Geometric Data Processing at TU Delft

This repository contains the materials of the Geometric Data Processing course offered by the Computer Graphics and Visualization Group at TU Delft. A description of the materials can be found at this document.

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Getting Started

The assignments for this course assume you have a working installation of Blender 4.1 or greater. To run your solution from the command line, you must be able to launch blender's executable directly. `${BLENDER}` represents the command that launches blender, which will depend on your OS and how you installed the application.

Running your plugin

You can launch the plugins within blender using the `run.py` script in the main directory.

```
${BLENDER} --python run.py
```

The `--python` flag tells blender to run the script as soon as it launches. `run.py` ensures that all necessary dependencies are available, and then registers the modules in assignment1.

Running the tests

The tests must also be run with Blender's own interpreter. They can be launched with:

```
${BLENDER} --background --python test.py
```

This uses the `--background` flag so that Blender does not open a window while running the test suite. This will run a handful of provided unit tests, and you are encouraged to add more.

Developing with an IDE

It is possible to develop your plugins directly within Blender's text editor, but we don't recommend this approach for multi-file projects like assignment1.

Because assignment1 depends on `bpy` (Blender's built-in python bindings), it is not possible to run the assignments outside of blender. You can still use your

python IDE of choice to develop your solutions with the help of `fake-bpy-module`. This python package provides unimplemented 'stubs' for all bpy functionality, enabling your IDE to autocomplete relevant functions.

Onboarding Session

Our first practicum will be an onboarding session which goes through basic Blender usage and covers the first part of assignment1. If you weren't able to attend the in person session or would like to review the content, the slides are also available on Brightspace.