Skills4Scientists: LaTeX & Version Control Setup Instructions

Please follow these instructions to get LaTeX and Git setup on your machines before this session.

1   LaTeX Setup

The first thing you need to do (if you don't have it already) is to get LaTeX installed on your machine.

1.1   Installing LaTeX

LaTeX can be downloaded from this website: `https://www.latex-project.org/get/`.
Or to shortcut here are some links for specific operating systems:

- **Mac:** `http://www.tug.org/mactex/`
- **Linux:** `https://www.tug.org/texlive/`
- **Windows:** `https://miktex.org/download`

This can be quite a long installation, so if it takes a while don't panic! If you have any issues please get in touch with Samantha Kanza on s.kanza@soton.ac.uk.

1.2   LaTeX IDEs

There are a number of ways to write and compile your LaTeX.

TextEditor & Command Line
For the brave at heart you can write your LaTeX files using a text editor and compile them via the command line, either via a set of commands or you can build a custom make file; we will touch on these aspects in the workshop.

IDEs
Or, you might prefer to use an IDE which provides the advantages of syntax highlighting, and buttons to compile your files. This webpage contains a long list of LaTeX IDEs: `https://tex.stackexchange.com/questions/339/latex-editors-ides`

I personally recommend TeXworks which can be downloaded from here: `http://www.tug.org/texworks/`. However IDEs are often quite a personal choice, so you might want to look into a few different ones to see what suits you.

1.3   Testing LaTeX

To do a quick check that all is running well, open up your terminal or command prompt and type in `pdflatex --version`. If everything is properly installed you will get the name of the distribution and the version.

If you want to test compiling a LaTeX file, open up a new document either in your text editor or LaTeX IDE and copy in the lines below, and save the file as Test.tex.

```
\documentclass[10pt,a4paper]{article}
\begin{document}
Hello World!
\end{document}
```

You can either run it in your IDE of choice, or if you want to compile it via the Command Line, navigate to its location and compile it with `pdflatex Test.tex` and it should compile and create Test.pdf.

2 Git Setup

You also need to get Git setup on your computer (if you don't already) for this tutorial.

2.1 Creating a GitHub Account

Step 1 is to create a GitHub Account if you don't already have one. Go to `https://github.com/` and create yourself an account.

2.2 Installing Git

In the tutorial we will be covering using git via the Command Line. However if you prefer an IDE you can look at GitHub Desktop as an alternative. But for now lets get git installed. This guide covers the basics for different operating systems: `https://gist.github.com/derhuerst/1b15ff4652a867391f03`.

OSX and Linux
Most Linux Distributions and Mac OSX should come with Git preinstalled. To quickly check this, open a terminal and type in: git −−version. If this returns something like git version 2.22.0 then you can assume that it is installed. If not it is pretty simple to install.

On debian based linux systems you can run the following code:

```
sudo apt−get update
sudo apt−get upgrade
sudo apt−get install git
```

On Red Hat based linux systems

```
sudo yum upgrade
sudo yum install git
```

If you already have Homebrew installed then check it is up to date, and then install git with:

```
brew update
brew install git
```

Once this is done test it with git −−version again.

Windows
For windows download git for windows here: `https://gitforwindows.org/` and install it.
Once this is done test it with git −−version again.