binpash / **try** Public

"Do, or do not. There is no try." We're setting out to change that.

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mgree Merge pull request #47 from binpash/add-licence-and-issue-badges ··· 34 minutes ago **135**

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README.md

try

"Do, or do not. There is no try."

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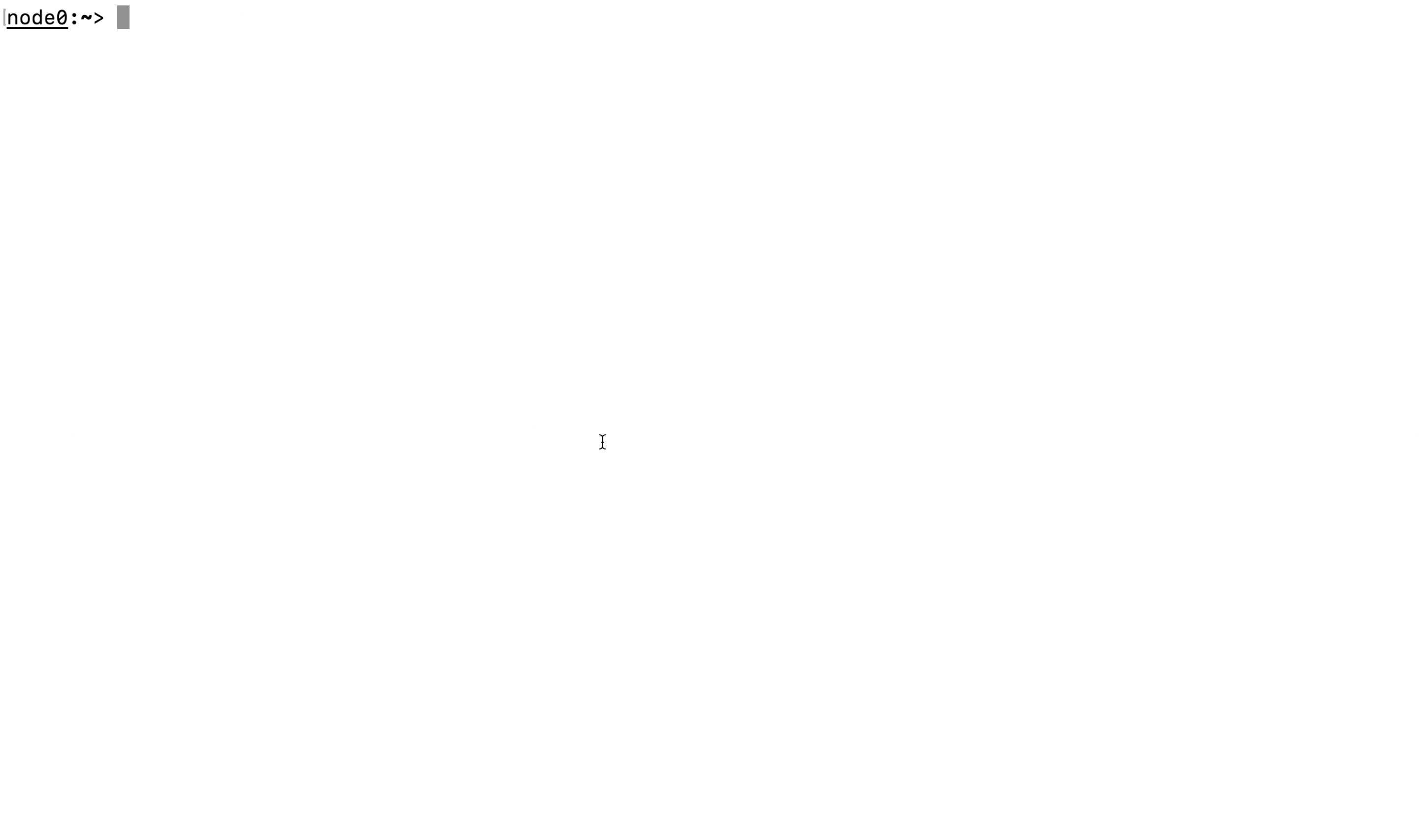
Description

LocalTests passing License MIT issues 16 open

`try` lets you run a command and inspect its effects before changing your live system. `try` uses Linux's namespaces (via `unshare`) and the overlayfs union filesystem.

Please note that `try` is a prototype and not a full sandbox, and should not be used to execute commands that you don't already trust on your system, (i.e. devices in `/dev` are mounted in the sandbox, and network calls are all allowed.) Please do not attempt any commands that will remove everything in /dev or write zeros to your disks.



```
node0:~> 
```

Getting Started

Dependencies

Has been tested on the following distributions:

- `Ubuntu 20.04 LTS` or later
- `Debian 12`
- `Centos 9 Stream 5.14.0-325.el9`
- `Arch 6.1.33-1-lts`
- `Alpine 6.1.34-1-lts`
- `Rocky 9 5.14.0-284.11.1.el9_2`

Installing

You only need the `try` script, which you can download by cloning this repository:

```
$ git clone https://github.com/binpash/try.git
```

Example Usage

`try` is a higher-order command, like `xargs`, `exec`, `nohup`, or `find`. For example, to install a package via `pip3`, you can invoke `try` as follows:

```
$ try pip3 install libdash
... # output continued below
```

By default, *try* will ask you to commit the changes made at the end of its execution.

```
...
Defaulting to user installation because normal site-packages is not writeable
Collecting libdash
  Downloading libdash-0.3.1-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl
     ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━ 254.6/254.6 KB 2.1 MB/s eta 0:00:00
Installing collected packages: libdash
Successfully installed libdash-0.3.1
WARNING: Running pip as the 'root' user can result in broken permissions and conflicti

Changes detected in the following files:

/tmp/tmp.zHCkY9jtIT/upperdir/home/gliargovas/.local/lib/python3.10/site-packages/libda
/tmp/tmp.zHCkY9jtIT/upperdir/home/gliargovas/.local/lib/python3.10/site-packages/libda
/tmp/tmp.zHCkY9jtIT/upperdir/home/gliargovas/.local/lib/python3.10/site-packages/libda
/tmp/tmp.zHCkY9jtIT/upperdir/home/gliargovas/.local/lib/python3.10/site-packages/libda
/tmp/tmp.zHCkY9jtIT/upperdir/home/gliargovas/.local/lib/python3.10/site-packages/libda
<snip>

Commit these changes? [y/N] y
```

Sometimes, you might want to pre-execute a command and commit its result at a later time. Invoking *try* with the -n flag will return the overlay directory, without committing the result.

```
$ try -n "curl https://sh.rustup.rs | sh"
/tmp/tmp.uCThKq7LBK
```

Alternatively, you can specify your own overlay directory as follows (note that you'll have to create the sandbox directory first)

```
$ try -D rustup-sandbox "curl https://sh.rustup.rs | sh"
$ ls rustup-sandbox
temproot  upperdir  workdir
```

As you can see from the output above, *try* has created an overlay environment in the *rustup-sandbox* directory.

Manually inspecting upperdir reveals the changes to the files made inside the overlay during the execution of the previous command with *try*:

```
~/try/rustup-sandbox/upperdir$ du -hs .
1.2G    .
```

You can inspect the changes made inside a given overlay directory using *try*:

```
$ try summary rustup-sandbox/ | head

Changes detected in the following files:

rustup-sandbox//upperdir/home/ubuntu/.profile (modified/added)
rustup-sandbox//upperdir/home/ubuntu/.bashrc (modified/added)
rustup-sandbox//upperdir/home/ubuntu/.rustup/update-hashes/stable-x86_64-unknown-linux
rustup-sandbox//upperdir/home/ubuntu/.rustup/settings.toml (modified/added)
rustup-sandbox//upperdir/home/ubuntu/.rustup/toolchains/stable-x86_64-unknown-linux-gn
rustup-sandbox//upperdir/home/ubuntu/.rustup/toolchains/stable-x86_64-unknown-linux-gn
rustup-sandbox//upperdir/home/ubuntu/.rustup/toolchains/stable-x86_64-unknown-linux-gn
```

You can also choose to commit the overlay directory contents:

```
$ try commit rustup-sandbox
```

Known Issues

Any command that interacts with other users/groups will fail since only the current user's UID/GID are mapped. However, the future branch has support for uid/mapping, please refer to the that branch's readme for installation instructions for the uid/gidmapper.

Please also report any issue you run into while using the future branch!

Version History

- 0.1.0
  - Initial Release

License

Releases

No releases published

Packages

No packages published

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Languages

● **Shell** 100.0%