

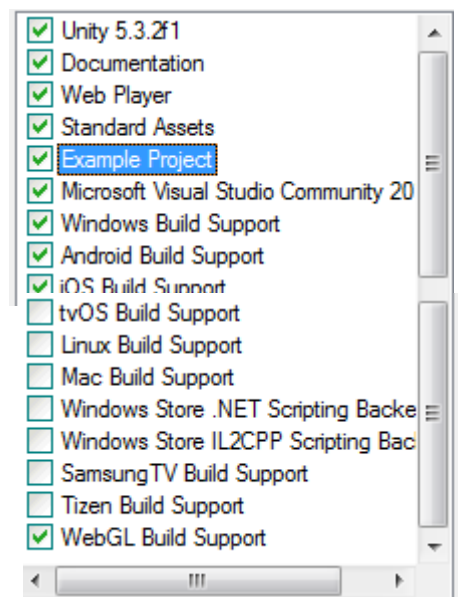
Setting up Unity®

What is Unity®? Unity is a cross-platform game engine developed by Unity Technologies and used to develop video games and other applications for PC, consoles, mobile devices and websites. With heavy emphasis on portability and multi-platform development it is currently one of the biggest games engine by market share.

It is freely available for anyone that earns or has a budget of under \$100,000 a year as an individual or company. Sadly this includes most educational institutions.

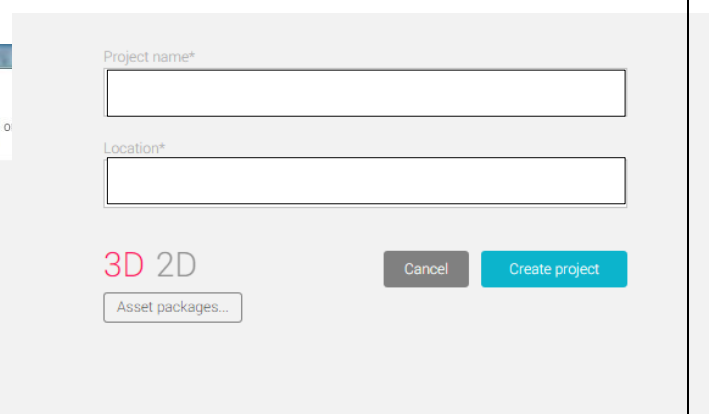
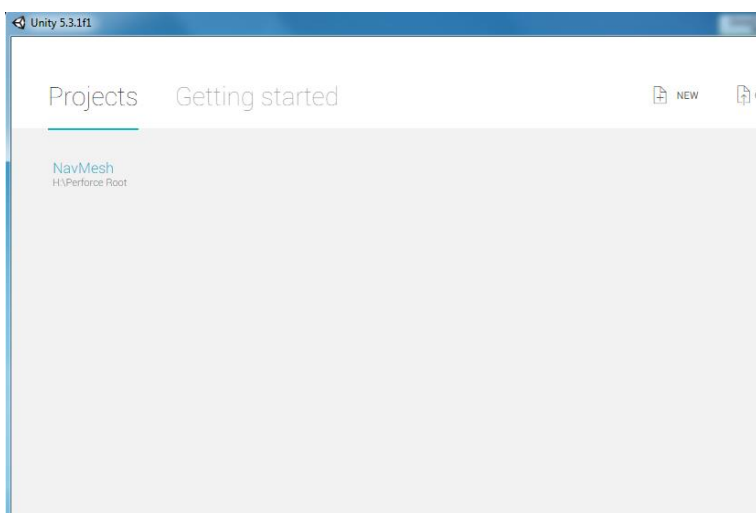
Getting Unity

Unity is available online at <http://unity3d.com/get-unity> download the newest version (at time of writing 5.3.2) and run the installer. You may be asked what components you want installed, it's worthwhile noting that the components I suggest are to the right, some tutorials may require these. When you start up Unity for the first time you'll be asked to create a new account (unless it's already been done) and get a license, in future you can sign in or work offline, but first time you need to create that account and get a license (Personal Free works just fine).



Starting your first game in Unity

Starting up Unity you'll be presented with a screen that looks a lot like the one below. This is Unity's default opening screen giving you the option to access recently used projects, create new ones, sign in or open existing projects. If you're doing this as part of a series of tutorials, create a 3D project.



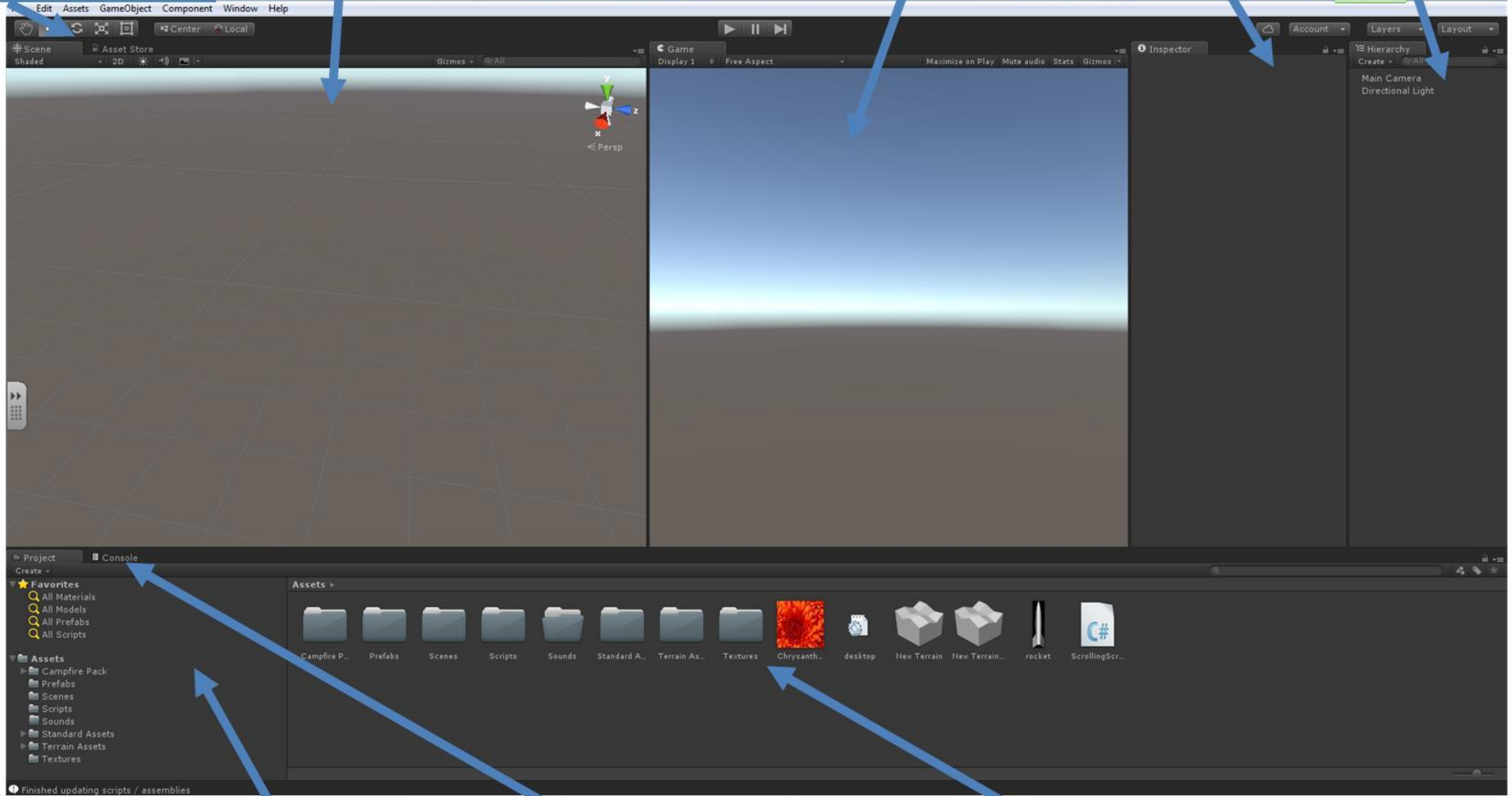
Transform tools– these let you drag around, move, rotate and scale the objects you add to your scene.

Scene View– this is where you make and view changes to your scene.

Game View– here is where you view the game as if through your game camera. It shows what it will look like when someone plays your game

Inspector– shows information about any selected items in your game.

Hierarchy– shows a list of all the items in your game.



Project view– shows a list of all textures etc.) in your game's project folder. You can add assets to your scene in a variety of ways and organised via folders.

This view is the Unity default view, yours may look slightly different, I've rearranged some windows to demonstrate, in addition you'll probably not have anything in your asset folders. All the windows are customisable.

Assets view– this folder contains all the files included in your game, from textures, music, animation to scripts.

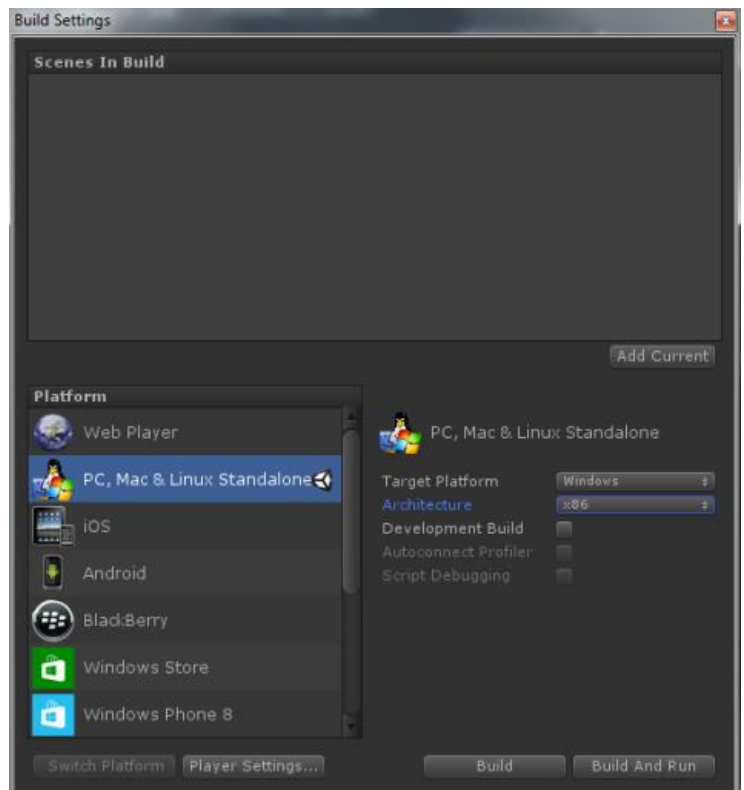
Windows and Services

Within Unity there are a number of different services and windows to access, each having a different purpose and look. This section will discuss some of the main ones, what they are and what they're used for.

Building your game

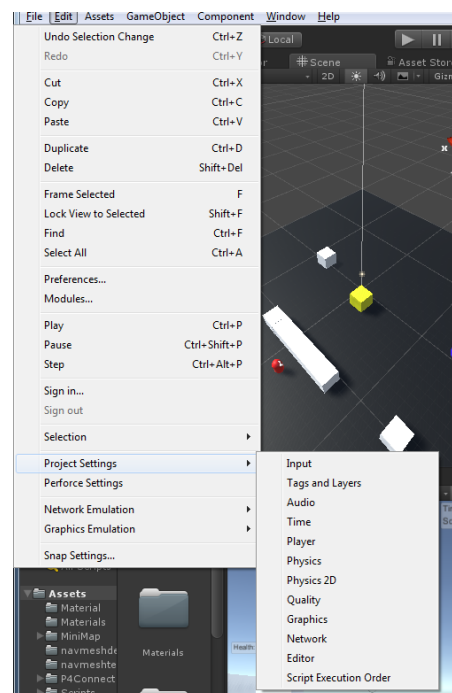
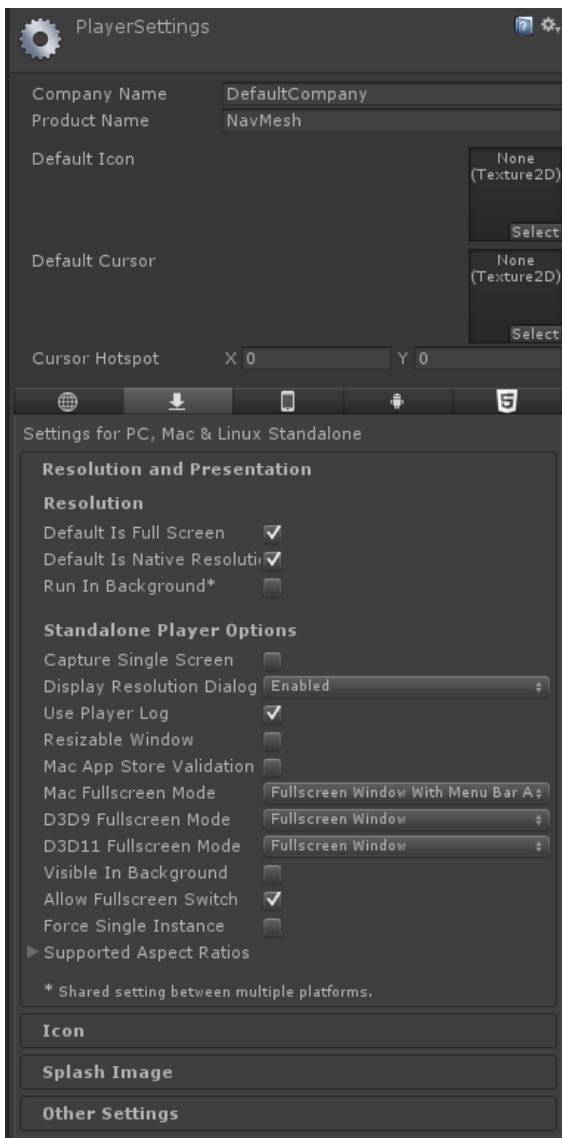
We've made a fairly simple self-sufficient scene, but how about letting your friends see it? You can compile your game into an .EXE file by publishing it. Go to File > Build Settings. The window that appears will manage the building process. You can choose your platform, various settings and add which scenes you want for your game.

You can also access the Player settings, which contrary to name have more to do with building the game than players.



Player Settings

Player settings allow you to change, for each platform, things such as the official company names, icons, resolution and other platform specific things (such as your Android build keys). The purpose of this tutorial isn't to explain how to use them but merely make you aware of how to get to it. This is shown to the right, Edit->Project settings -> Player.



The asset Store

The asset store is a built in store for Unity that allows you to download many many free and paid for assets. From models to scripts, shaders to textures there is a huge variety of things out there that can help you out; including Unity's own standard assets which show you different ways of approaching things. You can access it via window -> Asset store.

Other notable windows and services

Profiler

The profiler in Window -> Profiler gives you information about the performance of your game, including fps, what sorts of things are affecting fps and resource allocation

Navigation

Lets you access via Window-Navigation controls and settings for the built in NavMesh AI navigation system.

Lighting

Let's you access all kinds of lighting settings, including fog and shaders.

Services

Provides access to services like cloud build, collaborate and multiplayer from within Unity, some of these are paid for.

There are lots more of these but this gives you an outline of the most important ones, the best way is to experiment. Start a new project and click! You never know what you'll learn.

Where do I get help?

Here! These tutorials are designed to help, read back, do the challenges, go forth.

The Unity API- <https://docs.unity3d.com/ScriptReference/> - The Unity API is a reference document that contains all the elements of Unity that can be accessed programmatically. It includes documentation and examples that often are very well worded and explained.

The Unity manual - <https://docs.unity3d.com/Manual/index.html> - Likewise there is an excellent set of resources explaining here all sorts of different key areas. You'll find some better than others but it's fairly well rounded.

Unity Learn and Unity Answers- <http://answers.unity3d.com/> and <http://unity3d.com/learn> - these are Unity's own collection of tutorials and answers to questions posed by people like yourselves. Again a good, well rounded set of information here.

Other tutorial sites:

Brackeys- <https://www.youtube.com/user/Brackeys> - has some of my favourite tutorials

Ray Wenderlich- <https://www.raywenderlich.com/category/unity>- has a bunch of nice tutorials particularly for 2D and GUI.

CatLikeCoding - <http://catlikecoding.com/> - some intermediate tutorials here, not for beginners