SnoCo MAKERSPACE

GitHub + VS Code for Makers

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What we'll see today?

Let's face it: Arduino IDE works but it is not the best IDE out there.

If you're tired of:

1. Using a non-extendable, non-integrated Arduino IDE interface

2. Saving that code just to never finding it ever again this workshop is for you.

Topics we'll cover today:

1. What is VS Code
2. Installing VS Code
3. Adding useful extension to VS Code
4. Using VS Code to program your Arduino
5. What is GitHub
6. Setting up source control and first usage
7. Sharing your projects with the World

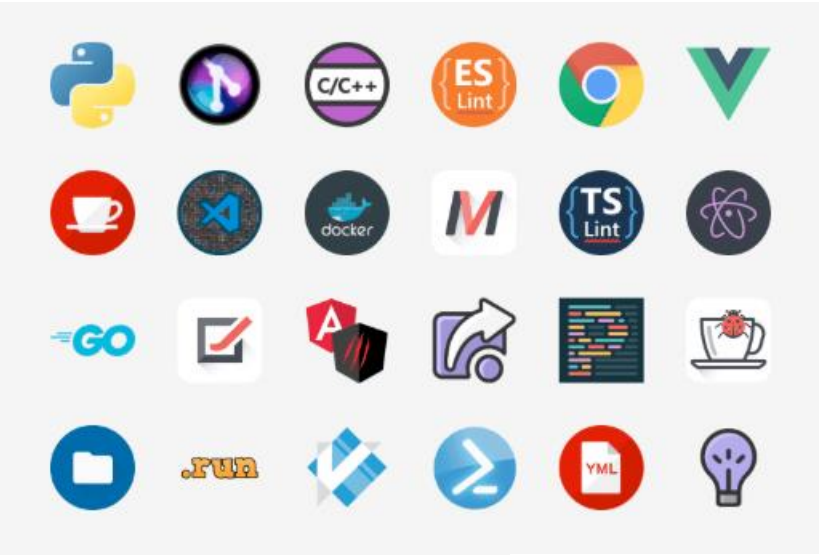
Visual Studio - VS Code

Visual Studio Code is a lightweight but powerful source code editor.

Available for Windows, Linux and macOS

Built-in Intellisense

Dozens of extensions available



Windows
Windows 7, 8, 10

.deb
Debian, Ubuntu

.rpm
Red Hat, Fedora, SUSE

Mac
macOS 10.10+

User Installer	64 bit	32 bit
System Installer	64 bit	32 bit
.zip	64 bit	32 bit

.deb	64 bit
.rpm	64 bit
.tar.gz	64 bit

Snap Store

VS Code Setup

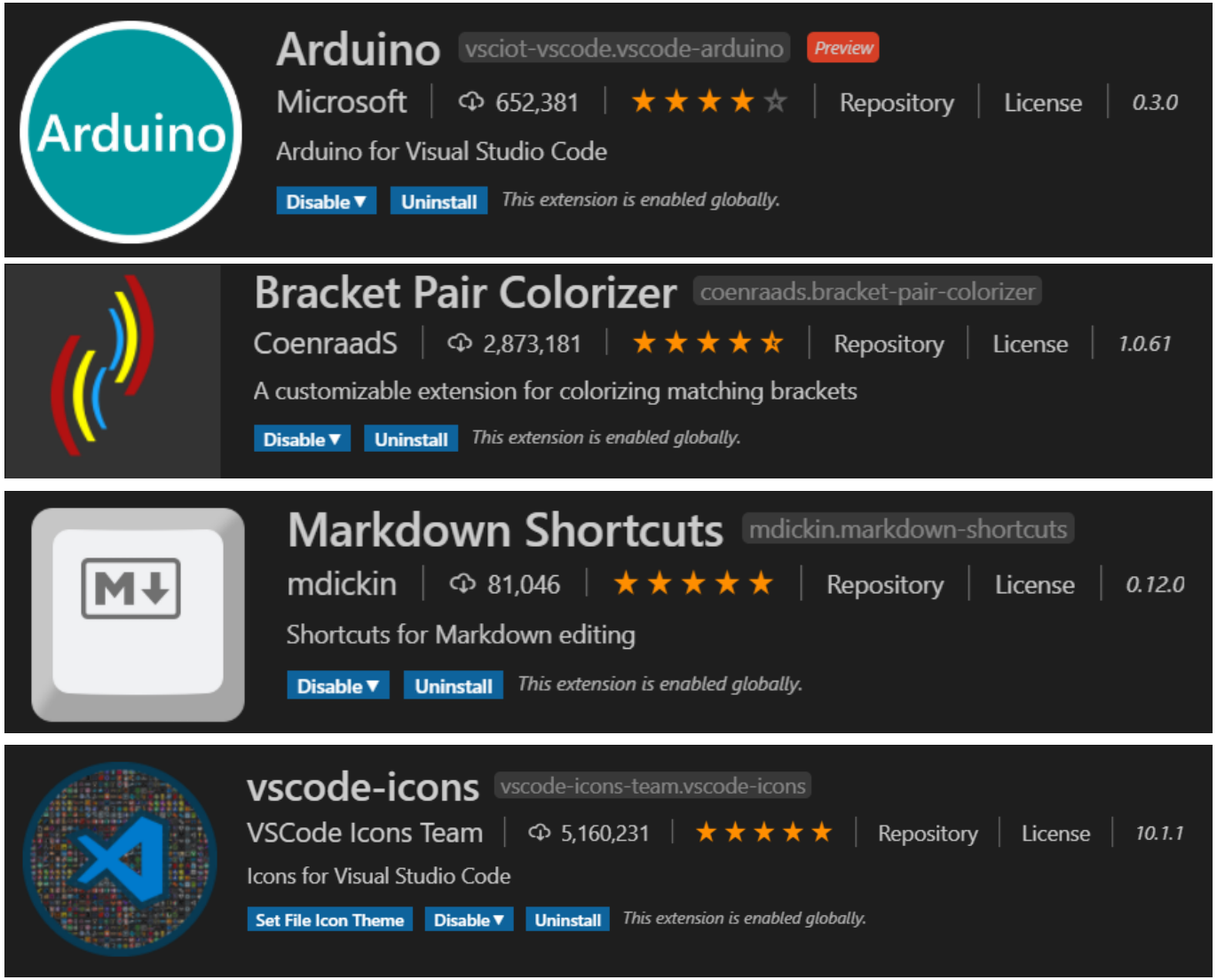
https://code.visualstudio.com

No need for any special step here, just download the latest stable build, and follow the NNF pattern (next-next-finish)

VS Code - Basic navigation

Some useful extensions you'll want to add to your VS code (Ctrl+Shift+X):

1. Arduino (it requires you have Arduino IDE installed on your computer)
2. Bracket Pair colorizer
3. Markdown shortcuts
4. Vscode-icons



VS Code + Arduino ???

Press F1 and type “Arduino”: this will show all commands available.
Get your Arduino Uno ready and connect it.
Select Examples: let’s open Blink

Common tasks are available at the bottom of the interface:

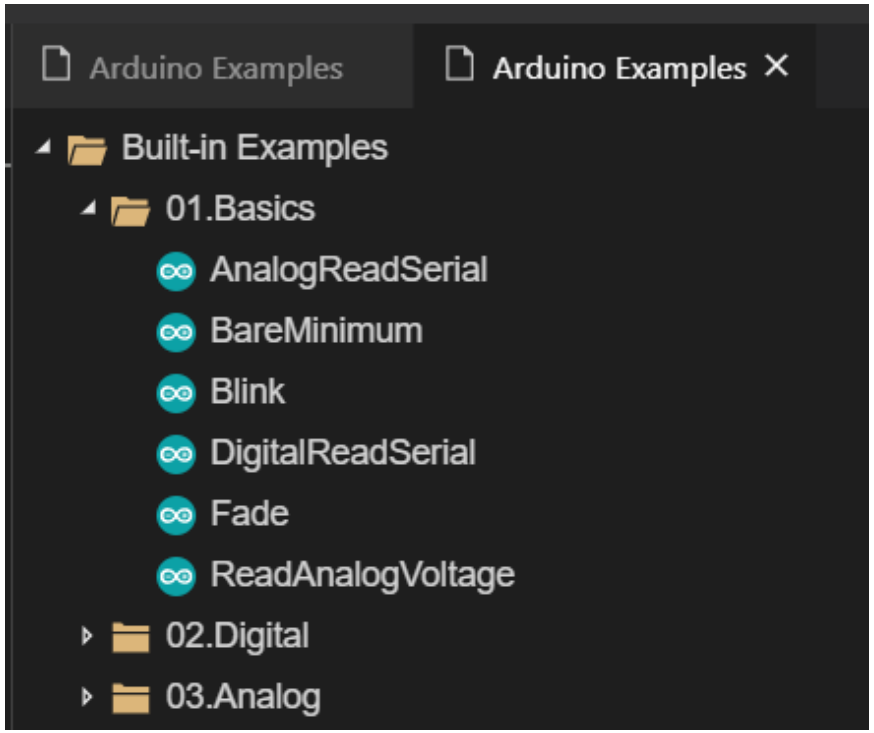
- Select programmer → AVR ISP
- Select board type → Arduino Uno
- Select COM port → [check on your computer]
- Open Serial monitor / Select serial port

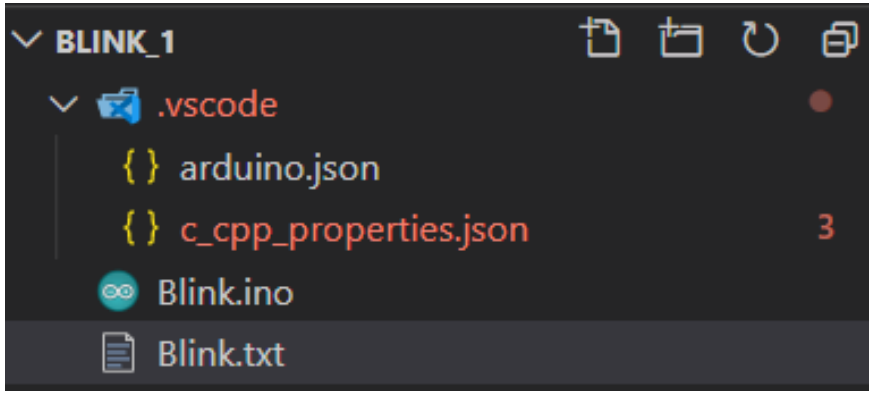
All other commands are in the F1 : Arduino

Let’s open the Blink sample:
Verify → Ctrl+Alt+R
Upload → Ctrl+Alt+U

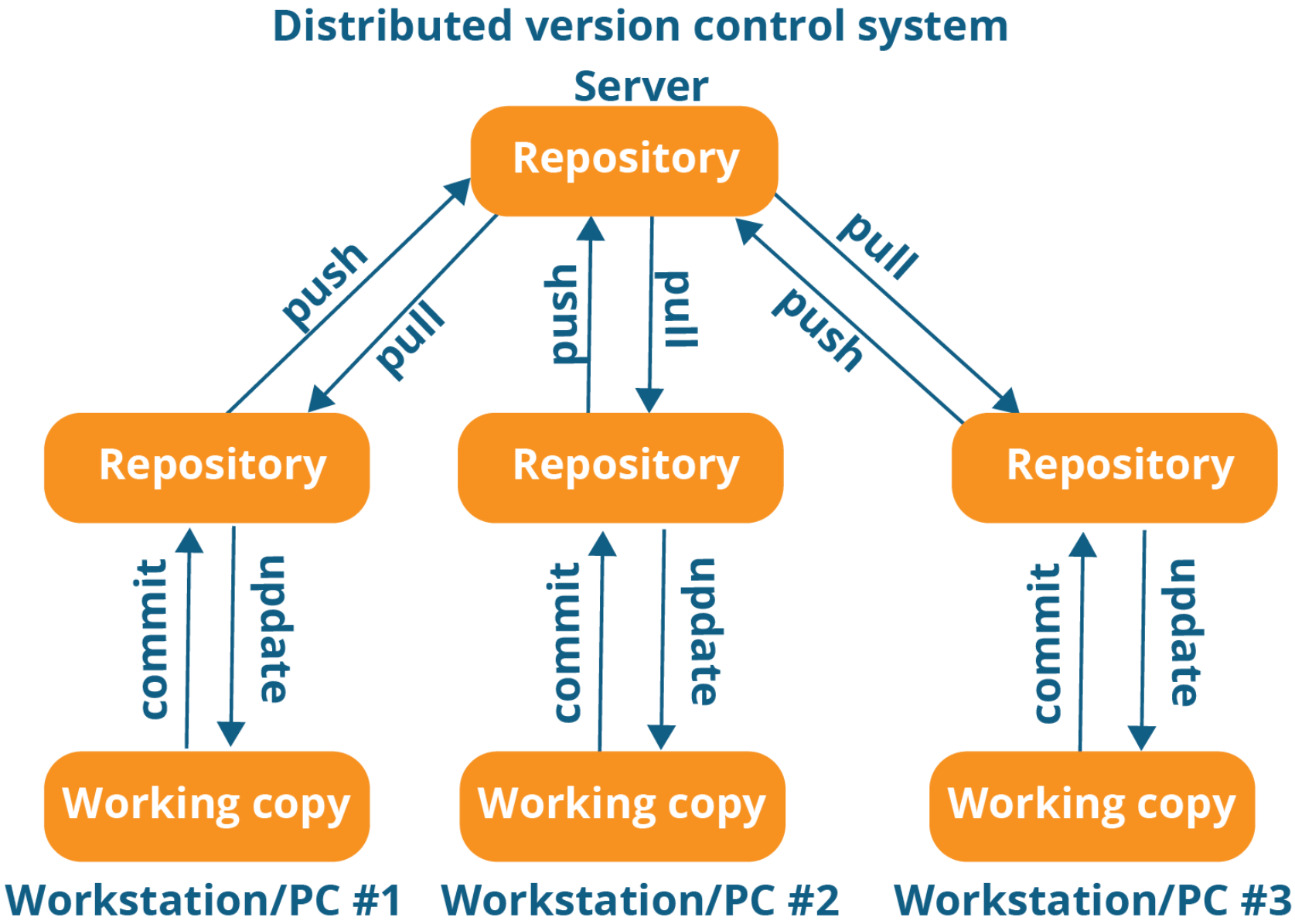
Intellisense??? How to setup your c_cpp_properties.json

Check Serial port



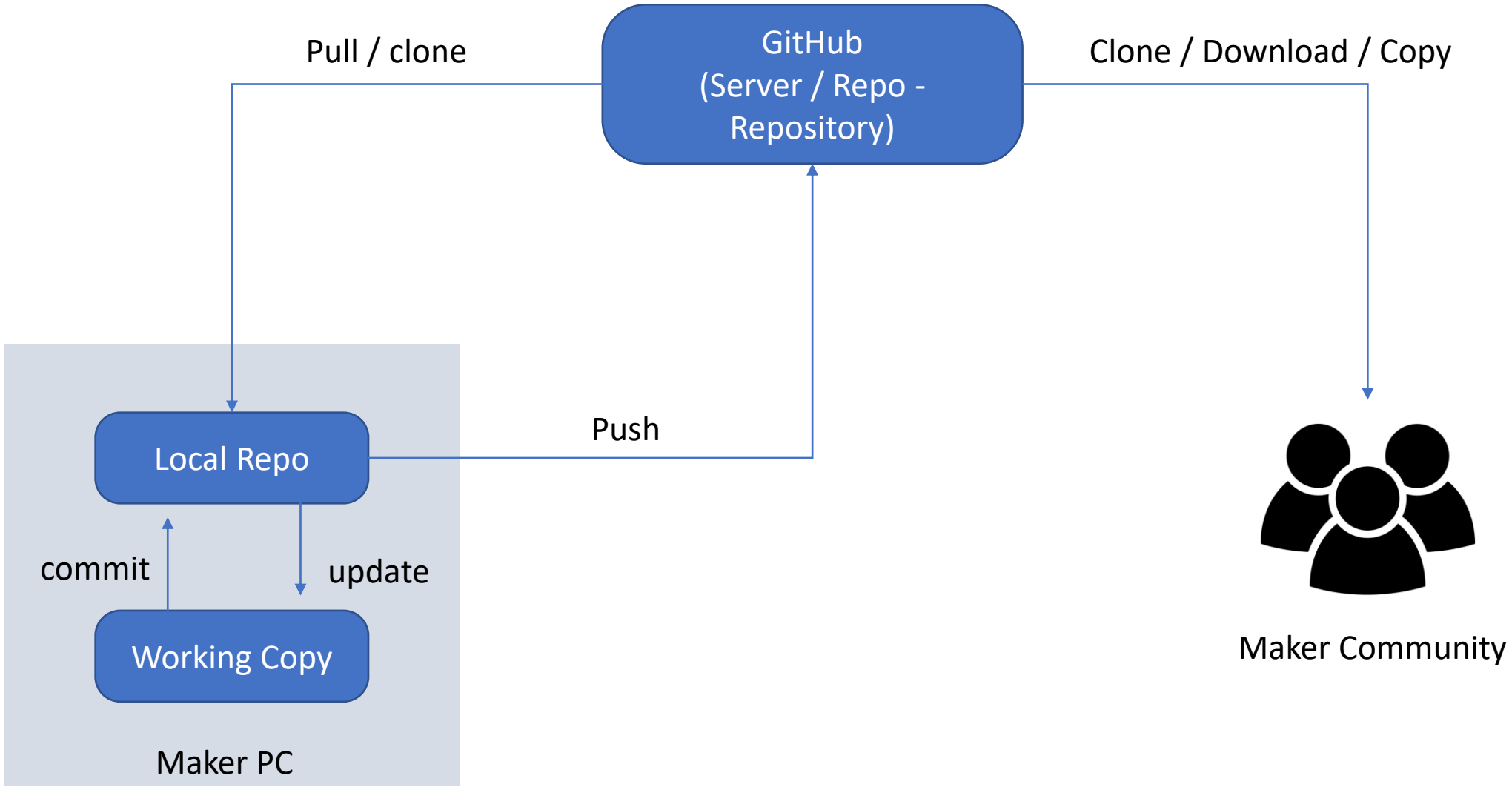


What is GitHub?



What is GitHub?

As a Maker, how can I take advantage of GitHub?

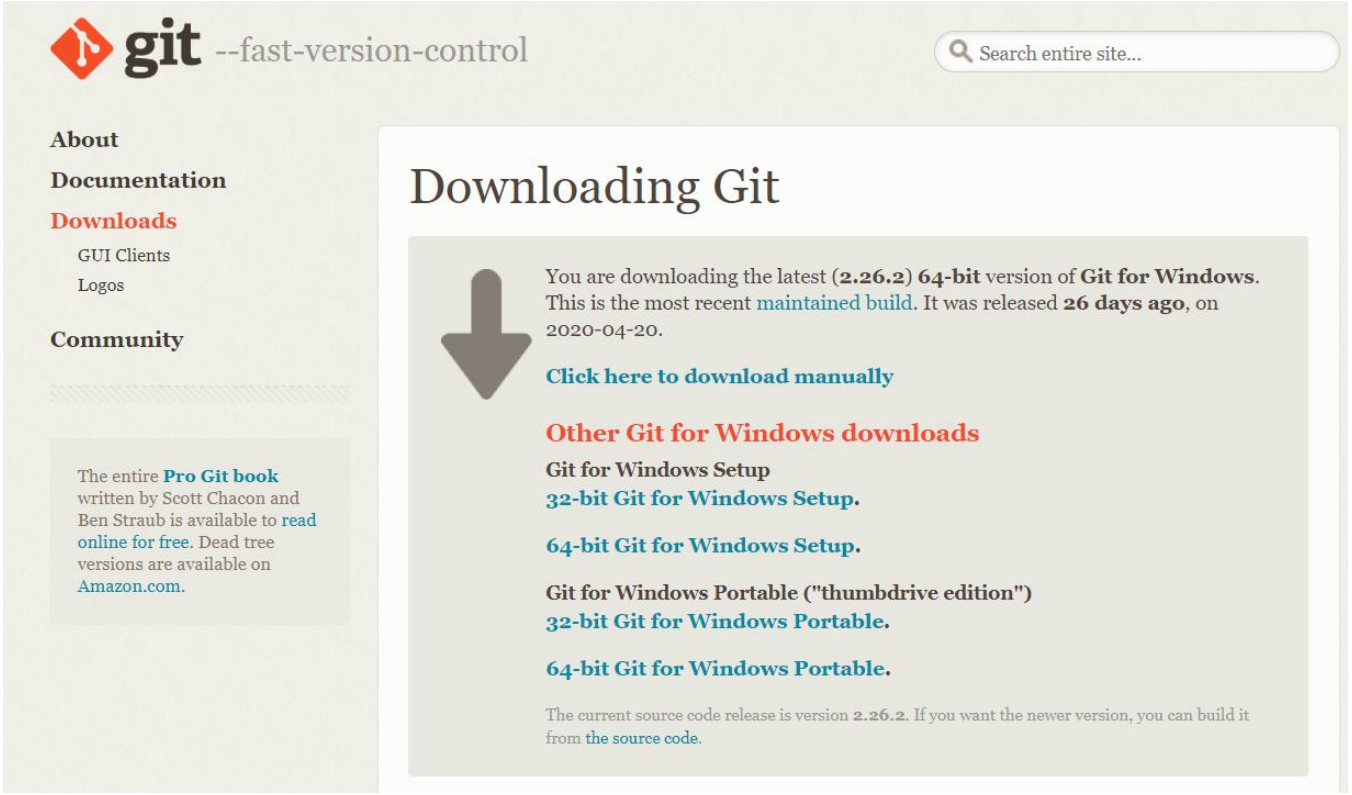


Setting up source control and first usage

Install Git - https://git-scm.com/download/win
Create a GitHub account
Creating a Repository on GitHub
Get the link / clone it
Open the directory on VS Code
Make a change & Commit to local repo (set to auto-stage)
Pull it to remote (online repo)
Set username and password (your ID) → pull
Check the updated version on GitHub
Make an online change
Pull updates to your local machine
Check the updates
Files I don't want there: gitignore

Clone my workshop Repo!!
https://github.com/wduraes/Workshops
Let open the whole directory from VS Code
Opening files with VS Code !!

Is this folder tracked by Git?



Sharing your projects

Authoring a nice MD file: using markdown shortcuts
Don’t be afraid to copy and paste!
Open preview to watch live your MD file
Right click to find tons of options