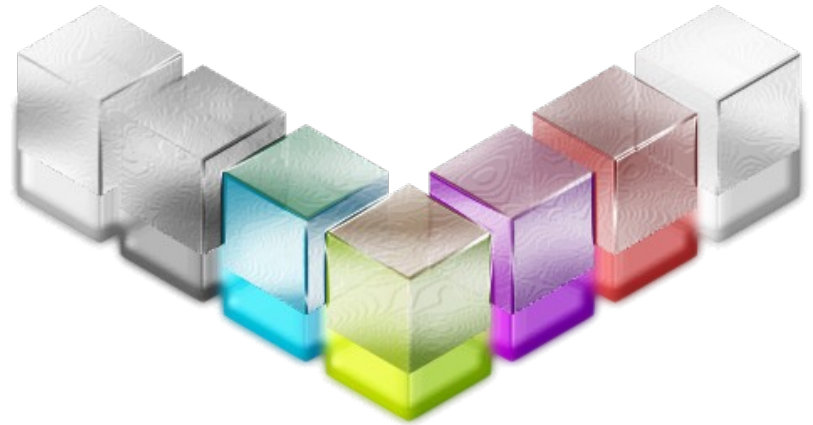


Desktop Customization

Introduction to Desktop Customization in Linux/BSD.
for Personal Educational Purpose.

Jakarta, Indonesia
20 January, 2020



About Epsi



Yet, another underachiever.
But hey, I have my own blog.

YET ANOTHER OPEN SOURCE BLOG

About This Material

After watching this, you will understand:

- 1) The difference between GUI in linux or BSD.
- 2) What customization can be done in linux or BSD.
- 3) Choices to leverage your desktop appealing.

So that you can pick [what customization suitable](#) for you for daily basis usage.

This material contain a bunch of [terminal screenshots](#).

It does not mean that your daily desktop is all about terminal.

Modular Linux

Jan 20, 2020

Desktop Customization



How Modular is **Linux**?



Package Manager

APT, ALPM, DNF, XBPS,
Zypper, Portage



Init

SysV, systemd, openRC,
runit, S6.



File System

ext4, XFS, Reiserfs,
BTRFS, ZFS.



Standard C Library

glibc or musl



Desktop Environment

GTK+ based, QT based,
enlightenment.



Window Manager

Stacking, Tiling,
Dynamic, Compositor.

Reference



**Dive into Linux Subsystem
for Personal Educational Purpose.**

[[Learning Linux Diversity](#)]
Yet Another Presentation.

What Customization?

Desktop Art



DE/WM Customization

Window manager, panel, notification and the most ingredient called wallpaper.



Terminal Customization

Shell, prompt, pixel-art, and multiplexer.

Terminal ricing along with CLI application,
are part of desktop [ricing](#).

The Difference: DE or WM?



Desktop Environment

Full Experience: Panel, File Manager, Application.



Stacking Window Manager

Stripped Down Version of Desktop Environment.

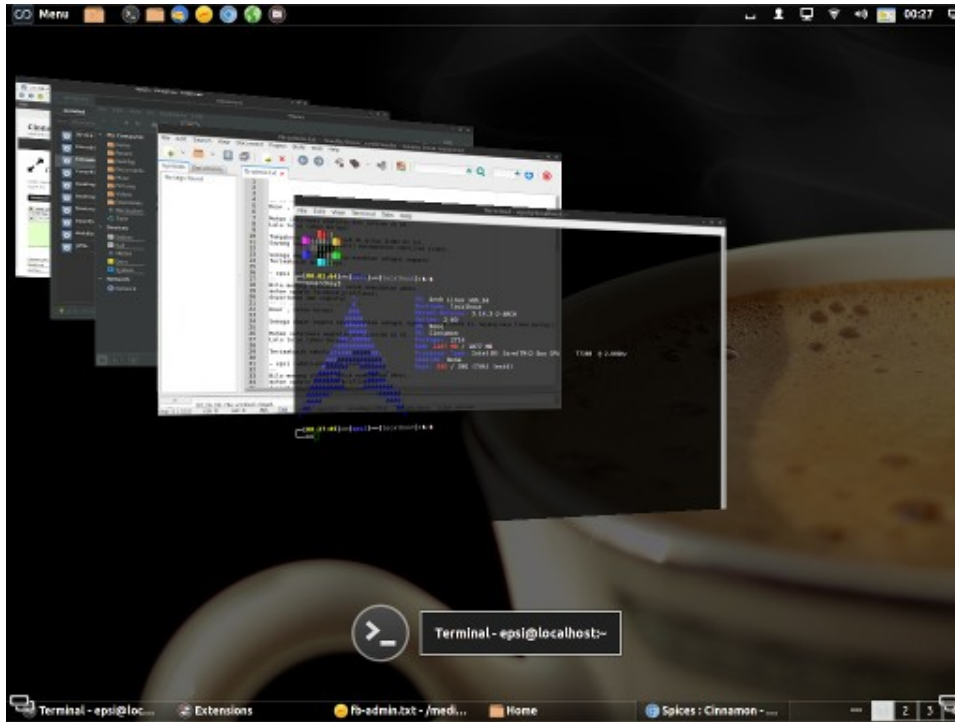


Tiling Window Manager

Non-overlapping screen real estate.

When you customize a Window Manager,
you are basically making your own Desktop Environment.

Desktop Environment Example



The good Cinnamon
(GTK+3) based.

DE/WM Categorization



GTK+ based DE

XFCE4, Gnome shell,
Cinnamon, Mate, Budgie.



QT based DE

KDE Plasma, LXQT,
Deepin



Stacking WM

Openbox, Fluxbox.



Tiling WM (or dynamic)

AwesomeWM, XMonad, i3wm (gaps),
BSPWM, HerbsluftWM, DWM, or many
others.



Compositor

KWin, Compiz.

The separation is not very clear, sometimes overlapped.
[[The Difference Between DE, Shell, WM and Compositor](#)]

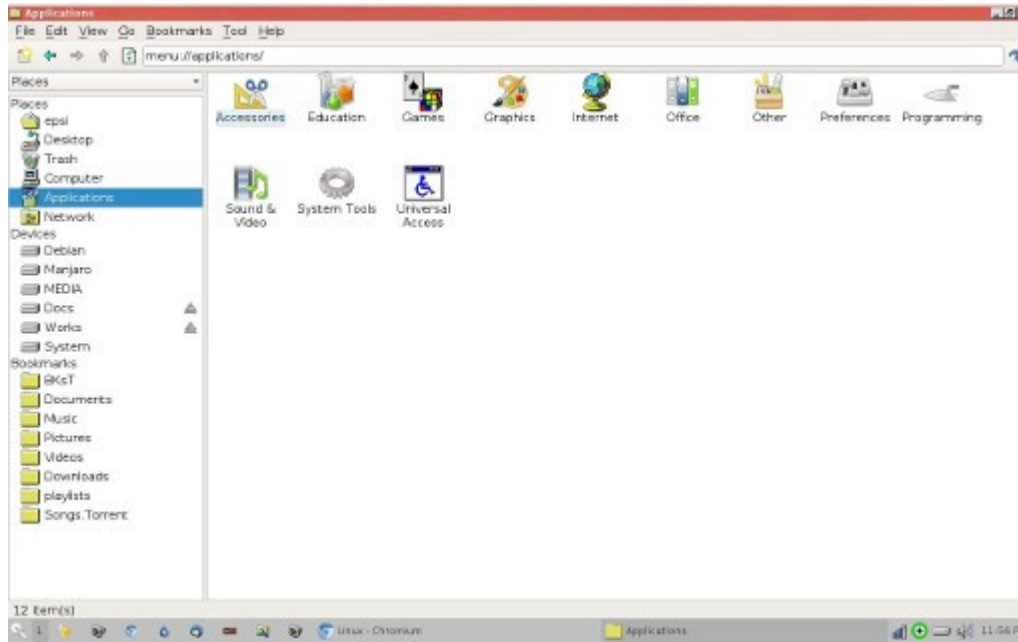
Desktop Environment Customization

LXQT Example

LXQT with Windowish Looks, No Kidding

[[LXQT with Windowish Looks](#)]

You can switch to any looks with parts from internet.



What can I do with my DE?



Theming

Taskbar and Border.



Color Scheme



Window Animation



Cursor and Icon

Collection



Context Menu

In file manager.



Wallpaper

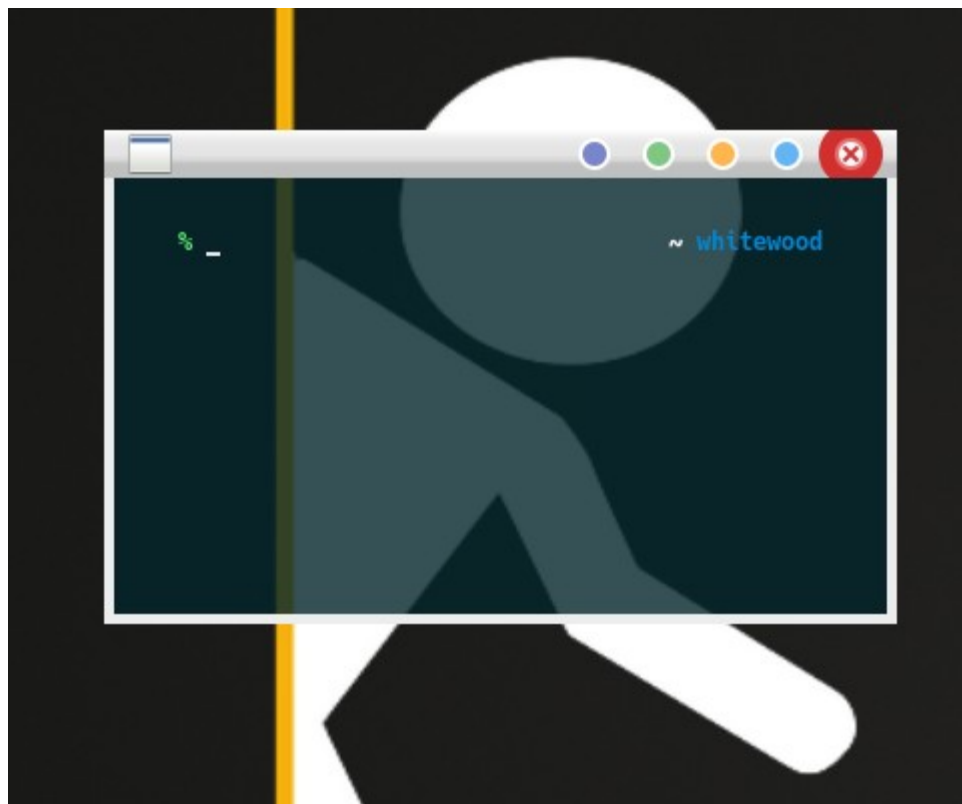
The most ingredient
for success.



Other Stuff

Font, Conky, or such.

Example

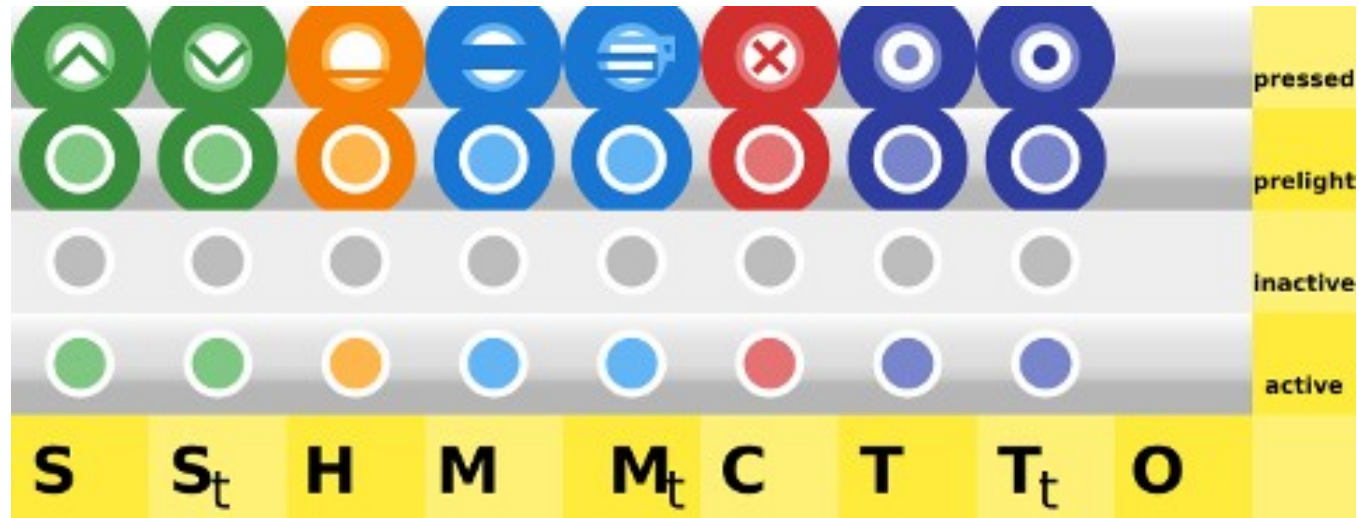


**Custom XFCE4 Theme:
PNG Gradient over XPM**

[[XFWM4 Theme - Overview](#)]

Custom XFCE4 Theme: SVG Inkscape Source

The previous window icon was designed easily using inkscape.
UI/UGM (User Interface/ Unified Graphic Material)



Window Layout

What Layout is Available with Your DE/WM?



Stacking

Suitable for ricing.



Tiling

For masochist desktoper.

Avoid n00b.

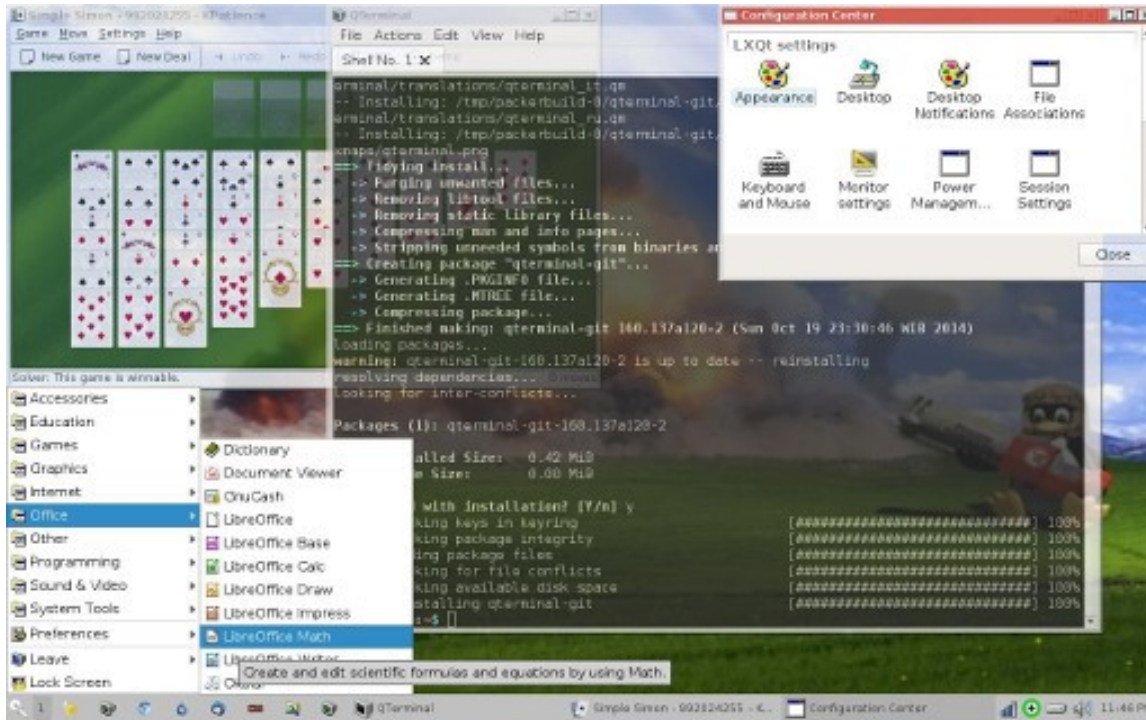


Floating

Enable stacking in tiling.

[LXQT with Windowish Looks]

Stacking



Stacking Layout Example: LXQT

Tiling



```
12:30:40 Monday - ten past one
april ~ - ssh - s - yodart -5 git
extra/clutterlight 3.0.24-1 [installed]
GStreamer bindings for clutter
extra/gstreamer-video-effects 0.4.2-1
Collection of GStreamer effects for GNOME
extra/gst-labov 3.120-1 [installed]
GStreamer Multimedia Framework FFmpeg Plugin
extra/gst-plugins-bad 1.12.1-1 [installed]
GStreamer Multimedia Framework Bad Plugins
extra/gst-plugins-base 1.12.1-1 [installed]
GStreamer Multimedia Framework Base Plugins
extra/gst-plugins-base-libs 1.12.1-1 [installed]
GStreamer Multimedia Framework Base Plugin Libraries
extra/gst-plugins-good 1.12.1-1 [installed]
GStreamer Multimedia Framework Good Plugins
extra/gst-plugins-ugly 1.12.1-1 [installed]
GStreamer Multimedia Framework Ugly Plugins
extra/gst-python 1.12.1-1
GStreamer Python 3 binding overrides
extra/gst-gttsd 1.12.1-1
GStreamer Python 3 binding overrides

12:37:01 Monday - five past one
april ~ - ssh - s - packer -5s git --no-reply
sur/av-caster 0.16.004-2 [1] 0.00
A simple native GStreamer GUI for screencast,
webcam, and audio streaming
sur/blather-git 20250818-1 [4] 10.00
Python application for speech recognition using
pocketsphinx and gstreamer. - latest git revision
sur/clutter-gst 2.98.5.051.00c0e0e [17] 10.00

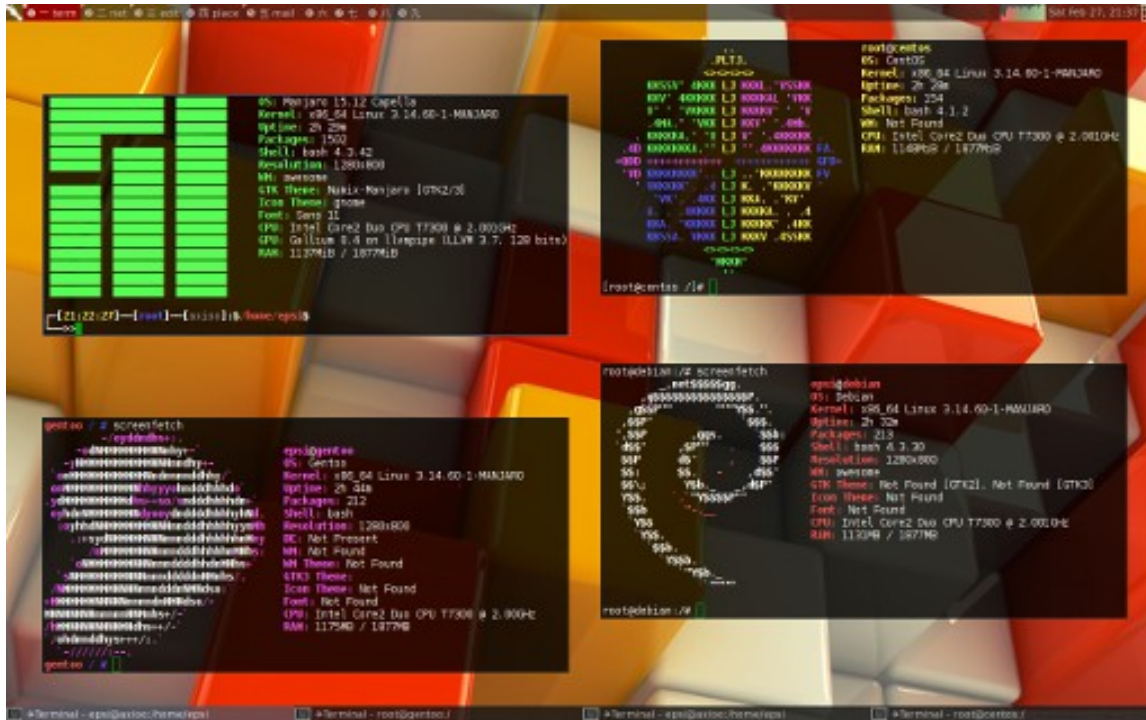
12:55:53 Monday - five to one
april ~ - ssh - s - packer -5s git --no-reply
sur/gstreamer-1.18-fluendo
0.18.36-1 (66)
GStreamer 0.18 Fluendo nonplugin plugin
sur/plugins-light 2.12.8-1 (44)
A light plugin version: mms, jukster, irc supported
protocols without gstreamer, tcl, tk, screensaver
support, no video/voice. Includes finch
sur/gstreamer-1.18-base-plugins
0.18.36-9 (46)
GStreamer Multimedia Framework Base Plugins
(gst-plugins-base)
sur/gstreamer-1.18-base
0.18.36-9 (46)
GStreamer Multimedia Framework Base Plugin Libraries
sur/gstler 1.3-3 (44) 0.00
Simple lightweight gtk/gstreamer audio mixer
sur/gstreamer-1.18-0.18.36-16 [41, 11.36] [installed]
GStreamer Multimedia Framework
sur/gstreamer-1.18-good 0.18.36-9 (46, 13.75)
GStreamer Multimedia Framework Good Plugins
sur/gstreamer-1.18-good-plugins 0.18.36-9 (46, 13.75)
GStreamer Multimedia Framework Good Plugins
(gst-plugins-good)
sur/gstreamer-1.18-ffmpeg 0.18.36-9 (12, 3.53)
GStreamer FFmpeg Plugin
sur/gstreamer-1.18-ugly 0.18.36-9 (11, 3.31)
GStreamer Multimedia Framework Ugly plugin Libraries
sur/gstreamer-1.18-ugly-plugins 0.18.36-9 (12, 3.31)
GStreamer Multimedia Framework Ugly Plugins
(gst-plugins-ugly)
sur/gstreamer-1.18-python 0.18.36-9 (11, 3.11)
Python bindings for GStreamer 0.18

12:12:46 Monday - ten past one
april ~ - ssh - s - aura -5s git
sur/gstreamer-1.18-fluendo 0.18.36-9 (46, 13.75)
GStreamer 0.18 Fluendo nonplugin plugin
sur/plugins-light 2.12.8-1 (44) 0.00
A light plugin version: mms, jukster, irc supported
protocols without gstreamer, tcl, tk, screensaver sup
port, no video/voice. Includes finch
sur/gstreamer-1.18-base 0.18.36-9 (46, 13.75)
GStreamer Multimedia Framework Base plugin Libraries
sur/gstreamer-1.18-base-plugins 0.18.36-9 (46, 13.75)
GStreamer Multimedia Framework Base Plugins (gst-pl
ugins-base)
sur/gstler 1.3-3 (44) 0.00
Simple lightweight gtk/gstreamer audio mixer
sur/gstreamer-1.18-0.18.36-16 [41, 11.36] [installed]
GStreamer Multimedia Framework
sur/gstreamer-player 0.4.3.git20250818-1 [15] 1.201
Is a small, clear and fast audio player for Linux w
ritten in C++, supported by the Gt framework. It uses a
streamer as audio backend.
sur/lib2-gstreamer-1.18-0.18.36-9 [22, 1.1.01]

12:58:22 Monday - five past one
april ~ - ssh - s - cwen -5s git
sur/av-caster 0.16.004-2 [1] 0.00
A simple native GStreamer GUI for screencast,
webcam, and audio streaming
sur/blather-git 20250818-1 [4] 0.00
Python application for speech recognition using
pocketsphinx and gstreamer. - latest git revision
sur/clutter-gst 2.98.5.051.00c0e0e [17] 10.00
```

Tiling Layout Example: HerbstluftWM

Floating



Floating Layout Example: AwesomeWM

Ricing

Ricing Guidance?



Aesthetic is First class

It is a work of art.



WM over DE

More customization to avoid hardcoded looks.

Ricing people prefer WM over DE.



Technical Difficulty

Basic knowledge is a must.

Technical Difficulty is Appreciated.



Be creative, be different

Beautiful.



Personal Character

Yes, there is culture.

Many factions blended in, such as dark mode, or weeb, or flat color vs transparency.

Everyone has their own personal character:

Tips: Find your own style!

Is it **worth it?**



Socially

you need to show of, and get some votes.



Learning

A fun case while studying OS, and also coding.



Technically

You need a good screenshot while communicating your issue on social media, or publishing your work in a blog or other media.



Community

Give a fun direction for n00b that showing of ricing screenshot can be a better life, instead of just showing of illegal hacking.

Window Manager Customization

Window Manager Part?



WM itself

Choose your WM.



Panel

Polybar, dzen2, Lemonbar, or others.



Notification

Dunst, or others.



Launcher

dmenu, rofi, or else.



Wallpaper

Original Wallpaper

Ricing Culture: Mostly Anime.



Original Stuff

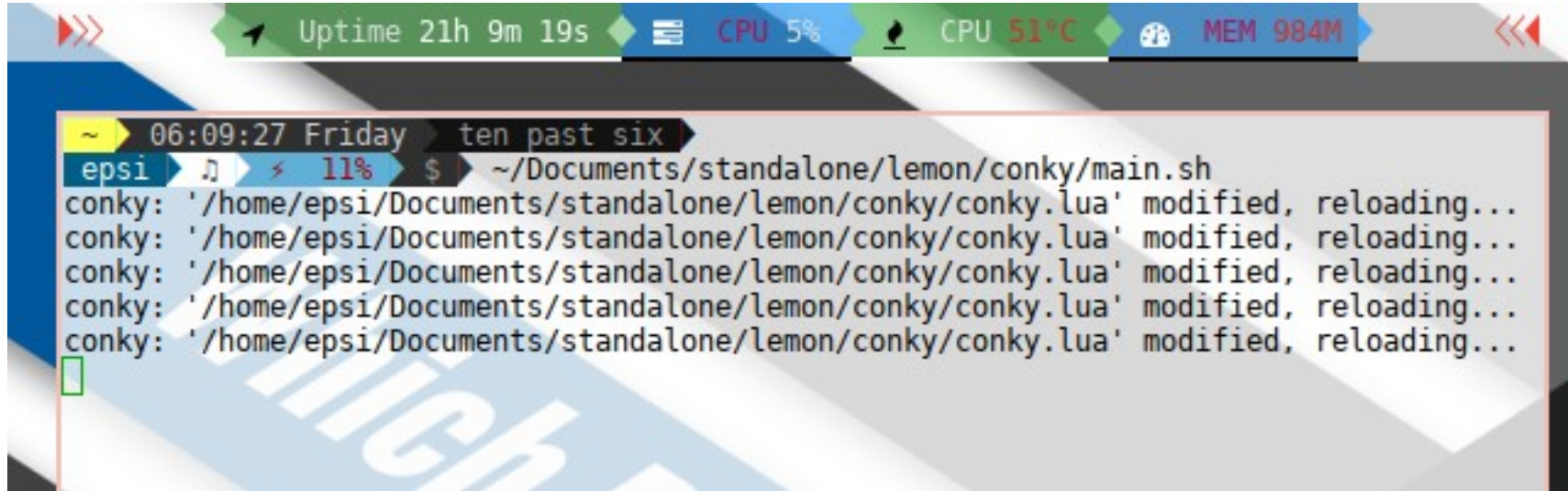
Make your own original stuff.

Tips: There is no wrong or right. It is all about choices.

Custom Standalone Panel

[Standalone Lemonbar Using Conky]

Example Panel



Optional Tools?



Screenshooter

Scrot or others.



Compositor Manager

Picom or compton or xcompmgr.



Wallpaper Manager

Nitrogen or feh
[[Openbox Install - Common Utility](#)]



Good Font

FontAwesome, siji, terminus
[[Linux - Installing Font](#)]



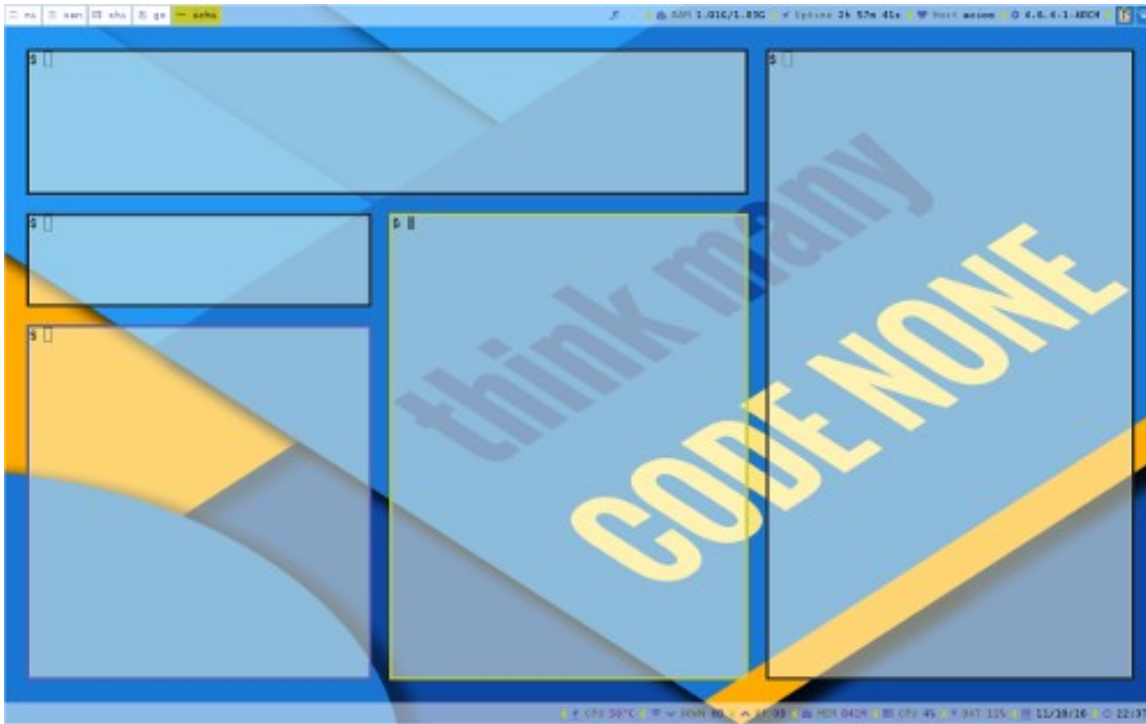
Logging Out

OB Menu or others.



LXAppearance

Wallpaper



Example: Original Material Wallpaper

[[More Inkscape Wallpapers](#)]

[[Manjaro Logo](#)]

Stacking Window Manager

Why **Stacking** Window Manager?



More on Customization

Configuration in Text Editor
(suitable for coder),
Shareable with dotfiles



Lightweight

Small Memory Footprint.
Install only what I need.



The Looks

Avoid hardcoded looks or
just be simple.

Oldschool Openbox

Example: Openbox

[Openbox Standalone]



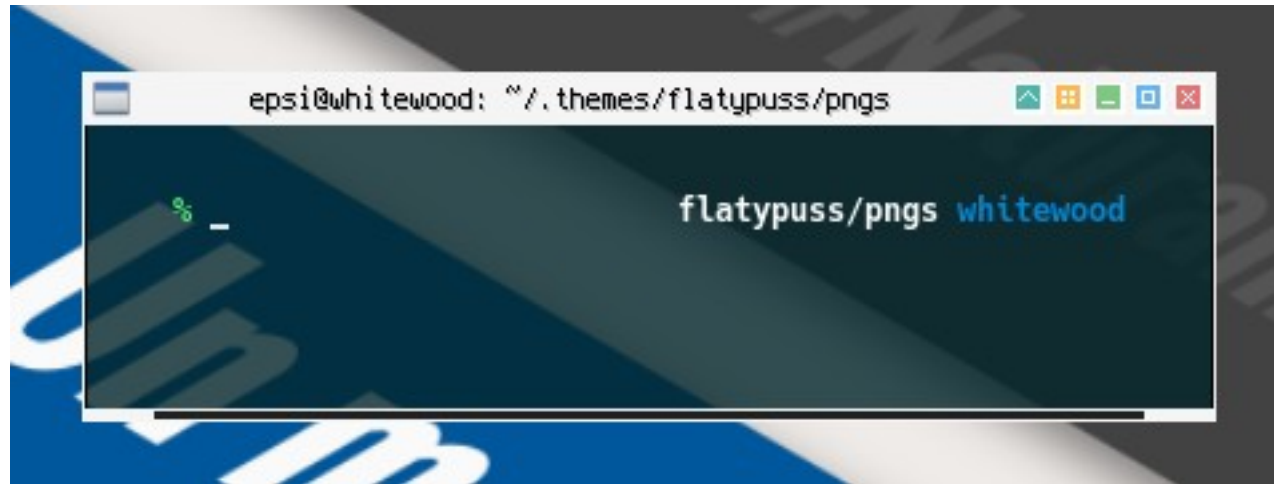
More Articles about **Stacking** WM

- [[Openbox Configuration](#)]
- [[Openbox Tint2 Panel](#)]
- [[Openbox Theme](#)]
- [[Fluxbox Overview](#)]

Example: Openbox Theme: Multi Color

Openbox Theme

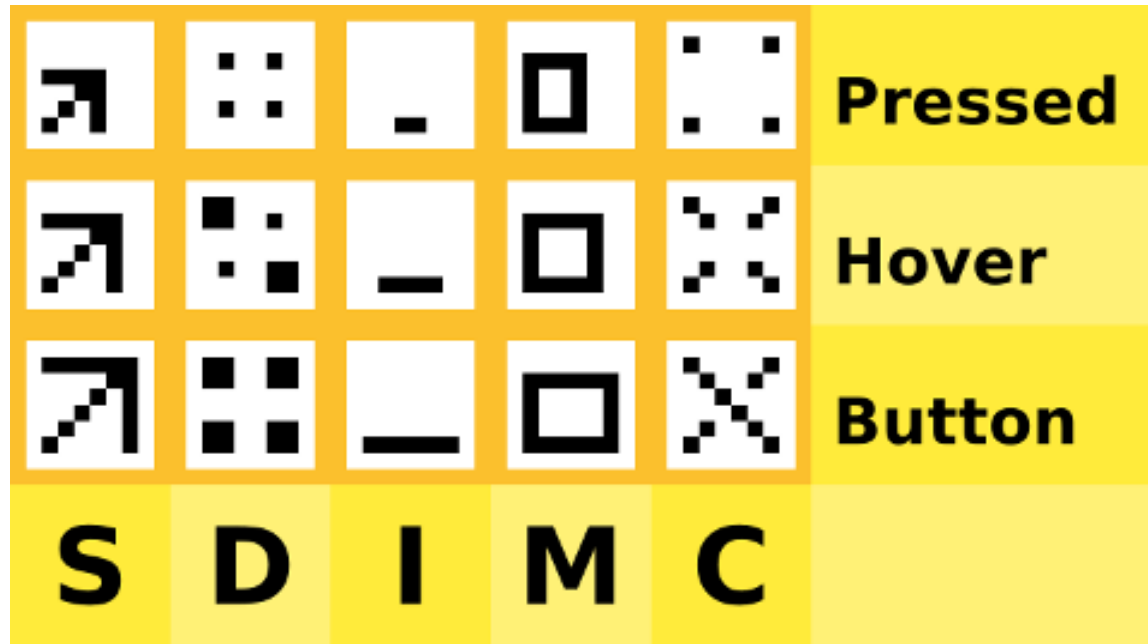
[[Openbox Theme - Special Trick](#)]



Example: Theme

[[Openbox Theming with Inkscape](#)]

UI/UGM (User Interface/ Unified Graphic Material)



Oldschool Fluxbox



Example: Fluxbox

[Fluxbox with Glowing Wallpaper]

Tiling Window Manager

Jan 20, 2020

Desktop Customization

37

Why Tiling Window Manager?



Efficient

Non-overlapping screen real estate.



Scaling

With Workspace or Tags.



Customizable

Most parts can be automated.



Keyboard-driven Workflow

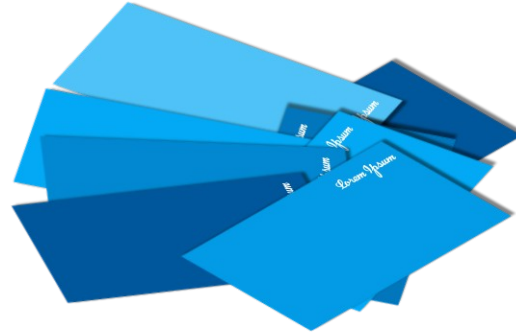
Most parts can be automated.



Lightweight

Compared to DE.

Good Watch



[[Aline Abler Presentation on Youtube](#)]

**Explained in systematic fashioned,
easy to follow, and she is pretty too.**

What **Tiling** Window Manager?



i3wm

Simple configuration, suitable for beginner.



HerbstluftWM

Challenging technical difficulties.

The extra frame almost make me cry for happiness.



XMonad

I can config, but weird, I still don't understand Haskell.



BSPWM

Tips: do not let the **blackscreen** intimidate you.

Dynamic Window Manager?

It is a kind of Tiling WM, with **presets layouts**.



Awesome WM

Easy to use for beginner, but very long config.

Built in menu, systray, notification.



DWM

First install for any minimalist distro.

You have to compile to change the behaviour.

Presets Layout (in animation)



corner ne

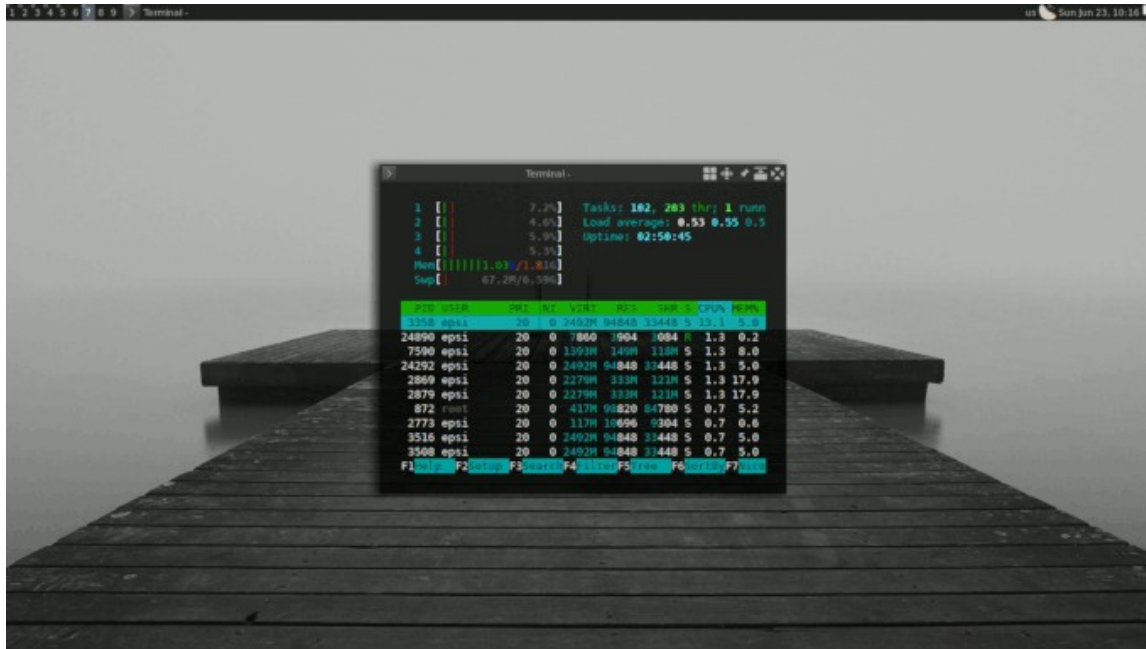
Dynamic Window Manager

Example of presets layout:
AwesomeWM.

Example: i3wm (gaps, bright)

[illegible]

AwesomeWM (in video)



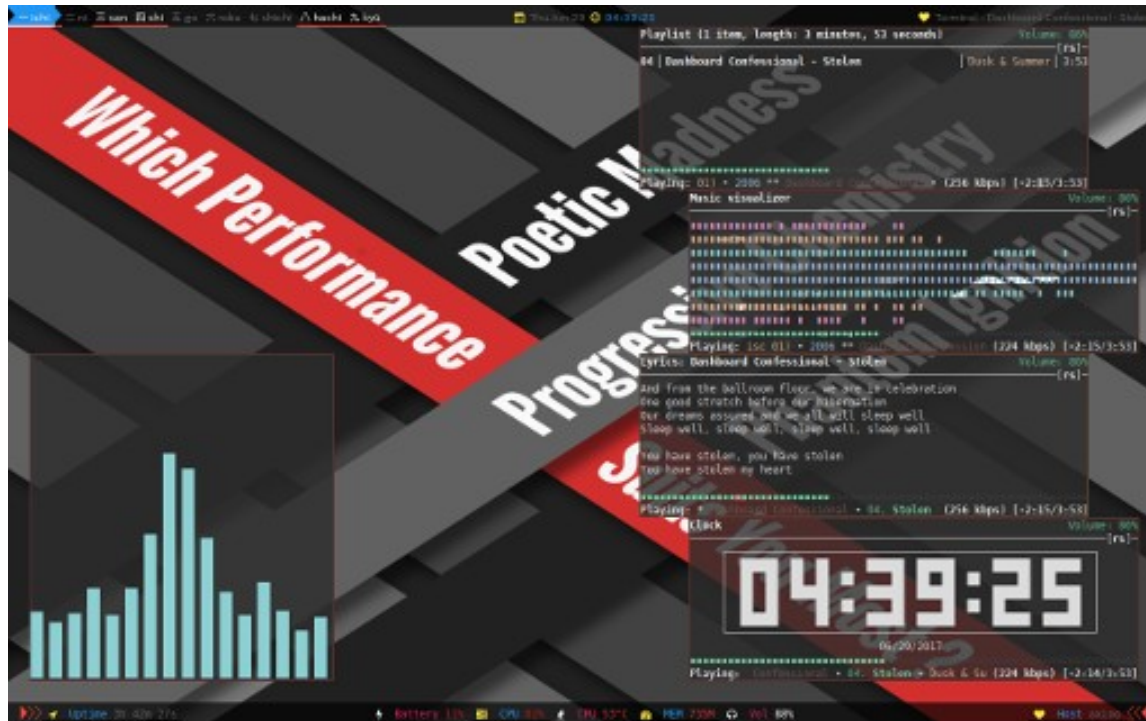
Example: AwesomeWM

[[Awesome WM - Binding Modules](#)]

More about AwesomeWM

- [[Article: Awesome WM - Overview](#)]
- [[Presentation: Awesome WM - Modularized](#)]
- [[Presentation: Awesome WM - Theming](#)]
- [[Presentation: Awesome WM - Statusbar](#)]

HerbstluftWM



Example: HerbstluftWM

[HerbstluftWM in Seven Languages]

Solving HerbstluftWM Technical Difficulties

- [[Modularized HerbstluftWM Overview](#)]
- [[HerbstluftWM Tag Status Overview](#)]
- [[HerbstluftWM Idle Event Overview](#)]
- [[Summary: HerbstluftWM in Seven Languages](#)]

WM customization can be combined
with Specific Panel Bar.

Combining with Specific Panel Bar

Example: [[Dzen2 in XMonad](#)]



Other DE/WM issue

Xorg versus Wayland

Terminal Customization

Main Parts in Terminal Ricing?



Terminal

urxvt, xfce4-terminal, termite.



Shell

bash, zsh, fish.

Prompt: powerline, oh-my-bash, oh-my-zsh, oh-my-fish.



Multiplexer

tmux, gnu screen.

wrapper: teamocil, byobu.

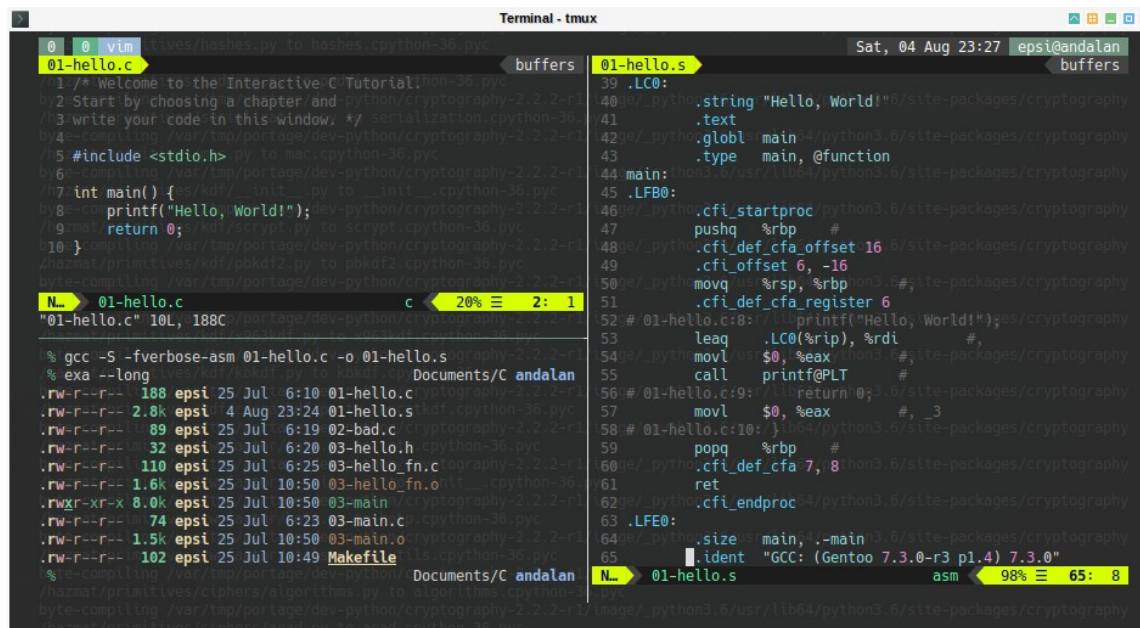


Background Decoration

Wallpaper.

[Terminal Ricing]

Example of Terminal Ricing



Additional Parts in Terminal Ricing?



Compositor Decoration

Picom or Compton.



Padding Decoration

gtk.css.



Example CLI Application

neofetch, htop, cava.



Special CLI Application

ViM Text Editor.



Pixel Art

[[Terminal Ricing](#)]

Pixel Art

Example: Pixel Art

[ANSI Color]

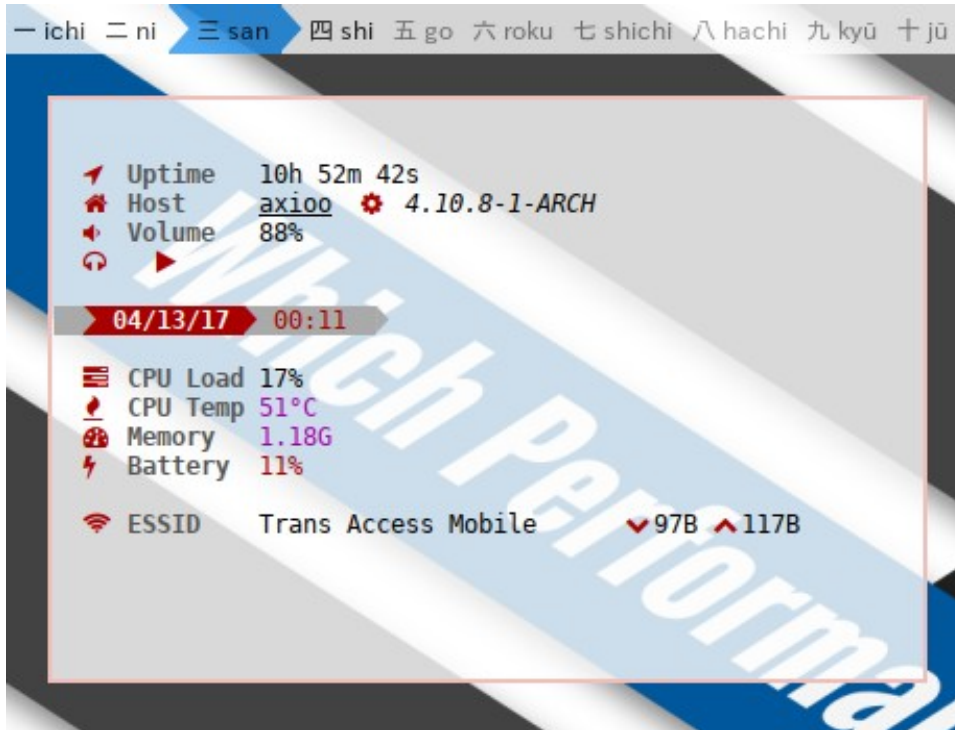


CLI /siː ɛl aɪ/

Example: Command Line Interface

[[Standalone CLI](#)]

System Monitoring Using Conky



Example: Shell Prompt



```
一 ichi 二 ni 三 san 四 shi 五 go 六 roku 七 shichi 八 hachi 九 kyū  
~ 03:57:50 Friday five to four  
epsi 11% $ docker pull crux  
Using default tag: latest  
latest: Pulling from library/crux  
a3ed95caeb02: Pull complete  
4a073de8a536: Downloading 15.11MB/122.3MB  
█
```

[[Customizing Shell Prompt with Powerline](#)]
[[Iterate Oh My BASH Theme](#)]

Dotfiles

Where to Find Resources?



Blog

English Blog: [epsi-rns.github.io]

Local Blog: [bandithijo.github.io]

Local Guidance: [[Loonix-Newfag](#)]



Facebook Group:

Example Community:

[[Linuxer Desktop Art](#)]



dotshare.it

This is not a dead site.

[dotshare.it]



Telegram Group:

Example Community:

[[@dotfiles_id](#)] or, [[@dotfiles_id_channel](#)],
[[@window_managers](#)].



Dotfiles Examples

[gitlab.com/epsi-rns/dotfiles],

[github.com/addy-dclxvi],

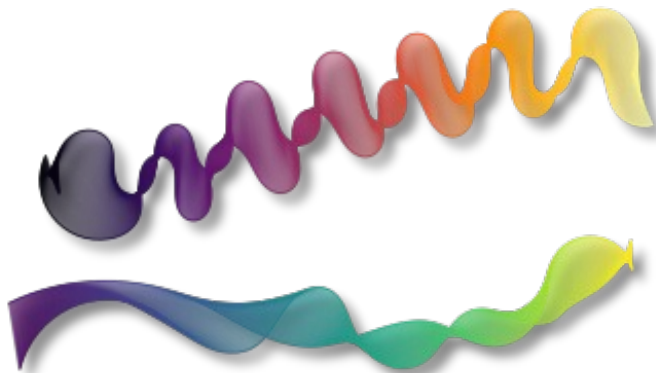
[github.com/okitavera],

[github.com/myugan].



Reddit

Origin of the Dotfiles Word

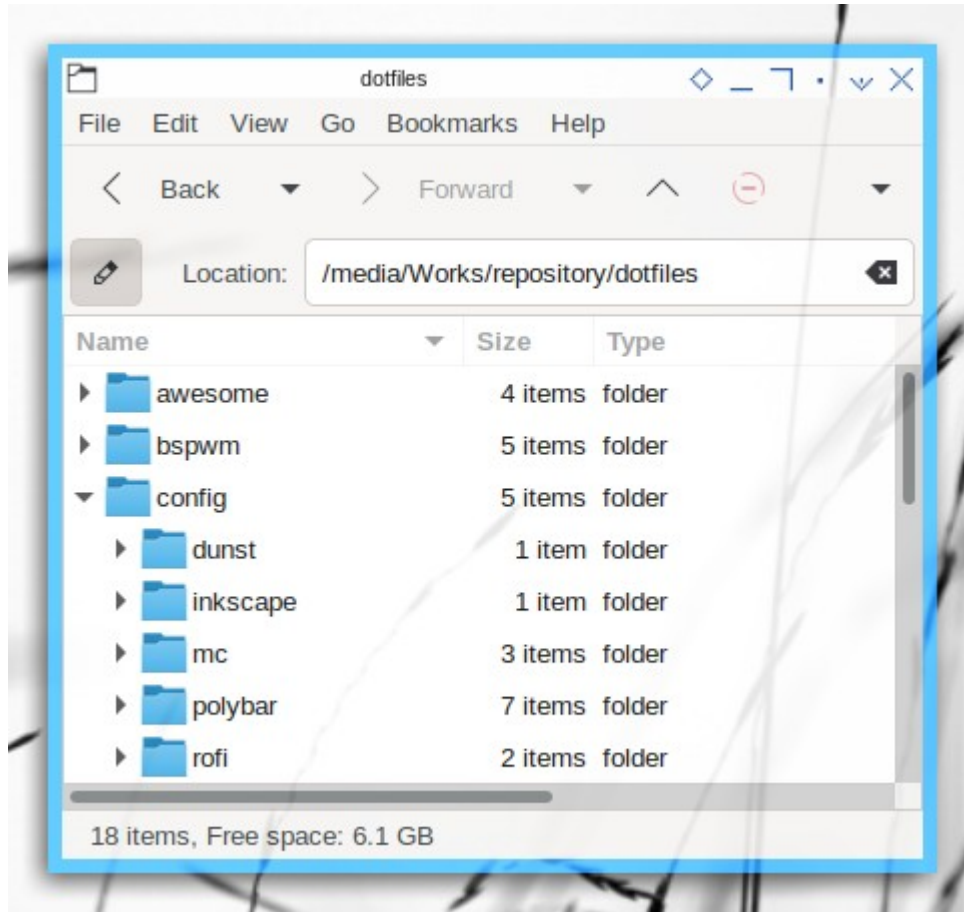


Configuration files on linux can be **shared** between hobbyist.

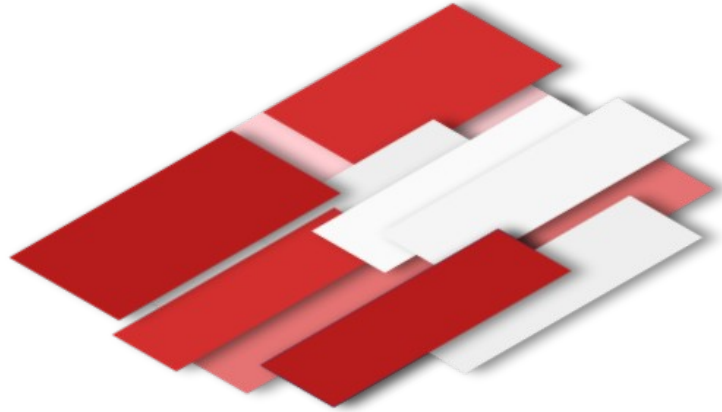
Configuration mostly lies under **.config** directory.
Or single files with name started with **dot**.

Managing Dotfiles

Sharing Resources require good folder management.

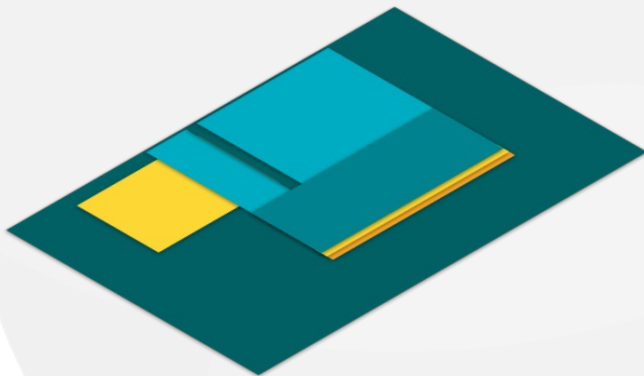


I Share Mine



[gitlab.com/epsi-rns/dotfiles]

Would you **do the same** with each other?



What is Next?

Make your own custom Statusbar Panel!
Make your own custom Window Manager!
Port old tools to a better programming language!

Leverage Coding Skills!

Questions?

Don't be shy!



The End

Thank You for Your Time.