

ERIC BAILEY

# DOTFILES



# Contents

<i>Machines</i>	5
<i>SRUXPS</i>	5
<i>NixOS configuration</i>	5
<i>home-manager configuration</i>	9
 <i>Modules</i>	13
<i>Common</i>	13
<i>Packages</i>	14
<i>Location</i>	16
<i>NixOS</i>	18
<i>Darwin</i>	21
 <i>Software configuration</i>	25
<i>Bash</i>	25
<i>bat</i>	25
<i>Browserpass</i>	26
<i>bugwarrior</i>	26
<i>direnv</i>	27
<i>Emacs</i>	28
<i>Init File</i>	30
<i>Firefox</i>	34
<i>fish</i>	34
<i>Fish abbreviations</i>	35

<i>fzf</i>	43
<i>Git</i>	44
<i>GPG</i>	49
<i>htop</i>	49
<i>i3</i>	49
<i>i3status</i>	53
<i>jq</i>	54
<i>man</i>	55
<i>nixpkgs</i>	56
<i>rebar3</i>	56
<i>Taskwarrior</i>	56
<i>Config</i>	56
<i>on-exit Git hook</i>	59
<i>Glossary</i>	61
<i>Acronyms</i>	63
<i>Bibliography</i>	65

# Machines

## SRUXPS

### NixOS configuration

The SRUXPS configuration is an expression that takes, at least, `config`, `lib`, and `pkgs`.

```
<machines/sruxps/configuration.nix 1>≡
{ config, lib, pkgs, ... }:
let
  username = "e.bailey";
in
{

  <Import hardware config and modules 2>

  <Set the location to MSP 3>

  <Configure the LUKS devices 4>

  <Configure vm.swappiness 5>

  <Add the coretemp kernel module 6>

  <Link some extra paths 7>

  <Configure the file systems 8>

  <Configure Bluetooth 10>

  <Configure home-manager 11>

  <Configure networking 12>

  <Configure Nix 13>

  <Configure overlays 14>

  <Configure sudo 15>

  <Configure services 16>

  <Configure user 17>

}
```

Import the hardware config and other Nix *modules*.

*<Import hardware config and modules 2>≡* (1)

```
imports = [
  <nixos-hardware/dell/xps/13-9380>
  ./hardware-configuration.nix
  ../../nix
  ../../modules/common.nix
  ../../modules/location.nix
  ../../modules/nixos.nix
  ../../modules/packages.nix
  <home-manager/nixos>
];
```

Describe the location module

*<Set the location to MSP 3>≡* (1)

```
airportCode = "MSP";
```

Configure the *LUKS* devices.

*<Configure the LUKS devices 4>≡* (1)

```
boot.initrd.luks.devices = {
  cryptkey.device = "/dev/disk/by-uuid/603b64c6-8544-4b43-9b6a-7d8a08091514";

  cryptroot = {
    device = "/dev/disk/by-uuid/c4e26a93-c0c9-4680-bb79-8c0ca47df96c";
    keyFile = "/dev/mapper/cryptkey";
  };

  cryptswap = {
    device = "/dev/disk/by-uuid/565c0358-110e-4279-ba59-619cb2cc1ebf";
    keyFile = "/dev/mapper/cryptkey";
  };
};
```

[https://docs.oracle.com/en/operating-systems/oracle-linux/7/admin/section\\_h4v\\_3yt\\_tr.html](https://docs.oracle.com/en/operating-systems/oracle-linux/7/admin/section_h4v_3yt_tr.html)

*<Configure vm.swappiness 5>≡* (1)

```
boot.kernel.sysctl = {
  "vm.swappiness" = 1;
};
```

*<Add the coretemp kernel module 6>≡* (1)

```
boot.kernelModules = [
  "coretemp"
];
```

*<Link some extra paths 7>≡* (1)

```
environment.homeBinInPath = true;
environment.pathsToLink = [
  "/lib/aspell"
  "/share/emacs/site-lisp"
  "/share/fish"
];
```

btrfs clean boot?

```

<Configure the file systems 8>≡ (1) 9>
fileSystems."/ = {
    device = "/dev/disk/by-uuid/71cfcb8a-13a9-49f0-b034-a9c8841be07b";
    fsType = "btrfs";
    options = [ "subvol=@" "rw" "noatime" "compress=zstd" "ssd" "space_cache" ];
};

fileSystems."/home" = {
    device = "/dev/disk/by-uuid/71cfcb8a-13a9-49f0-b034-a9c8841be07b";
    fsType = "btrfs";
    options = [ "subvol=@home" "rw" "noatime" "compress=zstd" "ssd" "space_cache" ];
};

fileSystems."/nix" = {
    device = "/dev/disk/by-uuid/71cfcb8a-13a9-49f0-b034-a9c8841be07b";
    fsType = "btrfs";
    options = [ "subvol=@nix" "rw" "noatime" "compress=zstd" "ssd" "space_cache" ];
};

fileSystems."/var" = {
    device = "/dev/disk/by-uuid/71cfcb8a-13a9-49f0-b034-a9c8841be07b";
    fsType = "btrfs";
    options = [ "subvol=@var" "rw" "noatime" "compress=zstd" "ssd" "space_cache" ];
};

fileSystems."/boot" = {
    device = "/dev/disk/by-uuid/54D0-C859";
    fsType = "vfat";
};

<Configure the file systems 8>+≡ (1) <8
fileSystems."/mnt/music" = {
    device = "192.168.1.147:/volume1/homes/eric/music";
    fsType = "nfs";
    options = [ "noatime" "noauto" "rw" "x-systemd.automount" ];
};

<Configure Bluetooth 10>≡ (1)
hardware.bluetooth = {
    enable = true;
    config = {
        General = {
            Enable = "Source,Sink,Media,Socket";
        };
    };
};

<Configure home-manager 11>≡ (1)
home-manager.useUserPackages = true;
home-manager.users."${username}" = args:
    import ./home.nix (args // { inherit pkgs; });

<Configure networking 12>≡ (1)
networking.hostName = "MSP-EBAILEY01";

networking.interfaces.wlp1s0.useDHCP = true;
networking.useDHCP = false; # NOTE: Deprecated, so set it false.

```

```

<Configure Nix 13>≡ (1)
nix = {
  nixPath = [
    "nixos-config=/etc/nixos/configuration.nix"
    "nixpkgs-overlays=/etc/nixos/overlays"
  ];
  trustedUsers = [ "root" username ];
};

```

```

<Configure overlays 14>≡ (1)
nixpkgs.overlays =
  let
    path = <nixpkgs-overlays>;
  in
    with builtins;
    map (n: import (path + ("/" + n)))
      (
        filter (
          n: match ".*\\.nix" n ≠ null
          || pathExists (path + ("/" + n + "/default.nix"))
        )
        (attrNames (readDir path))
      )
    ++ (
      with (import <nurpkgs> {}).overlays; [
        nur
        git
        node
      ]
    );

```

```

<Configure sudo 15>≡ (1)
security.sudo = {
  enable = true;
  extraConfig = "
    ${username} ALL=(ALL) NOPASSWD: ALL
  ";
};

```

```

<Configure services 16>≡ (1)
services.bluedman.enable = true;

services.fwupd.enable = true;

# TODO: services.lorri.enable = true;

services.xserver.displayManager.lightdm.autoLogin = {
  enable = true;
  user = username;
};

services.xserver.monitorSection = "
  DisplaySize 406 228
";

```



```

<Configure user 17>≡ (1)
users.mutableUsers = false;
users.users."${username}" = {
  name = username;
  hashedPassword = lib.fileContents (./. + "/secrets/${username}.hashedPassword");
  group = "users";
  extraGroups = [
    "audio"
    "disk"
    "docker"
    "http"
    "networkmanager"
    "systemd-journal"
    "video"
    "wheel"
  ];
  createHome = true;
  uid = 1001;
  home = "/home/${username}";
  shell = "/etc/profiles/per-user/${username}/bin/fish";
};

```

### *home-manager configuration*

```

<machines/sruxps/home.nix 18>≡
{ lib, pkgs, ... }:
let
  nixpkgs-unstable = import (import ../../nix/sources.nix).nixpkgs-unstable {
    config.allowUnfree = true;
  };
in
{

  <Import various program configs 19>

  <Configure the primary email account 20>

  <Install some user packages 21>

  _module.args.pkgs = lib.mkForce pkgs;
}

```

```

<Import various program configs 19>≡ (18)
imports = [
  ../../config/bash.nix
  ../../config/bat.nix
  ../../config/browserpass.nix
  ../../config/bugwarrior.nix
  ../../config/direnv.nix
  ../../config/emacs
  ../../config/firefox.nix
  ../../config/fish
  ../../config/fzf.nix
  ../../config/git
  ../../config/gpg.nix
  ../../config/htop.nix
  ../../config/i3
  ../../config/jq.nix
  ../../config/kitty.nix
  ../../config/man.nix
  ../../config/nixpkgs
  ../../config/rebar3.nix
  ../../config/taskwarrior
];

```

Configure Vim

```

<Configure the primary email account 20>≡ (18)
accounts.email.accounts.primary = {
  address = "e.bailey@sportradar.com";
  gpg.key = "EFD6F1EDC84D2FA935E38570462054AB8B682702";
  primary = true;
  realName = "Eric Bailey";
};

```

```

<Install some user packages 21>≡ (18) 22>
home.packages = with pkgs; (
  [
    aws-iam-authenticator
    ec2instanceconnectcli

```

```

<Install some user packages 21>+≡ (18) <21 23>
  clac
  dolphin
  lorri
  mtr
  progress
  pv

```

Clementine<sup>1</sup> is a great music player.

<sup>1</sup> <https://www.clementine-player.org/>

```

<Install some user packages 21>+≡ (18) <22 25>
  nixpkgs-unstable.clementineUnfree

```

I haven't used Dhall in a while, but it's still interesting.

```

<* 24>≡ 30>
  dhall
  dhall-json

```

I might need Docker Compose<sup>2</sup> again someday, but not lately.

<sup>2</sup> <https://docs.docker.com/compose/>

```

<Install some user packages 21>+≡ (18) <23 26>
  docker-compose

```

```

<Install some user packages 21>+≡ (18) <25 27>
ghc

```

`iw`<sup>3</sup> is useful for troubleshooting wireless issues, like in Trondheim.

<sup>3</sup> <https://wireless.wiki.kernel.org/en/users/documentation/iw>

```

<Install some user packages 21>+≡ (18) <26 28>
iw
jdk

```

<https://github.com/Azure/kubelogin>

```

<Install some user packages 21>+≡ (18) <27 29>
nixpkgs-unstable.kubectx
kubelogin
k9s

```

`naal`<sup>4</sup> is my tool for non-interactive AWS Azure login.

<sup>4</sup> <https://github.com/yurriq/naal>

```

<Install some user packages 21>+≡ (18) <28 31>
naal
networkmanager-openconnect

```

It would be cool to play with `Next`<sup>5</sup> some lazy day.

<sup>5</sup> <https://next.atlas.engineer/>

```

<* 24>+≡ <24>
next

```

```

<Install some user packages 21>+≡ (18) <29 32>
openconnect

```

`PulseAudio Volume Control`<sup>6</sup> is useful for configuring Bluetooth audio.

<sup>6</sup> <https://freedesktop.org/software/pulseaudio/pavucontrol/>

```

<Install some user packages 21>+≡ (18) <31 33>
pavucontrol
renderizer
scc
lm_sensors
nfs-utils

```

More Trondheim wireless debugging...

```

<Install some user packages 21>+≡ (18) <32>
wirelesstools
nixpkgs-unstable.zoom-us
] ++ (
  with nodePackages; [
    aws-azure-login
  ]
)
);

```



# Modules

## Common

This module is a lambda that takes at least `pkgs` in its arguments.

```
<modules/common.nix 34>≡ 35>
{ pkgs, ... }:

{
```

Configure garbage collection (`gc`) and my personal Cachix<sup>7</sup>-based `binaryCaches`. <sup>7</sup> <https://cachix.org>

- <https://yurriq.cachix.org>
- <https://yurriq-nur-packages.cachix.org>

```
<modules/common.nix 34>+≡ <34 36>
nix = {
  binaryCaches = [
    "https://yurriq.cachix.org"
    "https://yurriq-nur-packages.cachix.org"
  ];
  binaryCachePublicKeys = [
    "yurriq.cachix.org-1:evpJ5wKluf7Q0Ccv69VkJxCOtHgubrqX1Zpp3JAXLBE="
    "yurriq-nur-packages.cachix.org-1:7kbjuGBUZcWf876g2cdeImIQXrXz0hpMVBqY0yyAv70="
  ];
  gc = {
    automatic = true;
    options = "-delete-older-than 30d";
  };
};
```

Installed the Nerd Fonts patched Iosevka .

```
<modules/common.nix 34>+≡ <35 37>
fonts = {
  enableFontDir = true;
  fonts = with pkgs; [
    (nerdfonts.override { withFont = "Iosevka"; })
  ];
};
```

Add Nerd Fonts link

Add Iosevka link

Enable system-wide Bash completion.

```
<modules/common.nix 34>+≡ <36 38>
programs.bash.enableCompletion = true;
```

```

<modules/common.nix 34>+≡
}
<37

```

## Packages

```

<modules/packages.nix 39>≡
{ lib, pkgs, ... }:
```

```

{

```

```

<modules/packages.nix 39>+≡
environment.systemPackages = with pkgs; (
<39 41>

```

```

[
  aspell
  aspellDicts.en
  awscli
  bind
  cachix
  coreutils
  # TODO: cquery
  curl
  expect
  gawk
  gcc
  gnumake
  gnused
  gnutar
  # TODO: graphviz
  gzip
  httpie
  # TODO: http-prompt
  # TODO: idris
  moreutils
  neofetch
  nix
  noweb
  pandoc
  prettytyping
  ripgrep
  shellcheck
  shfmt
  silver-searcher # TODO: find helm-rg solution
  slack
  spotify
  stow

```

```

<modules/packages.nix 39>+≡                                <40 42>
(
  texlive.combine {
    inherit (texlive) scheme-small
      datetime
      dirtytalk
      fmtcount
      framed
      fvextra
      hardwrap
      ifplatform
      latexmk
      minted
      titlesec
      todonotes
      tufte-latex
      xetex
      xstring
    ;
    inherit noweb;
  }
)

<modules/packages.nix 39>+≡                                <41 43>
  tree
  unzip
  vim
  watch
  # wipe
  yq
]

<modules/packages.nix 39>+≡                                <42 44>
) ++ (
  with haskellPackages; [
    cabal-install
    cabal2nix
    hpack
    # FIXME: stylish-haskell
  ]
]

<modules/packages.nix 39>+≡                                <43 45>
) ++ (
  with nodePackages; [
    # TODO: bash-language-server
  ]
]

<modules/packages.nix 39>+≡                                <44 46>
) ++ (
  with python3Packages; [
    pygments
  ]
]

```

```

<modules/packages.nix 39>+≡                                     <45 47>
    ) ++ lib.optionals stdenv.isDarwin (
      [
        clementine
        m-cli
        sourcetree
        onyx
      ] ++ (
        with chunkwm; [
          core
          ffm
          tiling
        ]
      )
    )

<modules/packages.nix 39>+≡                                     <46 48>
    ) ++ lib.optionals stdenv.isLinux [
      gnome3.networkmanagerapplet
      hicolor-icon-theme
      keybase-gui
      libreoffice
      qpdfview
      playerctl
      psmisc

<modules/packages.nix 39>+≡                                     <47 49>
    (
      signal-desktop.override {
        spellcheckerLanguage = "en_US";
      }
    )

<modules/packages.nix 39>+≡                                     <48 50>
    thunderbird
    volumeicon
    xclip
    xorg.xbacklight
  ];

<modules/packages.nix 39>+≡                                     <49>
}

```

### Location

```

<modules/location.nix 51>≡                                       52>
  { config, lib, ... }:

<modules/location.nix 51>+≡                                       <51 53>
  let
    airportCode = config.airportCode;
  in
  {

```



```

<modules/location.nix 51>+≡                                     <52 54>
  options.airportCode = lib.mkOption {
    default = "MSP";
    type = lib.types.enum [ "ATL" /* "LHR" */ "LJU" "MSP" "TRD" ];
  };

```

```

<modules/location.nix 51>+≡                                     <53 55>
  config = lib.mkMerge [

```

The Sportradar office in Minneapolis.

```

<modules/location.nix 51>+≡                                     <54 56>
  (
    lib.mkIf (airportCode == "MSP") {
      location = {
        latitude = 44.98;
        longitude = -93.27;
      };
      time.timeZone = "America/Chicago";
    }
  )

```

Cook Out on Ponce de Leon Ave.

```

<modules/location.nix 51>+≡                                     <55 57>
  (
    lib.mkIf (airportCode == "ATL") {
      location = {
        latitude = 33.77;
        longitude = -84.37;
      };
      time.timeZone = "America/New_York";
    }
  )

```

The Sportradar office in London.

```

<modules/location.nix 51>+≡                                     <56 58>
  (
    lib.mkIf (airportCode == "LHR") {
      location = {
        latitude = 51.51;
        longitude = -0.09;
      };
      time.timeZone = "Europe/London";
    }
  )

```

The Sportradar office in Ljubljana.

```

<modules/location.nix 51>+≡                                     <57 59>
  (
    lib.mkIf (airportCode == "LJU") {
      location = {
        latitude = 46.09;
        longitude = 14.55;
      };
      time.timeZone = "Europe/Ljubljana";
    }
  )

```

The Sportradar office in Trondheim.

```

<modules/location.nix 51>+≡
(
    lib.mkIf (airportCode == "TRD") {
        location = {
            latitude = 63.43;
            longitude = 10.40;
        };
        time.timeZone = "Europe/Oslo";
    }
)

<modules/location.nix 51>+≡
];

}

```

## NixOS

```

<modules/nixos.nix 61>≡
{ pkgs, ... }:

{

<modules/nixos.nix 61>+≡
    imports = with (import <nurpkgs> {}).modules; [
        pass
        tomb
    ];

<modules/nixos.nix 61>+≡
    boot = {
        cleanTmpDir = true;
        loader = {
            systemd-boot.enable = true;
            efi.canTouchEfiVariables = true;
        };
    };

<modules/nixos.nix 61>+≡
    # console.font = "latarcyrheb-sun32";
    console.font = "Lat2-Terminus16";
    console.keyMap = "us";
    i18n.defaultLocale = "en-US.UTF-8";

<modules/nixos.nix 61>+≡
    location.provider = "manual";

<modules/nixos.nix 61>+≡
    networking.networkmanager.enable = true;

```

```

<modules/nixos.nix 61>+≡
nixpkgs.config.allowUnfree = true;
<66 68>

```

```

<modules/nixos.nix 61>+≡
programs = {
  pass = {
    enable = true;
    genphrase = true;
    git-helper = true;
    otp = true;
    update = true;
  };
  tomb = {
    enable = true;
    resize = true;
    slam = true;
  };
};
<67 69>

```

```

<modules/nixos.nix 61>+≡
services = {
  logind.lidSwitch = "hibernate";

  kbfs.enable = true;

  redshift = {
    enable = true;
    temperature.night = 2300;
  };

  unclutter = {
    enable = false; # FIXME
    extraOptions = [ "exclude-root" "ignore-scrolling" ];
    threshold = 1;
    timeout = 1;
  };
<68 70>

```

```

<modules/nixos.nix 61>+≡                                     <69 71>
    xserver = {
        enable = true;

        autorun = true;

        desktopManager = {
            gnome3.enable = false;
            xterm.enable = false;
        };

        displayManager.defaultSession = "none+i3";
        displayManager.lightdm.enable = true;

        layout = "us";

        libinput = {
            enable = true;
            accelSpeed = "1.0";
            disableWhileTyping = true;
            naturalScrolling = false;
            tapping = true;
        };

        videoDrivers = [
            "intel"
        ];

        windowManager.i3.enable = true;

        xkbOptions = "ctrl:nocaps,compose:ralt";
    };
};

<modules/nixos.nix 61>+≡                                     <70 72>
    hardware.pulseaudio = {
        enable = true;
        extraModules = [ pkgs.pulseaudio-modules-bt ];
        package = pkgs.pulseaudioFull;
    };
    sound.enable = true;

<modules/nixos.nix 61>+≡                                     <71 73>
    system.stateVersion = "20.03";

<modules/nixos.nix 61>+≡                                     <72 74>
    virtualisation.docker.enable = true;

<modules/nixos.nix 61>+≡                                     <73
    }

```

*Darwin*

```

<modules/darwin.nix 75>≡
{ pkgs, ... }:

```

```

{

```

```

<modules/darwin.nix 75>+≡
    nixpkgs.config.allowUnfree = true;

```

```

<modules/darwin.nix 75>+≡
    services.chunkwm = {
        enable = true;
        extraConfig = "
            chunkc core::log_file /usr/local/var/log/chunkwm.log
            chunkc core::log_level info
            chunkc tiling::rule -owner "Cisco AnyConnect Secure Mobility Client" -state float &
            chunkc tiling::rule -owner Emacs -except "^$" -state tile &
        ";
        package = pkgs.chunkwm.core;
        plugins = {
            dir = "/run/current-system/sw/bin/chunkwm-plugins/";
            list = [ "ffmpeg" "tiling" ];
            "tiling".config = "
                chunkc set desktop-padding_step_size      0
                chunkc set desktop-gap_step_size           0
                chunkc set global_desktop_mode              bsp
                chunkc set global_desktop_offset_top        0
                chunkc set global_desktop_offset_bottom     0
                chunkc set global_desktop_offset_left       0
                chunkc set global_desktop_offset_right      0
                chunkc set global_desktop_offset_gap        0
                chunkc set bsp_spawn_left                   1
                chunkc set bsp_optimal_ratio                 1.618
                chunkc set bsp_split_mode                   optimal
                chunkc set bsp_split_ratio                   0.66
                chunkc set window_focus_cycle               all
                chunkc set mouse_follows_focus               1
                chunkc set window_region_locked              1
            ";
        };
    };
};

```

```

<modules/darwin.nix 75>+≡                                     <77 79>
services.skhd = {
  enable = true;
  package = pkgs.skhd;
  skhdConfig = "
    alt - space : /Applications/kitty.app/Contents/MacOS/kitty -single-instance -d ~

    ctrl + alt + cmd - up    : chunkc tiling::window -warp north
    ctrl + alt + cmd - right : chunkc tiling::window -warp east
    ctrl + alt + cmd - down  : chunkc tiling::window -warp south
    ctrl + alt + cmd - left  : chunkc tiling::window -warp west

    shift + alt + cmd - up    : chunkc tiling::window -focus north
    shift + alt + cmd - right : chunkc tiling::window -focus east
    shift + alt + cmd - down  : chunkc tiling::window -focus south
    shift + alt + cmd - left  : chunkc tiling::window -focus west

    ctrl + alt + cmd - e : chunkc tiling::desktop -equalize
    ctrl + alt + cmd - f : chunkc tiling::window -toggle float
    ctrl + alt + cmd - m : chunkc tiling::window -toggle fullscreen

    shift + cmd - 1 : chunkc tiling::window -send-to-desktop 1
    shift + cmd - 2 : chunkc tiling::window -send-to-desktop 2
    shift + cmd - 3 : chunkc tiling::window -send-to-desktop 3
    shift + cmd - 4 : chunkc tiling::window -send-to-desktop 4
    shift + cmd - 5 : chunkc tiling::window -send-to-desktop 5
    shift + cmd - 6 : chunkc tiling::window -send-to-desktop 6
  ";
};

```

Set `AppleKeyboardUIMode = 3` to enable full keyboard access, e.g. tab in dialogs. Disable press-and-hold, in favor of key repeat.

Dig through <https://github.com/mathiasbynens/dotfiles/blob/master/.macos>

```

<modules/darwin.nix 75>+≡                                     <78 80>
system.defaults.NSGlobalDomain = {
  AppleKeyboardUIMode = 3;

  ApplePressAndHoldEnabled = false;
  InitialKeyRepeat = 10;
  KeyRepeat = 1;

  NSAutomaticDashSubstitutionEnabled = false;
  NSAutomaticQuoteSubstitutionEnabled = false;
  NSAutomaticSpellingCorrectionEnabled = true;

  NSNavPanelExpandedStateForSaveMode = true;
  NSNavPanelExpandedStateForSaveMode2 = true;
};

```

```

<modules/darwin.nix 75>+≡                                     <79 81>
system.defaults.dock = {
  autohide = true;
  mru-spaces = false;
  orientation = "right";
  showhidden = true;
};

```

```
⟨modules/darwin.nix 75⟩+≡ <80 82>  
  system.defaults.finder = {  
    AppleShowAllExtensions = true;  
    FXEnableExtensionChangeWarning = false;  
    QuitMenuItem = true;  
  };
```

```
⟨modules/darwin.nix 75⟩+≡ <81 83>  
  system.defaults.trackpad.Clicking = true;
```

```
⟨modules/darwin.nix 75⟩+≡ <82>  
}
```





# Software configuration

## Bash

Enable the Bash module, as well as autojump.

```
<config/bash.nix 84>≡  
{ ... }:  
  
{  
  
  programs.bash = {  
    enable = true;  
    enableAutojump = true;  
  };  
  
}
```

## bat

Enable the `bat`<sup>8</sup> module.

<sup>8</sup> <https://github.com/sharkdp/bat>

```
<config/bat.nix 85>≡ 86▷  
{ ... }:  
  
{  
  
  programs.bat = {  
    enable = true;  
    config = {  
  
      For the pager, use less.  
<config/bat.nix 85>+≡ <85 87>  
        pager = "less -FR";  
  
      Set the style to changes.  
<config/bat.nix 85>+≡ <86 88>  
        style = "changes";  
  
      Use the Monokai Extended theme.  
<config/bat.nix 85>+≡ <87 89>  
        theme = "Monokai Extended";  
  
<config/bat.nix 85>+≡ <88  
      };  
    };  
  
}
```

*Browserpass*

```

<config/browserpass.nix 90>≡
{ pkgs, ... }:

{

    home.packages = with pkgs; [
        browserpass
    ];

    programs.browserpass = {
        enable = true;
        browsers = [ "firefox" ];
    };

}

```

*bugwarrior*

```

<config/bugwarrior.nix 91>≡ 92▷
{ config, pkgs, ... }:

{

<config/bugwarrior.nix 91>+≡ <91 93>
    home.packages = with pkgs; [
        bugwarrior
        pass
    ];

<config/bugwarrior.nix 91>+≡ <92 94>
    imports = [
        ./taskwarrior
    ];

```

⟨config/bugwarrior.nix 91⟩+≡

◁93 95▷

```
xdg.configFile."bugwarrior/bugwarriorrc".text = "
[general]
targets = sportradar_jira
taskrc = ${config.home.homeDirectory}/.taskrc
inline_links = False
annotation_links = True
annotation_comments = True
legacy_matching = False
log.level = DEBUG
log.file = ${config.home.homeDirectory}/log/bugwarrior.log
annotation_length = 80

[sportradar_jira]
service = jira
jira.base_uri = https://jira.sportradar.ag
jira.username = e.bailey
jira.password = @oracle:eval:pass jira.sportradar.ag
jira.query = ((assignee = e.bailey OR reporter = e.bailey) OR (summary ~ e.bailey OR description ~ e.bailey OR c
jira.version = 8
jira.add_tags = work
jira.description_template = {{jiraid}}: {{jirasummary}}
";
```

⟨config/bugwarrior.nix 91⟩+≡

◁94

```
}
```

*direnv*

⟨config/direnv.nix 96⟩≡

```
{ ... }::

{

  programs.direnv = {
    enable = true;
    enableZshIntegration = false;
  };

}
```

*Emacs*

```

<config/emacs/default.nix 97>≡
{ config, lib, pkgs, ... }:

{

  imports = [
    ./packages.nix
  ];

  home.file.".emacs.d/init.el".source = ./init.el;

  home.sessionVariables = rec {
    EDITOR = "emacsclient -nw -a \"\"";
    GIT_EDITOR = EDITOR;
    VISUAL = "emacsclient -cna \"\"";
  };

  programs.emacs.enable = true;

  programs.fish.shellAliases = lib.mkIf (config.programs.fish.enable) rec {
    e = "emacsclient -na \"\"";
    ec = e + " -c";
    et = "emacsclient -nw -a \"\"";
  };

  services.emacs.enable = ! pkgs.stdenv.isDarwin;

}

<config/emacs/packages.nix 98>≡
{ ... }:

{

  programs.emacs.extraPackages = epkgs: with {
    elpa = epkgs.elpaPackages;
    melpa = epkgs.melpaPackages;
    melpaStable = epkgs.melpaStablePackages;
    # org = epkgs.orgPackages;
  }; (

<config/emacs/packages.nix 98>+≡
  with elpa; [
    mmm-mode
    rainbow-mode
  ]

```

99▷

◁98 100▷

`<config/emacs/packages.nix 98>+≡`

`<99 101>`

```

) ++ (
  with melpa; [
    avy
    better-defaults
    # clj-refactor
    # clojure-mode
    # TODO: company-lsp
    # TODO: cquery
    crux
    dhall-mode
    direnv
    dockerfile-mode
    editorconfig
    elixir-mode
    emojiify
    enh-ruby-mode
    # FIXME: erlang
    fill-column-indicator
    fish-mode
    gap-mode
    go-mode
    graphviz-dot-mode
    haskell-mode
    helm-ag
    # TODO: hindent
    hl-todo
    htmlize
    idris-mode
    j-mode
    kubernetes-tramp
    # TODO: lsp-haskell
    # TODO: lsp-mode
    # TODO: lsp-ui
    magit
    markdown-mode
    multiple-cursors
    nix-mode
    paredit
    rainbow-delimiters
    robe
    rust-mode
    rvm
    smex
    tuareg
    use-package
    whitespace-cleanup-mode
    yaml-mode
  ]
) ++ (

```

```

<config/emacs/packages.nix 98>+≡                                     <100
  with melpaStable; [
    ess
  ]
);

}

```

### *Init File*

```

<config/emacs/init.el 102>≡                                         103>
  (server-start)

<config/emacs/init.el 102>+≡                                         <102 104>
  (setq server-window 'pop-to-buffer-same-window)

<config/emacs/init.el 102>+≡                                         <103 105>
  (column-number-mode 1)

<config/emacs/init.el 102>+≡                                         <104 106>
  (add-to-list 'exec-path "/run/current-system/sw/bin")

<config/emacs/init.el 102>+≡                                         <105 107>
  (menu-bar-mode 0)

  (tool-bar-mode 0)

<config/emacs/init.el 102>+≡                                         <106 108>
  (let ((font (if (eq system-type 'darwin)
                  "Iosevka-16"
                  "Iosevka-11"))))
    (set-face-attribute 'default t :font font)
    (set-frame-font font nil t))

<config/emacs/init.el 102>+≡                                         <107 109>
  (require 'package)

<config/emacs/init.el 102>+≡                                         <108 110>
  (setq-default indent-tabs-mode nil
                 package-archives nil
                 package-enable-at-startup nil)

<config/emacs/init.el 102>+≡                                         <109 111>
  (package-initialize)

  (eval-when-compile
    (require 'use-package))

  (setq-default use-package-always-defer t
                 use-package-always-ensure t)

```

<https://stackoverflow.com/a/18330742>

```
<config/emacs/init.el 102>+≡ <110 112>
(let ((backup-directory (concat user-emacs-directory "backup")))
  (unless (file-exists-p backup-directory)
    (make-directory backup-directory t))
  (setq backup-directory-alist '((" " . ,backup-directory))))

(setq auto-save-default      t
      auto-save-interval    200
      auto-save-timeout     20
      backup-by-copying     t
      delete-by-moving-to-trash t
      delete-old-versions   t
      kept-new-versions     6
      kept-old-versions     2
      make-backup-files     t
      vc-make-backup-files  t
      version-control       t)
```

<https://anirudhsasikumar.net/blog/2005.01.21.html> Copyright

©2004-2011 Anirudh Sasikumar. All rights reserved.

```
<config/emacs/init.el 102>+≡ <111 113>
(define-minor-mode sensitive-mode
  "For sensitive files like password lists.
  It disables backup creation and auto saving.

  With no argument, this command toggles the mode.
  Non-null prefix argument turns on the mode.
  Null prefix argument turns off the mode."
  ;; The initial value.
  nil
  ;; The indicator for the mode line.
  " □"
  ;; The minor mode bindings.
  nil
  (if (symbol-value sensitive-mode)
      (progn
        ;; disable backups
        (set (make-local-variable 'backup-inhibited) t)
        ;; disable auto-save
        (if auto-save-default
            (auto-save-mode -1)))
      ;; resort to default value of backup-inhibited
      (kill-local-variable 'backup-inhibited)
      ;; resort to default auto save setting
      (if auto-save-default
          (auto-save-mode 1))))
```

```
<config/emacs/init.el 102>+≡ <112 114>
(dolist (pattern '("^\\(/dev/shm/\\|/tmp/\\)"
                  "\\.(enc\\|pgp\\|hashedPassword\\|)$"))
  (add-to-list 'auto-mode-alist (cons pattern 'sensitive-mode)))
```

```
<config/emacs/init.el 102>+≡ <113 115>
(setq custom-file "~/.emacs.d/private/local/custom.el")
```

```

<config/emacs/init.el 102>+≡                                     <114 116>
  (load-theme 'wombat)

<config/emacs/init.el 102>+≡                                     <115 117>
  (global-set-key (kbd "C-x C-k") 'kill-this-buffer)
  (global-set-key (kbd "s-u") 'revert-buffer)

<config/emacs/init.el 102>+≡                                     <116 118>
  (setq c-default-style      "k&r"
        c-basic-offset      4
        emacs-lisp-mode-hook '(fci-mode paredit-mode
                                rainbow-delimiters-mode)
        js-indent-level      2
        text-mode-hook       '(text-mode-hook-identify))

<config/emacs/init.el 102>+≡                                     <117 119>
  (setq-default fill-column 80)

<config/emacs/init.el 102>+≡                                     <118 120>
  (org-babel-do-load-languages
   'org-babel-load-languages
   '((shell . t)))

<config/emacs/init.el 102>+≡                                     <119 121>
  (use-package avy
    :demand
    :config
    (global-set-key (kbd "C-;") 'avy-goto-char)
    (global-set-key (kbd "C-'"') 'avy-goto-char-2)
    (global-set-key (kbd "M-g f") 'avy-goto-line))

<config/emacs/init.el 102>+≡                                     <120 122>
  (use-package crux
    :demand
    :config (global-set-key (kbd "C-a") 'crux-move-beginning-of-line))

<config/emacs/init.el 102>+≡                                     <121 123>
  (use-package editorconfig
    :ensure t
    :config
    (editorconfig-mode 1))

<config/emacs/init.el 102>+≡                                     <122 124>
  (use-package emojiify
    :demand
    :config
    (global-emojiify-mode)
    (global-emojiify-mode-line-mode))

<config/emacs/init.el 102>+≡                                     <123 125>
  (use-package helm
    :demand
    :config
    (global-set-key (kbd "M-s-f") 'helm-do-grep-ag)
    (global-set-key (kbd "M-s-f") 'helm-do-grep-ag))

<config/emacs/init.el 102>+≡                                     <124 126>
  (use-package hl-todo
    :demand
    :config (global-hl-todo-mode t))

```



```

<config/emacs/init.el 102>+≡ <125 127>
  (use-package magit
    :demand
    :config (global-magit-file-mode t))

<config/emacs/init.el 102>+≡ <126 128>
  (use-package multiple-cursors
    :demand
    :config (global-set-key (kbd "C-S-c C-S-c") 'mc/edit-lines))

<config/emacs/init.el 102>+≡ <127 129>
  (use-package nix-mode
    :mode ("\\.nix\\'"))

<config/emacs/init.el 102>+≡ <128 130>
  (use-package noweb-mode
    :load-path "/run/current-system/sw/share/emacs/site-lisp"
    :mode ("\\.nw\\'")
    :demand)

<config/emacs/init.el 102>+≡ <129 131>
  (use-package robe
    :demand
    :mode ("\\.rb\\'"))

<config/emacs/init.el 102>+≡ <130 132>
  (use-package rvm
    :ensure t)

<config/emacs/init.el 102>+≡ <131 133>
  (use-package smex
    :demand
    :config
    (global-set-key (kbd "M-x") 'smex)
    (global-set-key (kbd "M-X") 'smex-major-mode-commands)
    (global-set-key (kbd "C-c C-c M-x") 'execute-extended-command))

<config/emacs/init.el 102>+≡ <132 134>
  (use-package tuareg
    :mode ("\\.ml\\'" "\\.mli\\'"))

<config/emacs/init.el 102>+≡ <133
  (use-package whitespace-cleanup-mode
    :demand
    :config (global-whitespace-cleanup-mode t))

```

*Firefox*

```

<config/firefox.nix 135>≡
{ pkgs, ... }:

{

  programs.firefox = {
    enable = true;
    extensions = with (import <nur> { inherit pkgs; }).repos.rycee.firefox-addons; [
      https-everywhere
      privacy-badger
    ];
  };

}

```

*fish*

```

<config/fish/default.nix 136>≡
{ lib, pkgs, ... }:

{

  imports = [
    ./abbrs.nix
    ./aliases.nix
  ];

  home = {
    packages = with pkgs; [
      autojump
    ];
    sessionVariables = {
      SHELL = "fish";
      TERMINAL = "kitty";
    };
  };

  programs.fish = let
    inherit (lib.strings) fileContents;
  in
  {
    enable = true;
    interactiveShellInit = fileContents ./interactiveShellInit.fish;
    promptInit = "
      ${fileContents ./sushi/fish_prompt.fish}
      ${fileContents ./sushi/fish_right_prompt.fish}
    ";
    shellInit = fileContents ./shellInit.fish;
  };

}

```

### *Fish abbreviations*

“abbr manages abbreviations - user-defined words that are replaced with longer phrases after they are entered.

For example, a frequently-run command like `git checkout` can be abbreviated to `gco`. After entering `gco` and pressing **Space** or **Enter**, the full text `git checkout` will appear in the command line.”<sup>9</sup>

*<config/fish/abbrs.nix 137>*≡  
`{ ... }:`

```
{
  programs.fish.shellAbbrs = {
    <Kubernetes fish abbreviations 138>
    <Nix fish abbreviations 139>
    <ripgrep fish abbreviations 140>
  };
}
```

<sup>9</sup> abbr - manage fish abbreviations.  
 URL <https://fishshell.com/docs/current/cmds/abbr.html>

`kubectl` IS VERY CUMBERSOME to type all the time. Using fish abbreviations, save some precious keystrokes. It’s definitely *worth the time*.

*<Kubernetes fish abbreviations 138>*≡ (137)  
`kc = "kubectl";`  
`kcd = "kubectl drain -delete-local-data -ignore-daemonsets";`  
`kcnp = "kubectl get pods -field-selector=spec.nodeName=";`  
`kcx = "kubectl -context";`  
`kn = "kubens";`  
`kns = "kubens";`  
`kt = "kubetail";`  
`kx = "kubectx";`

IT’S USEFUL TO RUN `nix build` with various flags. Why not save some keystrokes for those tasks, too?

*<Nix fish abbreviations 139>*≡ (137)  
`nb = "nix build";`  
`nbd = "nix build -dry-run";`  
`nbn = "nix build -no-link";`  
`nbo = "nix build -o";`

I’M NOT QUITE USED TO all the `ripgrep` flags yet. I’m also a lazy typist, so define some memorable abbreviations.

“Searches case insensitively if the pattern is all lowercase. Search case sensitively otherwise.”<sup>10</sup>

*<ripgrep fish abbreviations 140>*≡ (137) 141▷  
`rg = "rg -S";`  
*<ripgrep fish abbreviations 140>*+≡ (137) <140 142▷  
`rga = "rg -hidden -iglob !.git";`  
`rgf = "rg -F";`

<sup>10</sup> Andrew Gallant. `rg` - man page.  
 URL <https://www.mankier.com/1/rg>

“Never print the file path with the matched lines”, and “[s]uppress line numbers.”<sup>11</sup>

<sup>11</sup> Andrew Gallant. `rg` - man page.  
URL <https://www.mankier.com/1/rg>

```
<ripgrep fish abbreviations 140>+≡ (137) <141 143>
  rgin = "rg -IN";
```

```
λ rg -IN name: helmfile.d/*.yaml | sort -u
- name: cert-manager
- name: cluster-autoscaler
- name: elasticsearch
- name: elasticsearch-client
- name: elasticsearch-curator
- name: elasticsearch-exporter
- name: elasticsearch-master
- name: external-dns
- name: fluentd-elasticsearch
- name: hubble
- name: kibana
- name: kube-resource-report
- name: metrics-server
- name: nginx-ingress-core
- name: prometheus-operator
```

```
<ripgrep fish abbreviations 140>+≡ (137) <142
  rgn = "rg -no-heading";
```

```
<config/fish/aliases.nix 144>≡
{ ... } :

{

  programs.fish.shellAliases = rec {
    gpg = "gpg2";

    k = "clear";

    l = "ls -color=auto -Glah";
    ll = "ls -color=auto -Glh";
    ls = "ls -color=auto -G";

    # Old Darwin habits
    pbcopy = "xclip -sel clipboard";
    pbpaste = "${pbcopy} -o";
  };
}
```

*<config/fish/shellInit.fish 145>≡*

```
for p in /run/current-system/sw/bin ~/bin
  if not contains $p $fish_user_paths
    set -U fish_user_paths $p $fish_user_paths
  end
end

set -U fish_user_paths /run/wrappers/bin $fish_user_paths

function fish_title
  echo "$PWD | $_" | sed "s|$HOME|~|g"
end
```

*<config/fish/interactiveShellInit.fish 146>≡*

*147>*

```
function clone
  function __update
    test -d $argv[1]; and cd $argv[1]; and git fetch -all; and git pull
  end

  function __usage
    echo "Usage: clone [username] [repository] [[destination]]"
  end

  set -local num_args (count $argv)

  if test $num_args -ge 2
    set -local user $argv[1]
    set -local repo $argv[2]

    if test $num_args -eq 2
      set dest ~/src/$user/$repo
    else if test $num_args -eq 3
      set dest $argv[3]/$user/$repo
    else
      __usage
    end

    echo $dest

    git clone git@github.com:$user/$repo.git $dest; or __update $dest; or __usage
  else
    __usage
  end
end
```

```

<config/fish/interactiveShellInit.fish 146>+≡ <146 148>
function latest -d 'Print the latest tag (on GitHub) for a given user and repo.'
# TODO: --usage

set -local num_args (count $argv)

if test $num_args -eq 2
set -local user $argv[1]
set -local repo $argv[2]
http https://api.github.com/repos/$user/$repo/tags | jq '.[0].name'
end
end

<config/fish/interactiveShellInit.fish 146>+≡ <147 149>
command -sq aws; and command -sq jq; and \
function describe-cert -d 'List the domains for a given ACM certificate'
test (count $argv) -ne 1; and return
aws acm describe-certificate --certificate-arn $argv[1] |
jq -r '.Certificate | .SubjectAlternativeNames[]'
end

<config/fish/interactiveShellInit.fish 146>+≡ <148 150>
command -sq fluidsynth; and function playmidi
fluidsynth -i ~/lib/arachno-soundfont/Arachno\ SoundFont\ -\ Version\ 1.0.sf2 $argv
end

<config/fish/interactiveShellInit.fish 146>+≡ <149 151>
command -sq kitty; and function icat
kitty +kitten icat $argv
end

<config/fish/interactiveShellInit.fish 146>+≡ <150 152>
command -sq kubectl; and begin
# TODO: Add option to print server versions too.
function k8s::versions
printf "kubectl %s\n" (command kubectl version --client --short)
printf "helm %s\n" (command helm version --client --short)
command helmfile --version
printf "kops %s\n" (command kops version)
end

function kcterm -d 'Terminate a Kubernetes node'
test (count $argv) -ne 1; and return
kubectl get node -o jsonpath='{.spec.providerID}' $argv[1] |
cut -d '/' -f5 |
xargs aws ec2 terminate-instances --instance-ids
end
end

<config/fish/interactiveShellInit.fish 146>+≡ <151 153>
# FIXME: functions rvm >/dev/null 2>&1; and rvm default

<config/fish/interactiveShellInit.fish 146>+≡ <152 154>
set fish_greeting

```

```
<config/fish/interactiveShellInit.fish 146>+≡ <153
command -sq task; and command -sq jq; and function tj \
  -d 'Open the Jira ticket associated with a Taskwarrior task'
  test (count $argv) -ne 1; and return
  open (task $argv[1] export | jq -r '.[0].jiraurl')
end
```

*(config/fish/sushi/fish\_prompt.fish 155)*≡

```
function fish_prompt
  set -l code $status

  if set -q IN_NIX_SHELL
    set symbol "λ"
  else
    set symbol "λ"
  end

  if git::is_repo
    set -l branch (git::branch_name ^/dev/null)
    set -l ref (git show-ref -head -abbrev | awk '{print substr($0,0,7)}' | sed -n 1p)

    if git::is_stashed
      echo -n -s (white)"^"(off)
    end

    echo -n -s (red)" "(off)

    if git::is_dirty
      printf (white)"*"(off)
    end

    if command git symbolic-ref HEAD > /dev/null ^/dev/null
      if git::is_staged
        printf (cyan)"$branch"(off)
      else
        printf (yellow)"$branch"(off)
      end
    else
      printf (dim)"$ref"(off)
    end

    for remote in (git remote)
      set -l behind_count (echo (command git rev-list $branch..$remote/$branch ^/dev/null | wc -l | tr -d " ")
      set -l ahead_count (echo (command git rev-list $remote/$branch..$branch ^/dev/null | wc -l | tr -d " ")

      if test $ahead_count -ne 0; or test $behind_count -ne 0; and test (git remote | wc -l) -gt 1
        echo -n -s " "(orange)$remote(off)
      end

      if test $ahead_count -ne 0
        echo -n -s (white)" +"$ahead_count(off)
      end

      if test $behind_count -ne 0
        echo -n -s (white)" -"$behind_count(off)
      end

      echo -n -s (red)" "(off)
    end

    if test "$code" = 0
      echo -n -s (red)"$symbol"(off)
    end
  end
end
```



```

    else
        echo -n -s (dim)"$symbol"(off)
    end
end

```

*<config/fish/sushi/fish\_right\_prompt.fish 156>≡* *157>*

```

# ----- [ Colors ]

```

```

function orange
    set_color -o ee5819
end

```

```

function yellow
    set_color -o b58900
end

```

```

function red
    set_color -o d30102
end

```

```

function cyan
    set_color -o 2aa198
end

```

```

function white
    set_color -o fdf6e3
end

```

```

function dim
    set_color -o 4f4f4f
end

```

```

function off
    set_color -o normal
end

```

```

<config/fish/sushi/fish_right_prompt.fish 156>+≡ <156 158>
# ----- [ Git ]

function git::is_repo
    test -d .git; or command git rev-parse -git-dir >/dev/null ^/dev/null
end

function git::branch_name
    git::is_repo; and begin
        command git symbolic-ref -short HEAD ^/dev/null;
        or command git show-ref -head -s -abbrev | head -n1 ^/dev/null
    end
end

function git::is_dirty
    git::is_repo; and not command git diff -no-ext-diff -quiet -exit-code
end

function git::is_staged
    git::is_repo; and begin
        not command git diff -cached -no-ext-diff -quiet -exit-code
    end
end

function git::is_stashed
    git::is_repo; and begin
        command git rev-parse -verify -quiet refs/stash >/dev/null
    end
end

```

```

<config/fish/sushi/fish_right_prompt.fish 156>+≡ <157 159>
# ----- [ AWS ]

function aws::current_profile
    if set -q AWS_PROFILE
        printf "$AWS_PROFILE"
    else if set -q AWS_DEFAULT_PROFILE
        printf "$AWS_DEFAULT_PROFILE"
    end
end

```

```

<config/fish/sushi/fish_right_prompt.fish 156>+≡ <158 160>
# ----- [ Kubernetes ]

function k8s::current_context
    command kubectl config current-context
end

function k8s::current_namespace
    command kubectl config view -minify -o jsonpath='{.contexts[0].context.namespace}'
end

function k8s::current_user
    command kubectl config view -minify -o jsonpath='{.users[0].name}' \
        | string replace "@sportradar.com" ""
end

```

```

<config/fish/sushi/fish_right_prompt.fish 156>+≡
# ----- [ Right Prompt ]
function fish_right_prompt
    set -l cwd (basename (prompt_pwd))

    if git::is_repo
        set root_folder (command git rev-parse --show-toplevel ^/dev/null)
        set parent_root_folder (dirname $root_folder)
        set cwd (echo $PWD | sed -e "s|$parent_root_folder/||")
    end

    printf (yellow)"(" (dim)$cwd (yellow)" " (off)

    set -l aws_profile (aws::current_profile)
    test -n "$aws_profile";
    and printf (dim)"{" (yellow)(aws::current_profile)(dim)" " (off)

    command -sq kubectl; and begin
        if [ "e.bailey" = (k8s::current_user) ]
            printf (dim)"[" (off)
        else
            printf (red)"[" (off)
        end

        printf (yellow)(k8s::current_context)(off)

        set -l k8s_namespace (k8s::current_namespace)
        test -n "$k8s_namespace";
        and printf (dim)"/" (yellow)"$k8s_namespace" (off)

        if [ "e.bailey" = (k8s::current_user) ]
            printf (dim)"]" (off)
        else
            printf (red)"]" (off)
        end
    end

    printf (dim)(date +%H(yellow): (dim)%M(yellow): (dim)%S)(off)
end

```

*fzf*

```

<config/fzf.nix 161>≡
{ ... }:

{

    programs.fzf = {
        enable = true;
        enableZshIntegration = false;
    };

}

```

*Git*

```

<config/git/default.nix 162>≡
{ config, lib, pkgs, ... }:

{
  imports = [
    ./aliases.nix
    ./config.nix
    ./packages.nix
  ];

  programs.git = {
    enable = true;
    ignores = [
      "**/"
      ".DS_Store"
    ];
    lfs.enable = true;
  } // (
    with config.accounts.email.accounts.primary; {
      signing.key = gpg.key;
      userEmail = address;
      userName = realName;
    }
  );
}

```

```

<config/git/packages.nix 163>≡
{ lib, pkgs, ... }:

{
  home.packages = with pkgs; (
    [
      diff-pdf
      git
      git-lfs
      github-cli
      kdiff3
      nix-prefetch-git
      nix-prefetch-github
      sops
    ] ++ (
      lib.optionals pkgs.stdenv.isLinux [
        # git-cola
      ]
    ) ++ (
      with gitAndTools; [
        git-crypt
        # gitflow
        hub
        lab
      ]
    ) ++ (
      with nodePackages; [
        codeowners
        diff-so-fancy
      ]
    )
  );
}

```

```

<config/git/config.nix 164>≡
{ config, pkgs, ... }:

{

  programs.git.extraConfig = {

    color = {
      diff-highlight = {
        oldNormal = "red bold";
        oldHighlight = "red bold 52";
        newNormal = "green bold";
        newHighlight = "green bold 22";
      };
      diff = {
        meta = 227;
        frag = "magenta bold";
        commit = "227 bold";
        old = "red bold";
        new = "green bold";
        whitespace = "red reverse";
      };
      status = {
        added = "green";
        changed = "yellow";
        untracked = "cyan";
      };
    };

    commit.template = "${config.xdg.dataHome}/git/commit.template";

    core.pager = "diff-so-fancy | less -tabs=4 -RFX";

    credential = {
      helper = "${pkgs.gitAndTools.pass-git-helper}/bin/pass-git-helper";
      useHttpPath = true;
    };

    diff = {
      sopsdiffer = {
        textconv = "sops -d";
      };
    };

    difftool = {
      pdfdiffer.cmd = "diff-pdf -view \"$LOCAL\" \"$REMOTE\"";
      prompt = false;
      trustExitCode = true;
    };

    rerere.enabled = true;

    ui.color = true;
  };
}

```

```
xdg.configFile."pass-git-helper/git-pass-mapping.ini" = {  
    source = ./git-pass-mapping.ini;  
};  
  
xdg.dataFile."git/commit.template" = {  
    source = ./commit.template;  
};  
  
}
```

*<config/git/aliases.nix 165>*≡

```
{ config, lib, ... }:

{

  programs.fish.shellAbbrs = lib.mkIf (config.programs.fish.enable) {
    g = "git";
    gd = "git d";
    gdc = "git dc";
    gs = "git st";
  };

  programs.git.aliases = rec {
    bm = "branch -merged";
    bnm = "branch -no-merged";
    ca = "commit -amend";
    cam = "${ca} -m";
    can = "${ca} -no-edit";
    cans = "${can} -S";
    cas = "${ca} -S";
    casm = "${cas} -m";
    cm = "commit -m";
    co = "checkout";
    cob = "${co} -b";
    cs = "crypt status";
    cse = "crypt status -e";
    csm = "commit -S -m";
    csu = "crypt status -u";
    d = "diff";
    dc = "diff -cached";
    ds = "diff -stat";
    ffco = "flow feature checkout";
    ffr = "flow feature rebase";
    ffs = "flow feature start";
    frf = "flow release finish";
    frfs = "flow release finish -s";
    frs = "flow release start";
    r = "reset";
    rb = "rebase";
    rba = "rebase -abort";
    rbc = "rebase -continue";
    rbi = "rebase -interactive";
    rbs = "rebase -skip";
    rest = "reset";
    rh = "reset -hard";
    sa = "stash apply";
    sk = "stash -keep-index";
    sl = "stash list";
    sp = "stash pop";
    spa = "stash -patch";
    ss = "stash save";
    st = "status -s";
    stat = "status";
    tree = "log -all -graph -oneline";
  };
}
```



```
}
```

## *GPG*

```
<config/gpg.nix 166>≡
{ config, ... }:

{

  programs.gpg = {
    enable = true;
    settings = {
      default-key = config.accounts.email.accounts.primary.gpg.key;
      keyid-format = "long";
      no-emit-version = true;
    };
  };

  services.gpg-agent = {
    enable = true;
    defaultCacheTtl = 3600;
    enableSshSupport = true;
    maxCacheTtl = 3600;
  };

}
```

## *htop*

```
<config/htop.nix 167>≡
{ ... }:

{

  programs.htop.enable = true;

}
```

## *i3*

```
<config/i3/default.nix 168>≡
{ config, lib, pkgs, ... }:

{
```

169▷

```

<config/i3/default.nix 168>+≡
    home.packages = with pkgs; [
        flameshot
        i3lock
        rofi
        rofi-pass
    ];

```

&lt;168 170&gt;

T

```

    o use i3status-rust:

gs, ... }:
```

```

me.packages = with pkgs; [
    font-awesome-ttf
    i3status-rust

```

```

ession.windowManager.i3.bars = [
{
    fonts = [ "Iosevka" "FontAwesome 12" ];
    statusCommand = "${pkgs.i3status-rust}/bin/i3status-rs ${config.xdg.configHome}/i3/status.toml";
    # colors = { ... };
}

```

```

<config/i3/default.nix 168>+≡
    services.picom.enable = true;

    xdg.configFile."i3status/config".source = ../i3status/config;

    xdg.dataFile."i3/matrix.png".source = ./matrix.png;

    xsession.enable = true;

    xsession.windowManager.i3 = {
        enable = true;
        config =
            let

```

&lt;169 171&gt;

Use Solarized Dark colors.<sup>12</sup>

`<config/i3/default.nix 168>+≡`

```

colors = rec {
  background = "#001e26"; # "#002b36";
  focused = {
    border = "#001e26"; # "#002b36";
    background = "#586e75";
    text = "#fdf6e3";
    indicator = "#268bd2";
    childBorder = ""; # "#285577";
  };
  focusedInactive = {
    border = "#001e26"; # "#002b36";
    background = "#073642";
    text = "#839496";
    indicator = "#073642";
    childBorder = ""; # "#5f676a";
  };
  unfocused = {
    border = "#001e26"; # "#002b36";
    background = "#073642";
    text = "#839496";
    indicator = "#073642";
    childBorder = ""; # "#222222";
  };
  urgent = {
    border = "#001e26"; # "#002b36";
    background = "#dc322f";
    text = "#fdf6e3";
    indicator = "#001e26"; # "#002b36";
    childBorder = ""; # "#900000";
  };
};

barColors = {
  inherit (colors) background;
  focusedWorkspace = {
    border = "#b58900";
    background = "#b58900";
    text = "#001e26"; # "#002b36";
  };
  inactiveWorkspace = {
    border = "#073642";
    background = "#001e26"; # "#002b36";
    text = "#839496";
  };
  separator = "#586e75";
  statusline = "#839496";
  urgentWorkspace = {
    border = "#dc322f";
    background = "#dc322f";
    text = "#fdf6e3";
  };
};

```

`<170 172>`

<sup>12</sup> <https://github.com/tobiaszwaszak/i3wm/blob/9c097f3/config>

```

<config/i3/default.nix 168>+≡
modifier = "Mod4";
in
{
  bars = [
    {
      fonts = [ "Iosevka Term" ];
      statusCommand = "${pkgs.i3status}/bin/i3status";
      colors = barColors;
    }
  ];
  inherit colors;
  fonts = [ "Iosevka 12" ];
  keybindings = lib.mkOptionDefault {
    "XF86MonBrightnessDown" = "exec xbacklight -dec 10";
    "XF86MonBrightnessUp" = "exec xbacklight -inc 10";
    "XF86AudioMute" = "exec -no-startup-id amixer set Master 1+ toggle";
    "XF86AudioLowerVolume" = "exec -no-startup-id amixer set Master 5%-";
    "XF86AudioRaiseVolume" = "exec -no-startup-id amixer set Master 5%+";
    "XF86AudioPrev" = "exec playerctl previous";
    # "XF86AudioPlayPause" = "exec playerctl play-pause";
    "XF86AudioPlay" = "exec playerctl play-pause";
    # "XF86AudioPause" = "exec playerctl play-pause";
    "XF86AudioNext" = "exec playerctl next";
    "${modifier}+Escape" = "
      exec i3lock -i ${config.xdg.dataHome}/i3/matrix.png
    ";
    "${modifier}+Shift+grave" = "move scratchpad";
    "${modifier}+Shift+minus" = "move scratchpad";
    "${modifier}+grave" = "scratchpad show";
    "${modifier}+minus" = "scratchpad show";
    "${modifier}+Tab" = "exec -no-startup-id rofi -show window";
    "${modifier}+d" = "
      exec -no-startup-id "rofi -combi-modi run,window,drun -show combi -modi combi"
    ";
    "${modifier}+space" = "
      exec -no-startup-id "rofi -combi-modi run,window,drun -show combi -modi combi"
    ";
    "Print" = "exec flameshot gui";
  };
  inherit modifier;
  startup = [
    {
      command = "volumeicon";
      notification = false;
    }
  ];
};
}

```

*i3status*

Use some Solarized Dark colors for good, bad, and degraded.<sup>13</sup>

<sup>13</sup> <https://github.com/tobiaszwaszak/i3wm/blob/9c097f3/i3status.conf>

```
<config/i3status/config 173>≡ 174>
general {
    colors = true
    color_good = "#859900"
    color_bad = "#dc322f"
    color_degraded = "#cb4b16"
    interval = 5
    output_format = "i3bar"
}
```

```
<config/i3status/config 173>+≡ <173 175>
order += "path_exists VPN"
```

```
path_exists VPN {
    format = "□"
    format_down = ""
    path = "/proc/sys/net/ipv4/conf/tun0"
}
```

```
order += "wireless _first_"
```

```
wireless _first_ {
    format_up = "%essid"
}
```

```
order += "load"
```

```
load {
    format = "%1min %5min %15min"
    format_above_threshold = "□ %1min %5min %15min □"
    max_threshold = 9
}
```

```
order += "battery all"
```

```
battery all {
    format = "%status %percentage %remaining"
```

Show the battery percentage without decimals.

```
<config/i3status/config 173>+≡ <174 176>
integer_battery_capacity = true
```

Use the last full capacity, instead of the design capacity. Refer to the [man page](#)<sup>14</sup> for more details.

<sup>14</sup> <https://i3wm.org/i3status/manpage.html#-battery>

```
<config/i3status/config 173>+≡ <175 177>
last_full_capacity = true
```

```

<config/i3status/config 173>+≡
    low_threshold = 10
    status_bat = ""
    status_chr = "4"
    status_full = ""
    status_unk = ""
    threshold_type = "time"
}

order += "tztime trondheim"

tztime trondheim {
    format = "%a %H:%M"
    hide_if_equals_localtime = true
    locale = "nb_NO.UTF-8"
    timezone = "Europe/Oslo"
}

order += "tztime local"

tztime local {
    format = "%a %d.%m %H:%M:%S"
}

```

*jq*

```

<config/jq.nix 178>≡
{ ... }::

{

    programs.jq.enable = true;

}

```

*<config/kitty.nix 179>*≡

```
{ pkgs, ... }:  
  
{  
  
  programs.kitty = {  
    enable = true;  
    extraConfig = "  
      include theme.conf  
    ";  
    font = {  
      name = "Iosevka Term";  
      package = (pkgs.nerdfonts.override { withFont = "Iosevka"; });  
    };  
    keybindings = {  
      "kitty_mod+enter" = "new_window-with-cwd";  
      "kitty_mod+k" = "  
        combine : clear_terminal scrollback active : send_text normal \x0c  
      ";  
    };  
    settings = {  
      editor = "emacsclient -nw -a """;  
      font_size = 24;  
      kitty_mod = "ctrl+shift";  
      scrollback_lines = -1;  
      shell = ".";  
      term = "xterm";  
    };  
  };  
  
  xdg.configFile."kitty/theme.conf".source = builtins.fetchurl {  
    url = "https://raw.githubusercontent.com/dexpota/kitty-themes/c4bee86ce8372d3426620e27086d6afa6873a98c/themes/S  
    sha256 = "0vwjcyd0asqrbs4437k2b80lqlanl79q03kk4pjnfd379jklrm4";  
  };  
  
}
```

*man*

*<config/man.nix 180>*≡

```
{ ... }:  
  
{  
  
  programs.man.enable = true;  
  
}
```

*nixpkgs*

```

<config/nixpkgs/default.nix 181>≡
{ ... }:

{

    nixpkgs.config = import ./nixpkgs-config.nix;

    xdg.configFile."nixpkgs/config.nix".source = ./nixpkgs-config.nix;

}

<config/nixpkgs/nixpkgs-config.nix 182>≡
{
    allowBroken = false;
    allowUnfree = true;
    allowUnsupportedSystem = false;
}

```

*rebar3*

```

<config/rebar3.nix 183>≡
{ ... }:

{

    xdg.configFile."rebar3/rebar.config".text = "
        {plugins, [rebar3_hex]}.
    ";

}

```

*Taskwarrior**Config*

```

<config/taskwarrior/default.nix 184>≡
{ config, lib, pkgs, ... }:

{

```

185▷



SINCE HOME-MANAGER GENERATES A READ-ONLY `.taskrc` FILE, and using `contexts`<sup>15</sup> requires Taskwarrior to be able to modify the it, use the following hacky workaround.

<sup>15</sup> <https://taskwarrior.org/docs/context.html>

Set `$TASKRC` to `~/.taskrc-dirty`, which must contain at least `include ~/.taskrc`.

```
<config/taskwarrior/default.nix 184>+≡                                <184 186>
  home.sessionVariables = {
    TASKRC = "~/.taskrc-dirty";
  };

```

DEFINE short Taskwarrior shell aliases.

```
<config/taskwarrior/default.nix 184>+≡                                <185 187>
  programs.fish.shellAliases = lib.mkIf (config.programs.fish.enable) rec {
    p = "task ls limit:page";
    pp = tbd;
    t = "task limit:page";
    ta = "task add";
    tbd = "task burndown.daily";
    te = "env VISUAL=$EDITOR task edit";
    tl = "task list";
    tm = "task mod";
  };

```

CONFIGURE TASKWARRIOR, using [home-manager](https://github.com/rycee/home-manager)<sup>16</sup>.

<sup>16</sup> <https://github.com/rycee/home-manager>

`<config/taskwarrior/default.nix 184>+≡`

`<186 188>`

```

programs.taskwarrior = {
  enable = true;
  colorTheme = "solarized-dark-256";
  config = {
    context.other = "jiraurl.none or -work";
    context.work = "jiraurl.any or +work";
    uda = {
      jiracreatedts = {
        label = "Created At";
        type = "date";
      };
      jiradescription = {
        label = "Jira Description";
        type = "string";
      };
      jiraestimate = {
        label = "Estimate";
        type = "numeric";
      };
      jirafixversion = {
        label = "Fix Version";
        type = "string";
      };
      jiraid = {
        label = "Jira Issue ID";
        type = "string";
      };
      jiraissuetype = {
        label = "Issue Type";
        type = "string";
      };
      jirastatus = {
        label = "Jira Status";
        type = "string";
      };
      jirasummary = {
        label = "Jira Summary";
        type = "string";
      };
      jiraurl = {
        label = "Jira URL";
        type = "string";
      };
    };
  };
};

```

LINK the on-exit Git hook.

ref section

```
<config/taskwarrior/default.nix 184>+≡
    xdg.dataFile."task/hooks/on-exit-git.sh" = {
        executable = true;
        source = ./on-exit-git.sh;
    };
}
```

*on-exit Git hook*

FIRST, use a fairly portable Bash shebang, and be safe.<sup>17</sup>

```
<config/taskwarrior/on-exit-git.sh 189>≡
#! /usr/bin/env bash
```

```
set -eufo pipefail
```

Run in debug mode<sup>18</sup>, if the environment variable `DEBUG` is nonempty.

<sup>17</sup> `-exit` immediately upon failure, treat `-Unset` variables as an error, disable `-file` globbing, and fail if any part of a pipeline fails (`-o pipefail`).

<sup>18</sup> i.e. echo commands

```
<config/taskwarrior/on-exit-git.sh 189>+≡
if [ -n "${DEBUG:-}" ]; then
    set -x
fi
```

PARSE the command line arguments.

Don't include the `api` version, `rc` file, or Taskwarrior version.

N.B. The positional arguments are formatted as `foo:bar`, where `foo` is the name of the argument, and `bar` is the value.

```
i="${1#api:}"
rc="${4#rc:}"
rsion="${6#version:}"
```

Parse and store the values of the arguments, `args`, `command`, and `data` directory.

```
<config/taskwarrior/on-exit-git.sh 189>+≡
args="${2#args:}"
command="${3#command:}"
data="${5#data:}"
```

THROUGHOUT THIS SCRIPT, run `git` as if it were started in the Taskwarrior `data` directory, i.e. `git -C "$data"`.

```
<config/taskwarrior/on-exit-git.sh 189>+≡
if git -C "$data" diff -quiet; then
    if [ -n "${DEBUG:-}" ]; then
        echo 'No changes to commit'
    fi
    exit 0
```

If there are no changes, `exit` successfully, printing an informative message if running in debug mode. `git diff` `exits` with status code `0` if there are no differences between the working tree and the index.

If present, stage the changes or die trying.

```
<config/taskwarrior/on-exit-git.sh 189>+≡
elif ! git -C "$data" add -A; then
    echo 'Failed to add files to the index'
    exit 100
```

Try to commit the changes, or else.

*<config/taskwarrior/on-exit-git.sh 189>+≡*

```
elif ! git -C "$data" commit -qm "$command: ${args##task $command}"; then
    echo 'Failed to record changes to the repository'
    exit 101
```

Quietly store the current contents of the index in a new commit, along with a log message describing the changes.

*<193 195>*

If running in debug mode, print a brief summary of the commit.

*<config/taskwarrior/on-exit-git.sh 189>+≡*

```
elif [ -n "${DEBUG:-}" ]; then
    git -C "$data" log -oneline -1
fi
```

*<194*

# *Glossary*

*module* “Each NixOS module is a file that handles one logical aspect of the configuration, such as a specific kind of hardware, a service, or network settings.”<sup>19</sup> [6](#)

<sup>19</sup> <https://nixos.org/nixos/manual/index.html#sec-writing-modules>



# *Acronyms*

*LUKS* Linux Unified Key Setup [6](#)





## *Bibliography*

abbr - manage fish abbreviations. URL <https://fishshell.com/docs/current/cmds/abbr.html>.

Andrew Gallant. rg - man page. URL <https://www.mankier.com/1/rg>.

Rafael J. Wysocki. CPU Performance Scaling – The Linux Kernel documentation. URL <https://www.kernel.org/doc/html/v4.19/admin-guide/pm/cpufreq.html#cpu-performance-scaling-in-linux>.



## *To-Do*

■ Describe the location module . . . . .	6
■ btrfs clean boot? . . . . .	7
■ Configure Vim . . . . .	10
■ Add Nerd Fonts link . . . . .	13
■ Add Iosevka link . . . . .	13
■ Dig through <a href="https://github.com/mathiasbynens/dotfiles/blob/master/.macos">https://github.com/mathiasbynens/dotfiles/ blob/master/.macos</a> . . . . .	22
■ ref section . . . . .	59