
Living in toolbox containers

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What is a Toolbox container?

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with access to home dir, desktop and system resources of your host system

Container Toolboxes

4 fundamental questions:

- Why?
- How?
- What?
- Who?

Why Toolboxes

Why use Toolboxes?

- system package isolation
- “immutable” ostree-based OS
- use a newer/older OS version or different Linux distro
 - use different versions of apps, tools, toolchains, etc
- lightweight and resource saving/sharing

How Toolboxes



podman

How do Toolboxes work?

- standard (rootless, privileged) user containers
 - use namespaces and bind mounts to make host system resources available
 - usually two step process: create and enter (or run) toolbox
- (This topic would make an interesting deep dive.)

What Toolboxes

Toolbox projects

currently 2 major projects supporting graphical desktop users:

- Toolbx
- Distrobox

<https://github.com/containers/toolbox>



T O O L B O X

Toolbx

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- Available as:
 - toolbox in Fedora, RHEL, Arch
 - podman-toolbox in Debian & Ubuntu
- <https://containertoolbx.org/>

(repology.org)

Toolbx images

Toolbox needs custom toolbox container images:

- `registry.fedoraproject.org/fedora-toolbox:{36,37,38,39}`
- `registry.access.redhat.com/ubi{8,9}/toolbox`

Others in <https://github.com/toolbx-images/images> (created in 2022)

- <https://quay.io/organization/toolbx-images>
- has images for:

alpine, almalinux, amazonlinux, archlinux, centos, debian, rockylinux,
opensuse, rhel, ubuntu

Toolbox demo

Distrobox



Distrobox

<https://github.com/89luca89/distrobox/>

community project created by Luca Di Maio in 2021

- collection of shell script commands: `distrobox-*`
- supports Podman and Docker
- <https://github.com/89luca89/distrobox/blob/main/docs/compatibility.md>

(repology.org)

Distrobox demo

- `create --home`
- `--dry-run`
- `export --app` to add .desktop file to host desktop
- `ephemeral`

Who Toolboxes

Who Toolboxes

- developers
- testers
- power users
- system troubleshooting

Thanks!

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Slides: <https://github.com/juhp/presentations/tree/master/fossasia2023-toolboxes/> (written in Typst)