Appendix : Course 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.

First download the VM from
https://drive.google.com/file/d/1a1NE6S5CFjf1ZEQ8aYaAQRtXODBagSb8/view?usp=sharing.
Nex, you will need to download VirtualBox
(https://www.virtualbox.org/wiki/Downloads). This software is required to run the VM on your machine, it is free and available for windows, MacOSX and linux,
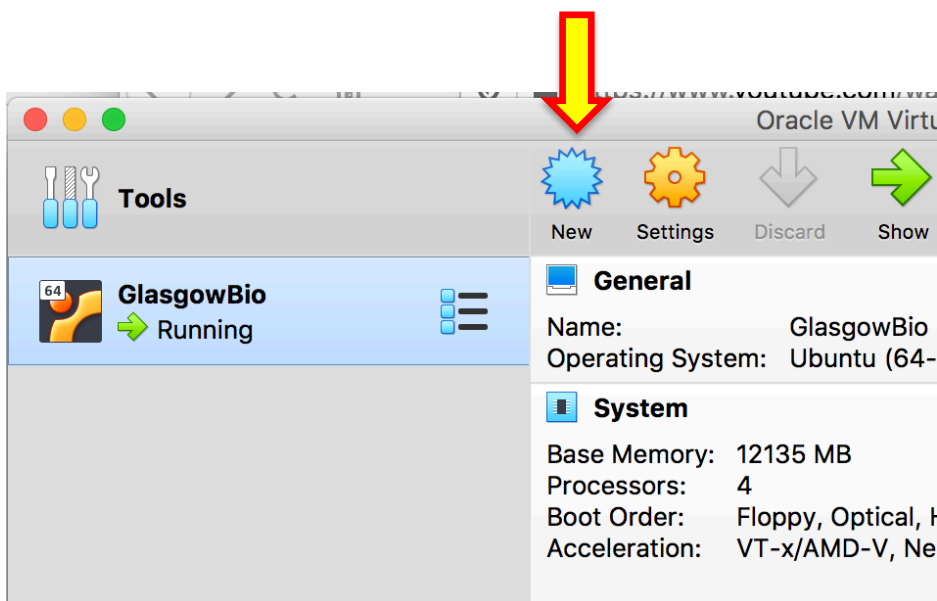
For a detailed description of VirtualBox and the installation you could reads hundreds of page on the on-line manual (http://www.virtualbox.org/manual/) but normally just double click on the downloaded program, do next next ok, password ok and it is done. You should see the following symbol somewhere or search for virtualbox.
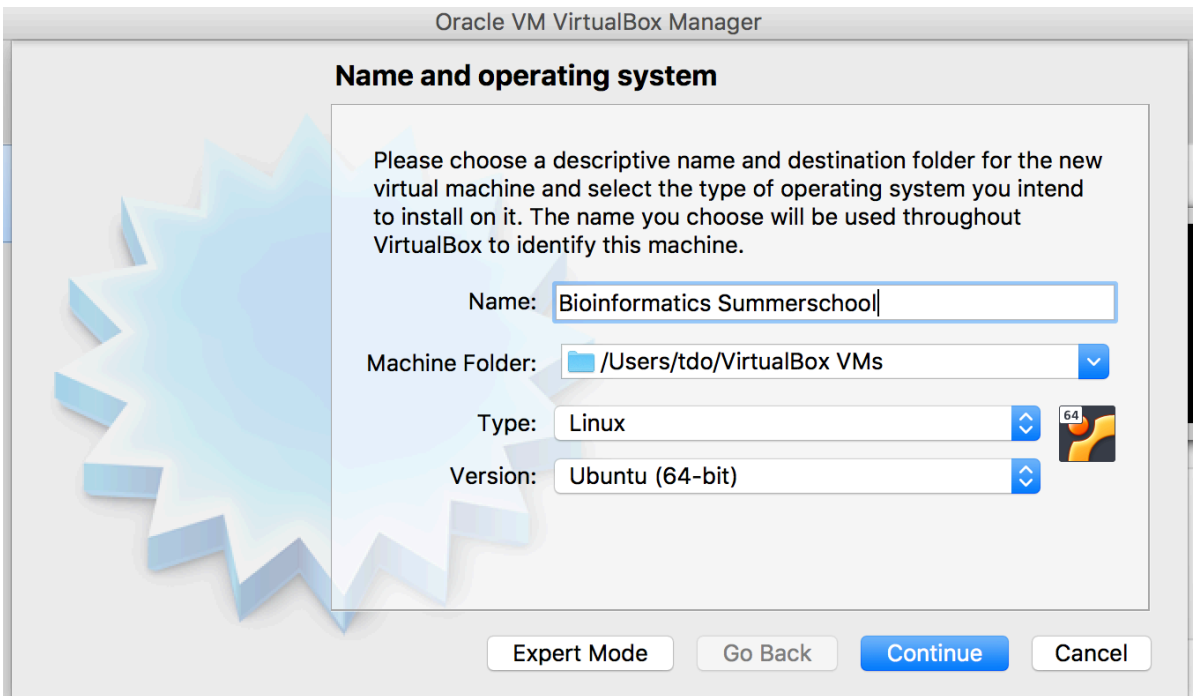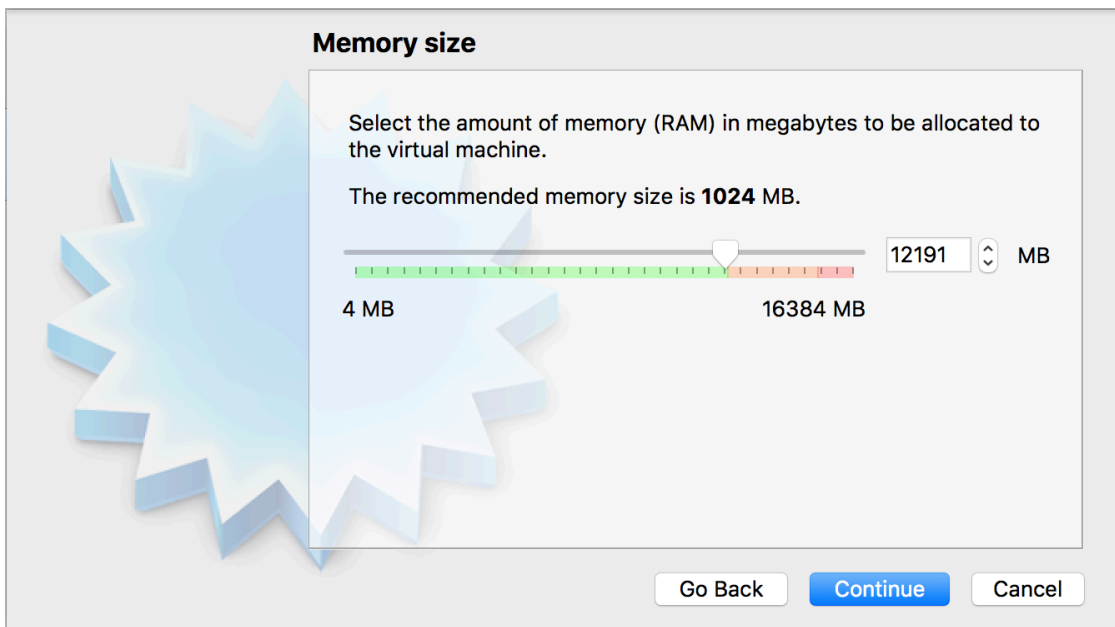

Open Virtual box

Setting up the VM

Create a new virtual machine by selecting 'New' from the options at the top.

Oracle VM VirtualBox Manager

Name and operating system

Please choose a descriptive name and destination folder for the new virtual machine and select the type of operating system you intend to install on it. The name you choose will be used throughout VirtualBox to identify this machine.

Name: Bioinformatics Summerschool

Machine Folder: /Users/tdo/VirtualBox VMs

Type: Linux

Version: Ubuntu (64-bit)
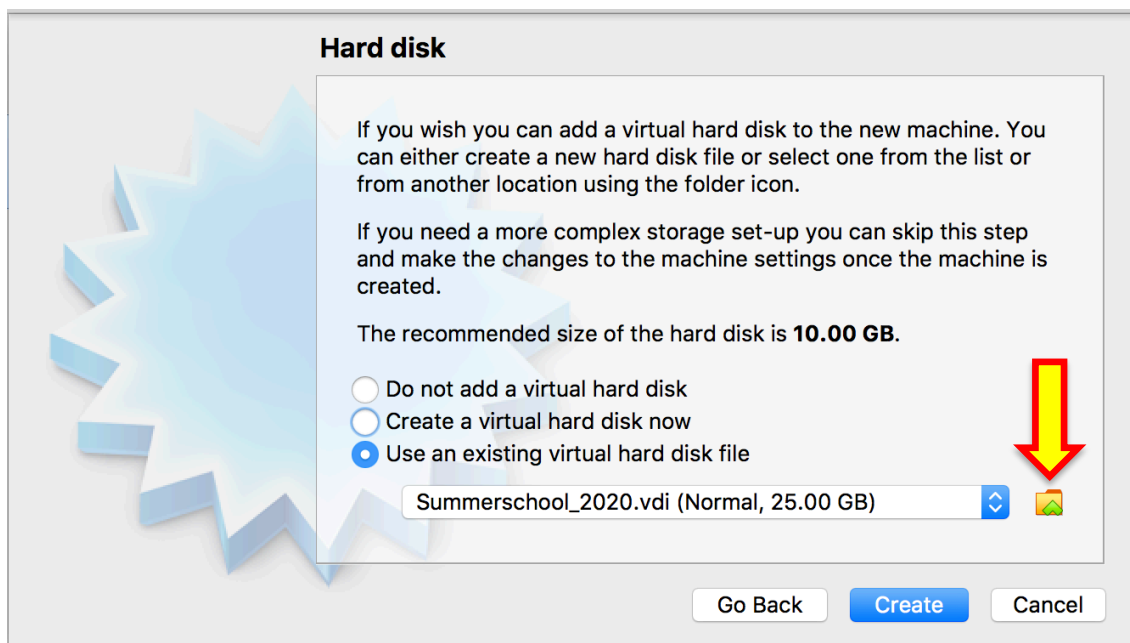
| Expert Mode | Go Back | Continue | Cancel |

- Give it a nice name, and then select Type: Linux and Version Ubuntu (64-bit), and confirm with pressing continue

- In the next window keep the memory default setting (1024 MB) but you might want to go up to the orange limit. You should be able to give the machine at least 3 GB. The more the better ☺ (But you can still change it easily afterwards.

Memory size

Select the amount of memory (RAM) in megabytes to be allocated to the virtual machine.

The recommended memory size is **1024** MB.

12191 MB

4 MB   16384 MB
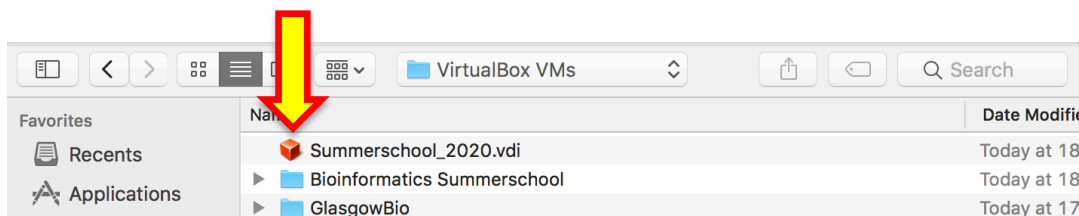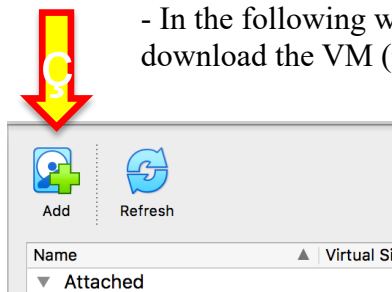
| Go Back | Continue | Cancel |

Click 'Continue'.

In the next window select 'Use existing hard disk' and from the folder icon on the right hand side navigate to where you downloaded the VM from the webpage above.
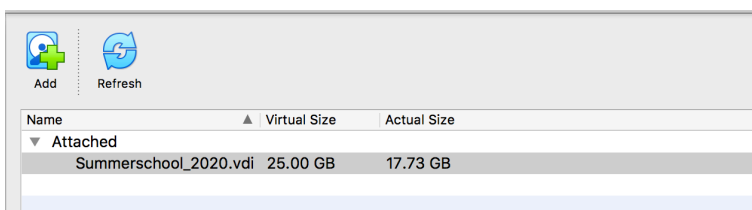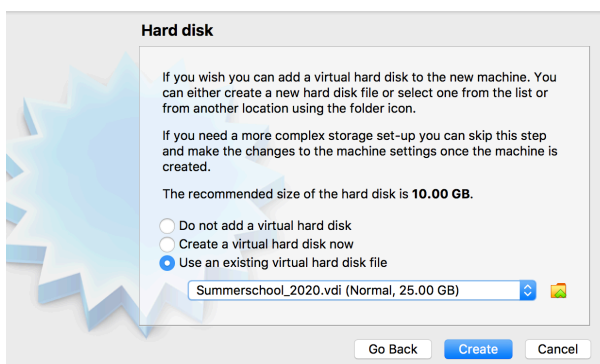
Hard disk

If you wish you can add a virtual hard disk to the new machine. You can either create a new hard disk file or select one from the list or from another location using the folder icon.

If you need a more complex storage set-up you can skip this step and make the changes to the machine settings once the machine is created.

The recommended size of the hard disk is **10.00 GB**.

○ Do not add a virtual hard disk
○ Create a virtual hard disk now
● Use an existing virtual hard disk file

Summerschool_2020.vdi (Normal, 25.00 GB)

Go Back   Create   Cancel

- In the following window top left press add and then navigate to the directory you download the VM (name: Summerschool_2020.vdi) and select it
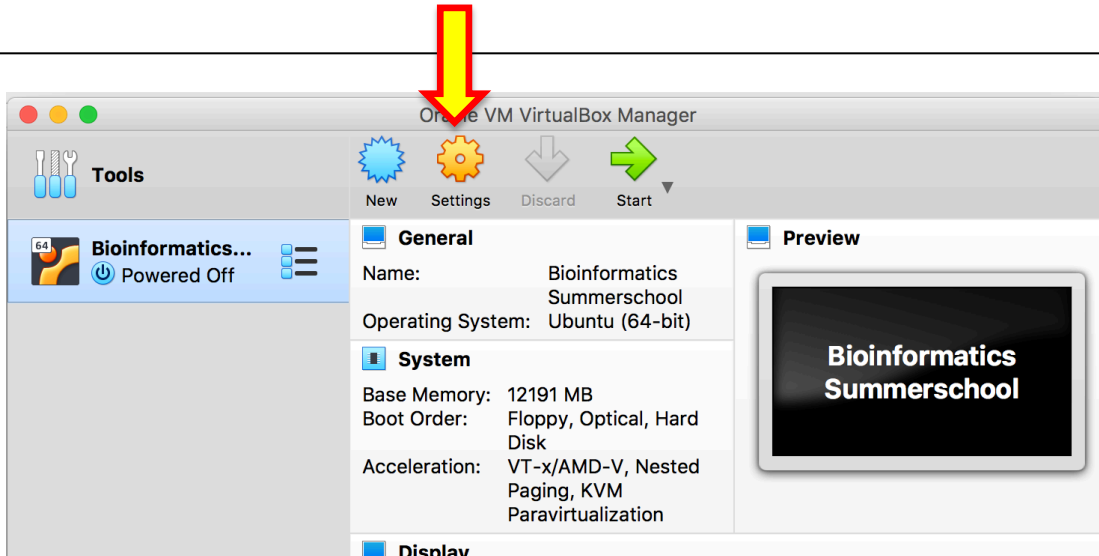
Add   Refresh

Name   ▲ Virtual Si
▼ Attached

VirtualBox VMs

	Date Modifie
Summerschool_2020.vdi	Today at 18
▶ Bioinformatics Summerschool	Today at 18
▶ GlasgowBio	Today at 17

Favorites
Recents
Applications

Add   Refresh

Name	▲ Virtual Size	Actual Size
▼ Attached		
Summerschool_2020.vdi	25.00 GB	17.73 GB

This this window select again the selected file and confirm.

The next window should look like this:
Press create.

Hard disk

If you wish you can add a virtual hard disk to the new machine. You can either create a new hard disk file or select one from the list or from another location using the folder icon.

If you need a more complex storage set-up you can skip this step and make the changes to the machine settings once the machine is created.

The recommended size of the hard disk is **10.00 GB**.

○ Do not add a virtual hard disk
○ Create a virtual hard disk now
● Use an existing virtual hard disk file

Summerschool_2020.vdi (Normal, 25.00 GB)

Go Back   Create   Cancel

Technically, we are done. But it might worth to set some settings!

First, under general & Advanced tab, chose "bidirectional" for the two options "shared Clipboard" and "Drag'n'Drop". This will allow you cp & paste between the host system (your) and the Linux.
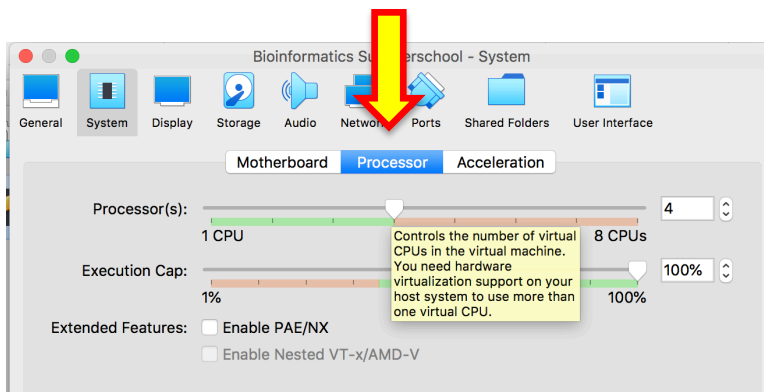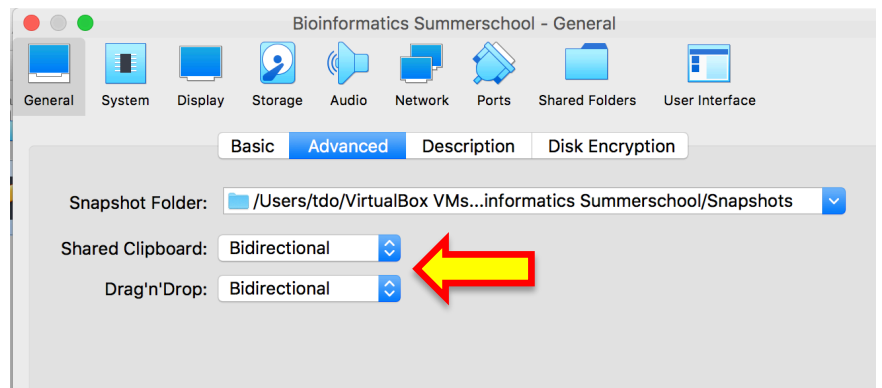

Second, under System & Processor tab, chose half of the available processor. The VM will work faster with more processors and it enable multithreading – more during the mapping exercise!

Third, under Display and Screen, give your video Memory 128 MB. Look that the Graphs controller is set to VMSVGA.
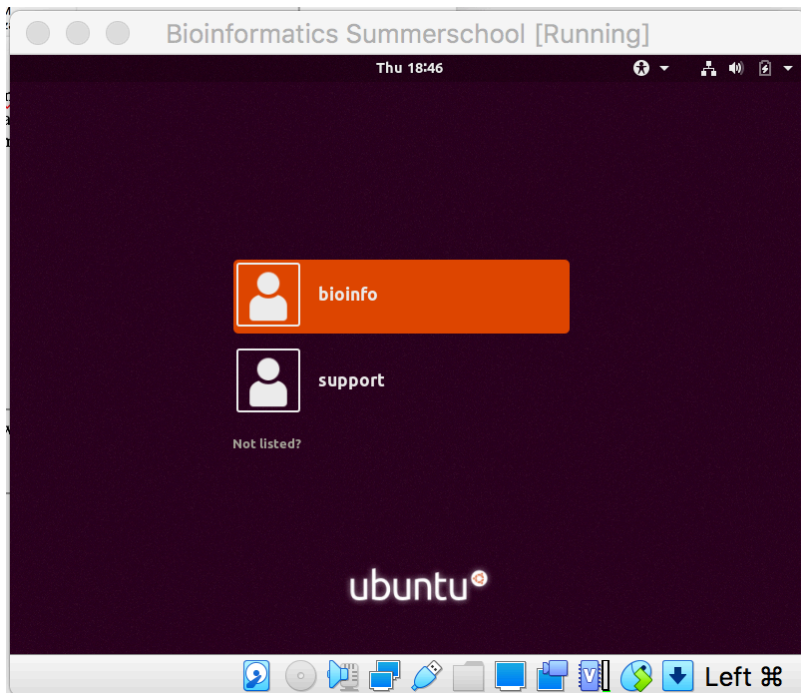If this is not correctly set your VM might freeze when you resize the window – and we don't want that!

FINALLY press ok.
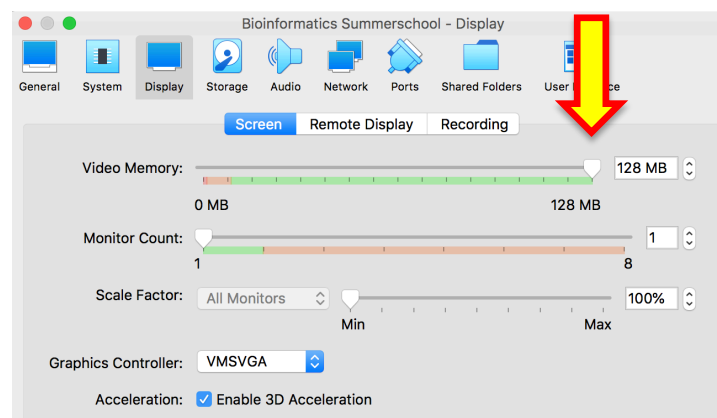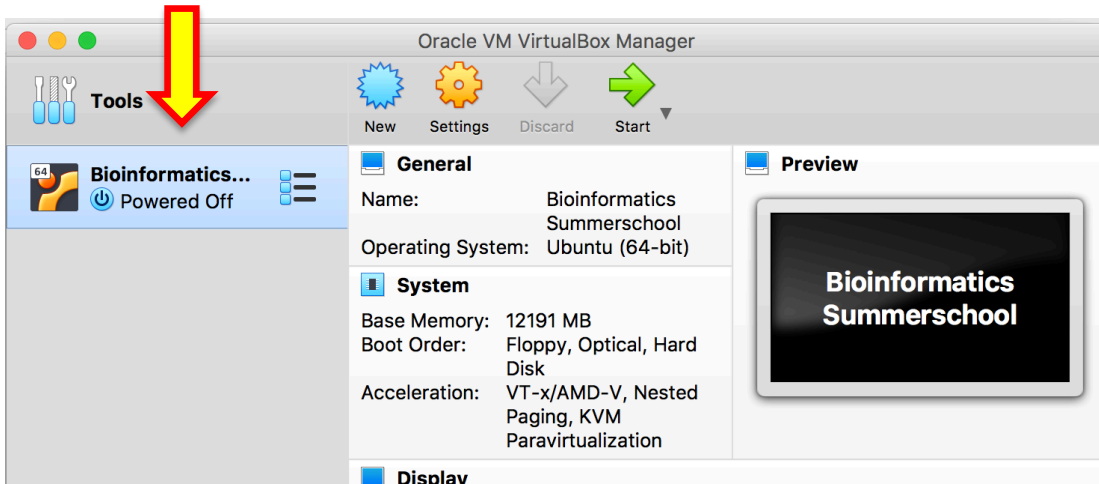
Double click on this new "Bioinformatics Summerschool" power button to start the VM. A window wil pop up and it might take a bit. If you VM is on an external drive, the booting (loading of the Linux system) might take a bit longer.

Next select the bioinfo user and type the password Glasgow2020.

I hope you are still with us and haven't run away!
You should see the screenshot below. I pretty sure you cannot wait for the course to start!

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