

## World Management Setup Guide

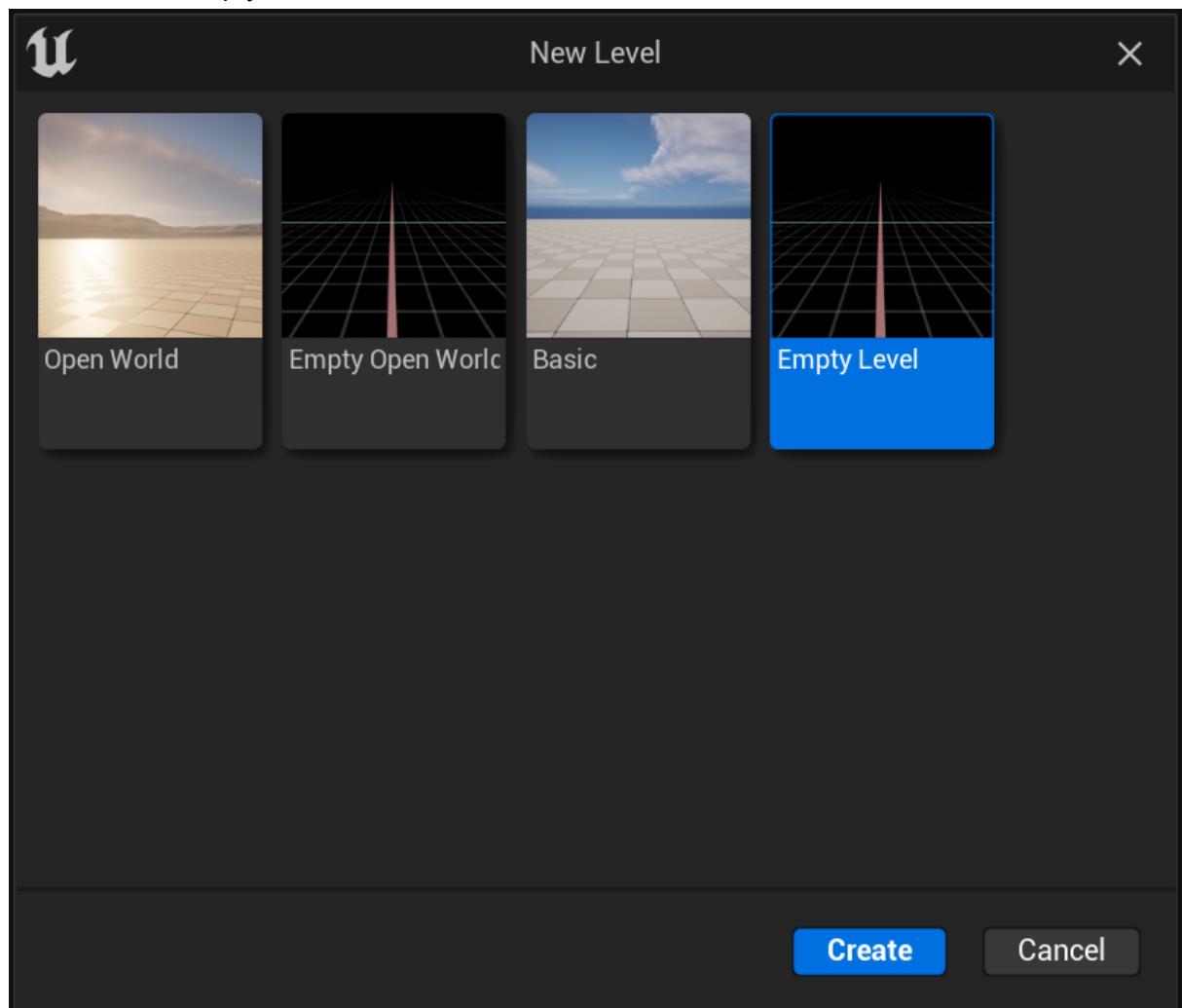
Unreal 5.1 is used for this tutorial, but the plugin has been tested and works with 5.0 and 4.27 as well.

Starting from a blank project - full setup project files can be downloaded from  
[GitHub - waynepotts/Blank51: Tutorial demo project](https://github.com/waynepotts/Blank51)

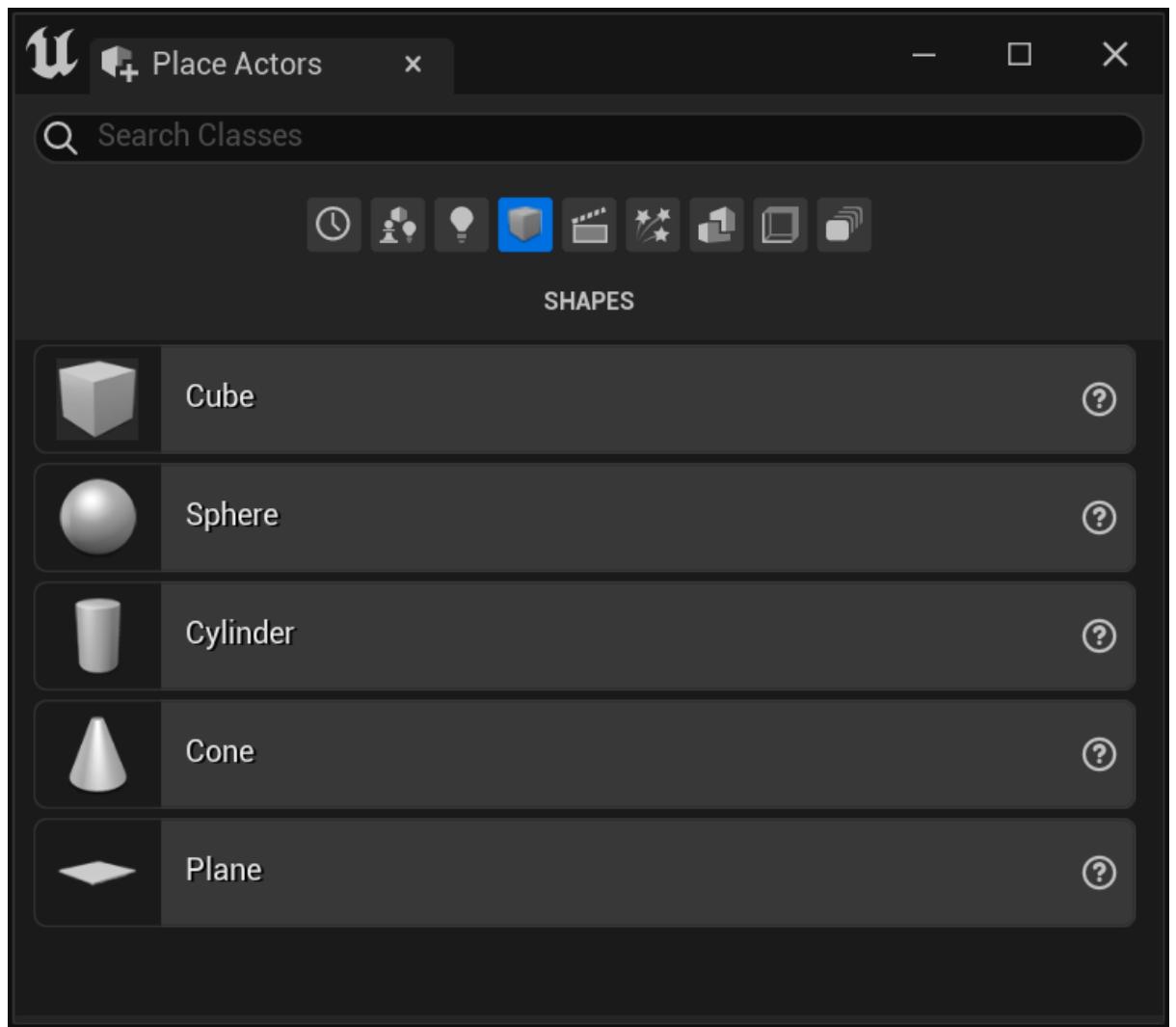
A video walkthrough of this tutorial can be found at

 [World Management Plugin starting from a blank project tutorial](#)

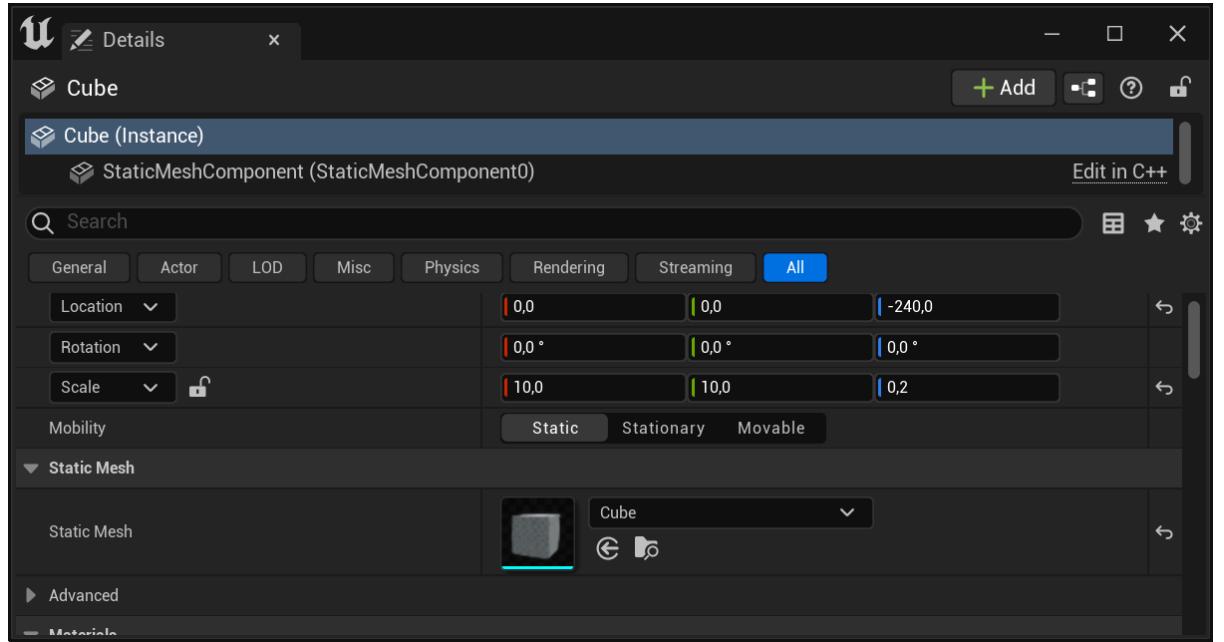
1. Create a new blank project with the unreal editor.
2. Add the World Management Plugin and restart the unreal editor.
3. Create a new empty level



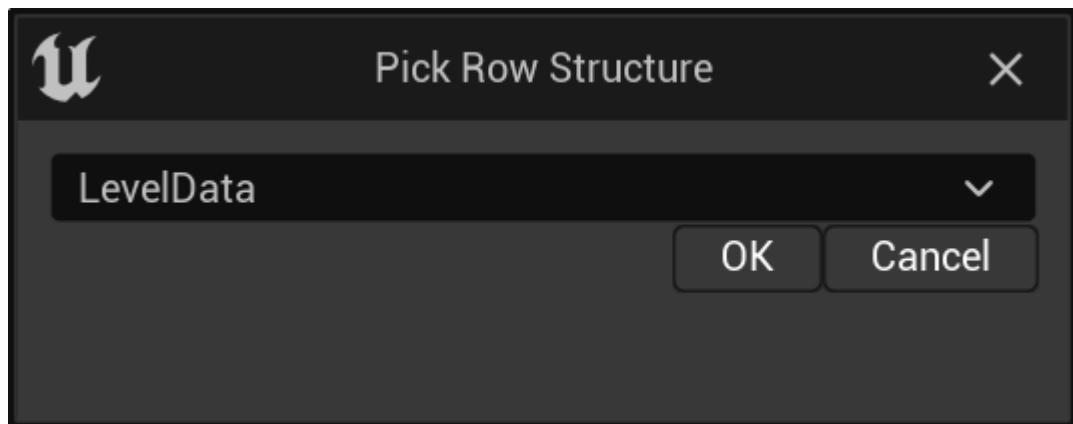
4. Add a new Cube to the empty level from the Place Actors window



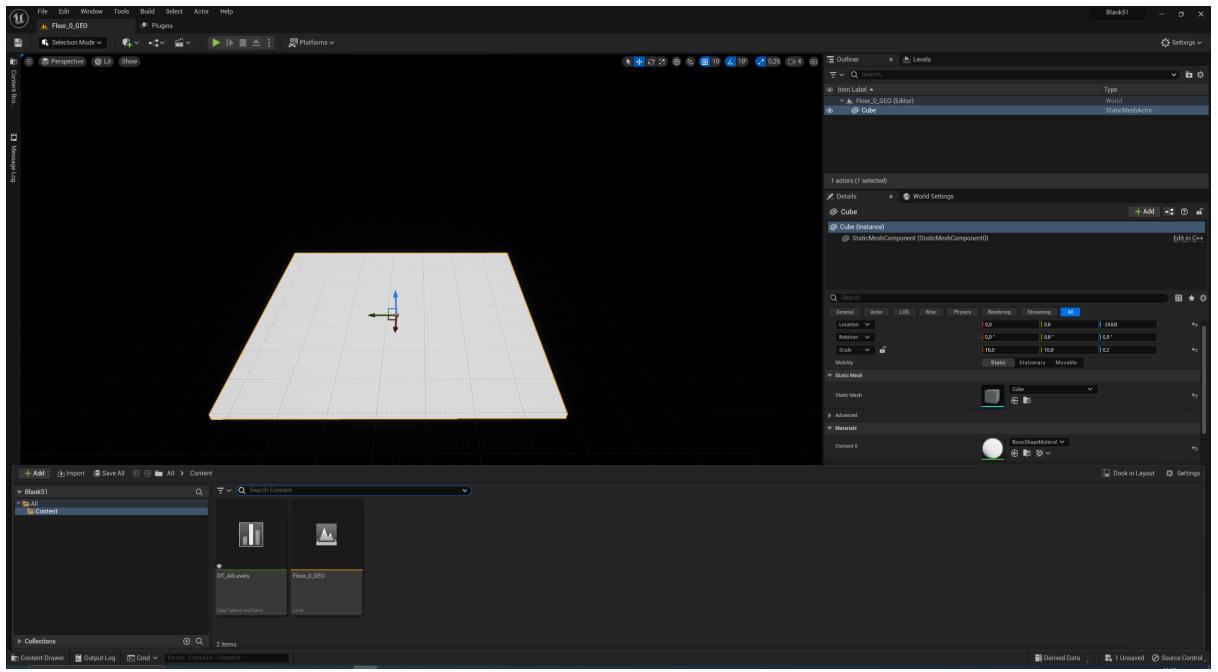
5. Set the location and scale of the Cube static mesh  
Location X = 0.0, Y = 0.0, Z = -240  
Scale X = 10.0, Y = 10.0, Z = 0.2



6. Save the level with the name 'Floor\_0\_GEO'
7. Create a new data table using the LevelData row structure and save the data table with the name 'DT\_AllLevels'



At this point you should have something that looks like the screenshot below, A level with the name 'Floor\_0\_GEO' that contains a flattened cube and an empty data table called 'DT\_AllLevels'



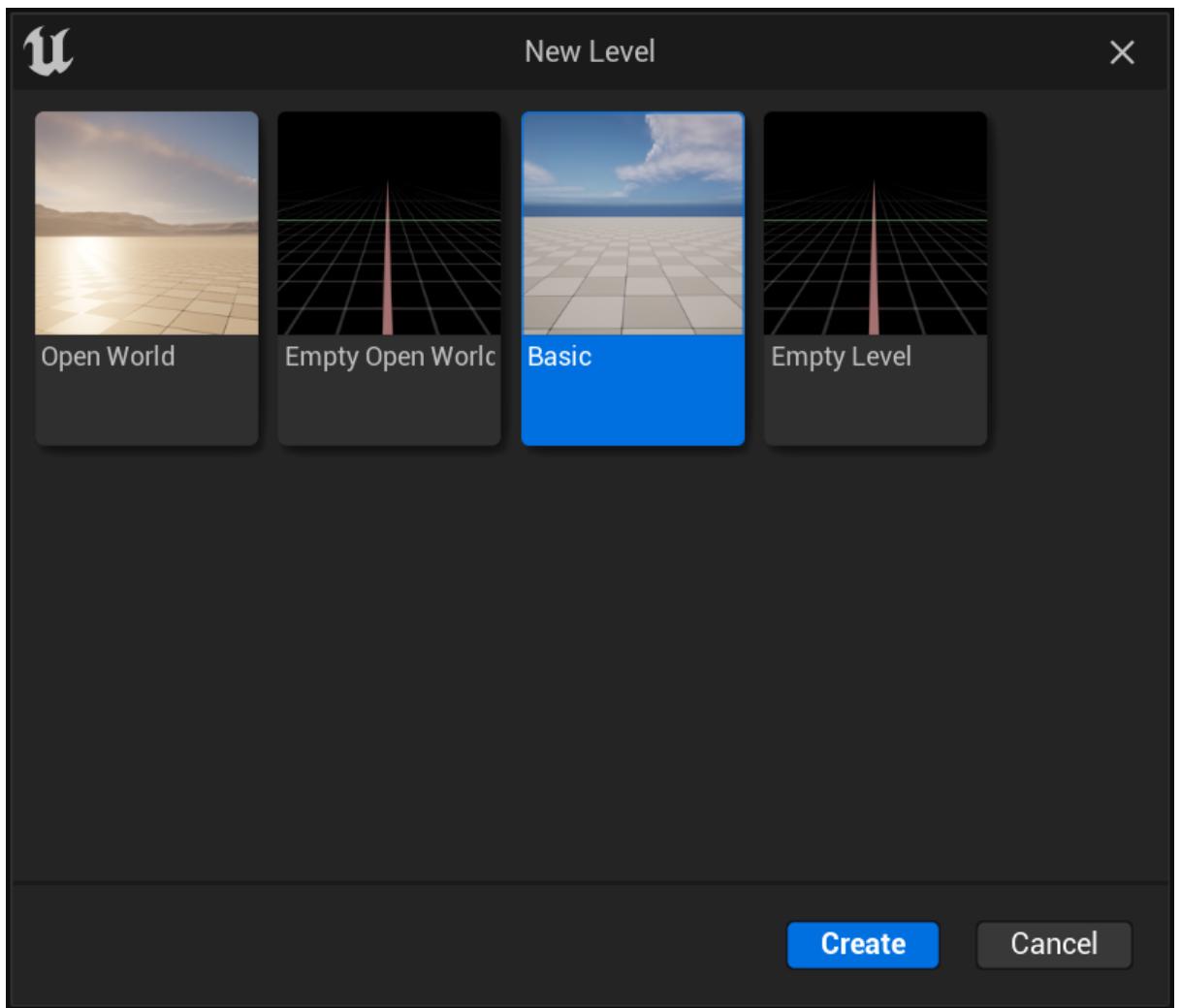
- Open the data table and add a Row for the Floor\_0\_GEO level with the values from the screenshot below, or import the json file into the data table.  
[https://github.com/waynepotts/Blank51/blob/2818d5e24f8fe1ec0dc695b075fed9c286bff26f/DT\\_AllLevels.json](https://github.com/waynepotts/Blank51/blob/2818d5e24f8fe1ec0dc695b075fed9c286bff26f/DT_AllLevels.json)

Row Name	Level Name Variant	Level Type	Cell Extent	Coords	Level Hooks
1	Floor_0_GEO	Floor	0	GEO	{"X": 500, "Y": 500, "Z": 250} {"Rotation": {"X": 0, "Y": 0, "Z": 0}, "W": 0.9999999999999999}

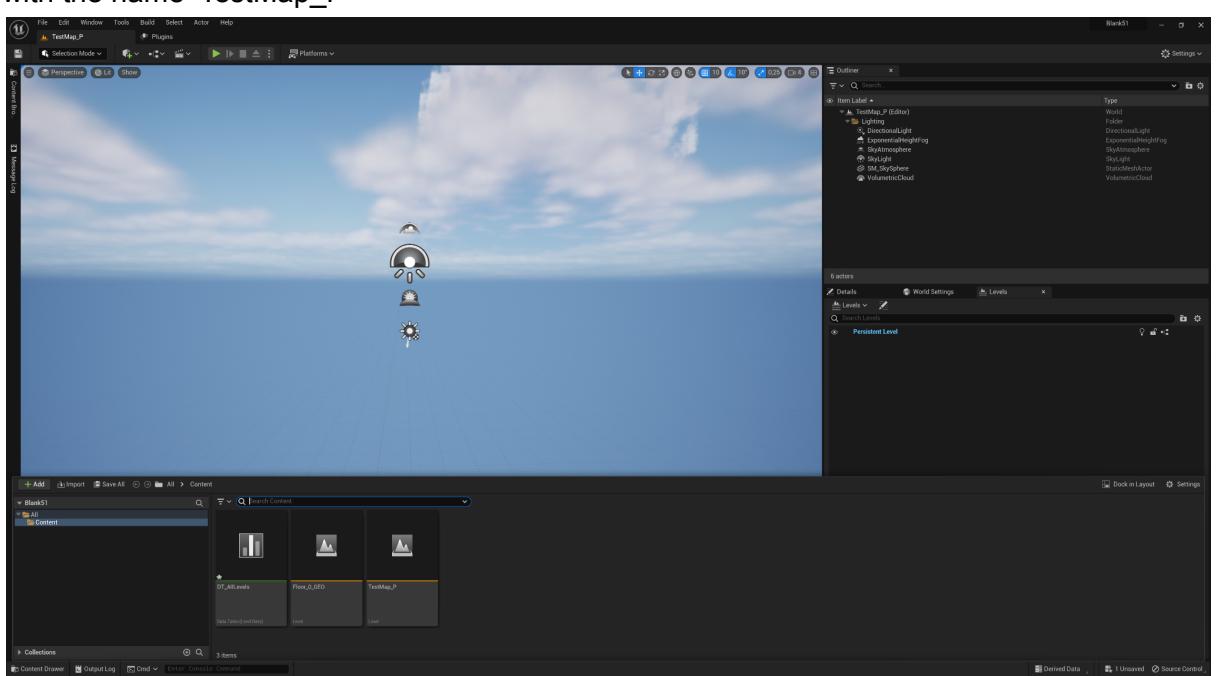
  

Row Editor		
Floor_0_GEO		
World Management Level Data		
Level Name	Floor	
Variant	0	
Level Type	GEO	
Cell Extent	500.0	500.0
X	500.0	250.0
Y	500.0	
Z	250.0	
Coords	1 Array elements	
Index [ 0 ]	0.0	0.0
Level Hooks	4 Array elements	
Index [ 0 ]	Location (-1.0, 0.0, 0.0)	
Location	-1.0	0.0
Rotation	0.0	180.0
Scale	1.0	1.0
Index [ 1 ]	Location (0.0, 1.0, 0.0)	
Location	0.0	1.0
Rotation	0.0	-90.0
Scale	1.0	1.0
Index [ 2 ]	Location (1.0, 0.0, 0.0)	
Location	1.0	0.0
Rotation	0.0	90.0
Scale	1.0	1.0
Index [ 3 ]	Location (0.0, 0.0, 1.0)	
Location	0.0	0.0
Rotation	0.0	90.0
Scale	1.0	1.0

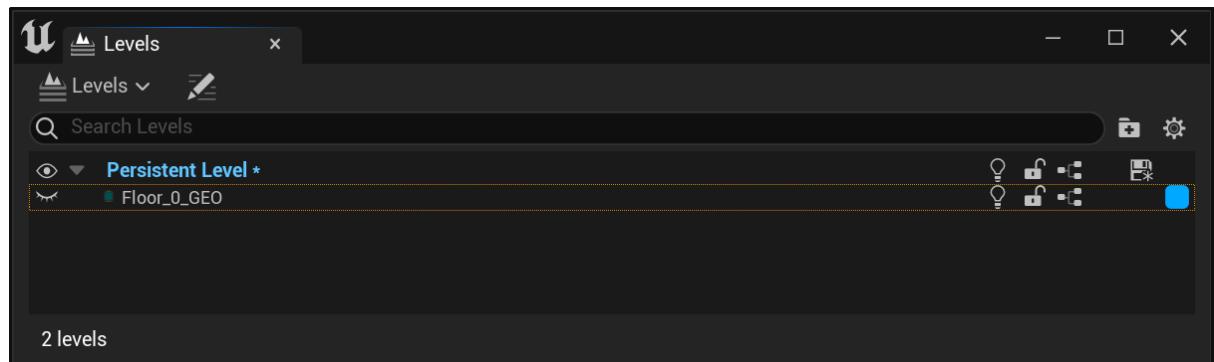
- Create a new Basic level



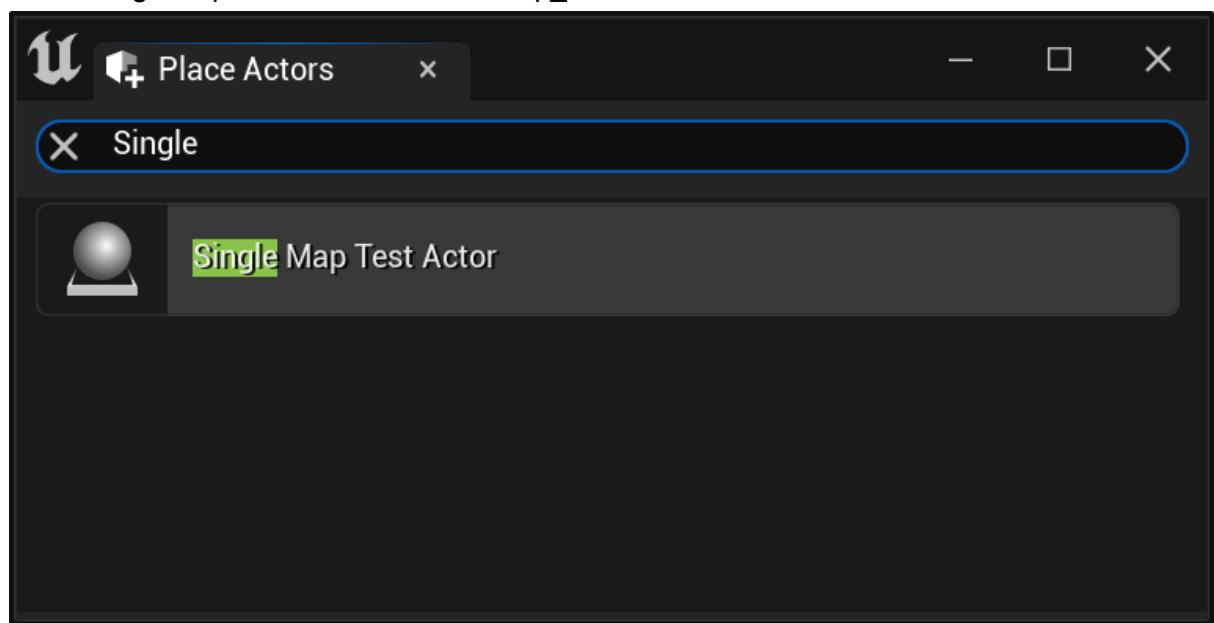
10. Once the new level is open delete the 'Floor' Static mesh actor and save the level with the name 'TestMap\_P'

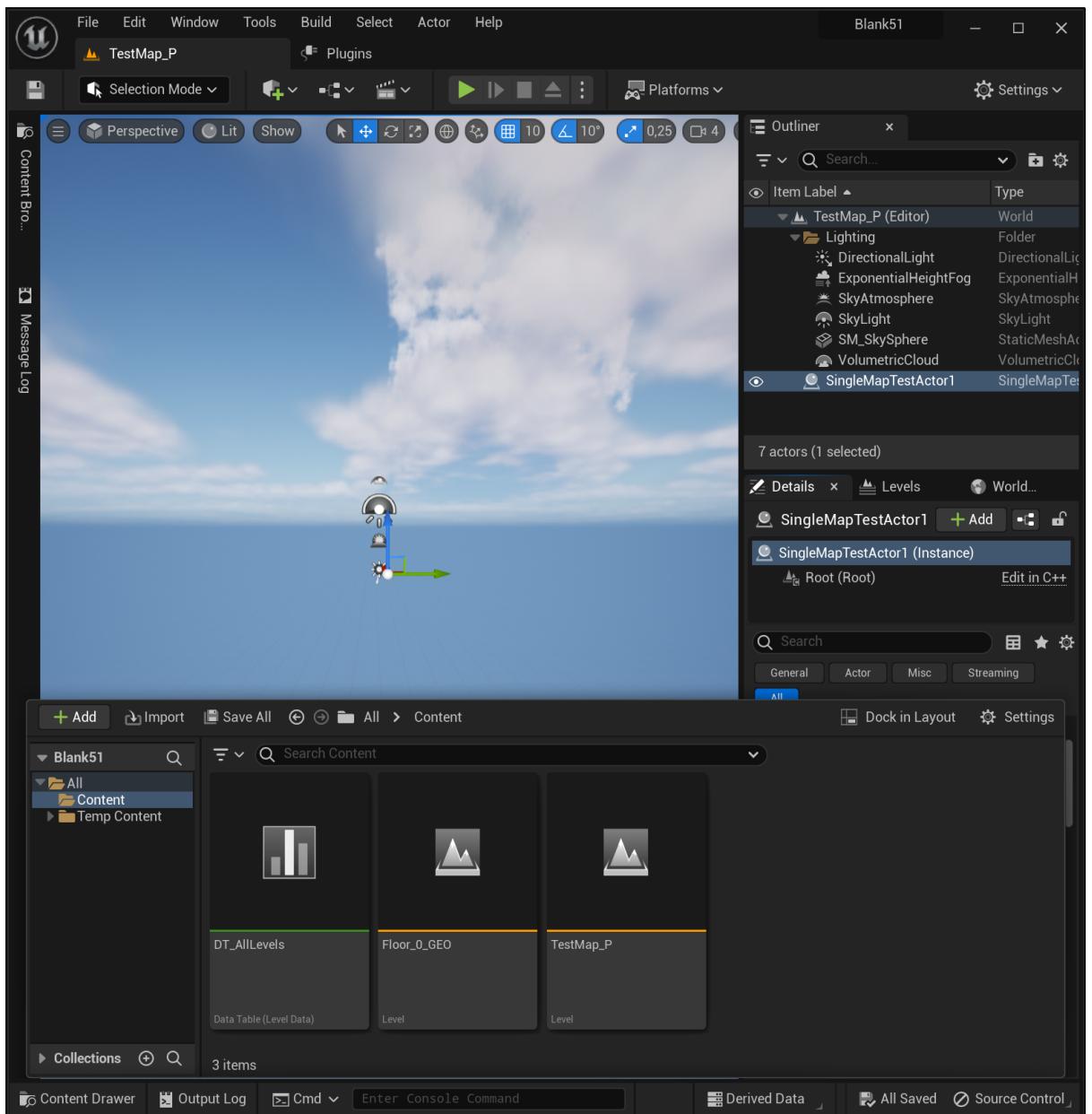


11. Add the Floor\_0\_GEO level as a new streaming level in TestMap\_P and hide Floor\_0\_GEO



12. Add a SingleMapTestActor to the TestMap\_P level from the Place Actors window



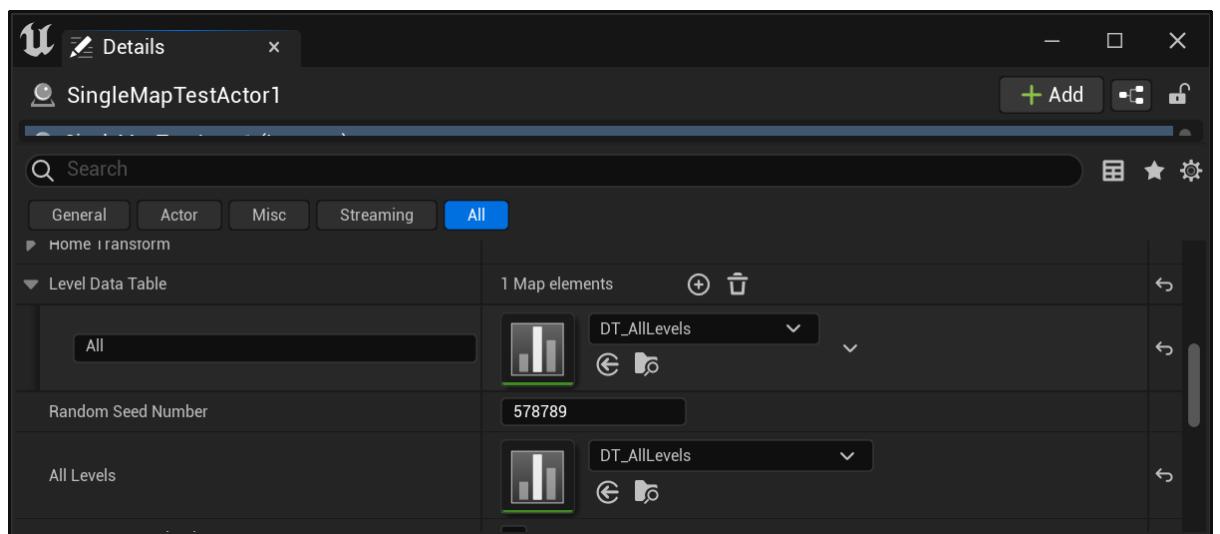
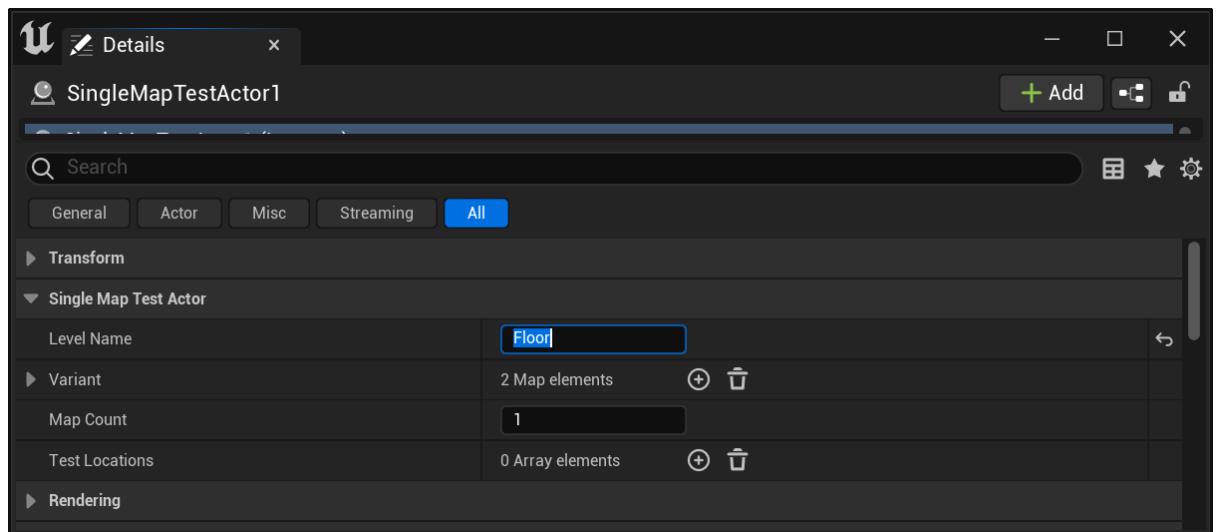


13. In the Details window for the SingleMapTestActor set

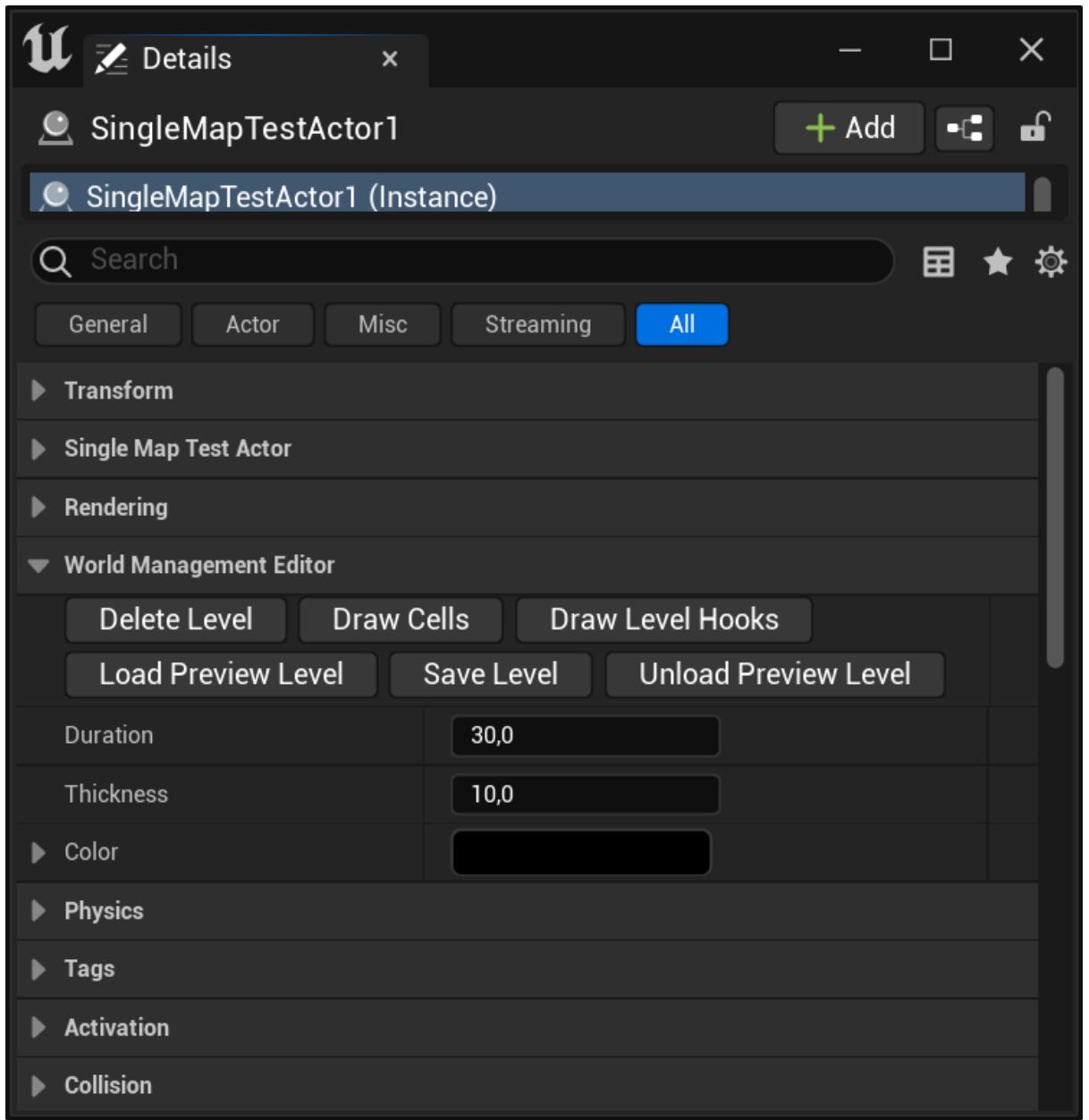
Single Map Test Actor -> Level Name to 'Floor'

World Management Actor -> Level Data Table map Key 'All', value DT\_AllLevels

World Management Actor -> All Levels to DT\_AllLevels



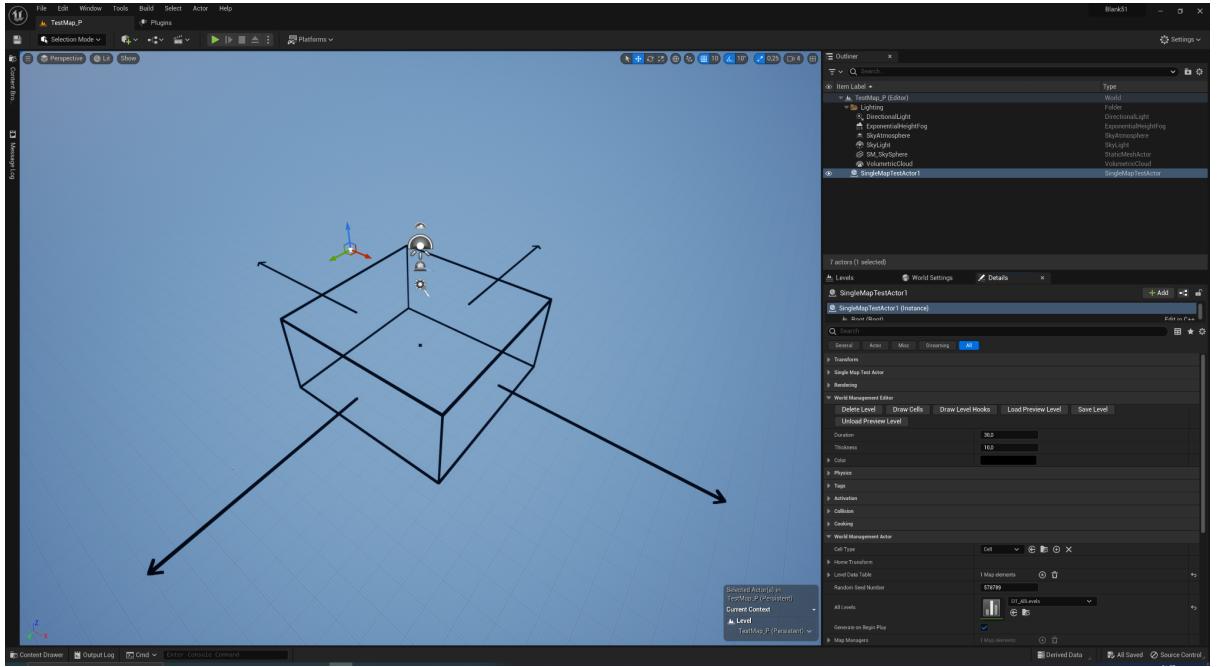
14. Go to the World Management Editor section in the SingleMapTestActor details window and click the ‘Draw Cells’ and ‘Draw Level Hooks’ buttons



The Draw Cells button draws the boundary box around the level, which we use to make sure that other streaming levels don't overlap this one (the black square in the middle is the home transform for the cell)

The Draw Level Hooks button draws the arrows pointing away from the box, these are used to attach new streaming levels (or more instances of Floor\_0\_GEO) that we can use to build up our randomly generated level.

If all of the steps were followed then you should see this in the TestMap\_P level



If you've got this far and nothing has gone wrong then the level is loading correctly and we would now just need to add extra streaming levels in the same way to create more variety in our randomly generated levels.

The other buttons in World Management Editor section

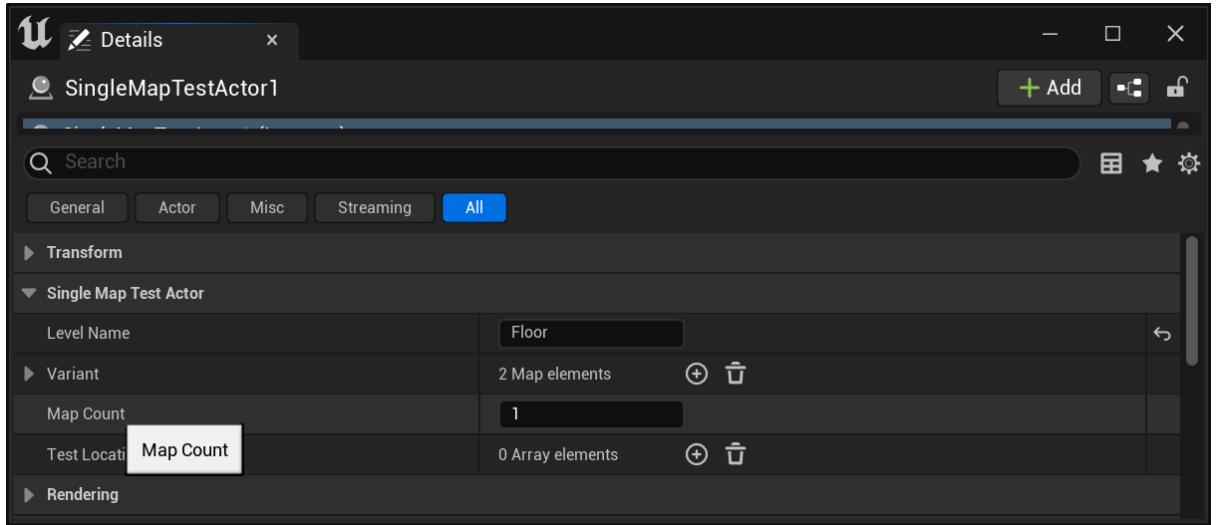
**Save Level** - Saves the generated level to a UGameSave so we don't need to go through the process of finding a free level hook to add generating levels from scratch each time.

**Delete Level** - Deletes the UGameSave files the Save Level button created.

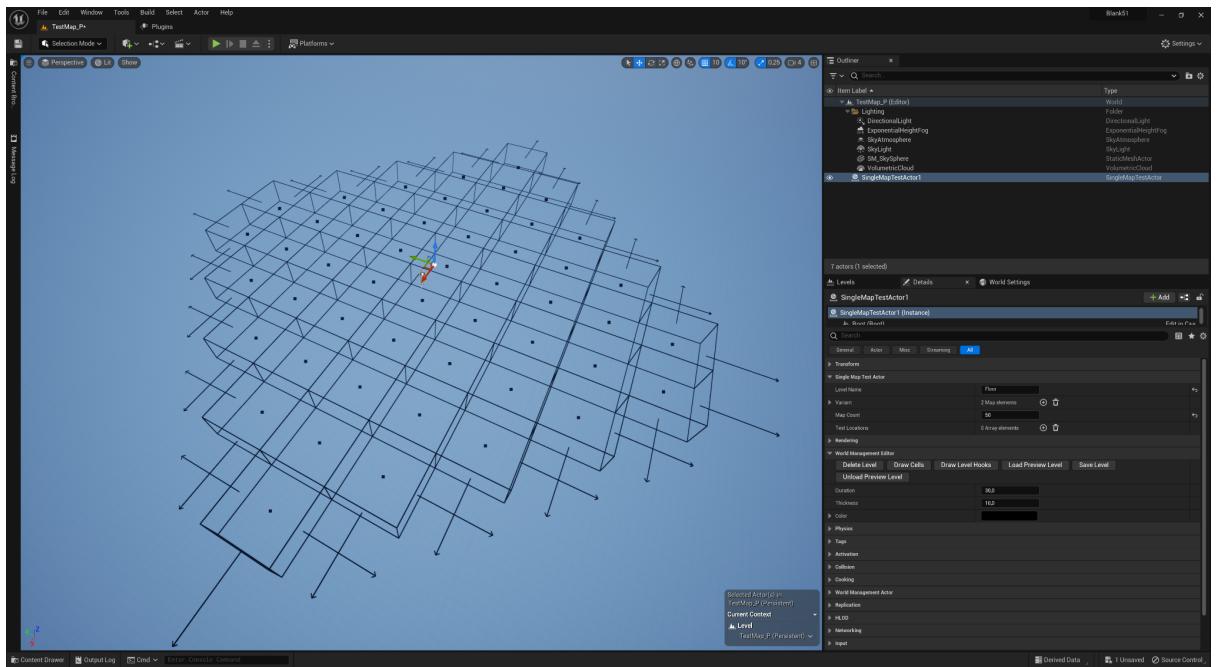
**Load Preview Level** - Loads the randomly generated map the player would see when playing the game

**Unload Preview Level** - Unloads the randomly generated level.

One last thing to try is changing the Single Map Test Actor -> Map Count value so that we spawn more copies of the Floor\_0\_GEO map so we can see how a level is generated by tiling the streaming levels around each other.



For example the screenshot below is Single Map Test Actor -> Map Count = 50



The screenshot below is Single Map Test Actor -> Map Count = 50 after clicking the draw cells, draw level hooks and load preview level buttons.

