

Software I recommend for working with Raspberry Pi's

Using a raspberry pi, as a headless computing device, is an exciting, and for many, a new experience. Using a computer without a monitor means that you will need a software solution that will let you connect to the Pi through a network.

Two popular solutions are to access the Pi using a “terminal” session or a Virtual Network Connection. Both methods have their strengths and weaknesses.

Before either method may be used you must connect your Raspberry Pi to a network. You can either connect the Pi to a router using a Cat 5/6 cable or access a wifi. The easiest way to do this is to install the operating system on an SD card using two pieces of software: 1. SD Formatter and 2. Win32DiskImager. Both softwares are available on my Weather Station Server at <http://nb7o.ddns.net:83/weewxfiles.html>

Using **SD Formatter** reformat an SD card. I like using 32G SD cards to give lots of room for expansion and if you are using a USB camera as a web cam you will have room for images to be stored until you can clean the system up to remove old images.

Next using **Win32DiskImager** copy the image file of the Raspbian version of Linux to the SD card. Insert the SD card in your Raspberry Pi, plug in the power cable, Cat 5/6 cable if you are using it, and an HDML cable attached to a compatible TV to use as a temporary monitor; additionally you will need either a wireless or USB connected keyboard and mouse.

Using the TV as a monitor enable the Virtual Network feature of your Pi-3 and the WIFI feature of the Pi. Both are located in the upper right corner of the task bar of the window app on the Pi. While you are there go ahead and log the pi into your local wifi network; required if you are using wifi to access the network instead of a cat 5. Strongly recommended if you are using the cat 5 connection. While you are setting up the networking go ahead and use the configuration utility to set up the keyboard, language, timezone, and change the password to your pi. Now on to getting connected to your pi as a headless device. Shut down your Pi, disconnect the cables, move the Pi to a place that you will be able to work with it until you are ready to move it to its final place of use.

PUTTY will provide a terminal session on your Windows Computer to access your Pi; using SSH. Using a terminal session will let you enter commands at the operating system level. If you were a computer user when DOS was the operating system then you are familiar with entering commands at the command prompt. A terminal session lets you enter commands just like back when DOS was in vogue. To create a terminal connection to a Raspberry Pi I like using Putty. Putty does not need to be installed on your computer. Download it from the server at

<http://nb7o.ddns.net:83/weewxfiles.html> , unzip it in a directory, put a shortcut on your desktop and you are ready to connect to your raspberry pi.

VNC Viewer allows the user to connect to a Raspberry Pi using “Virtual Network Computing.” This type of connection to a Raspberry Pi will allow the user to use the windows-like interface on the Raspberry Pi. You can select a terminal session, file manager, Raspberry Pi configurator, and other software similarly to how you do using your Windows Computer.

IPSCAN Lets the user quickly find IP addresses that have been assigned out of a pool of IP addresses by a specific router. There are many IP Scanners available. This is one of the fastest IP searching solutions I have found. There are others that provide more information. But none as fast.

NOTEPAD PLUS PLUS gives the user a very powerful text editor that does not put hidden formatting codes within a saved document. Hidden formatting codes are common with MS Word, MS Wordpad, and other editors. MS Notepad does not put hidden formatting codes in its documents but the editor is not very powerful. Try Notepad Plus Plus and you will not go back.