Arch Linux

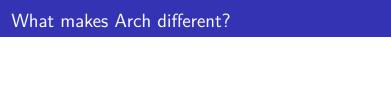
Jack Rosenthal

CSM Linux Users Group

10 September 2015

Slides available online at:

https://github.com/jackrosenthal/lug-arch-presentation



Arch Linux is a lightweight Linux distribution with a Keep it Simple philosophy.

- Arch Linux is a *lightweight* Linux distribution with a *Keep it Simple* philosophy.
- Arch only provides you with a minimal base system, allowing you to pick and choose what you would like to install.

- Arch Linux is a *lightweight* Linux distribution with a *Keep it Simple* philosophy.
- Arch only provides you with a minimal base system, allowing you to pick and choose what you would like to install.
- Arch is a rolling release system, so you will never have to upgrade to a new version of Arch.

- Arch Linux is a *lightweight* Linux distribution with a *Keep it Simple* philosophy.
- Arch only provides you with a minimal base system, allowing you to pick and choose what you would like to install.
- Arch is a rolling release system, so you will never have to upgrade to a new version of Arch.
- Most system configuration is performed from the shell by editing simple text files.

- Arch Linux is a *lightweight* Linux distribution with a *Keep it Simple* philosophy.
- Arch only provides you with a minimal base system, allowing you to pick and choose what you would like to install.
- Arch is a rolling release system, so you will never have to upgrade to a new version of Arch.
- Most system configuration is performed from the shell by editing simple text files.
- Arch strives to stay bleeding edge, and typically offers the latest stable versions of most software.

- Arch Linux is a *lightweight* Linux distribution with a *Keep it Simple* philosophy.
- Arch only provides you with a minimal base system, allowing you to pick and choose what you would like to install.
- Arch is a rolling release system, so you will never have to upgrade to a new version of Arch.
- Most system configuration is performed from the shell by editing simple text files.
- Arch strives to stay bleeding edge, and typically offers the latest stable versions of most software.
- Arch isn't just a Linux distribution, Arch is a lifestyle.

Unlike Windows and OS X, most Linux distributions include a package manager. A package manager allows you to install and update software without going through websites and untrusted install files.

Unlike Windows and OS X, most Linux distributions include a package manager. A package manager allows you to install and update software without going through websites and untrusted install files.

Installing software (PDF viewer) on Windows

Open a web browser

Unlike Windows and OS X, most Linux distributions include a package manager. A package manager allows you to install and update software without going through websites and untrusted install files.

- Open a web browser
- 2 Do a web search for Adobe Reader

Unlike Windows and OS X, most Linux distributions include a package manager. A package manager allows you to install and update software without going through websites and untrusted install files.

- Open a web browser
- 2 Do a web search for Adobe Reader
- Go to the webpage for Adobe Reader

Unlike Windows and OS X, most Linux distributions include a package manager. A package manager allows you to install and update software without going through websites and untrusted install files.

- Open a web browser
- 2 Do a web search for Adobe Reader
- 3 Go to the webpage for Adobe Reader
- Click download

Unlike Windows and OS X, most Linux distributions include a package manager. A package manager allows you to install and update software without going through websites and untrusted install files.

- Open a web browser
- 2 Do a web search for Adobe Reader
- 3 Go to the webpage for Adobe Reader
- Click download
- 5 Run adobereader_installer.exe Yikes! Who knows what this will do to your computer!

Unlike Windows and OS X, most Linux distributions include a package manager. A package manager allows you to install and update software without going through websites and untrusted install files.

- Open a web browser
- 2 Do a web search for Adobe Reader
- 3 Go to the webpage for Adobe Reader
- Click download
- 5 Run adobereader_installer.exe
 Yikes! Who knows what this will do to your computer!
- 6 Untick all the McAffe and other bloatware

Unlike Windows and OS X, most Linux distributions include a package manager. A package manager allows you to install and update software without going through websites and untrusted install files.

- Open a web browser
- 2 Do a web search for Adobe Reader
- 3 Go to the webpage for Adobe Reader
- Click download
- 5 Run adobereader_installer.exe
 Yikes! Who knows what this will do to your computer!
- 6 Untick all the McAffe and other bloatware
- Profit?

Unlike Windows and OS X, most Linux distributions include a package manager. A package manager allows you to install and update software without going through websites and untrusted install files.

- Open a web browser
- 2 Do a web search for Adobe Reader
- 3 Go to the webpage for Adobe Reader
- Click download
- 5 Run adobereader_installer.exe Yikes! Who knows what this will do to your computer!
- 6 Untick all the McAffe and other bloatware
- **7** Profit? Not really... What happens when you need to update everything on your system?

Installing a PDF viewer on Arch Linux

Open your terminal and run
pacman -S zathura (one of my favourite PDF viewers)

Installing a PDF viewer on Arch Linux

- Open your terminal and run pacman -S zathura (one of my favourite PDF viewers)
- 2 Pacman will tell you how much data it will need to download and the total installed size, and additionally any dependencies zathura will need to run. Just press y to confirm you would like all this.

Installing a PDF viewer on Arch Linux

- Open your terminal and run pacman -S zathura (one of my favourite PDF viewers)
- 2 Pacman will tell you how much data it will need to download and the total installed size, and additionally any dependencies zathura will need to run. Just press y to confirm you would like all this.

Installing a PDF viewer on Arch Linux

- Open your terminal and run pacman -S zathura (one of my favourite PDF viewers)
- Pacman will tell you how much data it will need to download and the total installed size, and additionally any dependencies zathura will need to run. Just press y to confirm you would like all this.

Better yet, when you need to update everything on your system, just run pacman -Syu

Visit https://www.archlinux.org and download the latest ISO. Copy this to a USB or other installation media.

- Visit https://www.archlinux.org and download the latest ISO. Copy this to a USB or other installation media.
- 2 Boot the installation media. Arch just gives you zsh and a few convenient programs to install.

- Visit https://www.archlinux.org and download the latest ISO. Copy this to a USB or other installation media.
- 2 Boot the installation media. Arch just gives you zsh and a few convenient programs to install.
- 3 Load your keyboard layout using loadkeys.

- Visit https://www.archlinux.org and download the latest ISO. Copy this to a USB or other installation media.
- 2 Boot the installation media. Arch just gives you zsh and a few convenient programs to install.
- 3 Load your keyboard layout using loadkeys.
- 4 Connect to the network. You will need to start dchpcd on your interface if you use DHCP.

- Visit https://www.archlinux.org and download the latest ISO. Copy this to a USB or other installation media.
- 2 Boot the installation media. Arch just gives you zsh and a few convenient programs to install.
- 3 Load your keyboard layout using loadkeys.
- 4 Connect to the network. You will need to start dchpcd on your interface if you use DHCP.
- 5 Partition your drive using your favourite (and appropriate) tool (ex. cgdisk)

- Visit https://www.archlinux.org and download the latest ISO. Copy this to a USB or other installation media.
- 2 Boot the installation media. Arch just gives you zsh and a few convenient programs to install.
- 3 Load your keyboard layout using loadkeys.
- 4 Connect to the network. You will need to start dchpcd on your interface if you use DHCP.
- Partition your drive using your favourite (and appropriate) tool (ex. cgdisk)
- **6** Format your partitions using the filesystem of your choice. You may choose to use LUKS for full disk encryption.

Mount your root filesystem at /mnt
mount /dev/sdxY /mnt

- Mount your root filesystem at /mnt
 # mount /dev/sdxY /mnt
- Mount any remaining partitions in their respective location in /mnt.

```
# mkdir -p /mnt/boot
```

mount /dev/sdxZ /mnt/boot

- Mount your root filesystem at /mnt
 # mount /dev/sdxY /mnt
- Mount any remaining partitions in their respective location in /mnt.
 - # mkdir -p /mnt/boot
 # mount /dev/sdxZ /mnt/boot
- Edit /etc/pacman.d/mirrorlist and uncomment some good mirrors.

- Mount your root filesystem at /mnt
 # mount /dev/sdxY /mnt
- Mount any remaining partitions in their respective location in /mnt.
 - # mkdir -p /mnt/boot
 # mount /dev/sdxZ /mnt/boot
- Edit /etc/pacman.d/mirrorlist and uncomment some good mirrors.
- 🔟 # pacstrap -i /mnt base base-devel zsh vim

- Mount your root filesystem at /mnt
 # mount /dev/sdxY /mnt
- Mount any remaining partitions in their respective location in /mnt.
 - # mkdir -p /mnt/boot
 # mount /dev/sdxZ /mnt/boot
- Edit /etc/pacman.d/mirrorlist and uncomment some good mirrors.
- 🔟 # pacstrap -i /mnt base base-devel zsh vim
- Generate your fstab. Check for errors afterwards.
 # genfstab -U /mnt > /mnt/etc/fstab

chroot into your system. arch-chroot /mnt
/usr/bin/zsh

- chroot into your system. arch-chroot /mnt
 /usr/bin/zsh
- Edit /etc/locale.gen and uncomment the locale of your choice.

- chroot into your system. arch-chroot /mnt
 /usr/bin/zsh
- Edit /etc/locale.gen and uncomment the locale of your choice.
- # locale-gen

- chroot into your system. arch-chroot /mnt
 /usr/bin/zsh
- Edit /etc/locale.gen and uncomment the locale of your choice.
- 14 # locale-gen
- # echo LANG=en_US.UTF-8 > /etc/locale.conf

- chroot into your system. arch-chroot /mnt
 /usr/bin/zsh
- Edit /etc/locale.gen and uncomment the locale of your choice.
- 14 # locale-gen
- # echo LANG=en_US.UTF-8 > /etc/locale.conf
- Edit /etc/vconsole.conf and include your keyboard layout. KEYMAP=wuly

- chroot into your system. arch-chroot /mnt
 /usr/bin/zsh
- Edit /etc/locale.gen and uncomment the locale of your choice.
- 14 # locale-gen
- # echo LANG=en_US.UTF-8 > /etc/locale.conf
- Edit /etc/vconsole.conf and include your keyboard layout. KEYMAP=wuly
- # In -sf /usr/share/zoneinfo/Zone/SubZone
 /etc/localtime

- chroot into your system. arch-chroot /mnt
 /usr/bin/zsh
- Edit /etc/locale.gen and uncomment the locale of your choice.
- 14 # locale-gen
- # echo LANG=en_US.UTF-8 > /etc/locale.conf
- Edit /etc/vconsole.conf and include your keyboard layout. KEYMAP=wuly
- # In -sf /usr/share/zoneinfo/Zone/SubZone
 /etc/localtime
- # hwclock --sys-to-hc --utc

- chroot into your system. arch-chroot /mnt
 /usr/bin/zsh
- Edit /etc/locale.gen and uncomment the locale of your choice.
- 14 # locale-gen
- # echo LANG=en_US.UTF-8 > /etc/locale.conf
- Edit /etc/vconsole.conf and include your keyboard layout. KEYMAP=wuly
- # In -sf /usr/share/zoneinfo/Zone/SubZone
 /etc/localtime
- # hwclock --sys-to-hc --utc
- 19 Install bootloader

- chroot into your system. arch-chroot /mnt
 /usr/bin/zsh
- Edit /etc/locale.gen and uncomment the locale of your choice.
- 14 # locale-gen
- # echo LANG=en_US.UTF-8 > /etc/locale.conf
- Edit /etc/vconsole.conf and include your keyboard layout. KEYMAP=wuly
- # In -sf /usr/share/zoneinfo/Zone/SubZone
 /etc/localtime
- # hwclock --sys-to-hc --utc
- Install bootloader
- Configure network

- chroot into your system. arch-chroot /mnt
 /usr/bin/zsh
- Edit /etc/locale.gen and uncomment the locale of your choice.
- 14 # locale-gen
- # echo LANG=en_US.UTF-8 > /etc/locale.conf
- Edit /etc/vconsole.conf and include your keyboard layout. KEYMAP=wuly
- # In -sf /usr/share/zoneinfo/Zone/SubZone
 /etc/localtime
- # hwclock --sys-to-hc --utc
- Install bootloader
- 20 Configure network
- 21 # passwd

- chroot into your system. arch-chroot /mnt
 /usr/bin/zsh
- Edit /etc/locale.gen and uncomment the locale of your choice.
- 14 # locale-gen
- # echo LANG=en_US.UTF-8 > /etc/locale.conf
- Edit /etc/vconsole.conf and include your keyboard layout. KEYMAP=wuly
- # In -sf /usr/share/zoneinfo/Zone/SubZone
 /etc/localtime
- # hwclock --sys-to-hc --utc
- Install bootloader
- Configure network
- 21 # passwd
- 22 # exit

- chroot into your system. arch-chroot /mnt
 /usr/bin/zsh
- Edit /etc/locale.gen and uncomment the locale of your choice.
- 14 # locale-gen
- # echo LANG=en_US.UTF-8 > /etc/locale.conf
- Edit /etc/vconsole.conf and include your keyboard layout. KEYMAP=wuly
- # In -sf /usr/share/zoneinfo/Zone/SubZone
 /etc/localtime
- # hwclock --sys-to-hc --utc
- Install bootloader
- Configure network
- 21 # passwd
- 22 # exit
- 23 # reboot

■ Create another user for yourself

- Create another user for yourself
- Install a display server (X.org, wayland)

- Create another user for yourself
- Install a display server (X.org, wayland)
- Install a login manager (SLiM, xdm, SDDM, lightdm, etc.)

- Create another user for yourself
- Install a display server (X.org, wayland)
- Install a login manager (SLiM, xdm, SDDM, lightdm, etc.)
- Install a window manager (i3, xmonad, GNOME, etc.)

- Create another user for yourself
- Install a display server (X.org, wayland)
- Install a login manager (SLiM, xdm, SDDM, lightdm, etc.)
- Install a window manager (i3, xmonad, GNOME, etc.)
- Install useful programs (dmenu, Firefox, T_EXlive, Python, etc.)



When things go wrong...

Error messages can be terrifying when you aren't prepared for them; but they can be fun when you have the right attitude. Just remember that you really haven't hurt the computer's feelings, and that nobody will hold the errors against you.

— D. E. Knuth, the TFXbook, p. 30

How to get help

- Come to LUG!
- Send mail to our mailing list: lug@mailman.mines.edu
- Check the Arch Wiki: https://wiki.archlinux.org
- Post on the Arch BBS: https://bbs.archlinux.org
- Linux & Unix Stack Overflow: http://unix.stackexchange.com
- The Linux Documentation Project http://tldp.org