

4 – Arbitrary Rotations, Stacks and Graphs

Readings

- Review **Math** (chapter 2) as needed
- **Quaternions: 16.2** (ways of representing arbitrary rotations)

A1(a): Transformation Matrices

A1(b): Projection and Line Drawing

A1(a): implement common transformations and matrix multiplication

A1(b): implement common projections and transform lines by projection and matrix transformations

A1(a) released this evening, due next Saturday midnight

Arbitrary Rotations

Rotation Interpolation: Quaternions

(problems solved: interpolation of matrices, gimble lock)

Direct Rendering with Matrix Stacks (OpenGL)

Scene Graphs (Unity, Three.js, Babylon, etc)

