

EECS3311 (Sections M and Z) Starter Guide:
EiffelStudio, Educational Github Account, and MATHMODELS library

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Winter 2019

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- **A general, non-educational Github account only allows public repositories.**
- **It is considered as plagiarism (academic dishonesty) if you ever store your lab/project work at a public place.**
- **It is absolutely critical that you apply the Educational account on Github (which allows private repositories).**

1 Applying for an Educational Github Account

Follow this tutorial series (which will be expanded as the semester progresses):

https://www.youtube.com/playlist?list=PL5dxAmCmjv_58KxTSd1CRbpinmSF8EPJx

2 Installing the MATHMODELS Library

See here: <http://seldoc.eecs.yorku.ca/doku.php/eiffel/faq/mathmodels>

3 Installing and Launching EStudio

3.1 Windows

1. Download the installation file by clicking the following link:

ftp://ftp.eiffel.com/pub/download/18.11/Eiffel_18.11_gpl_102592-windows.msi

2. Once downloaded, run the installation file `Eiffel.18.11_gpl_102592-windows.msi` and follow the steps to complete the installation.
3. You can now launch EiffelStudio from the **Start** menu or from the EiffelStudio shortcut on your desktop.

3.2 Mac OS X

Prerequisites (Make sure that your computer is already installed with the following two items before proceeding to Step 1)

- Install **Xcode** from the App Store: <https://developer.apple.com/xcode/downloads>
After installing Xcode, make sure to install the **command line tools**: go to the Xcode preferences and under **Downloads** install the **Command Line Tools** components.
- Install **X11**: <http://xquartz.macosforge.org/landing>

1. **Install Mac Ports**: Download and install mac ports from: <https://www.macports.org/install.php>

After installing mac ports, run the following:

```
sudo port selfupdate
```

Then run the following:

```
sudo port upgrade outdated
```

2. **Install EStudio via Mac Ports**: Open a new terminal, type:

```
sudo port install eiffelstudio
```

This will take some time (more than 15 minutes) to install Eiffel Studio.

3. **Did Mac Ports Install the Latest Version?**

When mac ports complete installing Eiffel Studio, type the following in terminal:

```
port info eiffelstudio
```

You will see an output to the terminal like this:

```
eiffelstudio @17.01.9.9700 (lang)
Description:      EiffelStudio is a development environment for the Eiffel
                  programming language developed by Eiffel Software.
                  EiffelStudio includes a combination of tools integrated
                  under a single user interface: compiler, interpreter,
                  debugger, browser, metrics tool, profiler, diagram tool.
                  The user interface rests on a number of specific UI
                  paradigms, in particular pick-and-drop for effective
                  browsing.
Homepage:        http://www.eiffel.com
Build Dependencies:  bzip2, pkgconfig
Library Dependencies: gtk2, xorg-libXtst
Platforms:       darwin
License:         GPL-2
Maintainers:     Email: jann@macports.org
```

Compare if the version that mac ports (e.g., 17.01 in the case of the above example output) installed is the latest version (i.e., 18.11) of the current semester:

- **Yes:** If mac ports did install the latest version, we then need to set three environment variables by copying (command + C) the following three lines:

```
export ISE_EIFFEL=/Applications/MacPorts/Eiffel_18.11
export ISE_PLATFORM=macosx-x86-64
export PATH=$PATH:$ISE_EIFFEL/studio/spec/$ISE_PLATFORM/bin
```

- **No:** If mac ports did not install the latest version, then:
 - Download the compressed package by clicking the following link:
ftp://ftp.eiffel.com/pub/download/18.11/Eiffel_18.11_gpl_102592-macosx-x86-64.tar.bz2
 - **Unzipping the Compressed Package:** After downloading the compressed package, say to your **Desktop**, you should manually extract its contents to your hard drive.
For example, open up a **terminal**, then you can extract it into `/usr/local` using the following commands:

```
cd /usr/local
tar xvfj ~/Desktop/Eiffel_18.11_gpl_102592-macosx-x86-64.tar.bz2
```

In case the command `tar` does not work, you can simply try double-click on the compressed package file and it should be uncompressed to a directory. This will install EiffelStudio files into the directory `/usr/local/Eiffel_18.11`.

- We then need to set three environment variables:
Copy (command + C) the following three lines:

```
export ISE_EIFFEL=/usr/local/Eiffel_18.11
export ISE_PLATFORM=macosx-x86-64
export PATH=$PATH:$ISE_EIFFEL/studio/spec/$ISE_PLATFORM/bin
```

4. On the terminal, type the following:

```
cd
nano .bash_profile
```

5. Then paste (command + P) the above three lines, then save the file by typing `control + x`, then type `Y`, then hit enter.
6. Then, type the following command to let the above three export statements be in effect:

```
source .bash_profile
```

7. Now you should be able to launch the EiffelStudio IDE by typing the following command on the terminal:

```
estudio &
```

8. *Optional:* Improving the Look and Feel of EStudio

On a new terminal, type the following:

```
sudo port install gtk2
```

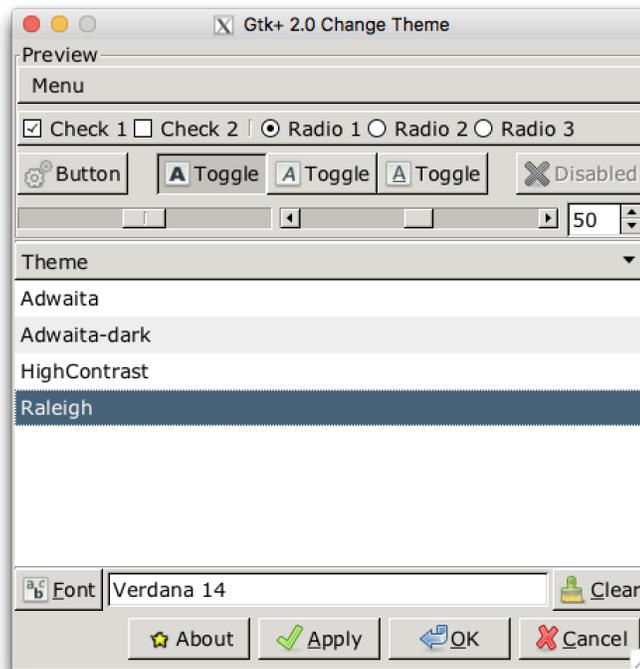
9. Then type the following:

```
sudo port install gtk-chtheme
```

10. Finally, type the following:

```
gtk-chtheme
```

which should launch a window like this:



Then you can play with different font style (e.g., face, size, etc.) until you are satisfied.

4 Last Resort: Virtual Box Image

In case you cannot manage to install EStudio on your machine, follow the instructions here to download and install a virtual machine image (using Virtual Box), where we already have the latest version of EStudio installed for you:

<https://wiki.eecs.yorku.ca/project/sel-students/p:tutorials:vm:start:start>

Use your EECS account to log in.