

Parallels® Tools ReadMe

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1. ABOUT PARALLELS TOOLS

Parallels Tools are a suite of special utilities that help you use your virtual machines in the most comfortable and efficient way. With Parallels Tools, you can move the mouse seamlessly outside the guest OS window without pressing any key, change the virtual machine's screen resolution by simply resizing its window, and synchronize your virtual machine's time and date settings with the time settings of the host computer.

2. SYSTEM REQUIREMENTS

Parallels Tools are available for the following guest operating systems:

Windows guest OS

- Windows 2000
- Windows Server 2003
- Windows XP
- Windows Vista

Linux guest OS

Linux guest operating systems that comply with the following requirements

- glibc 2.3.4 and later;
- libstdc++ 3.4.6 and later (libstdc++.so.6);
- gcc 3.4.6 and later (including C++ support);
- make 3.80;
- X.org 6.7, 6.8, 6.8.99, 6.8, 7.0, 7.1, 7.2 (1.3), 7.3 (1.4);
- kernel sources or development package;

Mac OS X guest operating systems

- Mac OS X Server v10.5

3. INSTALLING PARALLELS TOOLS

3.1. Installing in Windows Guest OS

Parallels Tools for Windows guest operating systems include:

- Mouse Synchronization Tool
- Clipboard Synchronization Tool
- Time Synchronization Tool
- Dynamic Resolution Tool
- Shared Folders Tool
- Coherence Tool
- Shared Profile Tool
- Shared Applications Tool
- Shared Internet Applications Tool
- Parallels Compressor

In a Windows guest OS, Parallels Tools can be installed from the prl-tools-win.iso image file that is included into the Parallels Desktop package. This image file is placed to this folder by default:
/Library/Parallels/Tools/.

Before installing Parallels Tools in the virtual machine, check the location of the prl-tools-win.iso image file.

Note: *In Windows Vista, Windows XP and Windows Server 2003 virtual machines that were created in the Express Windows installation mode, the Parallels Tools installer launches automatically when the creation of the virtual machine is completed.*

To install Parallels Tools in a Windows guest OS:

- 1) Start the virtual machine and log in to the virtual machine guest OS.
- 2) When the guest OS boots up, connect the Parallels Tools ISO image file by choosing the Install Parallels Tools option from the Virtual Machine menu. The Parallels Tools installation wizard launches automatically.
- 3) In the Welcome window, click Next.
- 4) In the Destination Folder window, specify the location for Parallels Tools. Click Next.
- 5) In the Ready to Install the Program window, click Install to start the installation.

- 6) When the installation is completed, click Finish to exit the wizard.
- 7) To apply the changes, you should restart your guest operating system. Click Yes.

3.2. Installing in Linux Guest OS

Parallels Tools for the Linux guest operating systems include:

- Mouse Synchronization Tool
- Time Synchronization Tool
- Dynamic Resolution Tool
- Clipboard Synchronization Tool

In a Linux guest OS, Parallels Tools can be installed from the prl-tools-lin.iso image file that is included into the Parallels Desktop package. By default, prl-tools-lin.iso image file is placed to this folder: /Library/Parallels/Tools/.

Before installing Parallels Tools in the virtual machine, make sure that the prl-tools-lin.iso image file is present in this location.

To install Parallels Tools in a Linux guest OS:

- 1) Start the virtual machine.
- 2) When the guest OS boots up, click the Virtual Machine menu and choose Install Parallels Tools. The prl-tools-lin.iso image file will be connected to the virtual machine's CD/DVD-ROM drive.
- 3) Start Terminal.
- 4) Mount the Parallels Tools CD/DVD-ROM with the "noexec" flag disabled and change the directory to the CD-DVD-ROM.
- 5) In the CD/DVD-ROM directory, enter the following to launch the Parallels Tools installation:
`./guestinstaller`

Note: *You must have the root privileges to run this command.*

- 6) Follow the Parallels Tools installer instructions to complete the installation.
- 7) When the installation of Parallels Tools is completed, restart your virtual machine.

3.3. Installing in Mac OS X Guest Operating System

Parallels Tools for the Mac OS X guest operating systems include:

- Mouse Synchronization Tool
- Time Synchronization Tool
- Dynamic Resolution Tool

In a Mac OS X guest operating system, Parallels Tools can be installed from the prl-tools-mac.iso image file that is included into the Parallels Desktop package. This image file is placed to the following folder by default: /Library/Parallels/Tools/

Before installing Parallels Tools in the virtual machine, check the location of the prl-tools-mac.iso image file.

To install Parallels Tools in a Mac OS X guest operating system:

- 1) Start the virtual machine and log in to the virtual machine guest OS.
- 2) When the guest OS boots up, connect the Parallels Tools ISO image file by choosing the

Install Parallels Tools option from the Virtual Machine menu.

- 3) Start the installation by double-clicking the Parallels Tools for Mac OS X disc icon on your virtual machine Desktop.
 - 4) In the Welcome window, click Continue.
 - 5) In the Select a Destination window, specify the location for Parallels Tools. Click Continue.
 - 6) In the Standard Install on "Macintosh HD" window, if you need to set a different location for Parallels Tools, you can do it by clicking Change Install Location. Click Install to continue the installation. Type the password when prompted. In the Installation window, you can see the process of Parallels Tools being installed in your virtual machine. The default installation path for Parallels tools is Library > Parallels Guest Tools.
 - 7) When the installation is completed, click Restart to exit the wizard and restart your computer.
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4. UPDATING PARALLELS TOOLS

4.1. Updating in Windows Guest OS

Each time you update the Parallels Desktop software, you should update Parallels Tools installed in your Windows virtual machines. To update Parallels Tools, use the Parallels Tools installation disc image - prl-tools-win.iso that is automatically updated together with the Parallels Desktop application. This image file is stored in this folder by default: /Library/Parallels/Tools/.

Before updating Parallels Tools in the virtual machine, check the location of the prl-tools-win.iso image file.

To update Parallels Tools:

- 1) Start the virtual machine and log in to the guest OS.
- 2) When the guest OS boots up, choose Update Parallels Tools from the Virtual Machine menu. This will connect the prl-tools-win.iso image file to the virtual machine's CD/DVD-ROM and launch the Parallels Tools installation.
- 3) In the Welcome window, click the Next button.
- 4) In the Program Maintenance window, select Modify to update Parallels Tools.
- 5) In the Ready to Modify the Program window, click Install to start the installation.
- 6) When the installation is completed, click Finish to exit the wizard.

When Parallels Tools are updated, restart the guest operating system.

4.2. Updating in Linux Guest OS

Each time you update the Parallels Desktop software, you should update Parallels Tools installed in your Linux virtual machines.

To update Parallels Tools, use the Parallels Tools installation disc image - prl-tools-lin.iso that is automatically updated together with the Parallels Desktop application.

This image file is stored in this folder by default: /Library/Parallels/Tools/

Before updating Parallels Tools in the virtual machine, check the location of the prl-tools-lin.iso image file.

To update Parallels Tools:

- 1) Start the virtual machine.
 - 2) When the guest OS boots up, click the Virtual Machine menu and choose Update Parallels Tools. The prl-tools-lin.iso image file will be connected to the virtual machine's CD/DVD-ROM drive.
 - 3) Start Terminal.
 - 4) In the CD/DVD-ROM directory, enter the following to launch the Parallels Tools installation:
./install
- Note:** *You must have the root privileges to run this command.*
- 5) When prompted to choose the action to perform, select Update and press Enter.
 - 6) Follow the Parallels Tools installer instructions to complete the process of updating.
 - 7) When the updating is complete, restart your virtual machine.

4.3. Updating in Mac OS X Operating System

Each time you update the Parallels Desktop software, you should update Parallels Tools installed in your Mac OS X virtual machines.

To update Parallels Tools, use the Parallels Tools installation disc image - prl-tools-mac.iso that is automatically updated together with the Parallels Desktop application.

This image file is stored in this folder by default: /Library/Parallels/Tools/.

Before updating Parallels Tools in the virtual machine, check the location of the prl-tools-mac.iso image file.

To update Parallels Tools:

- 1) Start the virtual machine.
 - 2) When the guest OS boots up, choose Install Parallels Tools from the Virtual Machine menu of Parallels Desktop.
This will connect the prl-tools-mac.iso image to your virtual machine's CD/DVD-ROM.
 - 3) Open the Parallels Tools CD-ROM mounted on the virtual machine's desktop and double-click the Install icon.
 - 4) In the Welcome window, click Continue.
 - 5) In the Select a Destination window, specify the disk for Parallels Tools to be installed to and click Continue.
 - 6) In the Standard Install on "Macintosh HD" window, click Install. Specify your name and password when prompted.
- When the updating is complete, click Restart to quit the installer and restart your virtual machine.

5. REMOVING PARALLELS TOOLS

5.1. Removing From Windows Guest OS

Parallels Tools can be easily removed from a Windows virtual machine as any other Windows application.

To uninstall Parallels Tools from a Windows Guest OS:

- 1) Start the virtual machine and log in to the guest OS.
- 2) From the Windows Start menu, choose Control Panel > Add or Remove Programs.

- 3) Choose Parallels Tools from the list and click Remove.
- 4) Parallels Tools will be removed from the virtual machine.
- 5) When Parallels Tools are removed, restart the guest operating system.

5.2. Removing From Linux Guest OS

If you do not need Parallels Tools in your Linux virtual machine, you can easily remove them from it.

To uninstall Parallels Tools from a Linux Guest OS:

- 1) Start the virtual machine.
- 2) Make sure the `prl-tools-lin.iso` image file is connected to the virtual machine's CD/DVD-ROM drive.
- 3) Start Terminal.
- 4) In the CD/DVD-ROM directory, enter the following:
`./install`
- 5) In the Uninstaller window, press Enter, when prompted.
- 6) When prompted to choose the action to perform, select Remove and press Enter.
- 7) When Parallels Tools are successfully uninstalled, press Enter to close the window.

5.3. Removing From Mac OS X guest operating system

If you do not need Parallels Tools in your Mac OS X virtual machine, you can easily remove them from it.

To uninstall Parallels Tools from a Mac OS X guest operating system:

- 1) Start the virtual machine and log in to the guest OS.
- 2) Make sure the `prl-tools-mac.iso` image file is connected to the virtual machine's CD/DVD-ROM drive.
- 3) Open the mounted image of the disk and double-click the Uninstall Parallels Tools icon to start the uninstallation.
- 4) In the Welcome window, click Uninstall. Enter the password when prompted.
In the Uninstallation window, you can see the process of Parallels Tools being uninstalled in your virtual machine
- 5) In the Uninstallation Completed window, click Restart to finish the uninstallation and quit the assistant.

6. COPYRIGHT NOTICE

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7. CONTACT INFO

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