

Capitole du Libre 2023

2023-11-18

Guilhem Saurel

## Disponible à

[https://homepages.laas.fr/gsaurel/  
home-manager.pdf](https://homepages.laas.fr/gsaurel/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-3.0.20`

```

├─ 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

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

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

avec 88 678 projets



```
--- pkgs/development/python-modules/eigenpy/default.nix
+++ pkgs/development/python-modules/eigenpy/default.nix
@@ -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++GLFLI";
+    hash = "sha256-8UuJA96pkXXRKDzQTjjoz7w8TQrS5+nfl";
   };
```

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
```

- 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

<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
```

Merci de votre attention !