

## **Configure macOS virtual machines running on a Mac computer with Apple silicon in Parallels Desktop 18**

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

If you are running a macOS virtual machine on a Mac with Apple silicon, in Parallels Desktop 18 you may notice a lack of a cogwheel configuration icon.



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**Note:** If you're running Parallels Desktop 19 and above, the approach is slightly different, and some options have changed. Please visit the [Parallels Desktop 19 configuration article](#).

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This is because currently, adjusting the configuration of such a virtual machine is only possible by editing a configuration file inside the virtual machine package .

**Note:** you may see a virtual machine configuration cogwheel icon in the Control Center. Please note that the feature to modify configuration using UI is yet to be implemented, hence the icon is grayed out.

The following settings of a macOS virtual machine on a Mac computer with Apple silicon can be adjusted:

- virtual machine's display resolution and pixel density;

- number of CPU cores allocated to the virtual machine;
  - amount of RAM allocated to the virtual machine;
  - network mode (Shared/Bridged) and the MAC address of the network adapter.
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**Note:** macOS ARM VM's **disk size** is 60 GB by default. It can be set to a different value during the [manual installation process](#) for Parallels Desktop 18, but once the virtual machine is created, disk size cannot be changed.

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## Display resolution

Adjusting display resolution To adjust the displays, please perform the following steps:

**Note:** If you're running macOS Sonoma virtual machine on a Mac with macOS Sonoma, resolution is dynamic, and is no longer affected by these settings. If your Mac or virtual machine are running macOS below Sonoma, they will still apply.

1. Shut down your virtual machine.
2. Locate the virtual machine .macvm file: click on Parallels icon > **Control Center** > right-click on the virtual machine > **Show in Finder**.
3. Right-click .macvm bundle > **Show package contents**.
4. Locate config.ini file. If it doesn't exist, open Terminal (**Applications > Utilities > Terminal**) and execute the following command:

```
touch ~/Desktop/config.ini
```

This will create a **config.ini** file on your Mac Desktop. Drag and drop it inside the .macvm bundle.

5. Open the file in TextEdit: right-click **config.ini** > **Open With > Other**, check **Enable All Applications** select **Text Edit**, and click **Open**.

6. Add the following text:

```
[Hardware]
Display.Width=1312
Display.Height=824
Display.DPI=226
```

You can change the resolution by adjusting **Display.Width** and **Display.Height** and pixel density by changing **Display.DPI**.

## Memory

To change the amount of RAM allocated to the virtual machine, open Terminal and execute the following command:

```
prlctl set <vm_name> --memsize <megabytes>
```

A command to allocate 4GB of memory to a virtual machine called "macOS 13" would look like this:

```
prlctl set "macOS 13" --memsize 4096
```

## CPU

Similarly to memory, a command to set the number look like this:

```
prlctl set <vm_name> --cpus <number>
```

e.g.:

```
prlctl set "macOS 13" --cpus 4
```

## Network

### List Network Adapters

```
prlctl list "<vm_name>" -i | Grep -E 'net[0-9] \('
```

e.g.:

```
prlctl list "macOS 13" -i | Grep -E 'net[0-9] \('
```

The output would look like this:

### Toggle Shared/Bridged Mode

```
prlctl set "vm_name" --device-set <network_adapter_id> --type
<bridged/shared>
```

e.g.:

```
prlctl set "macOS 13" --device-set net0 --type bridged
```

## Change MAC Address

```
prlctl set "vm_name" --device-set <network_adapter_id> --mac <mac_address>
```

e.g.:

```
prlctl set "macOS 13" --device-set net0 --mac 123456789ABC
```

## Add Network Adapter

```
prlctl set "vm_name" --device-add net --type <bridged/shared> --mac  
<mac_address>
```

e.g.:

```
prlctl set "macOS 13" --device-add net --type bridged --mac 123456789ABC
```

Sample output:

## Share Mac files with the virtual machine

File Shared Folder is enabled by default for new macOS Ventura virtual machine running on macOS Ventura.

This means that on your virtual machine side, you will see "My Shared Files" location providing you the access to your Mac's Home folder.

If you're running a previous macOS version, we suggest sharing files between the virtual machine and the Mac using the [native macOS file sharing feature](#) as you would between two physical Mac computers.

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**Note:** only Parallels Desktop Pro and Business editions support the `prlctl` command-line utility. If you run **Parallels Desktop Standard Edition**, you can change most settings by directly editing the `config.pvs` file. To do that:

1. Shut down your virtual machine.
2. Locate the virtual machine `.macvm` file: click on Parallels icon > **Control Center** > right-click on the virtual machine > **Show in Finder**.
3. Right-click on the `.macvm` bundle > **Show package contents**.
4. Locate the `config.pvs` file and open it in TextEdit: right-click `config.pvs` > **Open With** > **Other**, check the **Enable All Applications** option, select **Text Edit**, and click **Open**.
5. Locate any required parameters using the **Cmd + F** keyboard shortcut to open the search bar and change them as you see fit:

- ◆ To change the number of CPU cores allocated to the virtual machine, locate the `<CustomCpu dyn_lists="">` parameter, and below it, change the number inside the `<number>X</number>` tag, where **X** is the currently allocated number of cores.
- ◆ To change the amount of RAM allocated to the virtual machine, locate the `<RAM>ABCD</RAM>` tag, where **ABCD** is the currently allocated amount of RAM in megabytes.  
**Important:** Make sure that the value of neighboring string: `<RamAutoSizeEnabled>0</RamAutoSizeEnabled>` is indeed 0. If not, change it from 1 to 0, otherwise the new RAM amount won't apply.
- ◆ To toggle the virtual network adapter mode between Shared and Bridged, locate the `<EmulatedType>N</EmulatedType>` tag, where **N** = 1 for Shared mode and 2 for Bridged.
- ◆ To assign a specific MAC address to the virtual machine, locate the `<MAC></MAC>` tag and insert the required MAC address inside the tag, removing the colon marks. E.g., to assign **1A:2B:3C:4D:5E:6F**, use `<MAC>1A2B3C4D5E6F</MAC>`.
- ◆ To disable sharing the host's home folder with guest VMs, locate the `<ShareUserHomeDir>X</ShareUserHomeDir>` parameter and change it from 1 (enabled) to 0 (disabled).

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## Add a secondary virtual hard drive

As an advanced step, you may connect an **.dmg** or **.img** disk image as a secondary virtual hard drive.

It may be useful for example to transfer large amounts of data between two macOS ARM virtual machines or when you need to extend the storage capacity of a virtual machine without having to recreate it.

### Create an empty image

To create an empty **.dmg** image, open Terminal (**Applications** > **Utilities** > **Terminal**) and execute the following command:

```
hdiutil create -size <size_in_bytes> -fs APFS -type UDIF -volname  
<volume_name> <output_img_path>
```

E.g.,

```
hdiutil create -size 20000000 -fs APFS -type UDIF -volname "MyVolume"  
~/Desktop/mydisk.dmg
```

will create a 20-megabyte `mydisk.dmg` file on the Desktop. When connected, the volume will show up as "MyVolume".

## Create a read-only image from a directory

To turn a macOS directory into a read-only **.dmg** image, open Terminal and execute the following command:

```
hdiutil makehybrid -hfs -hfs-volume-name <volume_name> -o <output_img_name>
<directory_path>
```

E.g.,

```
hdiutil makehybrid -hfs -hfs-volume-name "MyVolume" -o
~/Desktop/mydisk1.dmg ~/Desktop/EmailTemplates
```

## Connect image

To connect such an image, put it inside the **.macvm** bundle next to the config.ini file, and in the config.ini add the following line:

```
Disk1.Path=<name_of_image_file>
```

In the case of the example above, that would be:

```
Disk1.Path=mydisk.dmg
```

Once you run the virtual machine, and it boots up, you will see the image available in the virtual machine's Finder.

And in case of an empty image, you can transfer data to it.

Once the virtual machine is shut down, you can mount the image to your main system by double-clicking on it.

## Change the name of the virtual machine

To change the name of your macOS virtual machine open Terminal and execute the command below:

```
prlctl set "macOS 13" --name "macOS 13 New Name"
```

where macOS 13 is the current name of your virtual machine.

## Additional functionality added in Parallels Desktop 18

Please note that starting with Parallels Desktop 18 you can register your macOS virtual machine in Control Center which will bring additional functionality to the operations with the virtual machine:

- create clones of the VM;
  - use *prlctl* *start*, *stop*, *register*, *destroy*, and *clone* commands to work with the virtual machine from Terminal.
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