X - 0.0 Event/Menu Class

* 1. Event class shall be able to work on top of the game environment

In C++ this would be doable, but upon further review this is impossible in C base. This is too complex to implement in C and will need to be restructured around methods.

1.0 Pause Menu

1.1 Pause Menu shall pause the game

Menu pausing the game will be defined as complete when the game loop is interrupted and controls no longer work while the menu is activated.

Verified with demonstration and observation

1.2 Pause Menu shall allow user to alter settings

1.3 Pause Menu shall allow user to return to Title Menu

Menu allowing the user to return to the title menu will be verified when the quit button is selected on the pause menu, it shall cause the game loop to be exited

1.4 Pause Menu shall be responsive and interactive

Pause menu being responsive would be defined as buttons lighting up when being highlighted and darkened when clicked.

1.5 Menu should open and close with the same button press

Menu shall also be opened and closed by pressing the ESC button.

1.6 Game should resume after closing Pause Menu

Pressing the ESC key or “resume” menu button will return to the game loop without exiting the loop.

2.0 Title Menu

2.1 Menu shall offer two different options for game modes

2.2 Menu shall load during application start

2.3 Menu shall allow the user to select a game world

2.4 Menu shall be able to be bypassed through a setting

3.0 Save System

3.1 User shall be able to save their current game world and reload it later

3.2 User shall be able to choose 1 of 3 of their own game worlds to load from the title menu

3.3 User shall be able to start a new world

3.4 User shall be able to delete an existing world

3.5 User shall be able to access and view their world saves from the title menu

4.0 Inventory System

4.0 User shall have a menu class item that displays current blocks available for placement in the world

4.1 User shall receive a block of the specific type in their inventory container that is broken. *(Note: The blocks shall be placed directly into inventory as opposed to entities. This is discussed in planned features)*

4.2 User shall only be able to place a block if an amount of a block is greater than zero in inventory

4.3 Collected Blocks will contribute to the total number of the same block ID in the user’s inventory, up to a maximum capacity of that type of block.

4.4 Placed Blocks shall remove themselves from the user’s inventory.

Planned Features:

1. Implement a save system that allows the user to access up to three of their saved worlds
2. Provide a GUI that will pause the game for the player and allow them to access the title screen
3. Provide a GUI that will function as a title screen and give the user access to their saved worlds
4. Add two games modes survival and creative
5. Implement entities to the inventory system if the time allows.

User Stories:

User Story A

-As a craft player I want the ability to save my current world and start a new one while retaining access to my original.

User Story B

-As a craft player I want the game to boot into a title menu that can give me access to saved worlds similar to minecraft.

User Story C

-As a craft player I want to be able to pause the game and edit settings or go leave my world but stay on the game.

User Story D

-As a craft player I want to be able to play a game without flying.

User Story E

-As a craft player, I want to have an inventory system similar to minecraft.