

CMPE202 – Software Systems Engineering

Personal Project – Extra Credit

Dynamic Analysis - Sequence

April 2, 2016

Introduction

Goal of this project is to create a java application that perform dynamic analysis of the java code being executed and generate an image file consisting of sequence diagram of the code that executed.

Libraries Used: AspectJ Runtime Library

AJDT 2.2 release builds for Eclipse 4.4, 4.3, 4.2, 3.8, and 3.7

- AJDT for Eclipse 4.3 with JDT weaving

What is **JDT weaving**?

2.2.3 Release Date: July 2, 2013

AspectJ Version in 2.2.3: 1.7.3

Eclipse 4.3 Update Site URL: <http://download.eclipse.org/tools/ajdt/43/update>

AJDT for Eclipse 4.3 Zip file: [ajdt_2.2.3_for_eclipse_4.3.zip](#)

To install from a zip file, download the zip and point your p2 installer to that file. Then proceed as if it were a normal update site. Do *not* unzip the update site into the dropins directory.

Tools Used: JUMLY

The application will generate a particular URL for the input java files. This URL will fetch an image from the service provided by <https://jumly.herokuapp.com/>.

HOW-TO:

JRE Requirement: JRE v1.5 or above.

Follow the steps below to use the application to create sequence diagram:

1. Put all the classes of the application under test into the **src** folder of the project. Which already have **TracingAspect.aj** file and it must remain intact.
2. Run the application as **JUnit Test or Java Application**.
3. Wait for a while, and there will be a message **"PNG file created."** on the console.
4. File will be available on the project directory with file name **"sequence_diagram.png"**.