

Comp380

Programming Assignment #1

Due Mar.-20 (Mon.) (before 11:59pm)

Difficulty: Easy

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Objective: Understand a compilation and basic structure of a simple OpenGL code.

Developing environment: TA will test your code in Visual Studio 2015 (MSVC 14.0) in Microsoft Windows.

Requirements:

- 1) Compile run and the sample code of PA1.cpp.
- 2) Understand the basic OpenGL code structures including header files, libraries, main, and various call-back functions.
- 3) Comment out the line 184-187 of `reshape ()` function of the PA1.cpp and run again.
- 4) Make the PA1 skeleton code to run properly when we resize the window. More specifically speaking, support that you have the original windows shown in Fig.1, when you started the program. Then, make the window to have the half of the original height like the one shown in Fig. 2. As you can see, only the half of the window is filled. But, we would like to utilize all the screen space as shown in Fig. 4. (10 pts)
(Hint: `display ()` needs to be modified accordingly. There is an assumption on using about the variable of “delta”.)



Fig. 1



Fig. 2



Fig. 3

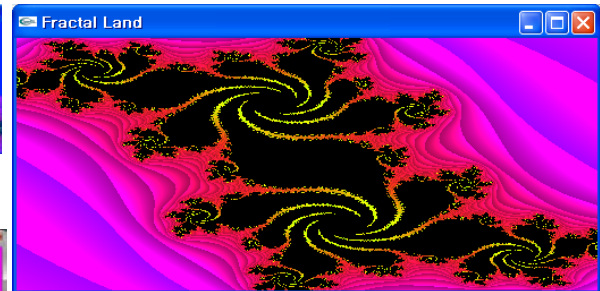


Fig. 4

- 5) What is the main result by modifying the original reshape function of Julia.cpp into the reshape function (Req. 3) shown in above? (2.5 pts)
- 6) Between two reshape functions, the original one and the new one (Req. 3) shown in above, which one do you prefer? What are reasons for your choices? (2.5 pts)

Deliveries:

- 1) Binary (*.exe) and source codes (*.cpp) of your solutions for Req. 4.
- 2) A report (*.pdf) that has your answers for the Req. 5 and 6 mentioned above.
- 3) Submit your work in KLMS. You should submit *.zip file that contains your binary (*.exe), source codes (*.cpp), and your report (*.pdf).

Policies:

- 1) Everyone must turn in their own assignment. You can collaborate with others, but any work that you turn in should be your own