Multi-Scene

There is two types of multi-scene setups:

1) The scene is loaded non-additively and replaces the previous scene
2) The scene is loaded additively (loaded in addition to existing scenes)

The first type does not require any additional setup. The second setup may need additional care.

Usually, you would utilize such a setup to partially load and unload parts of your level. This is supported by Perfect Culling but a couple of things need to be taken into account.

References to renderers need to be stable and cannot reference objects across different scenes. So the scene that is loaded additively needs to be fully self-contained. Of course, you still would like to cull objects based on geometry in other scenes. The way how Perfect Culling deals with this situation is that at bake time every scene is loaded and a bake is performed using the Bake All menu option.

This creates a temporary scene and allows to setup the renderers of the other scenes as occluders.

Of course, volumes only have information about the area that was baked and for this reason you really should make the volume larger than the self-contained scene needs.

You can try such a setup by opening the following scenes:

- Demo_MultiScene_1
- Demo_MultiScene_2
- Demo_MultiScene_3

In order to bake them you would load them all simultaneously. You can also hit play in this configuration but each scene also works indepentedly and you could just test a single scene.
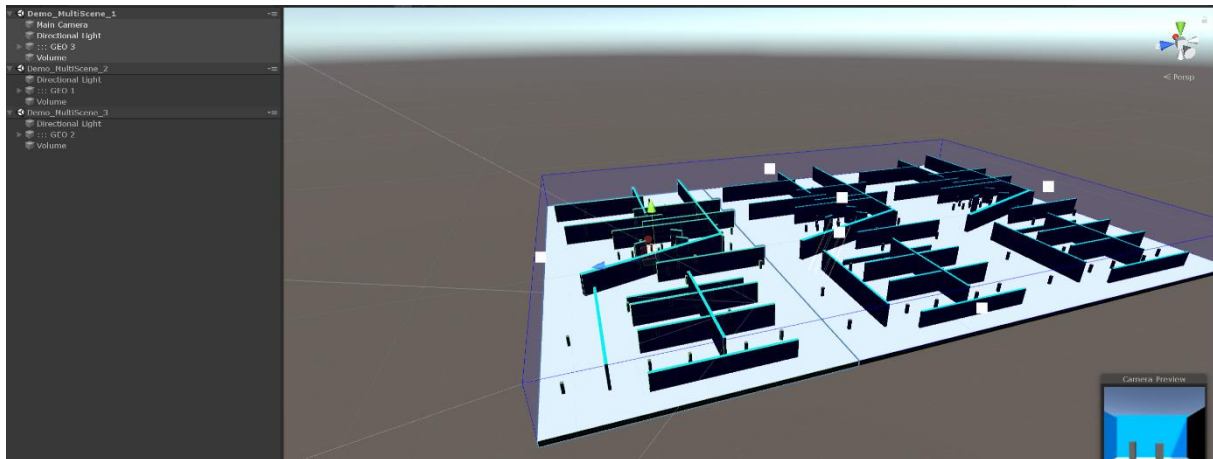

Each volume perfectly overlaps the entire scene

The demo setup is perfect because each individual scene perfectly overlaps the other scene. For more complex scenes that might increase the bake size or just take too long to bake. Concluding that you may be unable to overlap everything but you need to constrain yourself to a smaller amount of overlap. Ideally your level is designed in such a way that the overlapping area contains very good occluders! If there is no good occluders inside the baked area not much culling can take place.

Generally, a fully static scene will always be most efficient and effective but clever placement of occluders and sufficient bake volume overlap should allow you to find a good compromise.
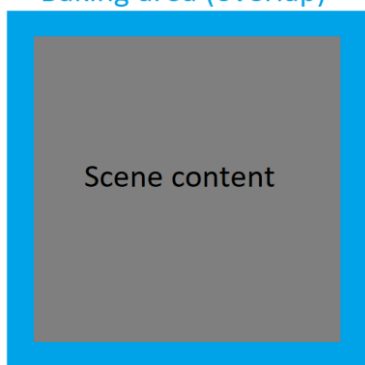
Baking area is larger than the actual scene content. This allows to take into account occluders in other scenes.