Creating a SD Card Image from Scratch

Lets create an image that looks like the following

Image to Copy

> ***sudo parted Nacho\'s\ Image.img unit B print***
>
> *Model: (file)*
>
> *Disk /share/CACHEDEV1_DATA/tv/incoming/nacho/Nacho's Image.img: 63864569856B*
>
> *Sector size (logical/physical): 512B/512B*
>
> *Partition Table: msdos*
>
> *Disk Flags:*
>
> *Number Start   End   Size   Type   File system Flags*
>
> *1   4194304B   63963135B   59768832B   primary fat16   boot, lba*
>
> *2   63963136B 63864569855B 63800606720B primary ext4*

Create a blank image

> ***dd if=/dev/zero of=image.img bs=1G count=55***

Add partitions

> ***parted image.img***

> *(parted)* ***mklabel***
>
> *mklabel*
>
> *New disk label type?* ***msdos***
>
> *msdos*
>
> *Warning: The existing disk label on*
>
> */image.img will be destroyed and all*
>
> *data on this disk will be lost. Do you want to continue?*
>
> *Yes/No? y*
>
> *y*

> *(parted)* ***unit B***

unit B

(parted) ***mkpart***

mkpart

Partition type? primary/extended? ***primary***

primary

File system type? [ext2]? ***fat16***

fat16

Start? ***4194304B***

4194304B

End? ***63963135B***

63963135B

(parted) ***mkpart***

mkpart

Partition type? primary/extended? ***primary***

primary

File system type? [ext2]? ***ext4***

ext4

Start? ***63963136B***

63963136B

End? ***100%***

100%

(parted) ***print***

print

Model: (file)

Disk /image.img: 59055800320B

Sector size (logical/physical): 512B/512B

Partition Table: msdos

Disk Flags:

Number	Start	End	Size	Type	File system	Flags
1	4194304B	63963135B	59768832B	primary		lba
2	63963136B	59055800319B	58991837184B	primary		

(parted) ***set 1 boot on***

> *set 1 boot on*

> *(parted)* ***print***
>
> *print*
>
> *Model: (file)*
>
> *Disk /image.img: 59055800320B*
>
> *Sector size (logical/physical): 512B/512B*
>
> *Partition Table: msdos*
>
> *Disk Flags:*
>
> *Number Start   End   Size   Type   File system Flags*
>
> *1   4194304B   63963135B   59768832B   primary   boot, lba*
>
> *2   63963136B 59055800319B 58991837184B primary*
>
> *(parted)* ***quit***

Mount the partiion to a loopback device

> ***losetup -o 4194304 -f image.img***

Copy contents from one device to another

> ***dd if=/dev/loop5 of=/dev/loop6 bs=1K***

Make filesystem on partition

> ***mkfs -t ext4 /dev/loop6***
>
> ***or***
>
> ***mke2fs -t ext4 /dev/loop6***

Mount the partition

> ***sudo mount -t ext4 -o loop,offset=63963136 image.img p2***

Copy contents from one folder to out newly mounted partition

> ***rsync -av <source> p2***