

Parallels Tools installation crashes at 15%, 20%, 24%

- Parallels Desktop
- Parallels Desktop for Mac Standard Edition 17 and older
- Parallels Desktop for Mac Standard Edition

Symptoms

- If I launch Parallels Tools installation from `%temp%\PrlToolsPackages` using `setup.exe`, it gives me an error message "**Failed to create root enumerated device necessary to install Paravirtualization driver**"
- Parallels Tools installation fails at 15%, 20%, 24%.

Cause

Windows misconfiguration.

Resolution

- Please take a snapshot of your virtual machine (in Parallels Desktop menu bar go to **Virtual Machine** -> **Take snapshot**) before you proceed with the instruction below to be able to revert all the changes.
- Run the installation as Administrator after each step to check if the issue is resolved:

-- Go to Start, in the search box type `%temp%` and hit Enter (Return).

-- Open folder `PrlToolsPackages` > right-click `setup.exe` > **Run as administrator**.

1. **Make sure that** there is no conflict between temporary folders:

1.1. Go to **Start**, in the search box type `%temp%` and hit **Enter (Return)**.

1.2. In the temporary folder locate and remove `pri_pv` folder.

Note: in Windows XP this folder can be called like `{03EF0BF1-F313-4F79-B0B2-A2727E63035C}`.

2. **Make sure that** driver installation is not prevented by Group Policy:

2.1. Go to **Start**, in the search box type `gpedit.msc` and hit **Enter (return)**.

2.2. In **Local Group Policy Editor** please go to **Computer Configuration** > **Administrative Templates** > **System** > **Device Installation** > **Device Installation Restrictions**.

2.3. Disable the policy **Prevent installation of devices not described by other policy settings**.

Note: some Windows 7 editions (Home Premium, Home Basic and Starter) don't come with Group Policy Editor. If you have one of these editions, skip this step.

3. **Make sure that** the old driver has correct permissions to be properly removed:

3.1. Go to `C:\Windows\System32\DriverStore\FileRepository\`

3.2. Locate **prl_pv*** driver folder. Try to enter it. If you receive an error message *You have been denied permission to access this folder* follow **Step 3.3** (if not, miss this step).

3.3. Right-click the folder > **Properties** > switch to **Security** > **Advanced** > switch to **Owner** > click **Edit** > in the **Name** list choose **Administrators** and tick **Replace owner on subcontainers and objects** checkbox > click **Apply** > **Ok**.

4. If the previous suggestion regarding the prl_pv folder(s) did not help, please try using **DPInst**:

4.1. Download **dpinst.exe** (or **dpinst64.exe** for 64-bit Windows) and place it somewhere you can access it inside Windows.

4.2. Open **Command Prompt** (in Windows, go to **Start menu** and find **Command Prompt**).

4.3. Type:

```
cd /d <path to directory with dpinst>
```

4.4. In Windows Explorer, open **C:\Windows\system32\DriverStore\FileRepository** folder.

4.5. Multiple driver folders will be shown. Locate **prl_pv*** folder (there may be more than one):

4.6. Enter this folder.

4.7. In Command Prompt window, type:

```
dpinst /d /u
```

or dpinst64 for 64-bit Windows.

4.8. From the Windows Explorer window, drag the **.inf file** from prl_pv folder onto the Command Prompt window so that it writes the path automatically:

4.9. Press **Enter**. A confirmation window may appear - press **Yes**.

4.10. **Repeat steps 4.6. to 4.9. for every prl_pv folder found.**

4.11. Reboot the virtual machine and attempt Parallels Tools installation again (you may also attempt to use **msconfig to disable all 3rd party services and startup items** as well as **isolating Windows from Mac** before rebooting).

5. **Make sure that** there is no conflict with Parallels Certificates:

5.1. Go to **Start**, in the search box type **certmgr.msc** and hit **Enter (return)**.

5.2. Go to **Certificates - Current user** > **Trusted Root Certification Authorities** > **Certificates** > locate and remove all entries of **Parallels***.

5.3. Go to **Certificates - Current user** > **Trusted Publishers** > **Certificates** > locate and remove all entries of **Parallels, Inc.**

5.4. Go to **Start**, in the search box type **mmc** and hit **Enter (return)**.

5.5. In the Console menu go to **File > Add/Remove Snap-in... > choose Certificates > click Add > button > in the appeared window choose Computer account and click Next > Finish.**

5.6. Repeat **Steps 5.2-5.3.**

6. Try to reinstall Parallels Tools. If the installation still fails, copy the **prl_pv.sys** file manually:

6.1. Check the Windows bit version **Start > Control Panel > System and Security > System.**

6.2. Go to **Start**, in the search box type **%temp%** and hit **Enter (return).**

6.3. In the temporary folder locate and open **prl_pv** folder.

6.4. If you have 32 bit version of Windows, open **i386** folder. For 64 bit version, open **amd64.**

6.5. In separate Windows Explorer window go to **C:\Windows\System32\Drivers**, locate and rename **prl_pv*.sys** file to **prl_pv*.sys.old.**

6.6. Copy the **prl_pv*.sys** from temporary folder to **C:\Windows\System32\Drivers.**

Restart virtual machine, install Parallels Tools and remove the Snapshot (in Parallels Desktop menu bar **Virtual Machine -> Manage Snapshots**).

Note: If issue still persists, most likely, Windows has been corrupted. Please refer to this article to [repair Windows installation](#).

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