PROCESSO SELETIVO GRIS 2020.1
TAG- Linux - João Lacerda

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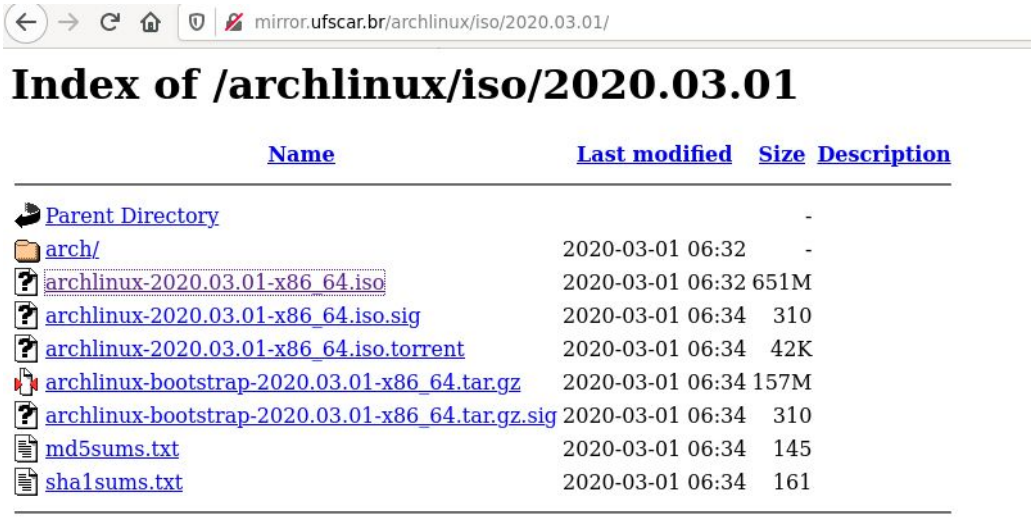
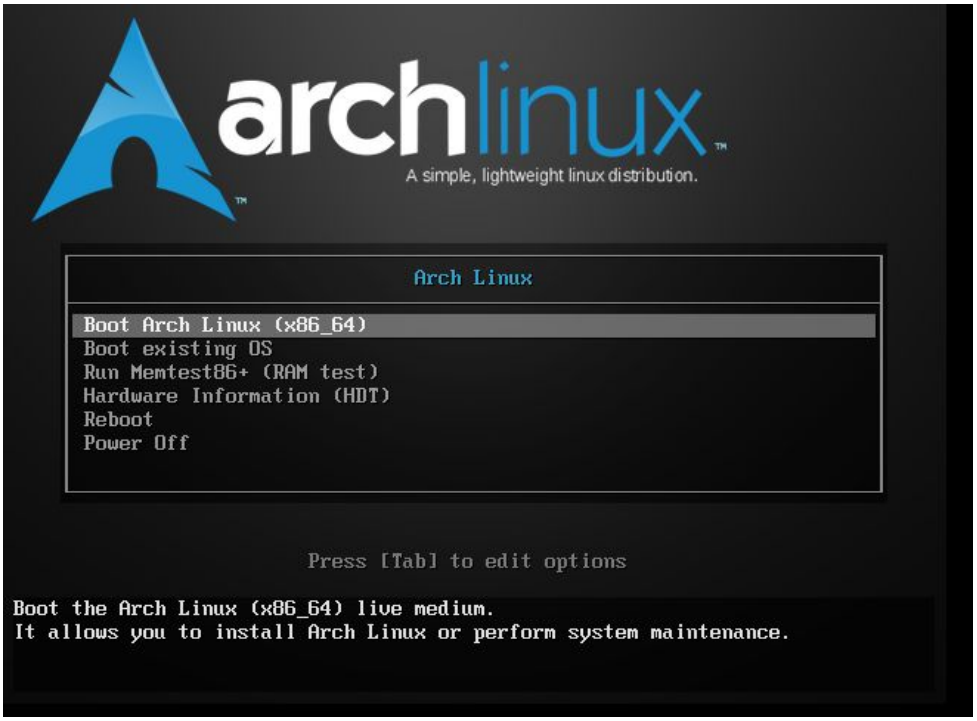
Instalando o Arch Linux

Primeiro passo é baixar a iso de algum mirror confiável



Para esta tag utilizamos o VMWare Workstation
Fazemos o Boot Normal :



Logo em seguida colocamos o teclado em pt_BR e checamos se o sistema foi iniciado em efi.

```
root@archiso ~ # loadkeys br-abnt2
root@archiso ~ # cat /sys/firmware/efi
cat: /sys/firmware/efi: No such file or directory
1 root@archiso ~ # ping 8.8.8.8                                                    :(
PING 8.8.8.8 (8.8.8.8) 56(84) bytes of data.
64 bytes from 8.8.8.8: icmp_seq=1 ttl=56 time=7.11 ms
64 bytes from 8.8.8.8: icmp_seq=2 ttl=56 time=5.79 ms
^C
--- 8.8.8.8 ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1002ms
rtt min/avg/max/mdev = 5.791/6.448/7.106/0.657 ms
root@archiso ~ #
```

Agora, verificaremos o disco e particionaremos

```
root@archiso ~ # lsblk
NAME  MAJ:MIN RM   SIZE RO TYPE MOUNTPOINT
loop0   7:0    0 534.8M  1 loop /run/archiso/sfs/airootfs
sda     8:0    0     8G  0 disk
sr0    11:0    1   651M  0 rom  /run/archiso/bootmnt
root@archiso ~ #
```

```
                                Disk: /dev/sda
                    Size: 8 GiB, 8589934592 bytes, 16777216 sectors
                    Label: gpt, identifier: E4A2028E-A459-BC49-B29B-940FE078507A

    Device                Start          End      Sectors      Size Type
    /dev/sda1              2048      1955172      1953125    953.7M BIOS boot
>>  /dev/sda2           1955840      3909631      1953792      954M Linux swap
    /dev/sda3           3909632     16777182     12867551      6.1G Linux filesystem

Partition UUID: 5CA0C793-CDB2-784F-86A3-1F92BE0632B6
Partition type: Linux swap (0657FD6D-A4AB-43C4-84E5-0933C84B4F4F)

[ Delete ]  [ Resize ]  [  Quit  ]  [  Type  ]  [  Help  ]  [  Write ]  [  Dump  ]

                                Changed type of partition 2.
```

Uma vez particionado, formatamos como ext4 a partição do grub (sda1) e o / (sda3) se setamos e habilitamos a partição de swap (sda2)

```
NAME   MAJ:MIN RM   SIZE RO TYPE MOUNTPOINT
loop0    7:0    0 534.8M  1 loop /run/archiso/sfs/airootfs
sda      8:0    0     8G  0 disk
├─sda1   8:1    0 953.7M  0 part
├─sda2   8:2    0   954M  0 part
└─sda3   8:3    0   6.1G  0 part
sr0     11:0    1   651M  0 rom  /run/archiso/bootmnt
root@archiso ~ # mkfs.ext4 /dev/sda3
mke2fs 1.45.5 (07-Jan-2020)
Creating filesystem with 1608443 4k blocks and 402400 inodes
Filesystem UUID: cb59a034-f1a6-440d-b96a-0346a82eb1a3
Superblock backups stored on blocks:
        32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632

Allocating group tables: done
Writing inode tables: done
Creating journal (16384 blocks): done
Writing superblocks and filesystem accounting information: done

root@archiso ~ # mkfs.ext4 /dev/sda1
mke2fs 1.45.5 (07-Jan-2020)
Creating filesystem with 244140 4k blocks and 61056 inodes
Filesystem UUID: ba13933a-77f1-4f82-8478-e9e197af741b
Superblock backups stored on blocks:
        32768, 98304, 163840, 229376

Allocating group tables: done
Writing inode tables: done
Creating journal (4096 blocks): done
Writing superblocks and filesystem accounting information: done

root@archiso ~ # mkswap /dev/sda2
Setting up swapspace version 1, size = 954 MiB (1000337408 bytes)
no label, UUID=831d2384-3cb7-424c-a71f-a99e31b414ef
root@archiso ~ # swapon /dev/sda2
root@archiso ~ # _
```

Montamos nosso / no /mnt, e fazemos um pacstrap do pacotes base e base-devel nele

> ***pacstrap*** *is designed to create a new system installation from scratch. The specified packages will be installed into a given directory after setting up some basic mountpoints.*
> *(https://jlk.fjfi.cvut.cz/arch/manpages/man/extra/arch-install-scripts/pacstrap.8.en)*

```
130 root@archiso ~ # lsblk
NAME   MAJ:MIN RM   SIZE RO TYPE MOUNTPOINT
loop0    7:0    0 534.8M  1 loop /run/archiso/sfs/airootfs
sda      8:0    0     8G  0 disk
├─sda1   8:1    0 953.7M  0 part
├─sda2   8:2    0   954M  0 part [SWAP]
└─sda3   8:3    0   6.1G  0 part
sr0     11:0    1   651M  0 rom  /run/archiso/bootmnt
root@archiso ~ # mount /dev/sda3 /mnt
root@archiso ~ # pacstrap -i /mnt base base-devel
==> Creating install root at /mnt
==> Installing packages to /mnt
:: Synchronizing package databases...
 core                          135.1 KiB   154 KiB/s 00:01 [###
 extra                        1639.7 KiB   597 KiB/s 00:03 [###
 community                       3.8 MiB  1462 KiB/s 00:00 [###
```

Agora vamos configurar o fstab (descreve as partições) para nosso boot e depois entrar/logar no nosso /mnt para configurar o nosso novo sistema.

```
(11/12) Updating the info directory file...
(12/12) Rebuilding certificate stores...
pacstrap -i /mnt base base-devel  12.67s user 13.15s system 8% cpu 5:14.34 total
root@archiso ~ # genfstab -U -p /mnt >> /mnt/etc/fstab
root@archiso ~ #
```

```
root@archiso ~ # genfstab -U -p /mnt >> /mnt/etc/fstab
root@archiso ~ # arch-chroot /mnt
[root@archiso /]# _
```

vim /etc/locale.gen

```
pt_BR.UTF-8 UTF-8
pt_BR ISO-8859-1
#pt_PT.UTF-8 UTF-8
#pt_PT ISO-8859-1
#pt_PT@euro ISO-8859-15
#quz_PE UTF-8
#raj_IN UTF-8
#ro_RO.UTF-8 UTF-8
#ro_RO ISO-8859-2
#ru_RU.KOI8-R KOI8-R
#ru_RU.UTF-8 UTF-8
#ru_RU ISO-8859-5
#ru_UA.UTF-8 UTF-8
#ru_UA KOI8-U
#rw_RW UTF-8
#sa_IN UTF-8
#sah_RU UTF-8
#sat_IN UTF-8
#sc_IT UTF-8
"/etc/locale.gen" 510L, 9966C written
[root@archiso /]# locale-gen
Generating locales...
  pt_BR.UTF-8... done
  pt_BR.ISO-8859-1... done
Generation complete.
```

```
[root@archiso /]# ln -s /usr/share/zoneinfo/America/Sao_Paulo /etc/localtime
[root@archiso /]#
```

Tivemos alguns probleminhas com o mkinitcpio, basicamente, eu tinha esquecido de instalar o kernel linux.

```
[root@archiso /]# mkinitcpio -p linux
/usr/bin/mkinitcpio: line 265: /etc/mkinitcpio.d/linux.preset: No such file or directory
==> ERROR: Failed to load preset: `/etc/mkinitcpio.d/linux.preset'
[root@archiso /]# pacman -S linux linux-firmware
resolving dependencies...
looking for conflicting packages...
```

Depois de instalado rodamos o mkinitcip, que serve pra criar um ramdisk inicial :

> Creates an initial ramdisk environment for booting the linux kernel. The initial ramdisk is in essence a very small environment (early userspace) which loads various kernel modules and sets up necessary things before handing over control to init. This makes it possible to have, for example, encrypted root filesystems and root filesystems on a software RAID array. mkinitcpio allows for easy extension with custom hooks, has autodetection at runtime, and many other features.

OPTIONS

Agora configuramos o grub e criamos um usuario

```
[root@archiso /]# grub-install --target=i386-pc --recheck /dev/sda
Installing for i386-pc platform.
Installation finished. No error reported.
[root@archiso /]# grub-mkconfig -o /boot/gru//grub.cfg
/usr/bin/grub-mkconfig: line 248: /boot/gru//grub.cfg.new: No such file or directory
[root@archiso /]# grub-mkconfig -o /boot/gru/grub.cfg
/usr/bin/grub-mkconfig: line 248: /boot/gru/grub.cfg.new: No such file or directory
[root@archiso /]# grub-mkconfig -o /boot/grub/grub.cfg
Generating grub configuration file ...
Found linux image: /boot/vmlinuz-linux
Found initrd image: /boot/initramfs-linux.img
Found fallback initrd image(s) in /boot: initramfs-linux-fallback.img
done
[root@archiso /]# _
```

```
[root@archiso /]# useradd -m -g users -G wheel -s /bin/bash eu
[root@archiso /]# passwd eu
New password:
Retype new password:
passwd: password updated successfully
[root@archiso /]#
```

Também instalamos o nosso servidor de video, xorg.

```
[root@archiso /]# pacman -S xorg-xinit  xorg-server
resolving dependencies...
looking for conflicting packages...
warning: dependency cycle detected:
warning: harfbuzz will be installed before its freetype2 dependency
warning: dependency cycle detected:
warning: mesa will be installed before its libglvnd dependency
```

(por alguma razão a máquina desligou e eu perdi tudo que estava na VMWare Workstation)

Mas, agora era apenas instalar um windows manager ou tilling manager

pacman -S gdm gnome-shell gnome gnome-extra

habilidat o gdm,

systemctl enable gdm.service && systemctl start gdm.service

e instalar o networkManager, para que ele cuide do nosso acesso a internet. (Também poderiamos utilizar só o dhcpcd)

pacman -S networkmanager
systemctl enable NetworkManager.service &&
systemctl start NetworkManager.service

Depois disso nosso sistema estará pronto.