

EECS3311 (Sections A and E) Starter Guide: EiffelStudio IDE, Educational Github Account, Tutorial Videos

Chen-Wei Wang

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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 Tutorial Before the First Class

Follow this tutorial video series “Use of Eiffel Studio for DbC and TDD” (long, but believe me, it’s worth your time!!), which requires the installation of the Eiffel Studio tool:

<https://www.eecs.yorku.ca/~jackie/teaching/tutorials/index.html#design>

- If you are able to reproduce everything said in the tutorial, then you are ready! Bring your laptop with you to our first class.
- If you have issues of either installing the EStudio or following the tutorial: don’t hesitate to get in touch with Jackie (jackie@eecs.yorku.ca).

3 Installing and Launching EStudio

3.1 Windows

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

https://ftp.eiffel.com/pub/download/19.05/Eiffel_19.05_gpl_103187-win64.msi

2. Once downloaded, run the installation file `Eiffel_19.05_gpl_103187-win64.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sudo port upgrade outdated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., 19.05) 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_19.05
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:
https://ftp.eiffel.com/pub/download/19.05/Eiffel_19.05_gpl_103187-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_19.05_gpl_103187-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_19.05**.

- We then need to set three environment variables:

Copy (command + C) the following three lines:

```
export ISE_EIFFEL=/usr/local/Eiffel_19.05
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
```

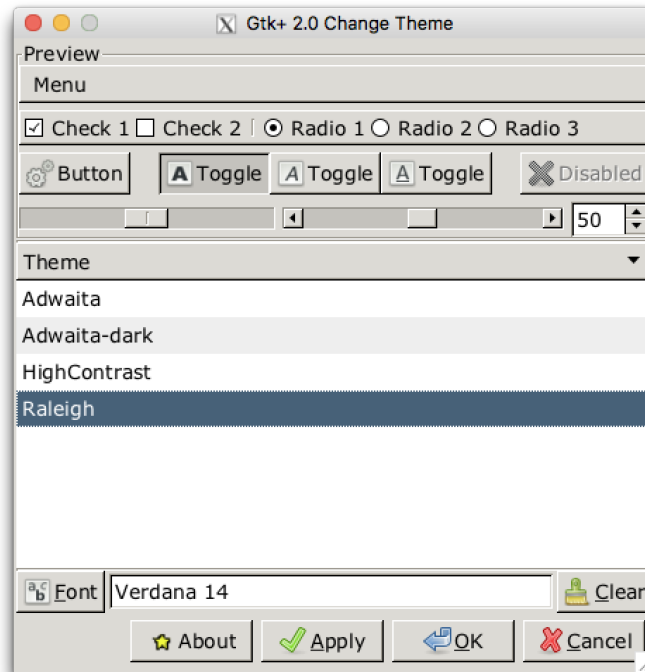
9. Then type the following:

```
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.