

Virtual Machine (VM) Quick Start Guide

Using a VM enables us to encapsulate the course data and software in such a way that you can still make use of them when you return to your own laboratory.

To use the VM provided, you will first need to download VirtualBox (<http://www.virtualbox.org/>). This software is required to run the VM on your machine, it is free and available for Windows, MacOSX and Linux.

For a detailed description of VirtualBox and the installation see the on-line manual (<http://www.virtualbox.org/manual/>).

Download and Install VirtualBox

Download VirtualBox for the type of workstation you are using (e.g. Windows) from <http://www.virtualbox.org/wiki/Downloads>.

· Double click on the executable file (Windows). The installation welcome dialog opens and allows you to choose where to install VirtualBox to, and which components to install. Depending on your Windows configuration, you may see warnings about "unsigned drivers" or similar. Please select "Continue" on these warnings; otherwise VirtualBox might not function correctly after installation.

Launch the VirtualBox software from the desktop shortcut or from the program menu.

Setting up the VM

VirtualBox needs to be pointed at the VDI (This is the file that has been provided) file as follows:

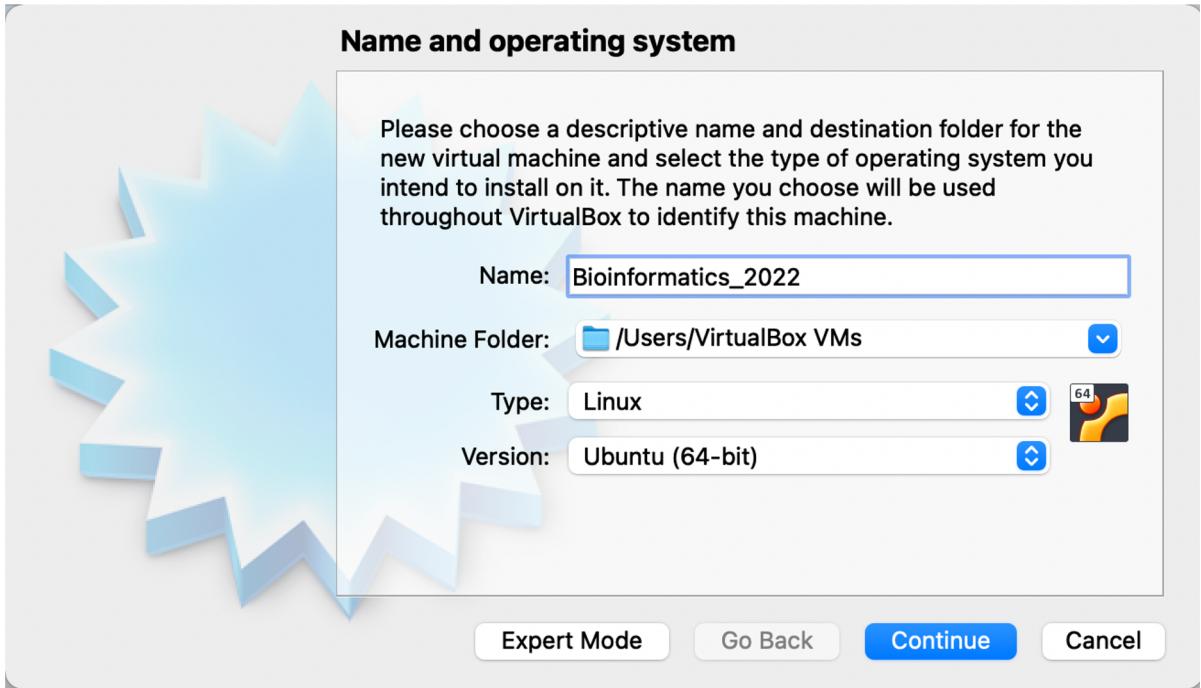
Create a new virtual machine by selecting 'New' from the options at the top. Then fill the boxes in as shown below:

In the first window enter:

Name: **Bioinformatics_2022**

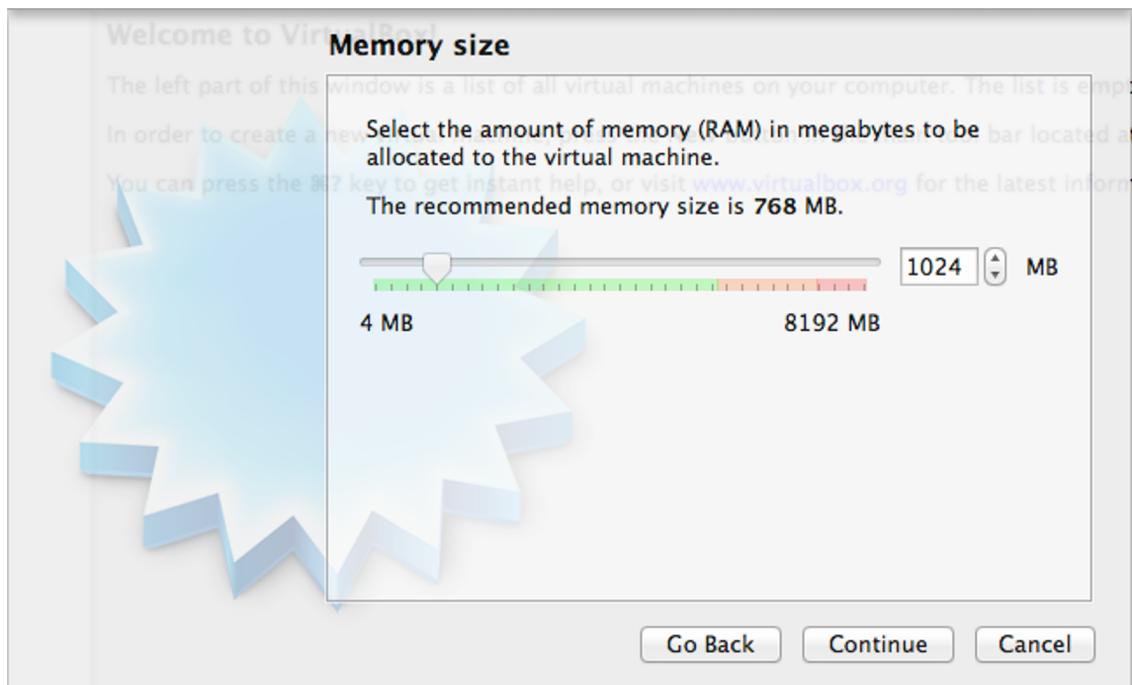
Operating System: **Linux**

Version: **Ubuntu (64-bit)**



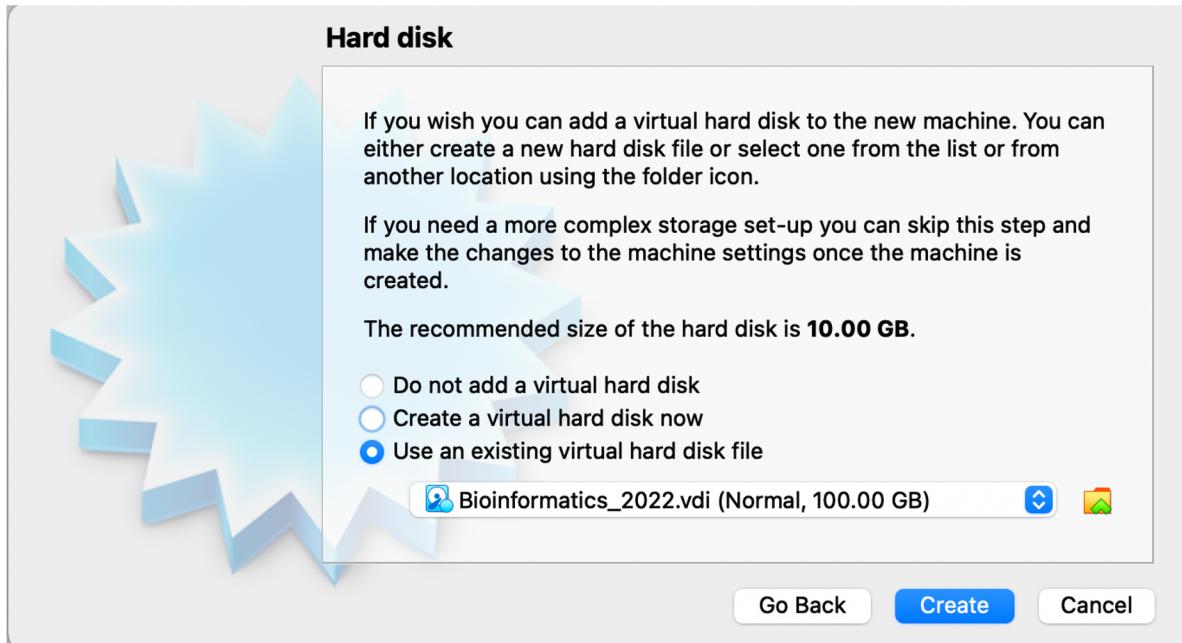
Click ‘Continue’

In the next window set the memory to at least 1GB (as shown), but 2GB (2048 MB) will give you better performance. You shouldn’t use any more than half the amount of memory on your PC.



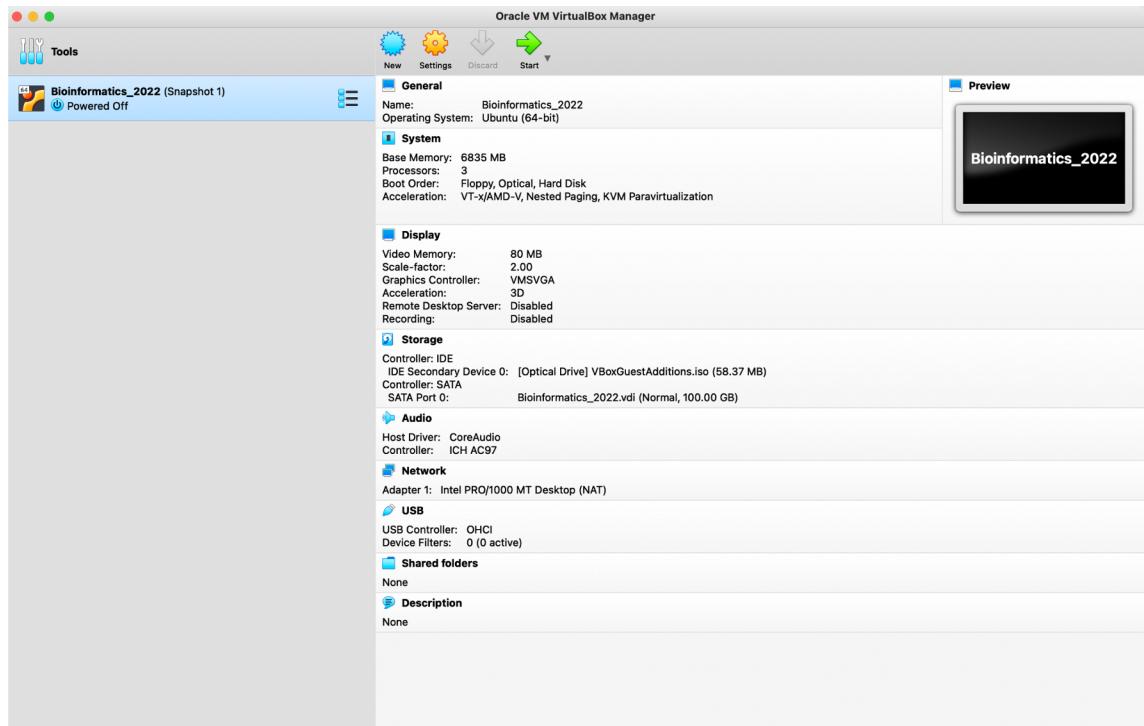
Click ‘Continue’.

In the next window select ‘Use existing hard disk’ and from the folder icon on the right hand side navigate to the VDI file.



Click ‘Continue’.

There will now be an ‘Bioinformatics_2022’ (powered off) button in the left hand side of VirtualBox.

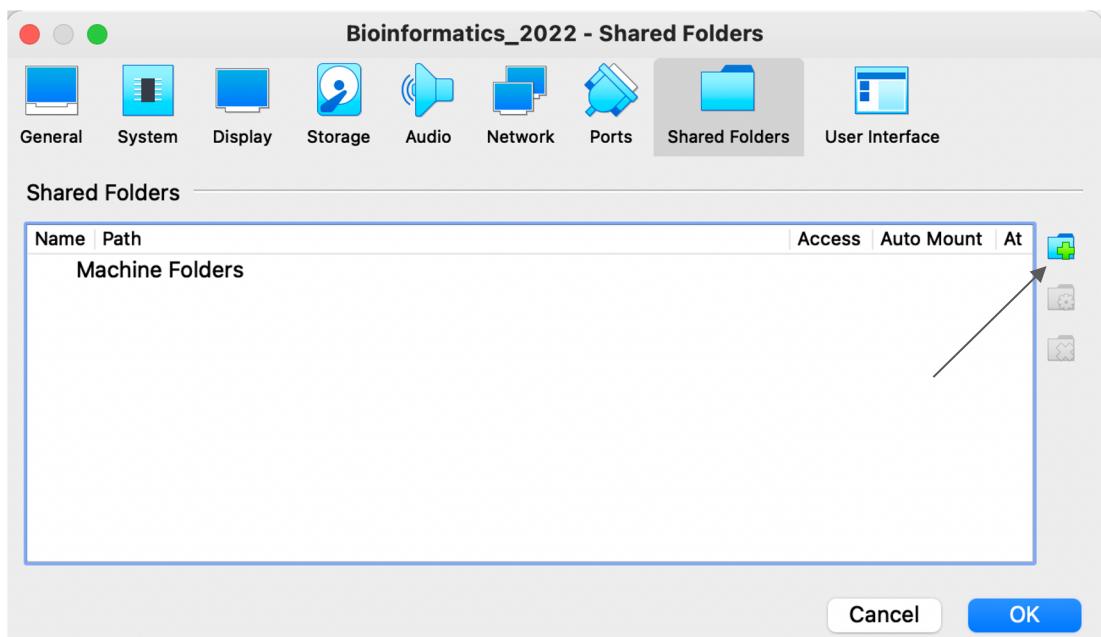


Click on the power button to start the VM. It will then log you into the Ubuntu desktop.

Setting up a Shared Folder

This allows you to share a folder between the VM and your workstation. This means you can put files that you want to share between the operating systems in this folder.

Create a directory to share called ‘VMshare’ on your machine. With the VM shutdown select the ‘Bioinformatics_2022’ button in VirtualBox and click ‘Settings’ in the top menu bar. Go to ‘Shared Folders’ and select the ‘+’ button on the right. In the ‘Folder Path’ select ‘Other’ and navigate to and select the ‘VMshare’ folder that you have created. Then click on ‘OK’.



When the ‘Bioinformatics_2022’ VM is next started double click on the ‘mount’ icon in your home folder. This will open a window that you need to type the password into:

user

It will show the contents of this folder in the /home/ directory in Ubuntu.

A note on memory usage:

Some computing processes are very memory hungry. Should you find that your computer processes are killed without a clear reason, one aspect to check is the amount of memory allocated to the VM. The 1024MB you have allocated using this tutorial has been checked and should be enough. Nonetheless, the amount of memory allocated to the VM can be changed at any time.