

Take 2 With Emulation

1. Download archlinux-2024.11.01-x86_64.iso
2. Set up VM with the ISO
 - a. Allocated default amount of cores, 8GB of RAM, and 24GB of capacity
3. Boot up VM and select Arch Linux Install Medium
4. Set the font with this command:
 - a. `setfont ter-v16n`
5. Ran this command to verify the boot mode:
 - a. `cat /sys/firmware/efi/fw_platform_size`
 - i. It returned 64 which is the best option according to the wiki as it is booted in UEFI mode and has a 64-bit x64 UEFI
6. Verified network connection with this command:
 - a. `ping archlinux.org`
 - i. It returned a packet every second of 64 bytes, so the network is connected
7. Checked the clock with this command:
 - a. `timedatectl`
 - i. Saw that it was incorrect and needed to be updated
8. Updated the clock to the correct timezone with this command:
 - a. `timedatectl set-timezone America/Chicago`
9. Identified connected disks with:
 - a. `fdisk -l`
10. Partition disk with fdisk:
 - a. `fdisk /dev/sda`
 - i. `g` # Sets GPT partition table
 - ii. `n` # Create new partition, left the number to default (1) and start as default (2048), but changed the end to (+2G)
 - iii. `t` # To change the type from Linux filesystem to EFI System (1)
 - iv. `n` # Create a second partition as Linux filesystem with all default settings
 - v. `w` # To write the changes
11. Formatted the root partition (/dev/sda2):
 - a. `mkfs.ext4 /dev/sda2`
12. Formatted the EFI partition (/dev/sda1):
 - a. `mkfs.fat -F 32 /dev/sda1`
13. Mount the file systems:
 - a. `mount /dev/sda2 /mnt`
 - b. `mount --mkdir /dev/sda1 /mnt/boot`
14. Install essential packages:
 - a. `pacstrap -K /mnt base linux linux-firmware networkmanager vim nano man-db man-pages texinfo`
 - i. Added the extras because the base system does not include them, and they are necessary for a fully functional system
15. Configure system with fstab:

- a. `genfstab -U /mnt >> /mnt/etc/fstab`
- 16. Chroot into the file system:
 - a. `arch-chroot /mnt`
- 17. Time (again?):
 - a. `ln -sf /usr/share/America/Chicago /etc/localtime`
 - b. `hwclock --systohc`
- 18. Localization
 - a. Here I set the language and locale:
 - i. `locale-gen`
 - ii. `vim /etc/locale.gen`
 - 1. Scroll to `en_US.UTF-8 UTF-8`
 - 2. Place cursor on the `#` for the line
 - a. Press control V to select it, then x to delete it
 - 3. Exit vim and save by using the `:wq` command
 - iii. `echo 'LANG=en_US.UTF-8' > /etc/locale.conf`
 - 1. To write the LANG variable to the newly created `/etc/locale.conf` file
- 19. Network configuration:
 - a. `echo 'zach-arch' > /etc/hostname`
- 20. Change root password
 - a. `passwd`
- 21. Boot loader
 - a. Had issues so needed to update the keyrings in order to trust the keys for the grub install:
 - i. `pacman-key --init`
 - ii. `pacman-key --populate archlinux`
 - b. I went with grub because it is the best option period
 - i. `pacman -S grub efibootmgr`
 - ii. `grub-install --target=x86_64-efi --efi-directory=/boot --bootloader-id=GRUB`
 - iii. `grub-mkconfig -o /boot/grub/grub.cfg`
- 22. Exit chroot:
 - a. `exit`
- 23. Unmount partitions
 - a. `umount -R /mnt`
- 24. Reboot:
 - a. `reboot`
 - i. This is also where you change the location disk from the iso to cd/dvd (I used UTM, so go back to the main UTM application and there is a dropdown menu at the bottom of the selected VM for you to do this)
- 25. NetworkManager stuff
 - a. `systemctl enable NetworkManager`
 - b. `systemctl start NetworkManager`
- 26. Desktop Environment
 - a. First update the system:

- i. `pacman -Syu`
 - b. Gnome Install:
 - i. `pacman -S gnome gnome-extra`
 - ii. `systemctl enable gdm`
 - iii. `reboot`
- 27. Create user accounts
 - a. Open console
 - b. Adding users:
 - i. `useradd -m -G wheel,users -s /bin/bash zach`
 - ii. `useradd -m -G wheel,users -s /bin/bash codi`
 - iii. `useradd -m -G wheel,users -s /bin/bash justin`
 - c. Setting passwords:
 - i. `passwd zach`
 - ii. `passwd justin`
 - 1. GraceHopper1906
 - iii. `passwd codi`
 - 1. GraceHopper1906
 - d. Setting passwords to be changed on login
 - i. `chage -d 0 justin`
 - ii. `chage -d 0 codi`
 - e. Visudo
 - i. `pacman -S sudo vi`
 - ii. `visudo /etc/sudoers`
 - 1. Scroll to `# %wheel ALL=(ALL) ALL` and remove the comment via control v, then x
 - 2. `:wq` to write and quit
- 28. Download alternative shell
 - a. `pacman -S zsh`
- 29. Add ssh
 - a. `pacman -S openssh`