Quick Install Process on Mac OS X

Version: 1.0

Introduction

This document provides a quick listing of the tools needed and basic install instructions for each -- which is used throughout this course. Before you get started installing all the tools and software for this course, there are a few basic requirements. After that, I provide the general instructions for each tool used. Since this page is designed to aide the "get to the point" crowd, I keep my instructions as brief as possible.

In order to support the most recent version of Windows available, these instructions were tested using **Mac OS X 10.11** or higher. However, with some modification, these instructions will generally work for older versions of Mac OS X.

Getting Started and Common Tools

Admin Rights

You need to have admin rights to your system. Most modern versions of Mac OS come with several "flavors" of user accounts -- only admins can install software.

Bash Profile

There are two files that are possibly used while logging into a Mac OS X system and terminal session. One is called **.bash_profile** and the other is **.bashrc**. I like to include the source of **.bashrc** inside my **.bash_profile**.

Within your home directory, open **.bash_profile**:

```
nano .bash_profile
```

Near the top of the file, include the following code:

```
if [ -f ~/.bashrc ]; then
    source ~/.bashrc
fi
```

Save and close the file. Then open or create the **.bashrc** file:

```
nano .bashrc
```

Within the **.bashrc** file type:

```
alias ll='ls -al'
```

Save and close the file.

Google Chrome

Optional.

I use Google Chrome for most of my courses. A few years ago, I would have strongly recommended or border-lined required the use of Chrome. However, most modern versions of all common browsers are adequate -- although the software engineer in me still prefers Chrome. For those wanting to follow along as closely as possible, install and use Chrome during this course. However, this is an *optional* step now, but I include it for completeness.

Install for Mac OS X

- Go to the Google Chrome Desktop page at https://www.google.com/chrome/browser/desktop
- Click on the **Download Chrome** button
- Accept the *Terms of Service* agreement (after reading, of course)

- Follow the instructions through the install process

Git for Mac OS X (Apple Git)

Required.

Git is the source control tool used in this course. There are multiple ways to install Git on Mac OS X -- I prefer using the version bundled with Xcode or the Command Line Developer Tools.

Install on Mac OS X

- Open Terminal
- Type: `git version` in the terminal
- If Git **is** already installed, Git will respond with its current version number.
- If Git **is not** installed, Mac OS will prompt you to install via Command Line Developer Tools or XCode
  - Follow the prompts
  - Type `git version` again after the installation process has completed.

Configure Git

Git requires your name and email address before any real work can be done. It is best to just configure Git from the start.

```
git config --global user.name "Your Name"
git config --global user.email "your.email@your-place.com"
```

TextMate 2

Optional.

Mac OS X comes with an editor called **TextEdit**, but it doesn't do much beyond allow you to edit text and many IT professionals prefer something more. I use a free program called **TextMate 2** for most of my Mac OS X based courses. If you are happy with TextEdit, then this step is *optional*.

Install

- Download TextMate 2 from http://macromates.com/download
- Click on the link for **TextMate 2** -- even if it is label beta.

Shell Support

- Open Text Mate 2
- Go to Preferences
- Terminal Tab
  - Click Install Shell Support
    - Red indicator should turn green

Git Integration

Open Git Bash and issue the command:

```
git config core.editor "mate -w"
```

Then test it out by:

```
git config --global -e
```

Oracle Java Development Kit

Required.

The Oracle Java Development Kit is need to compile Java projects or run Java applications and servers.

Installation

- Go to the Java SE Downloads page
- Select the **JDK** *download* button
- On the *Java SE Development Kit Downloads* page, accept the license
- Click on the **MacOS**-dmg link
- Once the installer volume has downloaded, open the installer volume image
- Run the package file in the installer volume
- Accept all defaults through install process

Java Home

Maven (below) requires the **JAVA_HOME** system variable be set to the currently installed JDK location.

Add the following line to your **~/.bashrc** file:

```
export JAVA_HOME=`/usr/libexec/java_home`
```

Apache Maven

Required.

Maven is the build tool we use for Java projects in this course.

Installation

- Go to the Apache Maven downloads page
- Click on the **Binary tar.gz archive** link to download the *Tarball* file
- Find a suitable place to install Maven, then expand the archive there
  - We expanded Maven in `/Development`
  - Create a symbolic link called `maven`
- Make a note of the full path to the root of the Maven installation folder

Maven Setup

Open your ~/.bashrc and add the following lines:

```
MAVEN_HOME=/Development/maven
export PATH="${PATH}:${MAVEN_HOME}/bin"
```

Verify

In terminal, type:

```
mvn -version
```

This will confirm Maven is installed and setup correctly.