

# Setup Ubuntu Virtual Machine

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## 1 Summary

This document was created to briefly described the steps required to setup a Ubuntu VirtualBox virtual machine in a windows host.

## 2 Create Ubuntu Virtual Machine

Create a VM with desire version of Linux

1. If required update or install VirtualBox in host (e.g. Windows)
2. On host (e.g. windows) download .iso image of desired version of Ubuntu (e.g. 16.04 or 18.04) [releases.ubuntu.com/16.04/](https://releases.ubuntu.com/16.04/)
3. From VirtualBox start a new virtual machine (VM) selecting desired memory, size, etc. once it starts select the .iso image with the desired version of Ubuntu. (Figures 1 - 3)
4. Follow directions to install Ubuntu on VM
5. [*optional*] Add terminal to launcher and customize launcher shortcuts
6. Update Ubuntu >> `sudo apt-get update`

## 3 Install Guest Addition on VM

Installing guest addition will help the Ubuntu VM integrate properly with Windows so that things like swap folders and copy/paste (text and images) work seamlessly between the Windows and the VM.

1. Update Ubuntu:  
>> `sudo apt-get update`

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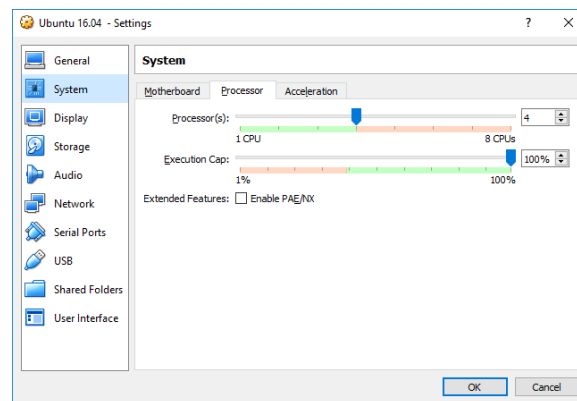


Figure 1: Set number of processors for VM.

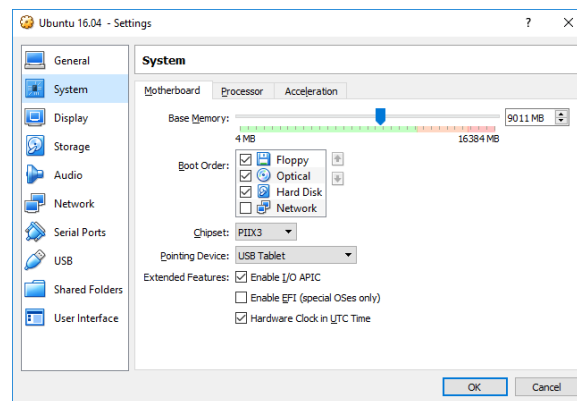


Figure 2: Set amount of memory for VM.

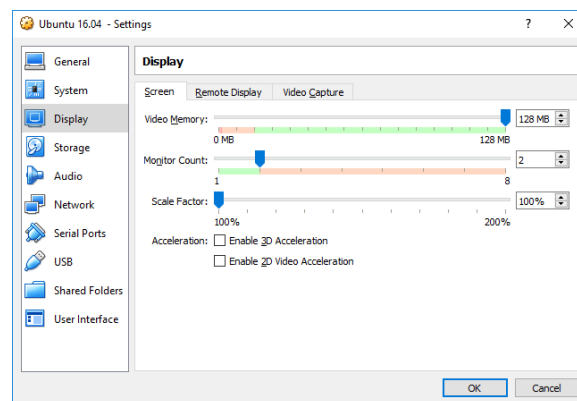


Figure 3: Set number of displays for VM.

2. Download version of guest extension corresponding to version of VirtualBox on the VM.
  - [download.virtualbox.org/virtualbox/](http://download.virtualbox.org/virtualbox/)
  - [download.virtualbox.org/virtualbox/5.2.22/](http://download.virtualbox.org/virtualbox/5.2.22/)
3. Mount disk image. Run it and follow directions
  - Right-click on .iso
  - select: “Open With” → “Disk Image Mounter”
  - click run on pop-up
4. Update software:  
>>> `sudo apt-get update`
5. Setup swap directory: (Figure 4)  
>>> `sudo adduser <yourUsername> vboxsf`
6. Close VM after installing guest additions.
7. If it does exist add the desired swap folder on the host (e.g. Windows)
8. Add desired swap folder in VM settings
9. Enable directional clipboard in VirtualBox setting for VM on host. (Figure 5)
10. Start VM
11. Verify that swap directory is visible in Ubuntu VM and copy paste (images and text) should work in both directions. (Figure 6)

## 4 Install Other Software

- Update software:  
>>> `sudo apt-get update`
- Install chrome
  - Option #1 - download.deb
    - \* Download the latest version from [www.google.com/chrome/](http://www.google.com/chrome/)
    - \* click on .deb file to start installation process
  - Option #2 - terminal  
>> `wget https://dl.google.com/linux/direct/google-chrome-stable_current_amd64.deb`  
>> `sudo dpkg -i google-chrome-stable_current_amd64.deb`
  - [optional] Lock chrome to launcher and set as default
  - [optional] use swap folder to pass favorites from host

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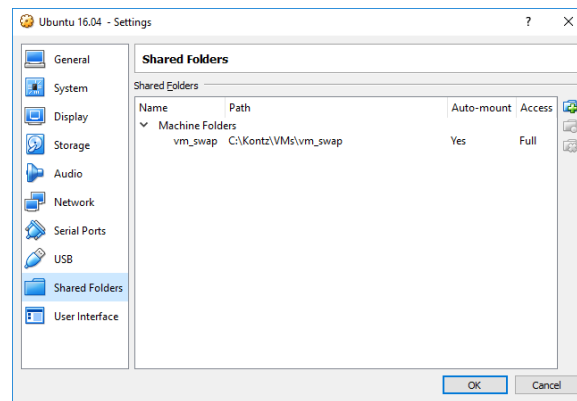


Figure 4: Set swap direction to pass files between host and VM.

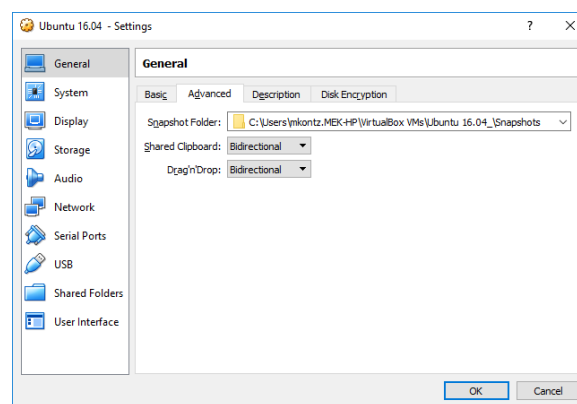


Figure 5: Set up directional host/VM clip-board.

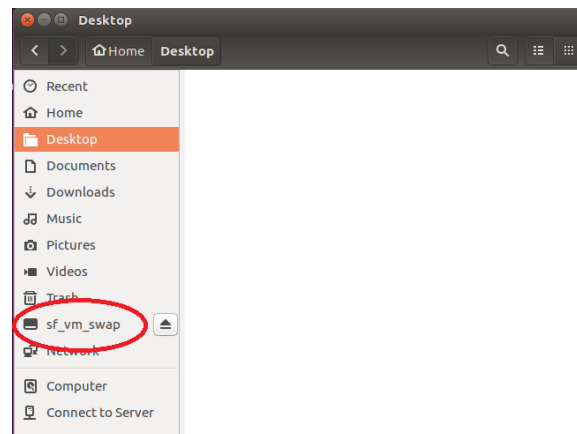


Figure 6: The swap folder in the VM will have the same name as the host folder with an “sf\_” prefix.

- Install shutter screen capture tool:  
>>> sudo apt-get install shutter
- Install Sublime Text
  - Search for latest/matching directions to install Sublime Text
  - [*optional*] Lock Sublime to launcher
- Install TeXstudio (See TeXstudio how to doc)
- Install git:  
>>> sudo apt install git
- Install git-gui:  
>>> sudo apt-get install git-gui
- Install gitk:  
>>> sudo apt-get install gitk
- Install kdiff3:  
>>> sudo apt-get install kdiff3
- Configure Git (See Git Reference)
- Install Beyond Compare
  - Download the latest version from [www.scootersoftware.com](http://www.scootersoftware.com)
  - click on .deb file to start installation process
- Install ssh key (See ssh how to doc)
- Install Remarkable Markdown software (See Markdown how to doc)

## Revision History

Revision	Date	Author(s)	Description
1.0	Dec 8, 2018	Matt Kontz	Created initial version with brief directions on setting up a Ubuntu VirtualBox virtual machine in a windows host.
1.1	Dec 11, 2018	Matt Kontz	Correct Beyond Compare install notes.