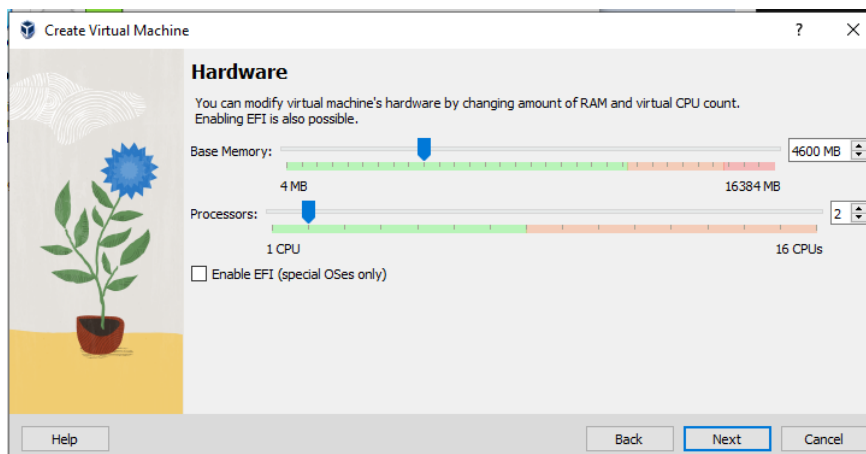


Introduction to computer systems

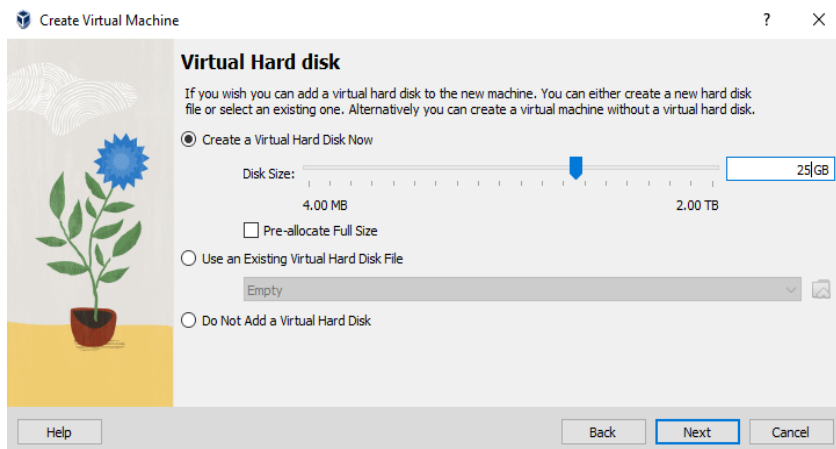
Installing an OS on a virtual machine report.

The first step is to load the Virtual box, in university this application is pre-installed on most computers which is why the screenshots will vary as it was a mix of onsite and at home studying.

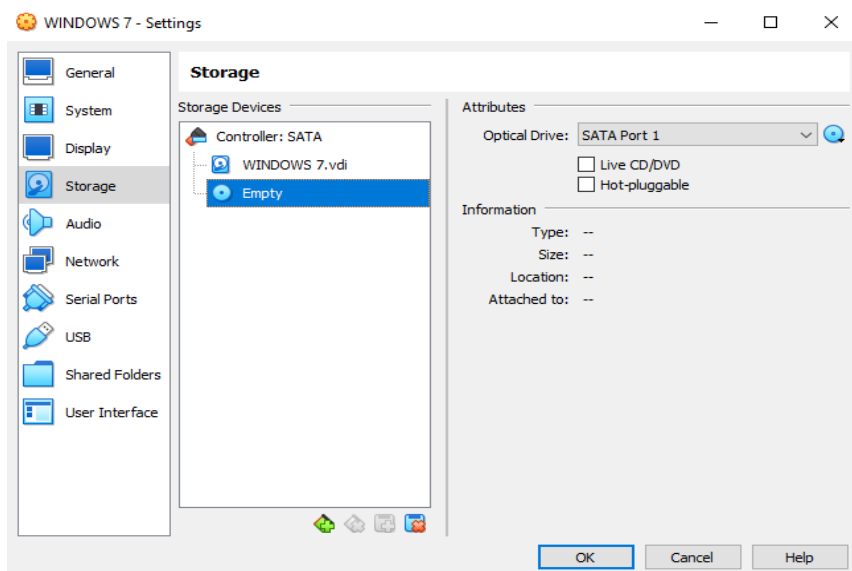
On the initial setup you are greeted with how much memory and processing power you want to allocate to the VM. For the base memory I chose 4600MB of memory because of what I will be using it for, the amount I have chosen should be just enough, as the same for the amount of CPU/s no a ton of processing power is required due to what I will be doing on it which will not be very CPU intensive. Not only that but the computer that is being used has 8 cores, 16 logical processors, and an average speed of 3.9GHZ along with 16GB of ram so if I did need to up the amount of memory or CPUs that would be doable.



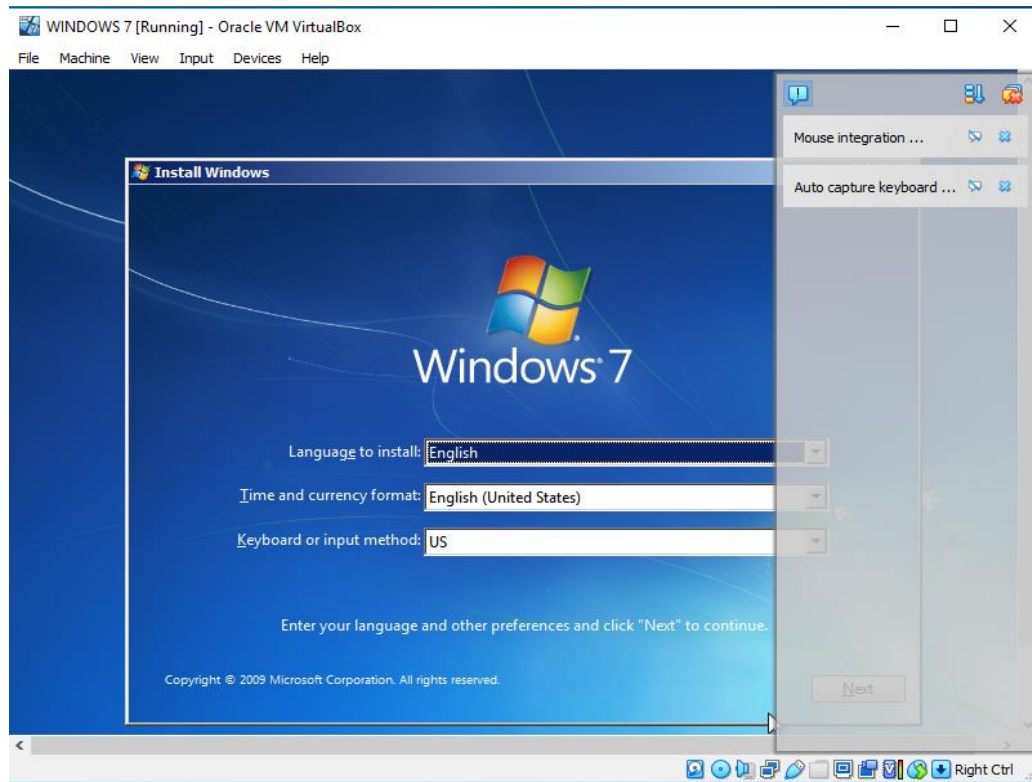
The second window that you see after setting up the amount of Hard disk space for the VM, in this case I chose 25GB which should be more than enough as I won't be downloading any media or installing any large files in general. But, if need be, there is an option to increase the amount of storage later down the line. And the PC that is hosting the VM has around 1.6TB of storage so increasing is not a problem if need be.



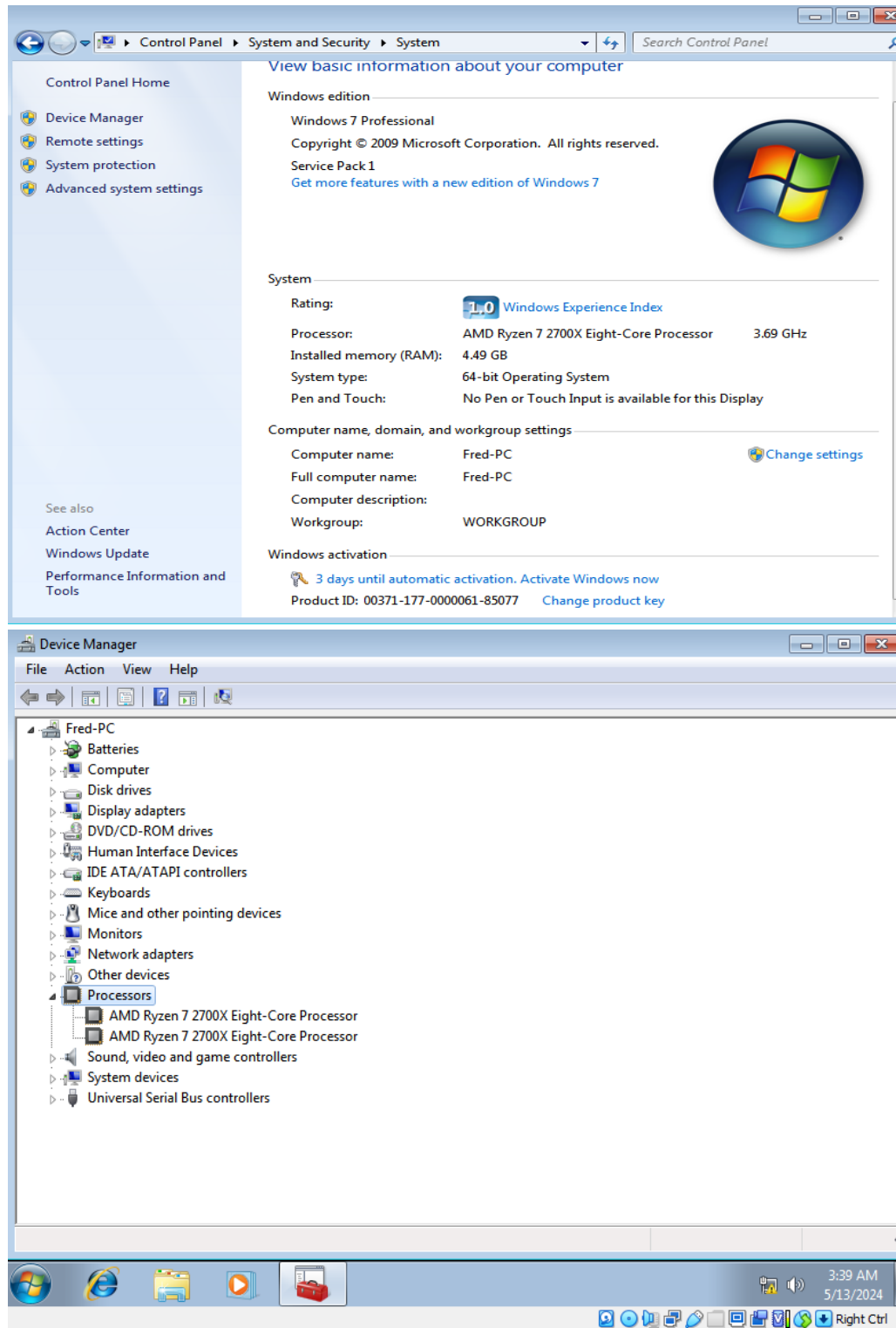
After configuring the VM settings, I had to go into my bios and enable the “SVM” setting under the advanced CPU section to allow the virtual machine to run on an AMD CPU, after that I added the windows 7 ISO file onto the storage device from my file explorer. By clicking the blue disk in the top right, you can load any type of OS you want to ranging from Linux ubuntu to windows 11.



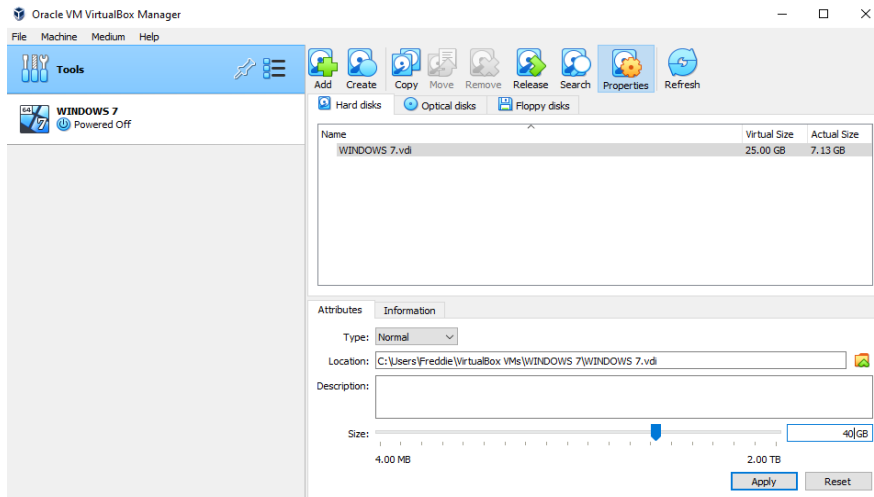
After uploading the windows 7 file I loaded up the virtual machine and went through the windows 7 setup selecting the basics such as date and time, language, and what kind of install I want such as advanced or limited. Then setting up the admin username and password.



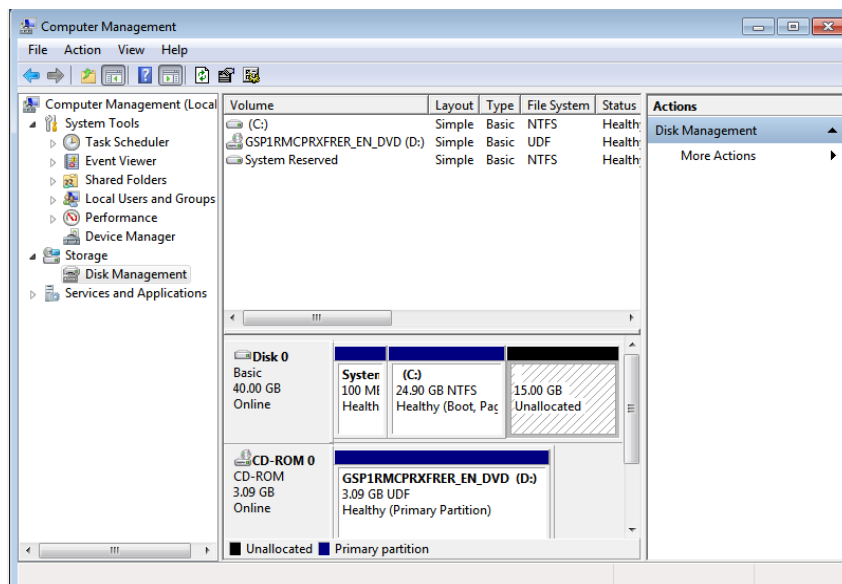
After Installing the OS I Went into device manager to make sure that things such as my sound and CPU was recognized upon the initial boot up the sound worked fine with no additional tweaking required and my processor “Ryzen 7 2700x” was also recognized in the device manager.

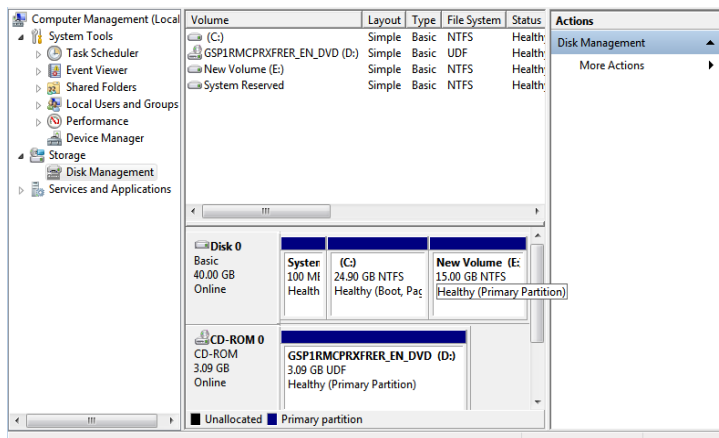


After that I then went on to split the initial drive into two partitions by first going into the virtual media manager. In these settings I can change the size of the drive and in this case, I changed it to 40GB purely for a nice split of roughly 20GB for each drive.



Here the drive is showing up in the computer management but needs to be allocated a drive letter; by right clicking and selecting “new volume” this can be easily done in a matter of minutes and I was able to select the drive letter through a drop-down menu. In the image below it shows 15GB of allocated space while being labeled “healthy (primary partition)”



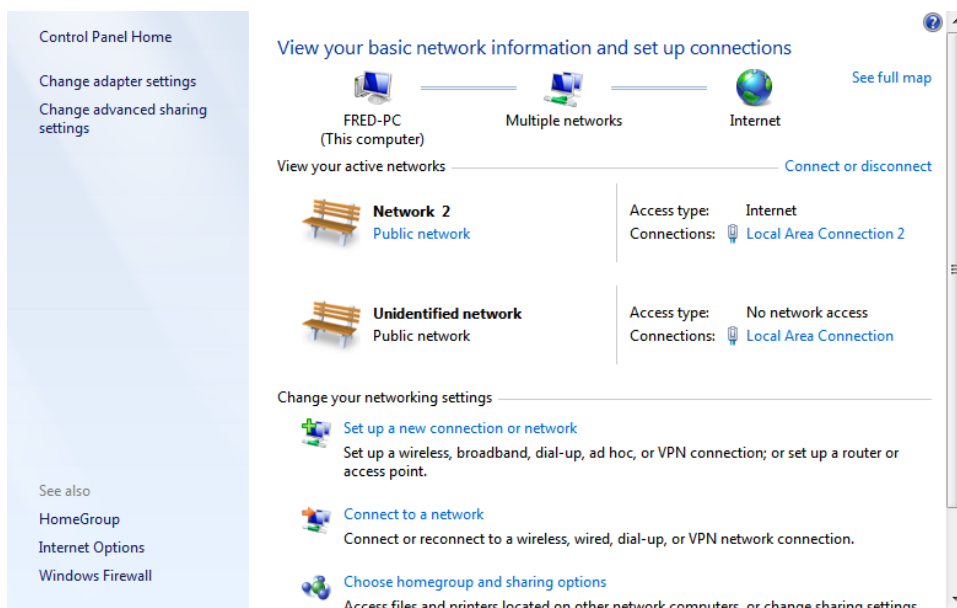


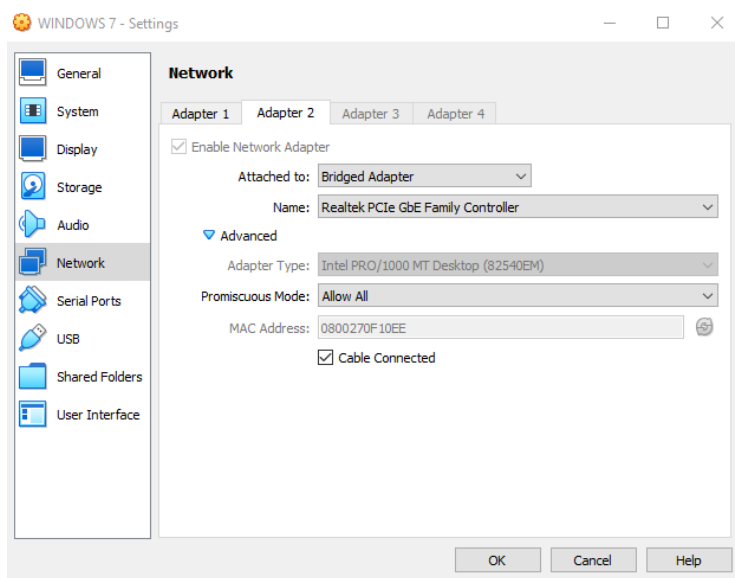
Now just by looking in file explorer and clicking on “this pc” it shows two drives:



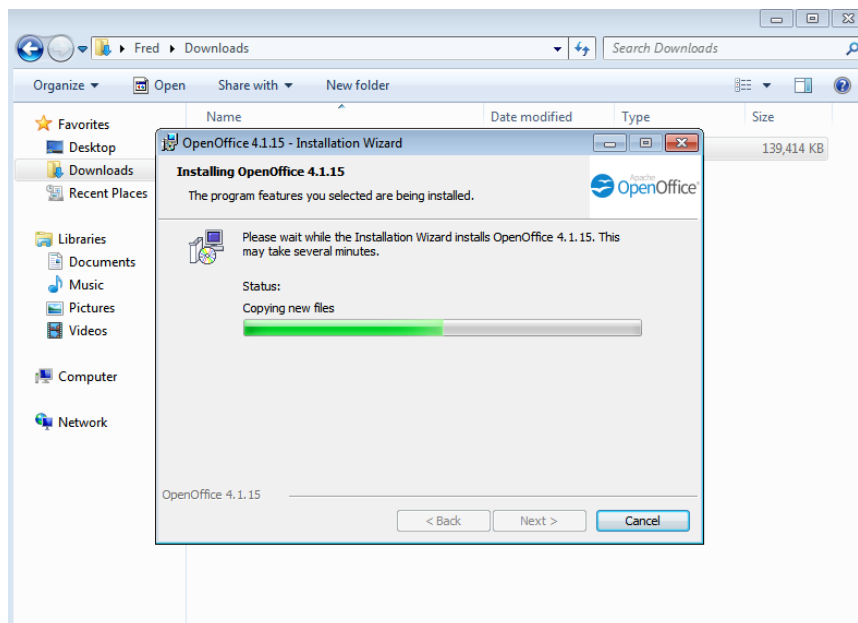
Part:2

To access the internet, I had to play around with the network adapters and finally select “NAT” or “Bridgend Adaptor”. Network “2” was connected but there is a network labeled “unidentified network” this is because the correct network adapter was not selected in the oracle VM.

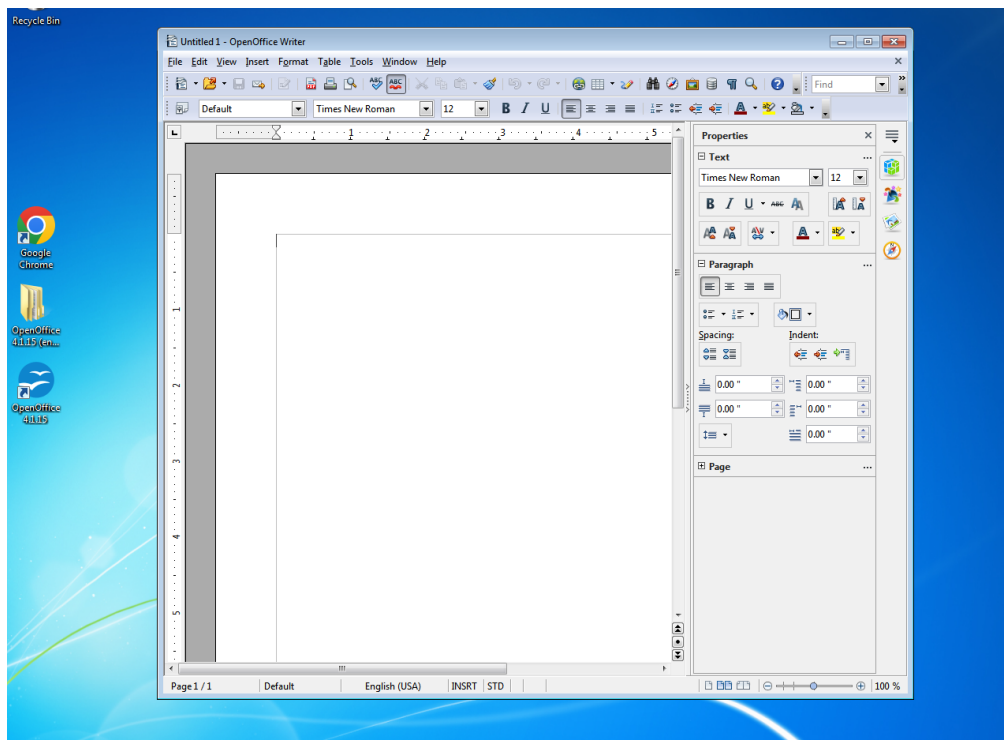
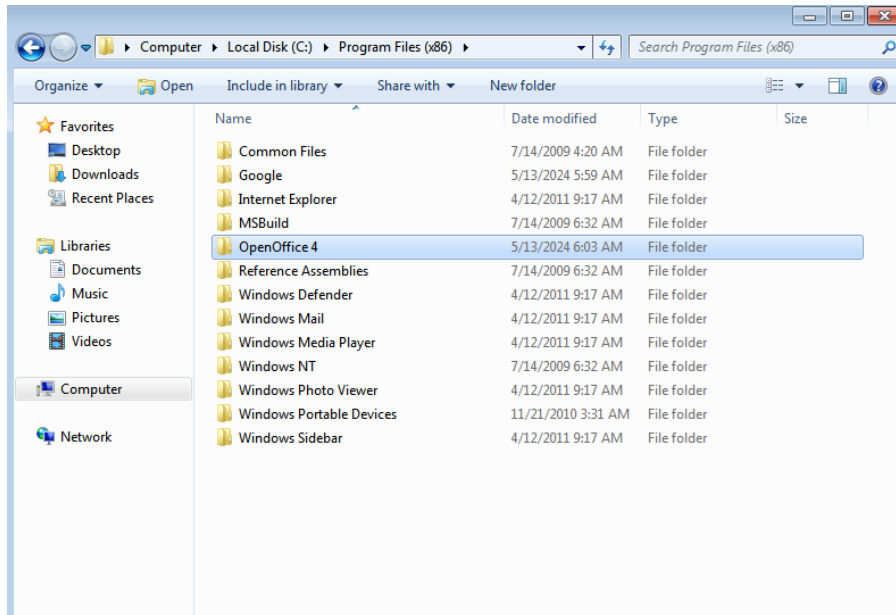




When trying to access any website I was always met with an error message and just assumed it was a configuration with my settings in the VM but after I switched from internet explorer which is not supported on most sites, and most apps not supporting anything over windows 8.1 these days I installed chrome although this can get quite intensive considering I only set around 4GB of ram if I don't open too many tabs the ram and CPU activity should remain relatively low.



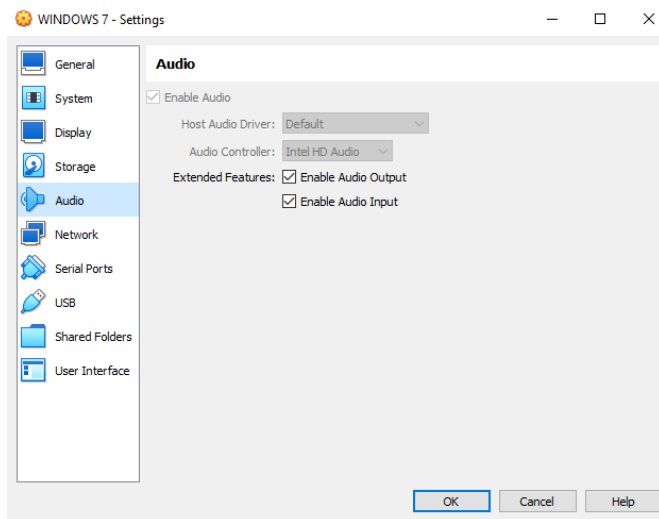
Open office is installed to the C: drive under “open office 4”.



(OpenOffice application open)

I thought I would try out some other software to see if my USB devices get picked up, I installed VB audio a free to use program that monitors and can adjust audio devices such as microphones. The files come zipped, so they sometimes need to be extracted using 7 zip but, in most cases, can be automatically extracted.

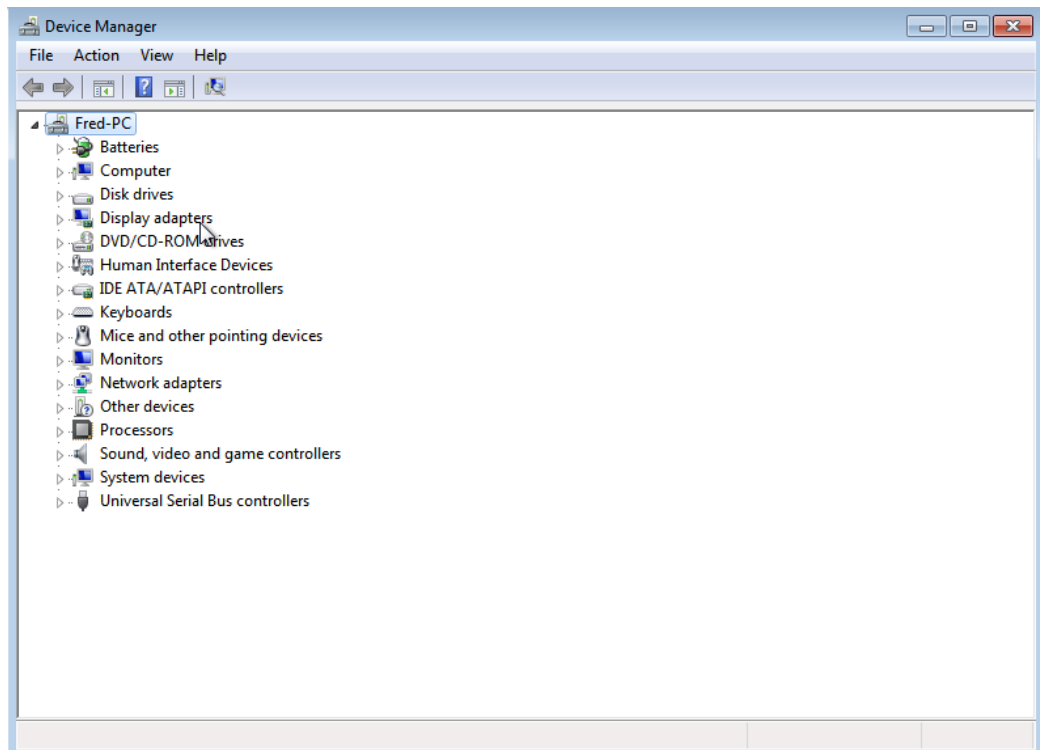
After checking “enable audio input” I was able to connect my microphone up to the software.



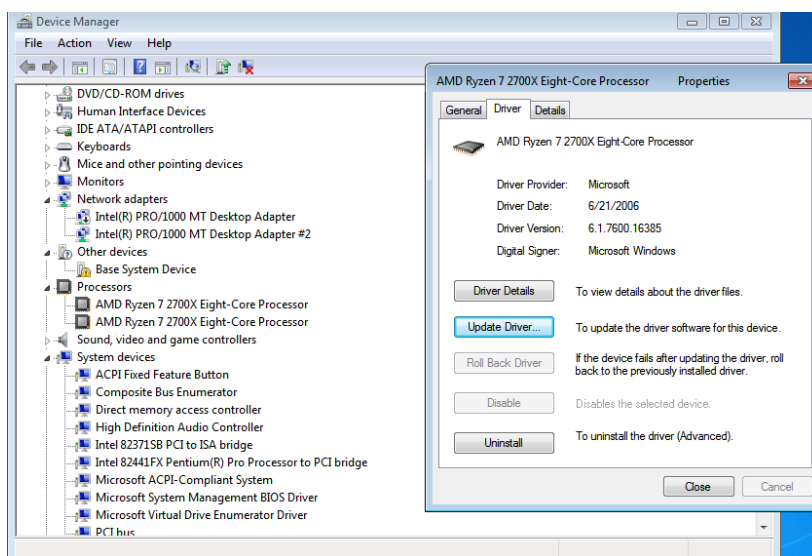
The microphone was detected as can be seen in the far-left bar, I could turn up my gain and by checking the “A1” box I could get playback back into my headphones. Not only that but with the tape recorder on the side, I can record and play back audio. This application is also installed on the C: drive.



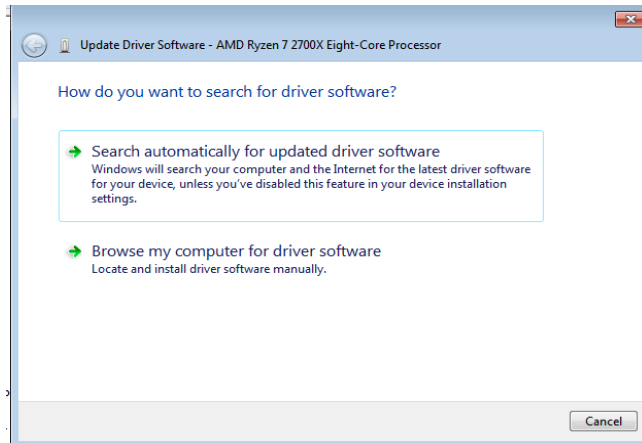
Going into device manager it shows that the devices are recognized and are working properly with many options available whether you want to delete a driver/disable or update a devices drivers that aren't working properly.



For example, on my CPU if I wanted to update or rollback the drivers for it you would just click on processors and the device you want. With the options that are on the side.



When you click update drivers you are met with this window with two options with the first searching the internet and the second option searching the pc locally.



This works with every device that is connected to the pc whether it be microphones, headsets, or mice and keyboards.

