pi400-base

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Introduction

Figure 1: The Raspberry Pi 400 Computer

Introduction

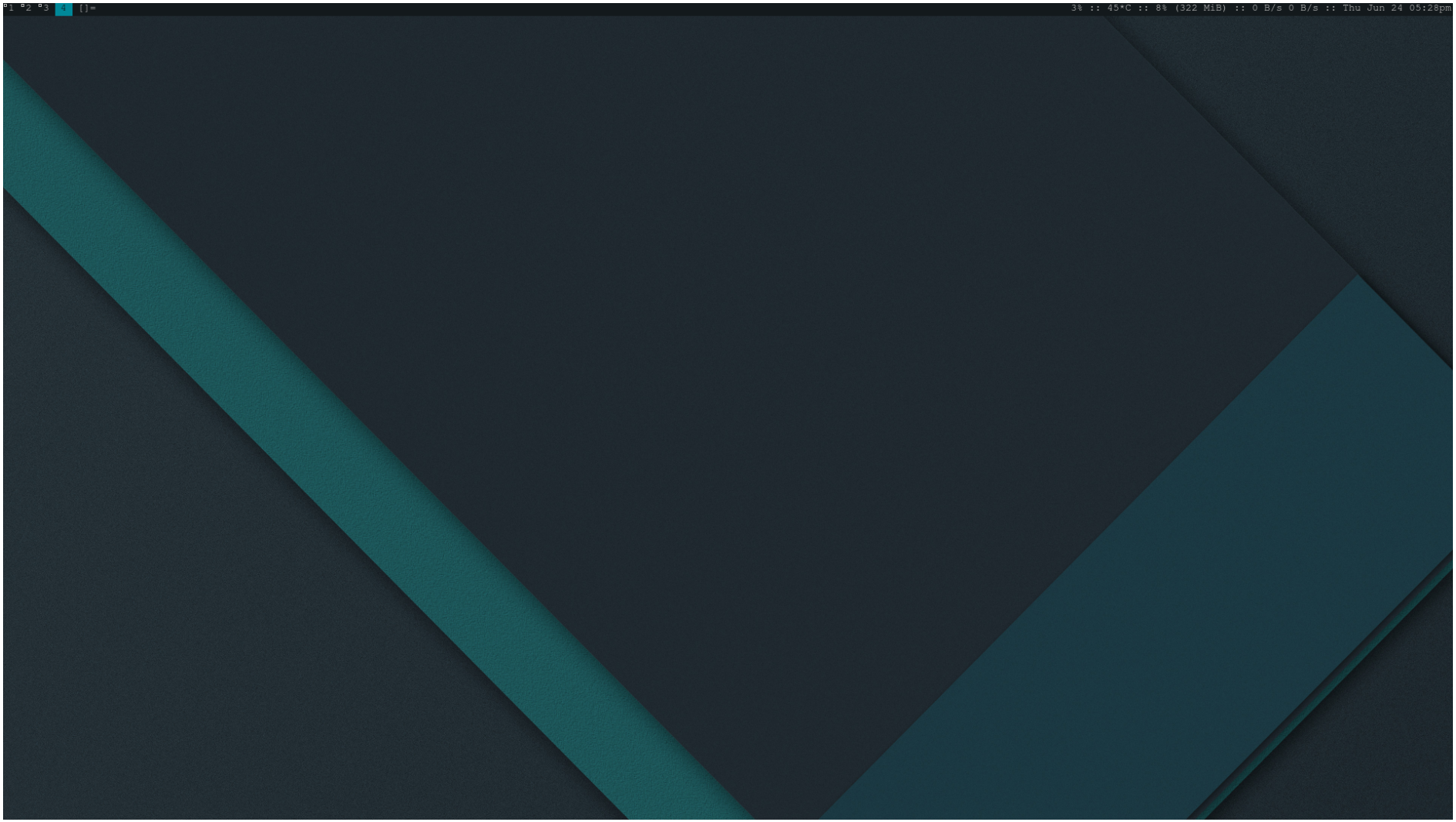

Figure 2: Empty desktop in dwm

Introduction

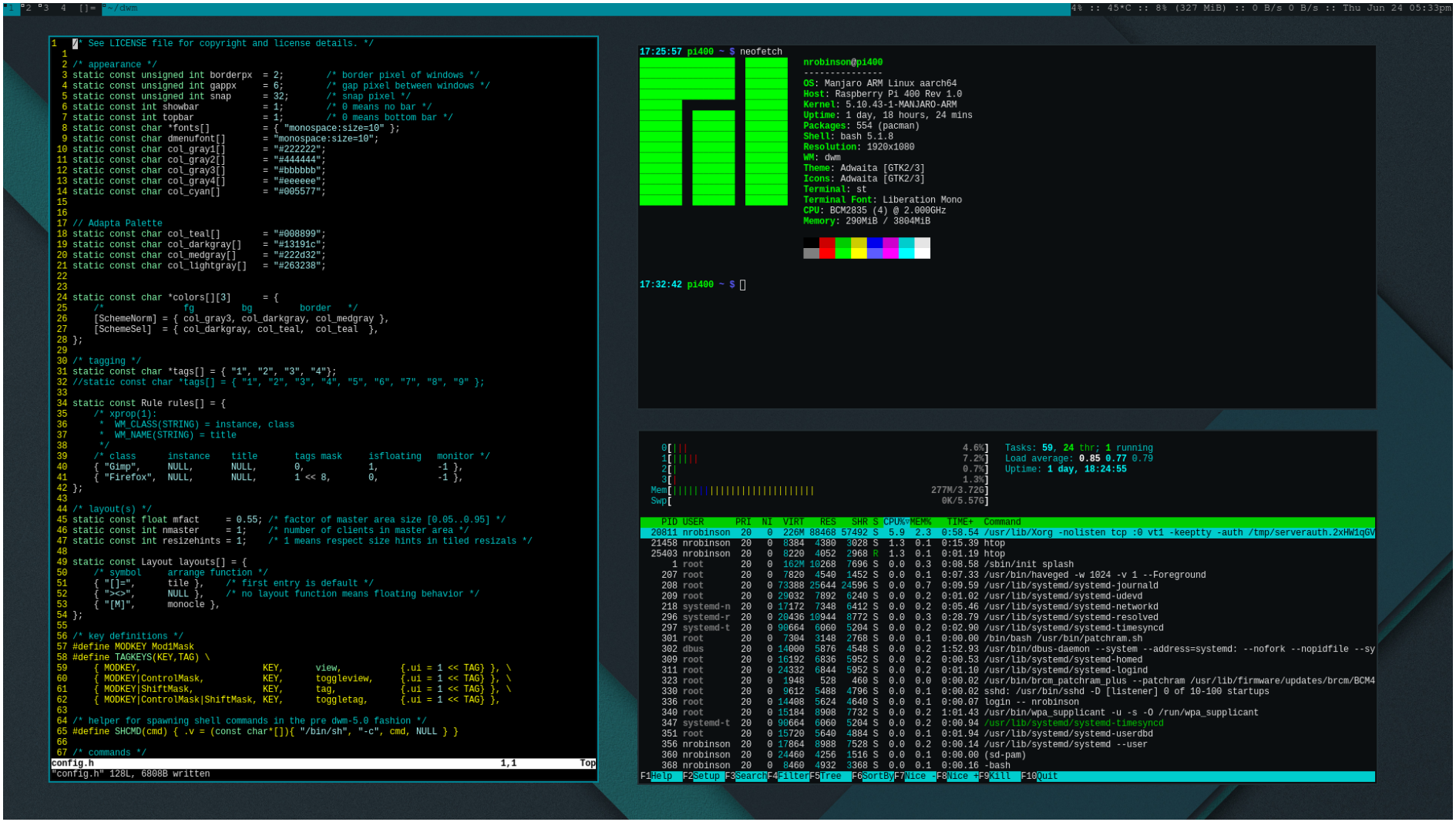

Figure 3: Floating windows in dwm

Introduction

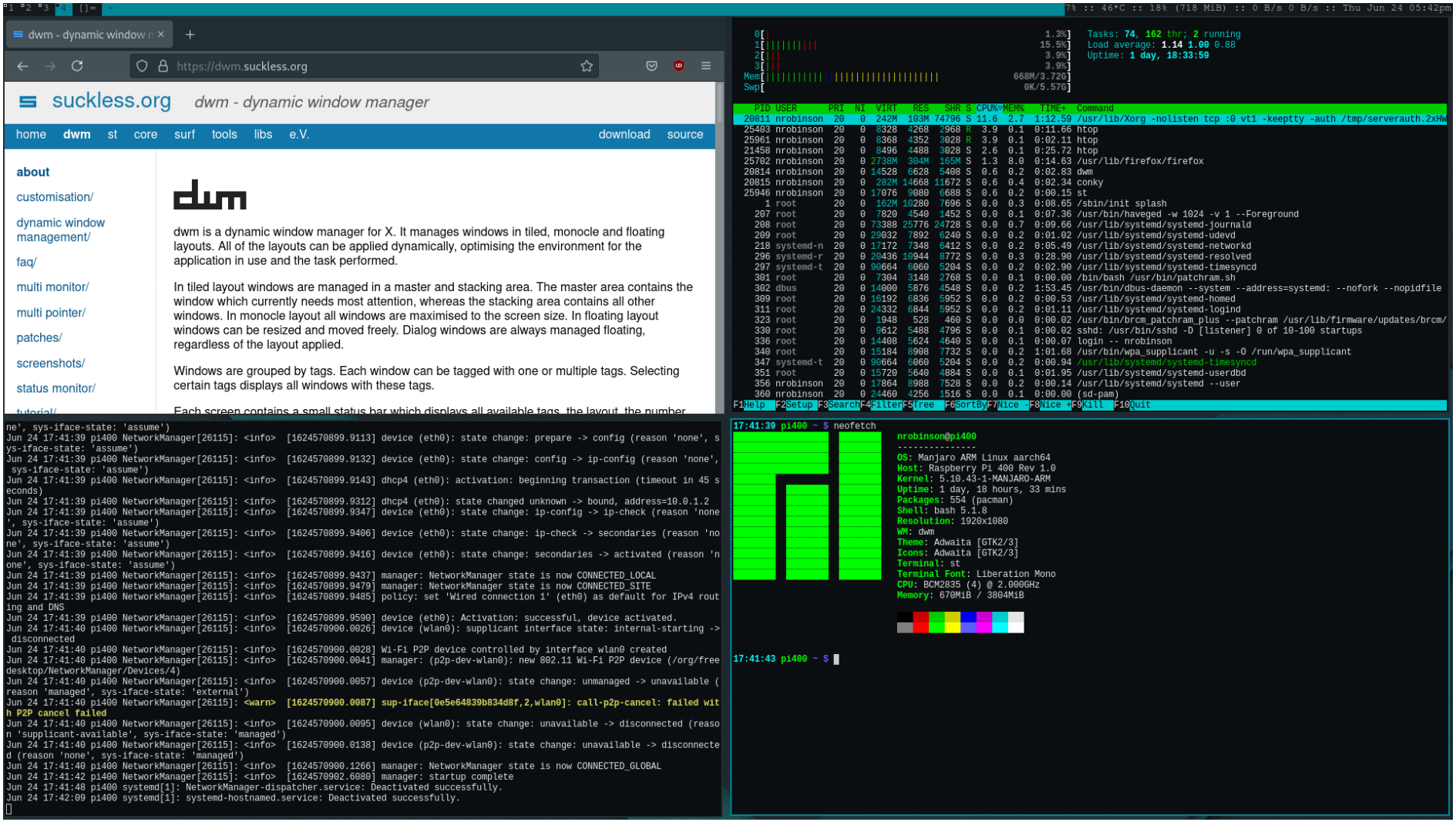

Figure 4: Tiled windows in dwm

Introduction

This repository is a post-installation setup configuration for Manjaro ARM that provides a minimal desktop environment based on dwm.

Key Features

- Dotfiles for bash, vim, git, conky, xinit
- Lists of packages to replicate my desktop environment
- Manage vim plugins with **vim-plug**

Why use Manjaro ARM on the Pi 400?

- While there are many Linux distributions available for the Raspberry Pi, few of them are optimized for productive desktop use.
- The official Raspberry Pi OS is designed for novice users and is still based on 32-bit ARM, lacking support for ARM64 applications.
- I chose Manjaro ARM for this system because it is 64-bit, Arch-based, and provides a minimal installation image.
- I've found Arch-like distributions to be more useful on the desktop than Debian-like distributions for many reasons.

Why use dwm on the Pi 400?

- While there are many editions of Manjaro for the Raspberry Pi featuring desktop environments like Xfce, KDE, and GNOME, which attempt to make the Pi seem like a typical Linux desktop, they achieve poor performance due to the lower specs of the Raspberry Pi.
- Frankly, running a fully-featured desktop environment on a Raspberry Pi is counterproductive, since a desktop environment requires a large share of resources.
- Because dwm is more efficient and minimalist, you can achieve greater productivity.

Prerequisites

- You will need a fresh installation of Manjaro ARM Minimal. The minimal edition is preferable because there are fewer unnecessary packages installed by default.
- You must be comfortable with the terminal and using Vim since the keybindings in dwm are inspired by Vim.

Installation

On a newly installed Manjaro ARM system clone this repository:

```
$ sudo pacman -S git
$ git clone https://github.com/nrobinson2000/pi400-base
$ cd pi400-base
```

Before running `install.sh`, read through the script with your text editor and verify that you are content with the changes that it will make. To accept the script, uncomment the `DOTFILES_AGREE="true"` line in `install.sh`.

After accepting, run the script with the following:

```
$ ./install.sh
```

The script can take around 10 minutes to complete. After the script finishes, reboot your system. After logging in, run `startx` to launch dwm.

Useful shortcuts

Launchers

- `ALT + P` - Launch dmenu
- `SHIFT + ALT + ENTER` - Launch st

System

- `SHIFT + ALT + C` - Close a window
- `SHIFT + ALT + Q` - Quit dwm (all running windows will be stopped)

Useful shortcuts

Window management

- `ALT + J/K` - Move focus through window stack
- `ALT + H/L` - Adjust width of master area
- `ALT + I/D` - Adjust number of windows in master area

Workspaces/Multi-Monitor

- `ALT + n` - Move focus to workspace `n`
- `SHIFT + ALT + n` - Move window to workspace `n`

Useful shortcuts

For more shortcuts, refer to the `dwm` and `st` man pages.

As `dwm` and `st` are highly customizable, you can edit the `config.h` file in each project to add additional keybindings or change settings.

dwm

```
$ git clone git://git.suckless.org/dwm
```

st

```
$ git clone git://git.suckless.org/st
```

Usage tips (WIP)

Here is some advice for maintaining and using the system:

TODO

Overview

```
OS: Manjaro ARM Linux aarch64
Host: Raspberry Pi 400 Rev 1.0
Packages: 513 (pacman)
Shell: bash 5.1.8
Resolution: 1920x1080
WM: dwm
Theme: Adwaita [GTK3]
Icons: Adwaita [GTK3]
Terminal: st
CPU: BCM2835 (4) @ 2.000GHz
Memory: 222MiB / 3804MiB
```

TODO

- Make README more eye-catching
- Document more shortcuts and tips