The Unity Editor

Unity's Interface

Unity’s Interface

- Unity uses a tabbed layout system. Each area in the layout may have multiple tabs that can be switched between with a click
- Tabs can also be opened as a separate window untethered to the layout
- Layout areas can be added, removed, or resized
- You can drag a tab to a different position, or add or remove tabs to any layout area

Unity’s Interface

(A) The Toolbar provides access to your Unity Account and Unity Cloud Services. It also contains controls for Play mode; Undo history; Unity Search; a layer visibility menu; and the Editor layout menu.
(B) The Hierarchy window is a hierarchical text representation of every GameObject in the Scene
-Each item in the Scene has an entry in the hierarchy, so the two windows are inherently linked. The hierarchy reveals the structure of how GameObjects attach to each other.
(C) The Game view simulates what your final rendered game will look like through your Scene Cameras
-When you click the Play button, the simulation begins.
(D) The Scene view allows you to visually navigate and edit your Scene. The Scene view can display a 3D or 2D perspective, depending on the type of Project you are working on.
(E) Overlays contain the basic tools for manipulating the Scene view and the GameObjects within it. You can also add custom Overlays to improve your workflow.
(F) The Inspector window allows you to view and edit all the properties of the currently selected GameObject. Because different types of GameObjects have different sets of properties, the layout and contents of the Inspector window change each time you select a different GameObject.
(G) The Project window displays your library of Assets that are available to use in your Project. When you import Assets into your Project, they appear here.
(H) The status bar provides notifications about various Unity processes, and quick access to related tools and settings.

https://docs.unity3d.com/Manual/UsingTheEditor.html

Unity's Interface

The Hierarchy View

- Represented with B in the screenshot
- Shows all gameobjects in active scene(s)
- Updates in real time when the game is playing
- Allows for parent-child relationships to be established
  - Children inherit certain information from parents, such as position, rotation, and scaling
  - Scripts have access to parents/children, allows for modular objects and systems
  - Parents can collapse or expand list of children, good for organization, visibility, and cleanliness
- Selecting an object brings up its component view in the Inspector tab
  - Allows any available information to be viewed and changed
- All gameobjects, their components and values are saved to a scene
- Any changes made during play mode are temporary, and get discarded when ending play mode
- GameObjects in the hierarchy can be saved as prefabs
- Save with CTRL+S, load a scene by double clicking it in the project view

Game and Scene Views

- Represented by C and D in the screenshot, respectively
- Game View can be: playing, paused, or inactive
  - When playing, shows the output the application would provide during playtime
    - Accepts inputs, can make use of multiple cameras
  - While playing, the game can be paused, pausing all game logic and allowing for the current details to be examined or changed*
  - While inactive, the game tab will show the view held prior to any simulation
- Scene View
  - For developmental use, contains a movable view in the scene not connected to any gameobject
  - Developer can interact with existing GameObjects using tools, or add them by dragging and dropping an asset
  - Allow the developer a more technically oriented view of the world
  - Left click: Selection Middle click: drag to pan Right click: drag to rotate (pan in 2d)

The Inspector View

- Represented by F in the screenshot
- Contains information about the currently selected asset or gameobject
- Gameobjects have Components, modular pieces of functionality
    - Components can be added, removed, reorganized, expanded, and collapsed
    - Components may have values, references, or operations accessible within the inspector window
    - All GameObjects contain a Transform component with information about position, scale, and rotation
        - Children inherit their parent's transform values
        - RectTransform components are used instead for UI items intended for use within a canvas
- Allows you to specify the tag, layer, and name of the GameObject

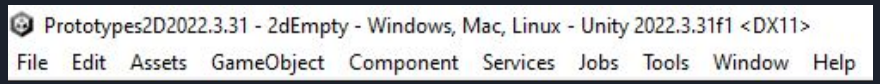
The Project View

- Occupies G in the screenshot
- Contains all assets and files associated with the project
- Can be used to drag an object into another appropriate area in the editor (hierarchy, scene, inspector)
- Selecting an asset will show any available information and interactions in the inspector window
- Two options for adding existing assets
  - Drag and drop files from file system into project area
  - Copy files into assets folder
    - Any changes to the project folder will be updated after a loading period upon Unity regaining focus

The Console View

- Also occupies G in the screenshot
- Will contain any errors, warnings, or statements printed with Debug.Log or similar commands
- Often helpful in identifying what went wrong by tracking information while playing through a process
- Can be cleared at any point, and has an option to collapse repeated statements
- If there are any compilation errors detected, they will be displayed as unclearable entries until they have been fixed, saved, and Unity recompiles the code base

Menu Settings



- File: Scene and project management, build windows
- Edit: Selection items, project settings, editor preferences
- GameObject: Prepared objects for use in a variety of contexts
- Component: Lists dialog of components that could be added to the selected objects
- Window: Contains large number of editor views/tabs, layout settings
  - Includes Package Manager, which is used to import features and/or assets in packages
- Less used:
  - (Unity Gaming) Services (as needed)
  - Jobs: Settings for the Burst Compiler
  - Tools: Certain additional tools (ProBuilder, Polybrush, etc) have settings here
- It is possible to create additional menus or entries

Usability

- https://oxmond.com/unity-shortcuts/
- Highlights:
  - CTRL+D - Duplicate selection
  - QWERTY - Various transformation tools (translate, rotate, scale…)
  - CTRL - Toggle Snap-to-Grid (also available in top of scene view: )
  - CTRL+S - Save Scene
  - CTRL+N - New Scene
  - F - Frame Scene View (based on selection)