Code Yarns – How to manage dotfiles using stow

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Code Yarns 🖥️ Tech Blog❖Personal Blog
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Problem

Configuration and settings of my shell, Vim editor and of lots of other applications are stored as **dotfiles**. These dotfiles need to be located at my home directory (`~/.bashrc` for example) or at certain subdirectories inside it (`~/.config/fish/functions/fish_prompt.fish` for example). How do I update, replicate and manage all these dotfiles across multiple computers easily?

Solution

A good solution to replicate and update these dotfiles across multiple computers is to check in all of them into a **single Git repository**. This allows me to clone the repo on any computer and update changes from one computer to all other computers.

Since we are managing dotfiles that will end up being at the home directory and its subdirectories, the Git repo would need to be the home directory itself -- but this is a terrible solution!

What I would like is to have a Git repo that I can place anywhere I want. It would contain dotfiles in subdirectories inside the Git repo just as if they were in the home directory. What I would then need is a simple tool or script to copy or symlink these dotfiles to the actual locations in the home directory.

And this is exactly what the tool **stow** does. It can be installed easily:

```
\$ sudo apt install stow
```

Not only can stow do the above, it can do one better -- it allows me to store the dotfiles of each tool into its own subdirectory. This makes managing dotfiles far more easier.

For example, I can store the Fish shell prompt file at `~/some/path/git_dotfiles/fish_dotfiles/.config/fish/functions/fish_prompt.fish`. And then I can ask stow to create a symlink at `~/.config/fish/functions/fish_prompt.fish` pointing to this file by running a command at the root of the Git repo directory: `stow --restow -v -t $HOME fish_dotfiles`.

So what I have ended up having is dotfiles for each of my tools in their own subdirectories in the Git repo and then I run one command to create symlinks of their dotfiles in the home directory:

```
\$ stow \--restow -v -t \$HOME bash\_dotfiles fish\_dotfiles
ssh\_dotfiles vim\_dotfiles
```

Tried with: stow 2.2.2 and Ubuntu 18.04

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