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**MSD 6.2A**

**SCFG ASSIGNMENT 1**

**KU3**

* 1. Grid Graph:

A Grid Graph generates nodes in a grid pattern using width and depth. (1)

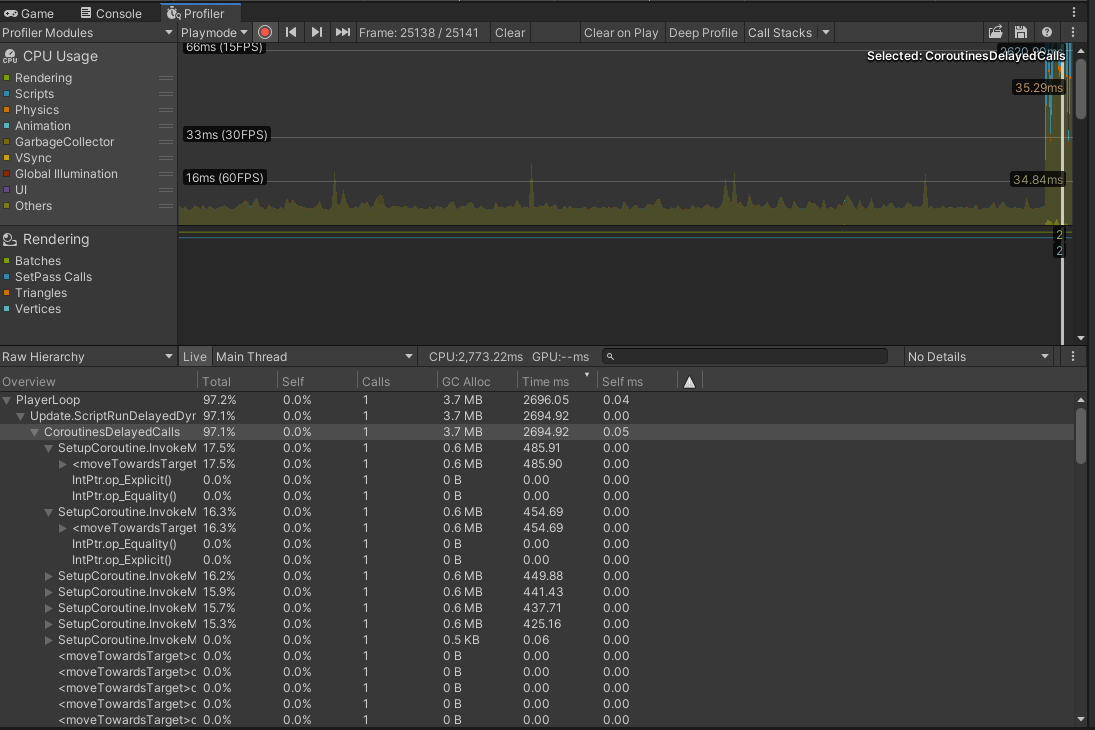
* 1. Point Graph:

A Point Graph consists of a lot of user placed points that are linked together. The point graph is scanned by taking the transform of the Root and treating every child as a node. It then uses casts a raycast to each point to check if they should be linked together. A point graph can only be used to define the walkability of a play space and nodes should not be placed too far apart from one another. (1)

* 1. Navmesh:

A Navmesh graph uses triangles meshes to generate pathfinding data. Infact it is a mesh with polygons that describe a walkable area. It is a perfect implementation for smooth and fast pathfinding especially in instances where the graph doesn’t change during runtime. (1)

1. The Biggest bottleneck for AI pathfinding is the coroutine that allows the enemy to move in the path to the target.



**References**

1. Arongranberg.com. 2021. *A\* Pathfinding Project: Graph Types*. [online] Available at: <https://arongranberg.com/astar/docs\_dev/graph\_types.php> [Accessed 14 January 2021].