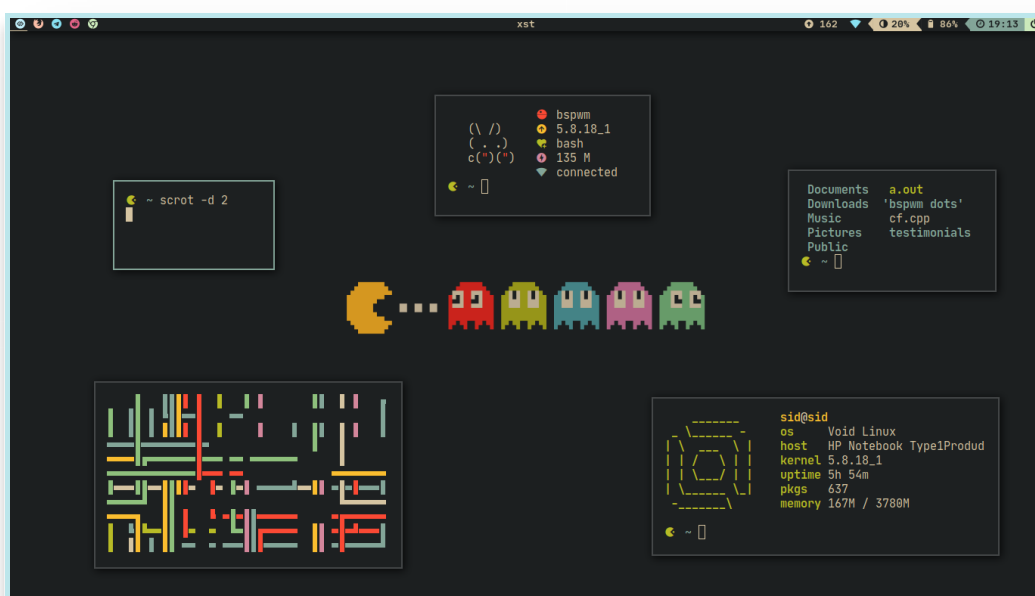# Bspwm Tutorial

This tutorial is clearly aimed for beginners only for getting started with window managers and I apologize for not making this in my github repo's readme since I dont know how to make the readme look non-messy/clean , to go on with this tutorial you will need my configs and those are in this repo or you can follow up the tutorial and use the default configs.

Installing and setting up bspwm

bspwm is simple , it just needs 2 config files : 1) bspwmrc 2) sxhkdrc . Install the packages for your distro : (click the buttons below)

Arch based	Debian based	fedora	void

```
sudo xbps install rofi bspwm sxhkd feh maim polybar xclip picom
font-awesome5 font-awesome
```

clone my repo for the configs :

```
git clone https://github.com/siduck76/bspwm-dotfiles
```

Oki so to run bspwm you need two files : bspwmrc and sxhkd . bspwmrc file is needed for auto-starting apps, adding specific rules to certain applications , window border colors / layouts etc, like if you want browser to open up straight after you start up system then you have to put the browser's run command in the bspwmrc file , like for firefox you would have to add firefox & at the end of the bspwmrc file !.

Now the second file which is sxhkdrc is needed for keybinds (keyboard shortcuts) from my config example : like if you want if to open terminal by Super which is also called Mod or Mod4 in some window managers (windows key) + enter then you would have to specify it in the sxhkdrc file. example :

```
super + Return
     xst

super + c
        rofi -show drun
```

Now copy the bspwmrc / sxhkdrc files (from my repo which you cloned)

mkdir ~/.config/bspwm && mkdir ~/.config/sxhkd (this will create two folders needed to store bspwmrc and sxhkdrc)

copy the bspwmrc file to bspwm folder and sxhkdrc file to the sxhkd folder (bspwmrc and sxhkdrc from my git repo if you want or use the default ones)

if you want to use the default bspwmrc and sxhkdrc file then copy it this way :

cp -r /usr/share/doc/bspwm/examples/bspwmrc ~/.config/bspwm/

cp -r /usr/share/doc/bspwm/examples/sxhkdrc ~/.config/sxhkd/

give permissions to the bspwmrc file

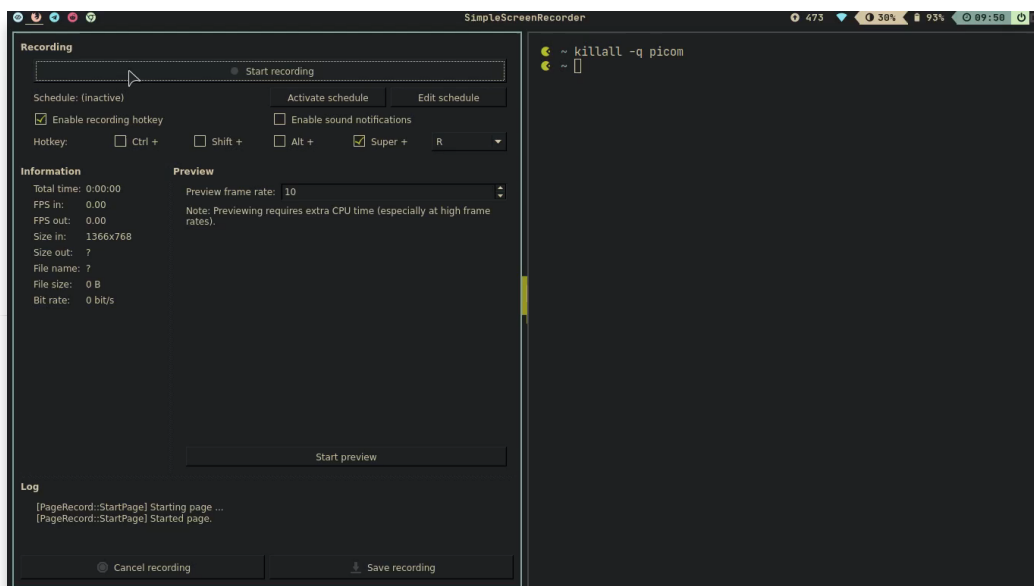chmod +x bspwmrc (this is important since bspwmrc runs everything in bspwm)

apply wallpaper (feh should be installed)
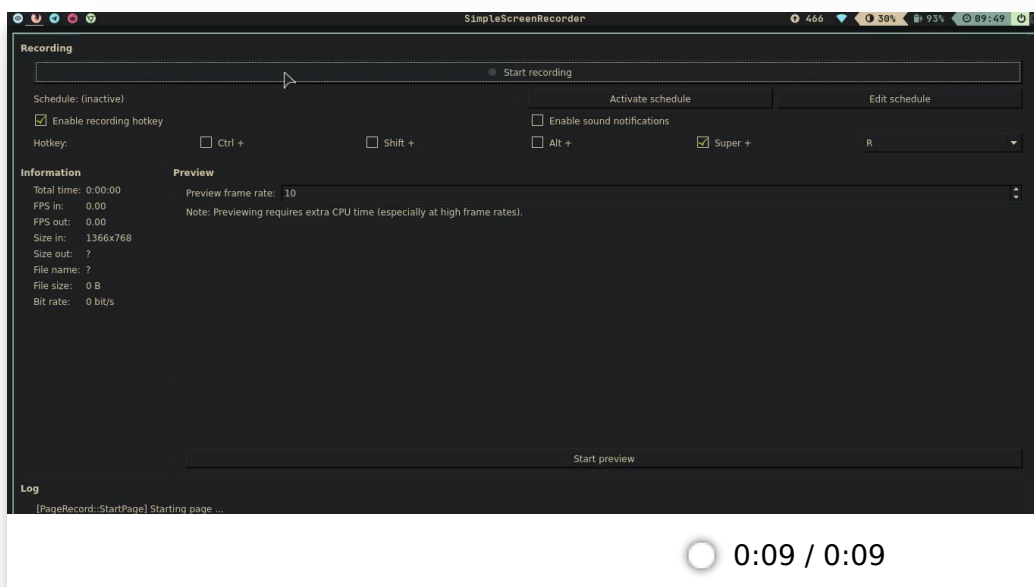
put this line below in your bspwmrc

feh --bg-fill yourwallpaper

add picom for basic fade and smooth transitions (be sure that picom package is installed)

without picom

with picom

0:09 / 0:09

copy the picom folder from my (cloned repo) to your ~/.config
folder , that .config folder ends with a dot [period] so its hidden ,
type ctrl + h to view it.

Now lets look at the sxhkrc file for basic configuration of keyboard shortcuts


```
#  ------ programs  -------- #

super + Return
        xst

super + c
        rofi -show drun

# reload config (bspwmrc and sxhkdrc)  #
```

```
super + shift + r
        pkill -USR1 -x sxhkd

super + shift + e
        bspc wm -r

#  ------ brightness  -------- #

XF86MonBrightnessUp
    xbacklight -inc 10

XF86MonBrightnessDown
    xbacklight -dec 10

#  ------------ bspwm hotkeys ------------ #

# quit/restart bspwm
super + alt + {q,r}
        bspc {quit,wm -r}

# close and kill
super + {_,shift + }q
        bspc node -{c,k}
```

The first two commands in it are for programs , xst is a terminal and rofi is an application launcher , so pressing Mod + enter will open up xst terminal and so on .The 3rd and 4th commands are for reloading the configs , so after every change you make in sxhkrc or bspwmrc file you have to reload their configs!(super + shift + e to restart bspwm and super + shift + r to reload sxhkdrc!) just replace xst with any terminal (from the sxhdkrc file) you like and the rest of the commands are for controlling brightness and quit bspwm / restart / closing / kill windows.

give a quick reading to the sxhkdrc file and try to figure out the keybinds . Basic keybinds :

```
// Super is the windows key

Super + enter      ⟶ open terminal

Super + C          ⟶ open rofi app launcher

Super + shift + q     ⟶ close windows

Super + f          ⟶ fullscreen

Super + d           ⟶ exit fullscreen
```

Now lets check the bspwmrc file

```
1    #! /bin/sh
2
3    sxhkd &
4
```

```
 5      # polybar
 6
 7      ~/.config/polybar/launch.sh &
 8
 9      # compositing and wallpaper
10
11      picom &
12      feh --bg-fill ~/Pictures/wall/gruv.png &
13      xrdb merge ~/.Xresources &  # (terminal theme)
14
15      bspc monitor -d I II III IV V VI VII
16
17      bspc config border_width        2
18      bspc config window_gap          7
19      bsp config presel_feedback_color "#ffffff"
20      bspc config split_ratio         0.50
21      bspc config borderless_monocle   true
22      bspc config gapless_monocle      true
23
24      bspc rule -a Gimp desktop='^8' state=floating follow=on
25      bspc rule -a mplayer2 state=floating
26      bspc rule -a Kupfer.py focus=on
27      bspc rule -a Screenkey manage=off
28      bspc config top_padding 20
29
30      # border colors
31      bspc config focused_border_color "#83a598"
32      bspc config normal_border_color "#454849"
33
34
```

Anything you write in this file (its a script actually) will be executed when you start bspwm !

So the first line , which is sxhkd starts sxhkd (daemon) which will enable all the keyboard shortcuts . and the next ones are just for setting wallpaper , picom , and xresources theme (this is used for setting colors/fonts for some terminals) .

The next few lines are for setting window border color / width / window gap size / and adding new rules to bspwm which means the app you want will be opened in the specifc workspace (in floating mode or any mode you want)in this case gimp will be opened in the workspace 8 and it will be set to floating automatically. there are 10 workspaces in bspwm .

The bspc config top padding thing in the bottom line is just for adding padding on your top screen so it'd make some space for the panel or such.

I think you should be familiar with the two files : bspwmrc and sxhkdrc so make a keybind for opening any browser in the sxhdkrc file , when done proceed to the following section.

Bspwm doesnt come with any panel / bar by default so you have to add it . We'll be using polybar in this section . Download polybar package for your distro !.

Now copy my polybar folder (from my repo ofc) to your ~/.config folder or you can use the default polybar and configure it yourself.

To use the default polybar config :

mkdir ~/.config/polybar (this will make polybar folder)

cp -r /usr/local/share/doc/polybar/config ~/.config/polybar (this will copy the default polybar config)

If the above command doesnt work then :

cp -r /usr/share/doc/polybar/config ~/.config/polybar

If you used the default polybar config then you should be able to run it by : polybar barname , in the default config case the barname is example , so add this : polybar example , to your bspwmrc file so polybar runs after startup automatically .

OR

If you used my polybar config then , simply add this in your bspwmrc : ~/.config/polybar/launch.sh

My polybar config has two files : config and launch.sh . the config file has all the modules , fonts etc stuffs and the launch.sh file just reads the polybar barname from the config file and runs it .

If some fonts on polybar (my config) dont work then probably you need to install fontawesome5 fonts and fonts used by my polybar. Just put all the files from my font repo to your ~/.local/share/fonts folder and then do : fc-cache -fv . If there's no fonts folder then create it ! .

If the wifi module doesnt work on the polybar then check your wlan interface's name (type iwconfig to know it) and replace it with mine under config .

```
[module/wlan]
type = internal/network
interface = wlp2s0
interval = 3.0
```

Now lets apply the terminal theme . In this tutorial we'll be using xresources which is config file used to set colors / fonts for urxvt / xterm and other terminals . I use ST with xresources patch , copy the st folder somewhere and run these : cd stfolder , make && sudo make install . This will install st to the system.

Put the xresources in any folder you want and run : xrdb merge Xresources . copy the xrdb command you just executed to your bspwmrc file .

Copy my rofi folder (from repo) to your ~/.config folder

-> If you face any issues with this tutorial then contact me at my telegram group