

home-manager

Capitole du Libre 2023

2023-11-18

Guilhem Saurel

Disponible à

[https://homepages.laas.fr/gsaurel/talks/
home-manager.pdf](https://homepages.laas.fr/gsaurel/talks/home-manager.pdf)

Source

[https://gitlab.laas.fr/gsaurel/talks :
home-manager.md](https://gitlab.laas.fr/gsaurel/talks :
home-manager.md)

Sous license



<https://creativecommons.org/licenses/by-sa/4.0/>

Nix (gestionnaire de paquets)

Utilisons un paquet !

```
/nix/store/7jxy9m61jh5br3kcc1vmix5lqyyixln2-vlc-3.0.  
└─ bin/  
    ├─ [...]  
    └─ vlc  
        └─ vlc-wrapper  
└─ include/  
    └─ vlc/  
        ├─ deprecated.h  
        └─ libvlc.h  
[...]  
└─ lib/  
    ├─ libvlc.so ⇒ libvlc.so.5.6.1  
    └─ libvlc.so.5.6.1  
[...]
```

Nix (langage)

- domain-specific
- declarative
- pure
- functional

- domain-specific
- declarative
- pure
- functional

to launch bash commands

Nixpkgs

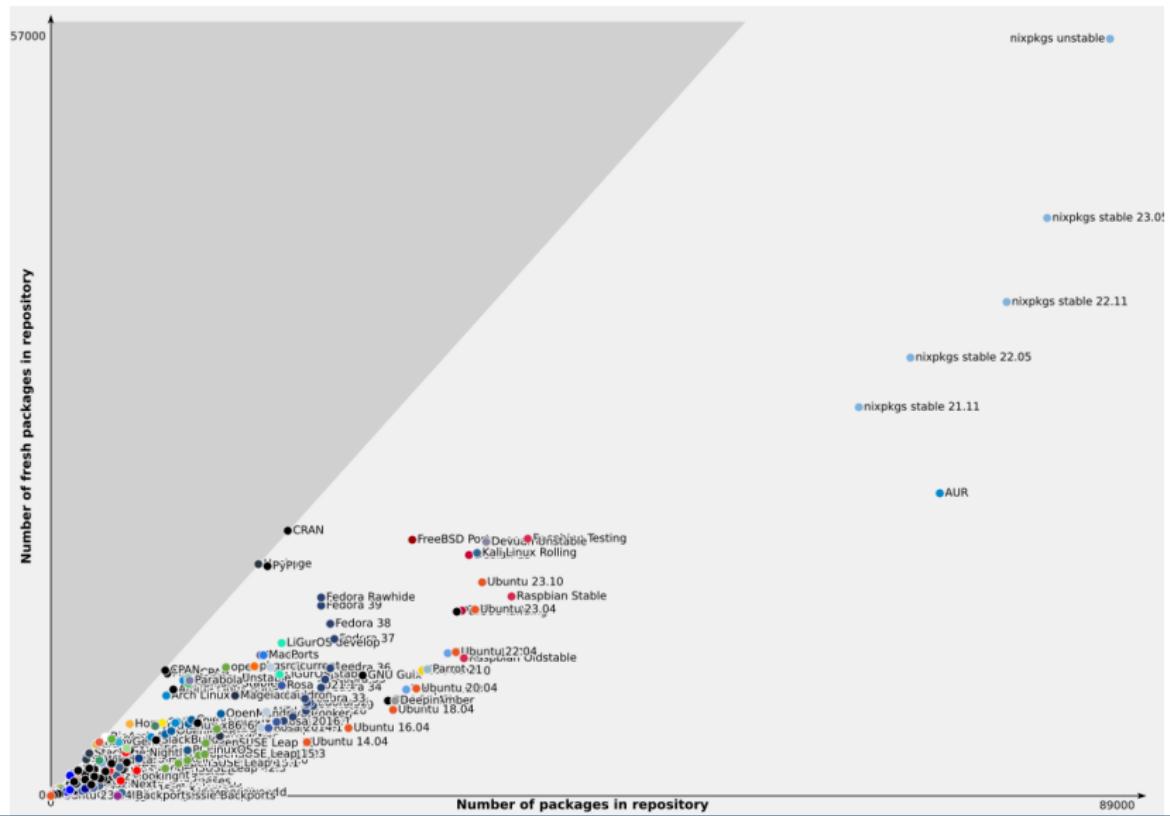
Un dépôt git

<https://github.com/NixOS/nixpkgs/>

Un dépôt git

[https://github.com/NixOS/nixpkgs/](https://github.com/NixOS/nixpkgs)

avec 88 678 projets



```
--- pkgs/development/python-modules/eigenpy/default.  
+++ pkgs/development/python-modules/eigenpy/default.  
@@ -10,14 +10,14 @@  
    stdenv.mkDerivation (finalAttrs: {  
        pname = "eigenpy";  
-      version = "3.1.2";  
+      version = "3.1.3";  
  
        src = fetchFromGitHub {  
            owner = "stack-of-tasks";  
            repo = finalAttrs.pname;  
            rev = "v${finalAttrs.version}";  
            fetchSubmodules = true;  
-          hash = "sha256-U2EXh6Foz/TH+vSrimrn2hDPTA++GLFL";  
+          hash = "sha256-8UuJA96pkXXRKDzQTjoz7w8TQrS5+nfL";  
        };  
    };  
Nixpkgs
```

NixOS

```
{ config, pkgs, ... }: {
  imports = [ ./hardware-configuration.nix ];
  environment.systemPackages = [
    pkgs.firefox
    pkgs.git
    pkgs.vim
    pkgs.wget
  ];
  networking.hostName = "exampleos";
  networking.networkmanager.enable = true;
  time.timeZone = "Europe/Paris";
  sound.enable = true;
  users.users.nim = {
    shell = pkgs.fish;
    isNormalUser = true;
    description = "Guilhem Saurel";
  };
}
```

```
$ file /bin/sh
/bin/sh: symbolic link to /nix/store/kxkdrxvc3da2d...
  -bash-interactive-5.2-p15/bin/bash
$ file /usr/bin/env
/usr/bin/env: symbolic link to /nix/store/j4fwy5gi...
  -coreutils-9.1/bin/env
$ file /etc/passwd
/etc/passwd: symbolic link to /nix/store/6ilgn50da...
  -base-system/etc/passwd
```

Avantages

- fully declarative

- fully declarative
- atomic upgrades

- fully declarative
- atomic upgrades
- rollbacks

- fully declarative
- atomic upgrades
- rollbacks
- community

- ça change

- ça change
- le wiki pas aussi bon qu'Arch

Home manager

Un dépôt git

<https://github.com/nix-community/home-manager>

```
{ config, pkgs, ... }:
{
  home.packages = [
    pkgs.htop
    pkgs.fortune
  ];
  programs.vim = {
    enable = true;
    defaultEditor = true;
    plugins = [ pkgs.vimPlugins.ale ];
    settings.tabstop = 8;
  };
}
```

```
{ config, pkgs, ... }:
{
  home.file = {
    ".config/dfc/dfcrc".source = ../dfc/dfcrc;
    ".xinitrc".text = "exec i3";
  };

  home.sessionVariables = {
    SHELL = "${pkgs.fish}/bin/fish";
  };
}
```

Environnement de développement

```
{ pkgs ? import <nixpkgs> {} }:  
pkgs.mkShell {  
    nativeBuildInputs = [  
        pkgs.rustc  
        pkgs.cargo  
        pkgs.gcc  
        pkgs.rustfmt  
        pkgs.clippy  
    ];  
}
```

Puis

```
$ nix-shell
```

Questions ?

Merci de votre attention !