Archlinux i3wm

1. Install Archlinux

https://wiki.archlinux.org/index.php/Installation_guide

2. Basic System

2.1. Basic Packages

```
# pacman –S base-devel gvim bash-completion arch-wiki-lite arch-wiki-docs git
  openssh dosfstools ntfs-3g zip unzip unrar p7zip mlocate
```

2.2. User & Password

```
# useradd -g users -G audio, video, floppy, network, rfkill, scanner, storage, optical,
power, wheel, uucp –m –d /home/leopord -s /bin/bash leopord
# passwd leopord
```

2.3. Sudo

Use visudo to edit sudo configuration, uncomment:

```
%wheel ALL=(ALL) ALL
```

2.4. Bash Completion

Add the following lines to `~/.bashrc`:

```
# Enable tab-completion
complete –c man which
complete –cf sudo
```

3. Windows Manager

3.1. Install Xorg, i3 packages

```
# pacman –S xorg-server xorg-xinit i3
```

Tips: Xorg can be installed with xorg-server packages. Then install an appropriate driver, otherwise xorg could not be started by command *startx.* See:
https://wiki.archlinux.org/index.php/Xorg

3.2. GRUB background

```
# pacman –S archlinux-wallpaper
```

Edit `/etc/default/grub`, Add the following line:

```
GRUB_BACKGROUND=/usr/share/archlinux/wallpaper/archlinux-simplyblack-43.png
```

Backup grub.cfg, then use the *grub-mkconfig* tool to generate grub.cfg :

```
# grub-mkconfig –o /boot/grub/grub.cfg
```

3.3. SLiM

Install SLiM & Themes

Select noto-fonts when install SLiM.

```
# pacman –S slim archlinux-themes-slim
```

Enable the SLiM service

```
# systemctl enable slim.service
```

Environments

To configure SLiM 1.3.6-2 (or later) to load a particular environment, it will be necessary to edit both /etc/slim.conf and ~/.xinitrc.

First, edit /etc/slim.conf in order to hash out sessiondir /usr/share/xsessions/. This will consequently disable automatic detection of installed environments:

```
# Set directory that contains the xsessions.
# slim reads xsession from this directory, and be able to select.
#sessiondir         /usr/share/xsessions/
```

Second, create directory ~/.logs/i3/, then edit ~/.xinitrc.

```
exec i3 -c ~/.wm/i3/config -V >> $HOME/.logs/i3/$(date '+%F.log') 2>&1
```

Theming

Look in the directory of /usr/share/slim/themes to see the themes available. Enter thetheme name on the current_theme line in /etc/slim.conf:

```
# current_theme       default
current_theme         archlinux-darch-white
```

Edit /usr/share/slim/themes/archlinux-darch-white/slim.theme to modify the font:

```
# current_theme       default
current_theme         archlinux-darch-white
```

3.4. Multiple Monitors

https://i3wm.org/docs/userguide.html#multi_monitor

3.5. Utilities

```
# pacman –S rxvt-unicode zsh rofi feh conky ttf-font-awesome wqy-zenhei wqy-microhei scrot alsa-utils volumeicon fcitx fcitx-googlepinyin fcitx-configtool networkmanager network-manager-applet rp-pppoe dnsmasq goldendict
```

3.5.1. Rxvt-unicode

rxvt-unicode is a customizable **terminal emulator** forked from **rxvt**. Features of rxvt-unicode include international language support through **Unicode**, the ability to display multiple font types and support for Perl extensions.

3.5.2. Zsh

Zsh is a powerful **shell** that operates as both an interactive shell and as a scripting language interpreter. While being **compatible with Bash** (not by default, only if issuing emulate sh), it offers advantages such as improved **tab completion** and **globbing**.

oh-my-zsh - A popular, community-driven framework for managing your Zsh configuration. It comes bundled with a ton of helpful functions, helpers, plugins, themes.

3.5.3. Rofi

rofi is a window switcher, run dialog, ssh-launcher and **dmenu** replacement that started as a clone of simpleswitcher.

3.5.4. Feh

feh is a lightweight and powerful image viewer that can also be used to manage the **desktop wallpaper** for standalone window managers lacking such features.

3.5.5. Conky

conky is a system monitor software for the X Window System. It is available for GNU/Linux and FreeBSD. It is free software released under the terms of the GPL license. Conky is able to monitor many system variables including CPU, memory, swap, disk space, temperature, top, upload, download, system messages, and much more. It is extremely configurable, however, the configuration can be a little hard to understand.

3.5.6. Fonts

ttf-font-awesome is a collection of icons. It instead of workspace title's character.

wqy-zenhei and **wqy-microhei** are Chinese charsets font.

3.5.7. Scrot

scrot enables taking screenshots from the CLI and offers features such as a user-definable time delay. Unless instructed otherwise, it saves the file in the current working directory.

3.5.8. Alsa-utils

alsa-utils contains (among other utilities) the alsamixer and amixer utilities. amixer is a shell command to change audio settings, while alsamixer provides a more intuitive ncurses based interface for audio device configuration.

Tips: When Appropriate driver is installed, utilities could be worked. See: https://wiki.archlinux.org/index.php/Sound_system

3.5.9. Fcitx

Fcitx (Flexible Input Method Framework) is a lightweight input method framework aimed at providing environment independent language support for Linux. It supports a lot of different languages and also provides many useful non-CJK features.

3.5.10.Network Manager

NetworkManager is a program for providing detection and configuration for systems to automatically connect to network. NetworkManager's functionality can be useful for both wireless and wired networks. For wireless networks, NetworkManager prefers known wireless networks and has the ability to switch to the most reliable network. NetworkManager-aware applications can switch from online and offline mode. NetworkManager also prefers wired connections over wireless ones, has support for modem connections and certain types of VPN.

3.5.11.StarDict

StarDict is a Cross-Platform and international dictionary written in Gtk. It has powerful features such as "Glob-style pattern matching", "Scan selection word," "Fuzzy query," etc.

4. Applications

4.1. File Manager

Thunar is a modern file manager for the Xfce Desktop Environment. Thunar has been designed from the ground up to be fast and easy-to-use. Its user interface

is clean and intuitive, and does not include any confusing or useless options by default. Thunar is fast and responsive with a good start up time and folder load time.

```
# pacman –S thunar thunar-archive-plugin thunar-media-tags-plugin thunar-volman
```

iPhone/iTouch Support

```
# pacman –S gvfs gvfs-afc usbmuxd
```

Huawei/Honor

```
# pacman –S gvfs gvfs-mtp
```

4.2. Internet

4.2.1. Web Browser(Chromium)

```
# pacman –S chromium pepper-flash
```

Change chromium's font to Wqy Zenhei.

4.2.2. Download Manager

```
# pacman –S wget uget aria2
```

4.2.3. File transfer clients

```
# pacman –S gftp
```

4.2.4. Email client

```
# pacman –S thunderbird
```

4.2.5. Remote Desktop

```
# pacman –S remmina libvncserver freerdp
```

4.3. Multimedia

4.3.1. Image

i. Image viewer

```
# pacman –S gpicview
```

Change image's default application.

ii. Raster Graphics Editor

```
# pacman –S gimp
```

iii. Vector Graphics Editor

```
# pacman –S inkscape
```

iv. Color picker

```
# pacman –S gcolor2
```

4.3.2. Audio

```
# pacman –S quodlibet
```

4.3.3. Video

```
# pacman –S mpv
```

4.3.4. Webcam

```
# pacman –S cheese
```

4.4. Document and Text

4.4.1. Office Suite

```
# git clone https://aur.archlinux.org/wps-office.git
# cd wps-office
# makepkg –si
```

Download wps_symbol_fonts.zip

```
# cd /usr/share/fonts/wps-office
# unzip wps_symbol_fonts.zip
# chmod 644 *
```

4.4.2. PDF Reader

```
# git clone https://aur.archlinux.org/gstreamer0.10.git
# cd gstreamer0.10
# makepkg –si
# git clone https://aur.archlinux.org/gstreamer0.10-base.git
# cd gstreamer0.10-base
# makepkg –si
# git clone https://aur.archlinux.org/foxitreader.git
# cd foxitreader
# makepkg –si
```

4.4.3. e-Book Reader

```
# pacman –S bookworm
```

4.4.4. Note

```
# pacman –S gnote
```

4.4.5. Tex

```
# pacman –S gummi
```

4.5. Security

4.5.1. Network security

```
# pacman –S nmap tcpdump wireshark-gtk
```

4.5.2. Firewall

iptables is a command line utility for configuring **Linux kernel firewall** implemented within the **Netfilter** project. The term iptables is also commonly used to refer to this kernel-level firewall. It can be configured directly with iptables, or by using one of the many console and graphical front-ends. **iptables** is used for **IPv4** and **ip6tables** is used for **IPv6**. Both iptables and ip6tables have the same syntax, but some options are specific to either IPv4 or IPv6.

4.5.3. Threat and vulnerability detection

OpenVAS stands for Open Vulnerability Assessment System and is a network security scanner with associated tools like a graphical user front-end. The core component is a server with a set of network vulnerability tests (NVTs) to detect security problems in remote systems and applications.

https://wiki.archlinux.org/index.php/OpenVAS

4.6. Virtualbox

https://wiki.archlinux.org/index.php/VirtualBox