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Parallels Software International, Inc.

# Parallels Desktop for Mac

## Getting Started Guide



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**CHAPTER 1**

# Introduction

In this chapter we'll talk about the virtual machine technology that is used by Parallels® Desktop and will familiarize you with the main characteristics of a virtual machine created by Parallels Desktop.

## In This Chapter

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## Key Terms and Technologies

In hopes of making your experience as effortless as possible, we've designed Parallels Desktop to be extremely user-friendly, even if you're a computer "newbie." This section highlights some of the terms you'll need to know as you work your way through this guide.

**Virtual machine (VM):** The whole point of Parallels Desktop is simulating other computers running inside your Mac. This computer-within-your Mac has its own operating system, its own software suite, and its own "screen."

You might call it a PC simulator, an imitation PC, or a mock computer. But in the computer-science industry, it has a standard name: a virtual machine. Every time you start up Parallels Desktop for Mac, you're actually turning on a virtual machine running Windows or any other operating system you want to use.

Each virtual machine behaves as though it's a PC with the following components:

- an Intel Pentium processor;
- a generic motherboard compatible with Intel i815 chipset;
- up to 1500 MB of memory;
- monitor with VESA 3.0 support. After a new virtual machine is just created, its monitor resolution will be either 640x480 or 1024x768 (VGA and SVGA). Later you will have the opportunity to either install Parallels Tools with a video driver in Windows, or set your own screen resolution;
- a floppy drive (mapped to an image file);
- up to four IDE disk drives. These can be either virtual hard drives (from 20 MB up to 128 GB each, in the form of hard drive image files) or CD/DVD-ROM drives (mapped to either actual drives or image files);
- Ethernet network card compatible with RTL8029. Parallels Desktop supports bridging to wireless networking adapters;
- up to four serial (COM) ports (each mapped to a socket or to an output file);
- up to three bi-directional parallel (LPT) ports (mapped to output files);
- a standard PC keyboard;
- a PS/2 scroll-wheel mouse.

A virtual machine lets you do tricks like these:

- Simultaneously run multiple operating systems (OSes) and their programs on a single computer.
- Create numerous virtual machines, each with a full set of standard virtual hardware. Operating systems and applications are isolated inside these virtual machines and share physical hardware components with the real computer.
- Switch between operating systems without having to restart the Mac.
- Simplify your environment, combining all you need on one machine. The result: reduced hardware costs, lower operating expenses, and increased productivity.

**Primary Operating System (Primary OS):** This is the operating system that loads when you hit the power button on your computer. In your case, it's Mac OS X.

**Guest Operating System (Guest OS):** This is the reason you bought Parallels Desktop: it's a second, different operating system that you can run simultaneously with the primary OS. The guest OS on your Mac might be Windows XP, or Linux, or any of many other operating systems—and they all can be running simultaneously in different windows!

**Hard Disk Image:** Just as a virtual machine is a simulated PC, a hard disk image is a simulated hard drive. It's actually just a file (of a size you can specify) on your real hard disk, but it looks to the virtual machine like its own actual drive.

**ISO Image:** A file that contains the entire contents of a CD-ROM disc or DVD, commonly used to install a guest operating system in a VM.

**FDD Image:** A file that contains the contents of a floppy disk, used to install specific guest operating systems, such as OS/2.

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# Supported Guest Operating Systems

The current version of Parallels Desktop officially supports the following guest operating systems:

## Microsoft Windows Guest Operating Systems:

- Windows Vista
- Windows Server 2003 Standard Edition SP0
- Windows Server 2003 Standard Edition SP1
- Windows Server 2003 Enterprise Edition SP0
- Windows Server 2003 Enterprise Edition SP1
- Windows Server 2003 Web Edition SP0
- Windows Server 2003 Web Edition SP1
- Windows XP SP2 Professional
- Windows XP SP2 Home
- Windows XP SP1 Professional
- Windows XP SP1 Home
- Windows XP SP0 Professional
- Windows XP SP0 Home
- Windows 2000 Professional Edition SP4
- Windows 2000 Server SP4
- Windows 2000 Advanced Server SP4
- Windows NT Workstation 4.0 SP6
- Windows NT Server 4.0 SP6
- Windows ME
- Windows 98
- Windows 95
- Windows 3.11
- Windows 3.1

## Linux Guest Operating Systems:

- Red Hat Enterprise Linux WS4
- Red Hat Enterprise Linux AS4
- Red Hat Enterprise Linux WS3
- Red Hat Enterprise Linux ES4
- Red Hat Enterprise Linux ES3
- Red Hat Linux 9
- Red Hat Linux 8

- Red Hat Linux 7.3
- Debian Linux 3.1
- Fedora Core Linux 4
- Fedora Core Linux 3
- SUSE Linux 10
- SUSE Linux 9.3
- SUSE Linux 9.2
- SUSE Linux 9.1
- SUSE Linux 9.0
- Mandriva Linux 10.1
- Mandriva Linux 10
- Mandriva Linux 9.2

**FreeBSD Guest Operating Systems:**

- FreeBSD 5.4
- FreeBSD 5.3
- FreeBSD 4.5
- FreeBSD 4.1

**OS/2 and eComStation Guest Operating Systems:**

- OS/2 Warp 4.5
- OS/2 Warp 4
- OS/2 Warp 3
- eComStation 1.2
- eComStation 1.1

**Sun Solaris Guest Operating Systems:**

- Solaris 10
- Solaris 9

**MS-DOS Guest Operating Systems:**

- MS-DOS 6.22



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## CHAPTER 2

# Installing Parallels Desktop

In this chapter you'll learn how to install Parallels Desktop on your Mac.

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## System Requirements

Parallels Desktop requires a Mac that contains an Intel processor, such as a 2006-model iMac, Mac Mini, MacBook Pro, or Mac Pro. It does not work on older Mac models.

Your Mac should be running Mac OS X 10.4.6 or higher. The newest version Mac OS X 10.5 (Leopard) is supported experimentally.

To check your version of Mac OS X, go to the **Apple** menu in the menu bar, and choose **About This Mac**.

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## Installing Parallels Desktop

Now that you're past the geek-speak, you're ready to install Parallels Desktop!

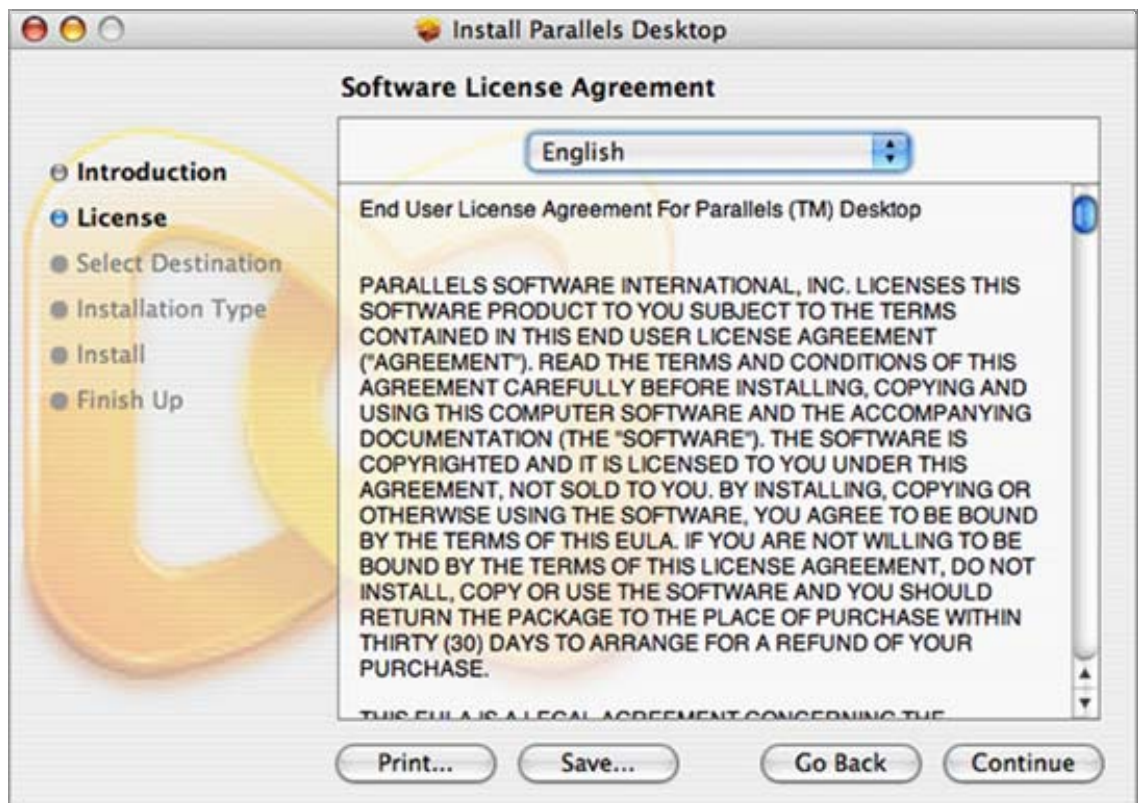
To install Parallels Desktop:

- 1 First, download the Parallels Desktop installation file from Parallels site.
  - To download a trial version, visit the Parallels Download Center <http://www.parallels.com/en/download>.
  - To buy the full commercial version, visit the Parallels Buy Online page <http://www.parallels.com/en/buyonline>.  
Select the Parallels Mac OS X package for downloading.
- 2 When software downloading is complete, double-click the `Parallels-Desktop-XXXX-Mac.dmg` file on your desktop. In the Parallels Desktop window, double-click the `Parallels-Desktop.pkg` icon to start installing.

- 3 On the Introduction screen, click Continue, shown here.



- 4 On the Software License Agreement screen, use the scroll bar to read the entire agreement. Then click Continue.



In the pop-up dialog box, click **Agree** to continue installing.

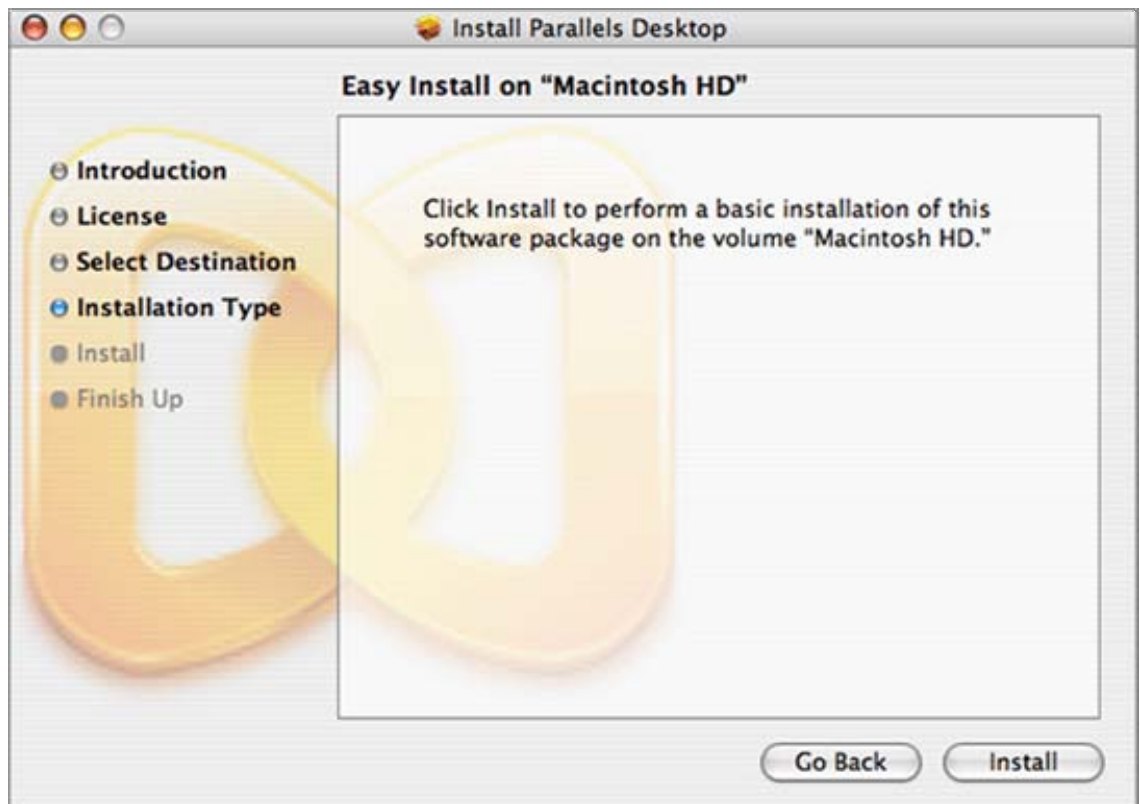


- 5 Next you'll see the **Select a Destination** screen. Specify which hard drive you want to use as Parallels Desktop's home and then click **Continue**. Currently, you can install Parallels Desktop only on the same drive with Mac OS X. Parallels Desktop installation takes only 40.5MB. Later, you may prefer to store virtual machines that take much more disk space in a different drive (if, in fact, you have more than one drive). To learn how to change folder for storing virtual machine, refer to the **Managing Virtual Machines->Setting Parallels Desktop Preferences->Common** topic in User Guide.



- 6 Finally, click **Install** to start the Parallels Desktop installation.

**Note:** Of course, you can return to the previous steps by clicking the **Go Back** button at any time.




- 7 When Parallels Desktop installation is complete, you see this dialog box. Click **Close**. You're ready to enter the Parallels dimension!



## CHAPTER 3

# Starting Parallels Desktop

To start Parallels Desktop:

- In the Finder, open your Applications folder, and then double-click on the orange Parallels icon .

To save yourself from having to burrow into Applications every time you want to run the program, consider dragging its icon onto your Dock.

## CHAPTER 4

# Activating Parallels Desktop


You need to get an activation key and activate your copy of Parallels Desktop with it to be able to run and use virtual machines.

## Getting an Activation Key

If you already have an activation key, skip this section and proceed to [Activating Your Copy of Parallels Desktop](#) below in this topic.

To get a free *trial activation* key:

- 1 Click **Help** in the menu and select **Activate Product**. This opens the **Activate Product** screen.
- 2 In the **Activate Product** screen, click the “**obtain a free trial activation key**” link in the **License Information** text to open the **User Registration Form**.
- 3 In the **User Registration Form**, specify your e-mail address and your name. Entering the name of your company is optional. Specify if you want news from Parallels to be sent to you through e-mail. We suggest allowing us to e-mail you in order for you to be informed of free software updates, new releases, and other Parallels-related news.



The screenshot shows a dialog box titled "User Registration Form". At the top, there are two tabs: "Required information" (which is selected) and "Optional information". Below the tabs, there is a paragraph of text: "Please fill registration form and click **Register** in order to receive a free trial activation key by e-mail. Alternatively click **Register On Site** if you prefer to register via our Web site." The form is divided into two sections: "Login Information" and "Personal Information". Under "Login Information", there is a label "E-mail \*:" followed by a text input field. Under "Personal Information", there is a label "User Name \*:" followed by a text input field, and a label "Company Name:" followed by a text input field. At the bottom of the form, there is a checkbox with the text "I want to receive news from Parallels to my e-mail", which is checked. At the very bottom of the dialog box, there are three buttons: "Register On Site", "Cancel", and "Register".



- 4 Finally, click the **Register** button to send this information to the Parallels Team. You will then have a free trial activation key sent immediately to the e-mail address you provided.

If you'd prefer, you may register online at the Parallels website as well. Click the **Register On Site** button at any time to proceed to the online registration. You will receive a free trial activation key through e-mail after completing the online form.

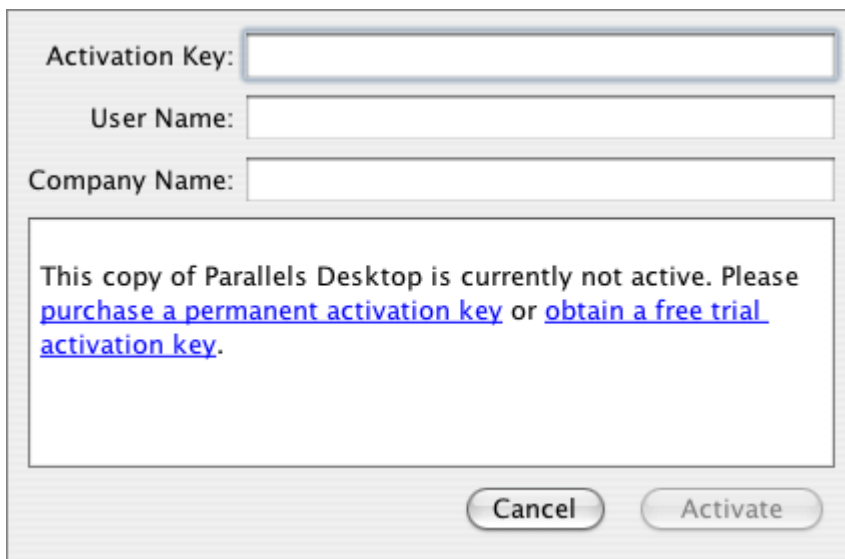
If your trial key has expired, or you're ready to start using Parallels Desktop with no time or feature restrictions, you'll need a *permanent* activation key. Here's how to get one:

- 1 Click **Help** in the menu and select **Activate Product**. This opens the **Activate Product** screen.
- 2 In the **Activate Product** screen, click the "purchase a permanent activation key" hyperlink in **License Information** text to open the Parallels Online Store and purchase a permanent activation key. It's just that simple.

## Activating Your Copy of Parallels Desktop

To activate Parallels Desktop, follow these easy steps:

- 1 Click **Help** in the Parallels Desktop menu and select **Activate Product**.
- 2 In the **Activate Product** window, fill in the following fields:
  - In the **Activation Key** field type the key provided for you. When you fill in this field, the **Activate** button becomes active.
  - Specify your name and name of your company in the **User Name** and **Company Name** fields. Both of these fields are optional.



The screenshot shows a dialog box for activating Parallels Desktop. It contains three input fields: "Activation Key:", "User Name:", and "Company Name:". Below these fields is a text area with the message: "This copy of Parallels Desktop is currently not active. Please [purchase a permanent activation key](#) or [obtain a free trial activation key](#)." At the bottom of the dialog are two buttons: "Cancel" and "Activate".

After entering your activation key, click the **Activate** button. If you have entered a valid activation key, the following confirmation message will be displayed: "Parallels Desktop has been activated successfully. Thank you!" Now that your copy of Parallels Desktop is active, you can build, configure, and run virtual machines, congratulations!

### If You Activated with a Permanent Key

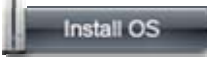
After you have activated your copy of Parallels Desktop with a permanent activation key, you will be asked to register the next time you start Parallels Desktop. When you see the message shown below and click the **Register** button, the user registration online form will be opened in your Web browser. Please provide us with your contact information to receive notifications about our new updates and products.





## CHAPTER 5

# Creating a Virtual Machine

In the Parallels Desktop window click the  button. The OS Installation Assistant will help you build and configure virtual machine. The Assistant's Welcome screen appears.



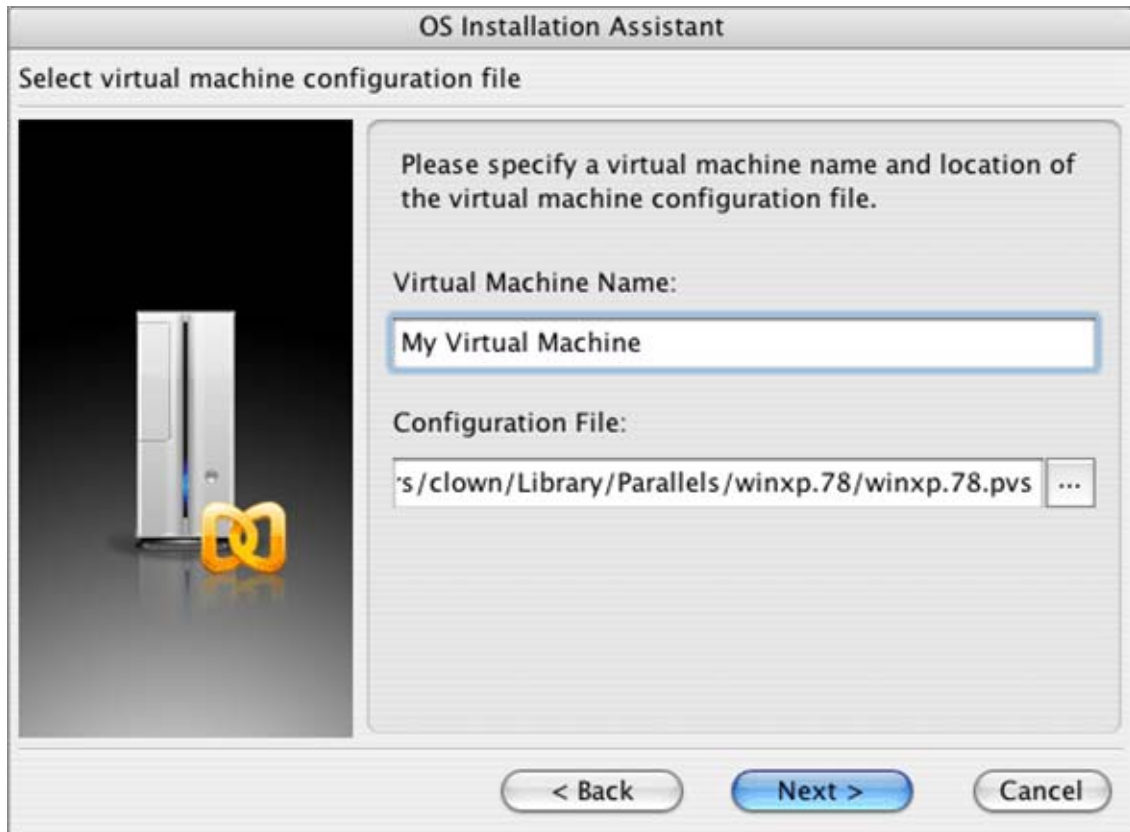
Click the Next button.



Here we describe the typical OS installation which is an easy way to create a new virtual machine. (However, if you want to have a Windows XP or Vista virtual machine, there is an express installation, which is even easier way and which we recommend if you are new to virtualization. Please refer to the [How to Build a Windows XP or Vista Virtual Machine](#) topic). In the Select OS installation mode screen click the Typical OS installation option. Then click Next.



On the next screen, you specify what guest operating system you'd like to install on your virtual machine. Choose the operating system from the upper drop-down list (for example, Windows), and then choose the version from the lower one (Windows XP, Windows 95, or whatever). After specifying the guest OS, click Next.



In this step, you're asked to name your virtual machine. If you plan to create several VMs running the same operating system, the name is needed for identification ("Windows XP for Games" and "Windows XP for Work", for example).

Also specify where you want to store the files that make up your virtual machine. Unless you indicate otherwise, the assistant will name the VM after the guest OS you've specified and will store it in the Parallels folder. (You can change this default folder in Parallel Desktop's Preferences dialog box. For more information, consult the full Parallels Desktop for Mac User Guide by choosing Help -> Contents.) Click Next.



This is the last screen of the **OS Installation Assistant**. After you click **Finish**, Parallels Desktop will create the virtual machine for you and then will start the installation. Do not forget to insert the installation disc before you click **Finish**. The installation of Windows XP is described in **Installing Windows XP** topic.

However, if you don't want to install the guest OS right now or to install from a disc image or floppy image, clear the check box for the **Start guest OS installation** option. To learn how to start the installation refer to the **Creating Virtual Machine -> Installing Guest OS** section of the **Parallels Desktop for Mac User Guide**.

When installing, you will have to capture the keyboard and mouse input in the virtual machine screen. See **Capturing and Releasing the keyboard and the Mouse** (page 23) to learn how to do this.

After the guest OS installation is complete, install Parallels Tools if they are provided for your guest OS. Refer to the **Parallels Tools** (page 45) section.

## CHAPTER 6

# Capturing the Keyboard and the Mouse in a Virtual Machine and Releasing Them

When you power on a virtual machine, you get two computers running at once: your actual Mac, and the simulated PC that's running inside it. But you have only one mouse and keyboard! How, then, is Parallels Desktop supposed to know when a certain mouse or keyboard activity is intended for Mac OS X, and when for the guest OS?

## The Automatic Handoff

One obvious answer is: Whenever the cursor is inside the guest OS window, then it belongs to that OS. When the cursor moves out of the guest window, it belongs to Mac OS X once again.

And indeed, that's exactly how things work if you've installed Parallels Tools as described in the previous chapter.

## The Manual Handoff

But Parallels Tools are not available for all guest operating systems; furthermore, some people may prefer to trigger the keyboard/mouse handoff manually. You can use any of three methods to make the virtual machine "capture" the keyboard and mouse:

- Click anywhere inside the virtual machine window.
- Select **Capture Input** in the VM menu.
- Press **Command+I** on your keyboard.

Once the guest OS captures your cursor, you can't move it outside of the Parallels Desktop window until you release it.

To release the keyboard and mouse to Mac OS X:

- Press the keyboard shortcut for releasing your keyboard/mouse. The factory setting is **Ctrl+Option(Alt)**, but you can change this key combo in **Parallels Desktop -> Preferences -> Hot Keys**.

The keyboard and the mouse will be released immediately.

## CHAPTER 7

# Installing Windows XP

This topic describes an installation of Windows XP onto a virtual machine created by a *typical installation* of OS Installation Assistant.

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**Note.** For successful installation you should have the full version of Windows XP, not any of the upgrade versions.

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If you are still on the last screen of OS Installation Assistant, with the Start Guest OS Installation option selected, then when you insert the installation disc and click the Finish button, the assistant starts the installation of Windows XP in virtual machine.

To start the installation in other cases you have to perform the following actions:

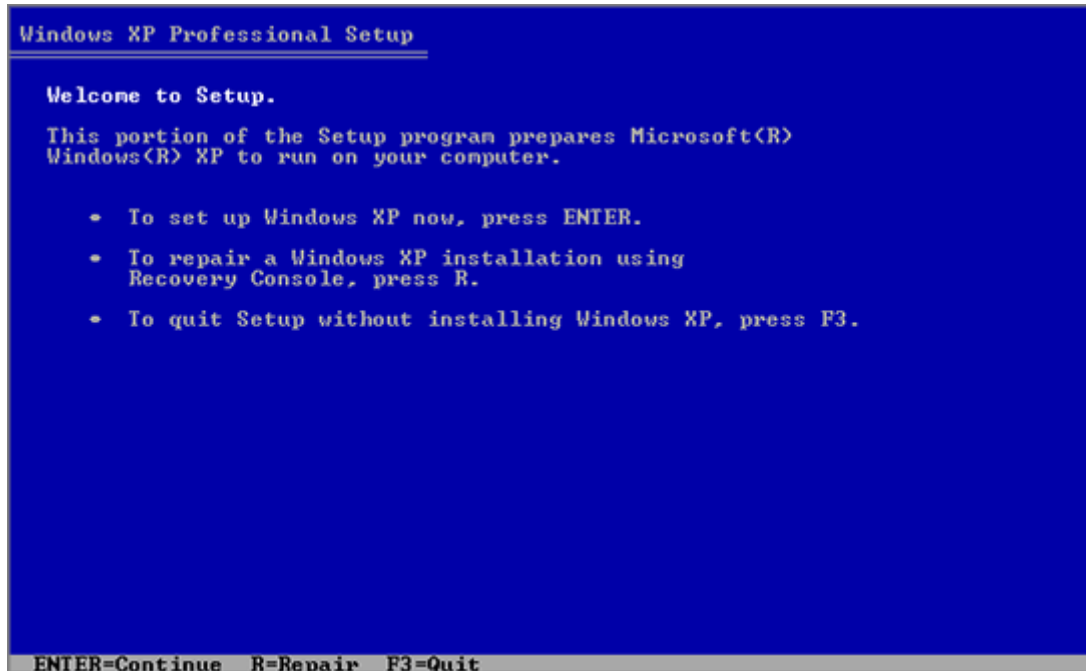
- 1 Start Parallels Desktop.
- 2 Open the virtual machine intended for Windows XP (for how to find and open the VM please refer to the Starting, Stopping, and Resetting a Virtual Machine (page 47) topic).
- 3 Insert the Windows XP installation disc or connect the .iso file of the installation disc to the virtual machine's CD/DVD-ROM drive. To connect the image file click the CD/DVD-ROM icon on the status bar (at the bottom of the Parallels Desktop window) and select the Connect image file option from the pop-up menu/ then locate the image file.
- 4 Power on the virtual machine.



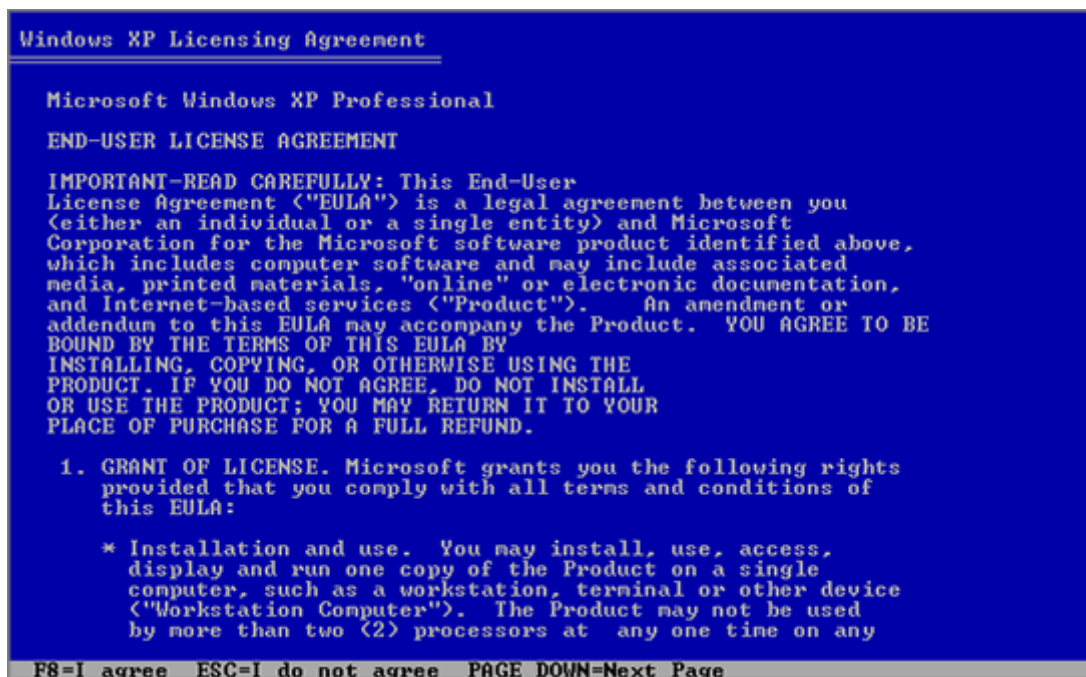
With Windows XP you will proceed through the following set of screens:

- Welcome to Setup screen is shown first. To capture your mouse and keyboard input inside the virtual machine click somewhere on the virtual machine monitor. After this, press Enter on your keyboard.

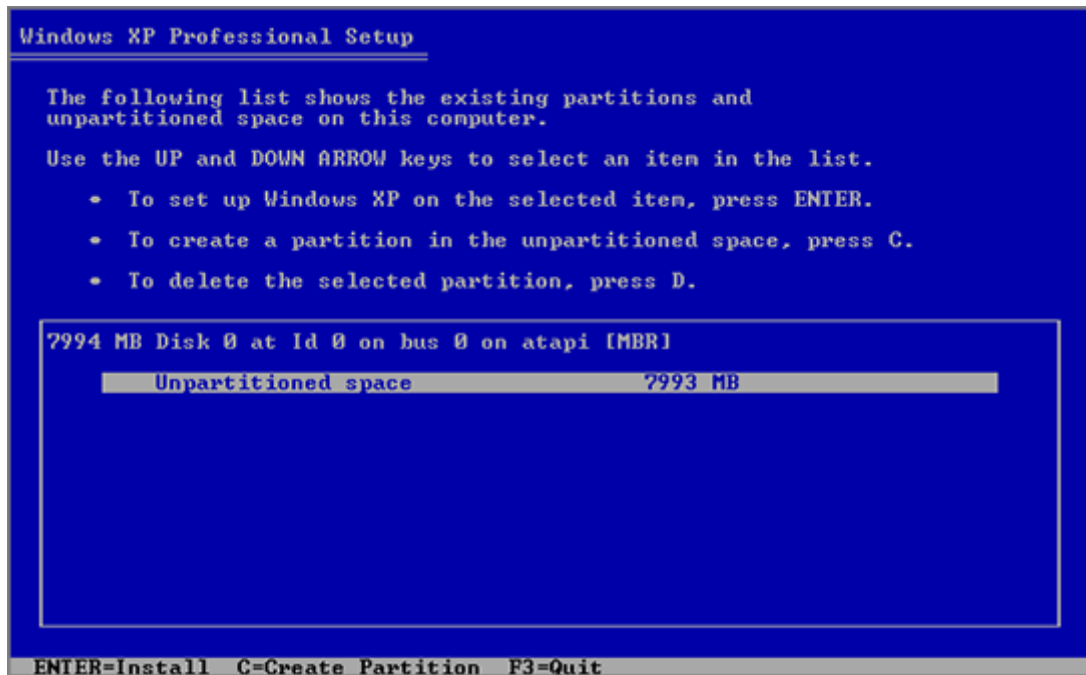
**Note.** You can return to Mac OS X at any time by pressing Ctrl+Alt or Ctrl+Option(Alt) on your keyboard.



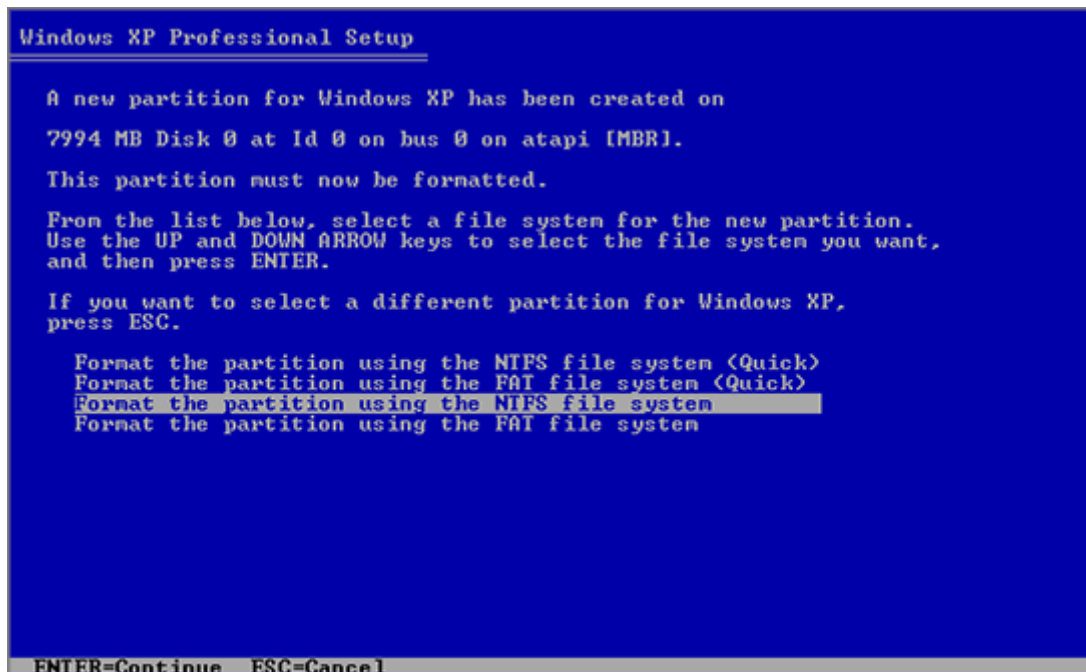
- The license agreement is displayed on the screen. To scroll down press the Pagedown key. Then press F8 to agree. If you use MacBook or MacBook Pro press Fn+F8 instead.



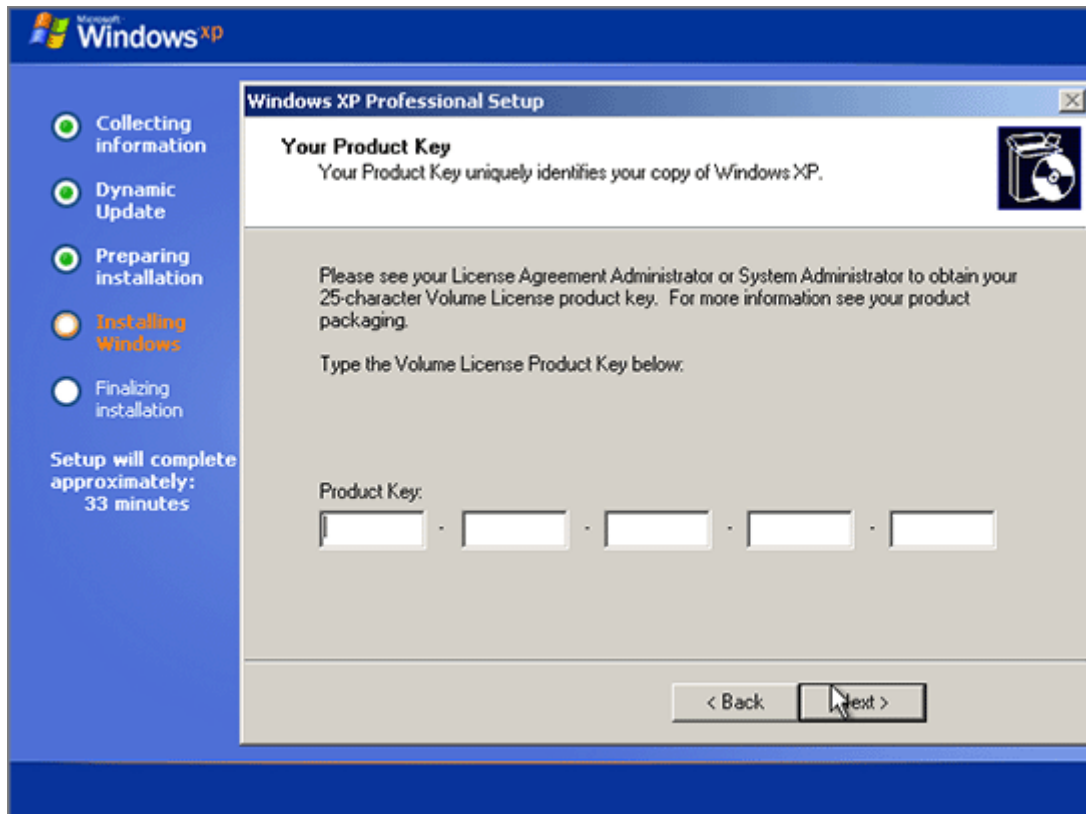
- In the lower part of the following screen, the Setup displays the list of hard disks and partitions available in the virtual machine. You will have the only one item, the unpartitioned space. Press Enter to set up Windows XP on this object.



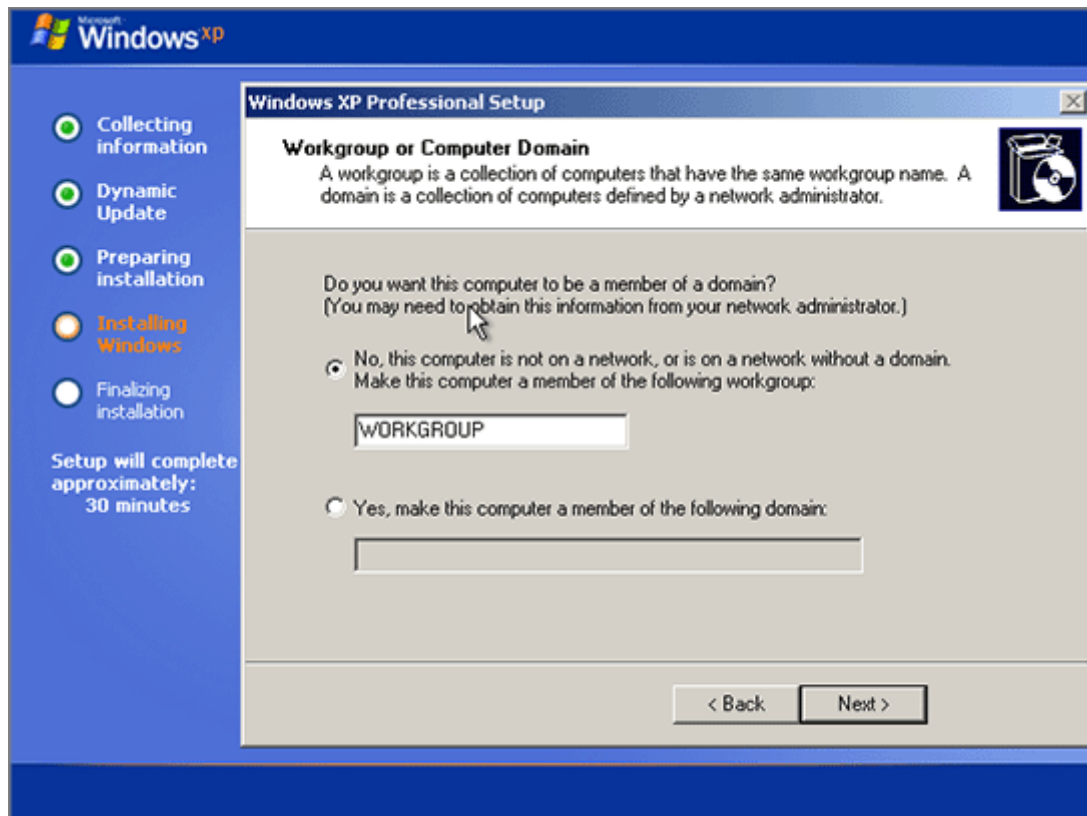
- After this, you'll have to choose how to format your system volume. It is best to format the Windows XP system disk using NTFS quick formatting method. So, select the type of file system and mode of formatting and press Enter.



- The virtual machine will restart automatically. The text stage of the installation is completed. During the next stage, dialog boxes will be used. Select your Regional and Language Options and proceed to entering license key. Type it and click Next.



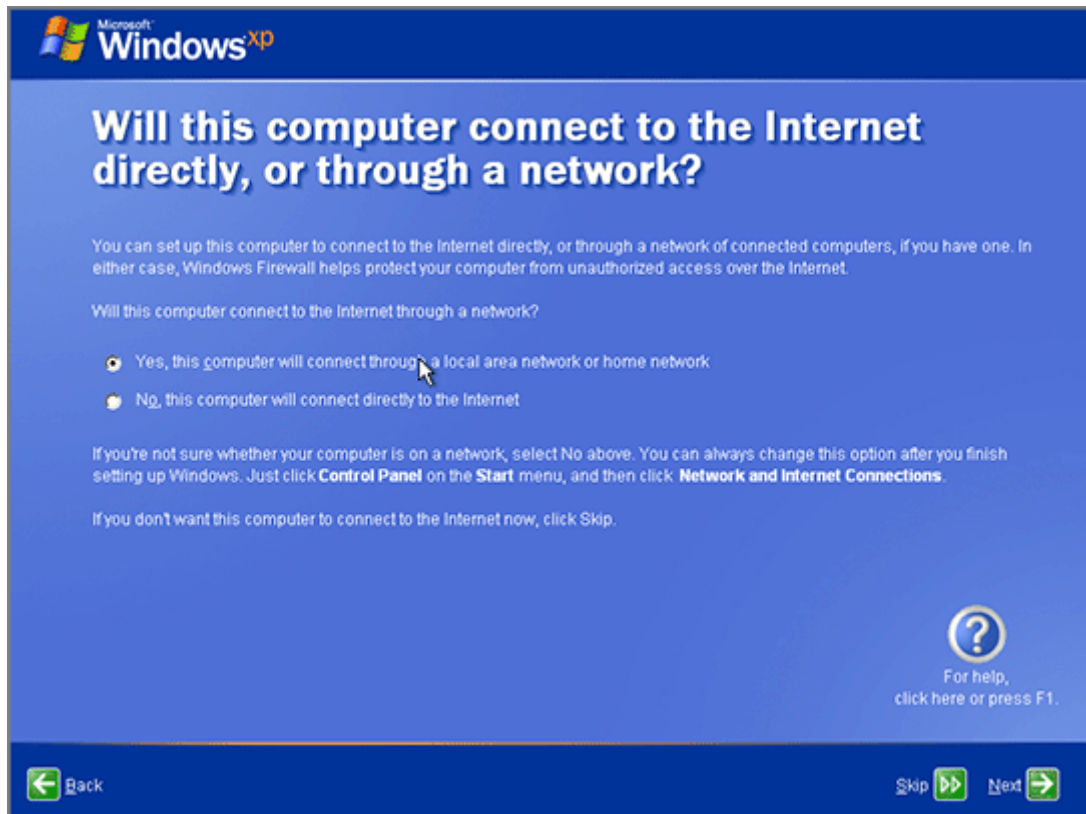
- On the next several screens you will be asked to enter a computer name and administrator password, select your date and time zone, specify your network setting (we recommend to select typical ones).
- Next you have to specify whether your computer will be a member of a domain. If you are creating the virtual machine for running it in corporate environment, ask your system administrator whether you should specify the domain. Otherwise, choose the first option, make your virtual machine a member of workgroup.



- After that, Setup adjusts the Display Settings for better image quality.
- In the **Help protect my PC** screen indicate whether you want to turn on the Automatic Updating feature. We recommend to turn automatic updates on.



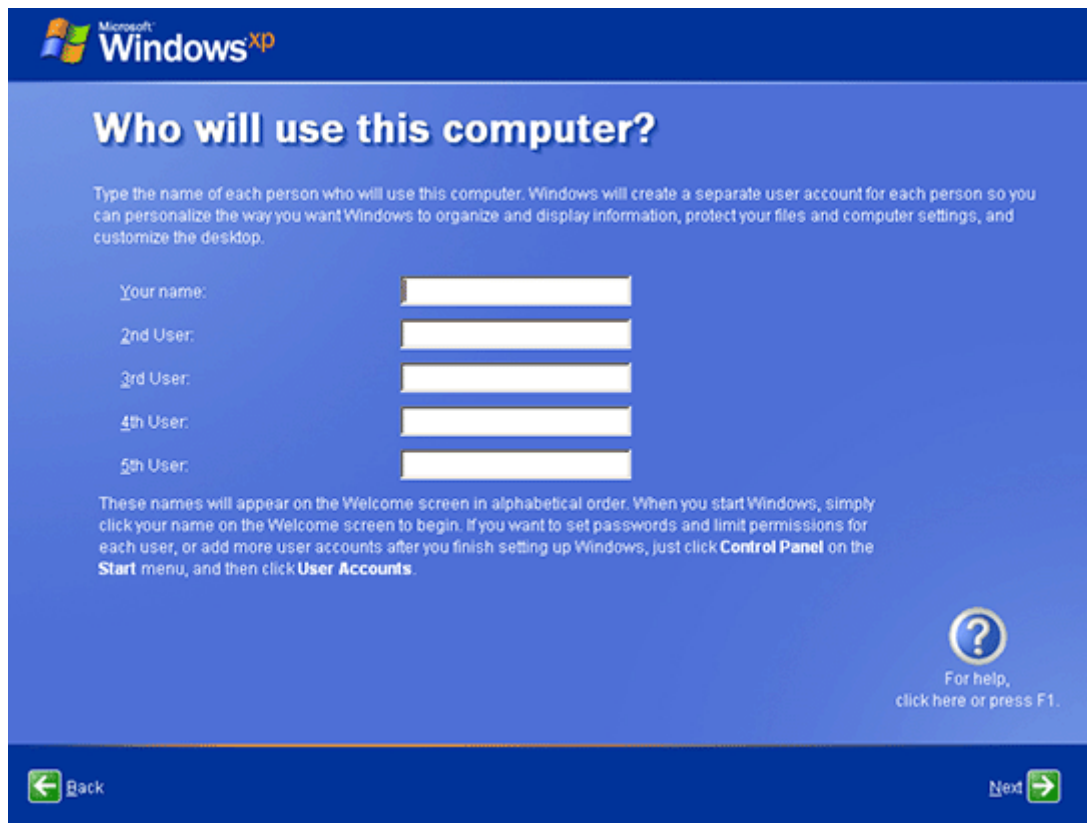
- As the next step, choose the way your computer will be connected to the Internet. Select Yes.



- If you want to register with Microsoft specify this in the following screen.



- Setup prompts you to create user accounts for each person who will use this virtual machine.



The screenshot shows the 'Who will use this computer?' screen from the Windows XP installation process. At the top left is the Microsoft Windows XP logo. The main heading is 'Who will use this computer?'. Below the heading is a paragraph of instructions: 'Type the name of each person who will use this computer. Windows will create a separate user account for each person so you can personalize the way you want Windows to organize and display information, protect your files and computer settings, and customize the desktop.' There are five input fields for user names, labeled 'Your name:', '2nd User:', '3rd User:', '4th User:', and '5th User:'. Below the input fields is another paragraph: 'These names will appear on the Welcome screen in alphabetical order. When you start Windows, simply click your name on the Welcome screen to begin. If you want to set passwords and limit permissions for each user, or add more user accounts after you finish setting up Windows, just click **Control Panel** on the **Start** menu, and then click **User Accounts**.' In the bottom right corner, there is a help icon (a question mark in a circle) with the text 'For help, click here or press F1.' At the bottom left, there is a 'Back' button with a left-pointing arrow, and at the bottom right, there is a 'Next' button with a right-pointing arrow.

And this is all with the installation of Windows XP. But still there is one more important moment, installation of Parallels Tools. See [Installing Parallels Tools](#) section of this guide.

## CHAPTER 8

# Installing Windows Vista

This topic describes an installation of Windows Vista onto a virtual machine created by a *typical installation* of OS Installation Assistant.

If you are still on the last screen of OS Installation Assistant, with the Start Guest OS Installation option selected, then when you insert the installation disc and click the Finish button, the assistant starts the installation of Windows XP in virtual machine.

To start the installation in other cases (for example, if you have the .iso image of the installation disc) you have to perform the following actions:

- 1 Start Parallels Desktop.
- 2 Open the virtual machine intended for Windows Vista (for how to find and open the VM please refer to the Starting, Stopping, and Resetting a Virtual Machine (page 47) topic).
- 3 Insert the Windows Vista installation disc or connect the .iso file of the installation disc to the virtual machine's CD/DVD-ROM drive. To connect the image file click the CD/DVD-ROM icon on the status bar (at the bottom of the Parallels Desktop window) and select the Connect image file option from the pop-up menu/ then locate the image file.
- 4 Power on the virtual machine.



With Windows Vista you will proceed through the following set of screens:

- First, you have to specify your language and other regional preferences. To capture your mouse and keyboard input inside the virtual machine click somewhere inside the Windows Vista screen.

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**Note.** You can return to Mac OS X at any time by pressing `Ctrl+Alt` or `Ctrl+Option(Alt)` on your keyboard.

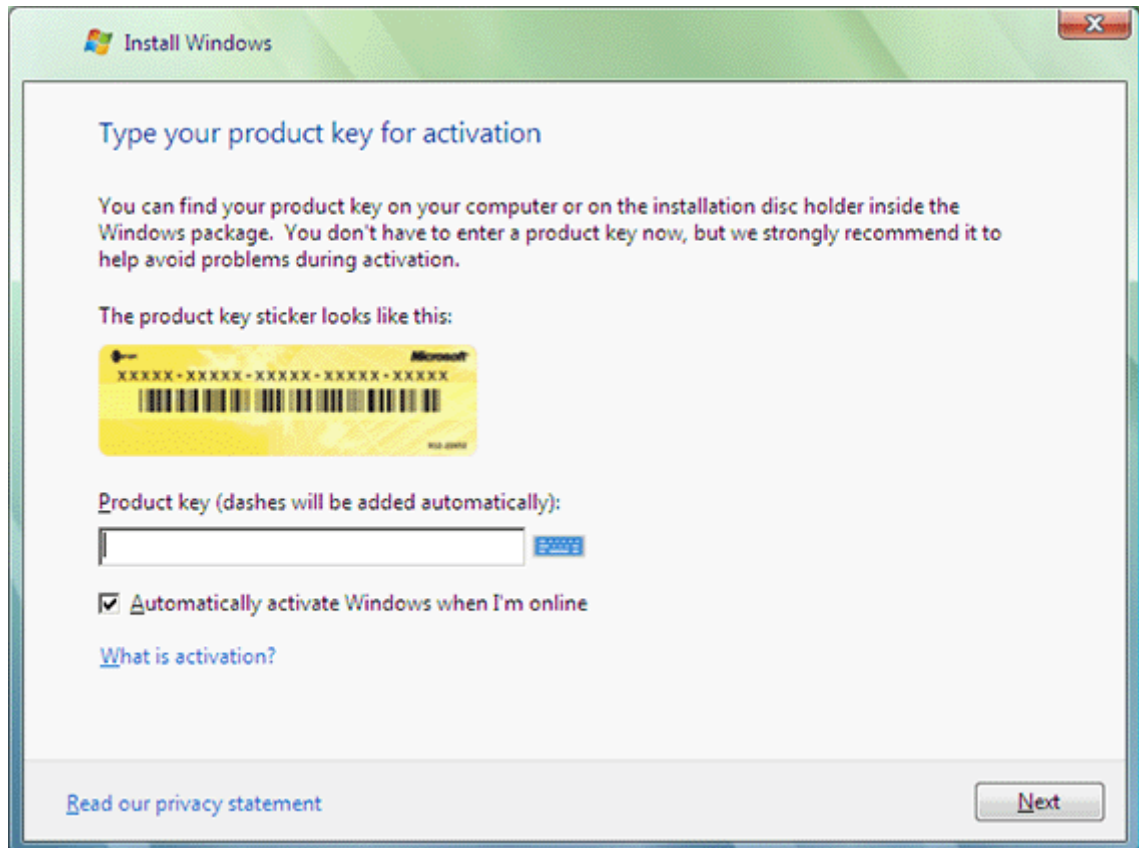
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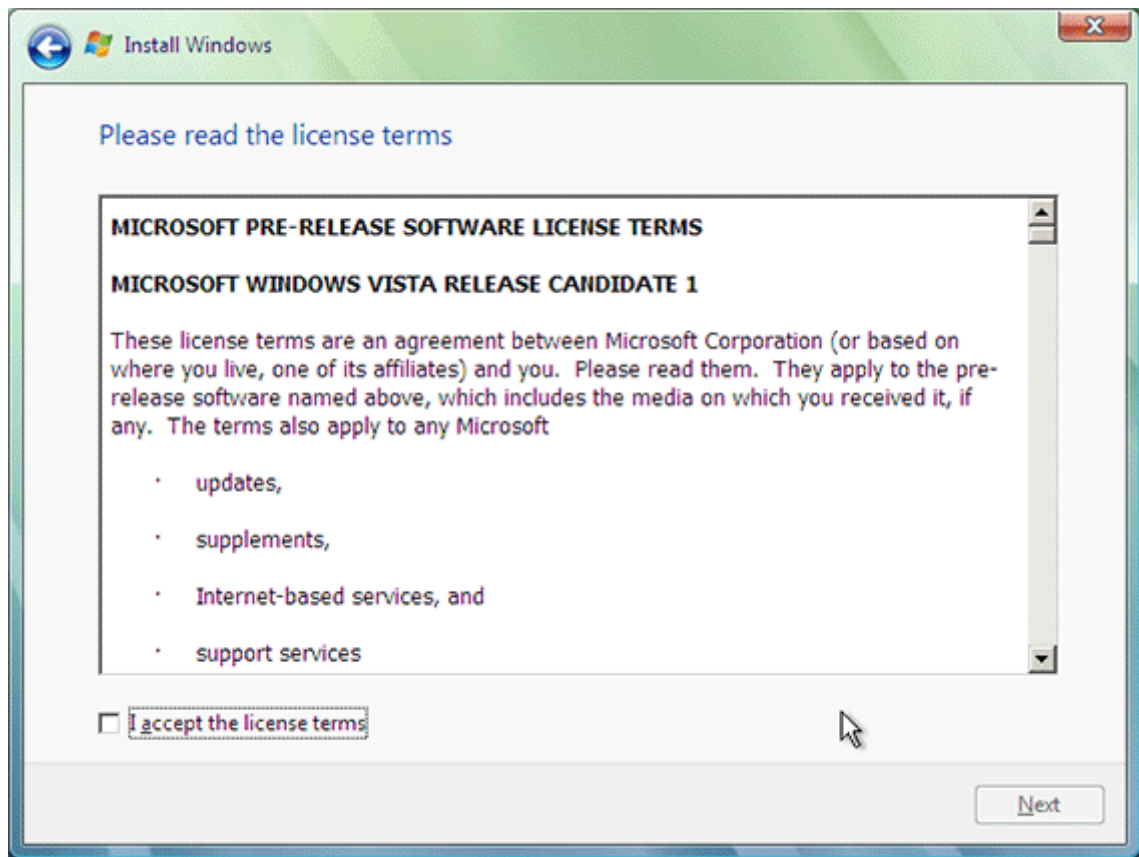
- In the next screen, you in general may proceed right to the installation itself by clicking **Install now**.



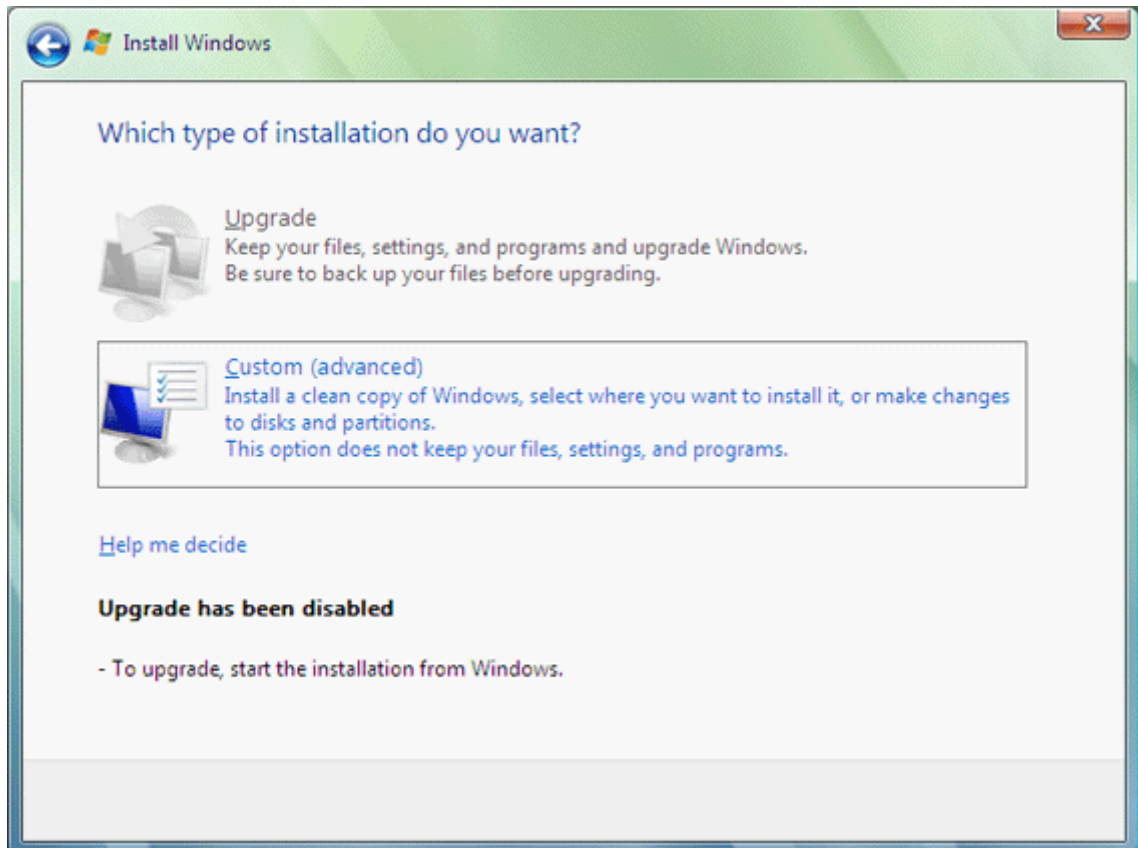
- Type your activation key in the following screen. You may skip this step now but don't forget to activate no later than 30 days after the installation.



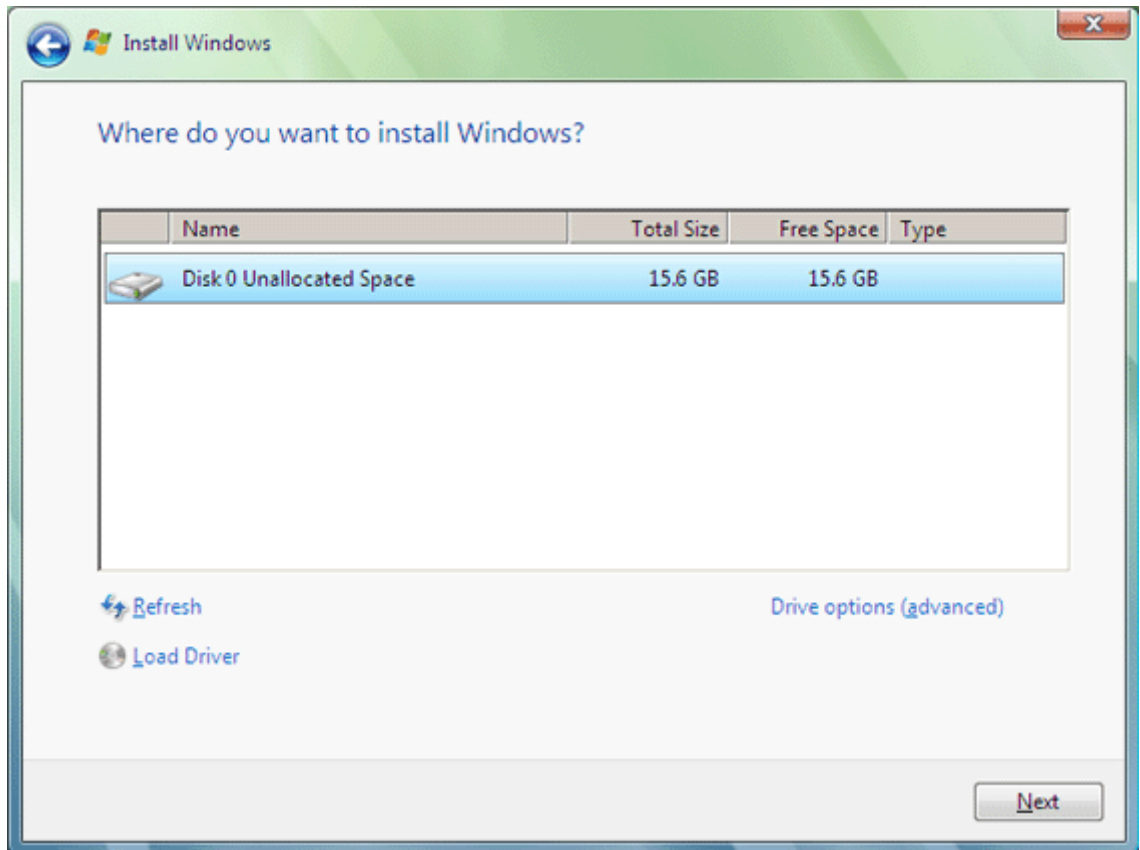
- Read the vendor license terms, specify if you agree with them, then click Next.



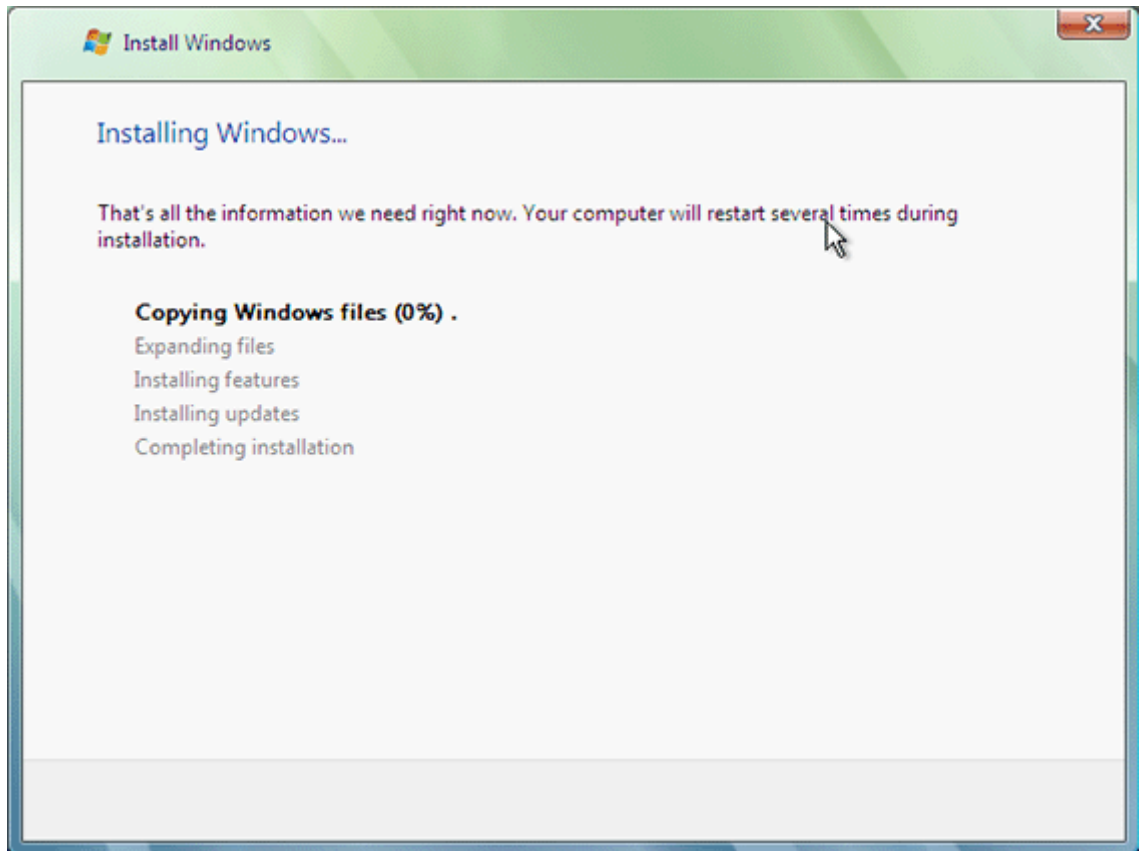
- As long as you install the Vista onto a new virtual machine, the upgrade option is disabled. Click **Custom (advanced)** to proceed.



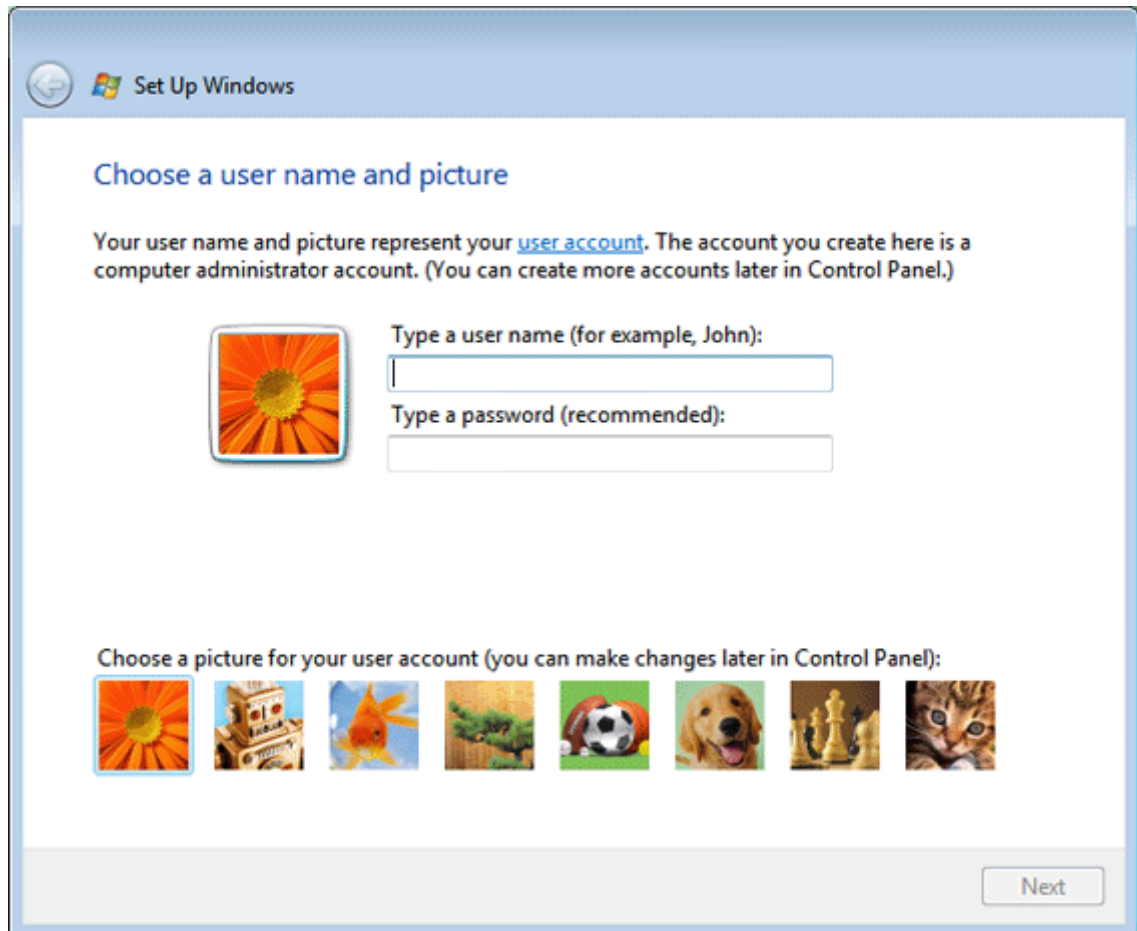
- In general, in this screen you may just proceed by clicking **Next**. In this case Vista will be installed onto the whole virtual hard disk. But if you like you may create other partitions for installation.



- When you click Next in the previous step, the installation itself starts. During it the virtual machine will be rebooted automatically several times.

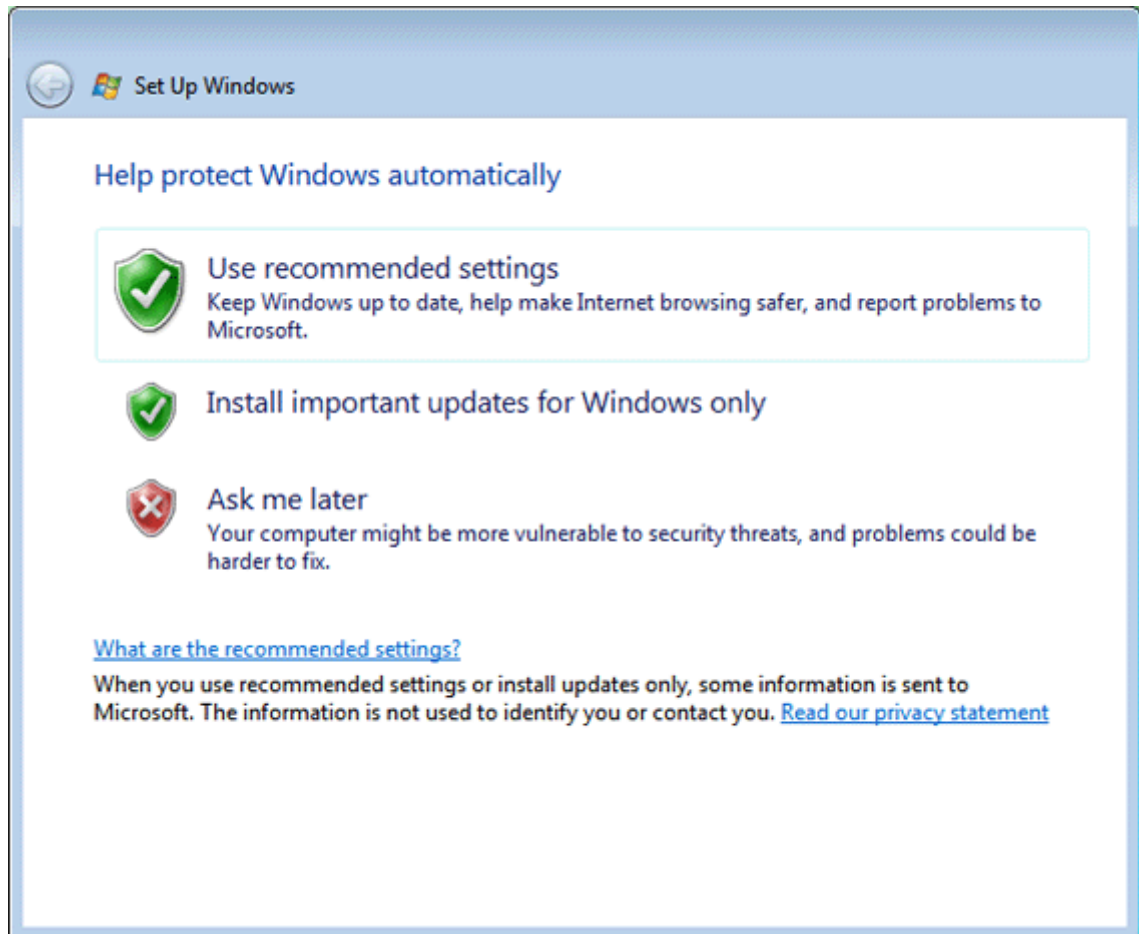


- When the installation is in general performed, you have to set up your account. Type your user name and password. You may also specify a hint you will be told if you'll forgot the password in future.

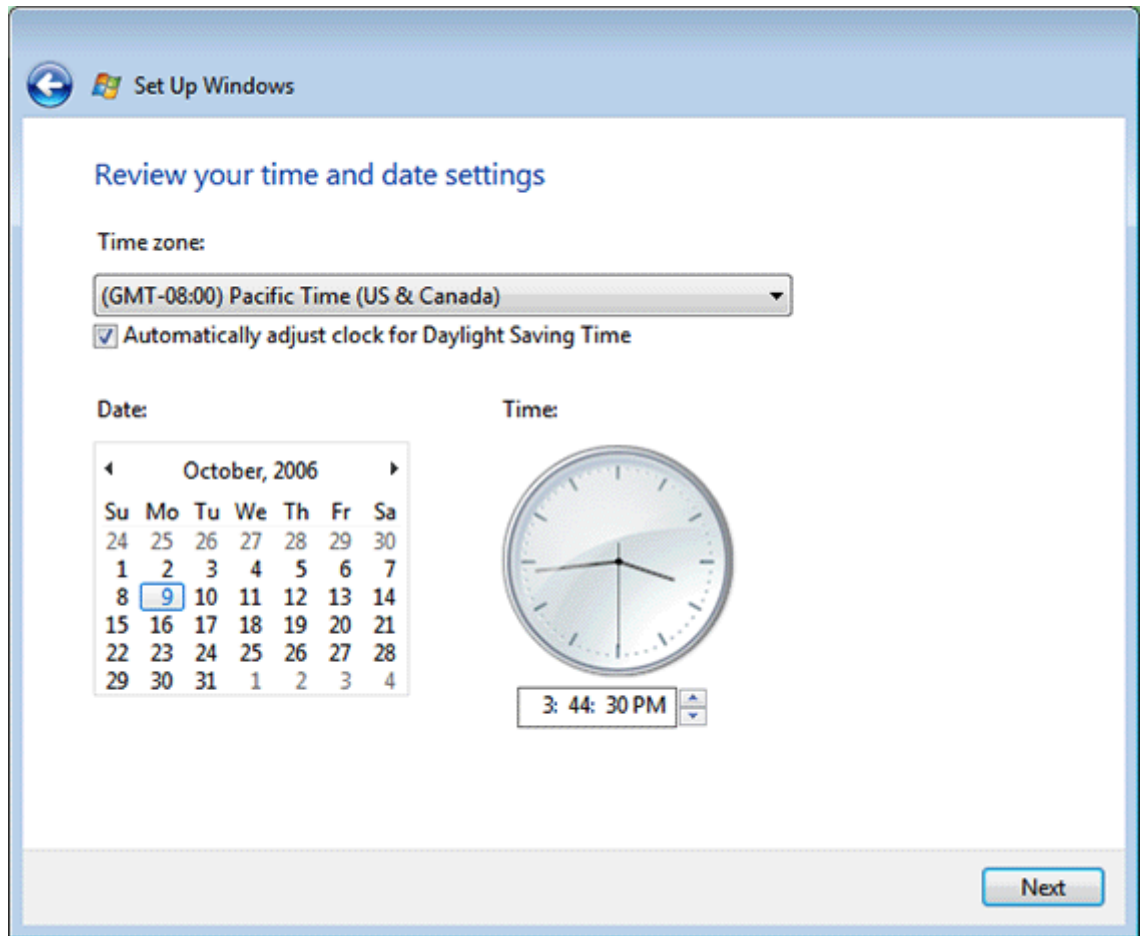




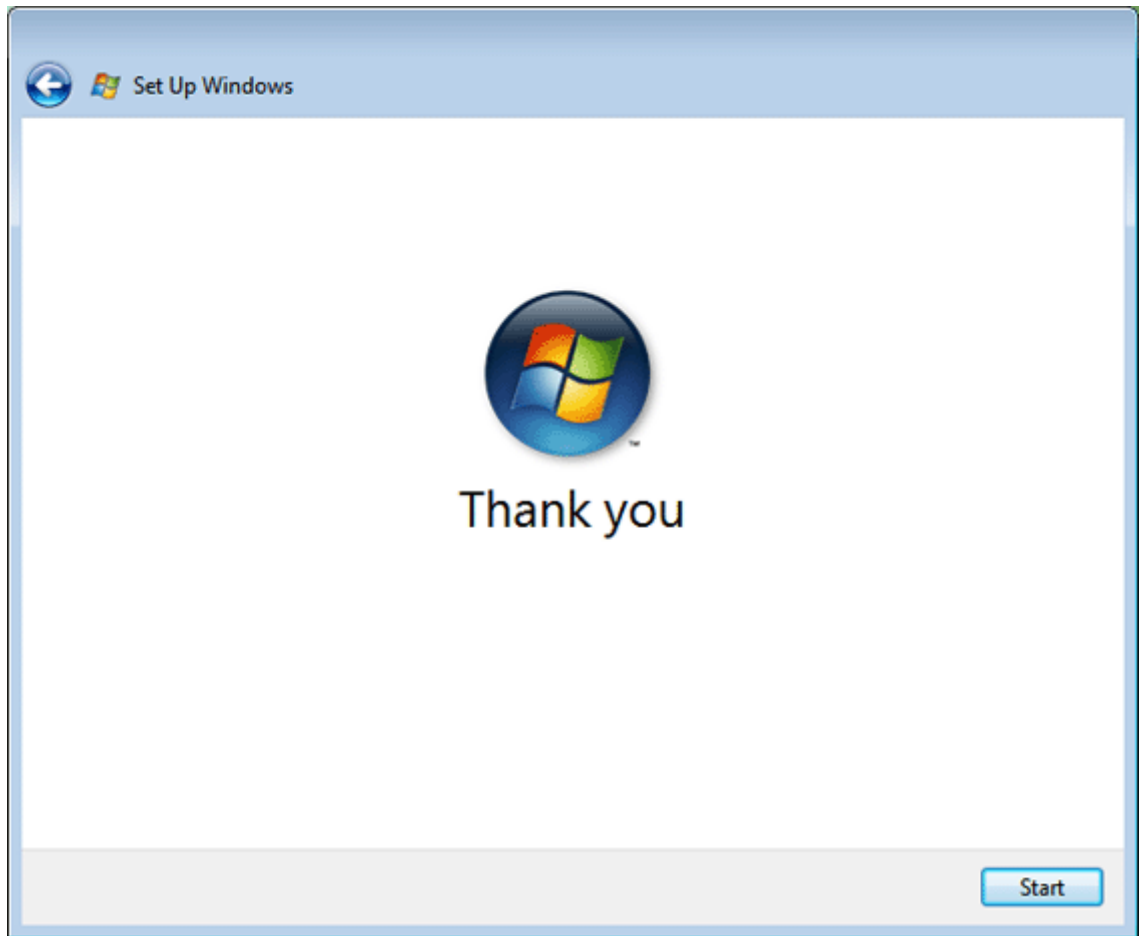
- Next, you have to specify preferred protection option. As a rule, click Use recommended settings and then click Next.



- Make sure that your time and date settings are correct and click Next.



- Click **Start** in this screen to start Vista for the first time.



- Type your password specified at a previous step and press `Enter` to log in.



And this is all with the installation of Windows Vista.

To make your work with this virtual machine more comfortable, install Parallels Tools. See [Installing Parallels Tools](#) section of this guide.

## CHAPTER 9

# Parallels Tools

Although Parallels Desktop lets your guest OS access your Mac's video card, network cards, and other hardware, it also simulates its own set of PC hardware (Key Terms and Technologies (page 5) topic).

If you've installed Windows (except 3.1), Solaris, OS/2, or eComStation, Parallels provides special add-ons called Parallels Tools that improve some hardware components and add helpful extra features. For example, they let you:

- use higher resolution and color depth for the guest OS monitor,
- use the cursor in the guest OS without pressing a special key combination,
- share the same clipboard between your guest OS and Mac OS X, so that you can exchange text and pictures,
- improve network connections and sound quality.

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**Note:** In a Solaris guest OS, a network driver is required to support networking in a virtual machine (the driver is supplied with Parallels Tools).

---

Parallels Tools can be easily installed manually after the guest OS installation is completed.

Installing Parallels Tools in a Windows guest OS is described below. For other guest OSes, please refer to the **Creating Virtual Machine->Installing Parallels Tools** section of the **Parallels Desktop for Mac User Guide**, which is available through the **Help->Contents** menu in the menu bar.

## Installing Parallels Tools in Windows

To install Parallels Tools in a Windows guest OS, do the following:

- 1 First, boot your guest OS and log in. In order to install tools properly, do not begin the installation until the OS completes its startup and you are logged in.
- 2 Select **Install Parallels Tools** in the Parallels Desktop VM menu.
- 3 You see the following warning: "You can install the Parallels Tools only if the guest operating system is running and you are logged in. If you are not logged in now, select Cancel and run Parallels Tools installation later." If you are logged in, click OK.
- 4 The Parallels Tools Setup wizard starts and greets you. Click **Next** to move to the **Choose Destination Location** screen. If you do not like the default directory, select another one using the **Change** button. Then click **Next**.
- 5 On the **Setup Type** screen you should choose between the *complete* setup and a *custom* one. The complete setup installs all of the tools available for your guest OS. If you select custom setup, the **Select Components** screen prompts you to select the desired tools from the tools available for your guest OS.

- 6 Choose the program folder on the **Select Program Folder** screen, then the **Check Setup Information** screen displays the options selected. If they are correct, click **Next** to begin the installation.
- 7 After the wizard copies the tools, the **Installation Completed** screen asks if you want to restart the computer now. In all Windows guest OSes, except 98 and NT, you must restart the virtual machine after this setup procedure. Click **Finish**, and your virtual machine will be restarted and ready for work with the tools installed.

---

**Note:** In Windows 98 and Windows NT some drivers require additional steps to perform after this setup. Please refer to the **Creating Virtual Machine->Installing Parallels Tools** section of the **Parallels Desktop for Mac User Guide**, which is available through **Help->Contents** in the menu bar.

---

### Troubleshooting When Installing Tools

Parallels Tools installation is invoked by the Windows AUTORUN feature for the CD/DVD-ROM drive. It is enabled by default, however if you have disabled it manually, nothing happens after you select the **Install Parallels Tools** command. (In either case, the `vmtools.iso` CD image will be connected to the virtual machine CD-ROM drive, although it is not visible to the user). To solve this problem do one of the following:

- Enable the AUTORUN function for the CD-ROM drive in your Windows guest OS.
- Start the tools installation manually.  
Open the contents of the `vmtools.iso` in Windows Explorer, find `Pr1Tools.exe` file, and start it.


## CHAPTER 10

# Starting, Stopping, and Resetting a Virtual Machine

Once you have created a virtual machine and installed a guest OS, you can work in your virtual machine, customizing the installation and installing your favorite applications.

## Stopping a Virtual Machine

You should shut down your virtual machine just as you would do this with a real PC. For example, if you're running Windows, you click the **Start** button and then click **Shut Down**. Only if you cannot stop the guest OS this way, you may use the Parallels Desktop controls:

- Click the **Power Off**  button on the Parallels Desktop toolbar.
- Choose **VM -> Power Off** from the menu.

## Resetting a Virtual Machine

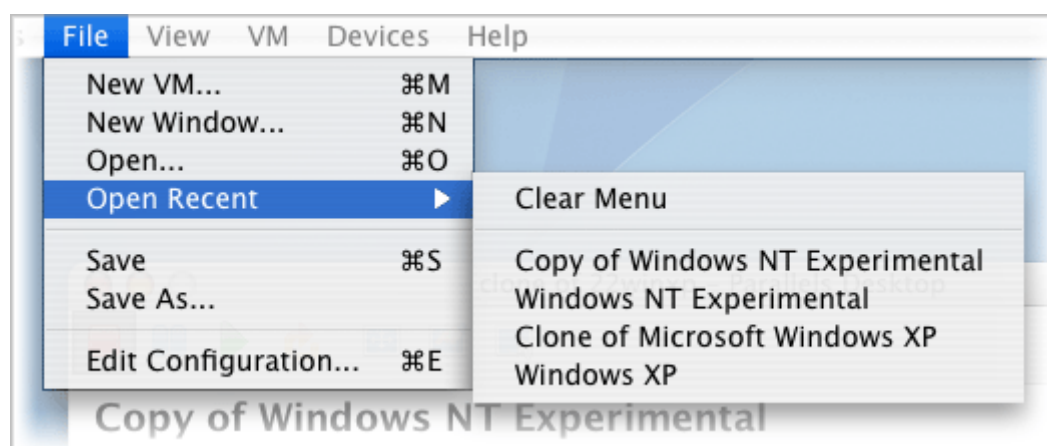
You should always restart a guest OS using its built-in Restart command. For example, in Windows, click **Start**, then **Shut Down**, then **Restart**.


If for some reason that doesn't work, only then you should use the Parallels Desktop controls:

- Click the **Reset** button on the Parallels Desktop toolbar (or select **VM->Reset**).
- Select **Send Ctrl+Option+Del** in the **VM** menu (or make sure that the keyboard is captured inside a virtual machine and press **Ctrl+Option(Alt)+Del**).


## Starting a Virtual Machine

To start a virtual machine first, open Parallels Desktop. The last used virtual machine is opened by default. To open another virtual machine, select it from the list of recently used virtual machines as shown in the picture below:



Click the **Power On**  button on the Parallels Desktop toolbar (or choose VM -> Power On). The virtual machine switches on, its guest operating system starts loading...as you can see in the Parallels Desktop window..



If you don't see the toolbar, click this  button in the upper right corner of the Parallels Desktop window to make the toolbar visible.

Note that the virtual machine can only be powered on if your copy of Parallels Desktop has been activated with a permanent or trial activation key. If your copy is not activated, the "This copy of the Parallels Desktop is currently unregistered" warning will appear. In this case, you have to go back and activate your copy (see the Activating Parallels Desktop (page 14) chapter).




## CHAPTER 11

# Running a Virtual Machine in Fullscreen Mode

If it is more convenient for you by any reason, you can expand the guest OS screen so that it occupies your entire monitor screen, edge to edge.

When a virtual machine is in fullscreen mode, Mac OS X and all of its programs are hidden. The Parallels Desktop menu, toolbar, and status bar will be hidden as well.

If you want to run the virtual machine in fullscreen mode, make sure it's already running. Then do one of these three things:

- click the Fullscreen Mode  toolbar button,
- select **View->Fullscreen** in the menu,
- press `Option(Alt)+Enter` on your keyboard.

To shrink the virtual machine screen to the usual (windowed) mode:


- press `Ctrl+Option(Alt)` or `Option(Alt)+Enter` on your keyboard.

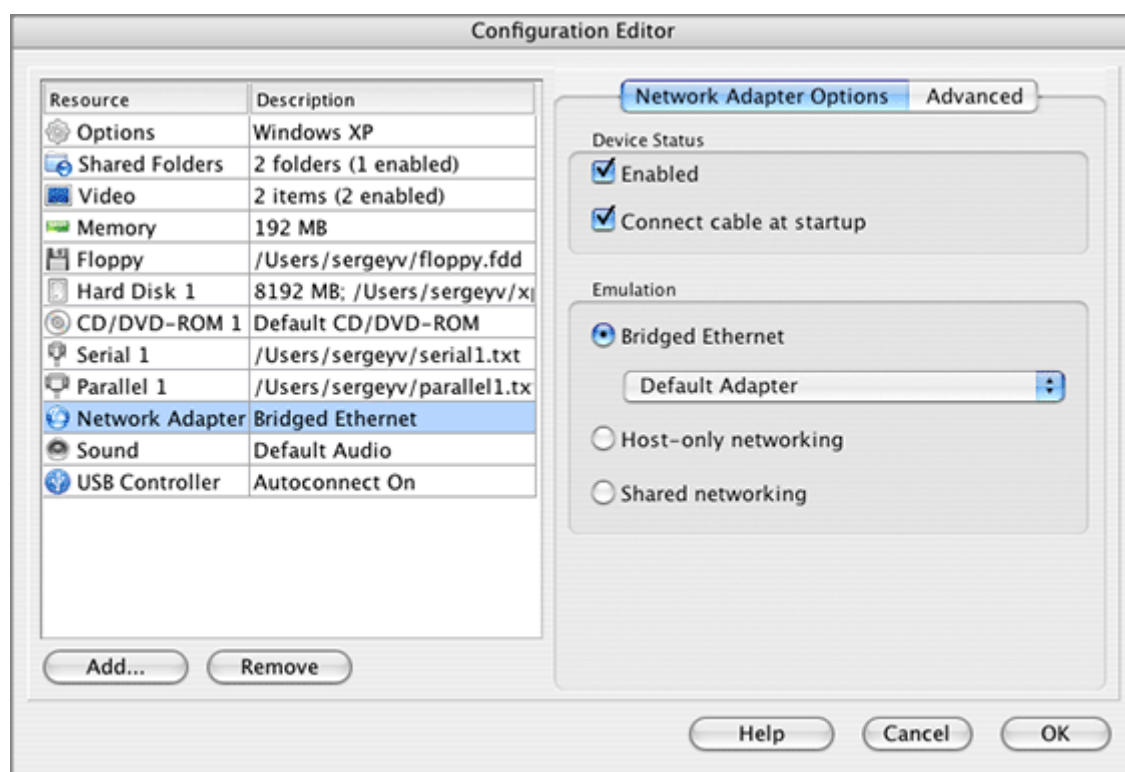
## CHAPTER 12

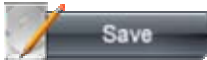
# Accessing the Internet


If you want to access the Internet in a virtual machine, start by making sure your Mac can itself get online.

Then proceed like this:

- 1 If your virtual machine is currently running, turn it off (click its **Stop**  button). You can change a VM's configuration only when it's shut down.
- 2 In the Parallels Desktop window, click **Network Adapter** in the Resources list to open the Configuration Editor screen which contains the Network Adapter Options.



- 3 In Network Adapter Options, make sure that the **Enabled** and **Connect cable at startup** options are selected. In the **Emulation** group, select the **Bridged Ethernet** option and then choose the name of your network adapter in the list:
  - en0: Ethernet Adapter if you have a wired network connection,
  - en1: Airport/Wireless Adapter if you have a wireless connection,
  - or a specific adapter if you have a different one installed.
- 4 Next, click **OK** on the Configuration Editor screen, then click the  button in the Parallels Desktop window (or choose File -> Save).

- 5** Now, start the virtual machine by clicking **Power On**  on the toolbar. Capture the input devices in the guest OS screen (Capturing and Releasing Keyboard and Mouse in a Virtual Machine (page 23) chapter), if necessary.
- 6** Configure network options in your guest operating system, just as you would on a new PC.

Once you're connected to the Internet, you can use your virtual machine to access email, surf the web, chat, and more!

## CHAPTER 13

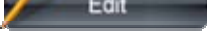
# Creating Shared Folders

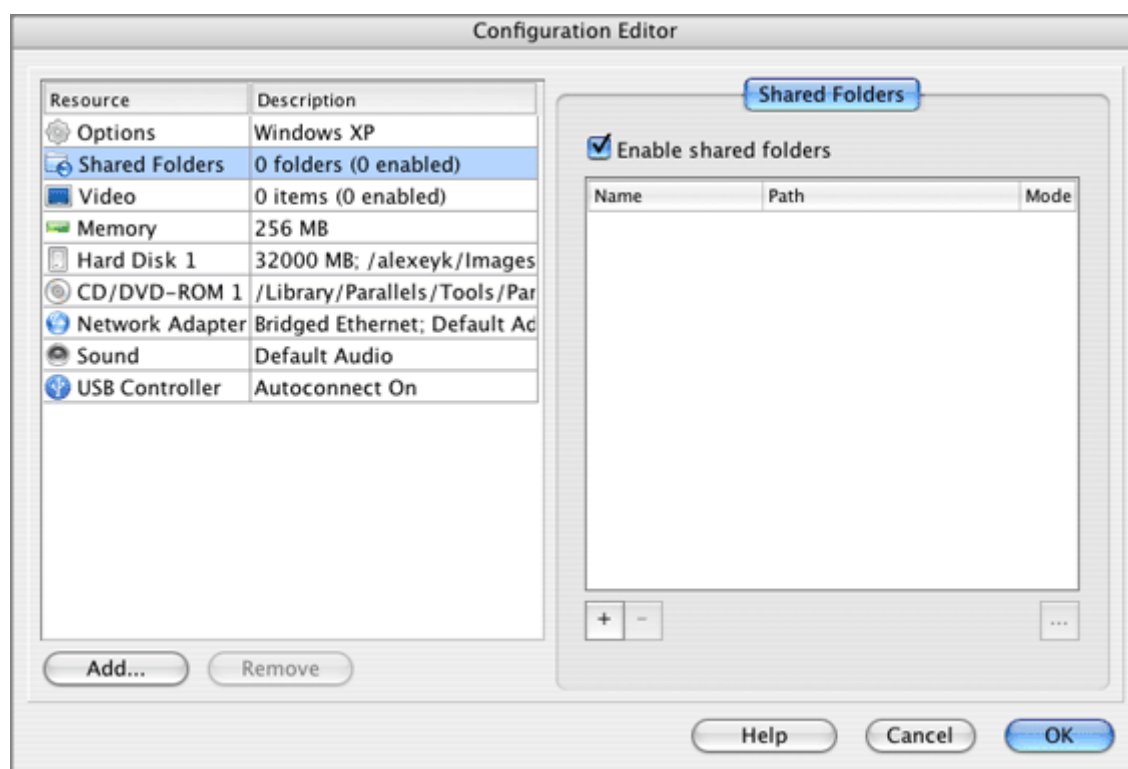
Having Parallels Tools installed lets you to transfer texts and small pictures between your Mac and virtual machine. To be able to transfer files you should set up shared folders. Shared folders are folders in your Mac file system that are visible to the guest OS also. In your Mac computer, shared folders appear as usual folders, while in the guest OS they are objects of the network neighborhood.


Using shared folders is possible for the following guest OSes:

- Windows 2000/XP/2003/Vista.

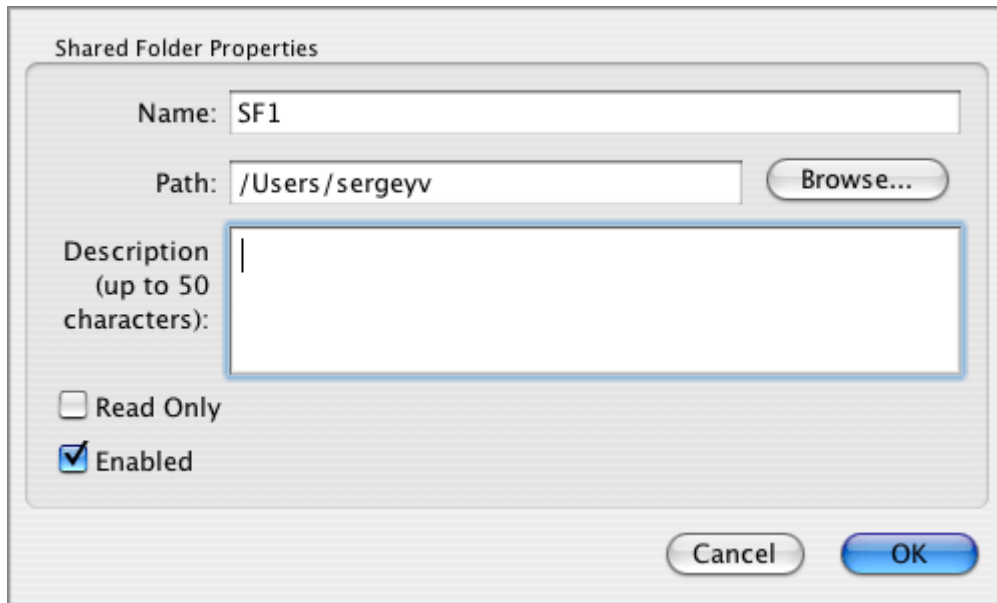
## Adding a Shared Folder

- 1 Open the virtual machine configuration, click the  button to open the Configuration Editor.
- 2 In the Configuration Editor, select the Shared Folders tab. Select the Enable shared folders option.




- 3 In the Shared Folders tab, click  button to open the Shared Folder Properties dialog box.
- 4 In the Shared Folder Properties dialog box:
  - specify a name for the folder which will appear in your guest OS in the Name field;

- specify a folder in your Mac OS X file system that will be shared in the **Path** field;
- if you want to restrict writing to this folder from inside the guest OS, select the **Read Only** check box. You will be able to save files to this folder in the primary OS only;
- make sure the **Enabled** check box is selected;
- and click **OK**.



5 Click **OK** in the Configuration Editor.

6 Click  to save the virtual machine configuration.

---

**Note.** To view the content of shared folders in a virtual machine you should have Parallels Tools installed. Refer to the Parallels Tools (page 45) chapter.

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## Viewing Shared Folders

To view the contents of the shared folders in the guest OS:

- 1 Start the virtual machine.
- 2 Open Windows Explorer.
- 3 In the Explorer, select **My Networks Places**, then select **Entire Network**, and find the **Parallels Shared Folders**.
- 4 Click the **Parallels Shared Folders** to view the list of shared folders available in your virtual machine.

When working with a shared folder inside a virtual machine, keep in mind that the ability to save files into this folder depends on its **Read Only** setting.