Archlinux on Silicon Procs

Doc to set it up on UTM

Alpine Linux

First Download the aarch64 iso → https://alpinelinux.org/downloads/ | https://dl-cdn.alpinelinux.org/alpine/latest-stable/releases/aarch64/

UTM setup

Create a New VM Type: Other add the CD/DVD boot ise file (Alpine ISO) Edit the display settings for “ramfb”

Boot on Alpine

Basic setup

```
setup-alpine
```

Mostly [Enter] even for disk…

Let's go

```
apk update
apk add curl tar gptfdisk btrfs-progs
```

```
gdisk /dev/vda
GPT fdisk (gdisk) version 1.0.10

Partition table scan:
  MBR: not present
  BSD: not present
  APM: not present
  GPT: not present

Creating new GPT entries in memory.

Command (? for help): o
This option deletes all partitions and creates a new protective MBR.
Proceed? (Y/N): Y
```

```
Command (? for help): n
Partition number (1-128, default 1):
First sector (34-134217694, default = 2048) or {+-}size{KMGTP}:
Last sector (2048-134217694, default = 134215679) or {+-}size{KMGTP}: +2G
Current type is 8300 (Linux filesystem)
Hex code or GUID (L to show codes, Enter = 8300): ef00
Changed type of partition to 'EFI system partition'

Command (? for help): n
Partition number (2-128, default 2):
First sector (34-134217694, default = 4196352) or {+-}size{KMGTP}:
Last sector (4196352-134217694, default = 134215679) or {+-}size{KMGTP}:
Current type is 8300 (Linux filesystem)
Hex code or GUID (L to show codes, Enter = 8300):
Changed type of partition to 'Linux filesystem'

Command (? for help): p
Disk /dev/vda: 134217728 sectors, 64.0 GiB
Sector size (logical/physical): 512/512 bytes
Disk identifier (GUID): CC9275CB-EC7E-42E7-8567-967F8A3BCCBD
Partition table holds up to 128 entries
Main partition table begins at sector 2 and ends at sector 33
First usable sector is 34, last usable sector is 134217694
Partitions will be aligned on 2048-sector boundaries
Total free space is 4029 sectors (2.0 MiB)

Number  Start (sector)    End (sector)  Size       Code  Name
   1            2048         4196351   2.0 GiB     EF00  EFI system
partition
   2         4196352       134215679   62.0 GiB    8300  Linux filesystem

Command (? for help): w

Final checks complete. About to write GPT data. THIS WILL OVERWRITE EXISTING
PARTITIONS!!

Do you want to proceed? (Y/N): y
OK; writing new GUID partition table (GPT) to /dev/vda.
The operation has completed successfully.
```

Format

```
mkfs.vfat -F32 /dev/vda1          # Format EFI partition
mkfs.btrfs -L ROOT /dev/vda2      # Format root partition
```

Mount

```
rm -rf /mnt/*
```

```
modprobe btrfs
mount /dev/vda2 /mnt
mkdir -p /mnt/boot/efi

modprobe vfat
mount /dev/vda1 /mnt/boot/efi
```

DL Arch

```
curl -L https://archlinuxarm.org/os/ArchLinuxARM-aarch64-latest.tar.gz -o
/archlinuxarm.tar.gz
tar -xpf /archlinuxarm.tar.gz -C /mnt

sync
```

CHROOT

```
mount --bind /dev /mnt/dev
mount --bind /proc /mnt/proc
mount --bind /sys /mnt/sys
```

```
 cp /etc/resolv.conf /mnt/etc/resolv.conf
```

```
chroot /mnt /bin/bash
```

Config

Pacman

```
pacman-key --init
pacman-key --populate archlinuxarm
pacman -Syu
```

If it fails... edit mirrorlist to uncomment the closest alive:

```
vi /etc/pacman.d/mirrorlist
```

⇒ Server = http://de3.mirror.archlinuxarm.org/

Linux & Grub

```
 pacman -S linux linux-firmware grub
```

FSTAB

```
pacman -S arch-install-scripts
genfstab -U / >> /etc/fstab
```

Hostname

```
echo "alarm" > /etc/hostname
```

Network

```
systemctl enable dhcpcd
```

User

```
useradd -m -G wheel -s /bin/bash yourusername
passwd yourusername
echo "%wheel ALL=(ALL) ALL" >> /etc/sudoers
```

Final touch

```
pacman -S grub sudo
grub-install --target=arm64-efi --efi-directory=/boot/efi --bootloader-
id=GRUB
grub-mkconfig -o /boot/grub/grub.cfg

exit
poweroff
```

Important INFO

- /dev/vda1 (efi partition) MUST be mounted on /boot/efi

remove Alpine ISO
Light a candle... boot
If stuck:

```
fs0:
cd EFI\ArchARM
grubaa64.efi
```

SSH

crap in /etc/ssh/sshd_config.d/* is preventing ssh-copy-id to work (good job!)

Hyprland

```
pacman -Syu
pacman -S base-devel git
pacman -S wayland wlroots xorg-server xorg-xwayland mesa seatd pipewire
pipewire-pulse wireplumber vulkan-virtio spice-vdagent qemu-guest-agent
kitty mesa glxinfo

systemctl enable --now seatd

export LIBSEAT_BACKEND=seatd
```

as normal user...

```
git clone https://aur.archlinux.org/yay.git
cd yay
makepkg -si

sudo pacman -S lightdm lightdm-gtk-greeter
sudo systemctl enable lightdm
```

Vérifier que l'"input" Display dans UTM est "virtio-gpu-gl-pci"

Reboot... To be continued car la conf de base utilise tous les raccourcis MacOS/UTM.... et kitty se lance pas

From:
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