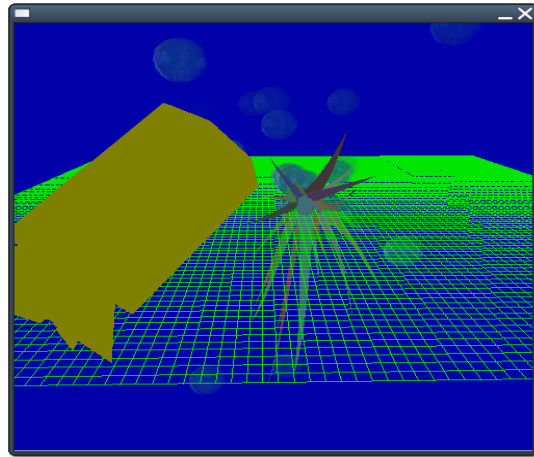# The Investigation of Graphics in Processing and the Development of an Applet Involving Advanced Concepts

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Abstract

This project is set out to study graphics through the use of Processing. Through research and tutorials, I plan on gathering enough knowledge to create an application using advanced concepts in graphics. The original intent of this project was to study graphics through the use of Java OpenGl (jogl). After a couple of weeks of being unsuccessful in properly installing and building jogl, I decided to switch to the use of Processing to study computer graphics. Processing is a useful tool in graphics development. It is both user-friendly and easy to use. After weeks of study of Processing, an applet will be created

Background

The main purpose of this project is to create an applet through the use of Processing, that demonstrates use of advanced concepts in graphics. At the moment, the applet is leaning towards being a game of an "Underwater Adventure" nature. Those interested in graphics and possibly using Processing will be able to use my project as a stepping stone. Processing only requires pre-existing knowledge of Java. This study will cover an introduction into beginning with Processing, all the way to the use of Processing in complex graphics concepts. Furthermore, this project will study camera movement and the manipulation of points in a 3D environment.

Procedure & Methodology

The project first began with the investigation of Processing through the study of examples provided on the main website and sample code. A helpful tool was the processing message board where fellow programmers posted errors and problems that they ran into along with helpful tips and solutions.

The first prototype that I developed was a simple applet that created a type of anemone in a 3D environment that could be rotated with the use of the mouse.

Results

The creation of an applet involving advanced concepts of graphics was accomplished through the use of Processing and its powerful sketchbook tool and a beginning tutorial was written to help beginners with Processing and computer graphics in general.

Conclusion

Through the use of Processing, a great deal of tasks can be accomplished in the field of graphics. Hopefully, through the use of my research, others interested in graphics and Processing will be able to use it as starting point and achieve a head start in the field of Processing.