

# Virtual Machine, errors, and installation

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# Outline

- Basics of Virtual Machines.
- Installation Prerequisites.
- Errors and glitches.
- VBox Installation

# What is Virtual Machine

A virtual machine (VM) is a software program or operating system that not only exhibits the behavior of a separate computer but is also capable of performing tasks such as running applications and programs like a separate computer. It is backed by physical resources of a host.

# Terminology

**Host OS:** Running on physical computer.

**Guest OS:** Running inside host OS in emulated environment.

**Virtual Machine:** Set of files that make up a guest OS.

**Guest Additions:** Special software package installed inside VM to improve performance of the guest OS and to add extra features.

# Why we need VM

- To use/try different/multiple OS.
- To run old/unsupported application in old operating system.
- To test new software as a user and developer.

Installation Prerequisites  
or

cause of common errors

# Prerequisites

- Virtualization should be enabled in BIOS.
- At least 10 GB of free space.
- Lots of memory (8 GB or more recommended).
- Hyper-V disable ( for windows-10 user only if Vbox is very slow).

# How to enable virtualization

## Windows Users

- Disable fastboot from power option.
- Reboot your OS.
- Press the BIOS Key [F2/F10/F12]
- Enable the Virtualization

## Linux Users

- Reboot your OS.
- Press the BIOS Key [F2/F10/F12]
- Enable the Virtualization

When I press the sleep button:

Password protection on wakeup

- Require a password (recommended)  
When your computer wakes from sleep, no one can access your data without entering the correct password to unlock the computer. [Create or change your user account password](#)
- Don't require a password  
When your computer wakes from sleep, anyone can access your data because the computer isn't locked.

Shutdown settings 

- Turn on fast startup (recommended)  
This helps start your PC faster after shutdown. Restart isn't affected. [Learn More](#)
- Sleep  
Show in Power menu.
- Hibernate  
Show in Power menu.
- Lock

Advanced

## CPU Setup

EIST Support	[Enabled]
Core Multi-Processing	[Enabled]
Intel(R) Virtualization Technology	[Disabled]
VT-d	[Disabled]
C1E Support	[Enabled]
C State Support	[C1C3C6C7]
Turbo Mode	[Enabled]
CPU ID	306C3
Microcode Revision (MM/DD/YYYY)	00000019 (02/26/2014)

hp

Main Security Configuration BIOS Setup Utility Boot Options Exit

- Language [English]
- Virtualization Technology [Enabled]
- SATA Emulation [AHCI]
- POST Messages [Disabled]
- After Power Loss [On]
- Remote Wakeup Boot Source [Local Hard Drive]
- Wake on LAN Power-On Password Policy [Require Password]
- ▶ BIOS Power-On
- Num Lock State at Power-On [On]
- S4/S5 Wake on LAN [Disabled]
- ▶ Device Options
- ▶ Thermal
- ▶ UEFI HII Configuration
- Runtime Power Management [Enable]
- Idle Power Savings [Extended]
- SATA Power Management [Enabled]

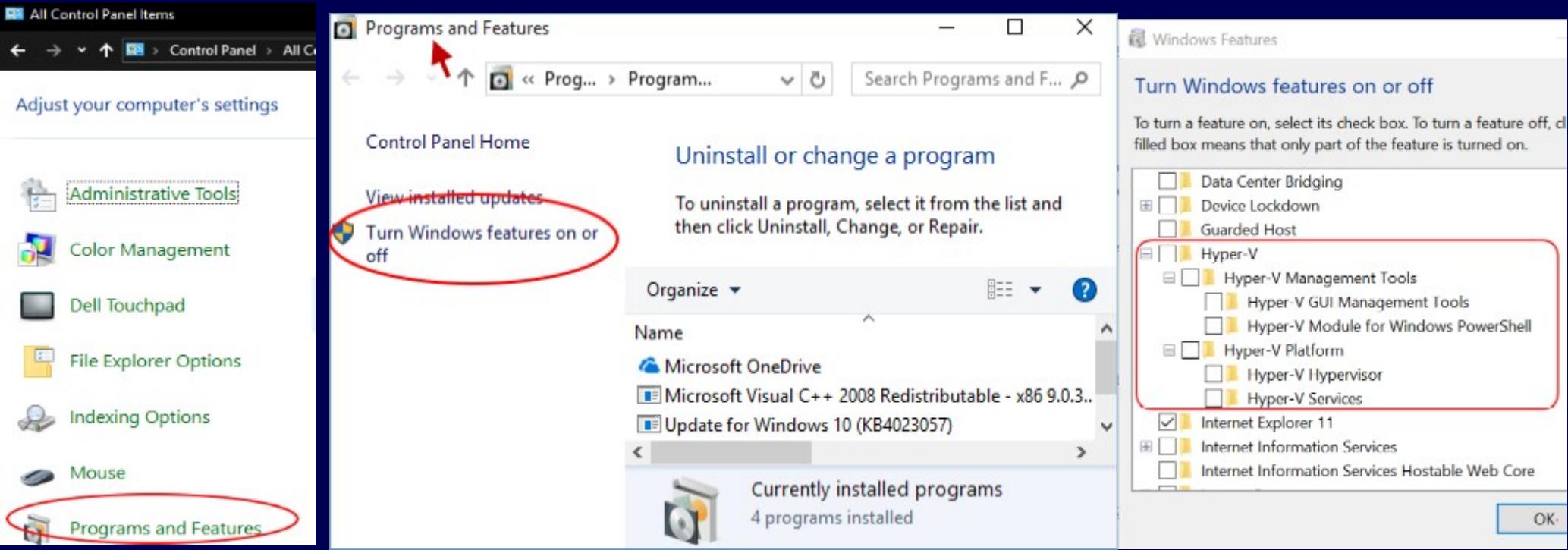
Lenovo BIOS Setup Utility

Main Devices Advanced Power Security Startup E

Administrator Password	Not Installed
Power-On Password	Not Installed
Set Administrator Password	Enter
Set Power-On Password	Enter
Lenovo Service Engine	[Enable]
Secure Boot	

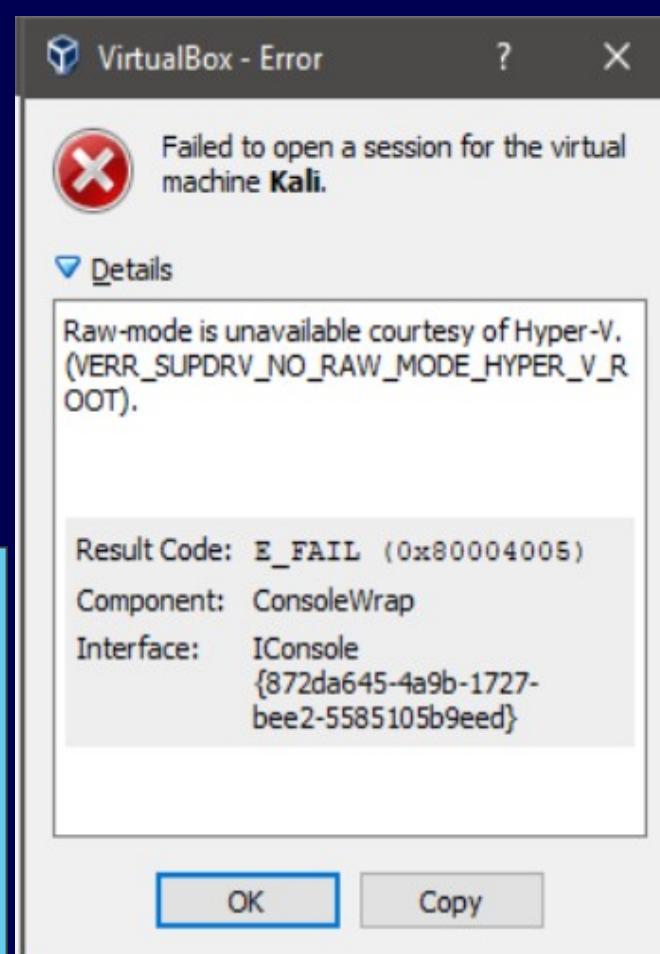
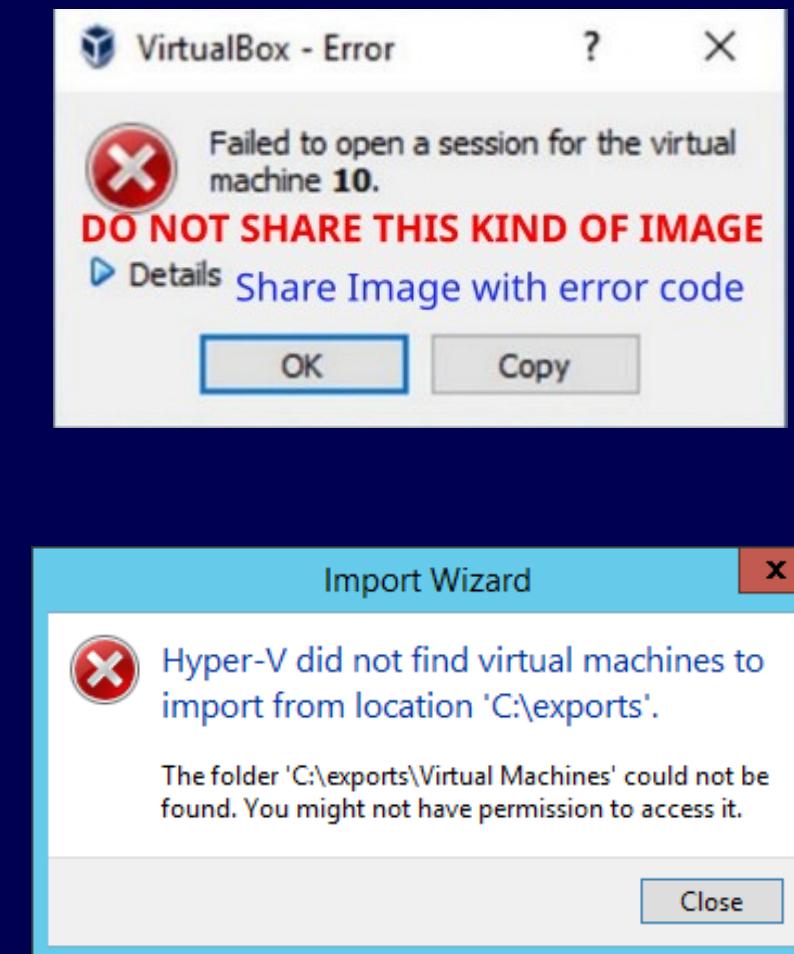
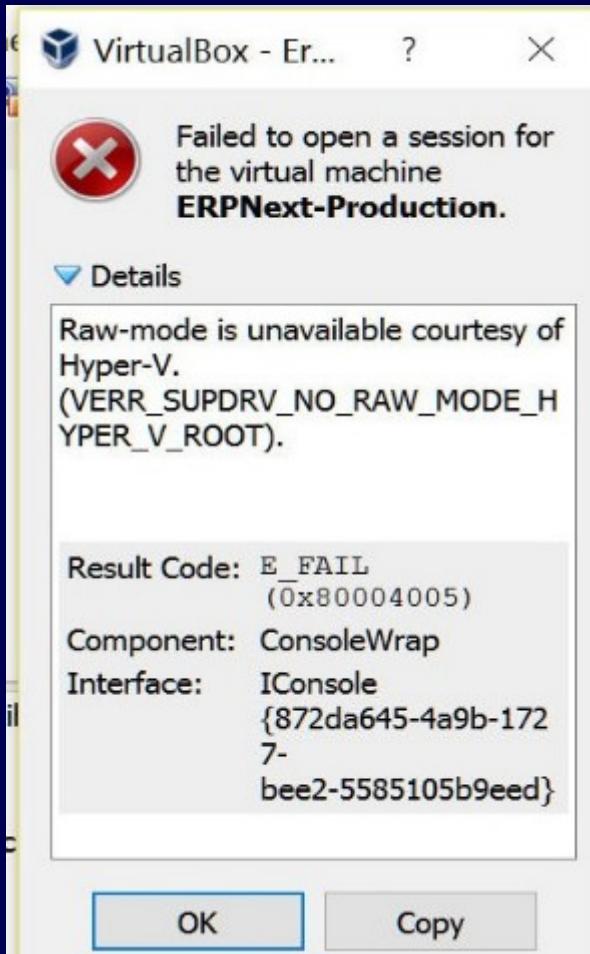
# How to disable Hyper-V (Optional)

- Control Panel → select “Programs and Features” → select “Turn Windows features on or off”. → expand Hyper-V → expand “Hyper-V Platform”, and then clear the Hyper-V Hypervisor check box.
- Open cmd as admin and type ---> `bcdedit /set hypervisorlaunchtype off`

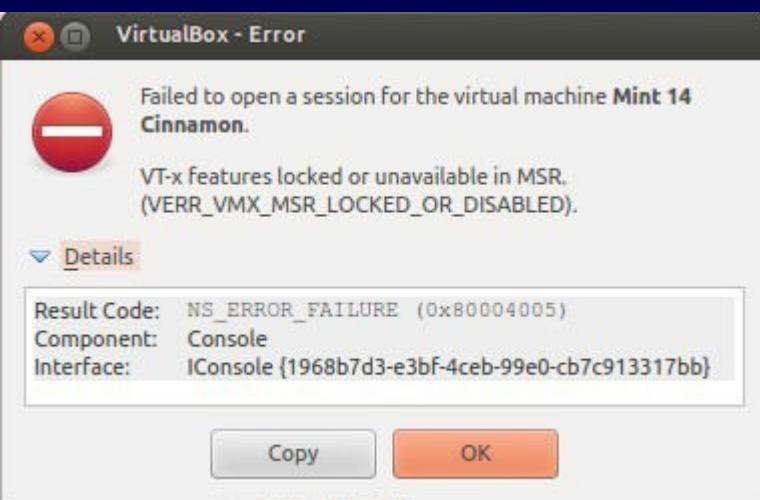
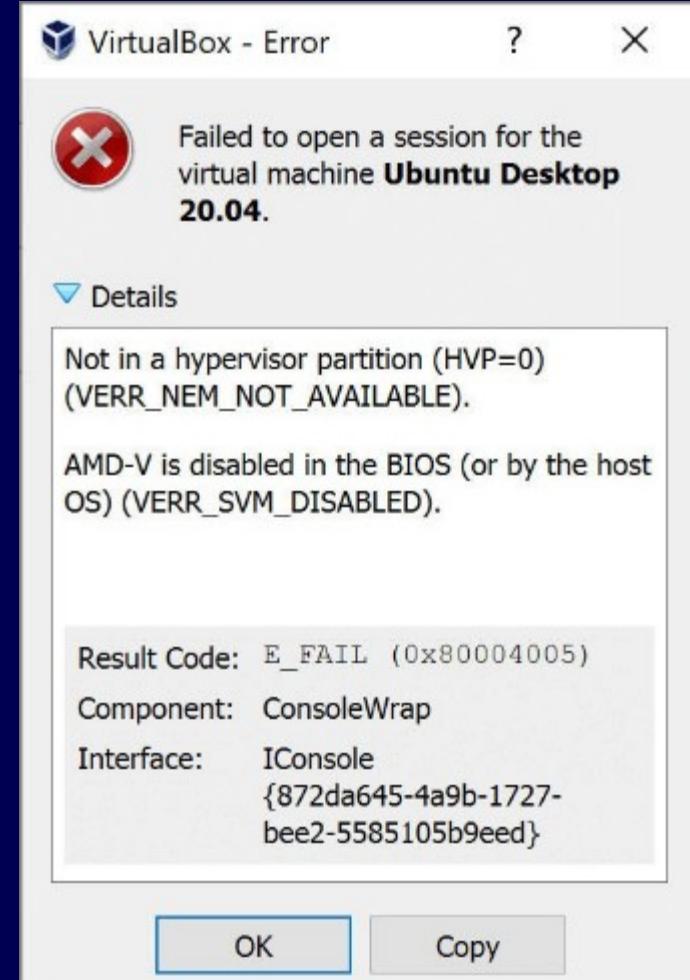
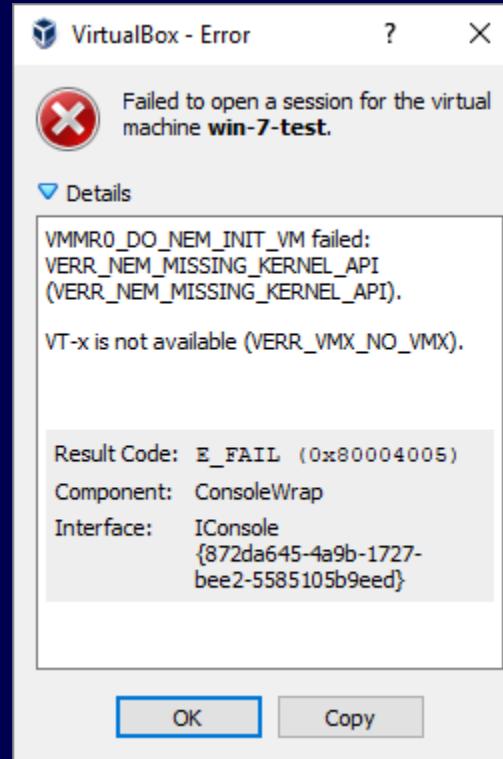
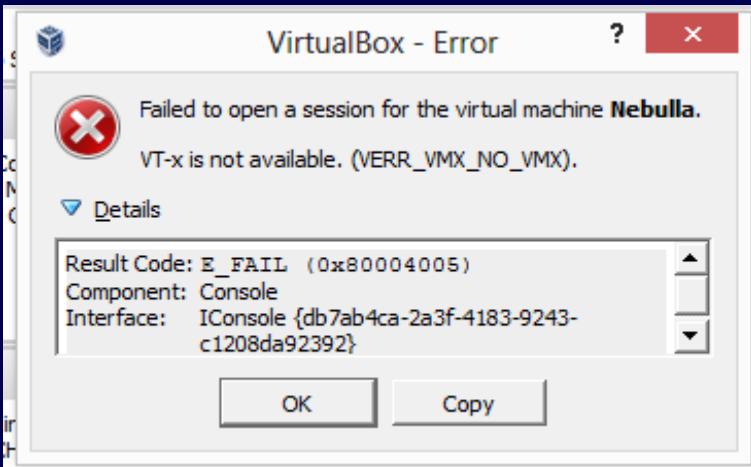


# Errors and Glitches

# Errors due to enabled Hyper-V

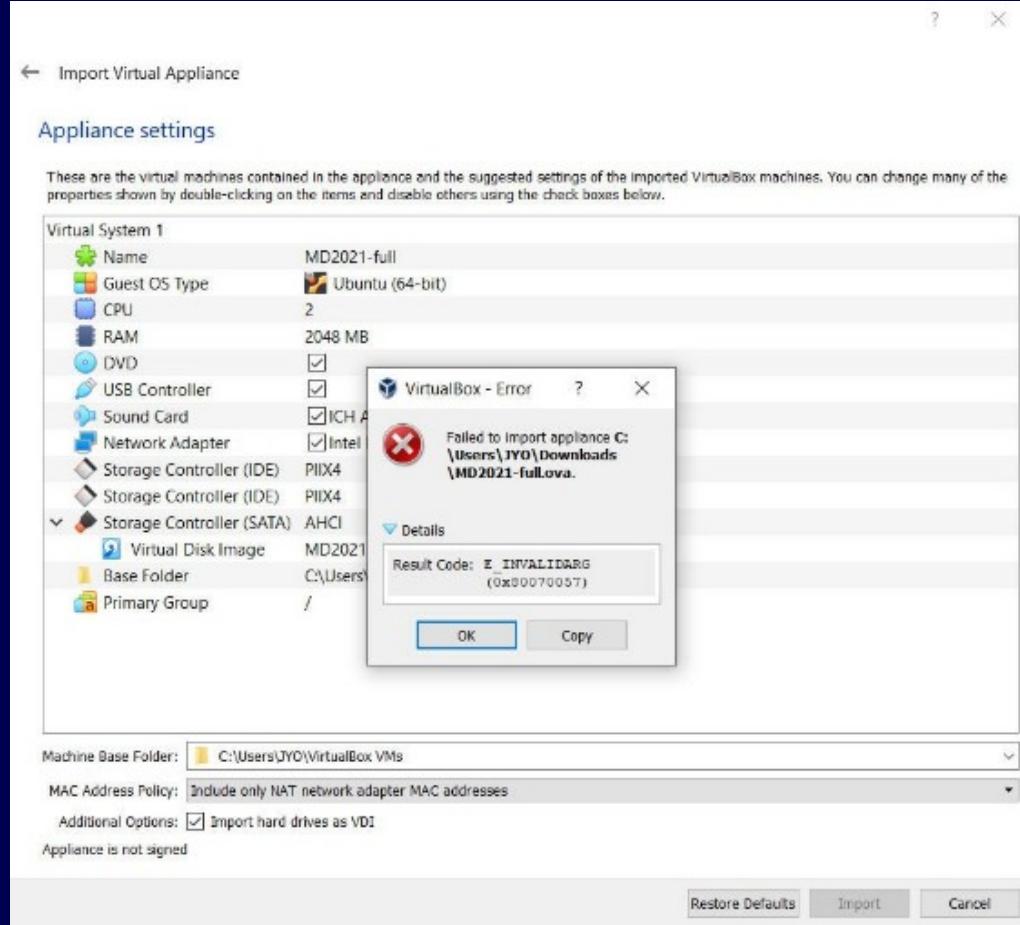
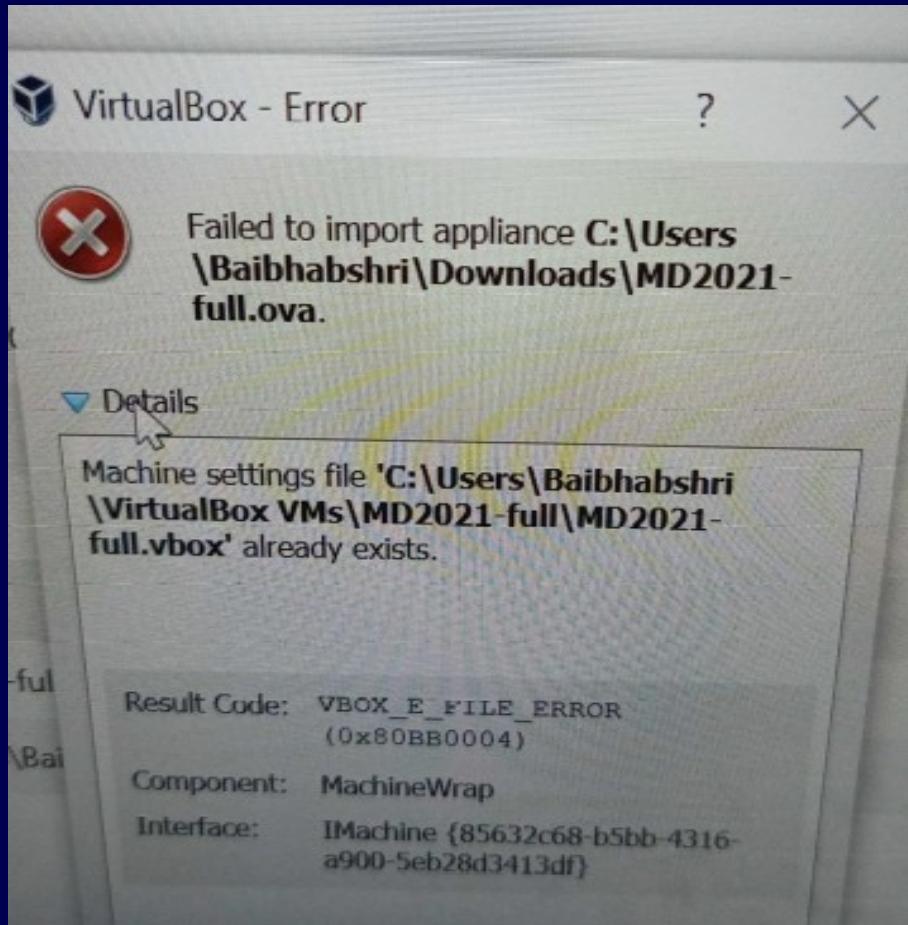


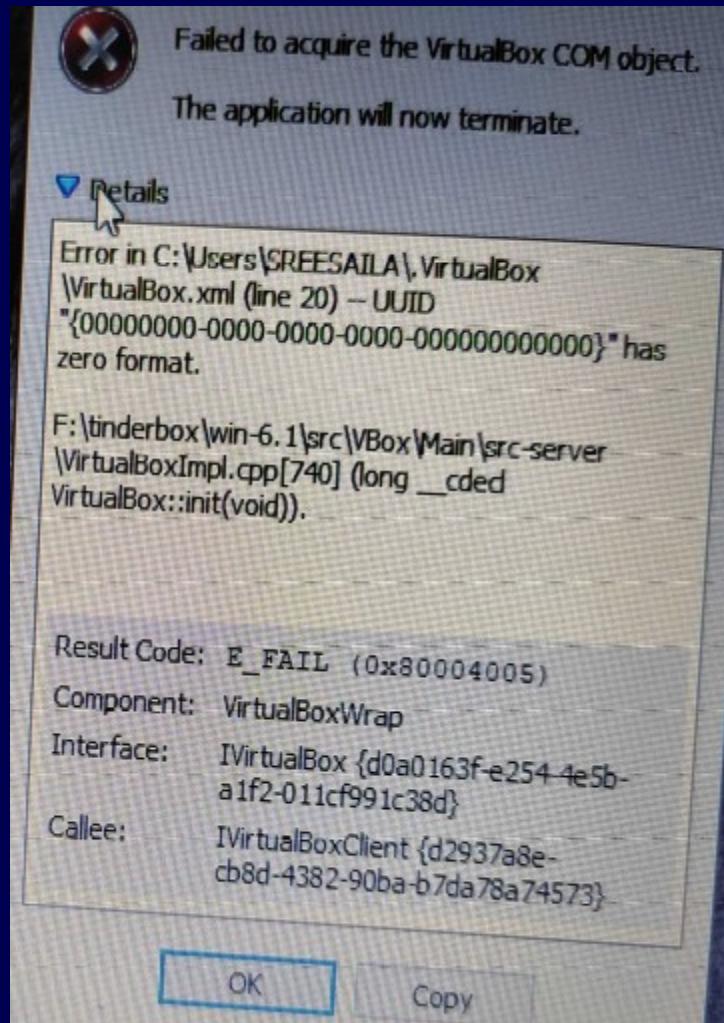
# Errors due to disabled virtualization



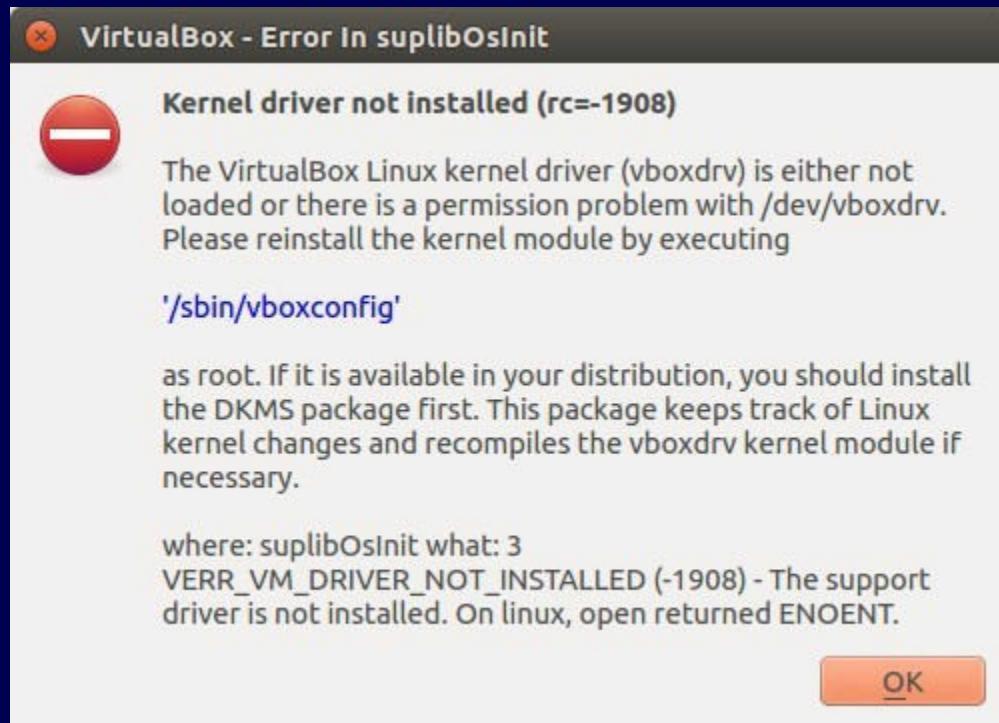
# Errors due to duplicate file.

It generally occurs when you import ova file 2nd time





# Errors on Linux



# Execute the following commands

```
sudo /usr/lib/virtualbox/vboxdrv.sh setup  
sudo modprobe -a vboxdrv  
sudo apt update  
sudo apt upgrade  
sudo apt install -f
```

# How to improve the host and guest OS performance?

- Make sure your Drive-C has enough space.  
(Windows only)
- If you have only 4GB RAM then you should avoid running applications inside your HOST OS.
- Go to power option and choose performance mode.

# Guest Additions will solve following issues

- Screen size of guest OS.
- Shared folder( to share files b/w host and guest OS).
- Share Clipboard
- Performance.

# How to Import qe2025.ova

# Download and Install the VirtualBox

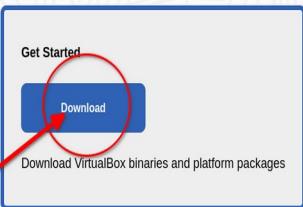
 VirtualBox

Home Download Documentation Community  Search:

## Powerful open source virtualization

For personal and enterprise use

VirtualBox is a general-purpose full virtualization software for x86\_64 hardware (with version 7.1 additionally for macOS/Arm), targeted at laptop, desktop, server and embedded use.



Click here

### Community

Become a part of the VirtualBox community. Discuss and solve problems in the forums, access test builds, and more.



### Documentation

Learn from a variety of resources including user manuals, end-user and technical documentation, the source code repository timeline, or the changelog.



### Training

Access labs, tutorials, and videos to learn how to use VirtualBox. Quizzes are available to test your learning.



## VirtualBox Platform Packages

VirtualBox 7.1.8 platform packages

-  [Windows hosts](#)
-  [macOS / Intel hosts](#)
-  [macOS / Apple Silicon hosts](#)
-  [Linux distributions](#)
-  [Solaris hosts](#)
-  [Solaris 11 IPS hosts](#)

Platform packages are released under the terms of the [GPL version 3](#)

# Import qe2025.ova file



# Shared Folder

Oracle VM VirtualBox Manager

File Machine Help

Tools

MD2021-lite  
Powered Off

MD2021-full  
Powered Off

debian-antix  
Powered Off

deb-antix-mate  
Powered Off

MD2021-testing  
Powered Off

New Settings Discard Start

General

Name: MD2021-Full  
Operating System: Ubuntu (64-bit)

System

Base Memory: 2048 MB  
Processors: 2  
Boot Order: Floppy, Optical, Hard Disk  
Acceleration: VT-x/AMD-V, Nested Paging, KVM Paravirtualization

Display

Video Memory: 128 MB  
Graphics Controller: VMSVGA  
Remote Desktop Server: Disabled  
Recording: Disabled

Storage

Controller: IDE  
IDE Secondary Device 0: [Optical Drive] Empty  
Controller: SATA  
SATA Port 0: MD2021-lite 1-disk001.vdi (Normal, 20.00 GB)

Audio

Host Driver: PulseAudio  
Controller: ICH AC97

Network

Adapter 1: Intel PRO/1000 MT Desktop (NAT)

USB

USB Controller: OHCI  
Device Filters: 0 (Inactive)

Shared folders

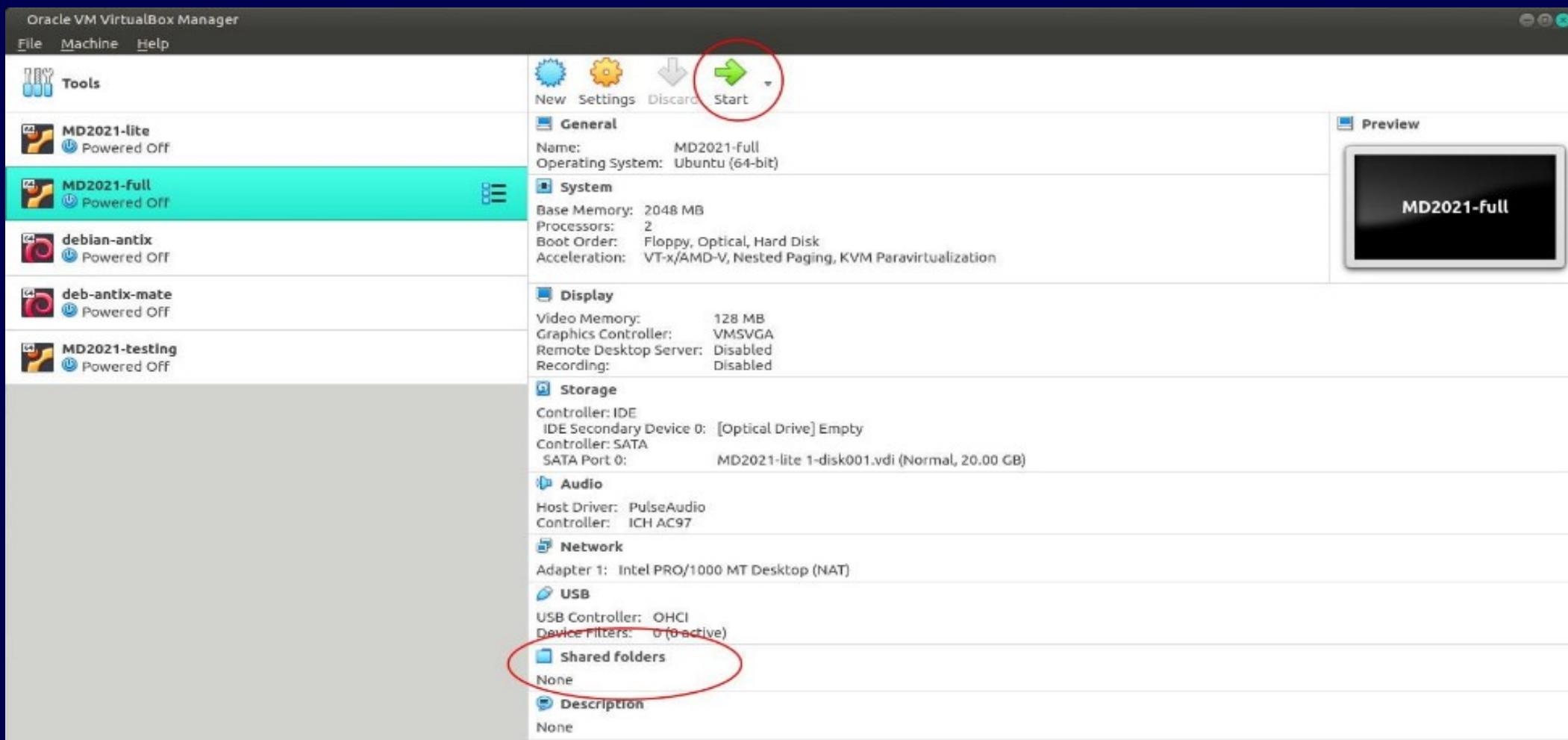
None

Description

None

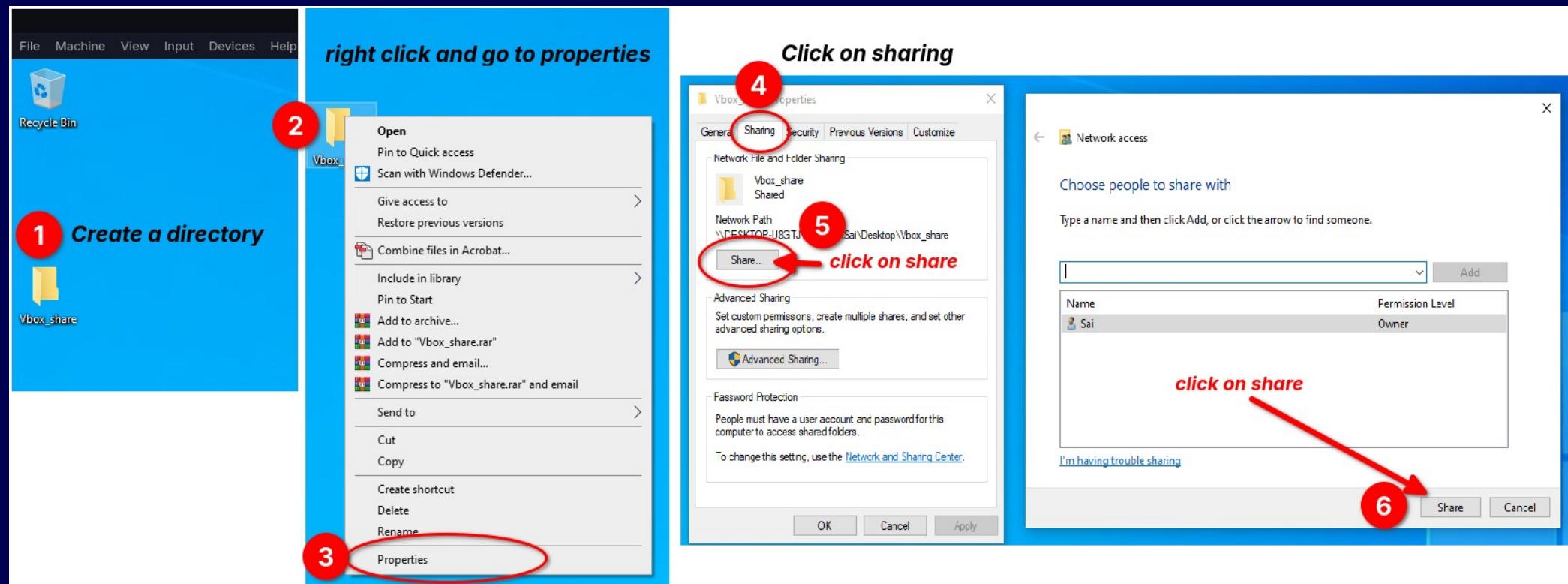
Preview

MD2021-full



# Linux : Create a directory and share the path in VBox

Windows: Create a folder --> Sharing permission ---> give path in Vbox.



# Thanks