

My third project involved installing Linux onto my families old T1140. This machine came out 2002 and originally came with Windows XP SP2. I found this machine in one of our closets, collecting dust. I've noticed this computer before, but I didn't think too much about it because I wasn't into computers as much. But after coming across this machine again after some Spring cleaning I got excited and wondered if it still worked. So, I took out of the closet, hit it with an air compressor and got some extra cables and hardware to boot the machine.

I was pleasantly surprised it booted to OS. The only hinderance came when I wanted to go online. I realized that the network adapter was for dial up and not broadband. I really wanted to try out XP online, so I went online to see what I could for my Internet problem. After researching a bit, I found three solutions to my predicament: Buy a network adapter for Broadband Ethernet, find a free dial-up ISP and go old school with a phone line, or install a lightweight Linux distro. Although I love the connection sound of dial-up, I do not love the speed that it came with and the loss using your phone while connected, so I knew right away I would be buying a network adapter.

However, I wasn't too sure on which adapter would work best with such an old system, so I asked online for some help, and I was met with a good amount of responses for my dilemma. The first advice I got that was most helpful was not to go online with Windows XP. From what I understood is that Windows XP lost support in 2015 and just recently had major security issues with the WannaCry exploit that shocked Microsoft May of last year. There are ways to beef up the security of XP still in 2018, but most people recommended installing Linux if I was planning to use the internet. The second advice that was helpful was the recommendation of the RTL8139 of Realtek for Broadband. This network card was not too expensive, the installation was easy, and it works great still. The last piece of advice that was helpful was the suggestion to upgrade the system's RAM.

Initially, the T1140 came with one stick of 128MB of RAM; however, after some digging I found out that the max capacity of the T1140 was 512MB. So, I went online, and I found two 256MB sticks of RAM compatible with the T1140. The installation of the RAM wasn't too hard, and the PC was able to read the RAM, boosting its performance tremendously. After upgrading the computer, I was ready to install a Linux distro.

The first distro that I tried was Lubuntu, which is a lightweight distro of Ubuntu. I downloaded the ISO and burned it onto a CD and tried to boot from the CD-drive, but the computer would not boot from the CD. After a couple CD burns and verify the data on the CD on another computer I realized that the CD-Drive for the T1140 did not work correctly. The drive would open and close, but the drive for some reason could not read the data of the CD. At first, I thought that I could do a USB boot instead, but after looking in the BIOS I realized that the computer

didn't support booting from a USB. I was stumped at this point on what to do, so I went online again to see if I could boot somehow with a USB or a floppy (which newer computers still should have built in). From my research I realized that I could boot from a floppy, but it would take a bunch of floppies (they only sell floppies online now) and was time consuming. But I also realized that I could use a program called PLOP to boot from a USB instead. So, I burned the PLOP image onto a floppy, inserted it into the PC, and I could boot from a USB. Success. From PLOP I could boot into Lubuntu starting menu and I was able to install Lubuntu. However, I made a big mistake on my part here.

First, I didn't even try Lubuntu to see if the distro would work on the PC. I was so pumped with getting the computer to boot from a USB that I threw all caution out the window. Second, I formatted the main drive that contained my Windows XP SP2 when installing Lubuntu. At the time I didn't realize that the Lubuntu didn't work because of graphic driver issues. I looked online for fixes and most of them recommended doing the nomodset parameter in GRUB, but even this didn't help fix the problem and the video remained black. I checked to see if there were more answers online, but most of the suggestions were that the computer just can't handle the OS. So, I started looking online for more lightweight Linux distros. I tried Bodhi Linux, but the Bodhi Legacy did not work at all with the T1140. I next tried Tiny Core Plus.

The installation for the Tiny Core Plus went smooth. I could format the drive to get rid of Bodhi and I could boot into the OS. Tiny Core is good, but the graphics were messed up a little with the colors and some of the apps would not work after installing them. Frustrated that I delete Windows XP and, even though Tiny Core worked somewhat, it still wasn't as good as XP without Internet. I decided that I would try a different Linux OS and try to get better results. This is when I found Puppy Linux.

I loaded a USB up with Puppy 4.31 and installed it onto the hard drive along with the Tiny Core, meaning that I can boot from a Live USB with Puppy Linux, but also boot to Tiny Core if I don't boot from a USB. Also, any files I save with Puppy are saved onto the hard drive as well, which was great because Puppy came with AbiWord, an excel, paint, and an image illustrator. I can write essays on my 16-year-old T1140. Success. I think my next plan for the T1140 is to take out Tiny Core and reinstall Windows XP SP2, and then install Puppy Linux again. I think Windows XP is Microsoft's best OS, and I miss it a lot. I'll keep it on the computer offline for memories and nostalgia.