

Ex01 - Vectors and Matrices

Info:

Create a simple application for vectors(4x1) and matrices(4x4). We are using homogeneous coordinates. Use struct properties, function and / or operators. Create a calculator, check your equations and results.

Operations to implement:

- vector addition, subtraction, dot product, cross product, vector length, modulation product, vector projection
- matrix addition (matrix/matrix, vector/matrix), subtraction, multiplication, determinant, transpose, inverse
- scale, translate, rotate x, y and z matrix

Materials:

Vector operations - <http://chortle.ccsu.edu/vectorlessons/vectorindex.html>

Matrix operations - http://www.stanford.edu/~wfsharpe/mia/mat/mia_mat2.htm

Affine transformation - http://www.sccg.sk/~pilnikova/pg/afinne_transformacie.pdf