

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)

Main Security Configuration BIOS Setup Utility Boot Options Exit

hp

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
Idle Power Savings
SATA Power Management [Enable] [Extended] [Enabled]

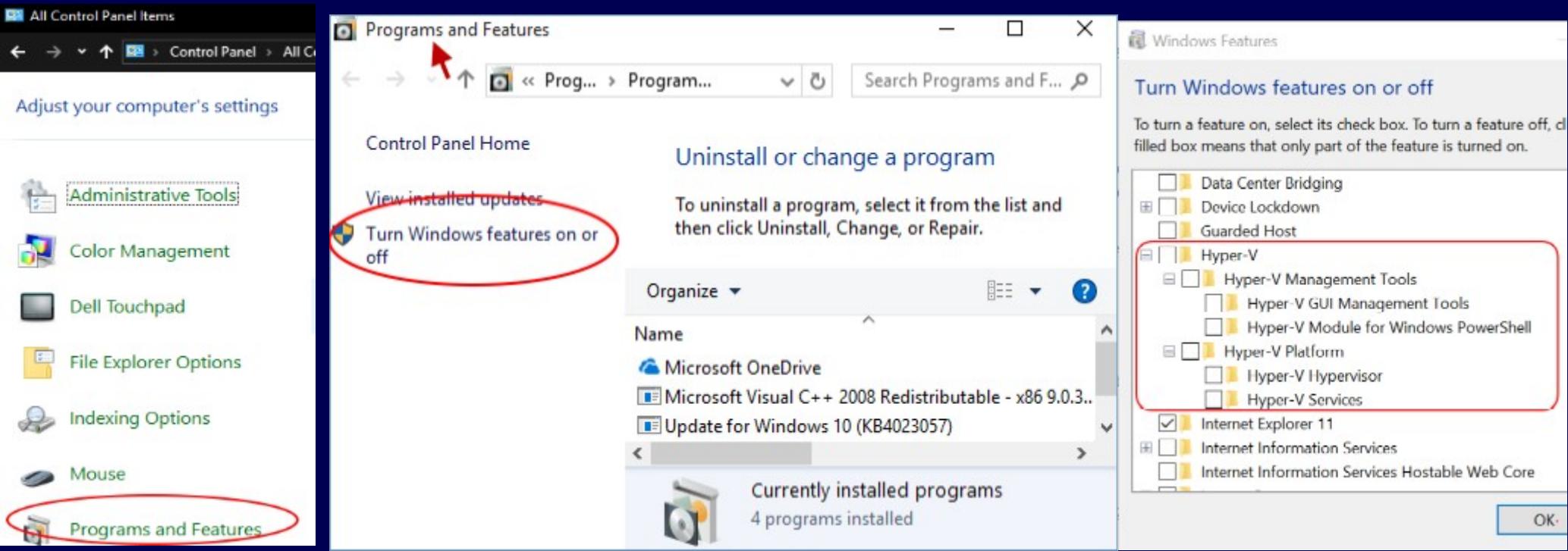
Lenovo BIOS Setup U

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	

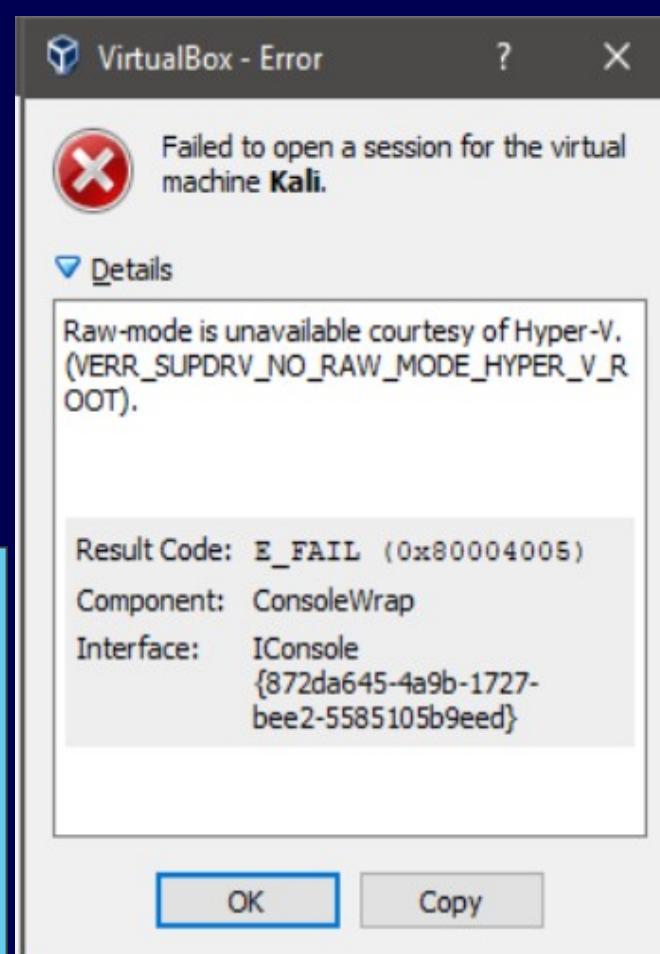
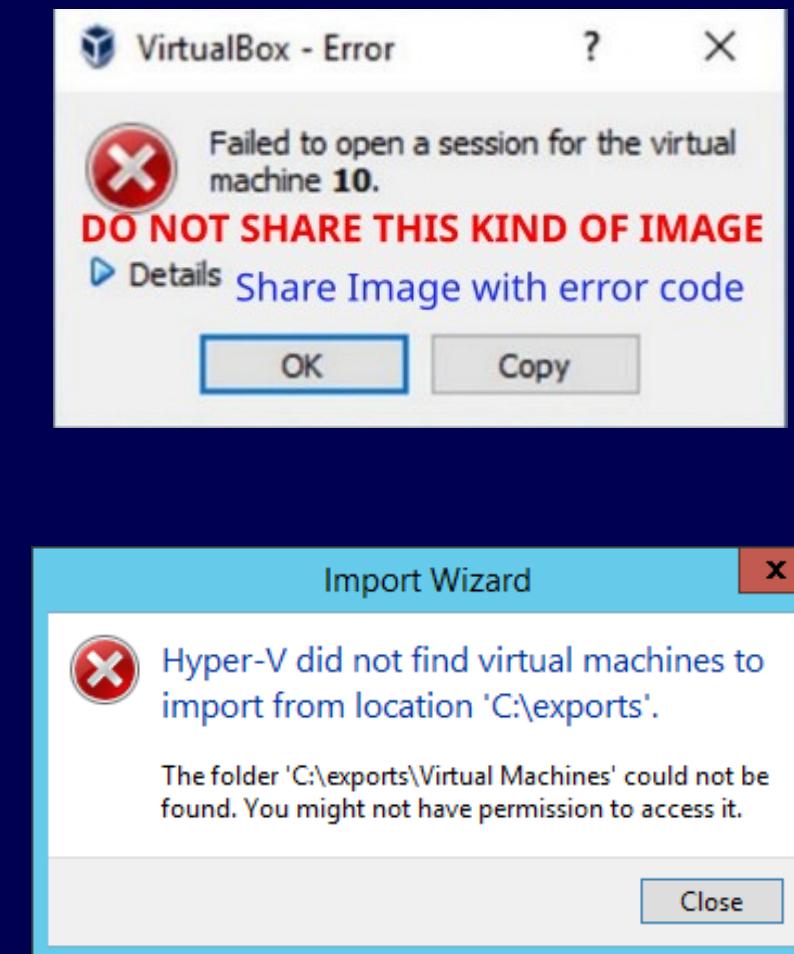
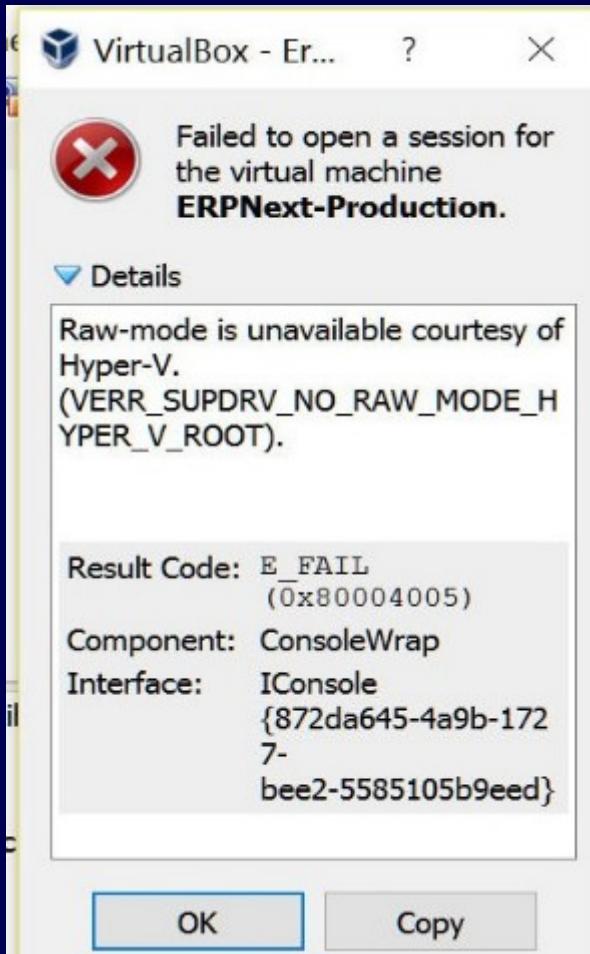
How to disable Hyper-V (Optional)

- 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`

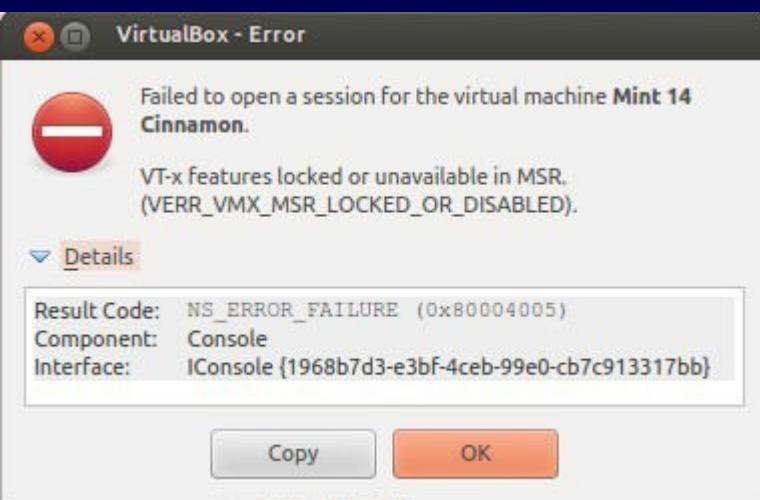
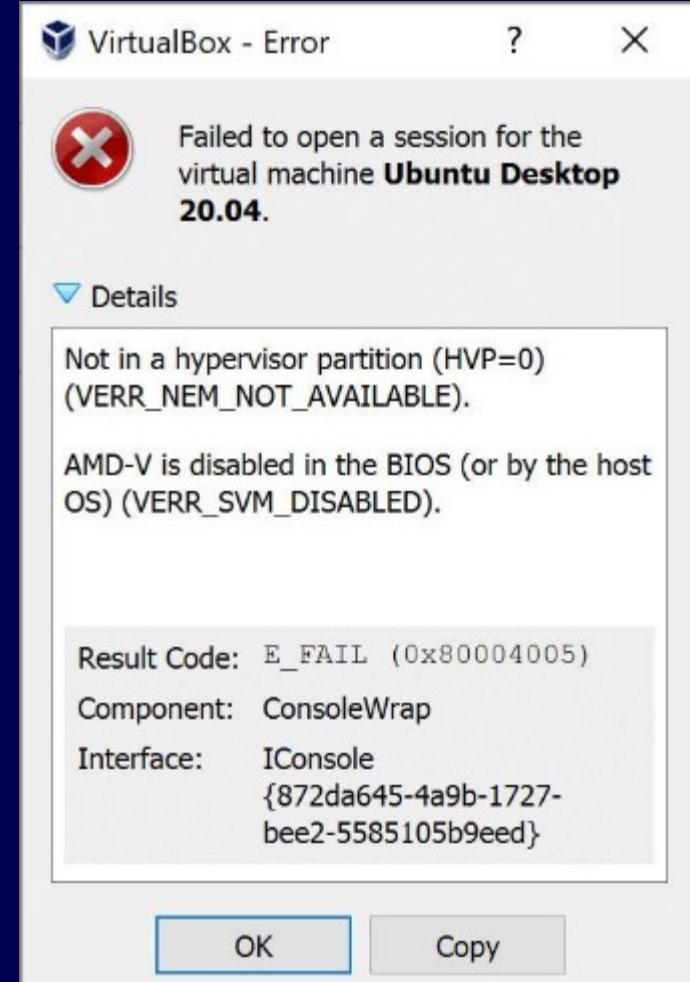
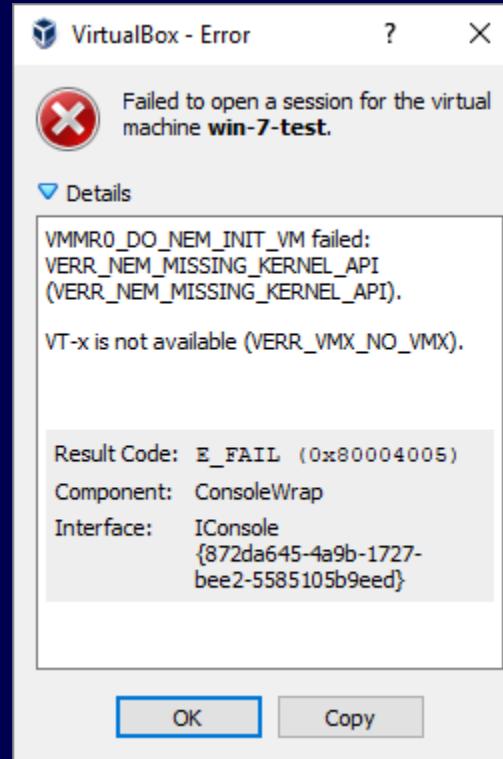
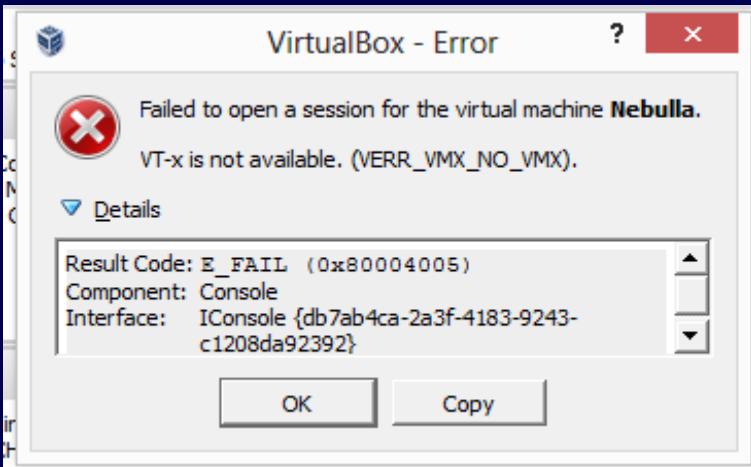


Errors and Glitches

Errors due to enabled Hyper-V

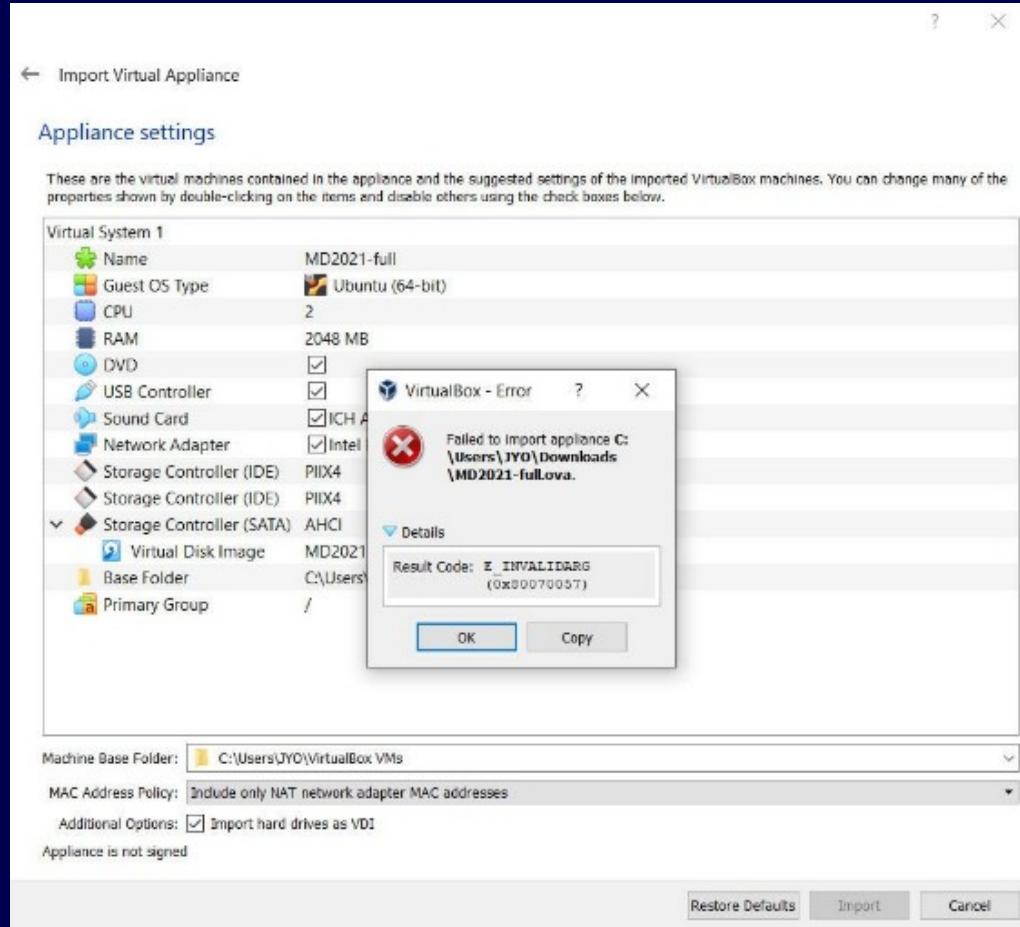
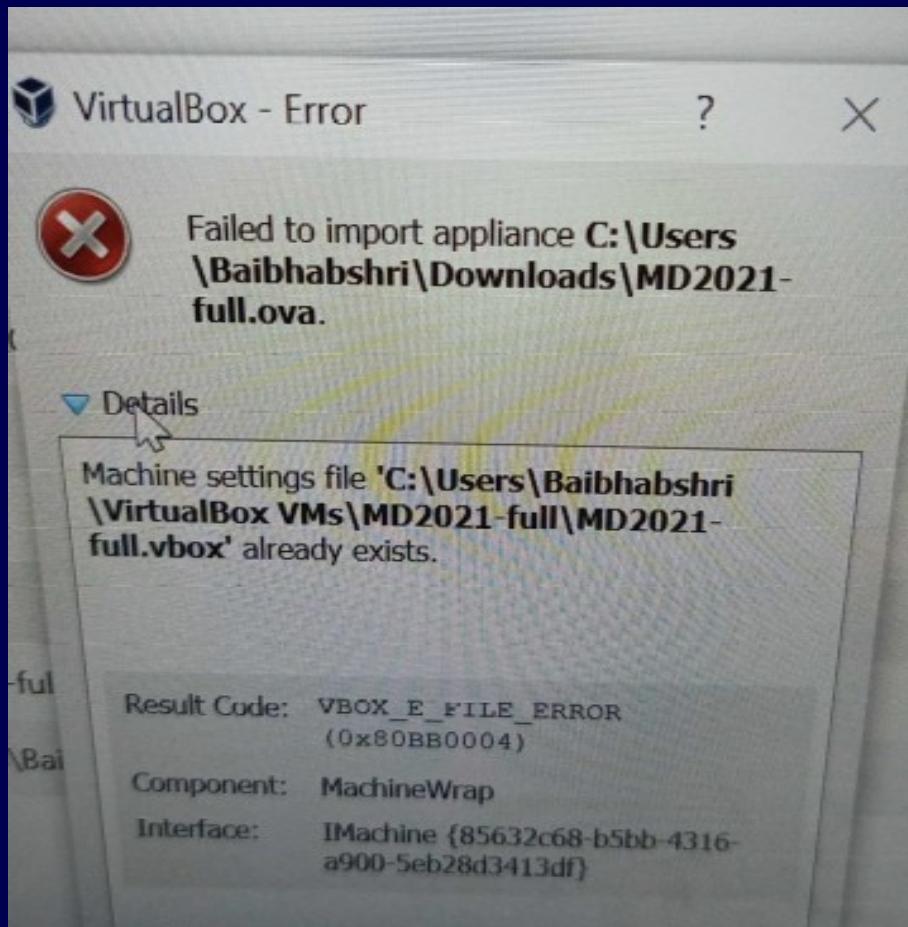


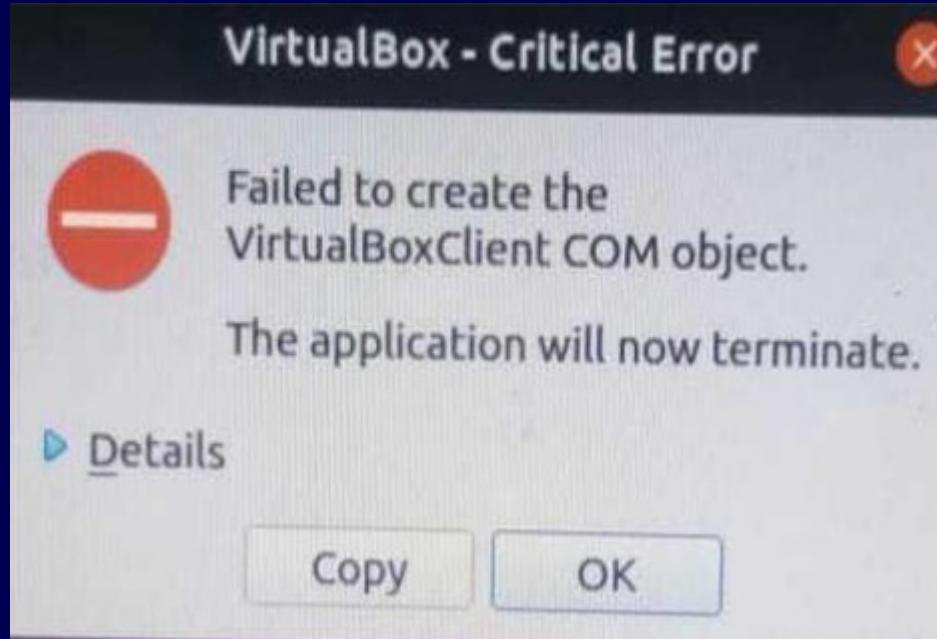
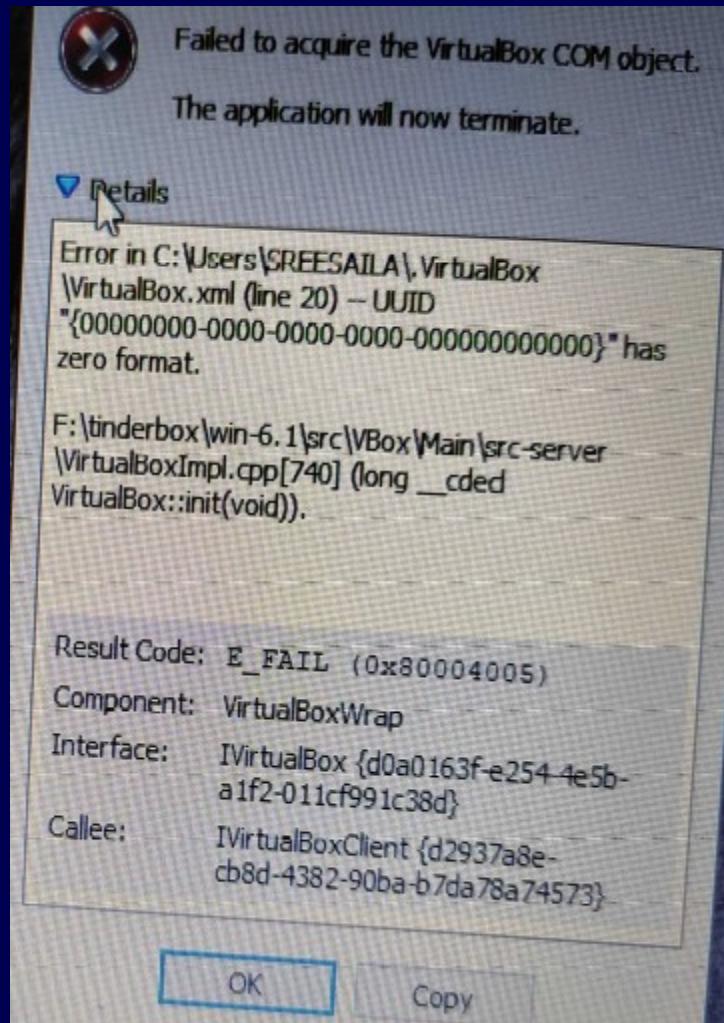
Errors due to disabled virtualization



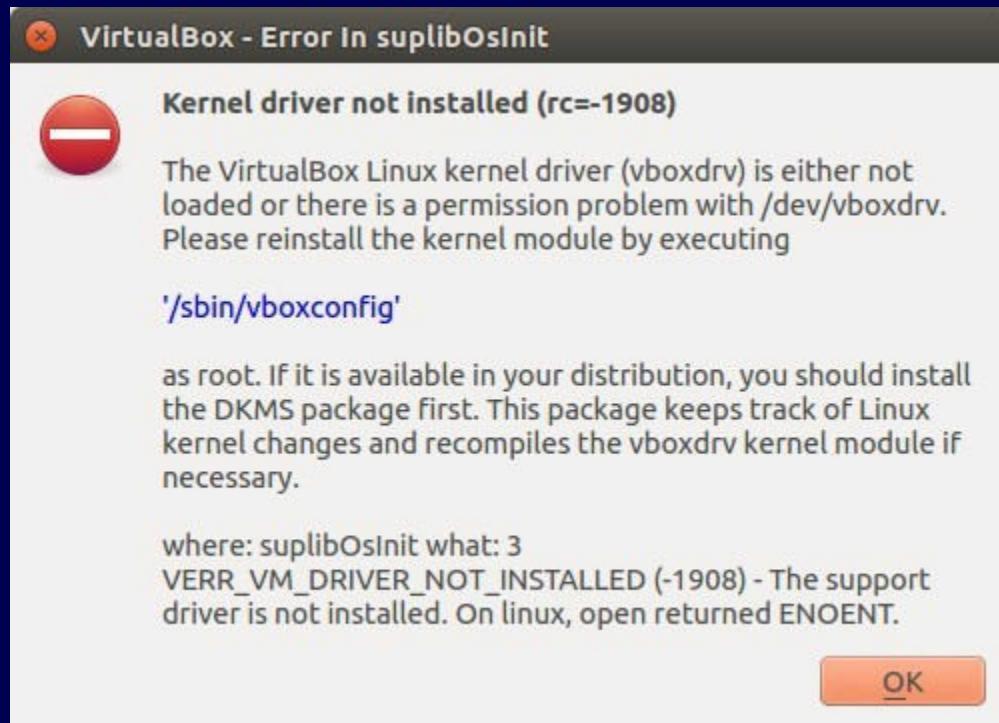
Errors due to duplicate file.

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

1. Download Oracle Virtual Box
2. Download qe2025.ova file : tiny.cc/qe2025

Download and Install the VirtualBox

 VirtualBox

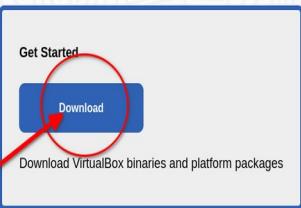
Home Download Documentation Community  Search:

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

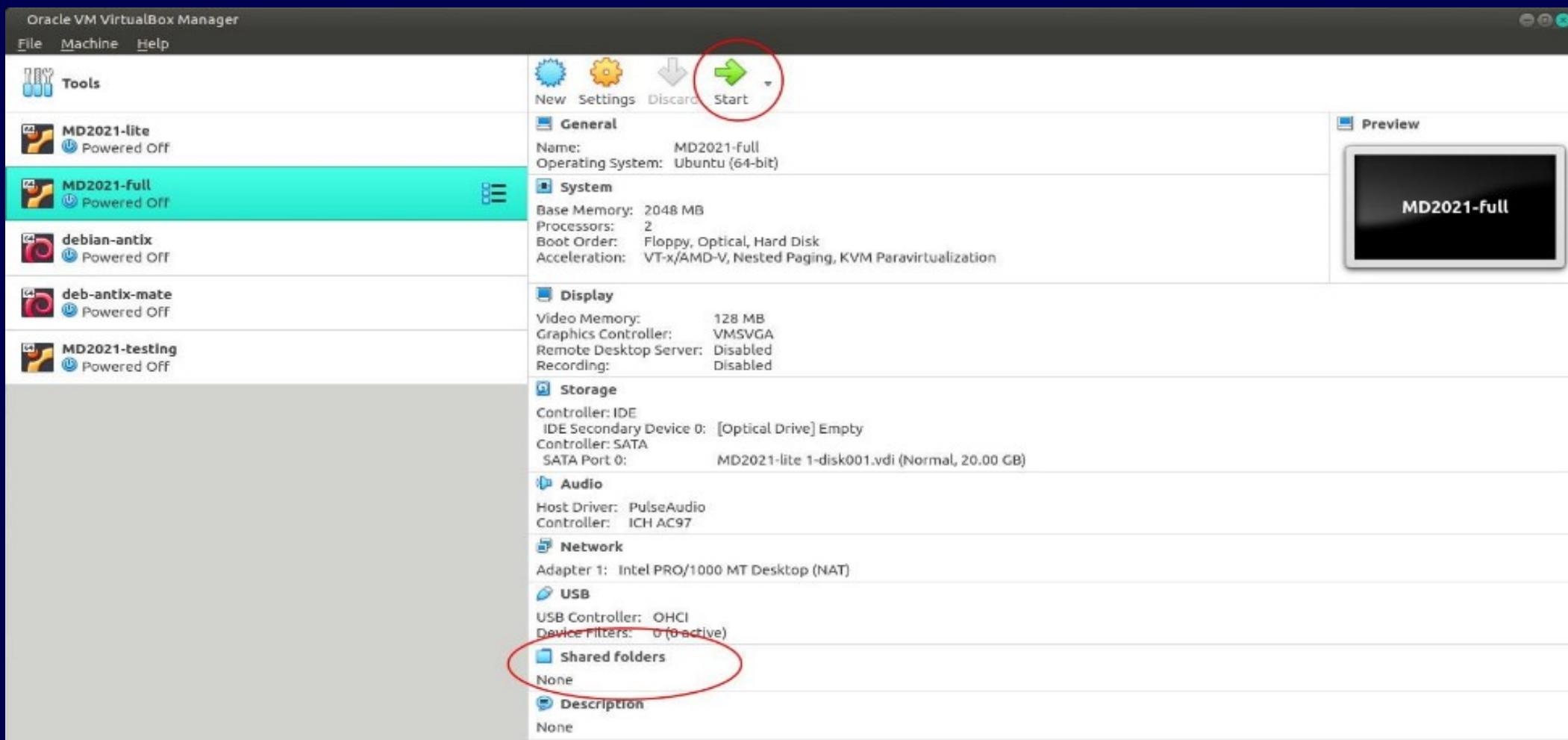
None

Description

None

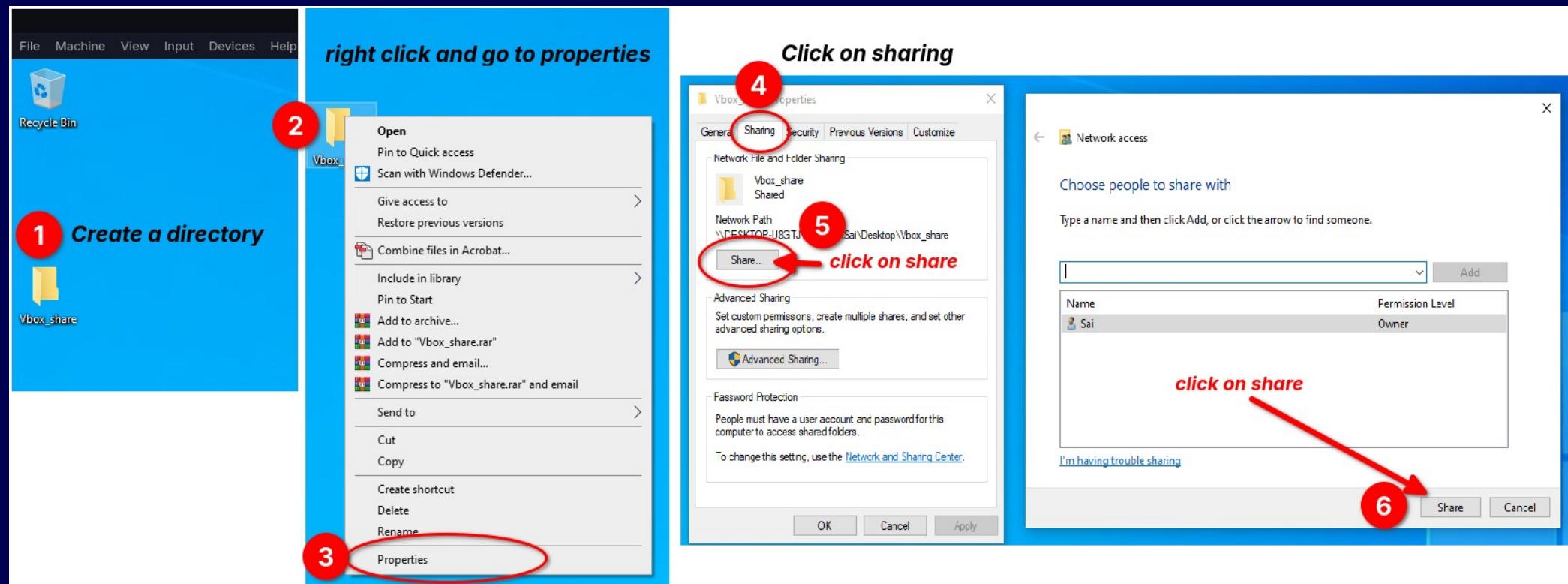
Preview

MD2021-full



Linux : Create a directory and share the path in VBox

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



Thanks