Dynamic Culling Base

Dynamic Culling is a module that simplifies the optimization of **both static and dynamic objects**, without the need for **preprocessing**. This method is fast and efficient, but it should be noted that it may **increase the load** during runtime **compared to Static Culling**.

Dynamic Culling is an effective solution **not only** for culling dynamic objects but also for **optimizing large-scale scenes**. The baking of such scenes involves not only **time expenditure** but also challenges related to **memory requirements** for data storage. In this context, Dynamic Culling is advantageous as it eliminates the need for preprocessing and **reduces memory usage**, simplifying the optimization process.

1. To optimize your scene, you need to **create a Dynamic Culling Controller**. For this, click on the "Tools -> NGSTools -> Advanced Culling System -> Dynamic" tab.
2. Settings :
   - **Controller ID** – a unique identifier for the controller. Culling Targets will search for the controller **they belong to using this ID**.
   - **Objects Lifetime** – the **duration** an object must remain invisible to the camera before it is turned off.
   - **MergeInGroups** – whether to **merge nearby objects** into a single group. This can help eliminate artifacts when objects flicker on screen. It's **not recommended to enable this feature if you want to cull dynamic objects**.
   - **Cell Size** – the size of a cell within which objects **will be grouped together**.
3. Objects Selection :
   - **Cameras Tab** – you need to add all cameras that will observe the culled objects.
   - **Renderers** – MeshRenderers that will be culled.
   - **LODGroups** – LODGroups that will be culled.
   - **Occluders** – objects that can overlap other objects, but are not culled themselves.
4. The "DC_Camera" script **will be added** to the cameras you've selected. Try experimenting with **different "Rays Count" values** to find the **optimal balance** between CPU usage and culling quality.
5. The 'DC_SourceSettings' script will be automatically added to **all objects you wish to cull**. Adjust the **'CullingMethod'** depending on whether you want to disable shadows for the object**. For larger objects**, it is recommended to set this to 'Keep Shadows' to retain their shadows.
6. Now, after you **start the scene**, you should see that objects overlapped by others are automatically turned off.