

CGP1001M Introductory Games Studies

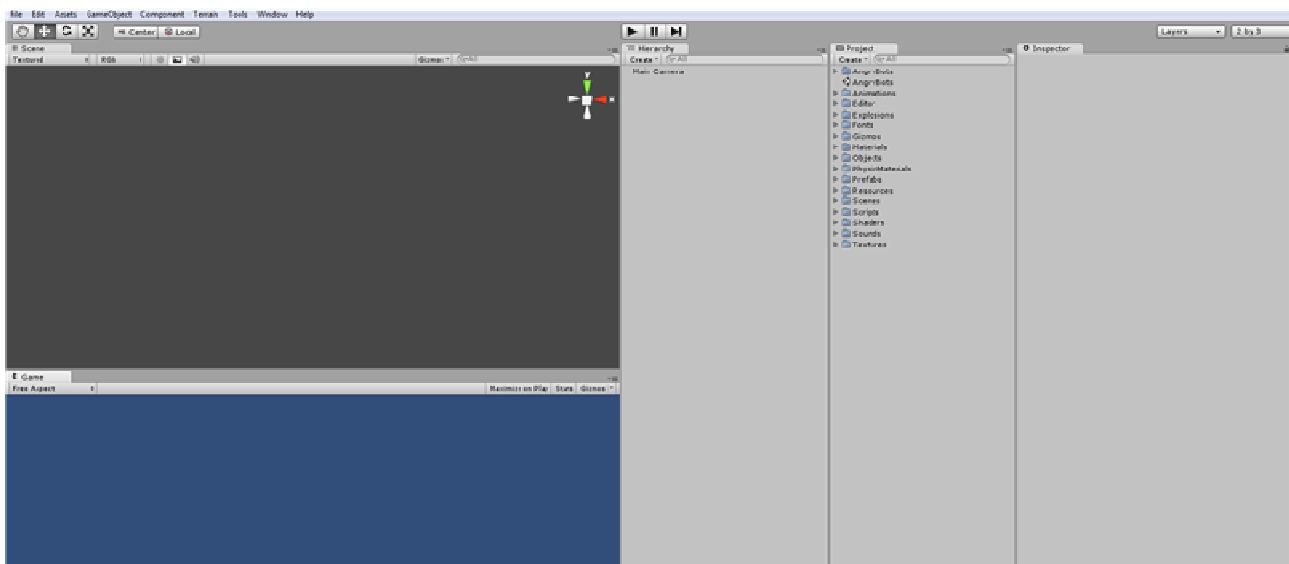
Unity Workshop 1a: Introducing the Unity Interface

The lectures for this unit will be preparing you for a marked exam at the end of this semester. To ensure that you don't fall behind on actually making games, you will be spending your workshop time working with the powerful game development tool **Unity**. (Check out the website for an introduction to the program and more information: <http://unity3d.com/>)

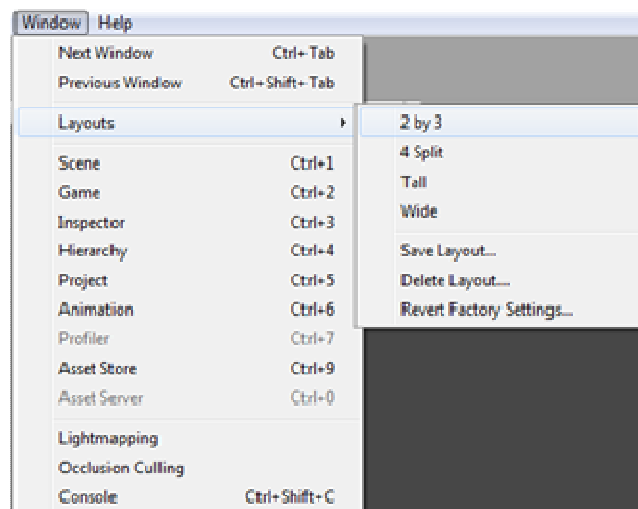
Don't worry if you've never used **Unity** before, we will be providing a series of tutorials that will get you to grips with the basics. There is a lot to take in with Unity, so we will begin by taking you through the interface.

Preparing the “Workspace”

You will need **Unity** open to follow this tutorial, so if you haven't already, locate it on your computer and start it up. Once it has finished loading, you should see a screen similar to this:



The interface may be laid out slightly differently to the image above. If it is, locate the **Window** tab in the menu bar and then select **Layout** from drop down box that appears. You will be given a number of options, but for the purpose of this tutorial change it to **2 by 3**.

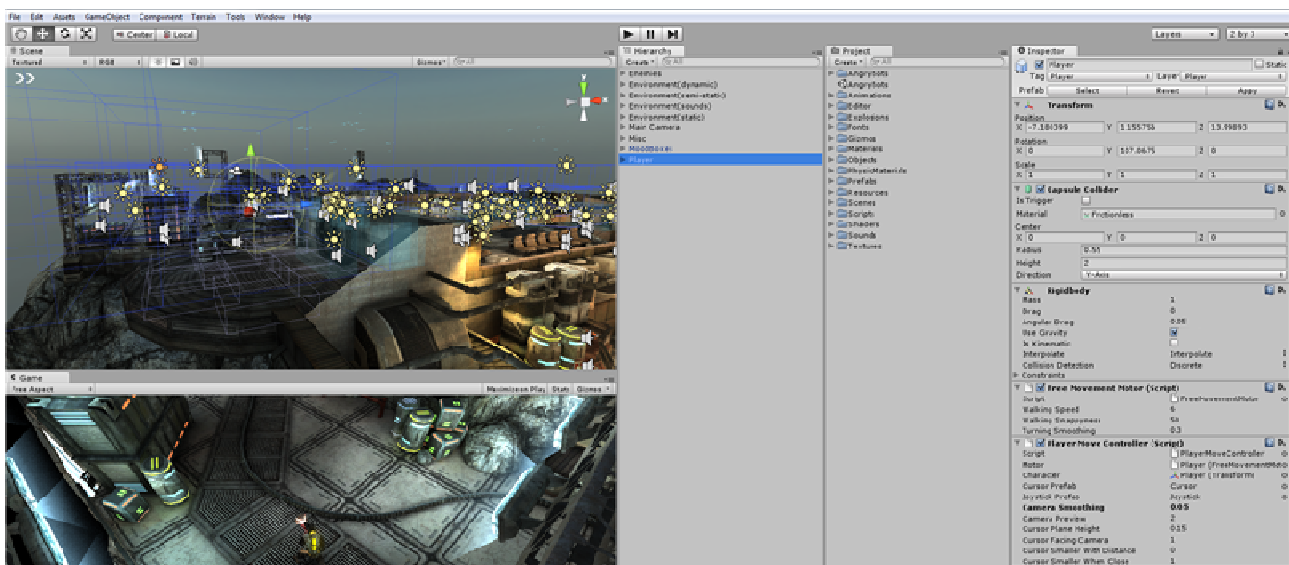


Example Project

Although you have configured the interface to include all the necessary work panels, it is still blank as we haven't started adding anything in yet. We will get to that in an upcoming tutorial, but for now it is important that you have a rough idea of how the interface looks and works.

For the purpose of this tutorial, we will now be looking at an example project included with the latest Unity installation called “**Angry Bots**”. You can either load this project by locating the file in Windows Explorer or through the **Open Scene** function in the File menu. (**Ctrl-O**) It should be located in the _____ folder.

Once it has finished loading, you should see a screen similar to this:



As you can see from the graphics displayed in the two panels on the left, Unity is capable of a lot more than Game Maker. Explore (**Ctrl-P**) the Angry Bots game world. The controls are as follows:

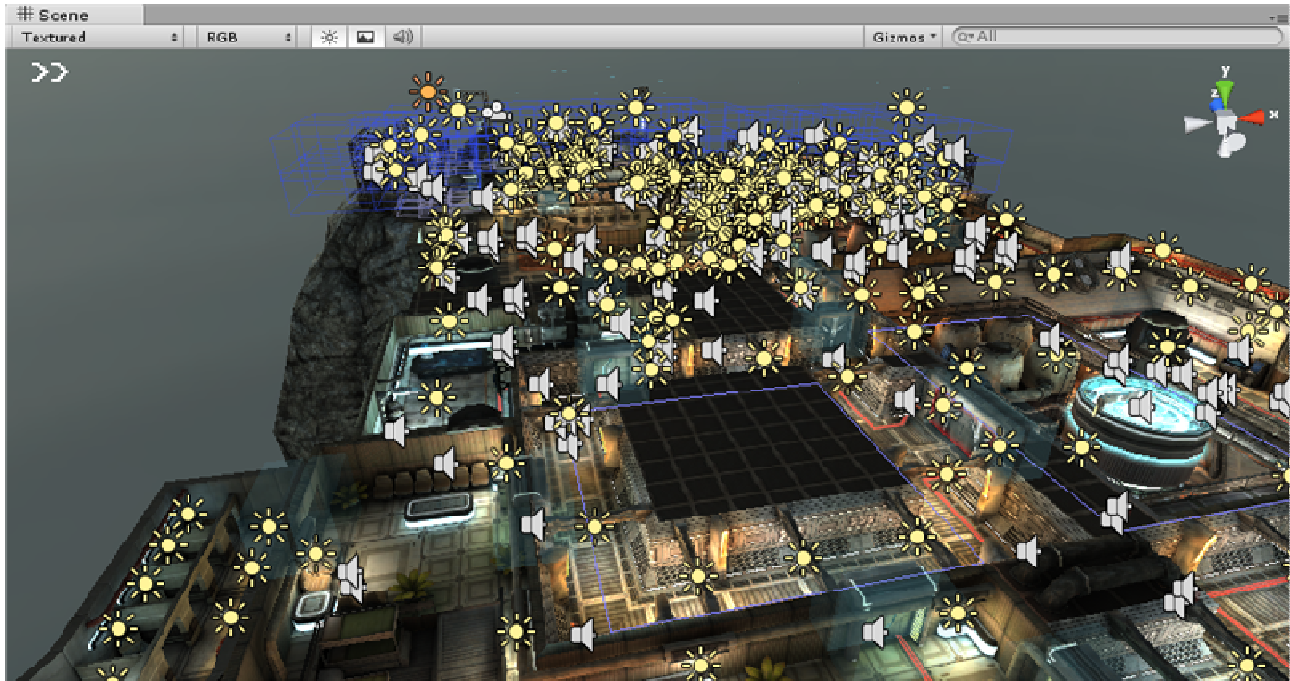
Up: Up Arrow or W
Down: Down Arrow or S
Left: Left Arrow or A
Right: Right Arrow or D
Move Cursor/Change Facing: Mouse
Shoot: Left Click

Once you are done, continue with the tutorial.

Unity Interface – The Basics

If you followed the tutorial's previous instructions to change the layout of the Unity interface, you should now be looking at 5 different panels. The two large panels on the left are the “**Scene**” and “**Game**” panels. The three on the right are the “**Hierarchy**”, “**Project**” and “**Inspector**” panels.

Scene Panel



The **Scene** panel is your main workspace and the panel you will probably be using the most often. It is where you will build and edit the pieces that will make up your game environment, place lighting, etc. (You will be instructed on how to do this in upcoming tutorials.)

If you wish to view anything with the Scene panel from a different angle you can change your perspective using the view changer in the top right corner:



Tool Bar

Just above the Scene panel is the Tool Bar, which is used to modify different parts of the (Unity) editor.



From left to right, the options are:

Transform Tools (Used when working in the Scene Panel)



Hand Tool: Moves camera

Move Tool: Move selected object

Rotate Tool: Rotate selected object

Scale Tool: Scale selected object

With the Hand Tool, you can also use Alt + Left Click Drag to rotate the camera around a selected object's pivot point and the Alt + Right Click Drag to zoom in and out.

Transform Gizmo Toggles (Used when working in the Scene Panel)



This component in the Tool Bar is used to determine whether a selected object is rotated or scaled relative to its centre point or to its pivot point, as well as whether local or global rotation is used when rotating and scaling an object.

Play/Pause/Step Buttons (Used with the Game Panel)

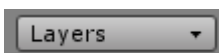


Play Button: Play Game

Pause Button: Pause Game

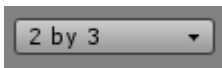
Step Button: When in Play mode/Pause mode, moves forward 1 frame of animation (Test this using Angry Bots to see how this works with the rain animation.)

Layer Drop-Down Box



Used to determine what objects appear in the Scene view.

Layout Drop-Down Box



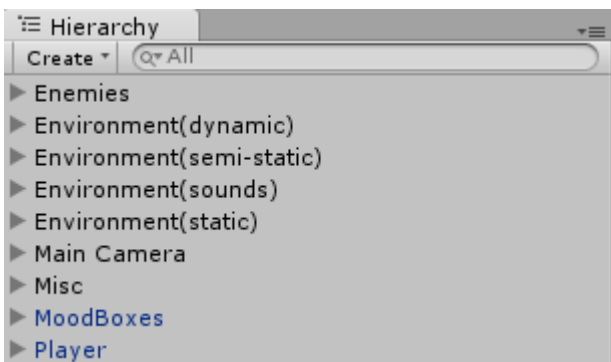
Used to switch between different layout settings, saving/deleting layout settings and reverting to factory default settings.

Game Panel



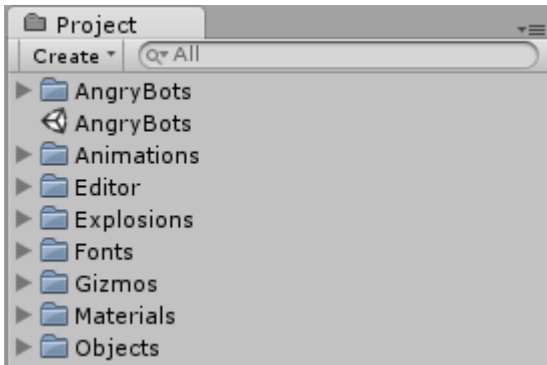
The Game panel allows you to test and play your game. (Using the Play button or **Ctrl-P**. If you haven't already, test this function using the **Angry Bots** game.) You can use it to test gameplay, lighting effects, music or any other elements in your environment.

Hierarchy Panel



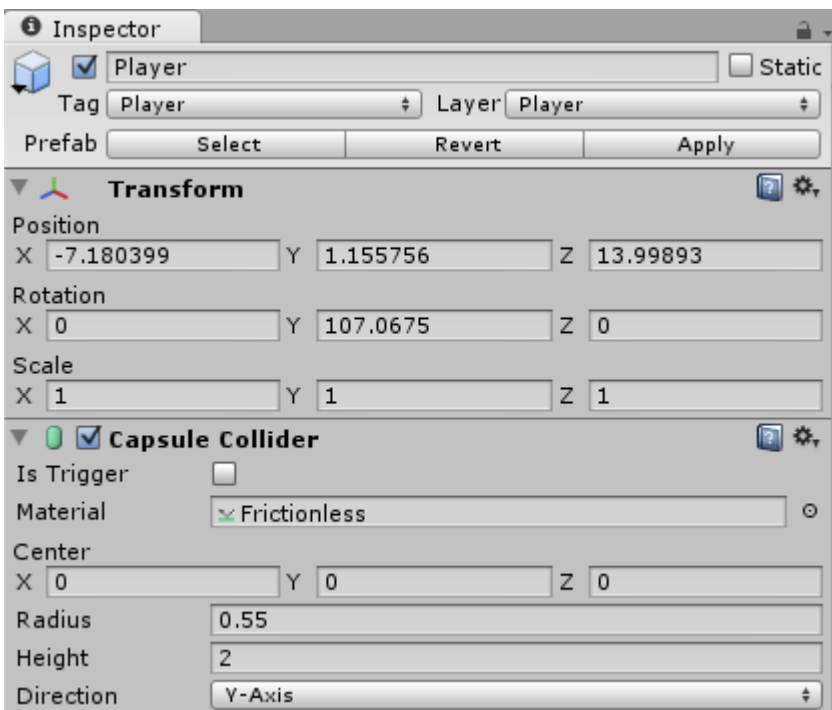
The **Hierarchy** panel lists all of the game objects and assets that you are currently using in your game world. This can include but is not limited to: Textures, character models, camera functions, sound files, etc. If something is listed in the **Hierarchy**, you can view it in the **Scene** panel. (The **Hierarchy** panel should not be confused with the **Project** panel, which acts as a “library” of assets that you can use.)

Project Panel



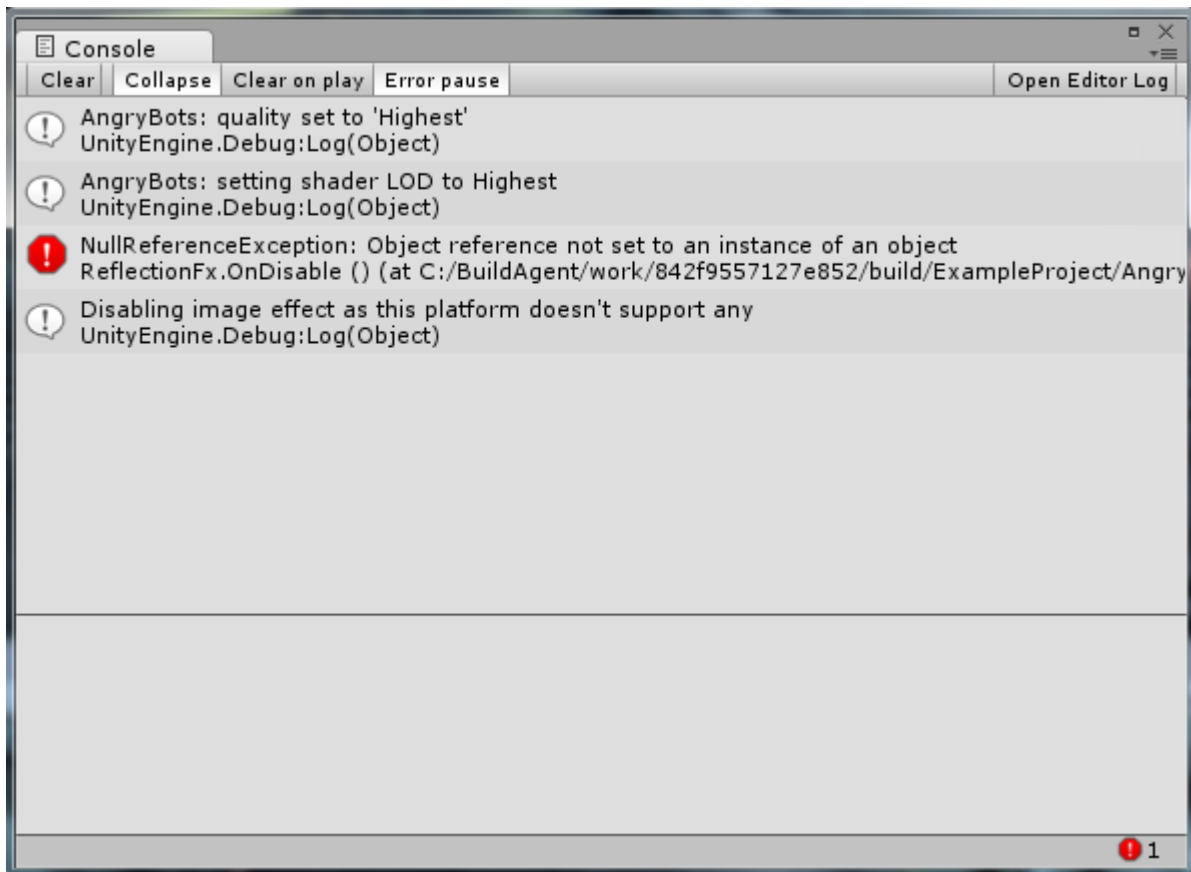
The Project panel lists all of the game assets that are available to you. (You can also import new assets by using the _____ function or by placing them in your computer's **Project** folder.) If there is a game object or asset you use, simply drag and drop from Project to Hierarchy.

Inspector Panel



The Inspector panel shows the properties of a selected game object or asset. The Inspector panel will also allow you to edit whatever you have selected – So, for example, the X/Y/Z coordinates of your player character, the size of a wall, or if a sound file fades in when it starts playing. The image above shows the properties for the Player object in Angry Bots, what is shown in the Inspector Panel will differ depending on what type of object is selected.

Console



This panel is not viewable in the 5 panels that are currently displayed, but you can access it through the Window tab on the menu bar. This is used to debug any issues with your game and search for any problems with your scripts.

You may notice a lot of different options in Unity that haven't been covered in this tutorial. We will be covering additional features in upcoming tutorials (As well as getting you started on making some games!) but for now it is important that you understand the basics of the interface as it can be overwhelming at first.