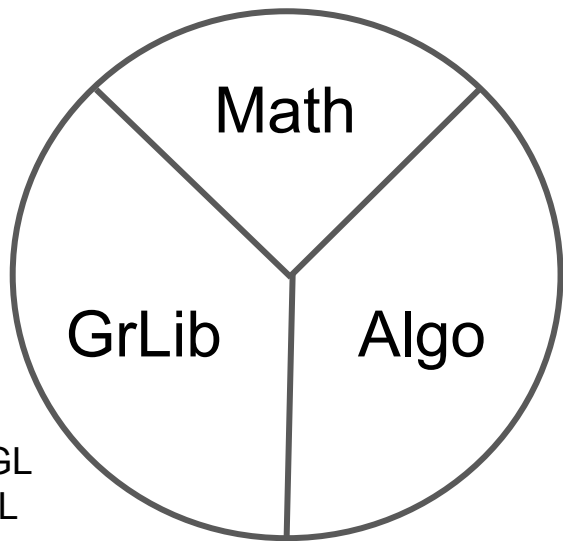


Ingredients of CG

Computer Graphics Jorg Peters

Vectors, matrices, coordinates, bases



openGL
webGL

rendering, hierarchies, LoDs, etc

Ingredients of CG

Computer Graphics Jorg Peters

Areas Related to Graphics

- Image processing, vision (recognition)
- Geometric modeling, computational geometry
- Applied differential, algebraic geometry
- Computer architecture
- Content creation, art, simulation, applied physics Computer

Ingredients of CG

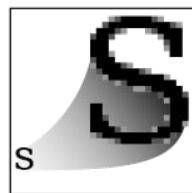
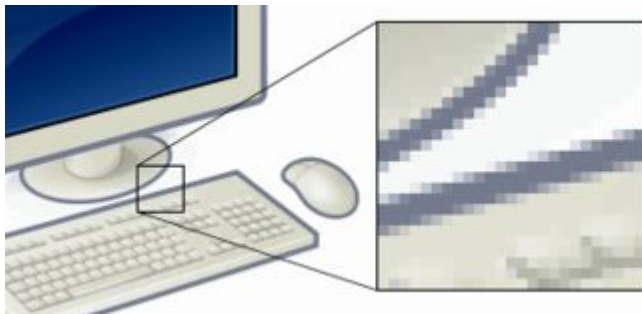
Computer Graphics Jorg Peters

1. Graphics Applications
 - a. Design
 - b. CAD (computer aided design)
 - c. Constraint solving
 - d. Interactive modeling
 - e. Animation, movies
2. Information display
 - a. Image analysis
 - b. PET, MRI, CT (voxel visualization, Radon transform)
 - c. Tufte: visualizing data
3. Simulation
 - a. Games (flight simulator)
 - b. Augmented reality
 - c. Virtual Reality

Reading assignment

Computer Graphics Jorg Peters

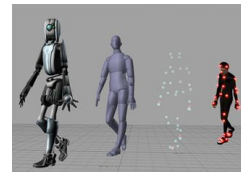
https://en.wikipedia.org/wiki/Computer_graphics



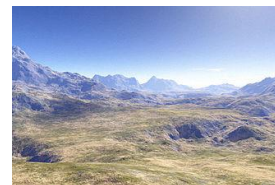
Raster
GIF, JPEG, PNG



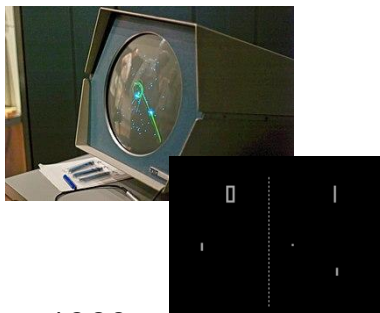
Vector
SVG



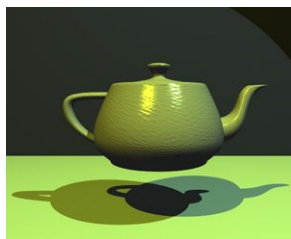
Mocap



Fractals



1960



1970



1980



1990



2000 unreal



Vol Vis