## USING UNITY
Create multiplatform 3D and 2D games and interactive experiences.

Learning the Interface
Unity is a free and powerful engine with a variety of tools that can be utilized to meet your specific needs. The editor is intuitive and customizable allowing you a greater freedom in your workflow. This section is your key to getting started with Unity. It will explain the Unity interface used to create games. Visit **docs.unity3d.com/manual** for in-depth explanations and instructions.

The main editor window is made up of several tabbed panels known in Unity as **Views**. There are several types of Views in Unity - they all have specific purposes that are described in this section.
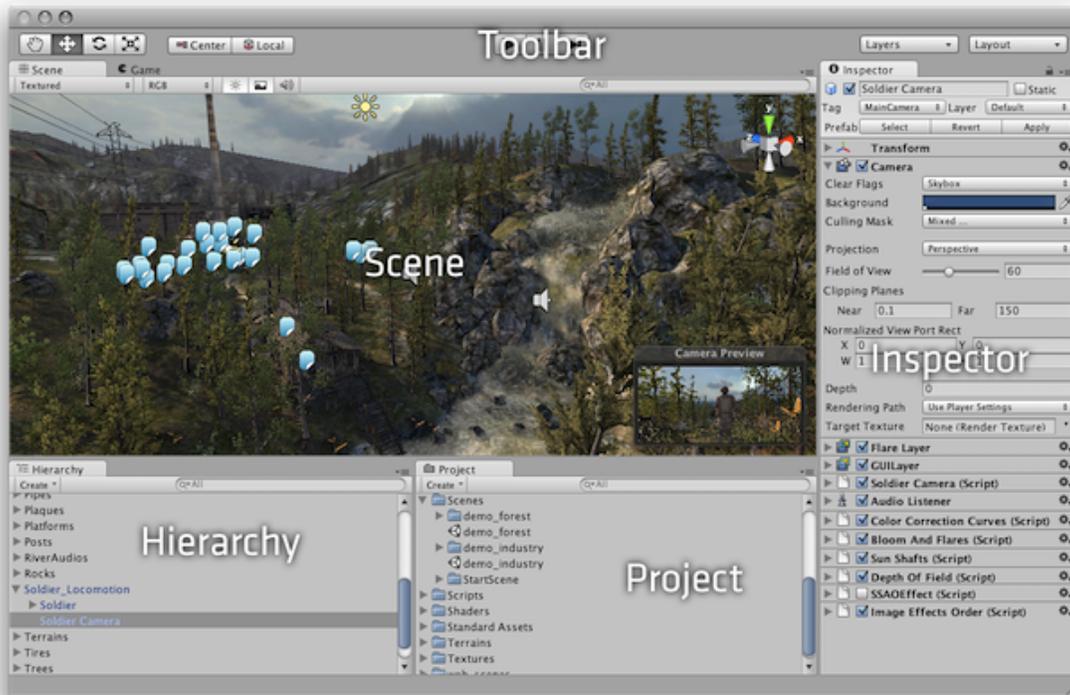
Project Browser View
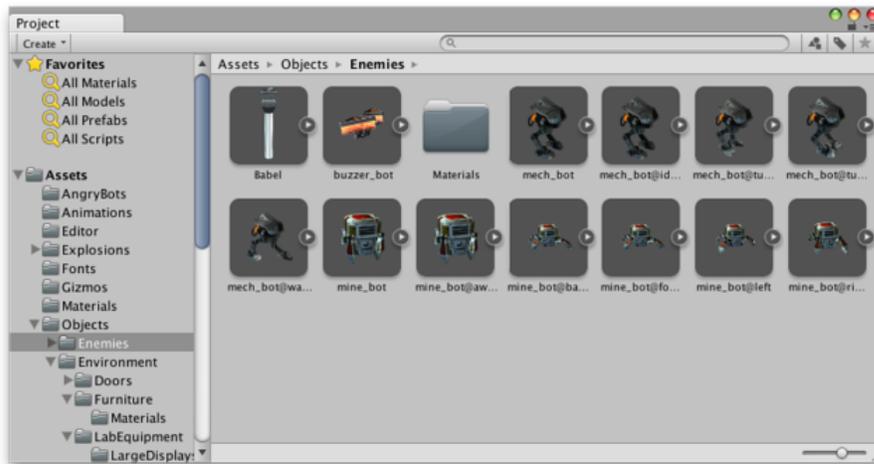
The left panel of the browser shows the folder structure of the project as a hierarchical list. When a folder is selected from the list by clicking, its contents will be shown in the panel to the right. You can click the small triangle to expand or collapse the folder, displaying any nested folders it contains. Hold down Alt while you click to expand or collapse any nested folders recursively.

The individual assets are shown in the right hand panel as icons that indicate their type (script, material, sub-folder, etc). The icons can be resized using the slider at the bottom of the panel; they will be replaced by a hierarchical list view if the slider is moved to the extreme left. The space to the left of the slider shows the currently selected item, including a full path to the item if a search is being performed.

Above the project structure list is a Favorites section where you can keep frequently-used items for easy access. You can drag items from the project structure list to the Favourites and also save search queries there (see Searching below).

Just above the panel is a "breadcrumb trail" that shows the path to the folder currently being viewed. The separate elements of the trail can be clicked for easy navigation around the folder hierarchy. When searching, this bar changes to show the area being searched (the root Assets folder, the selected folder or the Asset Store) along with a count of free and paid assets available in the store, separated by a slash. There is an option in the *General* section of Unity's Preferences window to disable the display of Asset Store hit counts if they are not required.

Along the top edge of the window is the browser's toolbar.


Located at the left side of the toolbar, the Create menu lets you add new assets and sub-folders to the current folder. To its right are a set of tools to allow you to search the assets in your project.

The Window menu provides the option of switching to a one-column version of the project view, essentially just the hierarchical structure list without the icon view. The lock icon next to the menu enables you to "freeze" the current contents of the view (ie, stop them being changed by events elsewhere) in a similar manner to the inspector lock.

Searching
The browser has a powerful search facility that is especially useful for locating assets in large or unfamiliar projects. The basic search will filter assets according to the text typed in the search box
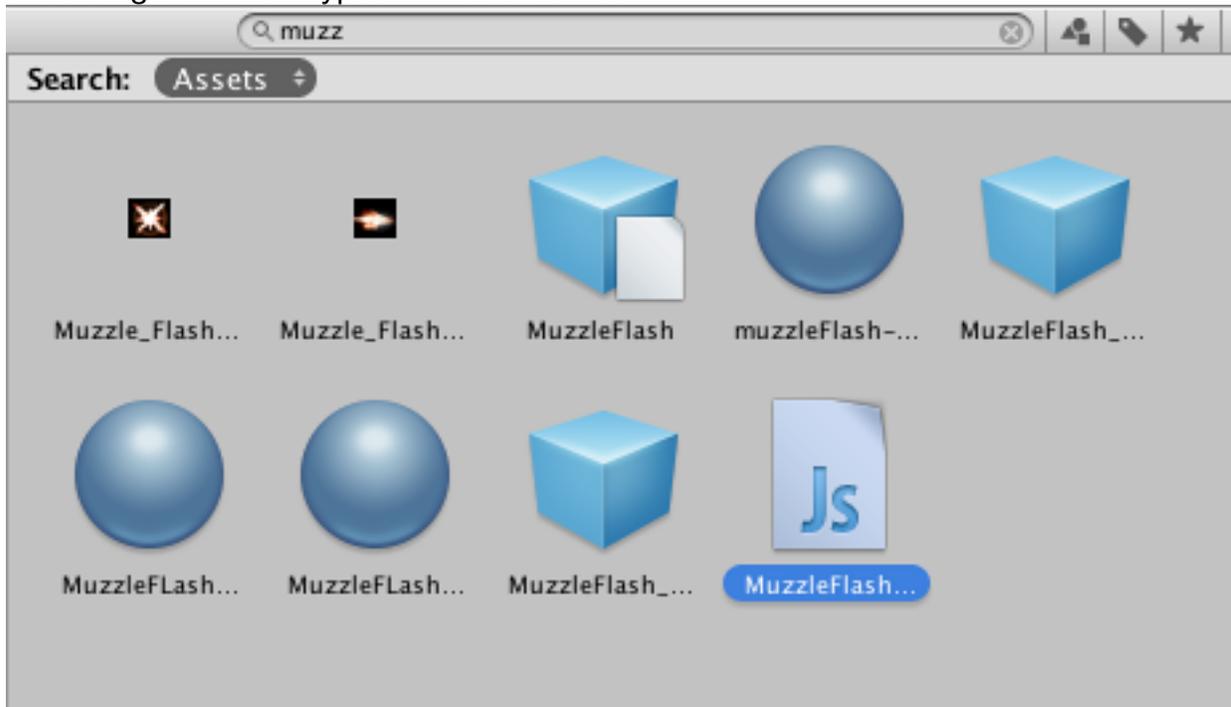
Toolbar

The Toolbar consists of five basic controls. Each relate to different parts of the Editor.

 Transform Tools – used with the Scene View

 Transform Gizmo Toggles – affect the Scene View display

 Play/Pause/Step Buttons – used with the Game View

 Layers Drop-down – controls which objects are displayed in Scene View

 **Layout Drop-down** – controls arrangement of all Views

Scene View
The Scene View is your interactive sandbox. You will use the Scene View to select and position environments, the player, the camera, enemies, and all other GameObjects. Maneuvering and manipulating objects within the Scene View are some of the most important functions in Unity, so it's important to be able to do them quickly. To this end, Unity provides keystrokes for the most common operations.

Scene View Navigation

- Hold the right mouse button to enter Flythrough mode. This turns your mouse and WASD keys (plus Q and E for up and down) into quick first-person view navigation.
- Select any GameObject and press the F key. This will center the Scene View and pivot point on the selection.
- Use the arrow keys to move around on the X/Z plane.
- Hold Alt and click-drag to orbit the camera around the current pivot point.
- Hold Alt and middle click-drag to drag the Scene View camera around.
- Hold Alt and right click-drag to zoom the Scene View. This is the same as scrolling with your mouse wheel.

In the upper-right corner of the Scene View is the Scene Gizmo. This displays the Scene Camera's current orientation, and allows you to quickly modify the viewing angle.
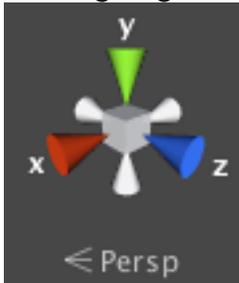

Each of the coloured "arms" of the gizmo represents a geometric axis. You can click on any of the arms to set the camera to an orthographic (i.e. perspective-free) view looking along the corresponding axis. You can click on the text underneath the gizmo to switch between the normal perspective view and an isometric view. While in isometric mode, you can right-click drag to orbit, and Alt + middle-click drag to pan.
Note that the Scene Gizmo will be hidden when the view is in 2D mode, since the view is always directly at the XY plane.
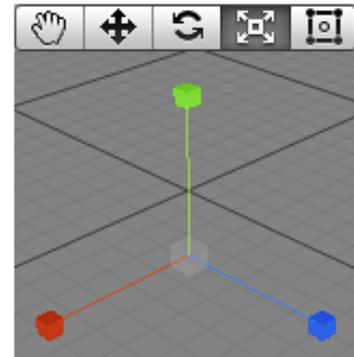
Positioning GameObjects
When building your games, you'll place lots of different objects in your game world. To do this use the Transform Tools in the Toolbar to Translate, Rotate, and Scale individual GameObjects. Each has a corresponding Gizmo that appears around the selected GameObject in the Scene View. You can use the mouse and manipulate any Gizmo axis to alter the Transform Component of the GameObject, or you can type values directly into the number fields of the Transform Component in the Inspector.
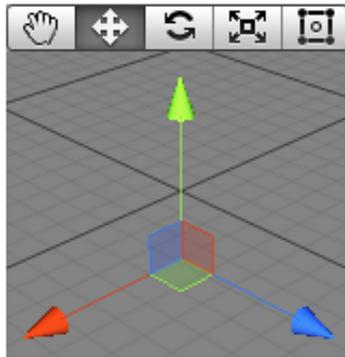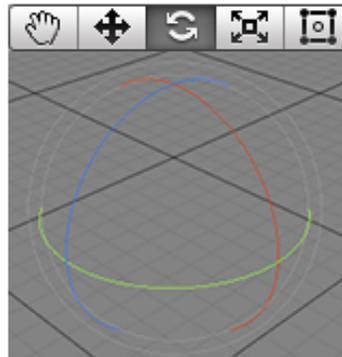
Translate (W)   Rotate (E)   Scale (R)

Rect Tool
The Rect Tool can be found in the Toolbar next to the Transform tools and allows you to view and edit the Rect handles on 2D and 3D objects.

For 2D objects (sprites) you can hold down shift to scale uniformly. If you scale non-uniformly along axis that don't match the local axes for the object, it will be scaled along the closest axes it can. For 3D objects you can now also use rect handles; Rect handles are shown for different planes depending on what angle the object is viewed from.

Scene View Control Bar

Shaded   2D   Gizmos   Q▾All

The control bar lets you choose various options for the scene view. You can switch on or off the audio, lighting and 2D mode and also control how objects, image effects and gizmos will be displayed.

For more in-depth help visit: docs.unity3d.com/manual