



# Getting Started with GitHub and GitHub Pages



DASH Workshop Series

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McMaster University sits on the traditional Territories of the Mississauga and Haudenosaunee Nations, and

*McMaster University sits on the Territories of the Mississauga and Haudenosaunee Nations, and within the lands protected by the “Dish With One Spoon” wampum agreement.*

# Session Recording and Privacy

*The **Introduction to the session** is being recorded with the intention of being shared publicly via the web for future audiences.*

*In respect of your privacy, participant lists will not be shared outside of this session, nor will question or chat transcripts.*

*Questions asked via the chat box will be read by the facilitator without identifying you. Note that you may be identifiable when asking a question during the session in an audio or visual format.*

# Code of Conduct

*The DASH program and the McMaster University Library are committed to fostering a supportive and inclusive environment for its presenters and participants.*

*As a participant in this session, you agree to support and help cultivate an experience that is collaborative, respectful, and inclusive, as well as free of harassment, discrimination, and oppression. We reserve the right to remove participants who exhibit harassing, malicious, or persistently disruptive behaviour.*

*Please refer to our code of conduct webpage for more information:*

[scds.ca/events/code-of-conduct/](https://scds.ca/events/code-of-conduct/)

# Learning Objectives

**By the end of this workshop, you will be able to:**

- Create a GitHub repository (from scratch and by cloning/forking an existing one)
- Create, edit, and manage versions of files in a GitHub repository
- Describe the basics of versioning and versioning software; communicate their value
- Explain the differences between git and GitHub, and detail how they work together
- Use GitHub Desktop and git to sync files between your desktop/laptop and GitHub
- Use Markdown to format text in a simple yet effective manner
- Use GitHub Pages to create simple static web pages using jekyll
- Identify where you can find more information to experiment and learn on your own

# What you need to know

*Version Control*

*git*

*GitHub*

*Markdown*

*GitHub Desktop*

*GitHub Pages*

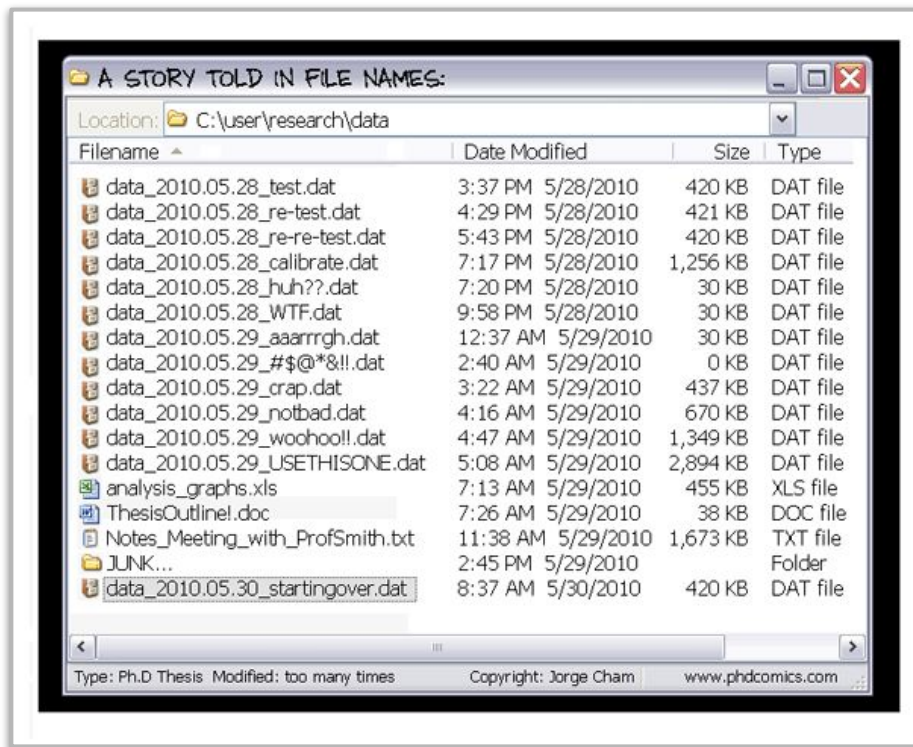


# DIY version control = bad

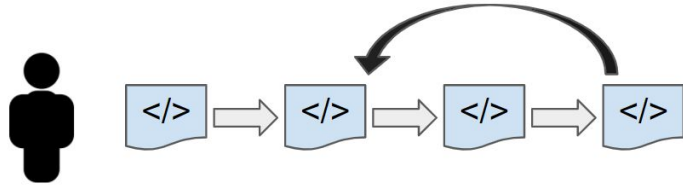
Image credit: [PhDComics](#) | Image © jorge cham

You can track versions manually!  
BUT, it's prone to errors:

- Writing to the wrong file/folder
- Overwritten files
- Misnamed (or poorly named) files
- “I just keep forgetting to do it”
- “Which old version is the correct one?”

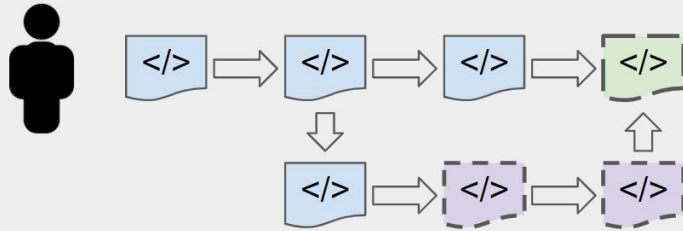


# Version control systems allow you to...



Manage versions of files

Revert to previous ones, if necessary

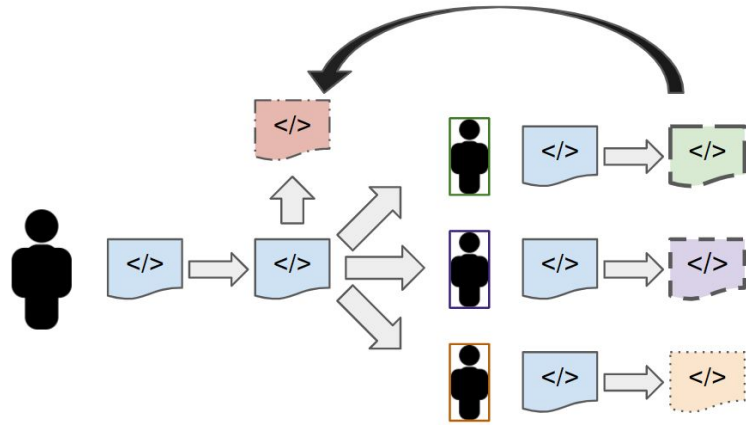


Create 'branches' to develop/test new versions without breaking what already exists

Merge changes back to the main branch when ready



*And if that version control system is web-based,  
you can also ...*



Disseminate & share your files

Enable others to modify / contribute to your work

Manage contributions; decide what gets merged

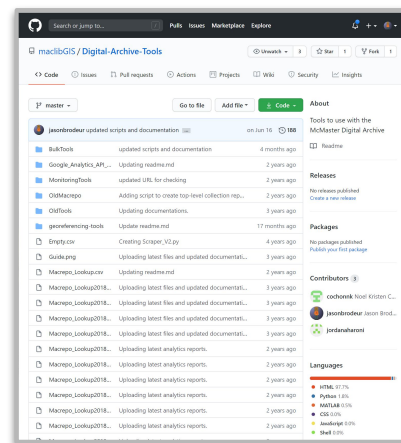
Merge changes & control development

**git** is a free and open source **distributed version control system** to handle everything from small to very large projects with speed and efficiency.



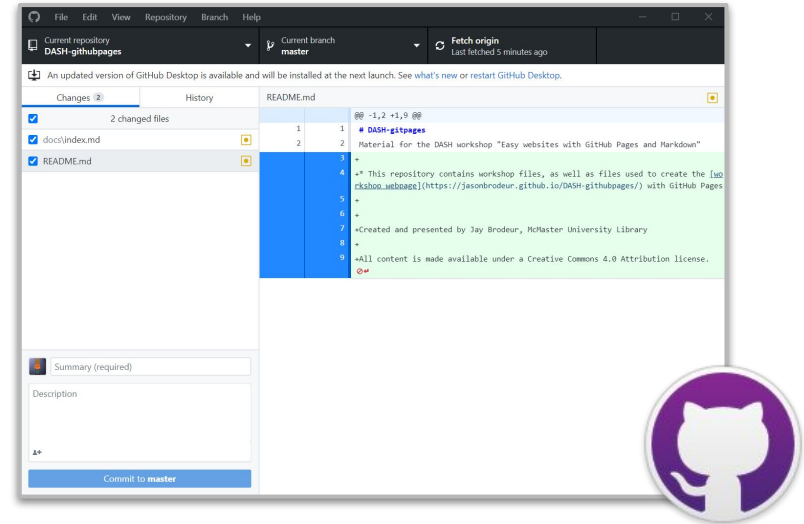
```
MINGW64~/c:/Local/Digital-Archive-Tools
brodeuij@LT-10146-L MINGW64 /c:/Local/Digital-Archive-Tools (master)
$ git pull origin master
From https://github.com/maclibGIS/Digital-Archive-Tools
* branch      master       -> FETCH_HEAD
Updating cda4736..2d39cba
Fast-forward
 BulkTools/DA_bulk_downloader.asv      | 107 ++++++
 BulkTools/DA_bulk_downloader.m        | 31 +
 BulkTools/DA_dc_to_csv.m              | 140 ++++++
 BulkTools/DA_georef_prep.m            | 64 ++++++
 BulkTools/DA_list_map_collections.asv | 122 ++++++
 BulkTools/old_DA_bulk_downloader.m    | 107 ++++++
 BulkTools/omeka-import-instructions.md | 8 ++
 BulkTools/run_DA_bulk_downloader.m     | 47 ++++++
 BulkTools/run_DA_dc_to_csv.m          | 2 +
 9 files changed, 471 insertions(+), 157 deletions(-)
 create mode 100644 BulkTools/DA_bulk_downloader.asv
 create mode 100644 BulkTools/DA_dc_to_csv.m
 create mode 100644 BulkTools/DA_georef_prep.m
 delete mode 100644 BulkTools/DA_list_map_collections.asv
 create mode 100644 BulkTools/old_DA_bulk_downloader.m
 create mode 100644 BulkTools/omeka-import-instructions.md
 create mode 100644 BulkTools/run_DA_dc_to_csv.m
brodeuij@LT-10146-L MINGW64 /c:/Local/Digital-Archive-Tools (master)
$
```

**GitHub** is a web-based hosting service for version control using git. It offers all of the distributed version control and source code management functionality of git as well as additional features.



**GitHub Desktop** is a desktop application for local version control and interaction with GitHub using a GUI.

(it does the work of git without the command-line stuff)



# Why use distributed version control?

**Distributed version control software allows you (and your collaborators) to:**

- Track, compare, and revert changes
- Enable and manage collaborative development
- Share open materials and gather feedback
- Backup your work to an external repository

**Use it to manage:**

- Software / code — e.g. Openrefine: <https://github.com/OpenRefine/OpenRefine>
- Data — e.g. OpenIndexMaps: <https://github.com/OpenIndexMaps>
- Books — e.g. Git from the Bottom Up: <https://github.com/jwiegleit/git-from-the-bottom-up>
- Websites — e.g. This workshop's website: <https://scds.github.io/github-pages/>

# Markdown in GitHub



- A very lightweight markup language used by GitHub (and Reddit, and Trello)
- Improves formatting while leaving the plain document readable.
- Mostly just regular text with a few non-alphabetic characters thrown in

```
1  # This is a heading
2  I am making these words bold
3
4  Here is a list
5  * Of things
6  * And stuff
```

Markdown



## This is a heading

I am making **these words** bold

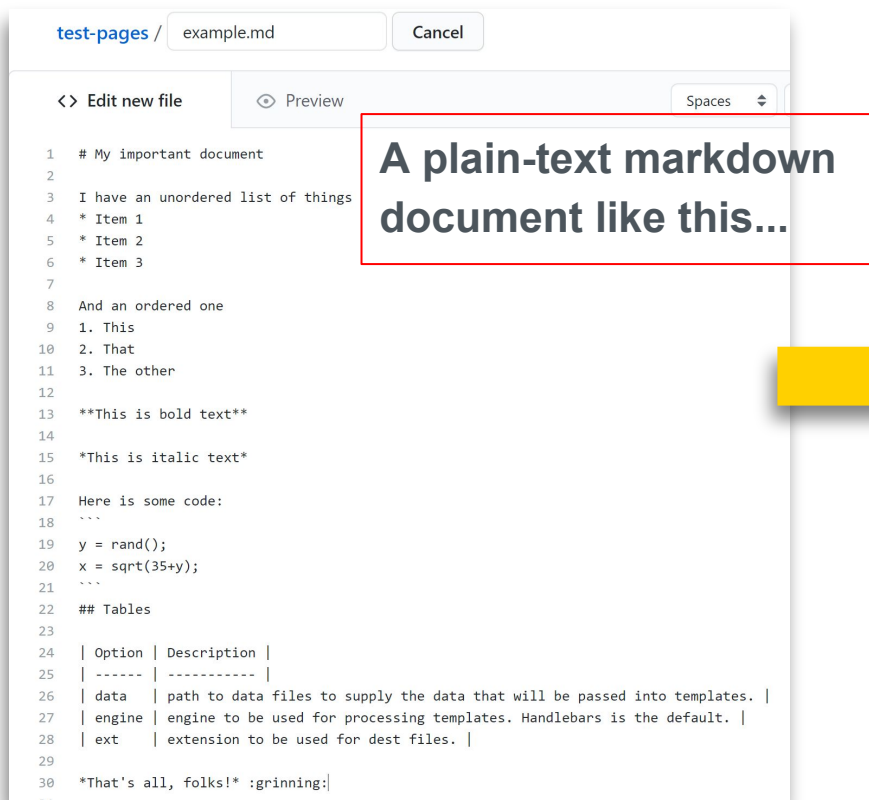
Here is a list

- Of things
- And stuff

Rendered text

Learn more: <https://guides.github.com/features/mastering-markdown/>

# Markdown

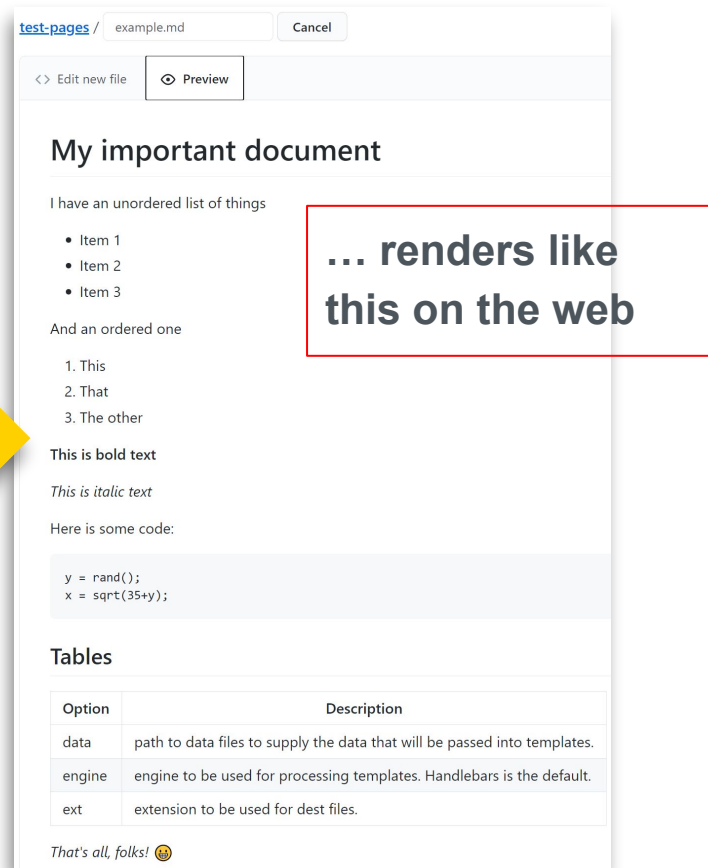


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<> Edit new file Preview Spaces

```
1 # My important document
2
3 I have an unordered list of things
4 * Item 1
5 * Item 2
6 * Item 3
7
8 And an ordered one
9 1. This
10 2. That
11 3. The other
12
13 **This is bold text**
14
15 *This is italic text*
16
17 Here is some code:
18 ```
19 y = rand();
20 x = sqrt(35+y);
21 ```
22 ## Tables
23
24 | Option | Description |
25 | ----- | ----- |
26 | data | path to data files to supply the data that will be passed into templates. |
27 | engine | engine to be used for processing templates. Handlebars is the default. |
28 | ext | extension to be used for dest files. |
29
30 *That's all, folks!* :grinning:
```

A plain-text markdown document like this...



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<> Edit new file Preview

## My important document

I have an unordered list of things

- Item 1
- Item 2
- Item 3

And an ordered one

1. This
2. That
3. The other

This is **bold text**

*This is italic text*

Here is some code:

```
y = rand();
x = sqrt(35+y);
```

### Tables

Option	Description
data	path to data files to supply the data that will be passed into templates.
engine	engine to be used for processing templates. Handlebars is the default.
ext	extension to be used for dest files.

That's all, folks! 😊

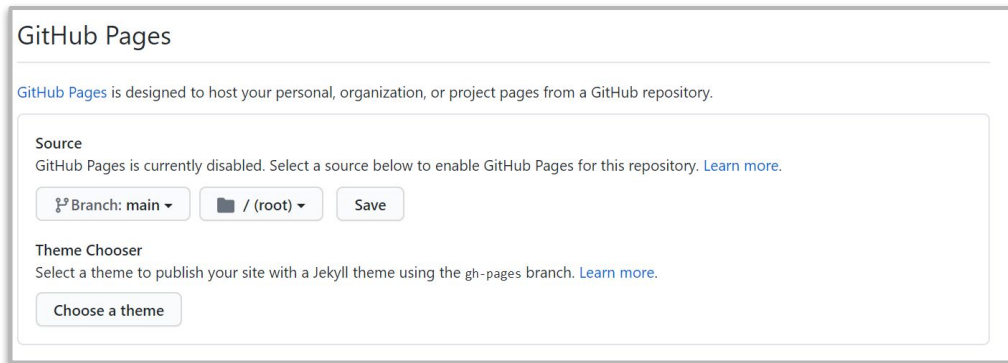
... renders like this on the web



# GitHub Pages

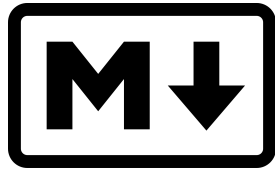
“**GitHub Pages** is a static site hosting service that takes HTML, CSS, and JavaScript files straight from a repository on GitHub, optionally runs the files through a build process, and publishes a website.”

GitHub pages also allows you to create webpages from markdown files, using a built-in software called [Jekyll](#).



**GitHub Pages**

## Markup & presentation



## Local version control



# Let's get started!

Go to the workshop website: [scds.github.io/github-pages](https://scds.github.io/github-pages)

Follow along with Jay as he works through the exercises

***OR***

Work through the steps on your own  
(video + instructions provided)

**Jay will pause between 2:10-2:20 for questions**