

my manjaro

situation before install

- sda - 500Gb ssd
- nvme0n1 - 500Gb nvme
- sdc - 1Tb hdd
- sdb - 120Gb ssd - reserved
- sdd - 32Gb flash - install support

I will distribute my system on sda, sdc e nvme0n1.

- nvme0n1 - main drive
- sda - home folder and swap
- sdc - for big files

I want to try btrfs futures so the system will be

- nvme0n1 - btrfs (will be formatted)
- sda - btrfs (will be formatted)
- sdc - ext4 (won't be formatted)

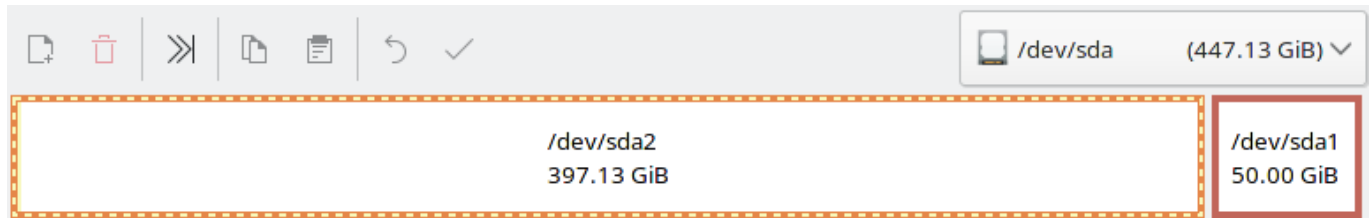
install procedure

- backup your data!
- make a live usb with manjaro kde (i have a pendrive with ventoy but whatever boot is ok)
- boot the live with proprietary driver
- install with calamares on the nvme0n1, chose:
 - automatic partitioning
 - btrfs
 - no swap
- reboot

Right after install

install gparted with the store and let it do the updates it need.

With gparted create a new partition table for sda (be sure, there is no undo), chose GPT. Than create the swap, i have 32Gb of rab so 50Gb of swap, and the remaining space a btrfs partition.



Partition	File System	Mount Point	Size	Used	Unused	Flags
/dev/sda2	btrfs	/home, /ru...	397.13 GiB	921.00 MiB	396.23 GiB	
/dev/sda1	linux-swap		50.00 GiB	0.00 B	50.00 GiB	swap

and the output of this should be simimar.

```
> lsblk --fs
NAME          FSTYPE FSVER LABEL      UUID
FSAVAIL FSUSE% MOUNTPOINTS
sda
├─sda1        swap    1          5618d796-e5de-40ac-98ee-704cbd0d94b4
[SWAP]
└─sda2        btrfs   394,9G    0%          8c881877-e7f4-493d-a658-5422c701aca5
sdb
├─sdb1        vfat    FAT32     5AEA-94DB
├─sdb2
├─sdb3        ntfs
└─sdb4        ntfs    BC52CA1152C9D076
sdc
└─sdc2        ext4    1.0       a81b9eac-926e-4b3c-a6e0-7a56d5117021
sdd
├─sdd1        exfat   1.0       Ventoy     1D1B-BDD3
└─sdd2        vfat    FAT16     VTOYEFI   36FE-745E
nvme0n1
├─nvme0n1p1  vfat    FAT32     NO_LABEL   9DC0-3A68
298,8M      0% /boot/efi
└─nvme0n1p2  btrfs   454,7G    2% /var/log
/var/cache
/home
/
```

Enable swap

We created the swap partition but we need to add it to fstab. So, edit `/etc/fstab` and add and the bottom

```
UUID=5618d796-e5de-40ac-98ee-704cbd0d94b4 none swap defaults 0 0
```

The uuid need to be the one of the swap partition so **sda1**

enable ssd trim

Manjaro already have the **service** for that, just enable it with

```
> sudo systemctl enable --now fstrim.timer
```

Move home to sda2

After the install manjaro create automatically 4 subvolumes

```
> sudo btrfs subvolume list -p /  
ID 259 gen 798 parent 5 top level 5 path @log  
ID 263 gen 798 parent 5 top level 5 path @  
ID 258 gen 749 parent 5 top level 5 path @home  
ID 260 gen 608 parent 5 top level 5 path @cache
```

all of those are mounted in **/etc/fstab**

```
UUID=08c1a849-60c7-4f1b-aeca-1b2815a7cdb2 / btrfs  
subvol=@,defaults,noatime,autodefrag,compress=zstd 0 0  
UUID=08c1a849-60c7-4f1b-aeca-1b2815a7cdb2 /home btrfs  
subvol=@home,defaults,noatime,autodefrag,compress=zstd 0 0  
UUID=08c1a849-60c7-4f1b-aeca-1b2815a7cdb2 /var/cache btrfs  
subvol=@cache,defaults,noatime,autodefrag,compress=zstd 0 0  
UUID=08c1a849-60c7-4f1b-aeca-1b2815a7cdb2 /var/log btrfs  
subvol=@log,defaults,noatime,autodefrag,compress=zstd 0 0
```

The uuid is always the same because they are all on **nvme0n1p2**.

We will move **@home** and **@cache** to sda2 to save space in the root ssd.

move home to second ssd

I will follow [this](#) for most of the steps

create mountpoint for sda2 (name doesn't matter)

```
> sudo mkdir /data/ssd
```

mount the partition

```
> mount /dev/sda2 /data/ssd
```

Now we can check if the system recognize it.

```
> sudo btrfs filesystem show
Label: none  uuid: 08c1a849-60c7-4f1b-aeca-1b2815a7cdb2
    Total devices 1 FS bytes used 9.07GiB
    devid    1 size 465.46GiB used 11.02GiB path /dev/nvme0n1p2

Label: none  uuid: 8c881877-e7f4-493d-a658-5422c701aca5
    Total devices 1 FS bytes used 236.86MiB
    devid    1 size 397.13GiB used 3.02GiB path /dev/sda2
```

home is a subvolume of /

```
> sudo btrfs subvolume list / |grep home
ID 257 gen 313 top level 5 path @home
```

To move it to another drive we need to create a snapshot and copy it to the second drive.

```
> sudo btrfs subvolume snapshot -r /home /home_snap
Create a readonly snapshot of '/home' in '//home_snap'
```

```
> btrfs filesystem sync /
```

Now we have 2 subvolume, **@home** and **home_snap**

```
> sudo btrfs subvolume list / |grep home
ID 257 gen 313 top level 5 path @home
ID 255 gen 315 top level 5 path home_snap
```

Send the readonly snapshot to new drive which is mounted as **/data/ssd**

```
> btrfs send /home_snap | btrfs receive /data/ssd
```

```
> btrfs filesystem sync /data/ssd
```

Now rename it to desired name and made it read-write

```
> sudo btrfs subvolume snapshot /data/ssd/home_snap /data/ssd/@home
Create a snapshot of '/data/ssd/home_snap' in '/data/ssd/@home'
```

Removed unnecessary snapshots

```
> btrfs subvolume delete /data/ssd/home_snap /home_snap
```

update `/etc/fstab`

```
UUID=9DC0-3A68 /boot/efi vfat umask=0077
0 2
UUID=08c1a849-60c7-4f1b-aeca-1b2815a7cdb2 / btrfs
subvol=@,defaults,noatime,autodefrag,compress=zstd 0 0

# need to update this line with the new uuid, but if wrong the pc will not
boot, so for fast recovery leave it commented and copy past it to the
bottom
#UUID=08c1a849-60c7-4f1b-aeca-1b2815a7cdb2 /home btrfs
subvol=@home,defaults,noatime,autodefrag,compress=zstd 0 0

UUID=08c1a849-60c7-4f1b-aeca-1b2815a7cdb2 /var/cache btrfs
subvol=@cache,defaults,noatime,autodefrag,compress=zstd 0 0
UUID=08c1a849-60c7-4f1b-aeca-1b2815a7cdb2 /var/log btrfs
subvol=@log,defaults,noatime,autodefrag,compress=zstd 0 0

# this is the new line, the uuid is of /dev/sda2 (same as above)
UUID=8c881877-e7f4-493d-a658-5422c701aca5 /home btrfs
subvol=@home,defaults,noatime,autodefrag,compress=zstd 0 0

UUID=5618d796-e5de-40ac-98ee-704cbd0d94b4 none swap defaults 0 0
```

now reboot and if it boot

NAME	FSTYPE	FSVER	LABEL	UUID
FSABAIL FSUSE% MOUNTPOINTS				
sda				
└─sda1	swap	1		5618d796-e5de-40ac-98ee-704cbd0d94b4
[SWAP]				
└─sda2	btrfs			8c881877-e7f4-493d-a658-5422c701aca5
394,9G	0% /home			
sdb				
└─sdb1	vfat	FAT32		5AEA-94DB
└─sdb2				

```

└─sdb3      ntfs          2C1AEBA61AEB6AF2
└─sdb4      ntfs          BC52CA1152C9D076
sdc
└─sdc2      ext4    1.0          a81b9eac-926e-4b3c-a6e0-7a56d5117021
sdd
└─sdd1      exfat    1.0    Ventoy    1D1B-BDD3
└─sdd2      vfat     FAT16  VTOYEFI   36FE-745E
nvme0n1
└─nvme0n1p1 vfat     FAT32  NO_LABEL  9DC0-3A68
298,8M      0% /boot/efi
└─nvme0n1p2 btrfs          08c1a849-60c7-4f1b-aeca-1b2815a7cdb2
454,7G      2% /var/log

/var/cache

/

```

we see that home is under `sda2`, check if everything is there!

To remove the old subvolume `/@home` we need to:

```

> sudo mkdir /data/temp
> sudo mount -o subvolid=0 /dev/nvme0n1p2 /data/temp
> sudo btrfs subvolume delete /data/temp/@home

```

and than reboot.

move cache to second ssd

currently we have

```

> sudo btrfs subvolume list /
ID 256 gen 388 top level 5 path @
ID 258 gen 383 top level 5 path @cache
ID 259 gen 388 top level 5 path @log

```

The step are similar to the one above:

```

> sudo btrfs subvolume snapshot -r /var/cache /var/cache_snap
Create a readonly snapshot of '/var/cache' in '/var/cache_snap'

```

```

> btrfs filesystem sync /

```

```
> sudo mount /dev/sda2 /data/ssd
```

```
> sudo btrfs send /var/cache_snap | sudo btrfs receive /data/ssd
At subvol /var/cache_snap
At subvol cache_snap
```

```
> btrfs filesystem sync /data/ssd
```

```
> sudo btrfs subvolume snapshot /data/ssd/cache_snap /data/ssd/@cache
Create a snapshot of '/data/ssd/cache_snap' in '/data/ssd/@cache'
```

```
> sudo btrfs subvolume delete /data/ssd/cache_snap /var/cache_snap
Delete subvolume (no-commit): '/data/ssd/cache_snap'
Delete subvolume (no-commit): '/var/cache_snap'
```

update fstab

```
> vim /etc/fstab
UUID=9DC0-3A68 /boot/efi vfat umask=0077
0 2
UUID=08c1a849-60c7-4f1b-aeca-1b2815a7cdb2 / btrfs
subvol=@,defaults,noatime,autodefrag,compress=zstd 0 0
# UUID=08c1a849-60c7-4f1b-aeca-1b2815a7cdb2 /home btrfs
subvol=@home,defaults,noatime,autodefrag,compress=zstd 0 0
# UUID=08c1a849-60c7-4f1b-aeca-1b2815a7cdb2 /var/cache btrfs
subvol=@cache,defaults,noatime,autodefrag,compress=zstd 0 0
UUID=08c1a849-60c7-4f1b-aeca-1b2815a7cdb2 /var/log btrfs
subvol=@log,defaults,noatime,autodefrag,compress=zstd 0 0

UUID=8c881877-e7f4-493d-a658-5422c701aca5 /home btrfs
subvol=@home,defaults,noatime,autodefrag,compress=zstd 0 0
UUID=8c881877-e7f4-493d-a658-5422c701aca5 /var/cache btrfs
subvol=@cache,defaults,noatime,autodefrag,compress=zstd 0 0

UUID=5618d796-e5de-40ac-98ee-704cbd0d94b4 none swap defaults 0 0
```

reboot!

and now we have @cache on the ssd too

```
> lsblk --fs
NAME          FSTYPE FSVER LABEL      UUID
FSAVAIL FSUSE% MOUNTPOINTS
sda
├─sda1        swap    1          5618d796-e5de-40ac-98ee-704cbd0d94b4
[SWAP]
└─sda2        btrfs           8c881877-e7f4-493d-a658-5422c701aca5
394,5G      0% /var/cache

/home
sdb
├─sdb1        vfat    FAT32      5AEA-94DB
├─sdb2
├─sdb3        ntfs           2C1AEBA61AEB6AF2
└─sdb4        ntfs           BC52CA1152C9D076

sdc
└─sdc2        ext4     1.0        a81b9eac-926e-4b3c-a6e0-7a56d5117021

nvme0n1
├─nvme0n1p1  vfat    FAT32 NO_LABEL  9DC0-3A68
298,8M      0% /boot/efi
└─nvme0n1p2  btrfs           08c1a849-60c7-4f1b-aeca-1b2815a7cdb2
454,9G      2% /var/log

/
```

we still need to delete the old one

```
> sudo mount -o subvolid=0 /dev/nvme0n1p2 /data/temp
> sudo btrfs subvolume delete /data/temp/@cache
```

reboot again to confirm the everithing is ok

basic programs

- gimp (official repo)
- telegram (official repo)
- alacritty (official repo)
- redshift (official repo)
- xclip (official repo) - is needed by the vscode extensions
- vscode (aur - visual-studio-code-bin)
- redshift tray icon (aur - [plasma5-applets-redshift-control-git](#))

error fixup

While installing things i got a lot this type of error in the log of pamac:


```
ftp://mirror.easynome.at/manjaro/stable/core/x86_64/core.db: Operation not supported
```

and after searching around:

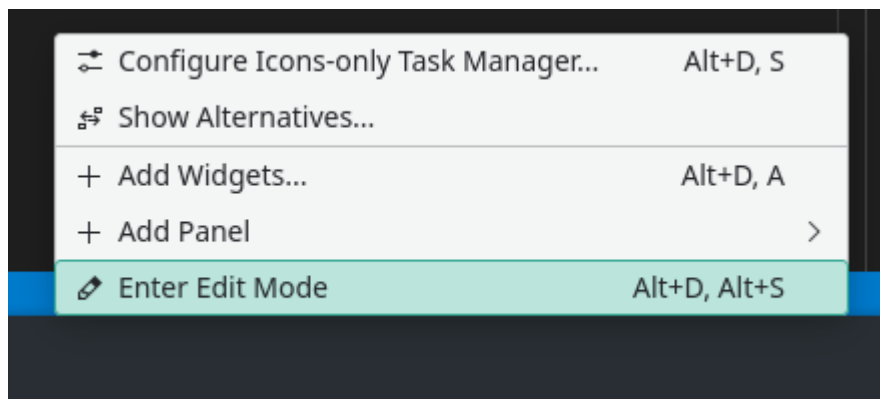
```
sudo pacman-mirrors --country all --api --protocols all --set-branch stable  
&& sudo pacman -Syu
```

this will requery all mirrors (can take a while)

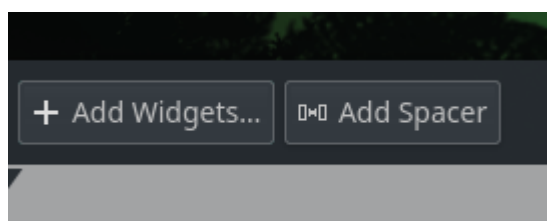
redshift config

To add the tray icon as plasma widget:

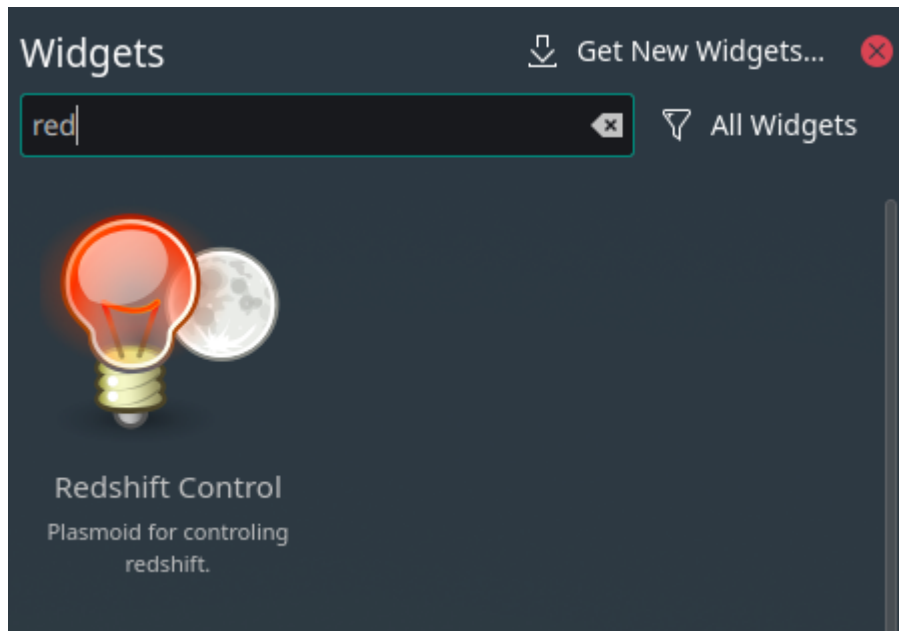
1. go into edit panel mode



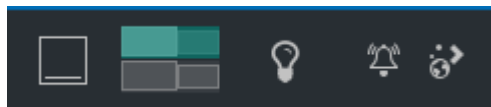
2. press on add widgets



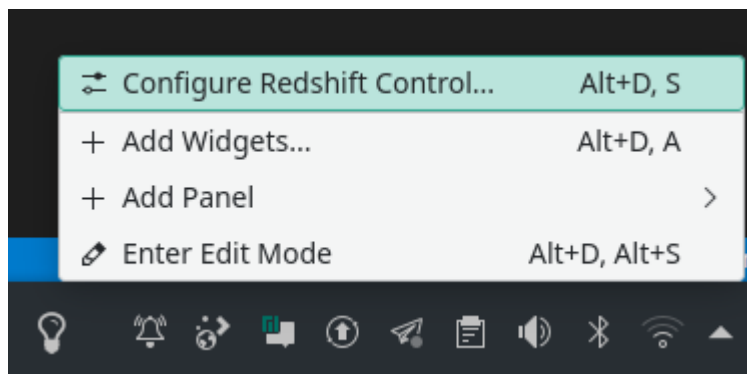
3. search for the redshift one



4. drag and drop it on the panel

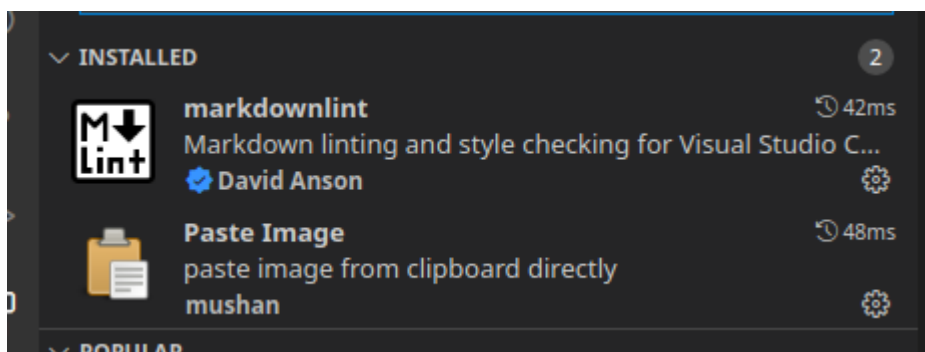


5. to configure it, rightclick and:



vscode basic config (needed to edit this file)

install the "markdown" and "paste-image" extensions:



this allows basic markdown edit and the ability to paste screenshot from Spectacle directly into vscode.

Pipewire and sound test

Install:

- [manjaro-pipewire](#) - Official repo
- [spotify](#) - Aur

from the store, it will remove a bunch of packages and install some others.

Now reboot and test the audio.

errors fixup

If you get:

```
==> Validating source files with sha512sums...
spotify.protocol ... Passed
LICENSE ... Passed
spotify-1.1.72.439-x86_64.deb ... Passed
spotify-1.1.72.439-3-Release ... Skipped
spotify-1.1.72.439-3-Release.sig ... Skipped
spotify-1.1.72.439-3-x86_64-Packages ... Skipped
==> Verifying source file signatures with gpg...
spotify-1.1.72.439-3-Release ... FAILED (unknown public key
5E3C45D7B312C643)
==> ERROR: One or more PGP signatures could not be verified!
Failed to build spotify
```

Check on the [aur page](#):

```
> curl -sS https://download.spotify.com/debian/pubkey_5E3C45D7B312C643.gpg
| gpg --import -
```

And rebuild

Firefox setup