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# Raspberry PI 400===<br>+++Install Notes

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Installation and customization of Raspberry PI 400 for development environment.

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# 1. Introduction

These are notes from the start up installation and configuration of the RPI400.

## 2. Additional Software

### 2.1. Double commander

Dual pane file manager

```
sudo apt-get install doublecmd-qt
```

### 2.2. Visual Studio Code

IDE and editor with great extension library

Reference: <https://code.visualstudio.com/docs/setup/raspberry-pi>

```
sudo apt update  
sudo apt install code
```

### 2.3. Arduino IDE

C++ IDE editor for arduino based boards

Rference: <https://www.raspberrypi-spy.co.uk/2020/12/install-arduino-ide-on-raspberry-pi/>

The install below results in the installation of Arduino IDE version 1.6. This is an extremely outdated version which makes it difficult to use or impossible to flash certain devices.

```
sudo apt install arduino
```

Download current IDE from website <https://www.arduino.cc/en/software>

Linux Arm 64 bit, as rgw RPI400 project is 64 bit based.

Go to download and run

```
tar -xf arduino-####-linuxarm.tar.xz
```

Move the folder to the `opt` directory.

```
sudo mv arduino-#### /opt
```

Run the script to install it

```
sudo /opt/arduino-####/install.sh
```

The script will add an entry to the `Programming` tab for Arduino IDE.

## 3. Chrome Extensions

### 3.1. ASCIIDoctor JS extension

This Chrome extension will allow viewing of an `*.adoc` file directly in the browser.

Reference: <https://chrome.google.com/webstore/detail/asciidoctorjs-live-previe/iaalpfgpbocpdfblpnhhgllgdbbchmia>

The extension must be enabled to allow use of File URLs.

## 4. Networking

### 4.1. Mount Windows share

Reference: <https://www.bitpi.co/2015/02/16/accessing-a-windows-share-with-a-raspberry-pi/>

This will allow the Dropbox folder on the Windows desktop to be available to the RPI400.

We will need to install `cifs-utils`. This will help us mount SMB directories- which is what we get from Windows. We can install easily on Raspbian by running the following command:

```
sudo apt-get install cifs-utils;
```

Establish mount to a Windows share

Now we will create a mount point in the `mnt` directory:

```
mkdir /mnt/Dropbox/
```

The mount command for the Dropbox folder on the desktop the newly created folder on the RPI400.

```
sudo mount.cifs -o user=jschust2,password=***** //10.1.10.22/Dropbox /mnt/Dropbox
```



No space between user and password, all optional args are comma separated.

In order for your Raspberry Pi to mount the network shares on boot up, we need to modify the `/etc/fstab` file.

```
sudo nano /etc/fstab
```

There may be entries there already. All we need to do is add the following to the end of the file:

```
//10.1.10.22/Dropbox /mnt/Dropbox cifs  
username=jschust2,password=***** ,iocharset=utf8,sec=ntlm 0 0
```

Now we can manually run the same mount process at boot up from the command line by running:

```
sudo mount -a;
```

## 5. References

# 6. Document History

Table 1. Document History

| Date       | Version | Author | Description     |
|------------|---------|--------|-----------------|
| 04/01/2022 | V2.1b   | JHRS   | Initial version |