**Lab 2: Minix Scavenger Hunt**

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**Task 1: Get a Minix system**

**Approach:** I use a self-built Windows 7 machine with an Intel core i7 x64 processor. So I needed to install an x86 architecture simulator. I chose to download VMWare player as my simulator of choice, because it seemed to be the easiest to use, and I have used VMWare products in the past. I then downloaded the VMWare image of Minix 3.1.1 from the website provided. I unzipped the file and put it in my 453 directory. I then ran VMWare, and opened the disk image of Minix 3.1.1 to "install" it.

**Problems Encountered:** None

**Solutions:** None needed

**Lessons Learned:** Installing programs and running them does not usually cause problems.

**Task 2: Log in**

**Approach:** Run VMWare player, and open the Minix 3.1.1 image. I am greeted with the message: 129.65.237.178 login: . I know I need to log in as root to configure things, so I simply enter root as the login name. After I enter that Minix gives me a bit of info about itself and I am able to type things into the command line.

**Problems Encountered:** None

**Solutions:** None needed

**Lessons Learned:** Logging in as root is easy, but I need to make sure to not always log in as root for security and safety.

**Task 3: Create a user account**

**Approach:** Use the adduser(8) command to add my own login into the system. Then use passwd(1) to give myself a password. I noticed in the adduser(8) man page that a group name is needed, and the only examples they had were of group other and group operator, so I decided to use operator since I will be running programs on my account.

I typed:

adduser tyhollan operator /usr/home

Then Minix gave me a notice that the user tyhollan has been added to the system, and that my password is empty and should be changed with passwd(1). I then also know that my home directory is located in /usr/home.

I typed:

passwd tyhollan

New password: <removed>

Retype password: <removed>

So now my password is set on the tyhollan account. The actual password is removed for privacy

**Problems Encountered:** None

**Solutions:** None needed

**Lessons Learned:** It is good to make a user account so you are not always running in super user mode. Also, it is important to keep a password on the user accounts you create.

**Task 4: Create a Minix data floppy and use it to transfer data**

**Approach:**

Configuring my floppy drive:

I needed to tell VMWare where my floppy disk was located. Since I don't actually have a floppy drive on my computer, I needed to create a virtual file of 1.44Mb. I needed to edit my dos.vmx file. I typed shutdown in Minix to close it properly, then shut down VMWare player and opened dos.vmx.

I added the following lines:

floppy0.present = "TRUE"

floppy0.fileName = "testfloppy"

floppy0.fileType = "file"

And created a 1.44MB file named testfloppy.

I then turned on VMWare player, and started Minix. I logged in to my tyhollan account and used format(1) and mkfs(1) and mount(1) to format and mount the floppy image into Minix.

I typed:

format /dev/fd0 1440

Formatting a 1440k diskette in a 1440k drive

Cyl. 79, Head 1

mkfs /dev/fd0 720 //Want to make a 720 block filesystem

mount /dev/fd0 /mnt/floppy

/dev/fd0 is read-write mounted on /mnt/floppy

vim test.txt

This is a test file

cp test.txt /mnt/floppy

umount /dev/fd0

/def/fd0 unmounted from /mnt/floppy

shutdown

Now that I have copied a file to the "disk", I will try to open it on my Linux computer.

I told my Linux computer to use the testfloppy file as a floppy disk, and then mounted it to my computer with:

mount -t minix /dev/fd0 /mnt/floppy

I could then cd into /mnt/floppy and see the test.txt file I had written to it.

**Problems Encountered:** None, thankfully

**Solutions:** None needed

**Lessons Learned:** It is nice when things work well the first time

**Task 5: Shutdown**

**Approach:** Having read the lab ahead of time, I was already aware of the need to use shutdown(8) before turning off the VM in order to flush caches and have the machine be in a consistent state.

All I did was type shutdown, and the Minix virtual machine shut down. I then exited VMWare player, and everything was completely turned off.

**Problems Encountered:** None

**Solutions:** None needed

**Lessons Learned:** I have to remember to use shutdown every time, I can't just close the VMWare Minix window.