# How to install Parallels Tools in Linux virtual machine

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

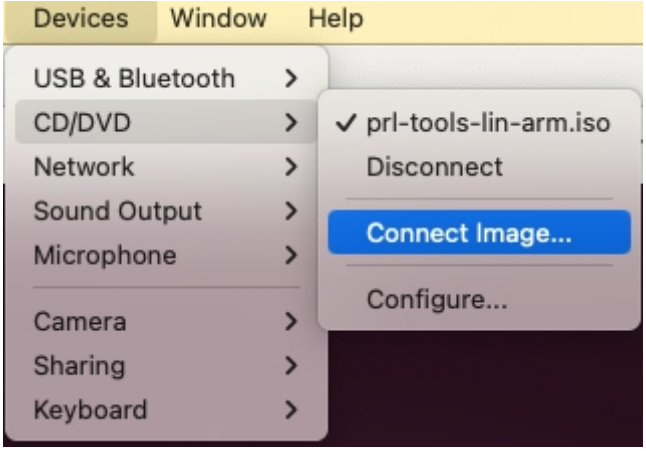
Parallels Tools is a suite of software utilities designed to enhance the performance and usability of virtual machines created using Parallels Desktop. Installing Parallels Tools in a Linux virtual machine can provide improved integration, graphics acceleration, and better overall functionality. This article provides a step-by-step guide on how to install Parallels Tools in Linux.

**Note**: you can find a list of Linux distributives supported in Parallels Desktop on Mac computers with Apple silicon in KB 124223.

## Install Parallels Tools using GUI

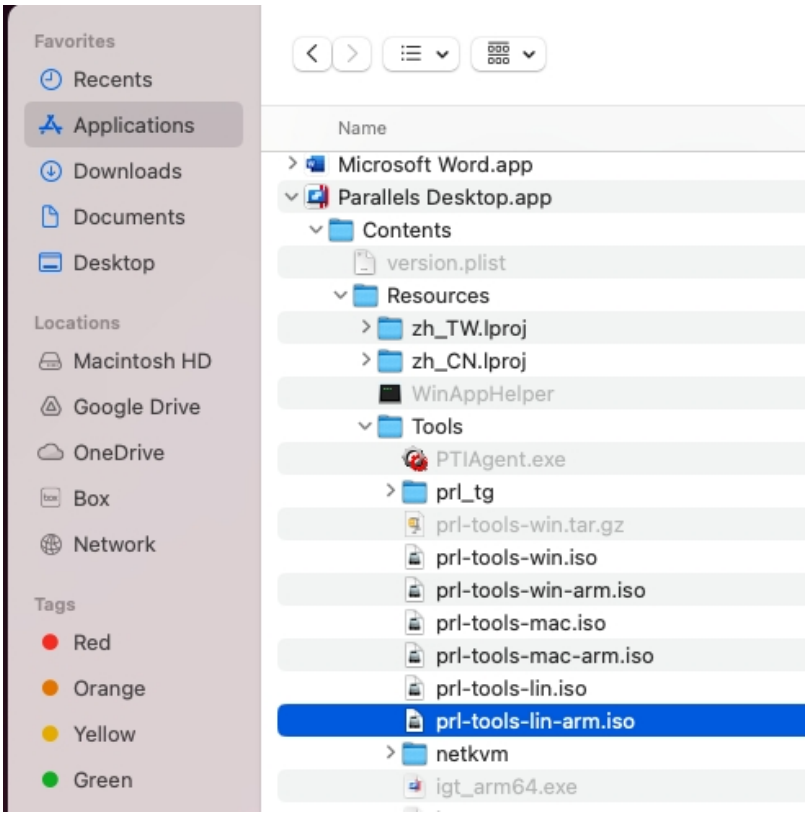
1. Launch Parallels Desktop and start the Linux virtual machine.

2. Connect the **Parallels Tools image** to the virtual machine: in the menubar, click **Devices > CD/DVD > Connect image...**

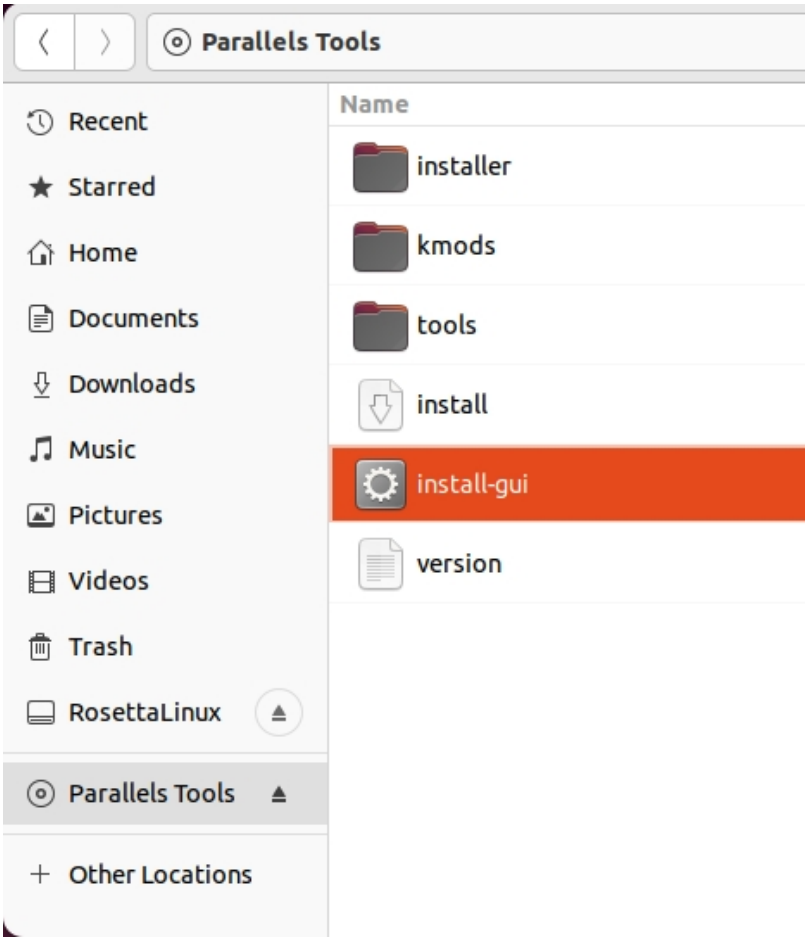



3. Browse to the image location **Application > Parallels Desktop.app > Contents > Resources > Tools >** select **prl-tools-lin-arm.iso** if your Mac is a Mac with Apple silicon or **prl-tools-lin.iso** for Mac computers with Intel processors.

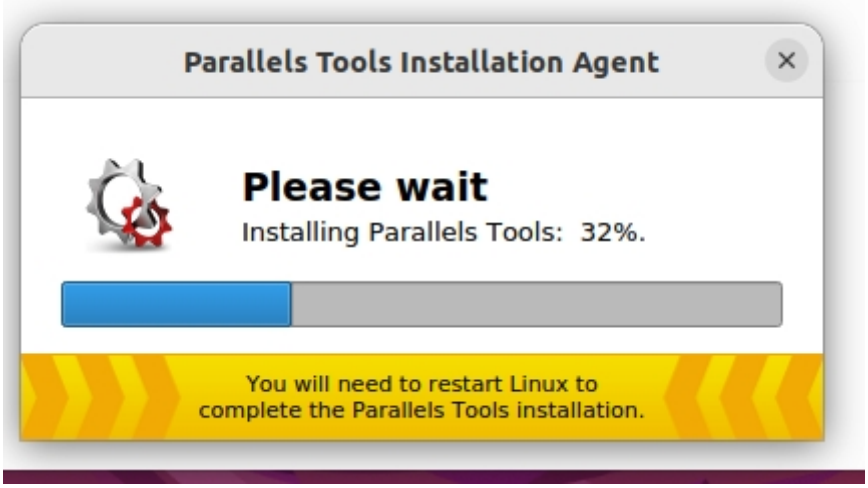
This will mount a virtual CD/DVD with the Parallels Tools.



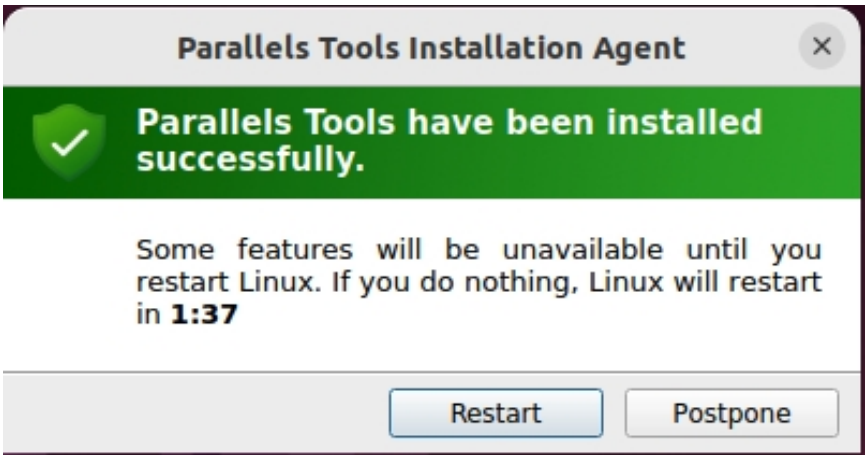

4. In the virtual machine, select the mounted **CD/DVD** with Parallels Tools and double-click on the **Install-gui** file**.** You may be required to enter your Linux password to start the installation.




5. You will be presented with the Parallels Tools Installation wizard.




6. Once the installation finishes, restart the virtual machine.



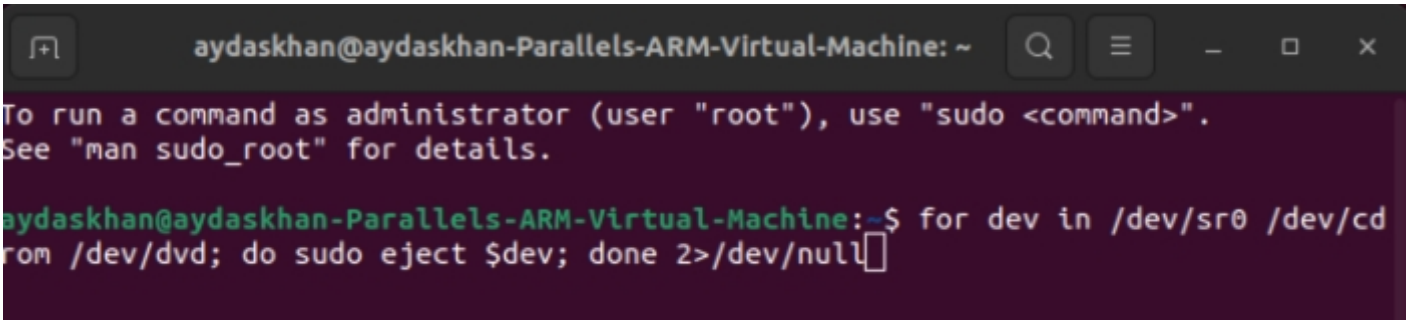

## Install Parallels Tools using Terminal

**Note:** we suggest opening this article inside a Linux virtual machine to easily paste the commands into the Linux Terminal.

1. In Linux virtual machine, open Terminal and execute the following command to eject any CD/DVD images:

```
for dev in /dev/sr0 /dev/cdrom /dev/dvd; do sudo eject $dev; done 2>/dev/null
```

(You will need to enter your Linux password to run the command. No symbols will be shown due to security measures, so just enter the password and press Return/Enter.)

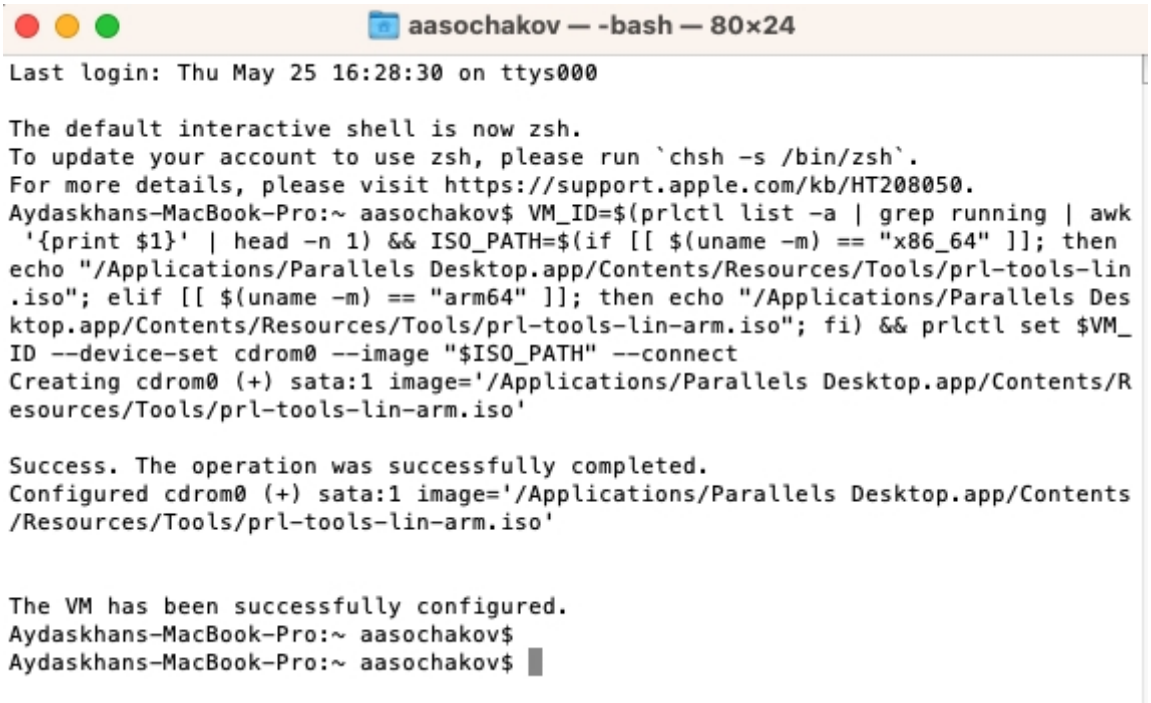



2. On Mac side, mount the Parallels Tools image into the virtual machine execute the following command:

**Note:** before executing the command, make sure that the Linux virtual machine in question is the only one running.

```
VM_ID=$(prlctl list -a | grep running | awk '{print $1}' | head -n 1) &&
```

```
ISO_PATH=$(if [[ $(uname -m) == "x86_64" ]]; then echo
"/Applications/Parallels
Desktop.app/Contents/Resources/Tools/prl-tools-lin.iso"; elif [[ $(uname -m)
== "arm64" ]]; then echo "/Applications/Parallels
Desktop.app/Contents/Resources/Tools/prl-tools-lin-arm.iso"; fi) && prlctl
set $VM_ID --device-set cdrom0 --image "$ISO_PATH" --connect
```



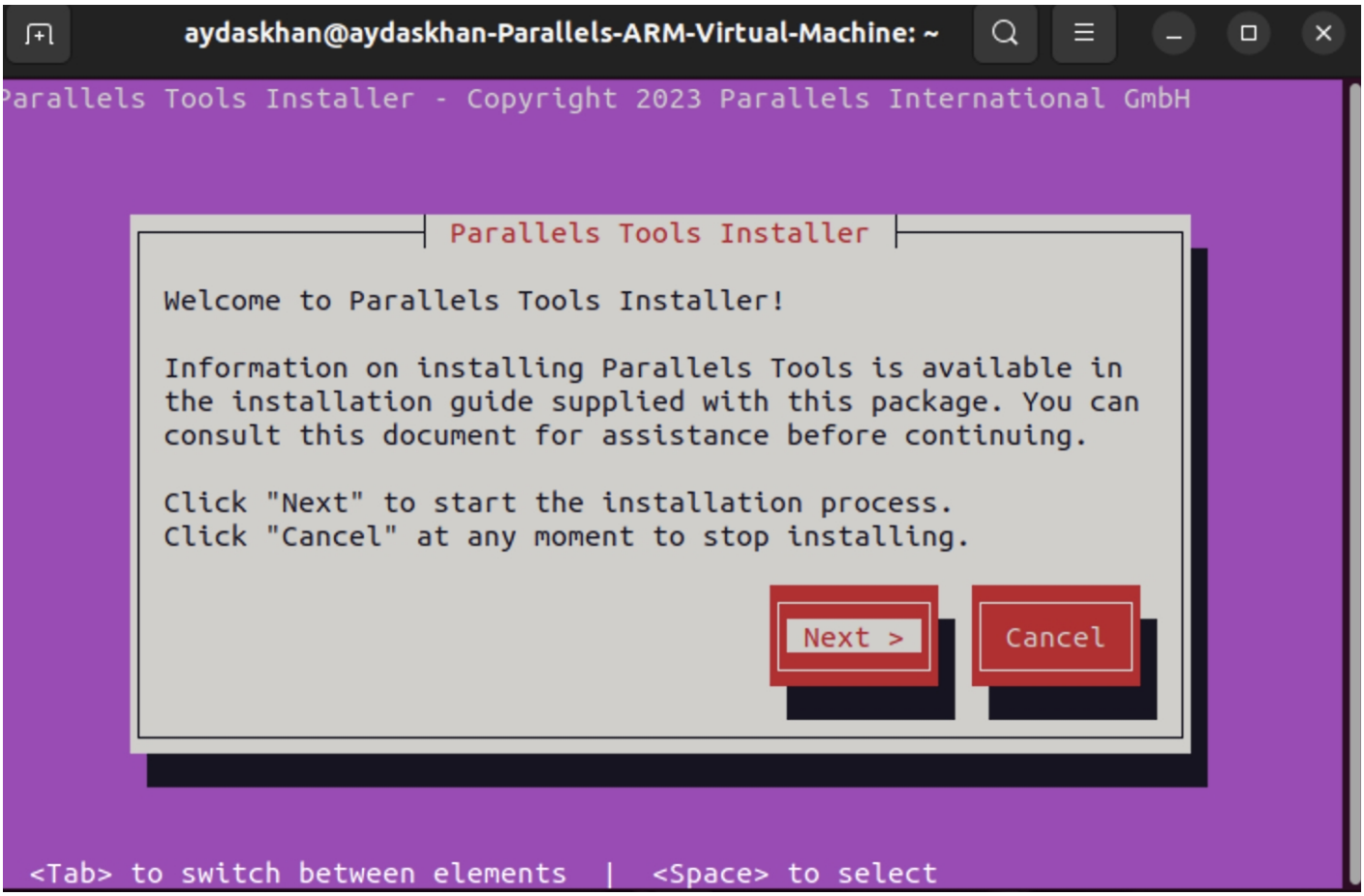

Once executed, the command should produce the following message: "**The VM has been successfully configured**", and on the Linux virtual side, you should see that **Parallels Tools** are mounted.

3. Switch back to the Linux virtual machine Terminal and execute the following command to update dependencies, correctly mount the image on the virtual machine side, and run the Parallels Tools installation:

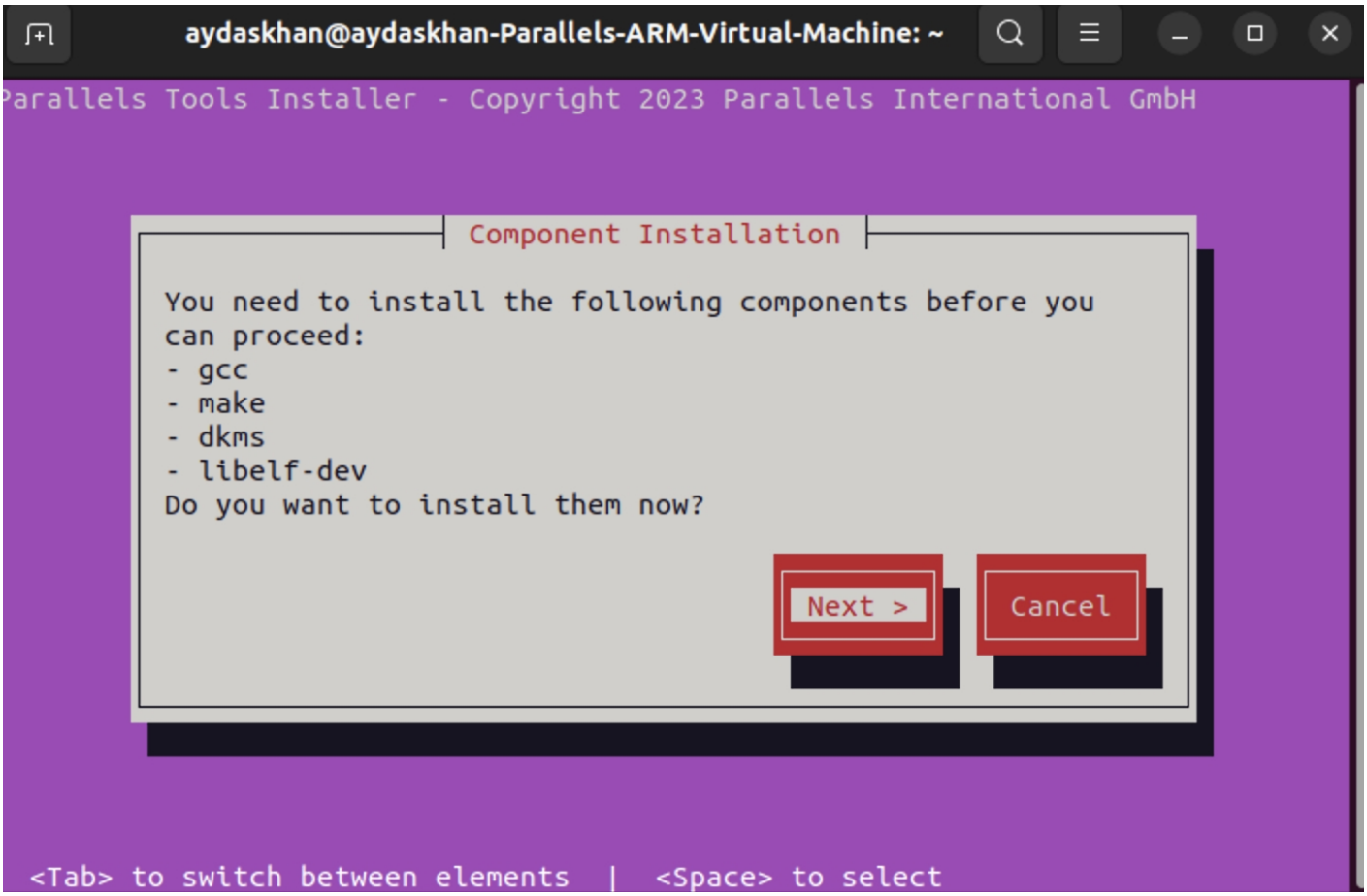
```
sudo mkdir -p /media/cdrom0; if [[ -f /etc/fedora-release ]]; then sudo dnf
install -y gcc kernel-devel-$(uname -r) kernel-headers-$(uname -r) make
checkpolicy selinux-policy-devel; sudo mount -o exec /dev/sr0 /media/cdrom0;
cd /media/cdrom0; sudo ./install; elif [[ -f /etc/debian_version ]] || [[ -f
/etc/kali_version ]] || [[ -f /etc/os-release && $(grep -Ei
"NAME=\"Debian|NAME=\"Ubuntu" /etc/os-release) ]]; then sudo apt-get install
-y dkms libelf-dev linux-headers-$(uname -r) build-essential; sudo mount -o
exec /dev/sr0 /media/cdrom0; cd /media/cdrom0; sudo ./install; fi
```

(You may be required to enter your Linux password to run the command. No symbols will be shown due to security measures, so just enter the password and press Return/Enter.)

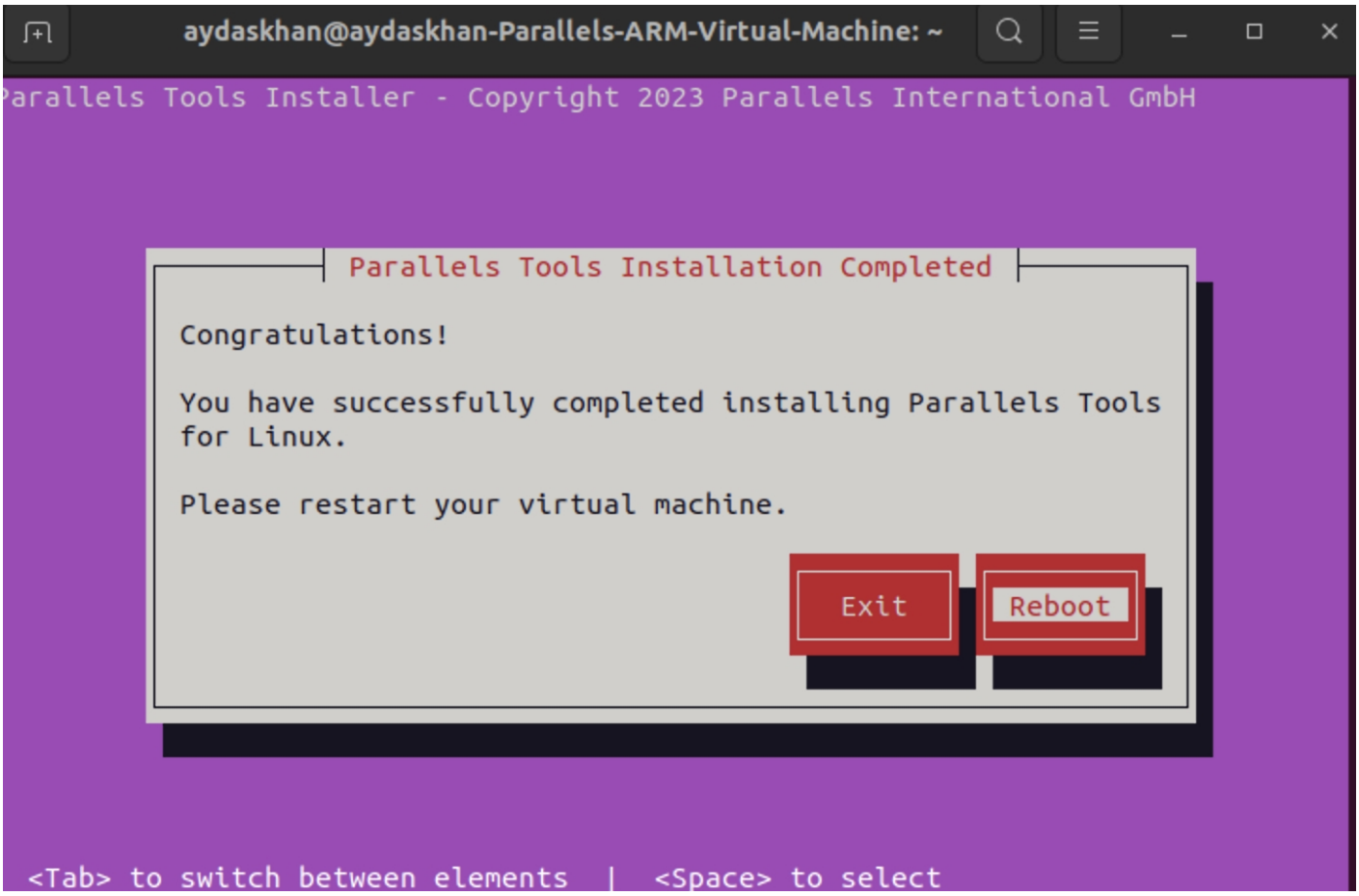
4. As a result, you will see Parallels Tools Installer window:



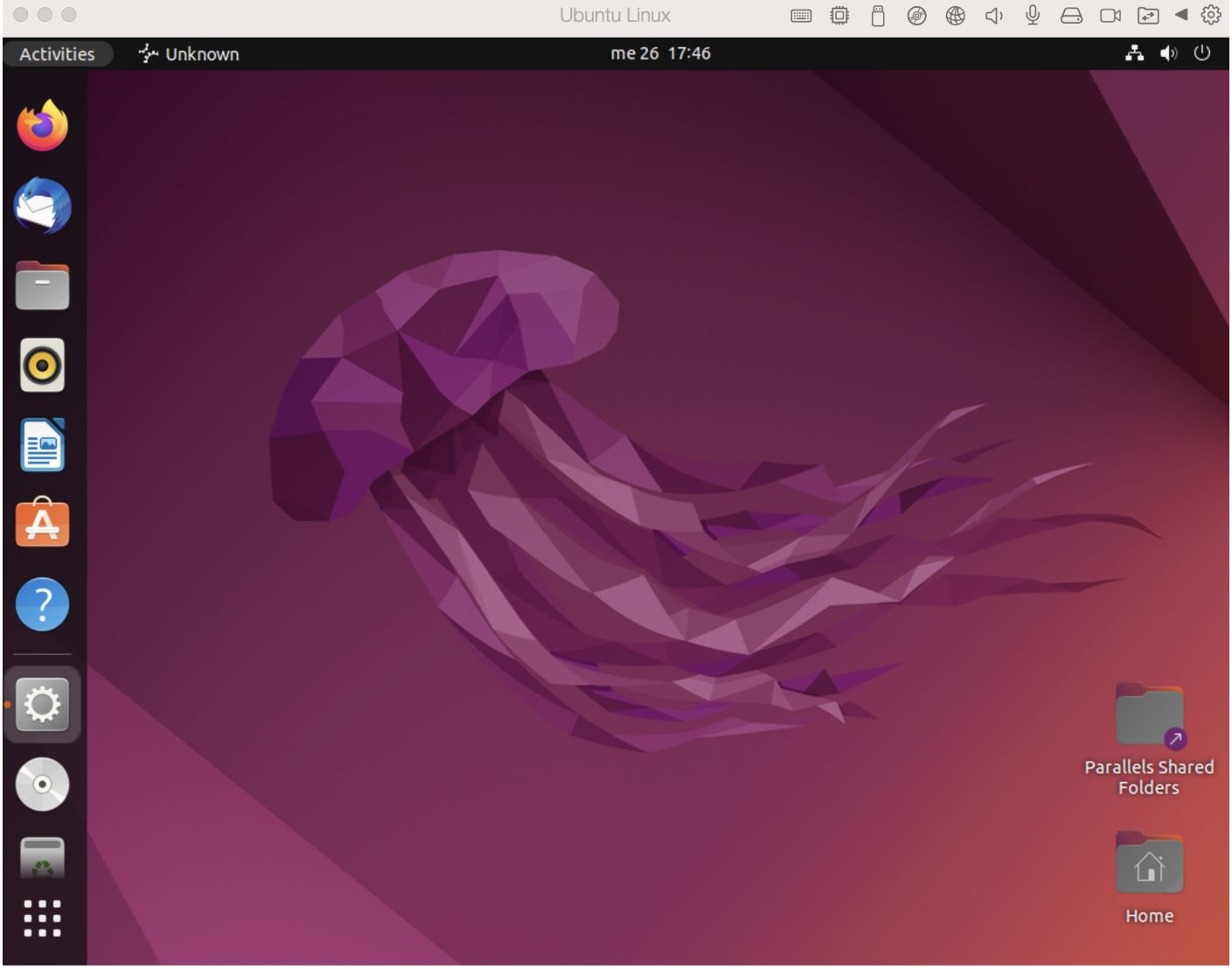

4.1. Proceed with installation.




4.2. After installation you need to **Reboot** Linux virtual machine.




Once the system reboots, you should have all the Mac <> VM integration features available to you.

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