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## 1 nix- (nix original command)

```
$nix-env -list-generations  $nix-env -G 42 or $nix-env --switch-generation 42
$nix-env --rollback
$nix-env -e firefox        $nix-env -e '.*'
$nix-store --delete        $nix-store --gc
$nix-collect-garbage -d
```

## 2 nix (nix command improved)

```
$nix-env nix profile
```

```

$nix-env -iA firefox      $nix profile install firefox    $nix profile install nixpkgs#hello
$nix-env -e firefox      $nix profile remove firefox
$nix-env -q              $nix profile list
$nix-env --list-generations $nix profile history
$nix-env --rollback      $nix profile rollback
$nix-env -qa
$nix-env -qaPs

```

```

$nix profile install  $nix profile remove  $nix profile rollback
$nix profile list     $nix profile history

```

```

nix-env App profile manifest.nix , nix profile App manifest.json . nix
profile App profile nix-env .

```

```

$nix-store -q --tree 'realpath ./result/bin/S4
$nix-store -q --referrers-closure 'realpath ./result/bin/S4

```

### 3 nixos

```

$nixos-rebuild switch --rollbackflake.nix >flake.nix
$sudo nixos-rebuild switch --flake .#syryuhds --impure

```

### 4 flake

```

[flake.nix ]$nix build      nix build github:syryuauros/myflakes/masterflake.nix >flake.nix
$nix run                    nix run github:syryuauros/myflakes/master
$ nix run nixpkgs#gnuplot

```

```

$realpath ./result/bin/S4  $nix-store -q --tree 'realpath ./result/bin/S4'

```

```

$nix flake metadata github:edolstra/dwarffs

```

```

$nix flake show github:edolstra/dwarffs

```

```

$nix-store -q --referrers-closure 'realpath ./result/bin/S4

```

```

$ nix registry add nixpkgs github:NixOS/nixpkgs/5272327b81ed355bbed5659b8d303cf2979b6953

```

```

$nix-info -m

```

“https://github.com/<owner>/<project>/commit/<hash>”

example

https://github.com/nixos/nixpkgs/commit/ede02b4ccb13557b95058d66146640a2b0bb198f

\$nix build (default package )    \$nix build .#s4 .#gnuplot (default package package .)

#### 4.1 flake override

ex) (openblas.override { singleThreaded = true; })

or let openblas-single-thread = openblas.override { singleThreaded = true; };

## 5 nix-shell

nix-shell -p 'lua.withPackages(ps: with ps; [ busted luafilesystem ])'

## 6 nixpkgs

### 6.1 confirm packages for nix-build, nix-instantiate, nix-channel

```
1 $nixrepl [Ret] nix-repl>:l <nixpkgs> [Ret] nix-repl>keyword(ex:rust) + TAB
2 /nix/var/nix/profiles/per-user/root/channels/nixos/pkgs/top-level/all-packages.nix
3 $cd 'nix-instantiate -eval -E '<nixpkgs>'' [Ret] cat > all-packages.nix
4 $NIX_PATH,    all-packages.nix
```

### 6.2 confirm packages for nix-env

```
1 $nix-env -qa 'keyword.*' or $nix-env -qaPs 'keyword'
2 $cd ~/.nix-defexpr/channels_root/nixos/pkgs/top-level, all-packages.nix
```

### 6.3 confirm packages for flakes

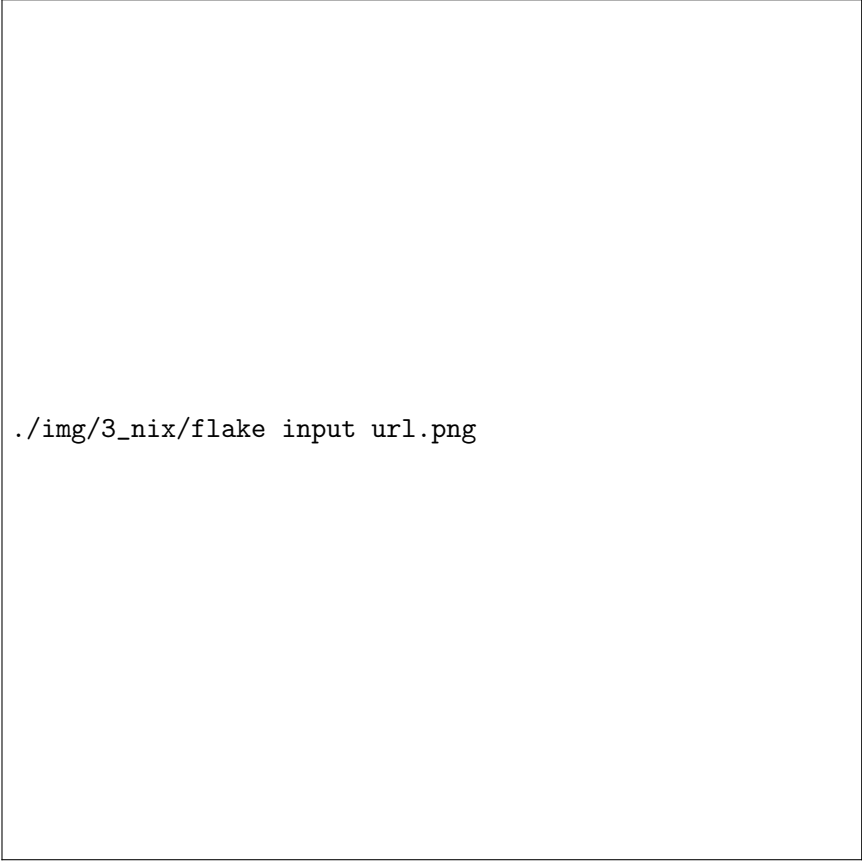
```
1 flake.lock  » “nixpkgs” “rev” term  » github.com/[owner]/[repo]/tree/[rev]
```

## 7 nix repl

### 7.1 nix-repl>

```
:help  
TAB  
:doc keyword
```

## 8 pictures



```
./img/3_nix/flake input url.png
```

```
./img/3_nix/real_repo_flake_indicate.png
```

```
./img/3_nix/real repo flake indicate_2.png
```


```
./img/3_nix/real repo flake indicate_3.png
```

```
./img/3_nix/repo find from flake.lock.png
```




```
./img/3_nix/repo find from flake.lock2.png
```

```
./img/3_nix/repo find from flake.lock3.png
```



`./img/3_nix/how to find packages_1.png`



`./img/3_nix/how to find packages_2.png`