processing / p5.js

Local server

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Some functionality (loading external files, for example) works as expected when the files are placed online via FTP or SSH. However, if you try to view them locally, you see some kind of "cross-origin" errors in console. The solution to this is to view them using what's called a local web server. This tutorial includes instructions for setting up several types of local web servers on each of Mac OSX, Windows, and Linux. This tutorial assumes a basic understanding of the command line interface, for a quick introduction see the command line introduction wiki.

For the beginners coming from the Get Started page, if you opted for Sublim Text Editor, a very simple way to set up a Local Server, without having to know the Command Line interface, is to use the Browser Sync plugin for Sublime Text 3.

Python SimpleHTTPServer (1st option)

If you need a quick web server running and you don't want to mess with setting up apache or something similar, then Python can help. Python comes with a simple builtin HTTP server. With the help of this little HTTP server you can turn any directory in your system into your web server directory. The only thing you need to have installed is Python (Python is already installed if you are using Mac OS X).

Python SimpleHTTPServer tutorial

Type in Terminal:

python -m SimpleHTTPServer

Or if you are using Python 3, type:

python -m http.server

Then visit http://localhost:8000 on your browser.

Unfortunately the python simple server is very slow. Loading a local page will often stall and it can't stream video and has trouble with even medium size files like an 8MB mp3 for example. However, it should suffice for loading in most text files, fonts and most images.

Node http-server (2nd option)

An alternative is node.js http-server. It is much faster than python simple server while requiring a little bit of setup. Just 3 simple steps:

- 1. Download and Install node.js
- 2. Open a terminal or command prompt (on Windows you might need to open the command prompt as admin)
- 3. In the terminal type:

npm install -g http-server



Done!

From then on just cd to the folder that has the files you want to serve and type

```
http-server
```

Then point your browser at http://localhost:8080/

Note 1: If you are having problems where the browser does not reload your javascript files after changes are made, you may need to instantiate the server with a specific cache value. To do this, include the cache timeout flag, with a value of '-1'. This tells the browser not to cache files (like sketch.js).

```
http-server -c-1
```

Alternatively, you can setup a browser-sync server which has the added benefit of automatically reloading the webpage when any changes were saved in the source code.

- 1. Follow instructions above to install node.js and open a Terminal/Command Prompt window
- 2. Type

```
npm install -g browser-sync
```

- 3. cd into your project folder.
- 4. Type

```
browser-sync start --server -f -w
```

- 5. Your website should be available at http://localhost:3000 and whenever you save a file in your project, the webpage will automatically reload.
- https://www.browsersync.io/#install
- https://github.com/CodingTrain/Rainbow-Topics/issues/646

Note 2: If you encountered an error that says EACCES when installing either http-server or browser-sync it means npm is not installed with the right permissions, follow the steps outlined at https://docs.npmjs.com/getting-started/fixing-npm-permissions to fix it.

Using PHP built-in web server (3rd option)

PHP has (since version 5.4.0) a built-in web server for testing purposes that can be used to test P5.js sketches.

To check if you have PHP installed you can open a terminal and issue the command:

```
php -version
```

If you have PHP CLI (Command Line Interpreter) installed you can start a local development server by using the command:

```
php -S localhost:8000
```

Then point your browser at http://localhost:8000/

Setting up Browser Sync for Sublime Text (command line free option)

The Browser Sync plugin for Sublime Text allows you to launch your project in the browser and having the page refresh each time you save a modification to your file (ctrl+s).

To install the plugin you will first need load the Package repository by doing this:

- Open the Command Palette by using Ctrl+Shift+P or going to Tools > Command Palette
- Type "Install Package" and hit ENTER
- The repository will be loaded in a matter of seconds

Once the repository is loaded, you can search and launch the installation of the Browser Sync plugin.

- Inside the same Command Palette type Browsersync
- The suggest option shows you the Browser Sync plugin, click on it and hit ENTER
- Once completed the installation of the plugin, a new menu, "Browser Sync", appears on the menu bar

Now that the Browser Sync plugin is installed on your Sublime Text Editor, here is how to use it.

- Say you have Chrome opened and in Sublime Text your P5.js project is opened too
- In the "Browser Sync" menu, go to "Start File" and choose your".../index.html" file
- Then, go to "Browser Sync" menu again and click "Launch"
- Now your project should open in a new Chrome Tab
- Each time you'll save (ctrl+s) your modifications in Sublime Text, your projects Chrome Tab will refresh

and voilà!

http://p5js.org