

Assignment 3

GAM1514

Description:

- For this assignment, using the source code provided to you on Github (make a fork of the code), you will add to the existing code to build a tile based level editor.
- There is already one tile type in the editor, and ground tile, replace it with your own ground tile (or something else completely awesome) as well as add 5 more tiles to the editor, making 6 tile types total.
- Each tile must have an OpenGLTexture, use the newly added texture cache to reduce the memory footprint
- Add a toggle to the tiles side menu for each tile that you create (6 should fit into the side menu, if you keep them the same size as the provided ground tile toggle). Once you click a tile toggle from the menu, that tile can now be drawn on the level.
- You must be able to save and load your level, there should be at least 6 save slots to be able to save and load from
- You will have to create a new screen to handle the saving and loading slots
- Each level must be saved to its own file, a binary file or a json file are each perfectly acceptable, it's your choice
- Add an options side menu (similar to the tiles menu), the options menu must contain the following items:
 - clear - clears the current level back to the default tile type (currently ground tile)
 - load - loads your level from one of the save slots
 - save - saves your level to one of the save slots
 - exit - brings the user back to the main menu
- There is currently a main menu and a game screen. The game screen should be able to load levels from any of the 6 save slots. However once on the game screen no additional functionality is required, it is there so logic can be added in the future.
- The main menu requires no modifications for this assignment
- Using your level editor, you must create 5 unique and creative levels that effectively leverage the 6 tiles you added.
- To submit the levels after you save them (since they won't save to the github repo), copy them to your resources folder and commit them to github
- You may develop this assignment on either *windows* or *mac*, however it must compile for BOTH platforms.

Due date:

- 010: November 15th (Beginning of class)
- 040: November 14th (Beginning of class)

Submission:

Make a tag (Release) of your assignment on GitHub, I will download the tag. Please enter

Grading:

Multi-platform: The game compiles on both Windows and OSX and doesn't crash	/ 5
The existing ground tile has replaced and 5 more tiles have been added, totalling 6 tiles. Each tile has it's own opengl texture.	/ 15
There are 6 tile toggles in the tiles side menu, selecting a tile allows it to be drawn on the level.	/ 15
An options side menu has been added and the required menu items function as expected	/ 15
The levels can be properly saved and loaded from one of the 6 save slots	/ 30
A saving/loading slots screen has been created and functions as expected	/ 15
The game properly loads levels from the saving/loading slots screen	/ 10
There are 5 unique and creative levels created using the level editor that effectively leverage the tiles added	/ 25
Memory Management: Memory is properly allocated and released	/ 10
Coding style: The student followed the programming style guide outlined on Blackboard	/ 10
Total	/ 150

Weighting:

This assignment is worth 10% of your final mark

Comments: