Rasberry Pi Cheat Sheet

RaspberryPi

Setup

Find all available devices `arp -a`

Locate Raspberry (b8:27:eb) in Network: [Pi Finder]

SSH

- Connect to device via SSH + Name: `ssh pi@rasperrypi`
- Connect to device via SSH + IP: `ssh pi@192.168.64.xxx`

Users

Add new user with home dir: `sudo useradd -m sven -G sudo` (see `/etc/passwd`)

Set password for user: `sudo passwd sven` (see `/etc/-shadow`)

System

Get system info (e.g. IP): `ifconfig`

Get network info: `iwconfig`

Get hostname: `hostname`

Get hostname IP: `hostname -I`

Check for all connected USB devices: `lsusb`

Switch to config: sudo raspi- `config`

Switch to GUI: `startx`

Reboot system: `reboot / sudo reboot`

Shutdown: `sudo shutdown -h now`

Start SSH while booting: `sudo update-rc.d ssh defaults`

Web Server

Update system: `sudo apt-get update & sudo apt-get upgrade`

Install Web Server: `sudo apt-get install apache2 php5`

Laravel will also need `mcrypt` and GD extension.

Install MySQL: `sudo apt-get install mysql-server mysql-client php5-mysql`

Restart: `sudo service apache2 restart`

Install Avahi for `.local` domain: `sudo apt-get install avahi-daemon`

Note: Also update vhosts to `AllowOverride All` !

Audio

Play: `omxplayer audio.mp3`

Volume: `+` & `-`

GUI Keyboard Shortcuts

System menu: `ctrl + esc`

Open programm menu: `alt + space`

Switch programms: `alt + tab`

Access dropdown: `alt + [letter-with-underline]` e.g. `alt + f`

Close window: `ctrl + q`

Back to CLI: `ctrl + alt + backspace`

Remote Control

Install XRDP: `apt-get install xrdp`

Connect via Remote Desktop app
- Install VNC: `sudo apt-get install tightvncserver`
- Start VNC: `tightvncserver`
- Ethernet Port: `5900`
- WLAN Port: `5901`

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File Sharing

Install file sharing: `sudo apt-get install netatalk`

Connect to Server (via K): `afp://192.168.64.xxx`

Wifi

Setup:
- [Via interface](wifi button)
- [Via CMD](pi config)

- Check the power management flag using: `cat /sys/module/8192cu/parameters/rtw_power_mgnt` (this will report a value of 1)
- To set it to zero you can use: `sudo touch /etc/modprobe.d/8192cu.conf`
- Add this line to the created file: `options 8192cu rtw_power_mgnt=0 rtw_enusbss=0`
- Reboot: `sudo reboot`

-Midnight Commander:

Install: `sudo apt-get install mc`

Start: `sudo mc`

GPIO Pinout Diagram

4 Squarely Placed Mounting Holes
40 GPIO Headers
SMSC LAN9514 USB Ethernet Controller
Run Header Used to Reset the PI
Broadcom BCM2835
MicroSD Card Slot (Underneath)
DSI Display Connector
Switching Regulator for Less Power Consumption
5V Micro USB Power
HDMI Out Port
CSI Camera Connector
3.5mm Audio and Composite Output Jack
2x2 USB-A Ports to PC
Ethernet Out Port