Tetris - Basic Implementation Practice for Android

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Contents

1 Upgrading versions, pretty good

1.1 3d tetris status

- getting ideas.
- The reason I will have to implement all the matrix calculatation is that when Raypicking for roatation for either (frame + grid) or Current bock, by identifing the object I picked from gesture, I have to transformation gestures position 2d information to Current coordinate system positions, and do Current active block rotation transformation according, so yes, I must implement all the transformation by my own Implementation. I got this mind and record it and will implement them in the morning.
- need to set eye position better so that the (Frame + Grid) layout can be at the position that I want for the 3d game.
- I want yellow grids, together with white background, red-x yellow-y, but I fail get such effect. Currently using black grid, but I will change it to be better looking.
- Understand how do vertex and fragment shaders work. Since vertex shader has done pretty much all the computation work for matrix transformation, I need to think why I need self define shaders and transformation matrix, for what use propose if I do need to implement them for customization.
- I had NOT have any design experience nor confidence for game/larger project design, but since tetris 2d which was based on an incomplete design of a undergraduate student thesis when I successful redesign and implemented it, I think now I am in the process of thinking and building my own design (as well as confidence if I could succeed this time) now. Step by step, I could make this simple 3d completely out of my own ideas.
- (Frame + Grid) are supposed to rotate in limited degrees so that gamer won't rotate too much and mess up the game, only for better viewing propose.
- Current active block will be able to rotate separately, would this has anything to do with vertex shader, or as far as I calculate my own transformation matrix, or draw (frame + grid + onboard cubes) & Current active block in an fixed order, I may NOT even need any self defind matrix, and custom vertex shader will be used only for fancy display propose. I need to figure out this part.
- will work on it tomorrow.

- Will clear file for simplisity (but check in this time for later reference).
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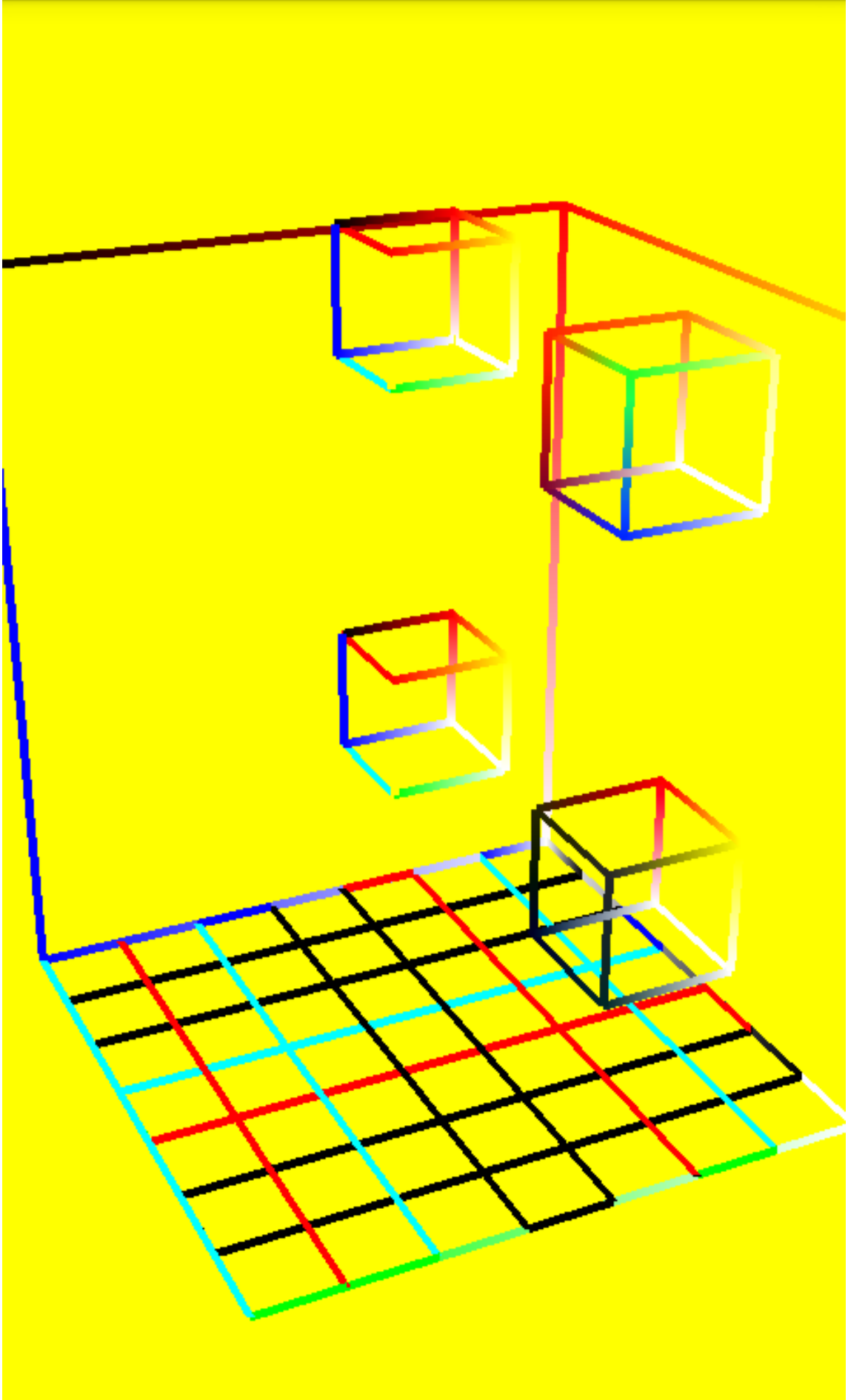
- ”Cube” was implemented using GL10, but will implement using GL20 for 3d & glar3d.
- I just has not got used to Mac ”didn’t-quit-from-program-yet” style. As far as I open new Emacs window I will have two speedbars, which is very convenient for me surfing files from different folders when trying to adapt codes from another repository folder. So command-based editors as powerful as Emacs is, I share the same enthusiasm and love on it as my beloved cousin does too~!
- 3d game layout structure:



- a video for this Tetris game can be directly watched at https://www.youtube.com/watch?v=Ht4NOrEUtFk
- A video for the previous DrawingFun Android App can be watched at https://www.youtube.com/watch?v=YV78Tk , or by searching deepwaterooo Wang.

1.2 folders

- lame2d: the very first version of the game.
- 2d: SurfaceView redering 2d Implementation.
- 3d: will work on a simple opengl 3d version first. Currently working on this one, will spend a few of following days on this one as well.
- glar3d: upgraded opengl 3d version adapted from tetrisglar app with textures and music, and real 3d instead of any pseudo one, will implement this one when simple 3d version is done. (After having understood texture and lights better, tried to debug this one for a while, but still complicated design and layout still make this one to some extend difficult for me for now.)

2 References

2.1 youtube designs

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2.2 Activity.runOnUiThread()

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- http://m.oschina.net/blog/97619
- AssetManager: http://m.jb51.net/article/57341.htm
- A 3d reference: https://github.com/kdomic/android-3d-tetris

2.3 3D design

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- triangle: http://stackoverflow.com/questions/9945321/triangle-opengl-in-android
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2.5 eventQueue vs SurfaceView threads

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