Transitioning from Unreal to Unity

Quick Reference Glossary (Step 2: The Editor)

The following table lists equivalent concepts and terminology in Unreal Engine and Unity.

Unreal Concept	Unity Equivalent
Actor	GameObject
Component	Component
Blueprint	Prefab / Script
World Outliner	Hierarchy
Details Panel	Inspector
Content Browser	Project window
Viewport	Scene view
Static Mesh	Mesh
Skeletal Mesh	Skinned Mesh
Material	Shader / Shadergraph
Material Instance	Material
Cascade / Niagara	Particle System / Visual Effect Graph
UMG	Canvas
Canvas	IMGUI
Skeletal Animation	Animation
Animation Blueprint	Animation Controller
Animation Sequence	Animation Clip
Matinee / Level Sequencer	Timeline
Paper 2D	Sprite Editor

LineTrace	Raycast
Physics Properties	Rigidbody Component
Collision Properties	Collider Component

Supported Asset Formats (Step 3: Project and Assets)

Unity supports a broad array of file formats:

Exported 3D	.fbx, .dae (Collada), .3ds, .dxf, .obj
Proprietary 3D	Autodesk® 3ds Max® /Maya®, Blender, Cinema4D, Modo, LightWave, Cheetah3D
Images	.bmp, .exr, .gif, .hdr, .iff, .jpg, .pict, .png, .psd, .tga, .tiff
Audio	.aif .wav, .mp3, ogg, .xm, .mod, .it, .s3m
Fonts	.ttf, .otf
Video	.asf, .avi, .dv, .m4v, .mov, .mp4, .mpg, .mpeg, .ogv, .vp8, .webm, .wmv

Similarities with scripting for Unreal (Step 6: Scripting in Unity)

Unlike Unreal, which uses C++ for low level behavior and Blueprints for scripting, all Unity scripting is done in C#. However, just like Unreal, Unity scripting is mostly based around [handling game events](#) like frame updates and overlaps.

You can find some examples below:

Unreal	Unity	Description
Begin Play()	Start()	Called the frame the object in initialized.
Tick()	Update()	Called every frame
OnActorOverlapBegin()	OnTriggerEnter()	Called when a volume is overlapped.
Destroyed()	OnDestroy()	Called when the object is Destroyed.

Raycasting (Step 6: Scripting in Unity)

In Unreal, Raycasts and Shapecasts are completed using Trace functions. Tracing by Channel or Object type is supported for both shape and ray tracing. A cast outputs a Hit Result struct with all the relevant information about a hit.

Unity has several functions for Raycasting:

Physics.Raycast()	Casts a ray against the Scene, returning the first Collider the ray intersects with.
Physics.Spherecast() (Box/Capsule)	Casts a primitive Collider against the Scene.
Rigidbody.Sweeptest()	Sweeps the Object along a vector, returning the first hit.
Physics.OverlapSphere() (Box/Capsule)	Tests a position with a primitive Collider, returning all overlapping Colliders.