



Virtio GPU with OpenGL support for Linux virtual machines

- Parallels Desktop for Mac Standard Edition
- Parallels Desktop for Mac Business Edition
- Parallels Desktop for Mac Pro Edition

Starting with Parallels Desktop 17.1.0 update, we introduce the support for VirGL, which is a feature of the Virtio GPU, allowing for hardware graphics acceleration in Linux virtual machines.

Parallels Desktop has been featuring hardware acceleration in Linux virtual machines for a long time, but it has previously been achieved through Parallels' proprietary drivers (part of Parallels Tools) consisting of many kernel and user-space components that required regular updates and fixes.

In contrast to that, VirGL features out-of-the-box support by all common Linux distributions, which allows for better compatibility across different desktop environments and applications, most notably — enabling the improved support for the Wayland protocol.

Moreover, it works even without Parallels Tools installed.

Note: due to compatibility concerns, VirGL will not be enabled in some instances. Learn more below.

Linux on ARM

- VirGL will be enabled in all new virtual machines;
- If a virtual machine has been created in a Parallels Desktop earlier than Parallels Desktop 17.1.0, installing/updating Parallels Tools will enable the VirGL feature.

Linux x86 (Intel)

In Intel-based Linux virtual machines, VirGL will be preferred only for systems with kernel 5.10 and newer:

- VirGL will be enabled for all new virtual machines. However, upon installing Parallels Tools, Parallels Tools-powered graphics will be used for systems running kernel 5.9 and older;
- If the virtual machine has been created in a Parallels Desktop version earlier than Parallels Desktop 17.1.0, installing/updating Parallels Tools will enable VirGL, but only for systems with kernel 5.10 and newer.

To verify that VirGL is enabled, open Terminal inside the Linux virtual machine and execute the following command:

```
sudo dmesg | grep virgl
```

If the command returns a string with **+virgl**, this means that VirGL is enabled.

If the string contains **-virgl**, it's disabled.

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