

CSE 410: Assignment 2

2D Hermite Curves

Specifications:

1. Draw the curve [10 Marks]:
 - a. Left click on the mouse to add control points.
 - b. Right click on the mouse to stop adding control points and draw a closed 2D Hermite curve using the control points. Note that, right clicking after adding an odd number of control points does nothing.
 - c. Press 'g' on the keyboard to toggle between viewing the geometry.
2. Update the curve [5 Marks]:
 - a. Press 'u' on the keyboard to enter update mode.
 - b. Left click on the mouse twice to update a control point. The first left click selects the control point p closest to the mouse pointer position at the time of click. The mouse pointer position at the time of the second left click is the updated position of p .
3. Follow the curve [5 Marks]:
 - a. Press 'a' to move a point smoothly along the loop.
4. Compatibility with the provided exe [5 Marks]:
 - a. Follow the provided exe for everything else.

Do's and Dont's:

1. Forward difference method should be used to draw the curve. Get negative 5 if you don't.
2. The z value of every point you draw should be 0.

Reference:

1. Hermite curves: Slide# 23-26, Curves.ppt; 11.2.1, textbook by Foley.
2. Forward difference Method: Slide# 38-39, Curves.ppt; 11.2.9, textbook by Foley.