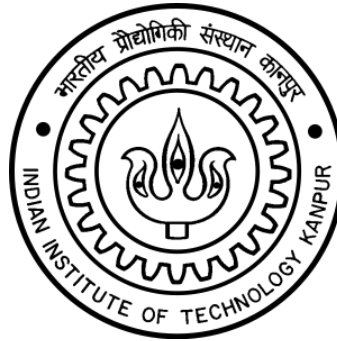


3D MODELING TRACK



Instructor : Prof. Vinay P. Namboodiri

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Group 30

Team Members :

Rahul

Jitendra Nagar

Project Presentation

(Introduction to Computer Graphics)

Date – 13th Nov 2014

Presentation Content

- **Check Point 1**
 - Basics Shapes
 - Lights
 - Navigational Camera
 - Multiple Objects
 - Beziars Curve and Surface
- **Check Point 2**
 - Two types of Particle System

Check Point 1

- Basic Shapes Contain

- ✓ Cuboids

- ✓ Cone

- ✓ Cylinder

- ✓ Teapot* – glut default object

- ✓ Sphere

- ✓ Torus

- ✓ Plane

- Data Structure

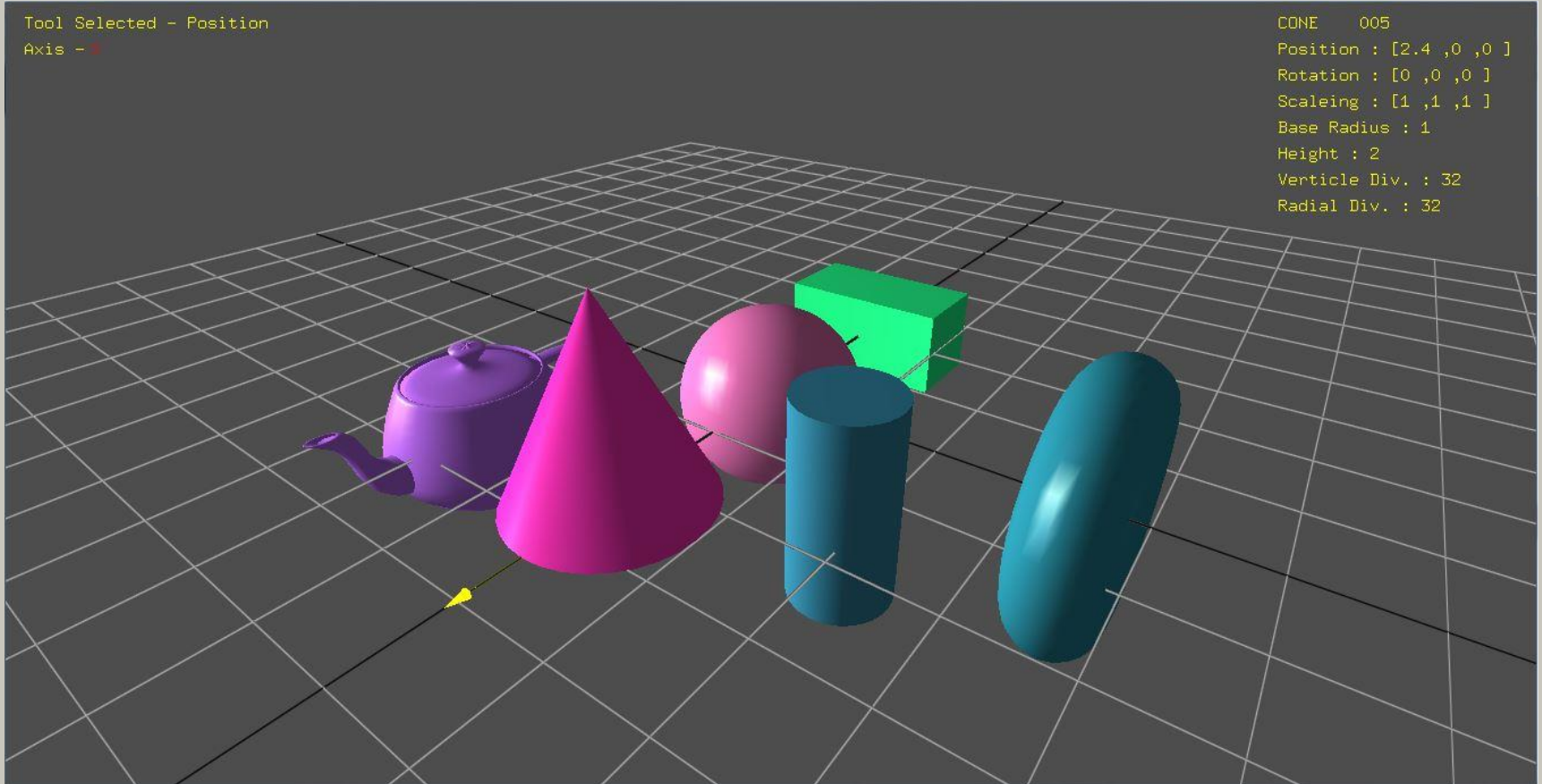
- ✓ Identifier and Serial Number

- ✓ Basic elements – Position, Rotation and Scale

- ✓ Other elements like Radius for Sphere

- ✓ And separate Data structure for its material

Check Point 1



Screenshot of multiple Objects

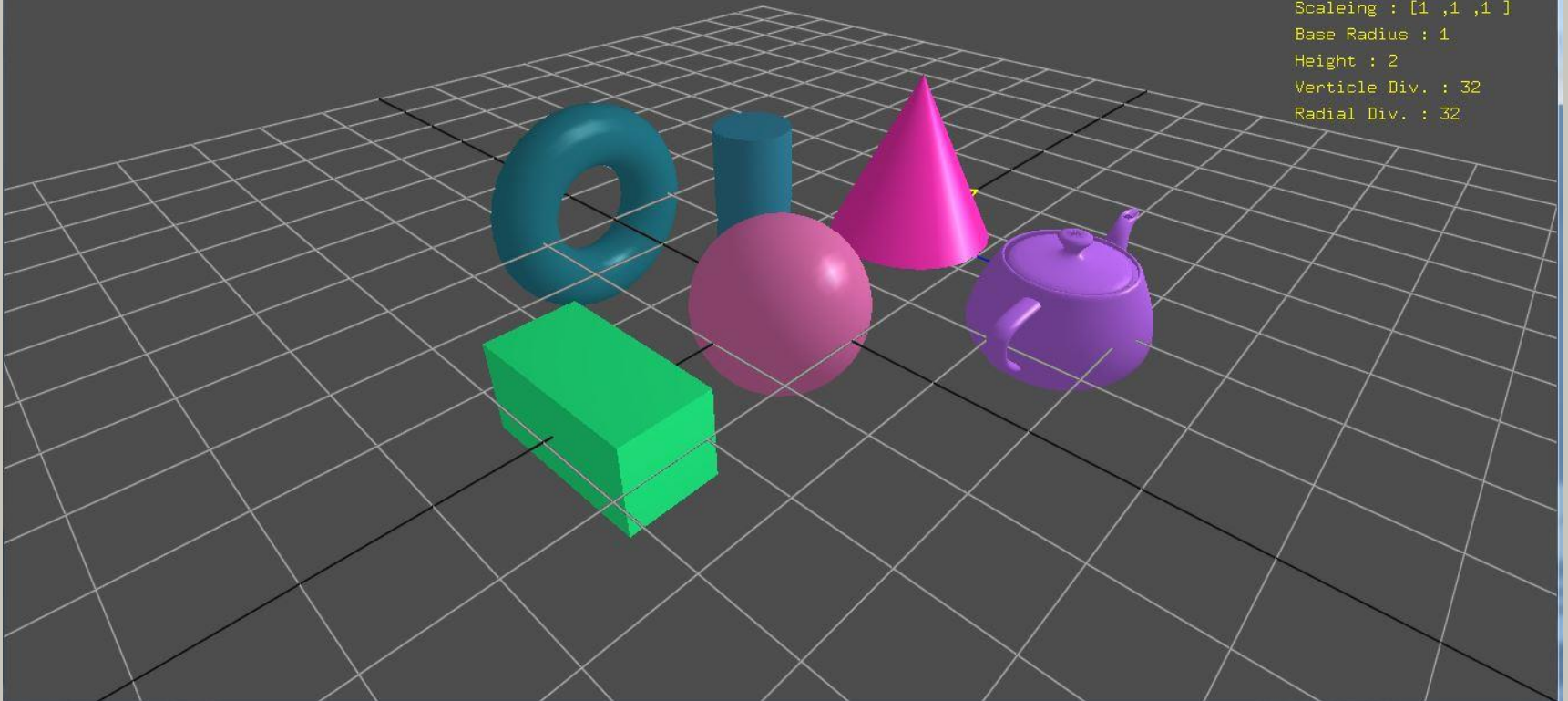
Check Point 1

- Lights
 - ✓ Seven number of lights allowed
 - ✓ Has its own Data Structure
- Movable Camera
 - ✓ Functionality
 - **Dolly Camera** - Zoom In and Zoom Out
 - **Truck Camera** - Moving the focus point
 - **Orbit Camera** - Orbit around focus point
 - ✓ Data Structure
 - Spherical Coordinate System used

Check Point 1

Tool Selected - Position
Axis -

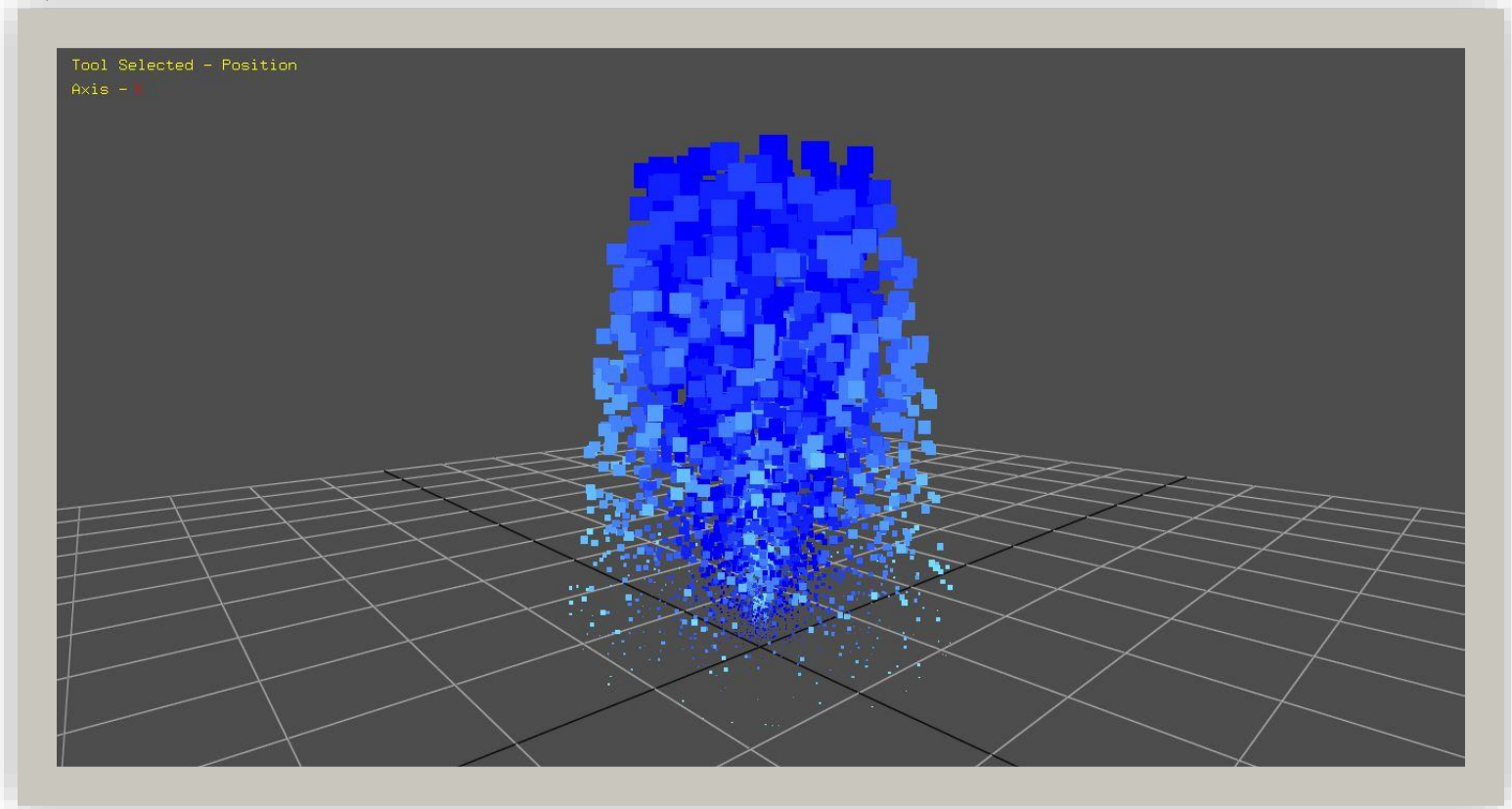
CONE 005
Position : [2.4 ,0 ,0]
Rotation : [0 ,0 ,0]
Scaleing : [1 ,1 ,1]
Base Radius : 1
Height : 2
Verticle Div. : 32
Radial Div. : 32



Effect After 2 Lights – Attenuation Enables

Check Point 2

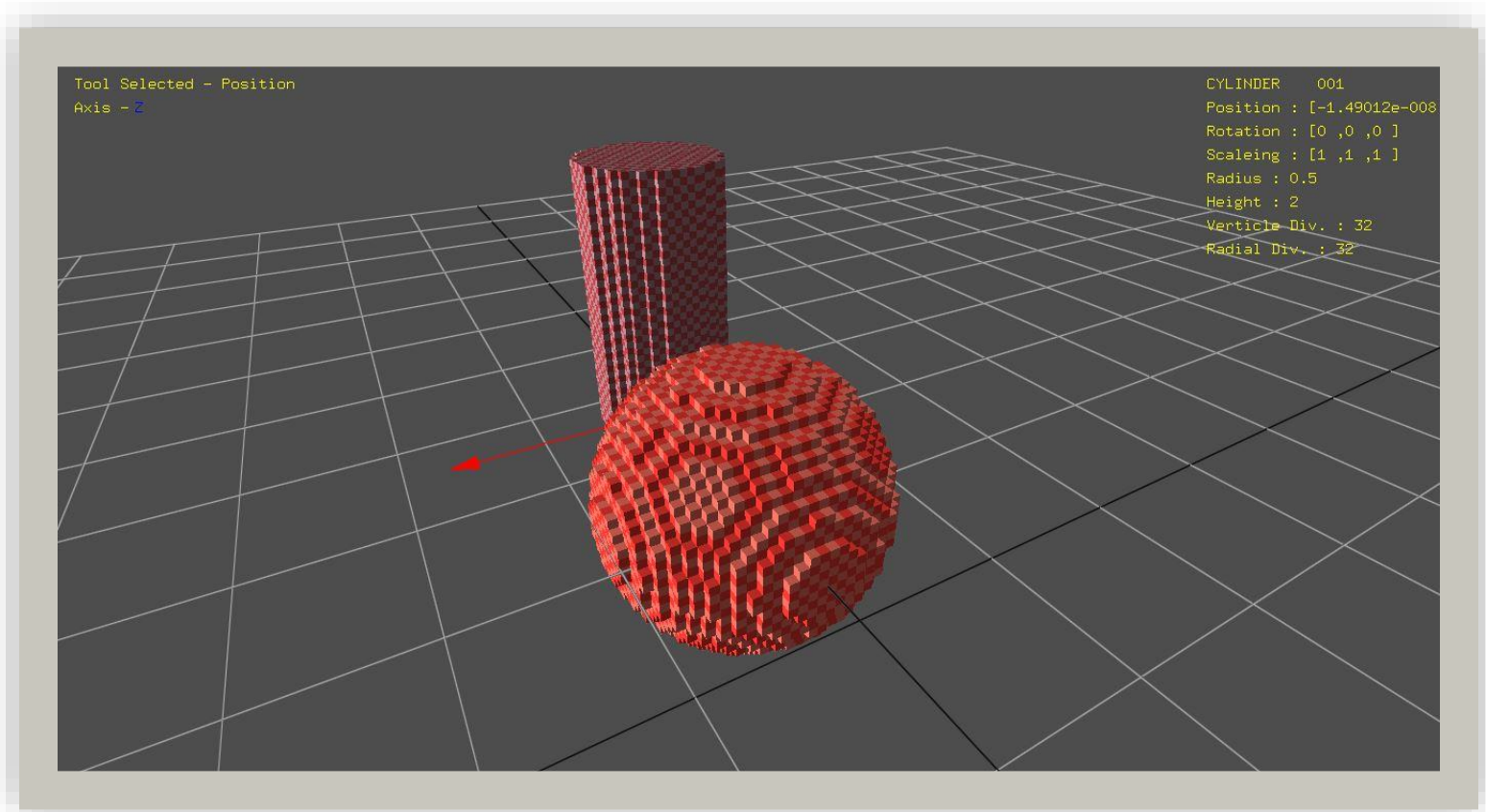
- Particle System
 - ✓ Particle Fountain with friable number of Particle



Particle Fountain with 5000 Particle

Check Point 2

- Surface Particle System



Particle resides only on surface of object – Only for Sphere and Cylinder

Check Point 2

- Particle System - Data structure for Emitter as well as each Particle
 - **Emitter** – Number of particle
Max velocity
Time
Position
Rotation
 - **Particle** – Velocity vector
Position vector
Life

Thanks