To boldly go….. Perhaps to foolishly go… boldly_going_3.docx

October 9, 2021

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I am going to start a project and thought that announcing it beforehand might motivate me.

I still want to do something related to "Harry's Boppers". A knowledgeable friend suggested that I use the Unity game development platform. A quick review of this showed that I would need to learn C# in the process. That alone will be a major challenge as the only related exposure I have is one small project in Java.

My intent is to average a few hours a day until my initial goal is met and then decide whether to proceed to the next. It won't surprise me if I decide to stop much earlier – even the first day.

Initial Goal:

My initial goal is to write a program that will use input data from a text file to draw one or more cubes on the screen. Each cube will be in a fixed location and will have these attributes:

- An XYZ location of the center of the cube in 3D space
- A specified size (length of one edge)
- An angle of rotation about a defined axis passing through the center of the cube.
- A specified color for each of the 6 faces of the cubes

Learning Plan:

I plan to use one or more online courses for learning Unity. I will start by trying beginner's courses till I find one or two to stick with. Suggestions are welcome

Goal # 2:

If I accomplish the initial goal, the next goal is to modify the code so that each cube can change in the following ways over time:

- Move the center of the cube along a path in 3D space. By default the cube will stay aligned with the path. The rate and direction that the

center of the cube moves along a path will be defined in a sequence of phases.

- Cause the cube to rotate about its center in a defined sequence of phases. In each phase the cube will rotate about a defined axis at a set rate and direction.
- Cause the cube to grow or shrink at a defined rate in a defined sequence of phases
- Change the color of each of the 6 sides of a cube.

Future Goals:

At this point I cannot imagine completing Goal #2. However, it's not impossible.

Virtual Reality:

The first thing I would like to do is to modify the application so that it could work with a virtual reality environment. A viewer would be able to move through the 3D animation while the video/song was playing. The friend who suggested using Unity also suggested coding the creation to be experienced in the Oculus Quest VR headset.

Syncopate visual experience with a pre-record piece of music

The next goal is to modify this application in the direction of Harry's Boppers. This means being able to cause the behavior of the cubes to be syncopated with a pre-recorded piece of music.

The concept of "syncopation" is used here to mean that the video of the cubes will relate to the music in a way that could be described by the following kinds of verbs:

accompany, harmonize with, enhance, reflect, interpret, contrast, counterpoint, etc.

Imagine a composer adding an instrument to a pre-corded piece of music. The creator of a video for a particular piece of music will have goals similar to those of that music composer.

And then? :

In addition to my interest in working on the development of the above concepts I have also given some thought to a similar application that is discussed in the essay at this link (click here)