insert the Windows installation disc. Select the Windows installation disc icon and then click the arrow beneath it. Quickly press any key on your keyboard to start the installer. Follow the onscreen instructions to repair or reinstall Windows.

If the Windows installer isn't responding
Be sure you are using the original keyboard and mouse that came with your computer.

If you're using an Apple mouse, the Windows installer may not respond if the mouse is connected directly to your computer. Connect the mouse to the USB port on your keyboard.

If you insert the wrong disc during installation
Eject the disc by holding down the Eject key on your keyboard while restarting the computer.

Step 4: Install the Windows Support Software

After installing Windows, install Mac-specific drivers and other support software for Windows. The support software installs Boot Camp drivers to support your Mac's hardware, including AirPort, its built-in camera, the Apple Remote, the trackpad on a portable Mac, and the function keys on an Apple keyboard. The software also installs the Boot Camp control panel for Windows and the Apple Boot Camp system tray item.

To install the Windows support software:

1 If you can't find the Mac OS X install disc that came with your Mac, or the CD, DVD, or external disk with the support software you downloaded, open Boot Camp Assistant and download the software again.

   You can quit the assistant after you save the software without creating a new partition.

2 Insert the CD or DVD or connect the external disk with the Windows support software.

   If the installer doesn't start automatically, browse the CD, DVD, or external disk using Windows Explorer, and then double-click the setup.exe file in the Boot Camp directory.

3 Follow the onscreen instructions.

   Important: Do not click the Cancel button in any of the installer dialogs.

   If a message appears that says the software you're installing has not passed Windows Logo testing, click Continue Anyway.

   You don't need to respond to installer dialogs that appear only briefly during the installation.

   If nothing appears to be happening, there may be a hidden window that you must respond to. Check the taskbar and look behind open windows.

4 After your computer restarts, follow the instructions for any other installers that appear.

5 Check for updated Windows support software by using Apple Software Update or going to www.apple.com/support/bootcamp.

If the Windows Support Software Wasn't Successfully Installed

If it appears your Mac's hardware isn't working as expected because the Windows support software wasn't successfully installed, try repairing it.

To repair the Windows support software:

1 Start up your computer in Windows. See "Starting Up Using Mac OS X or Windows" on page 10.

2   Insert the CD or DVD or connect the external disk with the Windows support software.

   If you have the Mac OS X install disc that came with your computer, it contains the Windows support software.

3   If the installer doesn't start automatically, browse the CD, DVD, or external disk using Windows Explorer and double-click the setup.exe file in the Boot Camp directory.

4   Click Repair and follow the onscreen instructions.

   If a message appears that says the software you're installing has not passed Windows Logo testing, click Continue Anyway.

   To reinstall a specific driver:
   If you need to reinstall specific drivers, you can install one driver at a time. For example, if your Mac's built-in camera isn't working, you can reinstall just the camera's driver.

   Individual drivers are in the Drivers folder on the CD, DVD, or external disk with the Windows support software.

1   Insert the CD or DVD or connect the external disk with the Windows support software.

   If you have the Mac OS X install disc that came with your computer, it contains the Windows support software.

2   Quit AutoRun if it opens.

3   Using Windows Explorer, locate the driver that you want to reinstall.

4   Open the driver to start the installation.

If You Have Problems Using Windows on Your Mac

If you're having trouble using Windows on your Mac, try the solutions below.

For more troubleshooting information, go to www.apple.com/support/bootcamp.

If you see "No Boot Disk Attached" when starting up your computer

You may have formatted your Boot Camp partition incorrectly so it cannot start up your computer. Start up your computer with Mac OS X and open Boot Camp Assistant. Remove the Boot Camp partition and then re-create it. Install Windows again, being sure to format the partition.

If the screen is blank or distorted

Some graphics cards may not work with both Mac OS X and Windows on a Mac computer. If you're having trouble with your screen display when using Windows, try the following:

- Use the graphics card that came with your Mac.
- Make sure you've installed the Boot Camp drivers. See "Step 4: Install the Windows Support Software" on page 8.
- Adjust the screen resolution setting in the Display control panel.

- Go to http://www.apple.com/support/bootcamp and check for compatibility information and updated software for your computer.

If you can't rename the Windows partition
You can rename the Windows partition only in Windows. Start up in Windows and right-click the C: drive in Windows Explorer. Then type a name.

If you have a RAID configuration
RAID configurations using Boot Camp are not supported. For more information, go to www.apple.com/support/bootcamp and search for "RAID."

Starting Up Using Mac OS X or Windows

After you've installed Windows and the support software, Boot Camp makes it easy to start up your computer using either Mac OS X or Windows. To set the operating system for your computer, choose a disk with that operating system installed as your startup disk and then restart your computer.

Setting the Default Operating System

To set the default operating system in Mac OS X, use the Startup Disk pane of System Preferences in Mac OS X. To set it in Windows, use the Boot Camp control panel.

To set the default operating system in Mac OS X:
1. In Mac OS X, choose Apple menu > System Preferences, and then click Startup Disk.
2. Select the startup disk with the operating system you want to use by default.
3. If you want to start up that operating system now, click Restart.

To set the default operating system in Windows:
1. In Windows, click the Boot Camp icon in the system tray and choose Boot Camp Control Panel.
2. Select the startup disk with the operating system you want to use by default.
3. If you want to start up that operating system now, click Restart.

To restart in Mac OS X using the Boot Camp icon in the system tray:
- In Windows, click the Boot Camp icon in the system tray and choose "Restart in Mac OS X."

This also sets the default operating system to Mac OS X.

Selecting an Operating System During Startup

You can select which operating system to use during startup by holding down the Option key. This displays icons for all available startup disks, and lets you override the default setting for the startup disk in Startup Disk preferences (Mac OS X) or the Boot Camp control panel (Windows) without changing that setting.

To select an operating system during startup:

1 Restart your computer and hold down the Option key until disk icons appear onscreen.

2 Select the startup disk with the operating system you want to use, and then click the arrow beneath the icon.

Removing Windows from Your Computer

How you remove Windows from your computer depends on whether you installed Windows on a second disk partition or on a single-volume disk.

If you installed Windows on a second disk partition: Using Boot Camp Assistant as described below, remove Windows by deleting the Windows partition and restoring the disk to a single-partition Mac OS X volume.

If your computer has multiple disks and you installed Windows on a disk that has only one partition: Start up in Mac OS X and use Disk Utility, in the Utilities folder in the Applications folder, to reformat it as a Mac OS X volume.

To delete Windows and the Windows partition:

1 Start up in Mac OS X.

2 Quit all open applications and log out any other users on your computer.

3 Open Boot Camp Assistant.

4 Select "Create or remove a Windows partition," and then click Continue.

5 Do one of the following:

- If your computer has a single internal disk, click Restore.
- If your computer has multiple internal disks, select the disk with Windows on it, and then select "Restore to a single Mac OS partition" and click Continue.

Learning More, Support, and Feedback

For more information about Boot Camp, go to www.apple.com/bootcamp.

For Boot Camp support, go to www.apple.com/support/bootcamp.

Apple welcomes your feedback on Boot Camp. To submit feedback, go to www.apple.com/macosx/feedback.

Apple does not provide support for installing or using Microsoft Windows software. To find help for Windows issues, go to www.microsoft.com/windows.