

# Parallels Desktop® 4 for Mac Update (build 4.0.3848) Read Me

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## 1. About Parallels Desktop

Parallels Desktop® 4 for Mac is a virtualization solution that enables you to create virtual machines on any Macintosh® computer with an Intel® processor (1.66 GHz or faster). You can install a Windows®, Linux®, or other operating system in each of your virtual machines, and work with them and their applications side-by-side with your Mac OS X applications.

Built on Parallels' award-winning hypervisor-based virtualization technology, Parallels Desktop enables you to:

- Create powerful and easy to use virtual machines.
- Use 32-bit and 64-bit operating systems inside your virtual machines.
- Use Windows and Linux applications side by side with your Mac OS X applications, without need to restart your Mac.
- Coherently work with your Mac's and virtual machine's files and applications.
- Create Parallels virtual machines from physical computers and third-party virtual machines.

To enhance your experience of running more than one operating system on your Macintosh computer, Parallels Desktop includes several utilities: Parallels Transporter®, Parallels Explorer®, Parallels Image Tool, and Parallels Compressor®.

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## 2. What's New

### What's new in Parallels Desktop 4.0 for Mac Update (build 4.0.3848)

- This update increases compatibility with Windows 7.

### What's new in Parallels Desktop 4.0 for Mac Update (build 4.0.3846)

- This update contains only bugfixes and improvements (see the Bugfixes and Improvements section).

### What's new in Parallels Desktop 4.0 for Mac Update (build 4.0.3844)

- This update contains only bugfixes and improvements (see the Bugfixes and Improvements section).

### What's new in Parallels Desktop 4.0 for Mac Update (build 4.0.3810)

- DirectX 9.0 with Shaders Model 2 support
- Windows 7 inside the virtual machine (experimental)
- Apple remote disk support
- Silent start in Coherence
- Possibility to drag Windows files to Mac applications in the Dock
- Possibility to remove a virtual machine from the list with a context menu option
- Possibility to specify CPU and memory options in the New Virtual Machine assistant
- Possibility to suspend Boot Camp virtual machines with the help of the "disp.allow\_to\_suspend\_bootcamp\_vm=1;" system flag
- Snow Leopard as a primary operating system (experimental)
- Snow Leopard as a guest operating system (experimental)
- Customer Experience Program
- SSE4 support (better performance for media applications)

### What's new in Parallels Desktop 4.0 for Mac Update (build 4.0.3540)

- This update contains only bugfixes and improvements (see the Bugfixes and Improvements section).

### What's new in Parallels Desktop 4.0 for Mac (build 4.0.3522)

- Modality view mode - In Modality, the virtual machine window becomes transparent and smaller in size. You can easily supervise your virtual machine while installing applications or performing other time-consuming operations in it.
- Clips - This tool enables you to capture some parts of the screen and use the resulting screen shots in Mac OS X or your virtual machine. These screen shots will appear on top of all windows, and will be visible even when the virtual machine in Full Screen.

- Mac OS X inside a virtual machine - Parallels Desktop supports Mac OS Server Leopard inside a virtual machine.
- Speech recognition support - You can start, stop, pause, suspend, and perform other actions with your Parallels virtual machines using the power of your voice.
- Windows taskbar items in Mac OS X menu bar - Windows taskbar items appear in Mac OS X menu bar when the virtual machine is in the Coherence mode.
- Safe Mode - Each virtual machine can be started in safe mode. If something goes wrong in the virtual machine during the work in safe mode, you can restore the virtual machine's initial state.
- iPhone integration - Ability to control virtual machines from an iPhone using the Parallels Mobile application that allows you to manage the virtual machines stored on your Mac via network.
- Better performance - Parallels improves the performance of its virtualization engine.
- PowerSaver - Enhanced power management that increases the work time when running virtual machines on portable computers.
- Improved video and 3D graphics support - Direct X 9.0 and OpenGL 2.1 support. Parallels Desktop supports DirectX Pixel Shaders 2.0. Virtual machine video memory can be now configured up to 256 MB. Video overlay inside the virtual machine is also supported.
- 4-way SMP (experimental 8-way SMP) - Up to 4 CPUs can be assigned to a virtual machine, which results in a better performance of your virtual machines. 8-way SMP is supported experimentally.
- Virtual Machine Directory - Completely redesigned virtual machines list that is now integrated with the list of favorite applications.
- Parallels Internet Security - Ability to install the Parallels Internet Security antivirus software empowered by Kaspersky® in your virtual machine and use it for free for a period of one year.
- 64-bit guest OSs support - Parallels Desktop supports 64-bit guest operating systems inside virtual machines. A 64-bit Windows or Linux OS can be used as a guest operating system.
- Full ACPI support - Parallels implements ACPI technology for all guest operating systems that support it. ACPI technology allows the user to gracefully shut down the virtual machine, as well as to see the battery device status inside the guest operating system (on portable Macs).
- Up to 2 TB virtual hard disks - Parallels Desktop supports virtual hard disk drives with capacity up to 2 TB.
- 8 GB RAM support for a virtual machine - A completely new memory allocation mechanism allows to set up to 8 GB of RAM for a single virtual machine.
- PXE boot - Parallels Desktop now supports booting a guest operating system from a network server.

- SDK/API/Scripting - Parallels provides the customers with SDK for Parallels Desktop, Programming API and C/C++ wrapper for API.
- Partitions resizing in Parallels Image Tool - When Image Tools increases the capacity of a virtual hard disk, it can allocate the added space to the last partition on the disk.
- Improved memory management - Virtual machine can now properly work in the over-commit memory state. Overcommitment happens when the total memory size configured for all running virtual machines exceeds the total amount of actual machine memory.
- SCSI - Parallels Desktop supports up to 15 SCSI interfaces for CD/DVD-ROM and hard disk drive devices.
- FAT 32 destination support - Parallels Transporter can migrate or convert the virtual machine to the FAT 32 destination file system. FAT 32 file system has a limitation of 2 GB per one file, which causes Parallels Transporter to migrate or convert the virtual machine's hard disk as a split file.
- Improved Parallels Tools - Parallels Tools include the following new components for Mac OS X guest operating system:
  - Mouse synchronization for Mac OS X guest operating system
  - Ability to change the resolution of Mac OS X guest operating system by resizing the virtual machine's window.
  - Time synchronization for Mac OS X guest operating system.
  - Shared folders for Linux guest operating systems.
  - Shared folders for Mac OS X guest operating system
- Improved GUI - Parallels Desktop allows you to customize its toolbar and provides users with an easy-to-use Virtual Machine Directory that displays the list of all registered virtual machines and all shared applications. The user can see the virtual machine configuration on the fly. Parallels Desktop doesn't close after you shut down a virtual machine, as many other multi-windows applications.
- Improved network capabilities - Up to 16 network adapters can be connected to a single virtual machine. The network connection and data transmission speed increased.
- Virtual machine autostart - Set up your virtual machine to start automatically when you launch Parallels Desktop.
- Recycle Bin integration - Drag files from your Windows virtual machine to Mac OS X Trash, and find them in the Recycle Bin of your Windows virtual machine.
- VirtualBox virtual machines support - Create Parallels virtual machines from VirtualBox virtual machines with Parallels Transporter. View the data stored inside VDI virtual hard disks with Parallels Explorer.
- Command line management tool - Parallels Desktop can be managed from a command line utility used in Terminal, which may be useful in the remote management of enterprise installations.

- Acronis True Image 11 Home - Create an exact copy of your virtual machine for backup purposes or backup only the important data with Acronis True Image available from the Parallels Desktop installation CD and Parallels website.
- Acronis Disk Director Suite 10.0 - Manage your virtual hard disk partitions with Acronis Disk Director Suite available from the Parallels Desktop installation CD and Parallels website.
- SmartGuard - Automate the routine tasks of taking snapshots.
- Shut Down button - The guest operating system can be gracefully shut down using a toolbar button.
- Native Mac help - Parallels Desktop Help appears in the native Mac OS X format.
- Virtual Machines Templates - Simplify the virtual machines provision by creating virtual machine templates that can be deployed to multiple virtual machines.
- Quicklook - Ability to view the state and screen shot of a suspended virtual machine.
- Shortcut menu plug-in for Finder - The applications of a Windows virtual machine are displayed in the virtual machine's shortcut menu in Finder.
- Spotlight plug-in - This plugin prevents Spotlight from indexing the virtual machine files, which may increase the virtual machine's performance.
- USB directory - Ability to maintain the rules for connecting the USB Devices. Choose which devices should be automatically connected to the virtual machine, and which to Mac OS X.
- SmartMount - Parallels Desktop automatically detects the removable drive mounted on Mac OS X desktop, and shares it to the Windows virtual machine.
- Improved Boot Camp support - Seamless reconfiguration of the Boot Camp partition on the fly. Boot Camp partition can be easily used in the Parallels Desktop virtual machines.
- Precompiled kernel modules for Parallels Tools installation inside Linux guest operating systems - Parallels Desktop provides the users with precompiled kernel modules inside Parallels Tools disc image for Linux guest OSs to restrict kernel dependencies errors.
- Rewriting the virtual hard disk image when increasing the disk's capacity - Parallels Image Tool does not create a copy of virtual hard disk while increasing its size, but rewrites it.
- Improved URL links handling - Parallels Desktop allows you to configure the rules of handling the URLs in each virtual machine. You can specify different Internet applications to open news, RSS, feeds, remote sessions, etc.
- New type of key remapping - Parallels Desktop allows a more fine tuning of remapping the key combinations sent to a virtual machine.
- Detecting the type of installation media - Parallels Desktop detects the operating system that can be installed using the installation medium inserted into the optical drive of your Mac or otherwise accessible and creates a virtual machine with this

operating system.

- Mac OS X Snow Leopard support (experimental) - Mac OS X Server Snow Leopard is experimentally supported as a guest operating system.
- Virtual Machine bundle - a Parallels virtual machine appears now as a file with a PVM extension that contains this virtual machine files.
- SmartInstall - The installer checks for the available updates before installing Parallels Desktop and installs the most recent version.
- Growl integration - Parallels Desktop notification messages can be displayed in the Mac OS Growl notification window.
- Time Machine integration (available on Mac OS X Leopard hosts) - In this version, you can add or remove your virtual machines from the Time Machine backup lists.
- Adaptive Hypervisor - Parallels Desktop can change the resources usage focus from the virtual machine to Mac OS X when the virtual machine window is not active and vice versa.

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### 3. Bugfixes and Improvements

#### Bugfixes and improvements in Parallels Desktop 4.0 Update (build 4.0.3848)

- Improved compatibility with Windows 7.

#### Bugfixes and improvements in Parallels Desktop 4.0 Update (build 4.0.3846)

- Support for creating virtual machines with Mac OS X Leopard Server and Snow Leopard Server on Nehalem-based Mac Pros and Xserves – added.
- Support for creating Boot Camp virtual machines with Windows Vista SP2 – added.
- Support for creating Boot Camp virtual machines with Windows 7 – added.
- Support for running Windows 7 in virtual machines – improved.
- Windows 7 system tray icons – improved.
- Express installation of Windows 7 – added.
- Shared profile issues in Windows 7 – fixed.
- Direct printing feature in Windows 7 - fixed.
- Sound card support in Windows 7- fixed.
- Other Windows 7 improvements and bugfixes.
- Support for running Mac OS X Snow Leopard Server in virtual machines - fixed.
- Problems with installing Parallels Tools in the Ubuntu Linux 9.04 guest OS - fixed.
- Support for using Mac OS X Snow Leopard (including the 64-bit version) on host

computers – improved.

- A number of bugs for using Parallels Desktop and running virtual machines on host computers with Mac OS X Snow Leopard fixed. Most important bugs are listed below:

- \* QuickLook plug-in crashes when trying to preview the contents of a PVM bundle

(the crash is invisible for the user).

- \* The update may fail to install the downloaded updates for Parallels Desktop 4.0.

- \* Parallels Mounter and Explorer may fail to open Parallels Desktop disk images.

- \* It may be impossible to connect to the virtual machine from the iPhone client.

- \* Creating a virtual machine snapshot may take a very long time.

- \* Opening a web link from inside a Windows-based virtual machine in Mac Safari

using the Shared Internet Applications feature may result in appending garbage

to the link.

- \* On 64-bit host computers, connecting a USB device to a virtual machine may cause a kernel panic.

These and a number of other bugs have been fixed in Parallels Desktop 4.0 Update (build 4.0.3846).

#### Bugfixes and improvements in Parallels Desktop 4.0 Update (build 4.0.3844)

Improvements:

- Improved 3D graphics in Windows virtual machines.

- Problems with Palm synchronization in Windows virtual machines - fixed.

- Random disconnection of USB 1.1 devices in Linux virtual machines - fixed.

- Invisibility of the text mouse pointer on black background in Windows virtual machines - fixed.

- Problems with SMB shares in native Windows Boot Camp installations that have Parallels Tools installed - fixed.

- Problems with Shared Networking on Snow Leopard host computers - fixed.

#### Bugfixes and improvements in Parallels Desktop 4.0 Update (build 4.0.3810)

Improvements:

- General performance improvements.

- Improved USB support (performance, USB1.1 compatibility fixes).

- Better performance of Suspend/Resume operations

- Improved hard disk performance for virtual machines converted from Parallels Desktop 2.5 and 3.0.
- Memory leak in Parallels Desktop GUI that might happen after 1-2 days of work - fixed.
- Accidental crash in Redhat Linux 5.2 Server x86\_64 during installation - fixed.
- Problems with connecting Palm handheld devices via USB - fixed.
- Improved sound playback via USB devices.
- Empty keyboard remapping in the clean PD4 installation - fixed.
- Networking issues when the Mac network location changes - fixed.
- Timezone and daylight saving time were not synchronized in the virtual machine with time synchronization enabled - fixed.
- AltGr keyboard mapping issues on European keyboards - fixed.
- Parallels Tools installation hangs during the virtual machine upgrade - fixed.
- Failure to configure the Boot Camp partition with Windows XP SP0 installed - fixed.
- Releasing input of a Logitech mouse when rolling the wheel in a non-Coherence mode - fixed.
- Impossibility to view the configuration of suspended virtual machines - fixed.
- Duplicated MAC addresses for virtual network cards when a virtual machine is added to the list - fixed.
- Boot Camp virtual machine hangs on reboot after the second stage of upgrade - fixed.
- Wrong CPUID emulation resulting in poor performance of Mac OS X guest OS - fixed.
- Host computer performance issues when many CPU are intensively used in the guest OS - fixed.
- SMP guests affect host Mac OS X performance noticeably - fixed.
- Time going slow in Windows guest OSs on some workloads - fixed.
- Long upgrade from Parallels Desktop 2.5 and 3.0 caused by the hanging or reboot of a process in the guest OS - fixed.
- Issue with 'chkdsk' in a Boot Camp virtual machine - users of existing virtual machines need to reconfigure existing Boot Camp virtual machines - fixed.
- Delayed Parallels Internet Security installation: a prompt will appear 3 days after the virtual machine installation.
- Lower CPU usage inside the virtual machine resulting in longer battery life.
- Disabled UAC (user access control) in Windows Vista after upgrading from Parallels Desktop 2.x or 3.x - fixed.
- The Parallels Tools uninstallation now automatically disables the shared profile.

- Broken scrolling in Java applications with Parallels Tools installed - fixed.
- Broken Dock icons in Snow Leopard - fixed.
- The case sensitivity problem of the shared folders file - fixed.
- Shared folders do not list some files if a folder has too many files - fixed.

#### Bugfixes and improvements in Parallels Desktop 4.0 Update (build 4.0.3540)

##### Improvements in the upgrade procedure:

- BSOD in Boot Camp with the "Autocheck not found" message followed by the session manager crash - fixed.

Note: If you see this BSOD in the release version of Parallels Desktop 4.0, open the virtual machine configuration and click OK. This will prevent this BSOD in the virtual machine and the Boot Camp partition.

- BSOD with the "0xA5" message during the virtual machine upgrade - fixed.

Note: If you get this BSOD in the release version of Parallels Desktop 4.0, convert the backup copy of your virtual machine. Before converting the copy create one more backup copy of it.

- Windows stops on boot during the upgrade without any crashes - fixed.

Note: If this error occurs in the release version of Parallels Desktop 4.0, convert the backup copy of your virtual machine. Before converting the copy, create one more backup copy of it. Alternatively, you may add the "vm.compat\_level=2" string to Virtual Machine Configuration > CPU > System Flags (make sure that the "show advanced settings" option is selected).

- Virtual machine crashes on start after the conversion - fixed.
- Possible causes of BSOD in intelppm.sys and agp440.sys - fixed.
- Mouse is not available when upgrading a virtual machine that was originally created with Microsoft Virtual PC - fixed.
- The sound is disabled in Windows XP virtual machines after the upgrade - fixed.

- Hard disk cannot use the Boot Camp partition after the upgrade - fixed.

Note: If this error occurs in the release version of Parallels Desktop 4.0, open the virtual machine configuration and click OK.

- The message "Failed to configure the Boot Camp partition" appears after the upgrade - fixed.

Note: If this error occurs in the release version of Parallels Desktop 4.0, open the virtual machine configuration and click OK.

##### Other improvements:

- At times Parallels networking drivers don't start after the restart of Mac OS X - fixed.

- Copy-paste operations may fail in some cases when the virtual machine is in Coherence - fixed.
  - Copy-paste operations may fail in some cases when non-text data is being copied to Windows - fixed.
  - Inability to switch to a Windows application using Application Switcher when the virtual machine is in Coherence - fixed.
  - Redundant network icons appear in the Mac OS menubar after switching between the view modes - fixed.
  - Mac applications stay on top of Windows applications in Coherence - fixed.
  - USB performance improved, including the ability to sync iPhone with iTunes installed in Windows.
  - Dispatcher service binding to all network addresses on port TCP 64000 - fixed.
  - The ability to suspend a Boot Camp virtual machine was removed, because this operation may damage the Boot Camp partition.
  - .NET applications menus drawing in Coherence - improved.
  - Crashes in virtual machine monitor and the application based on the statistics received through the problem reports - fixed.
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## 4. System Requirements

### Hardware Requirements

- Any Macintosh computer with an Intel processor (1.66 GHz or greater). To run 64-bit operating systems in virtual machines, an Intel Core 2 or higher processor is required.
- Minimum 1 GB of memory, 2 GB of memory is recommended.
- About 300 MB of disk space on the boot volume for Parallels Desktop installation.
- About 15 GB of disk space for each virtual machine.

### Software Requirements

- Mac OS X Snow Leopard 10.6
- Mac OS X Leopard v10.5.2 or later
- Mac OS X Tiger v10.4.11 or later

To get information about your Mac OS X version, type of processor, and amount of memory, choose About This Mac from the Apple menu.

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## 5. Supported Guest Operating Systems

### 32-bit Operating Systems

- Mac OS X Snow Leopard Server 10.6
- Mac OS X Leopard Server 10.5.x
- Windows 7
- Windows 2008
- Windows Vista® (Business SP1, Enterprise SP1, Ultimate SP1 editions)
- Windows Server® 2003 SP2, R2
- Windows XP Professional SP2, SP3, Home Edition SP2, SP3
- Windows 2000 Server SP4, Advanced Server SP4
- Windows NT 4.0 Server SP6, Workstation SP6
- Windows ME
- Windows 98 SE
- Windows 95
- Windows 3.11
- MS-DOS 6.22
- Red Hat® Enterprise Linux 5.0, 4.0
- CentOS Linux 5.0, 4.0
- Red Hat Linux 9
- Fedora™ Linux 9, 8, 7
- SUSE® Linux Enterprise Server 10 SP2, 9 SP3
- OpenSUSE Linux 10.3, 10.2
- Mandriva™ Linux 2008, 2007
- Debian® Linux 4.0
- Ubuntu® Linux 8.04, 7.10
- Xandros Business 4.0
- Solaris® 10, 9
- FreeBSD® 7.0, 6.2
- OS/2® Warp 4.5
- eComStation™ 1.2

### 64-bit Operating Systems

- Mac OS X Leopard Server 10.5.x
- Windows 7
- Windows 2008
- Windows Vista (Business SP1, Enterprise SP1, Ultimate SP1 editions)
- Windows Server 2003 SP2, R2
- Windows XP Professional SP2
- Red Hat Enterprise Linux 5.0
- CentOS Linux 5.0
- Fedora Linux 9, 8

- SUSE Linux Enterprise Server 10 SP2, 9 SP3
  - OpenSUSE Linux 10.3, 10.2
  - Ubuntu Linux 8.04, 7.10
  - Mandriva Linux 2008, 2007
  - Solaris 10
  - FreeBSD 7.0
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## 6. Installing Parallels Desktop

If you purchased Parallels Desktop from the Parallels online store, download the latest build from [Parallels Download Center](#). When the download is complete, open the Parallels Desktop DMG package file. To start the installation, double-click Install.

If you purchased a boxed copy of Parallels Desktop, insert the Parallels Desktop installation disk into the optical drive of your Mac. Open the Parallels Desktop DMG package and double-click Install Parallels Desktop.

Parallels Desktop will connect to the Parallels update server and check for available Parallels Desktop updates. If there is a Parallels Desktop version newer than yours, you will see the message offering you to install the current boxed version or to install the latest version of Parallels Desktop.

- If you click Install current, the boxed copy of Parallels Desktop will be installed and the Welcome screen of the installation will open.
- If you click Download and install the new version, the latest Parallels Desktop version will be downloaded to your Mac.
- If there is no update available or your Mac is not connected to the internet, the standard installation will launch.

To install Parallels Desktop:

1. In the Welcome window, click Continue.
2. In the Important Information window, read the product Readme file. Click Print to print the document or Save to save it for future reading. When finished, click Continue.

Note: You can return to the previous steps by clicking the Go Back button.

3. In the Software License Agreement window, carefully read the License Agreement. We recommend to print the license agreement for your records using the Print button or to save it for future reading using the Save button. Click Continue when finished.
4. In the pop-up dialog, click Agree if you agree with the terms and conditions of the License Agreement.
5. In the Select a Destination window, select the hard disk where to install Parallels Desktop. You can install Parallels Desktop only on the boot volume, which is the hard disk where Mac OS X is installed. Other disks, if any, are unavailable for selection. Click

Continue.

6. Click Install to start the Parallels Desktop installation, or click Upgrade if you are installing over the previous version of Parallels Desktop.

Enter your password when prompted and click OK.

7. The installation progress is shown in the Installing Parallels Desktop window.

8. The installer informs you that the installation was successful. To complete the installation, click Close.

After the installation, you can launch Parallels Desktop from the Applications folder on your Mac. The Parallels Desktop add-ons like Parallels Transporter, Parallels Explorer, and Parallels Image Tool are available from the /Applications/Parallels/ folder.

The Parallels Virtualization SDK can be found in the following location: /Library/Frameworks/ParallelsVirtualizationSDK.framework/. To access the documentation for Parallels Virtualization SDK, go to: /Applications/Parallels/Parallels Desktop.app/Contents/Resources/English.lproj/.

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## 7. Upgrading to Parallels Desktop 4 for Mac

Generally, the upgrading procedure for Parallels Desktop is the same as for its installation.

You don't have to remove the previous version of Parallels Desktop before the upgrade: the installer will remove it automatically before installing Parallels Desktop 4.

### Using an Upgrade Activation Key

If you purchased an upgrade activation key for Parallels Desktop 4, you may need to confirm that you have a valid, permanent key for the previous version:

- If you activated the previous version of Parallels Desktop with a permanent key, you will need to enter the upgrade key only.
- If you activated Parallels Desktop 3.0 with a trial activation key, you will be prompted to enter both keys: the key you used with the previous version and the upgrade key for the 4 version.

### Converting Your Virtual Machines to the New Format

Parallels Desktop 4 uses a new format of virtual machines. When you start a virtual machine created in the previous version, you will be asked to convert it to the new format. When prompted to convert the virtual machine to the new format, choose one of the following:

- Click Backup & Convert to start the process. In this case, the virtual machine will be backed up and then converted to the new format. If you need to start this virtual

machine in Parallels Desktop 3.0, you will be able to restore it from the backup.

- Click Convert to start the process. This operation is irreversible. If you choose this option, you will not be able to convert the virtual machine back to the old format.

### Upgrading the Virtual Machine Configuration and Updating Parallels Tools

The upgrading of virtual machine configuration starts automatically after the virtual machine conversion. During the upgrading, Parallels Tools are updated as well.

Note: In Linux virtual machines, X Server may fail to start after the upgrade, so you may need to upgrade Parallels Tools manually in text mode.

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## 8. Activating Parallels Desktop

To fully run Parallels Desktop, you should activate it with an activation key. If you purchased a box version of the program, you can find the activation key printed on the installation CD sleeve. If you purchased the program online, the activation key was sent to you by e-mail. If you downloaded a copy of Parallels Desktop to evaluate it before buying, you can get a trial activation key valid for a certain period of time.

After you activate your copy of Parallels Desktop, you can run virtual machines, install operating systems and various applications in them.

1. Launch Parallels Desktop
2. Choose Activate Product from the Help menu.
3. In the Activate Product dialog, specify your name and your company name (these fields are optional) and type the activation key into the Activation Key field. Click the Activate button when finished.

Now that your copy of Parallels Desktop is activated, you can create virtual machines, install operating systems in them, and work with the virtual machines' applications side by side with the applications of your Mac.

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## 9. Removing Parallels Desktop

Locate and open the DMG installation image file that you used to install Parallels Desktop. Double-click Uninstall Parallels Desktop.

1. In the Welcome dialog click Continue.
2. In the Components window, select the components you want to remove and click OK.

- Parallels Desktop. Selecting this option removes Parallels Desktop from your computer.

- Application Settings. Selecting this option removes the Parallels Desktop settings and the list of registered virtual machines from your Mac.

Note: The operation doesn't remove virtual machines and their files from your Mac.

3. In the next dialog, click Uninstall.

4. Enter your password when prompted and click OK.

5. The Uninstaller removes Parallels Desktop from your computer.

6. When Parallels Desktop is removed, click Close to quit the uninstaller.

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## 10. Known Issues

### Known issues in Parallels Desktop 4.0 Update (build 4.0.3848)

- Physical computers or third-party virtual machines with Windows 7 freshly installed can be migrated via Parallels Transporter only as data disks (not bootable). If a physical computer or a third-party virtual machine was upgraded from a previous version of Windows to Windows 7, it can be migrated via Parallels Transporter to a Parallels virtual machine.

- Windows 7 support issue: Windows 7 x86\_64 installation media cannot be detected automatically.

- Dynamic resolution might not work in a Linux guest OS with the default amount of video memory. It might be necessary to increase the video memory size to at least 6 MB to let the feature work.

- Time difference is not saved between Mac OS and Linux guest even if the "Allow time difference between host and guest" option is enabled.

- Recycle bin integration does not work if Mac OS Dock auto hide is enabled.

- Disk encryption tools make Windows boot extremely long. To work around this issue, add the "kernel.real\_mode\_vtx=0" to the system flags in the CPU settings.

- Sound quality in Mac OS X guest is not very high.

- Certain 3D applications (like 3D Canvas, Autodesk Inventor, and some others) may work improperly when 256 MB of video memory is allocated to the virtual machine. To work around this issue, decrease the video memory to 128 MB.

- A message about ATI service that failed to start may appear in Boot Camp Windows virtual machine after booting. This message does not affect the virtual machine performance and can be barely ignored.

- Windows Vista in a Boot Camp virtual machine may require reactivation after upgrading from Parallels Desktop 3.0 to this version of Parallels Desktop.

- A wrong CPU driver is installed in a virtual machine that was initially migrated from a Virtual PC, then used with Parallels Desktop 3.0, and finally converted to Parallels

Desktop 4.0 format. This results in high CPU usage in host OS with no application using CPU in the guest OS. To workaround the issue, reinstall CPU drivers in Device Manager inside the guest OS.

- Improper textures in Serious Sam 2 and Far Cry.
- Poor performance of Black and White 2.
- Breath of Fire 4 does not work properly in the 32-bit color mode.
- Problem scrolling in Punch Home Design.
- Apple iSight disappears from Mac OS X if connected to and disconnected from a virtual machine multiple times in a row.
- Apple USB modem does not work in the guest OS.
- Boot Camp virtual machines cannot be created on Mac host computers that have TechTools eDrive installed.
- A message "hal.dll is missing or corrupt" may appear when you use the Boot Camp partition natively if the Boot Camp virtual machine was shut down incorrectly in Parallels Desktop 3.0. To troubleshoot this issue, edit the boot.ini file to be able to log in with a proper user profile.
- Removing the virtual hard disk from the virtual machine configuration and then adding it again results in moving the hard disk to the last position in the virtual machine's boot order, which seriously increases the boot time. To troubleshoot this issue, edit the boot order in the virtual machine configuration after reading the virtual hard disk.
- Control Panel may be inaccessible in Windows Vista loaded from Boot Camp.
- Scheduled chkdsk may fail to start on Windows Vista booting in a virtual machine.
- Parallels Desktop may start consuming up to 100% CPU after setting 2 CPUs in a Windows virtual machine configuration. To troubleshoot this issue, update the CPU driver in the Windows guest OS.
- A Windows Vista Boot Camp virtual machine may request to be activated again after upgrading to Parallels Desktop 4.0.
- The maximized window of a Windows application may cover Windows taskbar in Windows virtual machines that were converted from Parallels Desktop 3.0 format. To troubleshoot this issue, right-click the Windows taskbar, select Properties and enable the "Keep the taskbar on top of other windows" option.
- All guest operating system windows are minimized after switching to another Space. To troubleshoot this issue, switch the virtual machine to the Window mode and then back to Coherence.
- The virtual machine will not change its IP address after switching from the bridged wired to wireless network and vice versa, which may result in the virtual machine's disconnection from the network. To troubleshoot this issue, right-click the networking icon in the guest Windows operating system and click Repair.
- The Parallels service user profile may remain in a Windows virtual machine after the

upgrade to Parallels Desktop 4.0 is complete.

- Parallels Transporter and Parallels Mounter are unable to work with Boot Camp partitions.

- You cannot revert to snapshots that were created on 32-bit Mac host computers and resume virtual machines that were suspended on 32-bit host computers with Parallels Desktop installed on 64-bit Mac OS host computers, and vice versa.

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## 12. Contact Information

Product Website: <http://www.parallels.com/>