

INSTALLATION

As the initial step of the installation, I made sure first that Oracle VM VirtualBox had been installed on my Windows 10 Pro operating system. Once that was done, I opened VirtualBox and clicked on "New" in order to create a new virtual machine for the installation of Inferno OS. I named the virtual machine as "Inferno OS," selected the type as "Other," and as the version because Inferno isn't a public operating system and doesn't fall under the default list, set it as "Other/Unknown (64-bit).

Then, I adjust the memory (RAM) of the virtual machine. I select 512MB, which will suffice for small operating systems like Inferno. Since Inferno does not require a virtual hard disk to run in a minimal fashion, I chose the "Do not add a virtual hard disk" option and proceeded.

After creating the VM, I went into settings to configure it properly. Under the Motherboard tab in the System category, I verified that the boot order was configured to place "Floppy" at the top, since I would be booting from a floppy image. I did not have an "Enable EFI" option in my settings, which was fine since Inferno is not supported to boot with EFI.

Then I proceeded to the Storage area. I clicked on the blank disk under the "Floppy" Controller, picked the disk icon on the right, and then clicked "Choose a disk file." I went to where I had downloaded the Inferno OS floppy image from ArchiveOS, which was maintained by the community, and I clicked on it.

I clicked the "Start" button to launch the virtual machine after adjusting all of these settings. Despite booting from the floppy image, the virtual machine did not load correctly.

The virtual machine shows an error message saying "Could not read from the boot medium! This suggests that either VirtualBox did not recognize the floppy image correctly or it was not bootable.

Attempt to Install Inferno OS from git on Ubuntu

Instead of using a pre-built ISO, the objective was to clone and build Inferno OS from source code in order to install it on an Ubuntu system. Because of its simple architecture and instructional applications in systems programming, Inferno was selected to implement system calls, particularly `mmap()`. The installation procedure, however, turned out to be difficult and fruitless.

What I Used

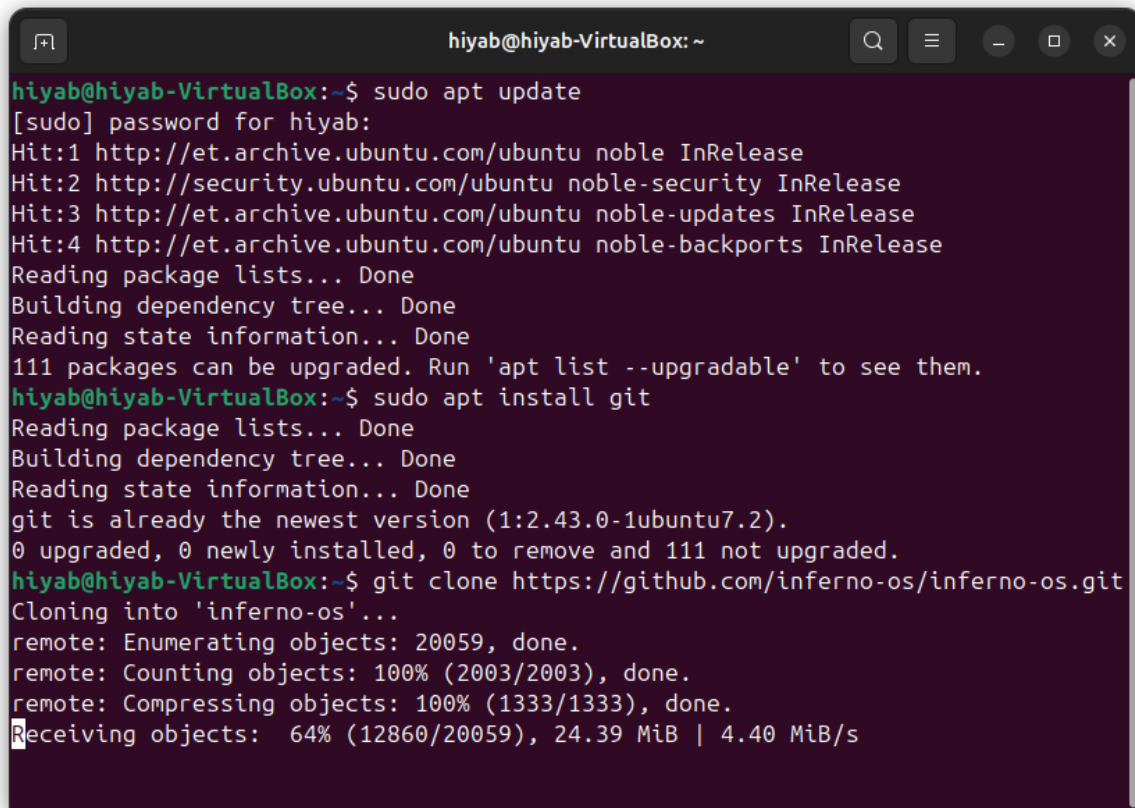
- ✓ Ubuntu (installed inside VirtualBox on my Windows computer)
- ✓ Terminal
- ✓ GitHub (Inferno source code)

- 1 .open terminal in Ubuntu
- 2 .install git

```
hiyab@hiyab-VirtualBox: ~  
hiyab@hiyab-VirtualBox:~$ sudo apt update  
[sudo] password for hiyab:  
Hit:1 http://et.archive.ubuntu.com/ubuntu noble InRelease  
Hit:2 http://et.archive.ubuntu.com/ubuntu noble-updates InRelease  
Hit:3 http://security.ubuntu.com/ubuntu noble-security InRelease  
Hit:4 http://et.archive.ubuntu.com/ubuntu noble-backports InRelease  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
111 packages can be upgraded. Run 'apt list --upgradable' to see them.  
hiyab@hiyab-VirtualBox:~$ sudo apt install git
```

```
hiyab@hiyab-VirtualBox: ~  
hiyab@hiyab-VirtualBox:~$ sudo apt update  
[sudo] password for hiyab:  
Hit:1 http://et.archive.ubuntu.com/ubuntu noble InRelease  
Hit:2 http://et.archive.ubuntu.com/ubuntu noble-updates InRelease  
Hit:3 http://security.ubuntu.com/ubuntu noble-security InRelease  
Hit:4 http://et.archive.ubuntu.com/ubuntu noble-backports InRelease  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
111 packages can be upgraded. Run 'apt list --upgradable' to see them.  
hiyab@hiyab-VirtualBox:~$ sudo apt install git  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
git is already the newest version (1:2.43.0-1ubuntu7.2).  
0 upgraded, 0 newly installed, 0 to remove and 111 not upgraded.  
hiyab@hiyab-VirtualBox:~$
```

3. Clone inferno OS repository



```
hiyab@hiyab-VirtualBox: ~  
hiyab@hiyab-VirtualBox:~$ sudo apt update  
[sudo] password for hiyab:  
Hit:1 http://et.archive.ubuntu.com/ubuntu noble InRelease  
Hit:2 http://security.ubuntu.com/ubuntu noble-security InRelease  
Hit:3 http://et.archive.ubuntu.com/ubuntu noble-updates InRelease  
Hit:4 http://et.archive.ubuntu.com/ubuntu noble-backports InRelease  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
111 packages can be upgraded. Run 'apt list --upgradable' to see them.  
hiyab@hiyab-VirtualBox:~$ sudo apt install git  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
git is already the newest version (1:2.43.0-1ubuntu7.2).  
0 upgraded, 0 newly installed, 0 to remove and 111 not upgraded.  
hiyab@hiyab-VirtualBox:~$ git clone https://github.com/inferno-os/inferno-os.git  
Cloning into 'inferno-os'...  
remote: Enumerating objects: 20059, done.  
remote: Counting objects: 100% (2003/2003), done.  
remote: Compressing objects: 100% (1333/1333), done.  
Receiving objects: 64% (12860/20059), 24.39 MiB | 4.40 MiB/s
```

4. try to build with makemk.sh

```
hiyab@hiyab-VirtualBox: ~/inferno-os
Reading state information... Done
git is already the newest version (1:2.43.0-1ubuntu7.2).
0 upgraded, 0 newly installed, 0 to remove and 111 not upgraded.
hiyab@hiyab-VirtualBox:~$ git clone https://github.com/inferno-os/inferno-os.git
Cloning into 'inferno-os'...
remote: Enumerating objects: 20059, done.
remote: Counting objects: 100% (2003/2003), done.
remote: Compressing objects: 100% (1333/1333), done.
remote: Total 20059 (delta 1613), reused 670 (delta 670), pack-reused 18056 (from 2)
Receiving objects: 100% (20059/20059), 38.32 MiB | 4.10 MiB/s, done.
Resolving deltas: 100% (6193/6193), done.
hiyab@hiyab-VirtualBox:~$ cd inferno-os
hiyab@hiyab-VirtualBox:~/inferno-os$ ./makemk.sh
./makemk.sh: 32: ./mkconfig: cannot open /usr/inferno/mkfiles/mkhost-Plan9: No such file
./makemk.sh: 33: ./mkconfig: cannot open /usr/inferno/mkfiles/mkfile-Plan9: No such file
removing old libraries and binaries
mkdir: cannot create directory '/usr/inferno': Permission denied
mkdir: cannot create directory '/usr/inferno': Permission denied
./makemk.sh: 50: cd: can't cd to /usr/inferno/Utils/libregexp
cannot find libregexp directory
hiyab@hiyab-VirtualBox:~/inferno-os$
```

Failed: The terminal showed an error : cannot find libregexp directory

Every time I attempted to install Inferno OS from GitHub on Ubuntu, it failed because of outdated tools and missing files. I took great care to follow the instructions, but I made mistakes at practically every turn. I ultimately moved to Ubuntu since it provided a stable environment that was appropriate for carrying on with the task.