

Suprannua Engine Architecture Document

1. Introduction

Suprannua Engine is a 2D platformer oriented game framework for compiling simple Windows games or visualisations for algorithms. The hallmark and namesake of this engine is a superannuated design where the visuals are minimally done with legacy OpenGL, while the architecture is structured around a procedural runtime with the C programming language.

This was a first time project that was designed beyond basic C programming exercises. Therefore, it was created with a limited knowledge of standard programming practices or even a solid plan of the architecture before having it implemented. It has since been refined to just get the components working as intended while being lenient on the coding style and original architecture (use of global variables, externs, etc).

2. Core

- 2.1 Data structures
- 2.2 Colour palette
- 2.3 States
- 2.4 Entry point

3. FreeGLUT API

4. Game Loop

5. Modules

- 5.1 2D Audio
- 5.2 2D Camera
- 5.3 2D Renderer
- 5.4 AI
- 5.5 Editor
- 5.6 Events
- 5.7 Geometry
- 5.8 Input
- 5.9 Physics
- 5.10 Text

6. Game