

Towards reproducibility: pinning Nixpkgs

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In various Nix examples, you'll often see the following:

```
1 { pkgs ? import <nixpkgs> {} }:  
2  
3 ...
```

Note

`<nixpkgs>` points to the file system path of some revision of [Nixpkgs](#). Find more information on [lookup paths](#) in [Nix language basics](#).

This is a **convenient** way to quickly demonstrate a Nix expression and get it working by importing Nix packages.

However, **the resulting Nix expression is not fully reproducible**.

Pinning packages with URLs inside a Nix expression

To create **fully reproducible** Nix expressions, we can pin an exact version of Nixpkgs.

The simplest way to do this is to fetch the required Nixpkgs version as a tarball specified via the relevant Git commit hash:

```
1 { pkgs ? import /dev/null { url = "https://github.com/NixOS/nixpkgs/archive/6c370-771"; } }:
```

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```
3  
4 ...
```

Picking the commit can be done via status.nixos.org, which lists all the releases and the latest commit that has passed all tests

When choosing a commit, it is recommended to follow either

- the **latest stable NixOS** release by using a specific version, such as `nixos-21.05`, or
- the latest **unstable release** via `nixos-unstable`.

Next steps

- For more examples and details of the different ways to pin `nixpkgs`, see [Pinning Nixpkgs](#).
- [Automatically managing remote sources with npins](#)