

# Let's 'Git' started: An introduction to version control

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# Welcome to our Code As Manuscript workshop!!

## Purpose:

To teach a *few* tips and tricks for:

- Efficiently managing your data and code
- Keeping a history of what you did, when, and why
- Becoming more productive at generating results from your analyses

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## Significance:

Topics we cover will help you:

- Get more comfortable with your data
- Reduce the chance for errors
- Give you control over your work
- Make your analysis more reproducible

## Notes and help during this workshop

Go to this website:

<https://etherpad.mozilla.org/codeasmanuscript>

## Version control

# Version control



Figure 1:

## What is version control<sup>1</sup> (VC)

- Keeps history of all changes done to files in a folder
- Like a big track changes
- Like your experiment logbook/journal (basic science)
- Can revert to previous change
- Don't have to worry about losing what you wrote!

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## Importance of VC!

- Future of journals and retractions
- Requests for data and code
- Transparency, scientific rigor
- Protect against accusations of fraud

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## Visualization of VC<sup>2</sup>

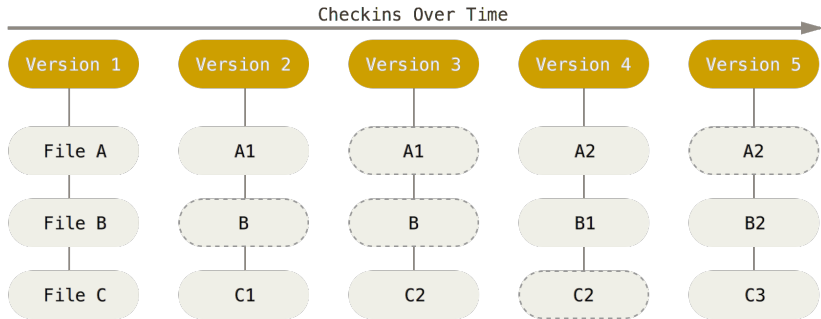


Figure 2:

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<sup>2</sup>Taken from the Git site ([click here](#))

## Slight tangent: Filenaming rules

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- ① Keep names short, meaningful. Remove “the”, “and”, “a”, etc.
- ② Don’t include spaces.
- ③ Use hyphens to separate important parts of the filename.
- ④ Avoid redundancy in file names and folder names (e.g. `folderName/fileName-folderName.txt`, instead use `folderName/fileName.txt`).
- ⑤ If a number is included, such as for the version number, use two digits not one (e.g. `V01`, not `V1`).
- ⑥ When including a date, include it at the end of the filename and in the international standard format `YYYY-MM-DD`.

**Before getting into Git, any questions?**

## Using Git

Before we start... The command line is **not** something to be afraid of!!

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```
git config --global user.name "Your Name"
git config --global user.email "you@some.domain"
git config --global color.ui "auto"
git config --global core.editor "your_editor"
git config --global push.default current
git config --list
```