

GUIXSD

Introduction

- GuixSD is a **Free Software Foundation** approved Linux Distribution that uses the GNU Guix package manager.
- It also uses the **Linux-libre** kernel
- It supports **GNU Hurd** as an alternative to the Linux kernel although Hurd is still under heavy development
- The Guix package manager is based on the Nix package manager which also has a distribution called NixOS

Why is GuixSD a "Wierd-ass" distro?

- It has "**Derivations**" (build spec or sequence of build actions to be performed by the worker deamon to then build the package...)
- Package manifests are written in "Scheme" or "GNU Guile"? I guess they are the same thing...
- There is no installer
- There is no ISO, just a USB image
- GuixSD doesn't use systemd or init, it uses "GNU Daemon Shepherd" (dmd) for its service manager
- It is already implementing a **Hurd** port but the Linux port is still in beta...
- It seems to be infatuated with making the "GNU System" an actual operating system...

Why is GuixSD awesome

Guix is called a "functional" package manager (similar to Nix), which apparently means:

- the package build and installation process is seen as a "mathmatical" function
- That function takes inputs, such as build scripts, a compiler, and libraries, and returns an installed package
- It cannot alter the environment of the running system in any way.
- This is achieved by running build processes in isolated environments (or containers)

Guix package manager features

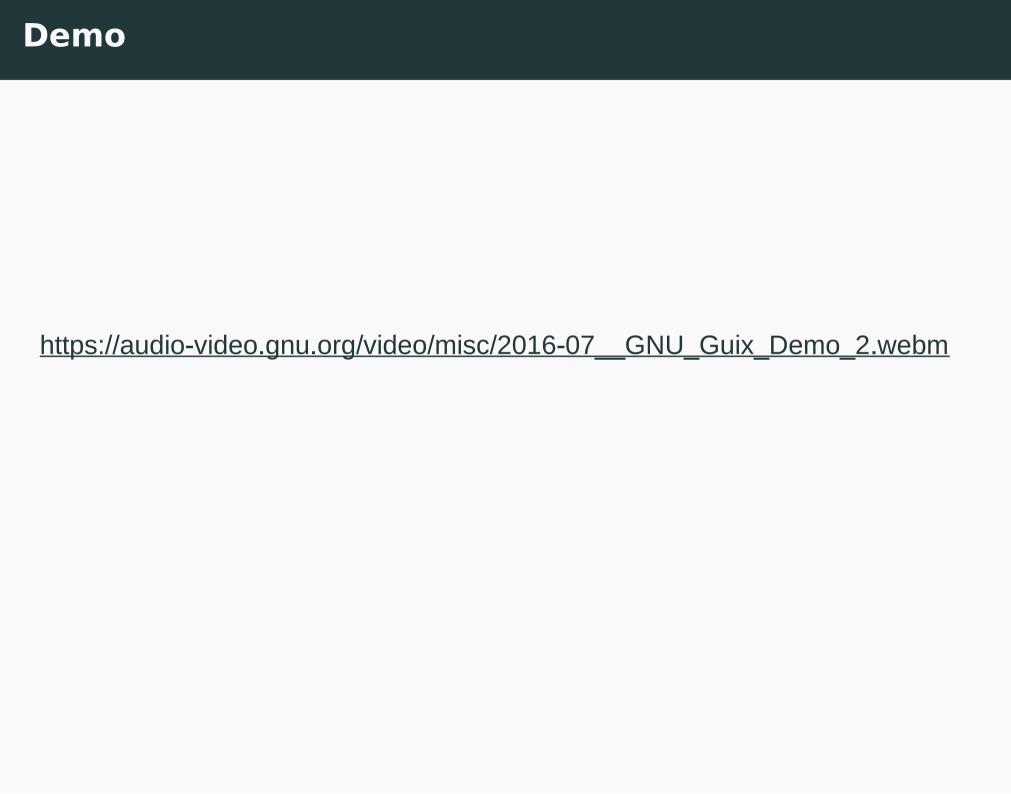
- reproducible builds
- transactional (Atomic) package upgrade and rollback
- per-user installation
- garbage collection (package cleanup)

Unprivileged package management (no root privileges needed!)

- Each user may install software without conflicting with otherusers or the system
- Each user may have many "profiles"
- The guix environment tool can be used to quickly create development environments.
- Like Python virtualenv, but for anything.



Link to Very fucking annoying video



References

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