Rochester Institute of Technology
Golisano College of Computing and
Information Sciences
School of Interactive Games and
Media
2145 Golisano Hall – (585) 475-7680

# Data Structures & Algorithms for Games & Simulation II
IGME 309
A05 – Separation Axis Test

For this assignment, there is starter code provided in the repository, you are not required to use said starting code or the framework for it, you can use your own solution, but it will be your responsibility to translate the provided startup code on your own.

In the class repository, I've included a solution under the _Binary folder. Please take a look at that and at the video instructions before continuing reading this document:
https://youtu.be/_wf2O-EOtIg

The starter code will give you this out of the box:
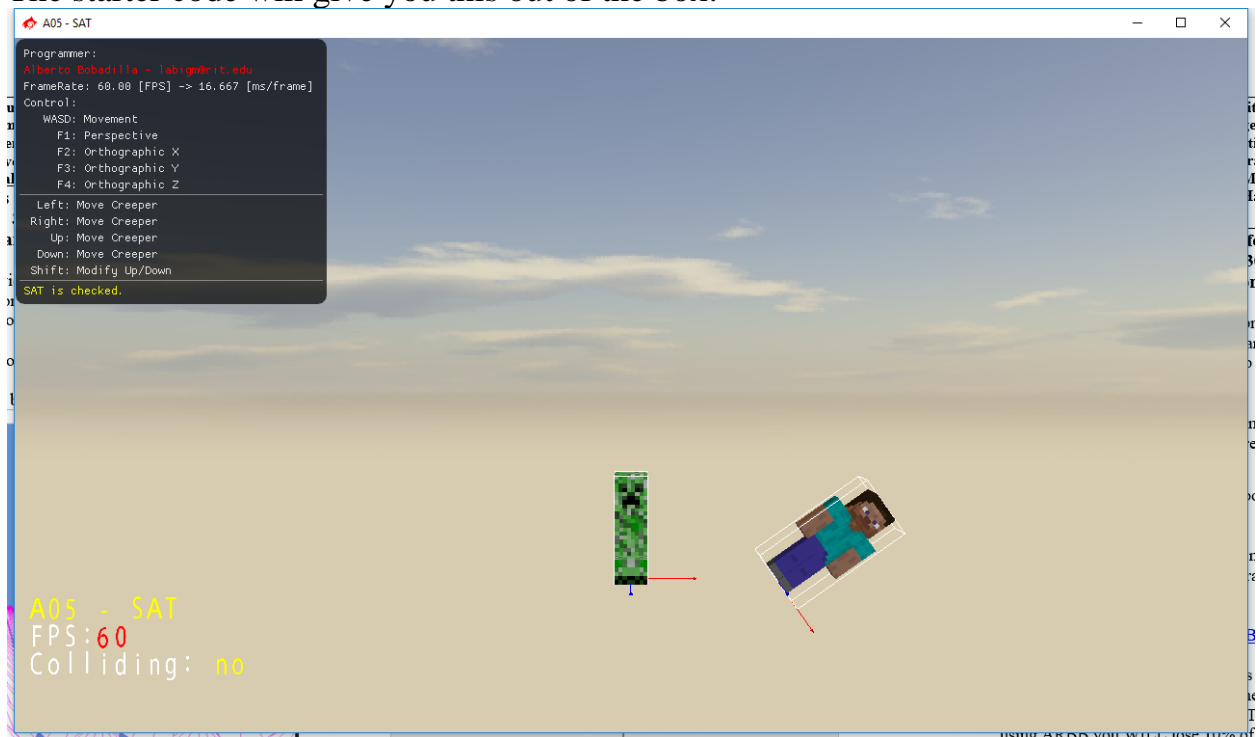
Your grade will be as follows:
100% Detect the collision using the Separation Axis Test explained in class and in the "Real Time Collision Detection" book ("The Orange Book")

Deductions will happen as follows:

-20% If you hardcode things.

-20% If you did not comment your code.

If you decide to go for any of the extra challenges you should write in the ReadMe file what you did and explain why you think you deserve the extra points.

50% extra credit will be given if you generate the 15 separation planes in the right way. Partial credit will be considered for this assignment based on the attempt. There is a method for creating planes already working in Simplex through the MeshManager (GeneratePlane).

Controls provided:
      WASD will move the camera in a first person shooter kind of movement.
      Arrow keys will move the selected model horizontally and vertically
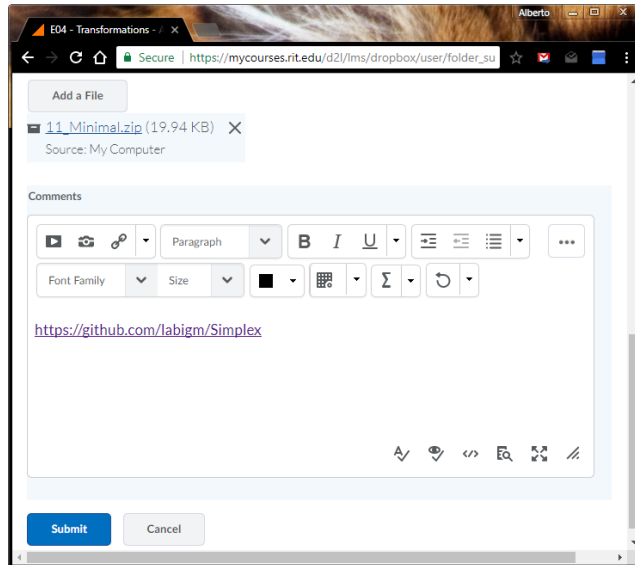   **Shift** + **Arrow keys** will move it backwards and forwards
      X Y Z to orient the model
      F1 to F4 will change the camera

Submit to the dropbox labeled: *A5 – Separation Axis Test*
As usual the required submission asks only for the project folder, not the whole solution, it should be no larger than 200kb if you are using the starter code (and you remove this document from that folder). If you are using your own framework/engine please submit the whole solution. Push your solution to your repository with the comment "**A05 Deliverable**" then zip the project (or solution) and upload it to the dropbox, in the comments section you need to specify the address of your repository.

Example:

E04 - Transformations - /

← C ⟳ 🔒 Secure | https://mycourses.rit.edu/d2l/lms/dropbox/user/folder_su

Add a File

11_Minimal.zip (19.94 KB) ✕
Source: My Computer

Comments

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https://github.com/labigm/Simplex

Submit   Cancel

Please make your submission in the following format:

lastF_Code.zip

What I mean by this is take the first four letters of your last name, append the first character of your first name, and then append the assignment code (in this case, A05.) For example, John Smith would submit "smitJ_A05.zip". This helps our graders not have to download twenty submissions all called "Solution.zip", which makes them happy.