Date: March 25, 2020

Subject: Subdivision Techniques

Prior meeting: Discussed parallel development between Grasshopper (Rhino) and CGA (City Engine) to create similar geometry developments that can be refined in Unreal Engine.

Started by investigating CGA rule creation and RPK extraction to create new packages that could work similarly to Grasshopper. Finding the CGA editor within CityEngine unwieldy for initial development of rule files, I created a syntax highlighter for Visual Studio Code that aided in the development of CGA files. It is still very much a work in progress and can be found at this link:

https://github.com/amybam/cga

While working in CGA I began updating the CGA documentation to fall in line with most other language documentations. Still a work in progress.

https://github.com/amybam/WRENVR/blob/master/CGA_tut.md

Finally, began developing a CGA file that created buildings from footprints with certain parameters: floor_height, groundfloor_height, height, tile_width, color.

The idea is that a complete RPK is developed, one that takes building footprints and converts them into fully detailed buildings, of a variety of styles and window types etc. These can then be broken into two halves and refined. One will develop the building massing (used in CityEngine), the other with refine that massing (used in Unreal).

It brings about questions on how we should be using the Unreal side of things. By importing several massing options into a certain Actor, you can test a variety of scenarios. This then requires the massings to be created beforehand and pre-imported. Is this solution then better than important lots and developing entire buildings from those lots within Unreal? The former is better for an architect's workflow perhaps, while the latter is better for the health of the plugin.

Attachments. **CGA**: building.cga. **Images**: Building

Copy to:
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