



Installing Litvis

This is an expanded version of the installation instructions on the [litvis github](#) with explanations for each step. It assumes you will be installing litvis to work with the *Atom* editor.

Step 1: Installing Node.js

You can skip this step if you already have Node.js and npm working on your system.

[Node.js](#) allows you to run JavaScript programs on your machine without a browser. It includes the package manager *npm* which litvis uses to install the supplementary packages needed to run litvis.

- Download and install the 'LTS' (Long Term Support) version of Node (10.15.0 at time of writing) from nodejs.org/en/, accepting the default values during installation.

On Macs and Linux machines, but not Windows, we need to ensure that when packages are installed with *npm* (see next step), they are installed in a folder on your machine that has write-access:

- (*MacOSX / Linux only*): Open a terminal window (**applications->utilities->terminal**) and type:
 - **mkdir ~/.npm-global**
 - **npm config set prefix '~/.npm-global'**
 - In your preferred text editor, open or create the file **~/.profile** and add the following line:
 - **export PATH=~/.npm-global/bin:\$PATH**
 - After saving and closing the file, type the following in the terminal window:
 - **source ~/.profile**

Step 2: Installing Elm and Prettier

Litvis uses the programming language *Elm* to specify visualizations and process data. It uses *prettier* to format code nicely in the Atom editor. Both need to be installed on your system using *npm*:

- Open a command window (type **cmd** in the search field of the task bar in Windows, or **applications->utilities->terminal** on a Mac)
- In the command window / terminal, type:
npm install --global elm prettier prettier-plugin-elm

Step 3: Installing the Atom Editor

You will be writing your litvis documents in the *Atom* text editor:

- [Download/install Atom](#)

Step 4: Configuring Atom to use Litvis

Atom is a text editor that may be customised with 'plug-ins'. To use litvis you need to install some Atom plug-ins written for litvis and to make the process of editing and formatting code easier. In some of the steps below, Atom may ask you to install further dependencies such as `linter` , `linter-ui-default` , `intentions` and `busy-signal` , to which you should reply `Yes` .

- Start the atom editor
- In Atom, select the menu item **File->Settings->Install** (Windows) or **Atom->Preferences->Install** (MacOS) or **Edit->Preferences->Install** (Linux)
- Search for `markdown-preview-enhanced-with-litvis` and click the **install** button next to the returned result. This will allow you to display litvis documents in Atom.
- Search for `prettier-atom` and click the **install** button. This will help you format litvis documents as you edit them.
- Search for `language-elm` and click the install button. This enables 'syntax highlighting' when you write Elm code.
- Search for `language-markdown` and click the install button. This enables 'syntax highlighting' when you write markdown text.
- Close the atom editor

Step 5: Check Litvis now works in Atom

You should now be able to create and view litvis document in Atom. To check everything is working, try the following:

- Start the atom editor
- Select **File->New File** (or **Ctrl/Cmd N**) to create a new empty document.
- Copy/paste the following code into this new file and then **File->Save** (or **Ctrl/Cmd S**) to save it somewhere on your machine as `helloLitvis.md`

```

---
elm:
  dependencies:
    gicentre/elm-vegalite: latest
---

# My first Litvis document

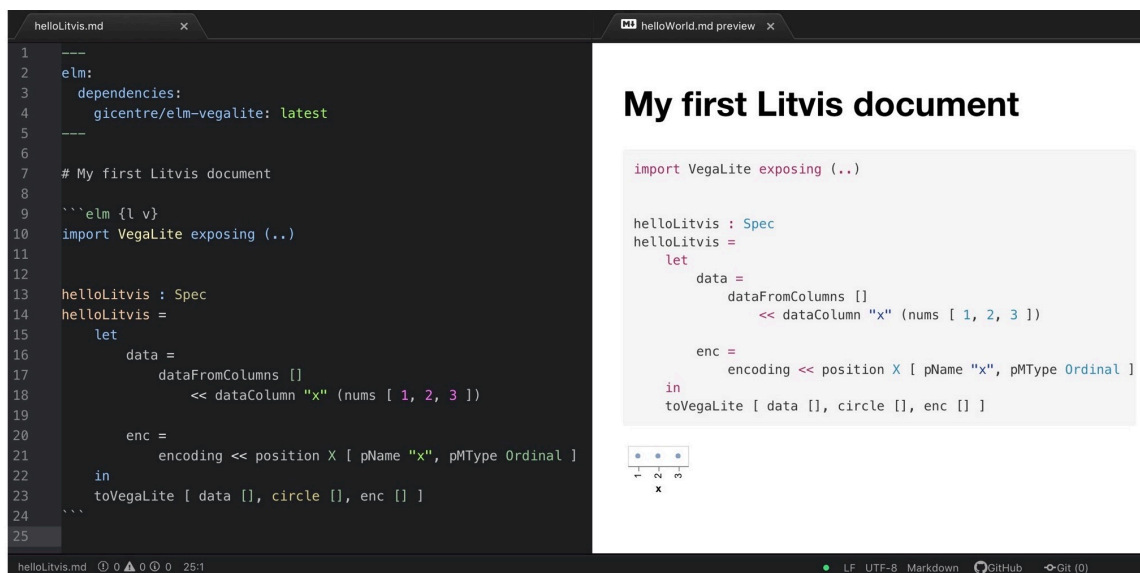
```elm {l v}
import VegaLite exposing (..)

helloLitvis : Spec
helloLitvis =
 let
 data =
 dataFromColumns []
 << dataColumn "x" (nums [1, 2, 3])

 enc =
 encoding << position X [pName "x", pType Ordinal]
 in
 toVegaLite [data [], circle [], enc []]
```

```

- Select **Packages→Markdown Preview Enhanced with litvis -> Toggle (or Ctrl/Cmd Shift-M)** to see a formatted view of the document. The very first time you do this, it may take a little longer to show as the relevant files are downloaded, but normally this should only take a second or two to appear. You should see a view similar to the following:



Congratulations, you have created your first Litvis document!