Follow the Path

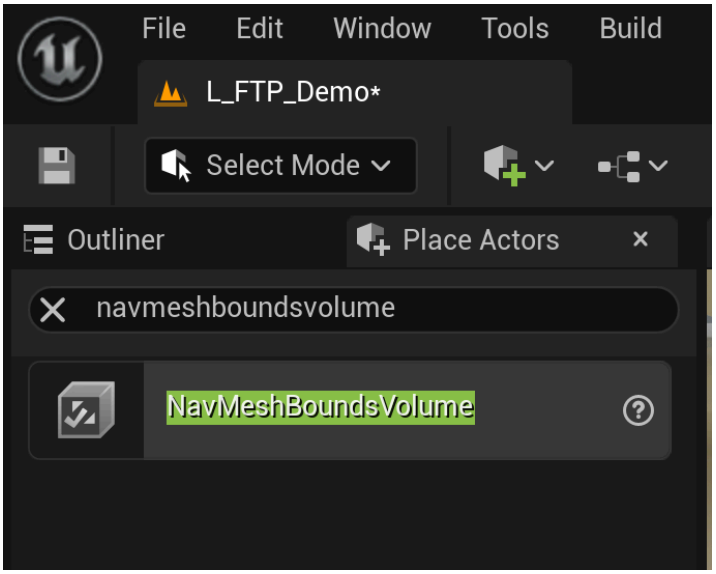
Setup

Placement

Each type of navigation should be placed at world 0,0,0
When selected the location markers will become visible and can be moved with the transform widget or the locations can be set manually in the “Customise” section of the details panel.

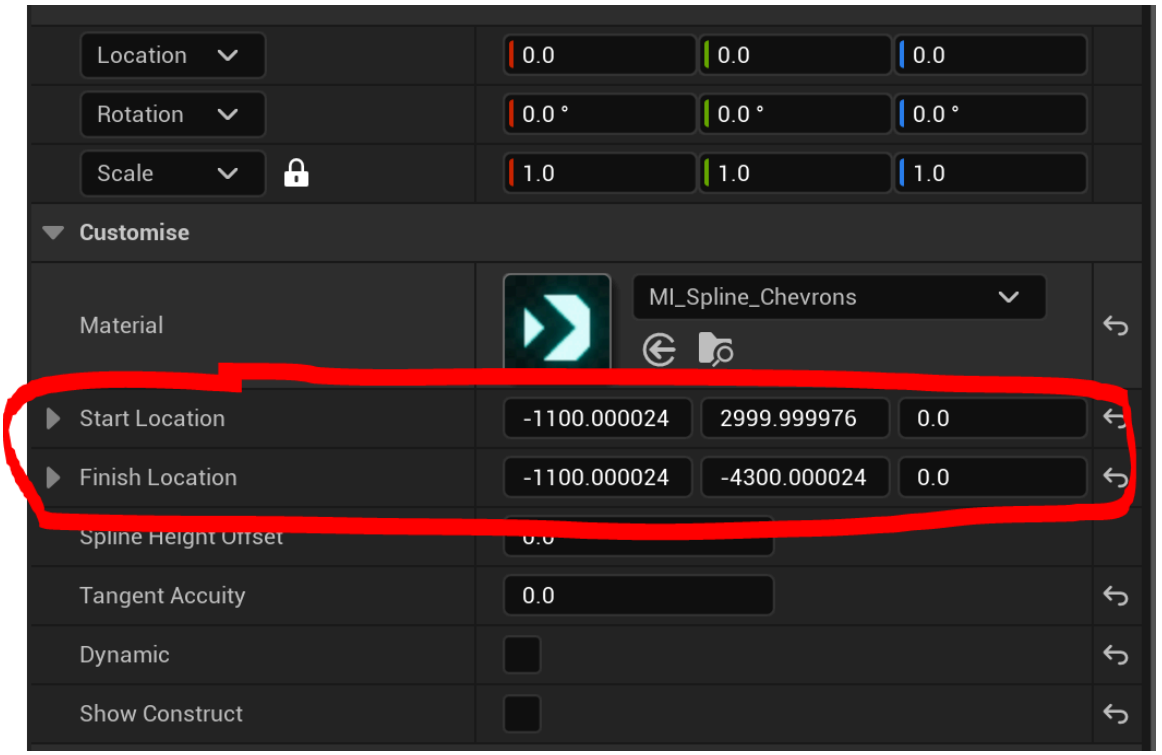
Navmesh

Nav mesh types will need a “NavMeshBounds” volume added to the level, once added you can turn on nav mesh visualisation by pressing ‘p’.
Waypoint types don't need a navmesh.

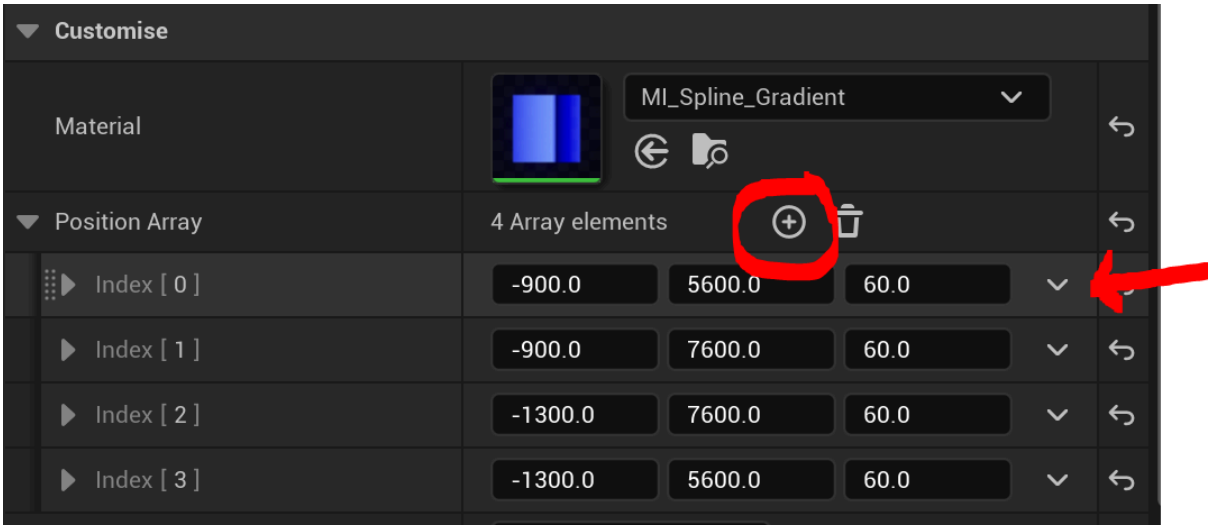


Locations

Nav Mesh types have a start and end location, when selected the locations will show and you can move them with the widget, or you can set locations manually in the “customise” section of the details panel.



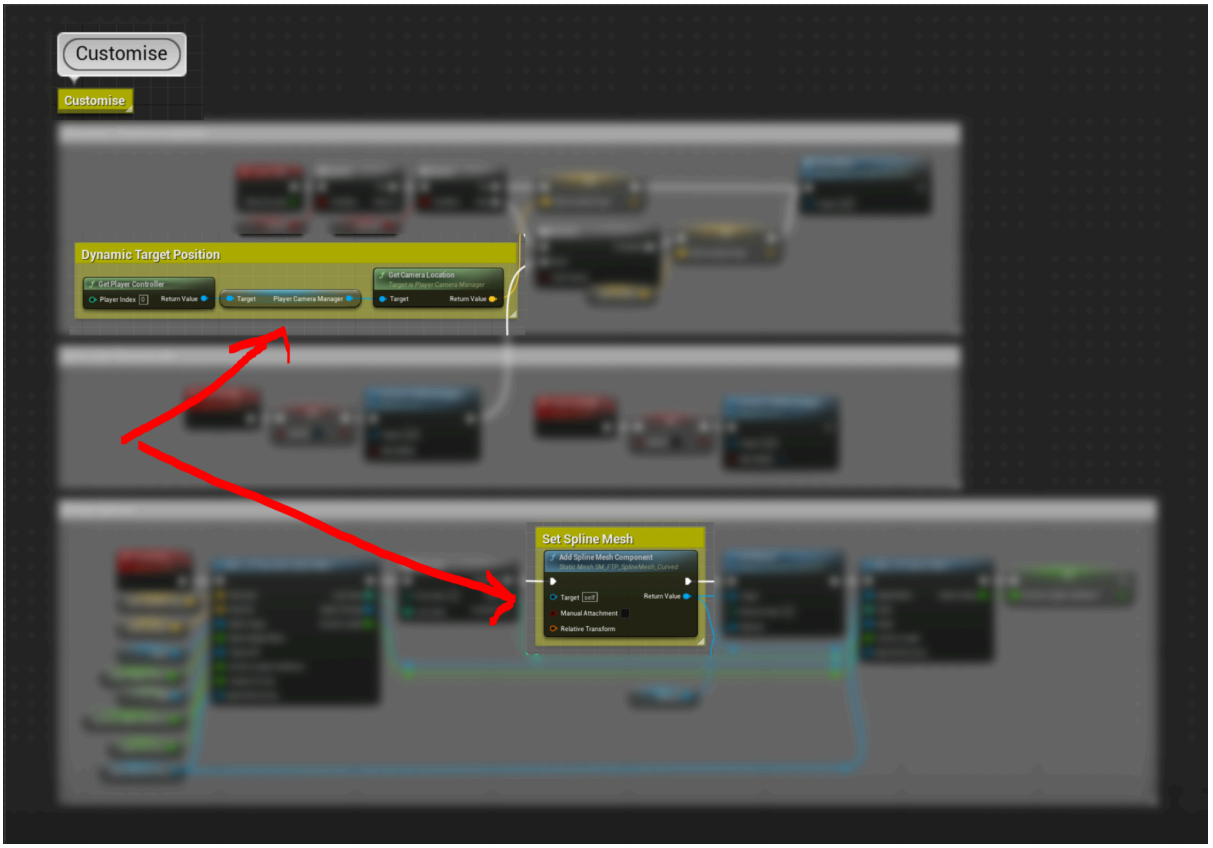
Waypoints types can have multiple locations as desired, in the “Customise” section of the details panel click the + button to add locations, Note the trash icon will remove all, to delete just one click the down arrow next to the location you want to remove



Customisation

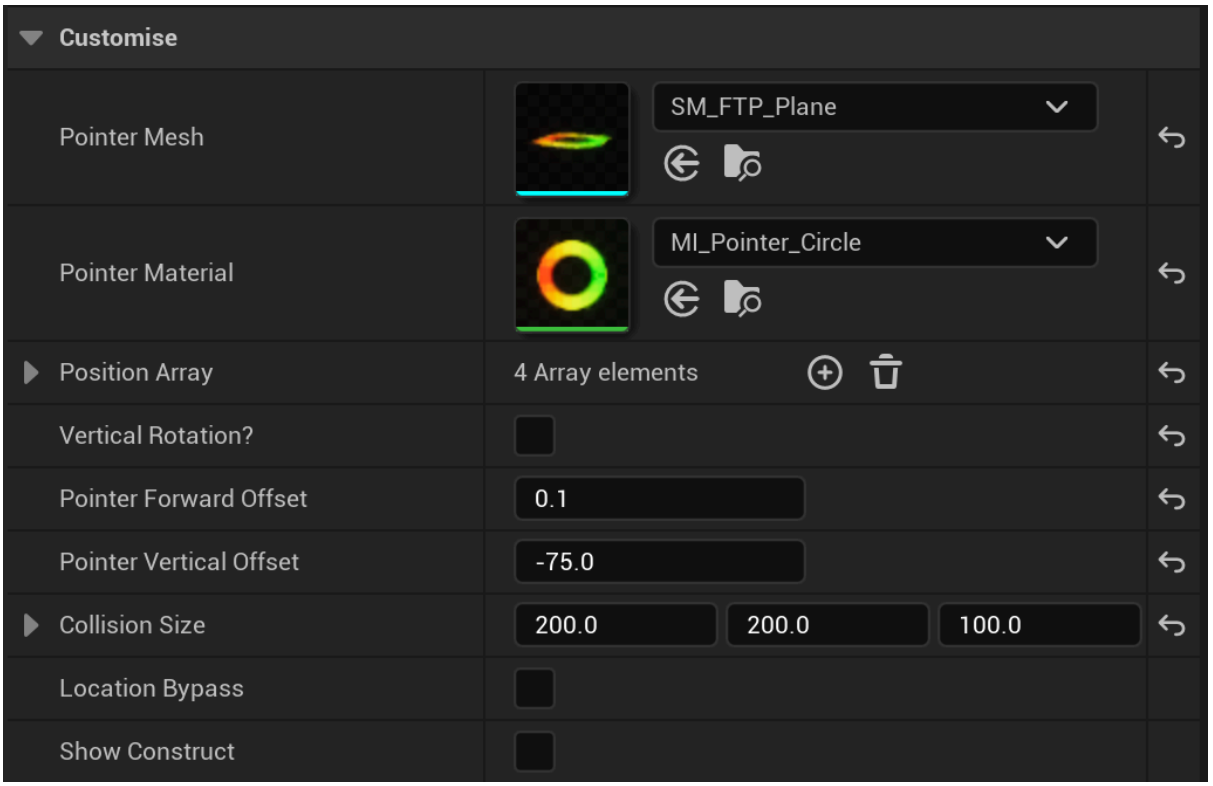
In Blueprint

The majority of customisations are available in the “Customise” section of the details panel, but some cannot be added here so will need changing in the Blueprint, sections that are highlighted in yellow are the parts that most likely will need customisation.
Eg. Dynamic target position would be your player character or mouse pointer position.
At the moment all dynamic targets are the player camera



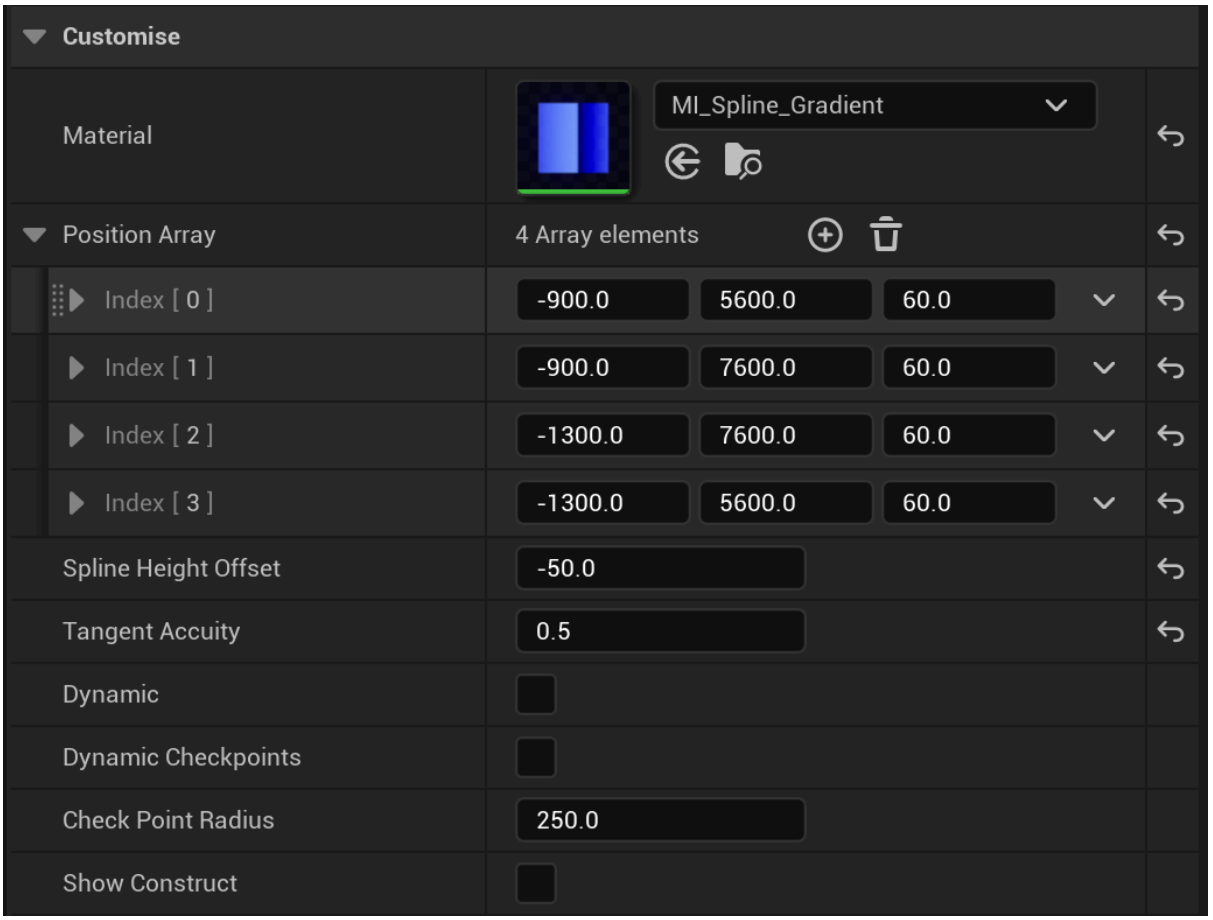
Details Panel

Pointer



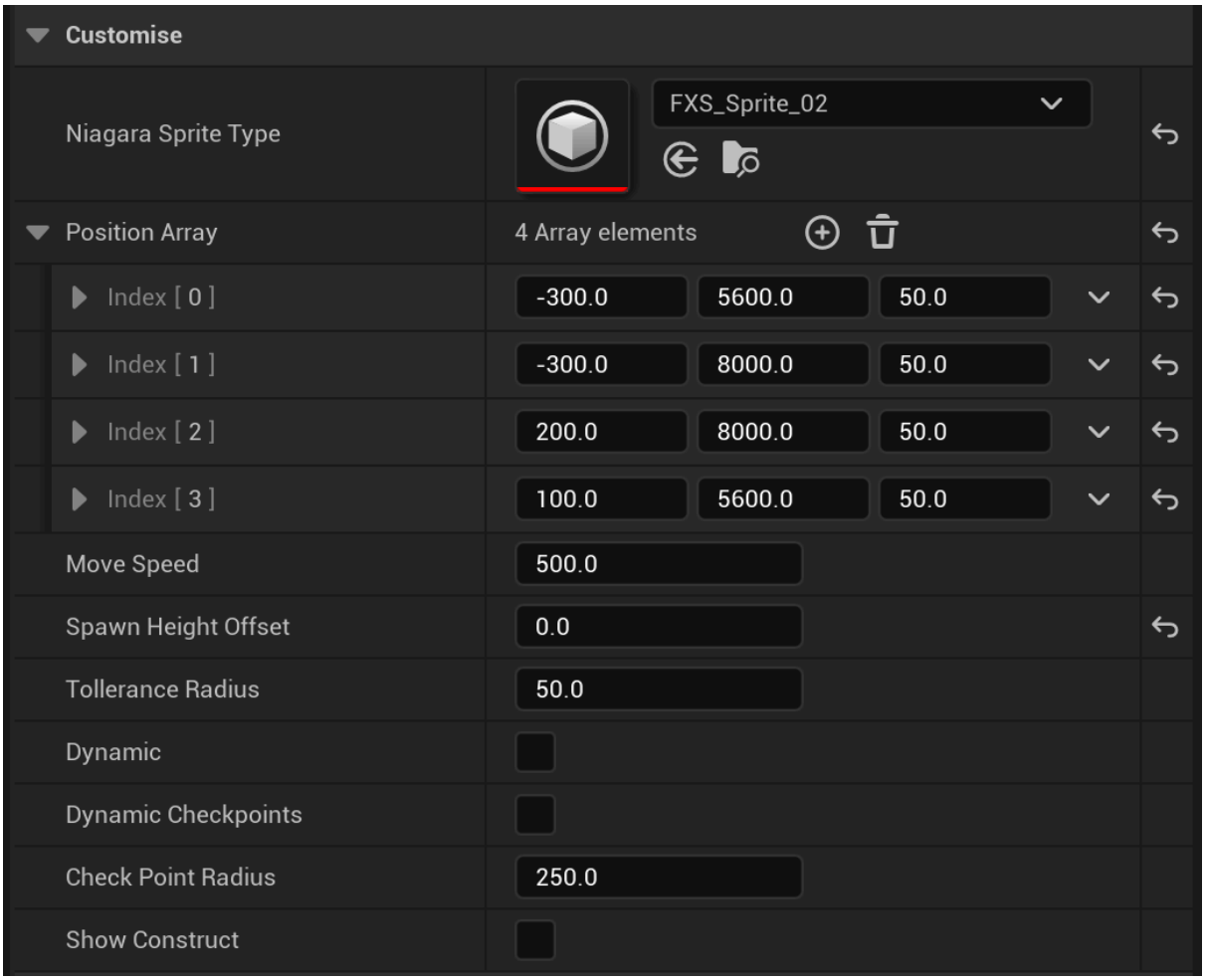
- Pointer Mesh - Mesh that will show when activated.
- Pointer Material - Material type for the activated mesh (overrides Mesh Default).
- Position Array - Locations for each waypoint for the path, will be start and end for NavMesh type, each location is depicted with a diamond in scene and can be selected and moved in scene.
- Vertical Rotation - on will let the pointer look up and down (Z axis) and off will keep the pointer on a horizontal plane (XY Axis).
- Pointer Forward Offset - Moves the pointer in the X axis relative to the driving actor (useful for setting pointer is in camera view for first person).
- Pointer Vertical Offset - Moves the pointer in the Z Axis relative to the driving actor (useful for setting pointer is in camera view for first person).
- Collision Size - dimensions of the collision boxes, collisions are made dynamically and placed at waypoints or spline points.
- Location Bypass - use when inserting this blueprint into another to stop double location finding.
- Dynamic - determines the starting point when activated, off uses predetermined start, on uses current location as start point.
- Show Construct - for ease of use purposes to show setup, should be off for the final version.

Spline



- Mesh - can only be set in the blueprint.
- Material - Spline material, set on start and overrides default mesh material
- Position Array - Locations for each waypoint for the path, will be start and end for NavMesh type, each location is depicted with a diamond in scene and can be selected and moved in scene.
- Spline Height Offset - first point Z axis relative to driving actor, useful for first person
- Tangent Acuity - sharpness of angle changes in the spline, 0 for sharp 1 for rounded
- Dynamic - On start point updates to driving actor, Off start point remains stationary at predetermined location
- Dynamic checkpoints - Waypoint only, determines if player needs to activate each way point before moving on to the next
- Check point radius - Waypoint only, determines the distance from the waypoint before it is activated, not collision based
- Show Construct - for ease of use purposes to show setup, should be off for the final version.

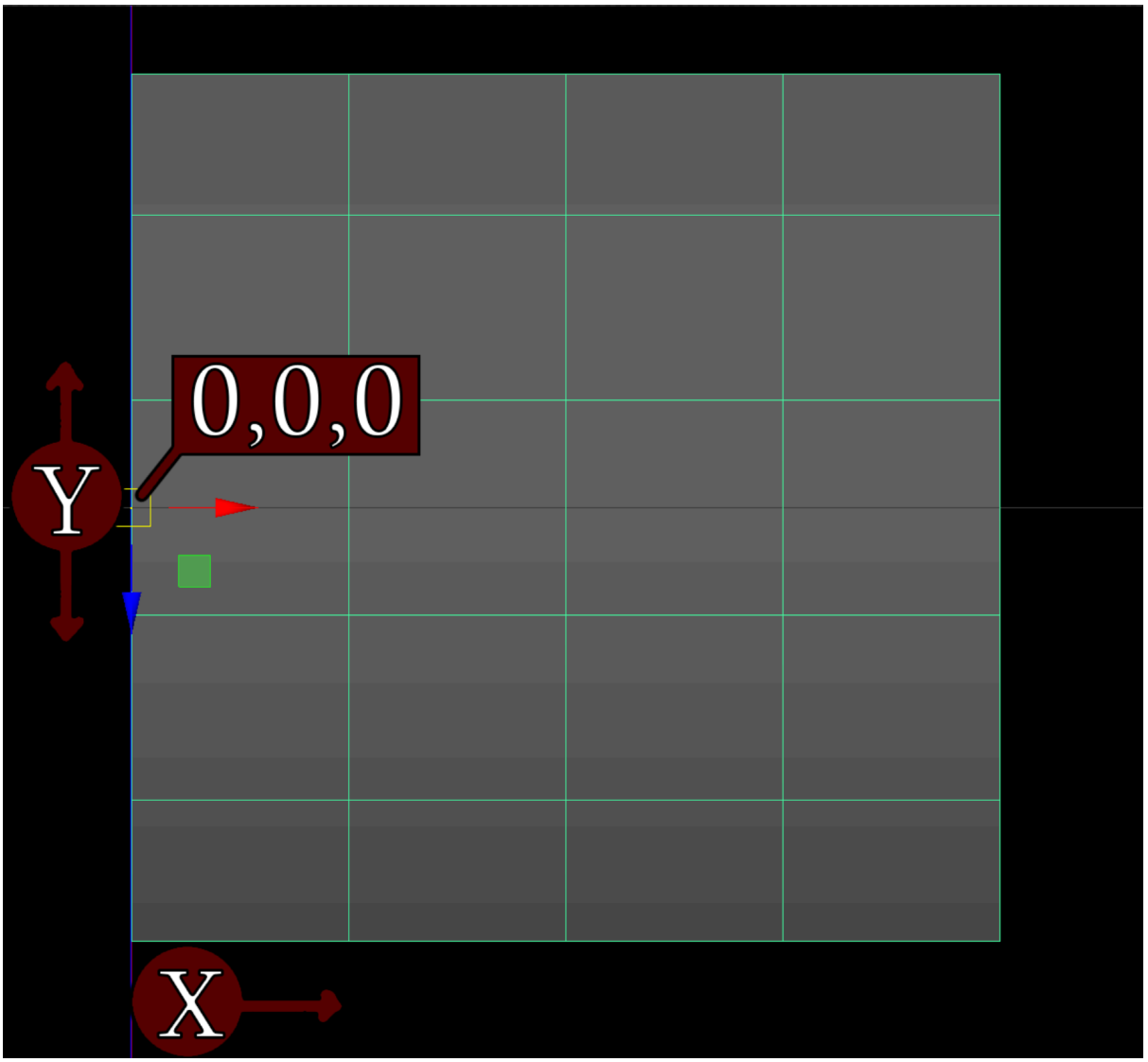
Sprite



- Niagara Sprite Type - sets the emitter type for the sprite
- Position Array - Locations for each waypoint for the path, will be start and end for NavMesh type, each location is depicted with a diamond in scene and can be selected and moved in scene.
- Move Speed - WayPoint Sprites move velocity by delta time, Navmesh Sprite Blueprint max walk speed.
- Spawn Height Offset - Z axis offset relative to driving actor.
- Tolerance Radius - Distance from waypoints.
- Dynamic - determines the starting point when activated, off uses predetermined start, on uses current location as start point.
- Dynamic checkpoints - Waypoint only, determines if player needs to activate each way point before moving on to the next
- Check point radius - Waypoint only, determines the distance from the waypoint before it is activated, not collision based
- Show Construct - for ease of use purposes to show setup, should be off for the final version.

Make a Spline Mesh

Splines deform meshes to conform to the spline shape, so meshes will need divisions along the X axis, the blueprints to populate the spline uses repeating meshes technique, so the amount of divisions does not need to be more than a few, and remember that the higher the poly count of the spline mesh the less optimised it will run for large splines.



Additional Information

Navmesh Content Examples
Modifying the navmesh
Unreal Spline Overview
Unreal Niagara Overview