Lab 08: Blender Introduction

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Objectives:

• Introduction to Blender
• Interface
• Basic Operations
• 3D Viewing
• Mesh Exporting
3D Modeling
Graphics & Animation Rendering

Big Buck Bunny http://www.bigbuckbunny.org
Physical Simulation
Game Engine

Yo Frankie!
http://www.yofrankie.org/
Why learn Blender?

• To **LEARN** CG design
• To **SEE** state-of-art CG technology
• To **CREATE** complex objects and scenes
• To **UNDERSTAND** 3D virtual worlds.
How to learn Blender?

• **Practice**! exercises, assignments...

• Read the source code...

• Browse on-line tutorials, books, articles, videos, discussion forums ...

• On the web:

Blender @ COMP

• Free copy of Blender download from:
  - https://builder.blender.org/download/
  - Newest version is 2.8
Look & Feel (0) – screen areas

Main Menu Bar

Tools Panel

Right Window
Look & Feel (1) – window type
Look & Feel (2) - viewing

Split Area
Right Click the border of area -> “Split Area”
Look & Feel (2) - viewing

Join Areas
Right Click the border of area -> “Join Areas”
3D Scene Navigation: Change 3D Viewport

• Use middle mouse button
• Use NumPad
  ▪ 0: Camera
  ▪ 1: Front
  ▪ 5: Perspective / Orthographic View
Add Meshes
Add dynamic features (Physics)

• Choose a object (Right Mouse Click)
• Select **Physics** in **Properties** panel.
• Select ‘**Rigid body**’
• Set the type of static object (Plane) as ‘**Passive**’
• Press ‘Alt+a’ → Play animation
Rendering

- Press **F12** to render current frame
- Press **CTRL+F12** to render the whole animation
- Set output path
Exercise 1

• Create some 3D objects
• And render the first frame you made
Exercise 2

• Create 3D objects
• Add dynamic features
• What happens when you press ‘Alt+a’?
Remember!

• F12 frame - Render current frame
• Ctrl+F12 - Render animation
• Alt+a - Play animation
• Middle Button of Mouse - Rotate scene

Press
Reference

• [http://www.blender.org/](http://www.blender.org/)


• [http://www.cs.auckland.ac.nz/~jli023/opengl/blender3dtutorial.htm](http://www.cs.auckland.ac.nz/~jli023/opengl/blender3dtutorial.htm)
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