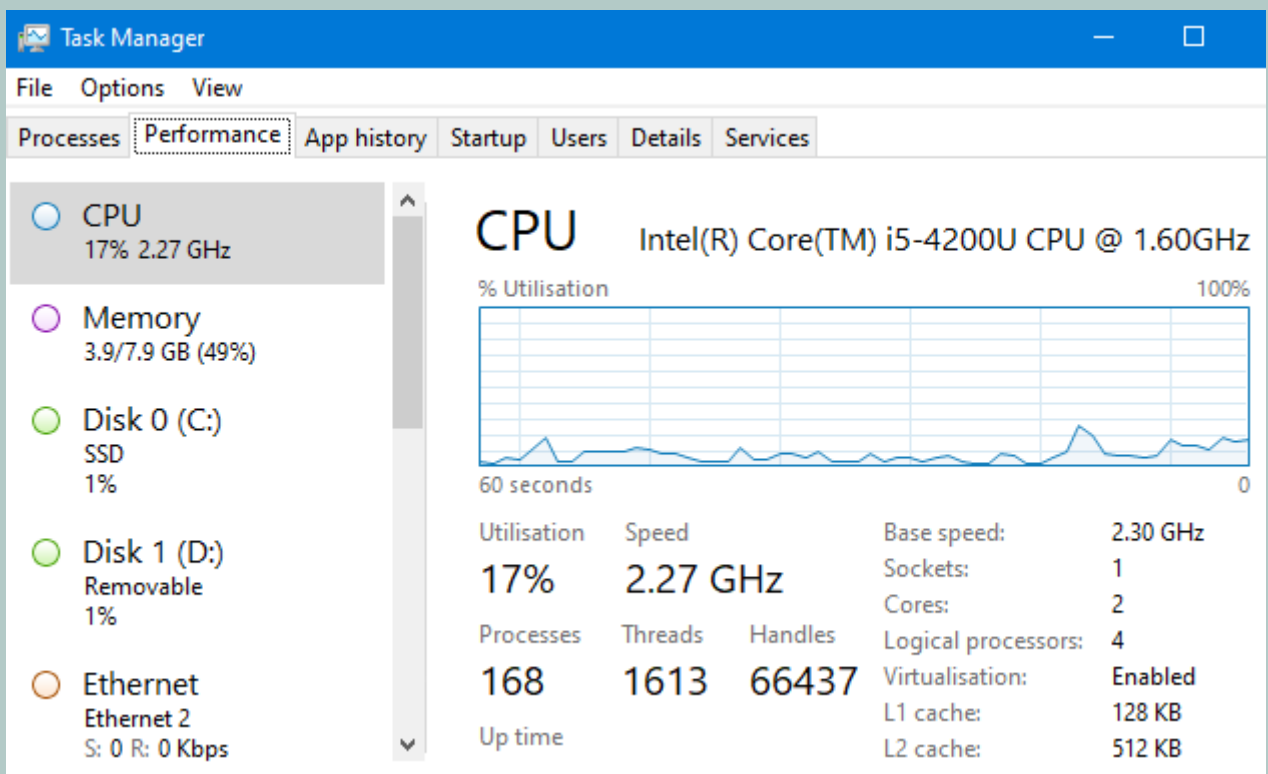


Running Linux Mint on a Windows Host

PREREQUISITES

Check to see if your BIOS has Virtualisation Enabled:

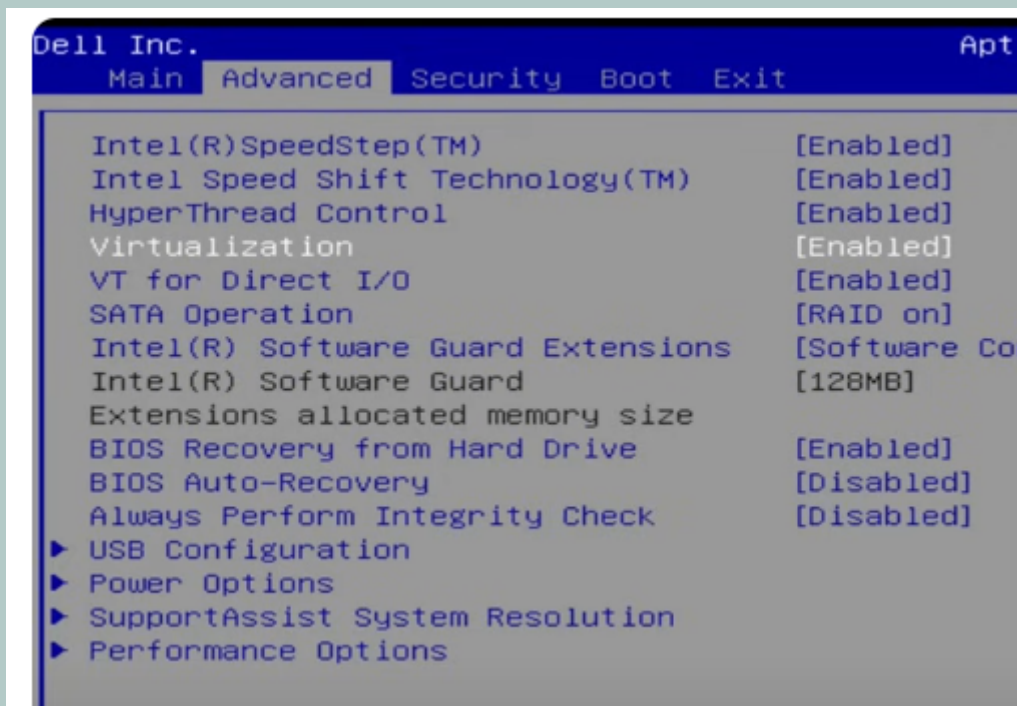
- Open Task Manager (Ctrl+Shift+Esc) – Performance – CPU -
- Look down towards the bottom right >
-



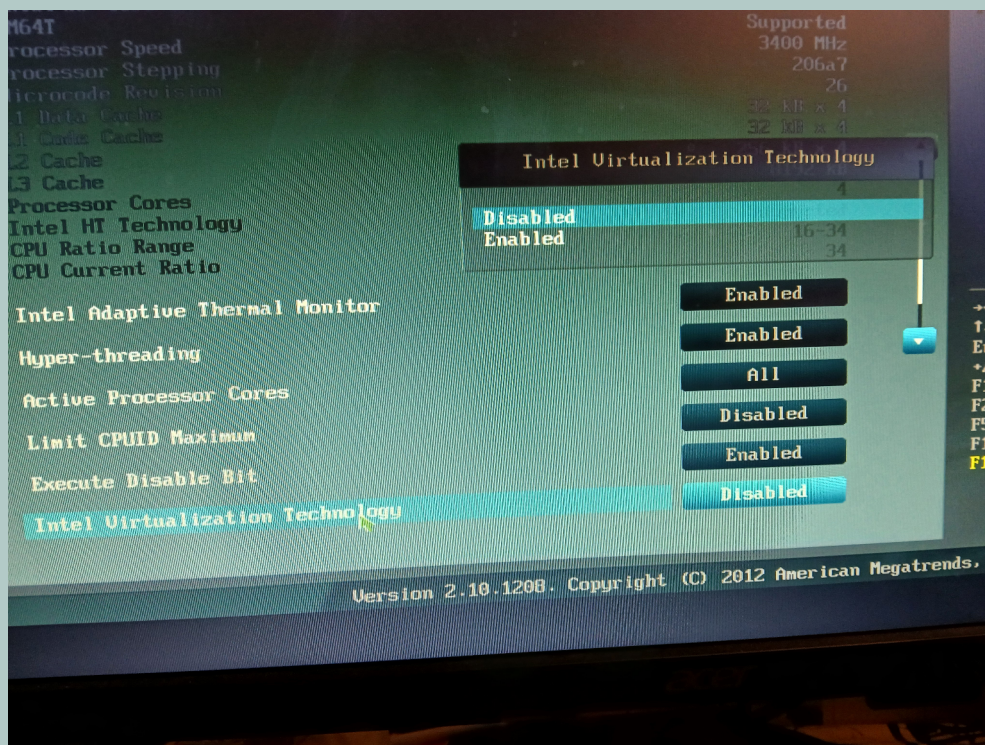
In this example, Virtualisation is **Enabled**

If it is not enabled you have to go into the BIOS Settings.

- Turn off the Computer
- Restart the computer pressing the hot key to enter setup. It could be the F2 key or the Esc key. Depends on your brand of computer.
-



- This is an example from a Dell Laptop



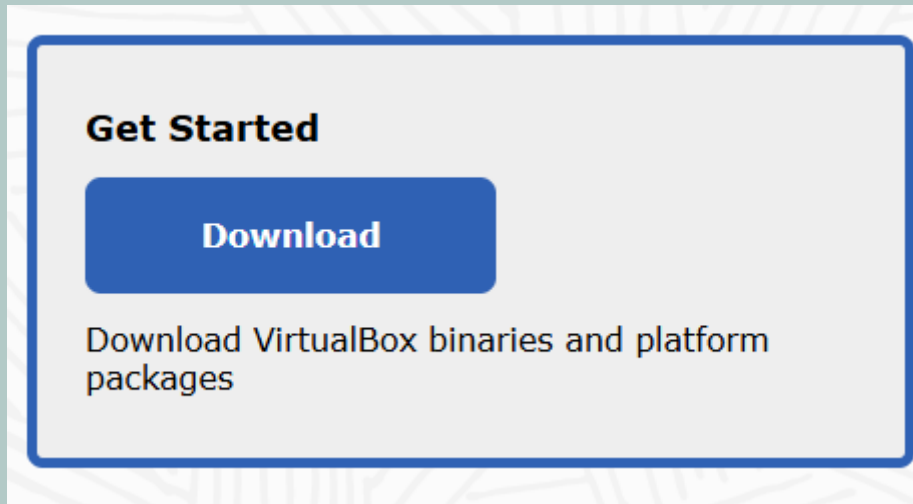
This is a second example of the BIOS Settings showing the menu.

- Click on Virtualisation and a menu will pop up.
- Select Enabled
- F10 to save your changes and exit; which will restart the computer.
- Double check task manager to make sure it is enabled.

DOWNLOADS

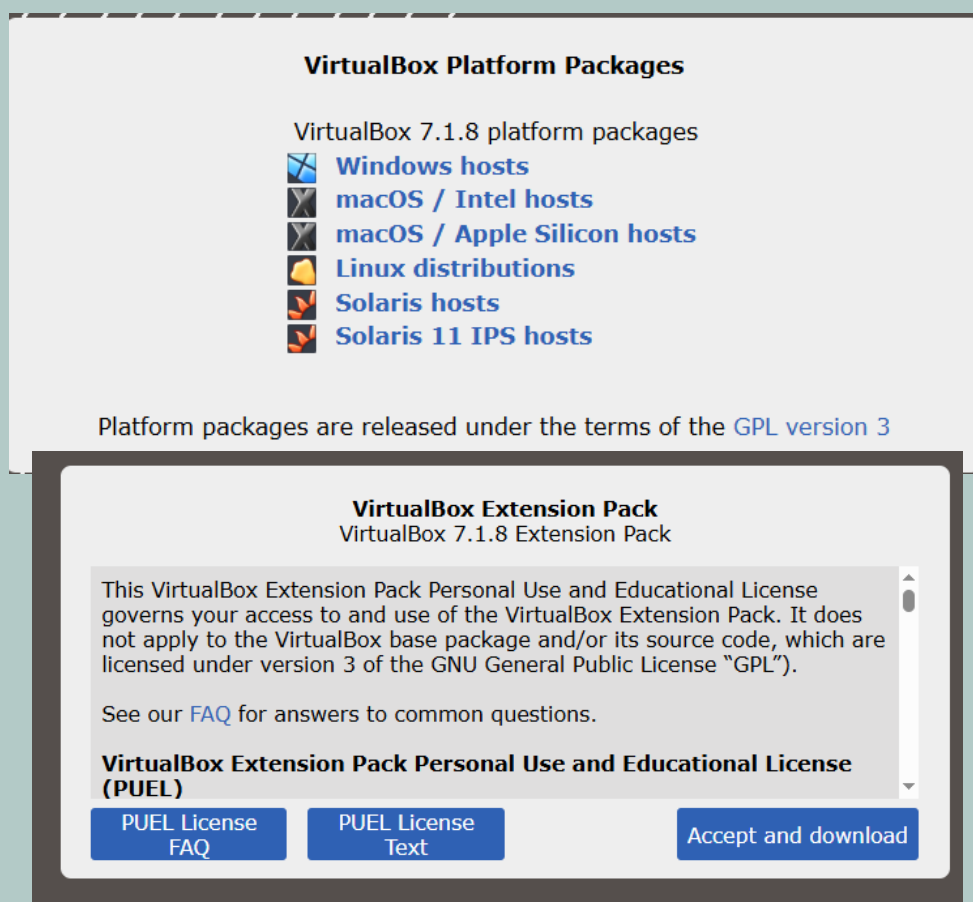
Download VirtualBox:

- Go to the Web Site: www.virtualbox.org



Click on Download

After you click Download you will see two windows as shown below:
You only need to download the WINDOWS HOSTS. The Extension Pack is no longer required.



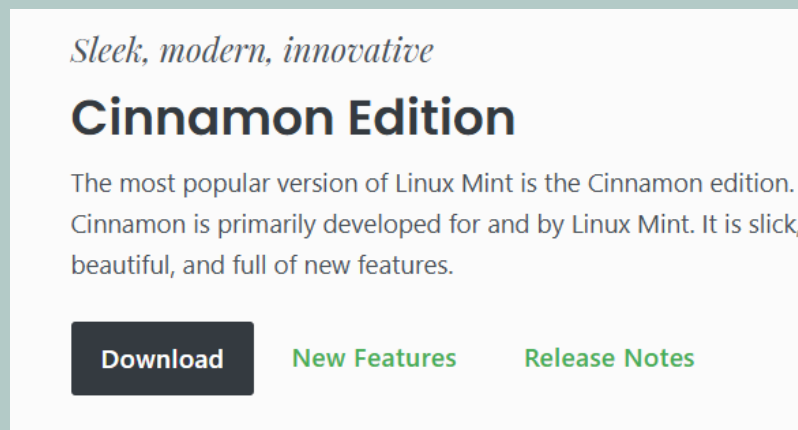
- Select your Operating System (Windows Hosts) and click download.
- The file will look something like this:
- VirtualBox-7.2.10-174163-Win.exe
-

Download the Linux Mint ISO

Save ISO to 8GB USB stick.

Go to the Web site: [Linux Mint](https://linuxmint.com)

On the Linux Mint site select Cinnamon Edition > Download.

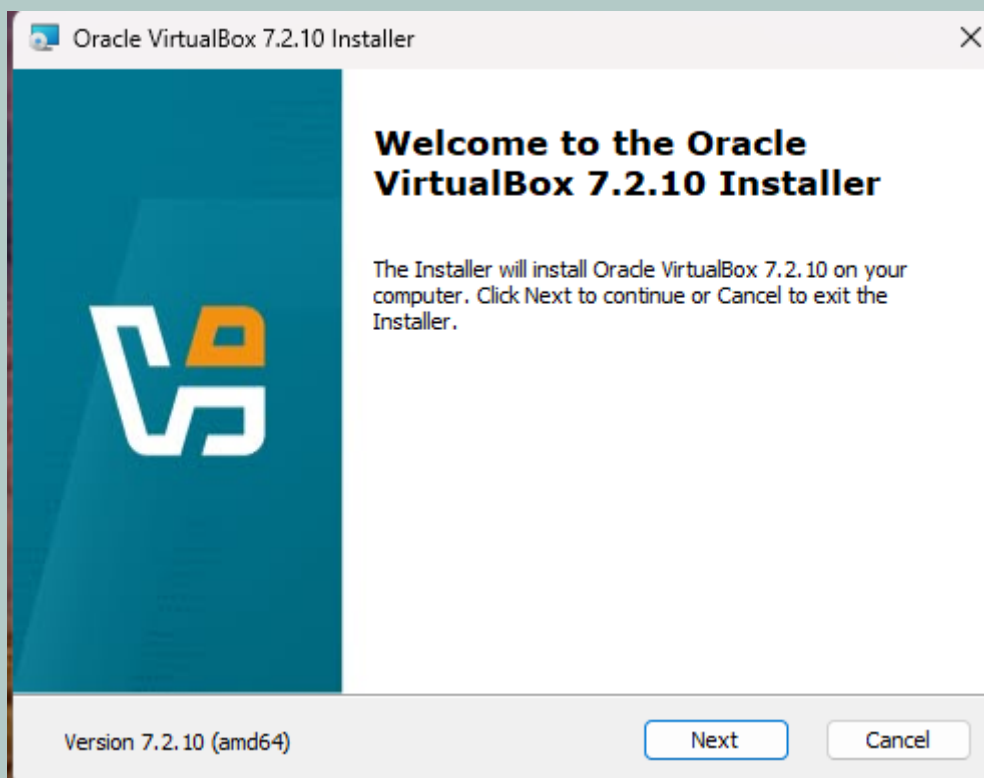


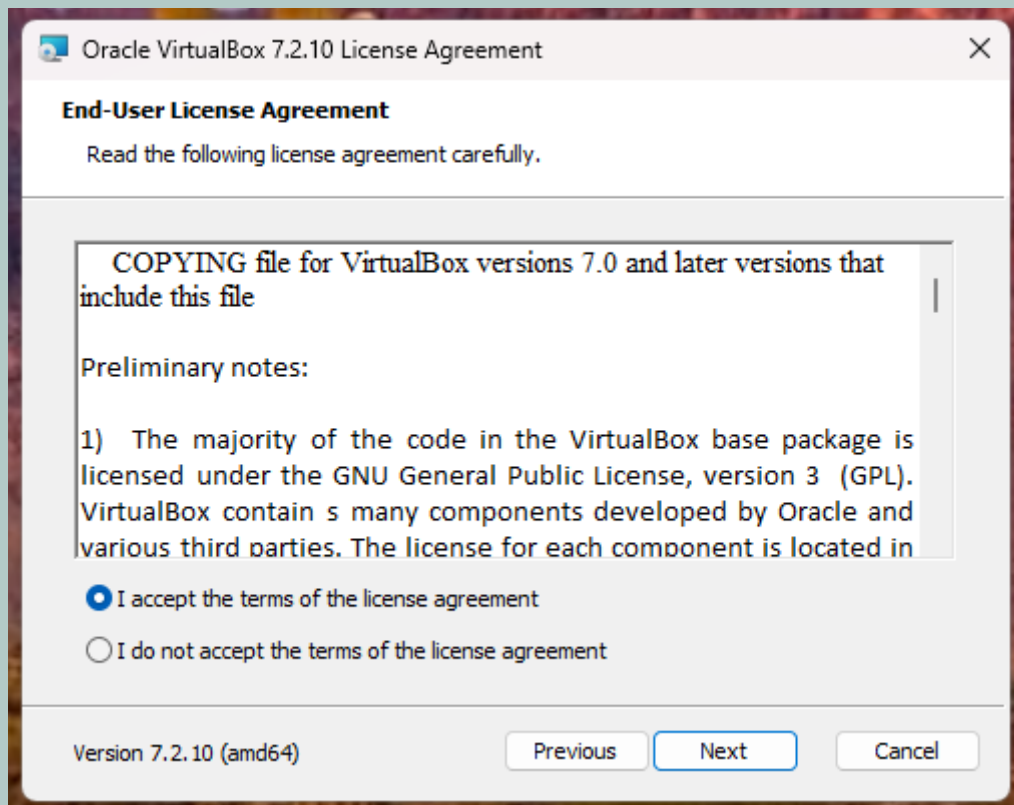
The File you are downloading will look something like this:
linuxmint-22.3-cinnamon-64bit.iso

Install Virtual Box:

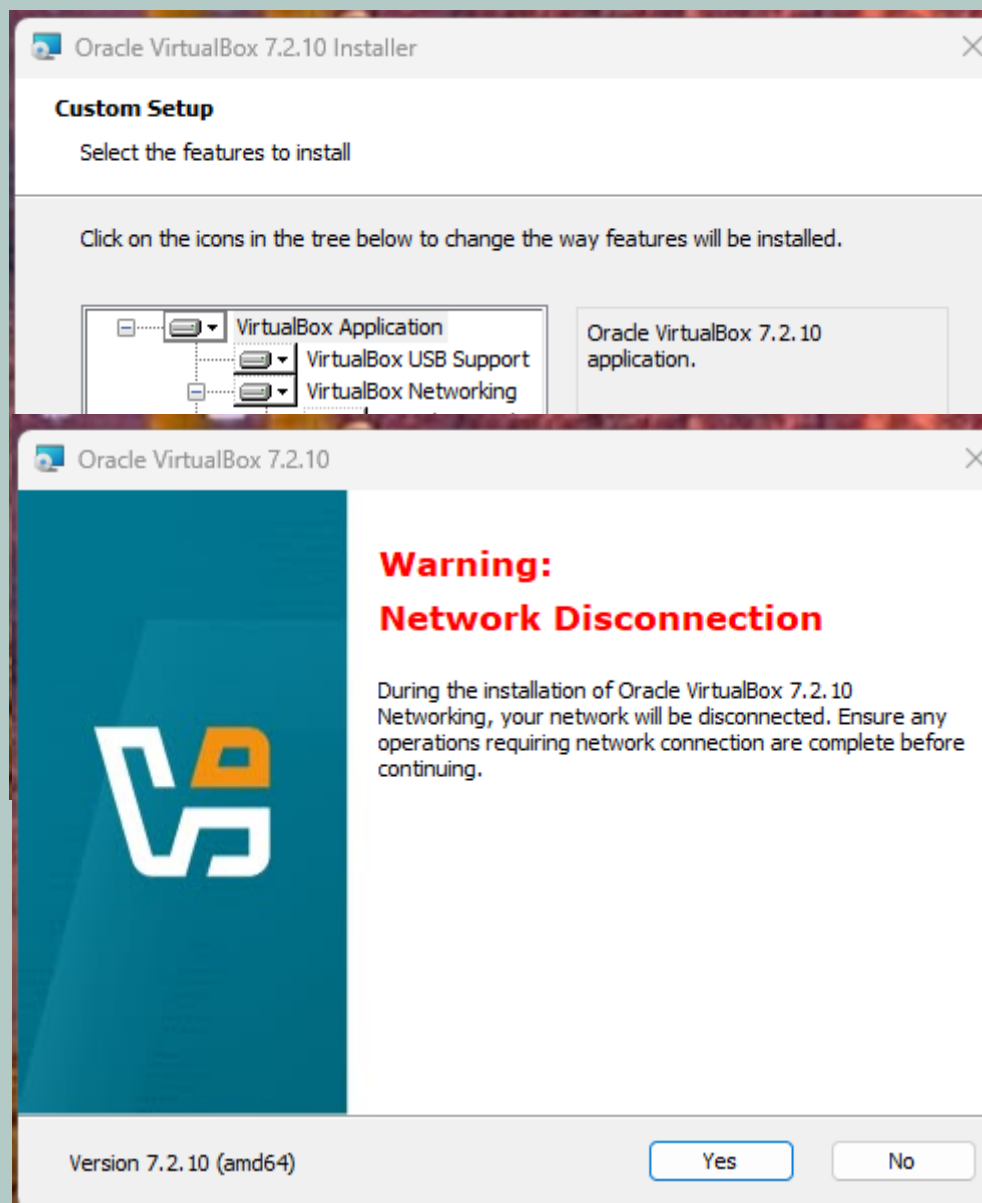
- Go to your downloads folder and double click on the EXE file you downloaded for Virtual Box.

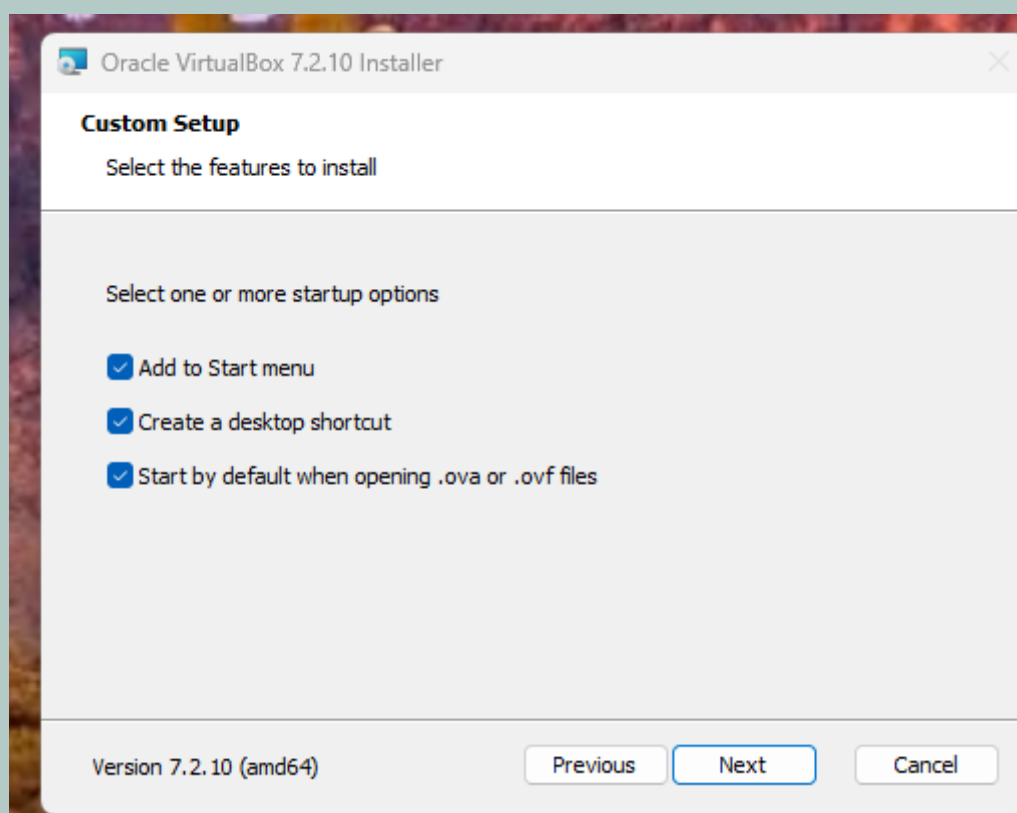
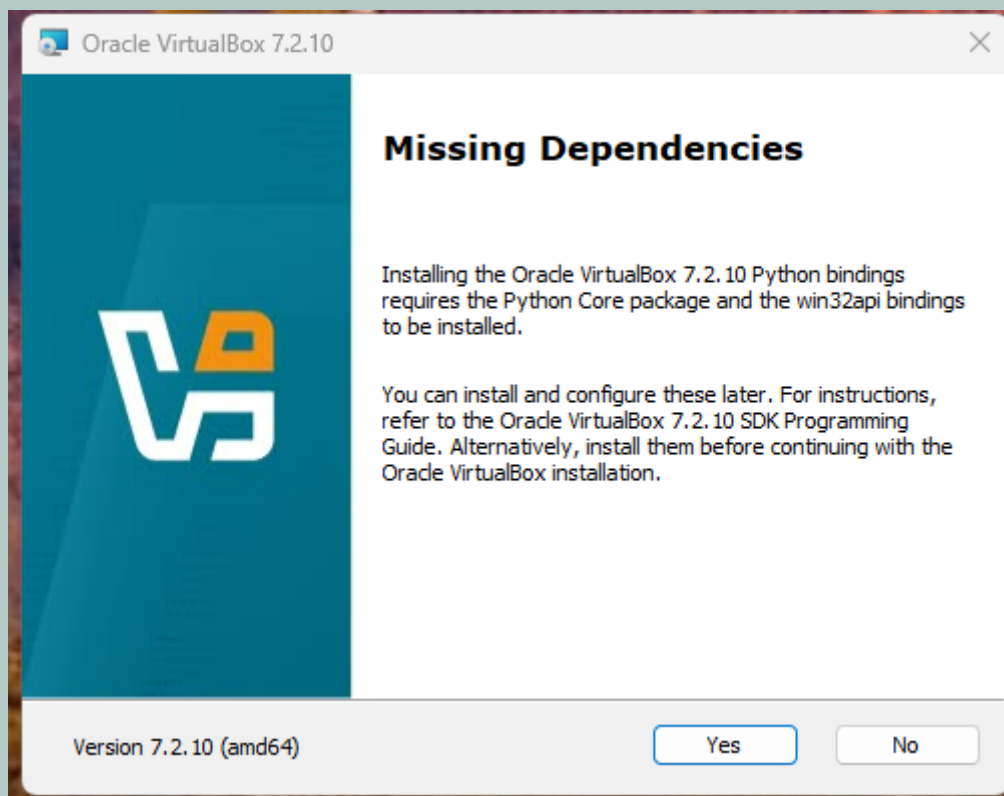
These are the steps to follow. No changes to make. Click Next/Yes or Install on each as it comes up.

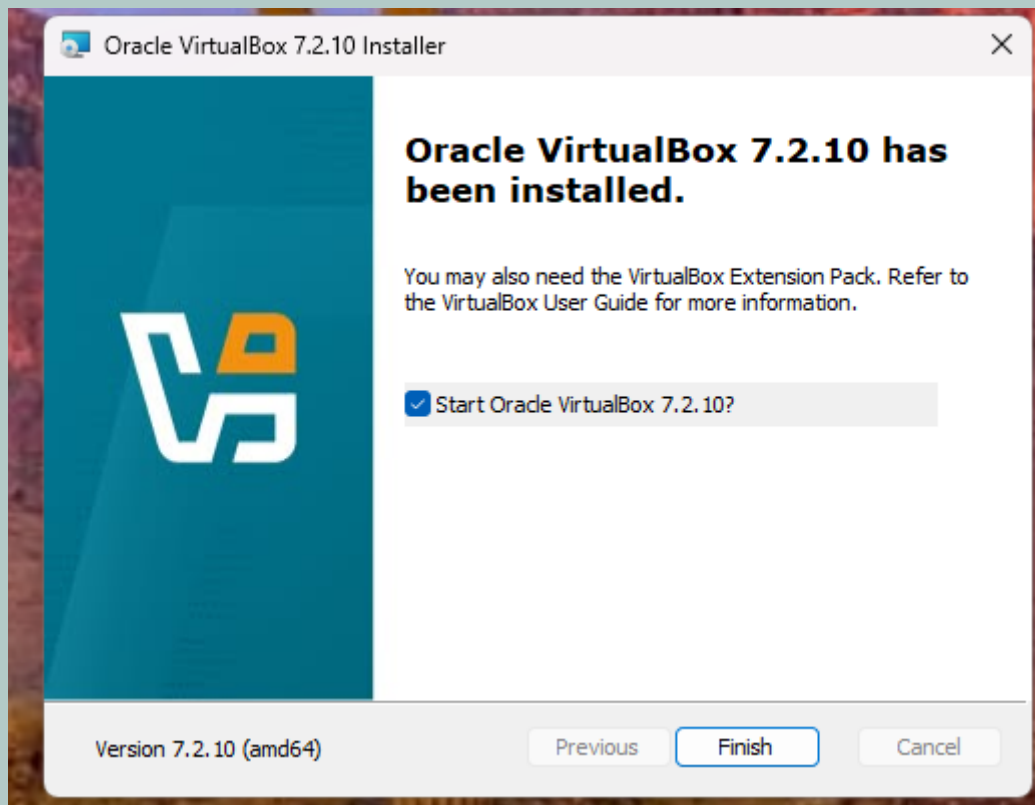




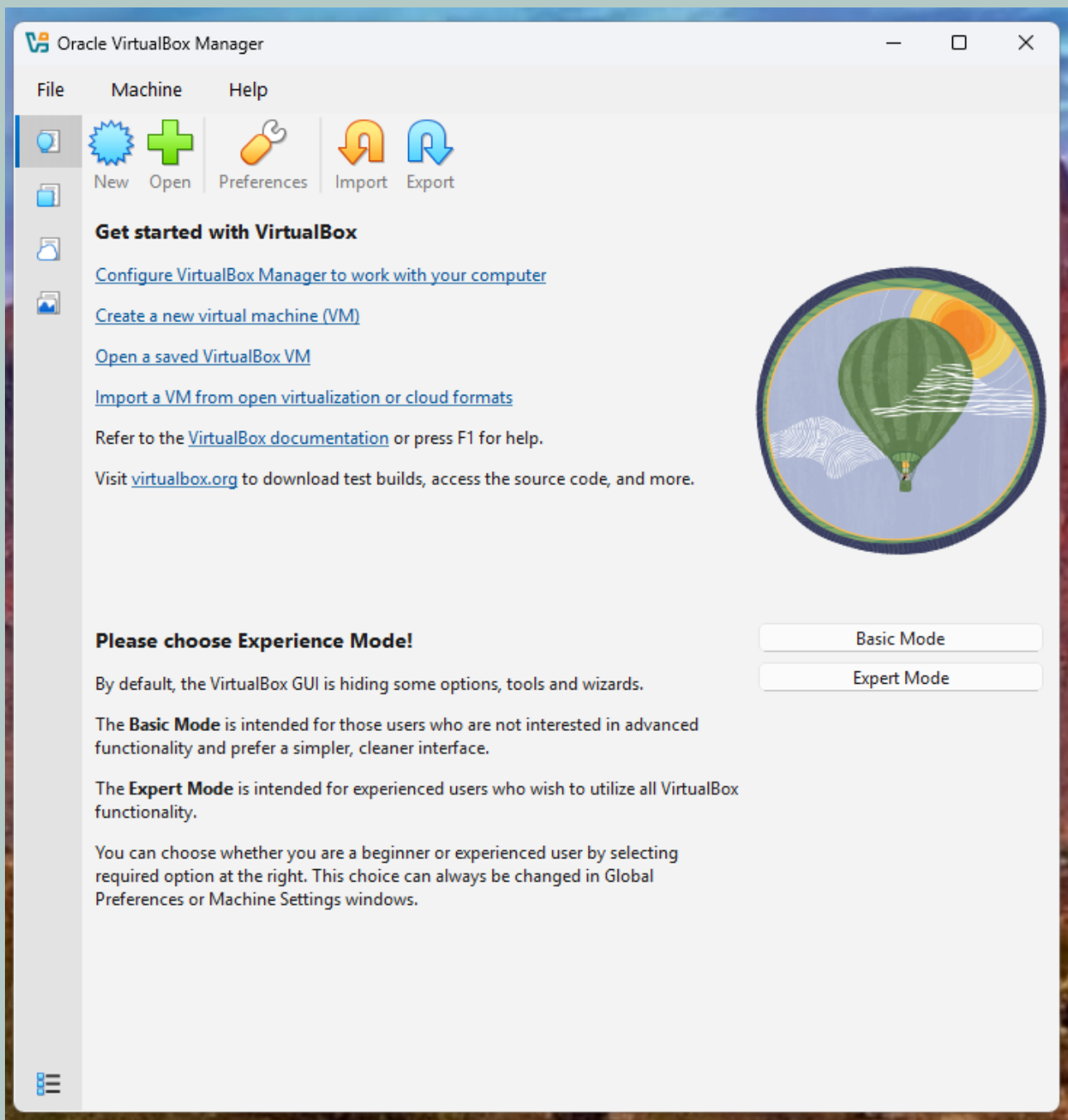
Select I accept and click Next



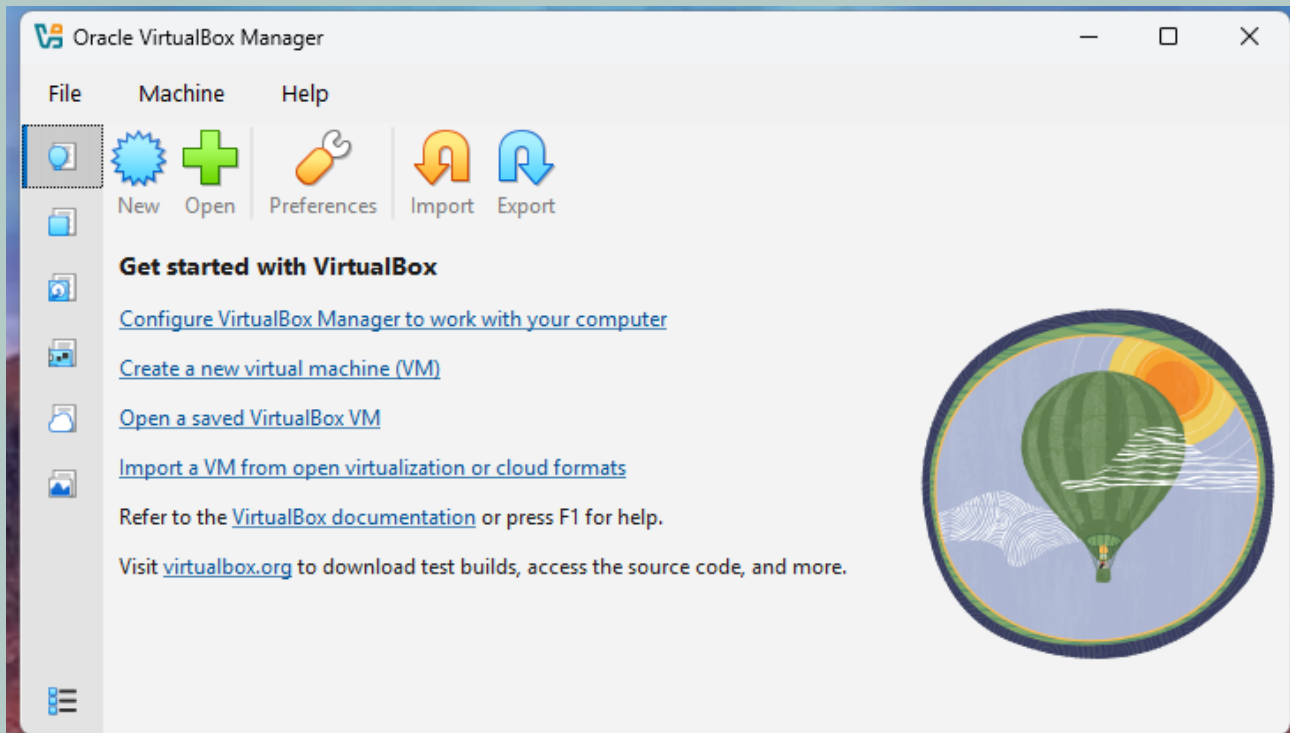




Oracle VirtualBox Manager



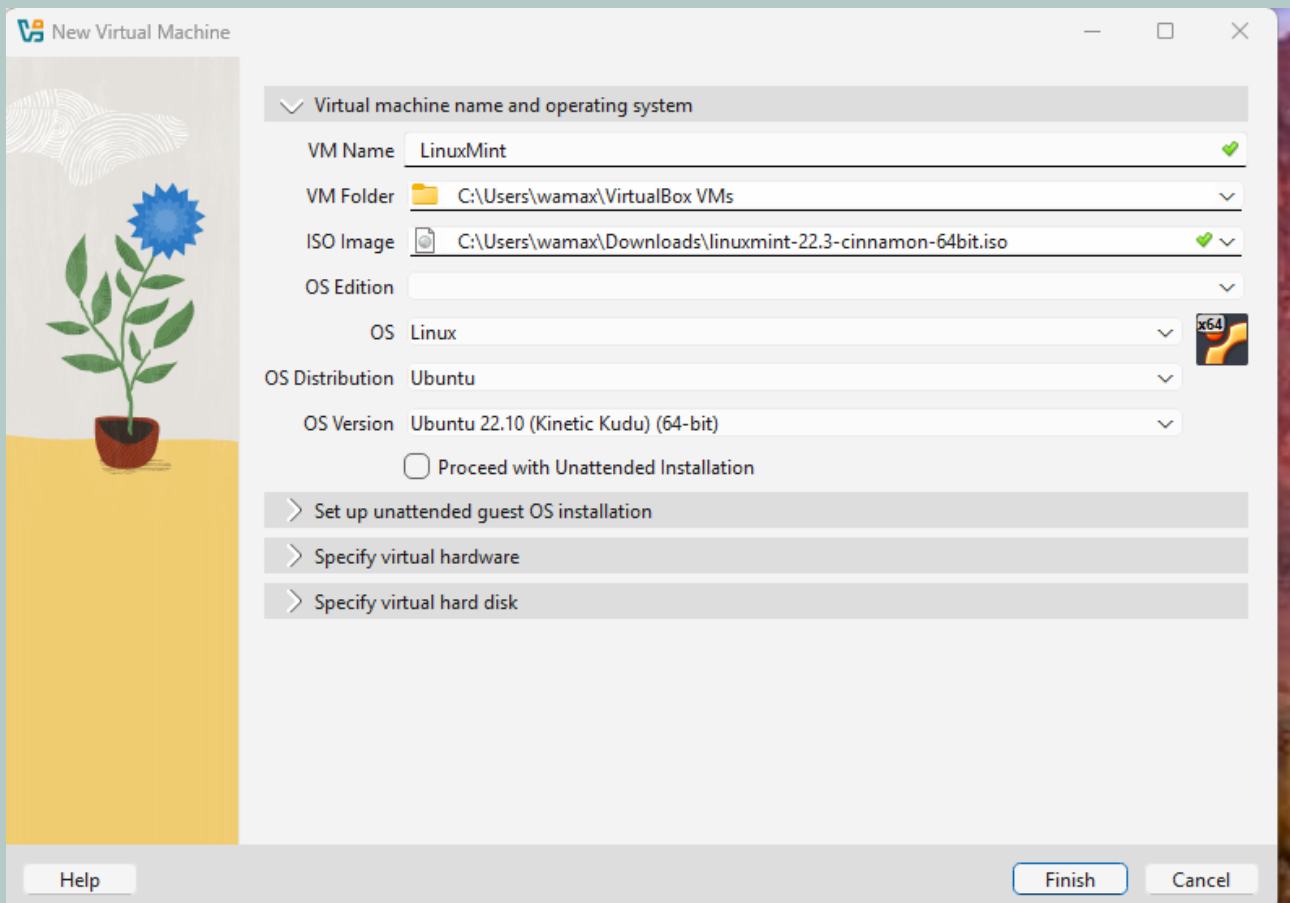
Opening Page
Select Expert Mode



Oracle Virtual Box Manager

Install Virtual Machine for Linux Mint

To install a new Virtual Machine click on NEW



>Virtual Machine Name and Operating System

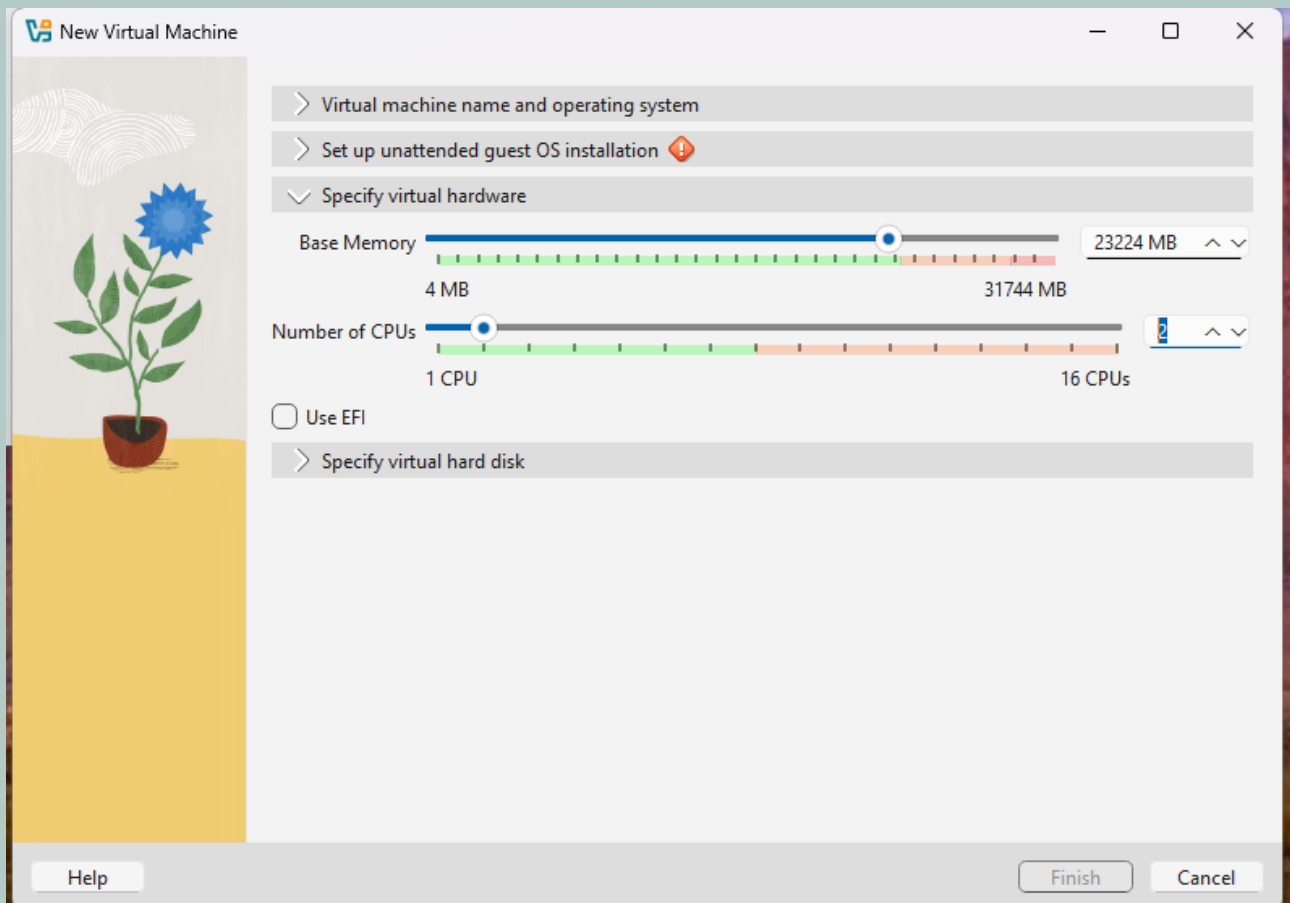
VM NAME: Linux_Mint

ISO Image: Select the Linux ISO you previously downloaded.

UN-Tick – Proceed with Unattended Installation.

Next

Select “>Specify Virtual Hardware”

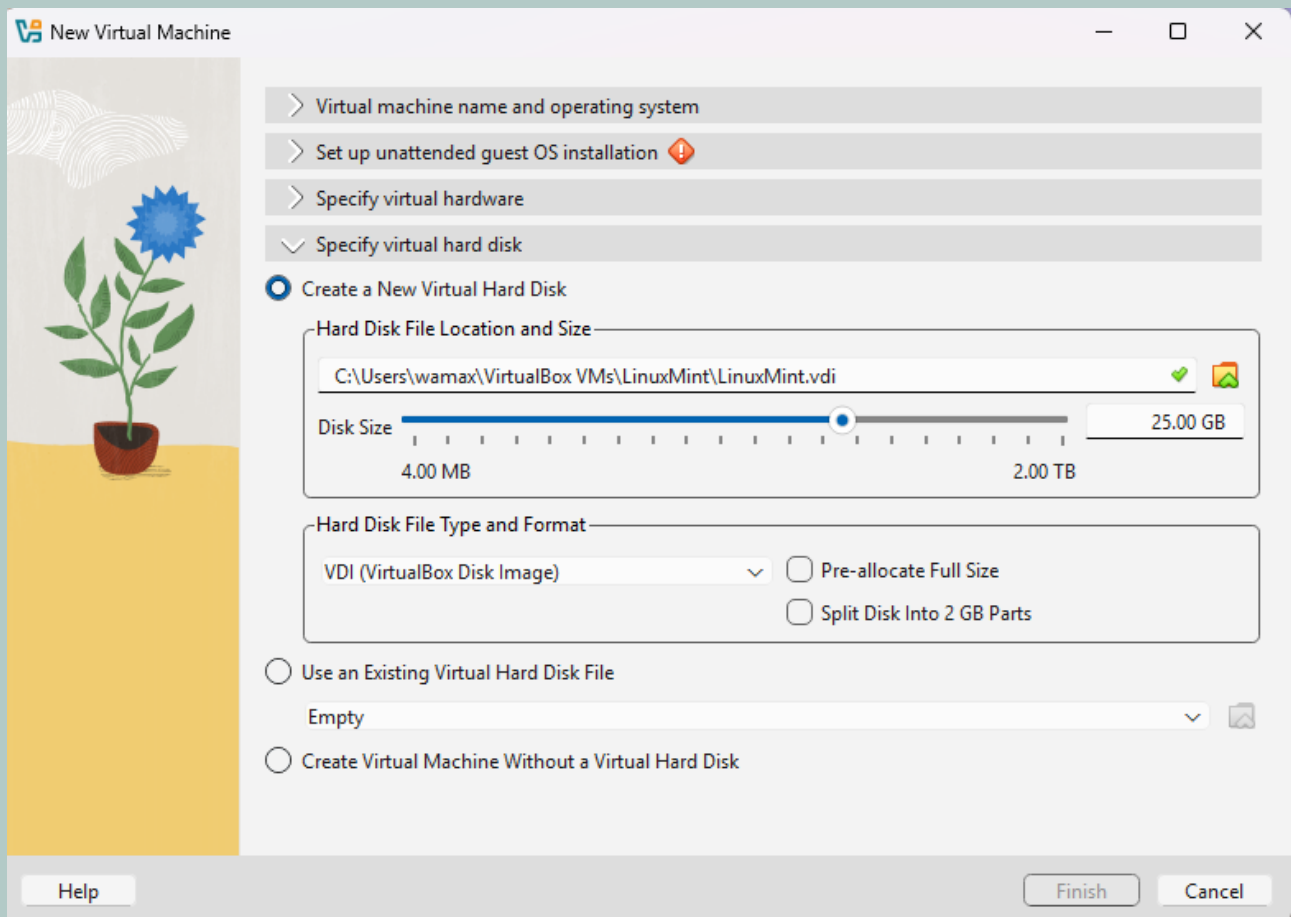


Base Memory: Move the slider to the highest setting within the Green Band.

Number of CPU's set to TWO.

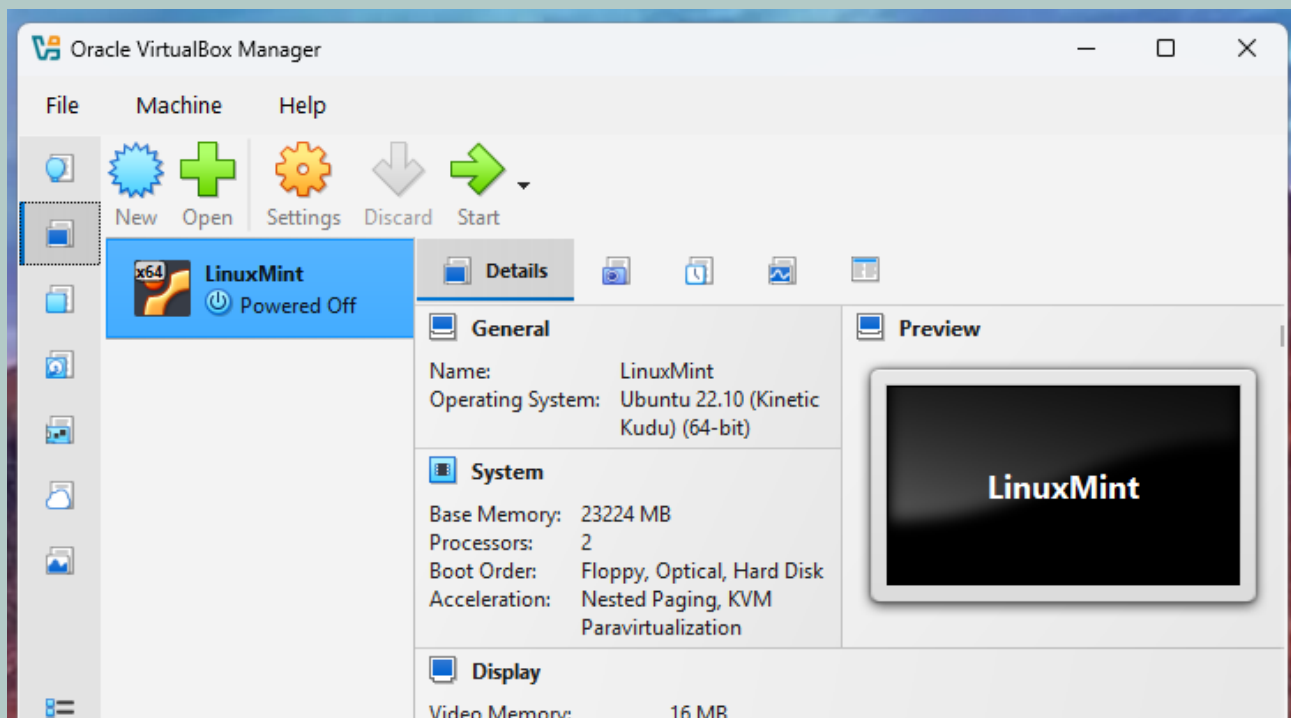
Next:

Select "Specify Virtual Hard Disk"



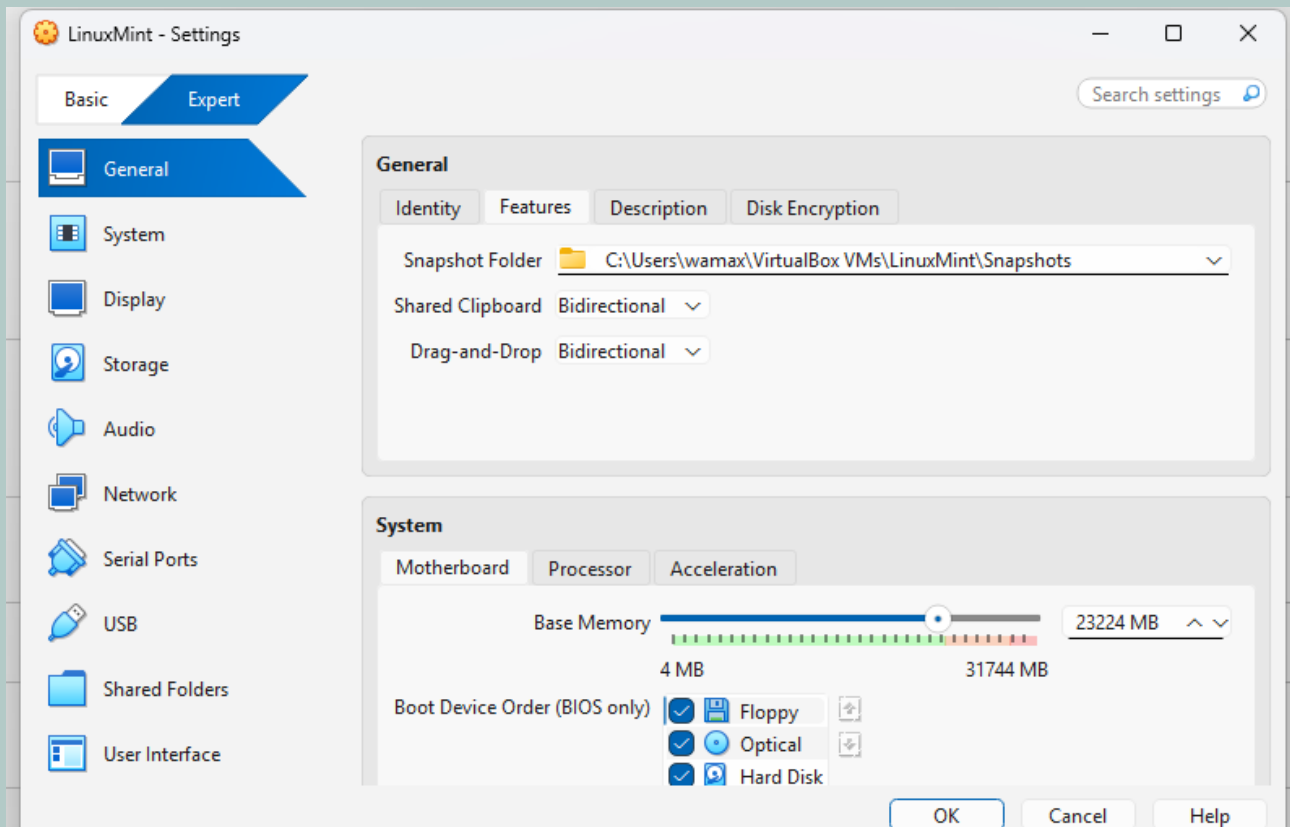
Disk Size slider set to 25GB

Click on Finish:



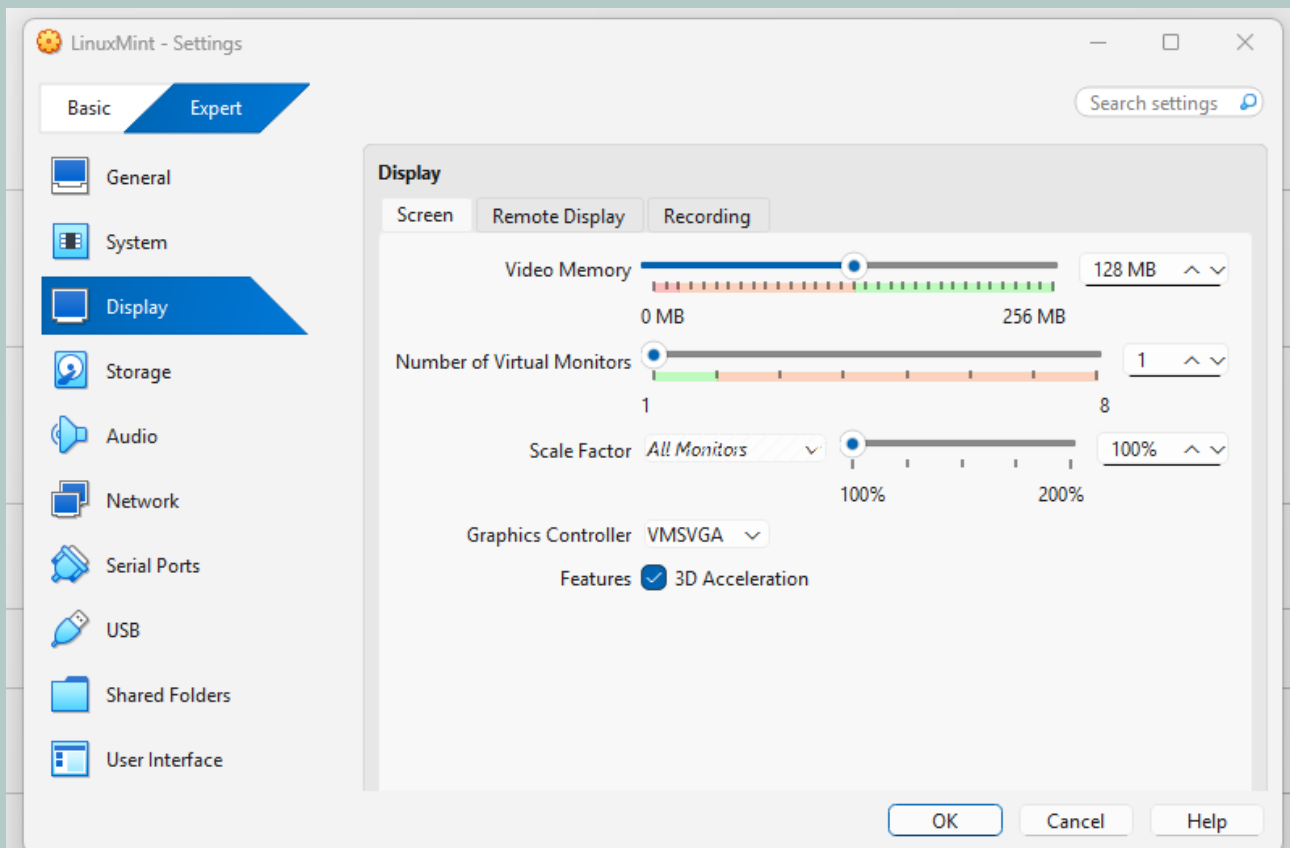
Additional Settings

After you click on Finish, the Oracle VM Manager window will open. Click on SETTINGS.



Select Expert > General > Features and set Shared Clipboard and Drag and Drop to “BIDIRECTIONAL”

Select Display



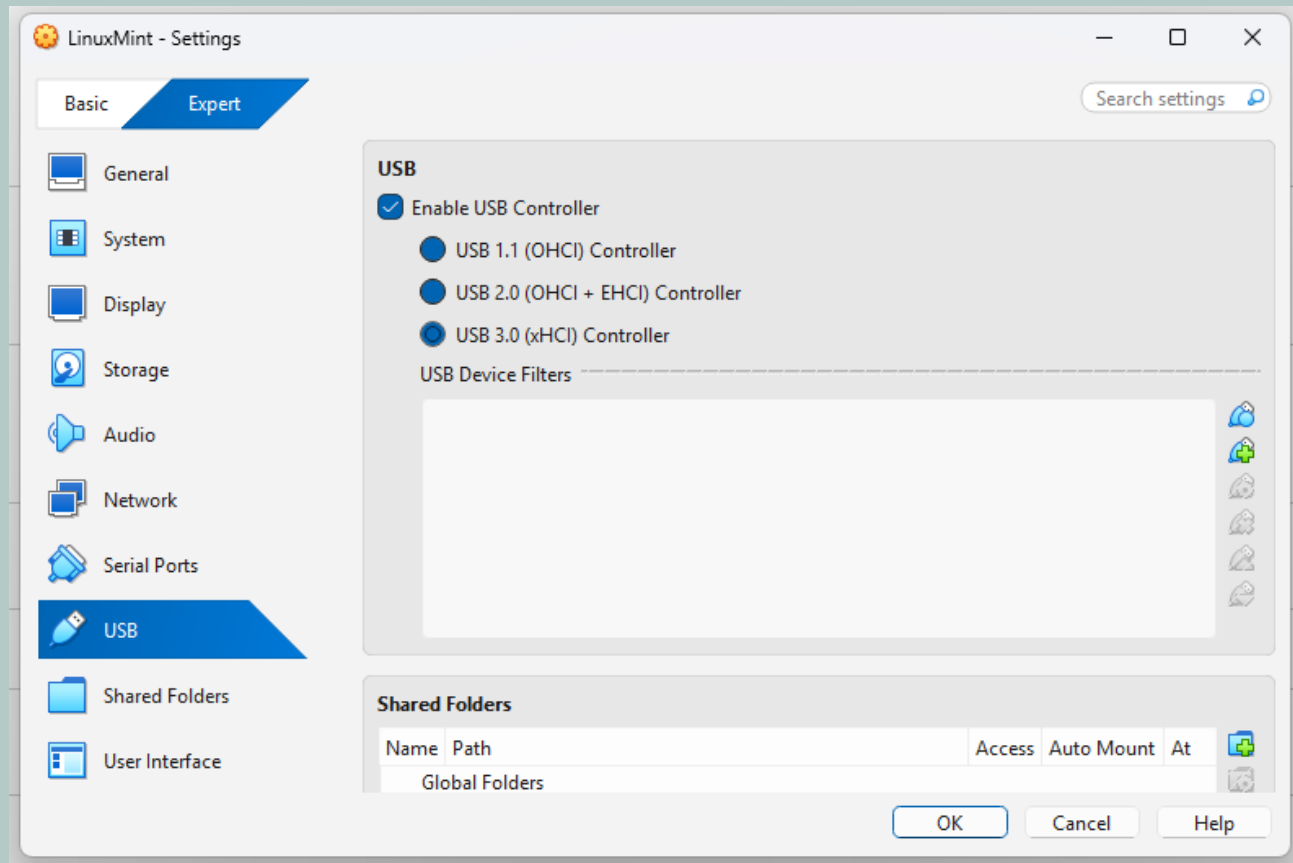
Set the Video Memory slider to 128MB

Set Graphics Controller from VMSVGA to VBoxSVGA

Tic 3D Acceleration

After installation is complete the Graphics Controller will automatically change back to VMSVGA. VBoxSVGA is only required for the initial install.

Select USB:



Select USB 3.0

Click OK

Install Linux Mint

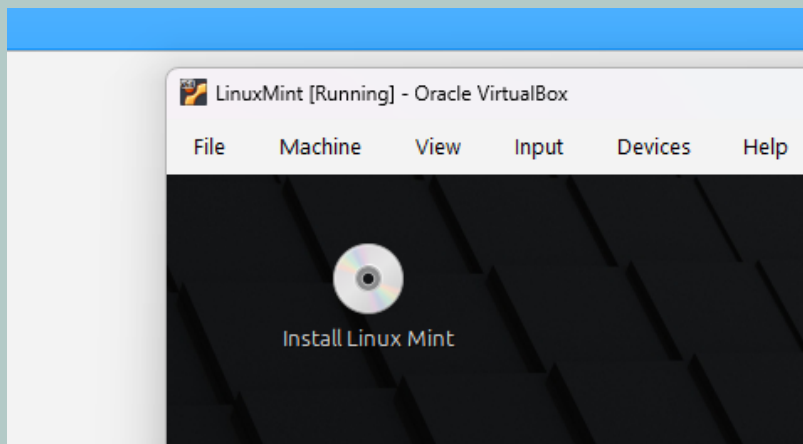
You are now ready to install Linux.

Back on the Oracle VM Manager select your new Linux Mint VM from the list and click START.

When the boot menu appears, use the arrow keys to select Start Linux Mint and press enter.

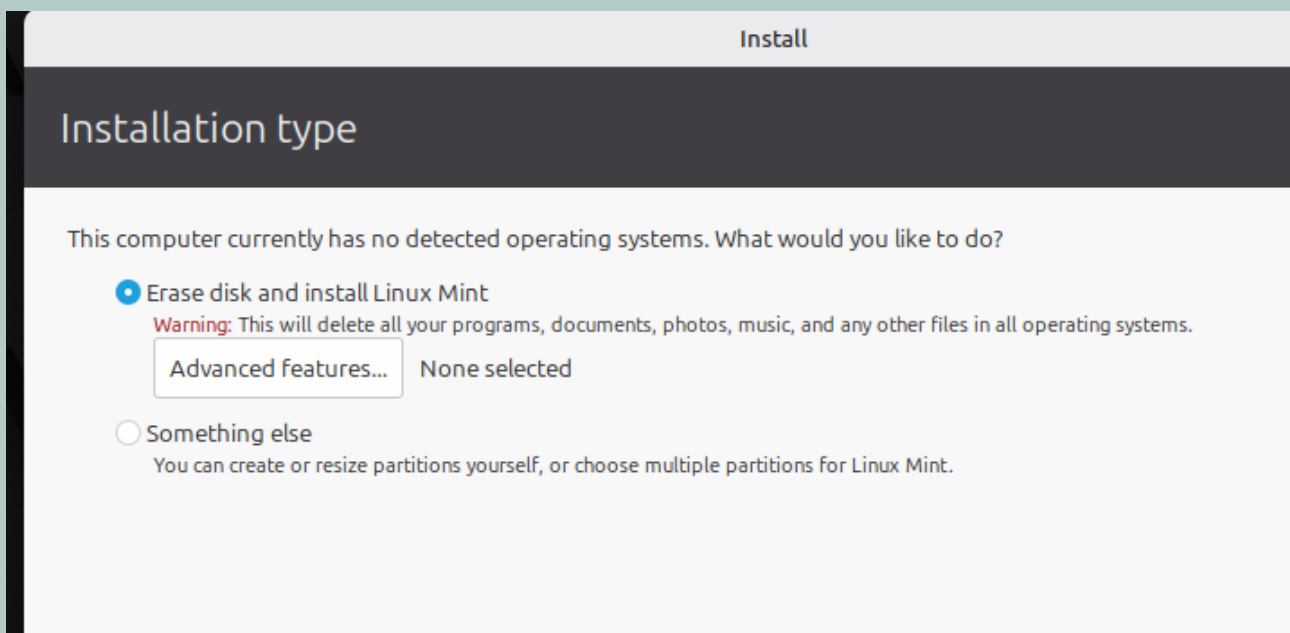
Wait for the live Desktop to load.

Double click the Install Linux Mint icon on the desktop.



Follow the on-screen prompts to select your language, keyboard layout and time zone.

Choose ERASE DISK AND INSTALL LINUX MINT (This only applies to the virtual hard drive and will not affect your host computer) – click Install now.



When it comes with this window about ERASE DISK. Don't Panic ... It is the Virtual Disk, Not your actual Hard drive.

There will be one last setting to change which will enable FULL SCREEN mode.

You must install the VIRTUALBOX GUEST ADDITIONS.

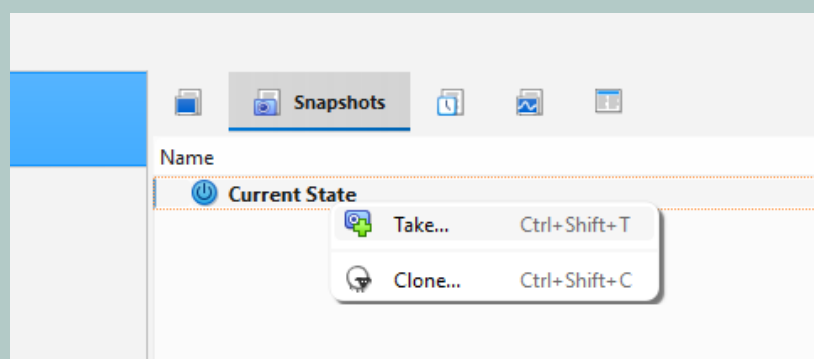
Log into your fresh Linux desktop using the user password you created.

- Look at the top menu bar of Linux and click on **Devices**, and choose **Insert Guest Additions CD Image...**
- A CD icon will appear on your desktop. Double-click it to open its folder view.
- Right-click any blank space inside that folder and choose **Open in Terminal**.
- Execute the driver setup script by typing `./autorun.sh` into the window and hitting **Enter**. Type your account password when prompted to authorise it.
- Once the terminal command lines finish executing, close the window and restart your virtual system one final time. Your screen resolution will now seamlessly scale whenever you resize the VirtualBox window.

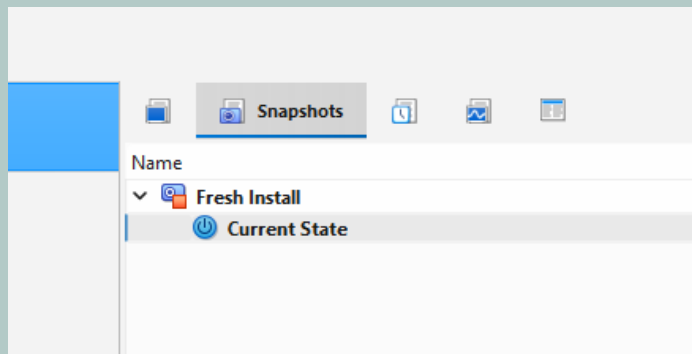
TAKE A SNAPSHOT:

Since your base setup is complete, here are the final best practices for managing this specific VM:

1. **Take a Snapshot:** Before you start tweaking settings or downloading apps, open the main VirtualBox Manager on Windows, click the menu next to your VM name, and select **Snapshots** -
2. Right Click directly on the words Current State
3. Click on **Take**. Name it **Fresh Install**. If anything ever breaks in the future, you can roll back to this exact moment in seconds.



Before



After

Run System Updates:

Open your Linux Mint terminal and run your standard update cycle to catch up on any patches since the ISO was built:

```
sudo apt update && sudo apt upgrade -y
```

Eject the Virtual CD:

You can right-click the VirtualBox Guest Additions CD icon on your Mint desktop and select **Eject** to clean up your workspace.

Special Notes:

Troubleshooting Steps:

A frozen black screen usually means the virtual machine doesn't have enough **Video Memory** allocated to render the Linux Mint graphics interface. VirtualBox often defaults this to a tiny amount (like 16 MB), which causes Linux to freeze on boot.

To fix this, you need to turn off the VM and adjust the display settings. Details below:

Step 1: Force Close the Black Screen

1. Click the **X** in the top-right corner of the frozen Linux Mint window.
2. Select **Power off the machine** and click **OK**.

Step 2: Increase Video Memory (The Fix)

1. In the main VirtualBox window, make sure `LinuxMint` is highlighted on the left.
2. Click the orange **Settings** gear icon at the top.
3. Click on the **Display** tab in the left-hand menu.
4. Look at the **Video Memory** slider. Drag it all the way to the right until it hits **128 MB**.
5. (Optional) Check the box next to **Enable 3D Acceleration**. This will make the desktop run much faster once booted.
6. Click **OK** at the bottom to save your changes.

A black screen with a blinking cursor that vanishes usually means VirtualBox's default graphics driver is clashing with your Windows 11 graphics hardware, or the virtual motherboard is missing a crucial boot setting.

Power off the virtual machine completely, open its **Settings**, and apply these three quick hardware overrides to fix the display loop:

Step 3: Change the Graphics Controller

VirtualBox 7.2 tries to force an automatic graphics driver layout (`VMSVGA`) that frequently fails on modern Windows 11 graphics chips during initial Linux boots.

1. Go to **Settings > Display**.
2. Find the **Graphics Controller** drop-down menu.
3. Change it from `VMSVGA` to `VBoxSVGA` (or `VBoxVGA` if `VBoxSVGA` isn't an option).
4. *Note:* VirtualBox might show a tiny warning text at the bottom saying *"Invalid settings detected"*. **Ignore this warning**; it is a known bug in this version, and changing this controller is exactly what forces the screen to display graphics.

Why VirtualBox Secretly Changed It Back

4. **The Initial Problem:** Linux Mint's basic installation installer media does not natively carry advanced drivers for the VMware-style (`VMSVGA`) graphics card on boot. That is why it threw a black screen. Changing it to `VBoxSVGA` stripped out the complex styling demands, allowing your basic desktop environment to display cleanly so you could install the operating system.
5. **The "Guest Additions" Effect:** In the steps that followed, you successfully installed the **VirtualBox Guest Additions** inside Linux Mint. This package contains Oracle's official graphics driver payload.
6. **The Silent Override:** Because you also checked the box for "**Enable 3D Acceleration**", VirtualBox triggered a strict internal optimization rule. VirtualBox 7 hard-codes Linux virtual machines to run **VMSVGA** when 3D acceleration is active, as it provides the absolute best performance for modern Linux rendering engines.

The moment your Guest Additions finished installing and you rebooted, VirtualBox recognized that Linux Mint now had the proper drivers to support it, and seamlessly switched your graphics controller back to `VMSVGA` in the background to maximize performance.

If your still having problems ask AI Google Gemini