

07/15/23

Summary of CM4 build process on MacBook Pro using CM4_185 as target:
Note: "~\$" indicates we are using Terminal

Prepare the uSD:

- Burn base image on uSD using Etcher. Suitable base image for RPi:
/Users/jimadams/ConnectBox/ImageBuild/Base Images-RPi/
Buster/2022-01-28-raspbian-buster-armhf-lite.img
- Remove and remount uSD on MBP
- MacBook-Pro-2021: ~\$ cd /Volumes/boot
- MacBook-Pro-2021: ~\$ touch ssh
- MacBook-Pro-2021: ~\$ cp Documents/GitHub/Hints-and-Kinks/BuildGuides/config.txt .
- MacBook-Pro-2021: ~\$ cd
- eject uSD
- Put uSD in target (CM4_185) and boot (use HDMI monitor and USB keyboard)
- Login: pi, password: raspberry
- pi@raspberrypi:~ \$ sudo passwd root // change to "connectbox"
- pi@raspberrypi:~ \$ exit
- Login: root, password: connectbox
- root@raspberrypi:~ \$ cd /etc/ssh
- root@raspberrypi:~ \$ chmod 777 sshd_config
- root@raspberrypi:~ \$ vi /etc/ssh/sshd_config // add to file "PermitRootLogin yes" then save
- root@raspberrypi:~ \$ chmod 644 sshd_config
- root@raspberrypi:~ \$ service ssh restart
- root@raspberrypi:~ \$ ifconfig // Note the IP address at eth0 listing... ex: 10.0.0.40
- root@raspberrypi:~ \$ exit
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- MacBook-Pro-2021: ssh root@10.0.0.40 // pw "connectbox"
- root@raspberrypi:~# mkdir .ssh
- root@raspberrypi:~# cd .ssh
- root@raspberrypi:~/.ssh# touch authorized_keys
- root@raspberrypi:~/.ssh# echo '[text of id_rsa.pub] ' >> authorized_keys
- root@raspberrypi:~/.ssh# exit
- MacBook-Pro-2021: ssh root@10.0.0.40 // should login without needing pw
- root@raspberrypi:~# exit
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The build:

- MacBook-Pro-2021: ~ \$ cd ~/Documents/GitHub
- MacBook-Pro-2021: ~ \$ connectbox-tools/deployment/make_cb.py
- N
- <return>
- <enter command line string (optional)>
- 10.0.0.40
- At about 3 minutes into the build, you are asked if you want to allow a reboot... answer "yes"
- At this point the build begins and hopefully will complete in about half an hour (3:25 - 3:52)

Post Process:

- Wait until the target (RPi) completes the power down then pull the uSD from the target

- Put the uSD in a USB adaptor and put in the RPi-4 (Mac won't do the next step)
- **RPi:** lsblk // should see sda/sda1 and sda/sda2
- **RPi:** umount /dev/sda1
- **RPi:** umount /dev/sda2
- **RPi:** cd /home/pi/connectbox
- **RPi:** sudo connectbox-tools/deployment/shrink-image.sh /dev/sda. Images/<theName>.img
- (the image shrink will take about 20 minutes)
- Here you can pull the uSD and try it out
- **RPi:** xz -k <theName>.img // will shrink the image to .xz format