Unity®

UNITE/2026

TOKYO

Unity®

Unity Roadmap



2026

Safe Harbor Statement

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Performance figures are based on internal tests under specific conditions and may vary with hardware, software, and content.

“Up to” values reflect maximum observed results; typical improvements may be lower. Metrics apply only to the component stated and may not represent overall performance. Some features require specific hardware or software support.



Jason Mann

Vice President,
Technical Product
Management



James Stone

Senior Director,
Technical Product
Management



Tarrah Alexis

Senior Director,
Product Management

unity.com/roadmap

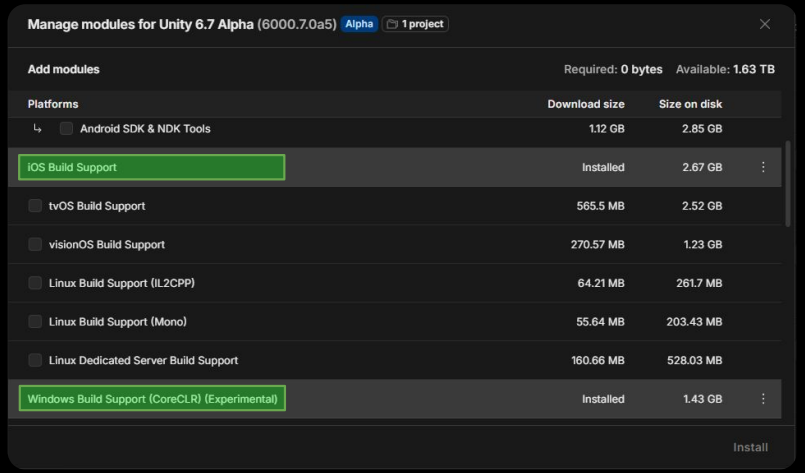


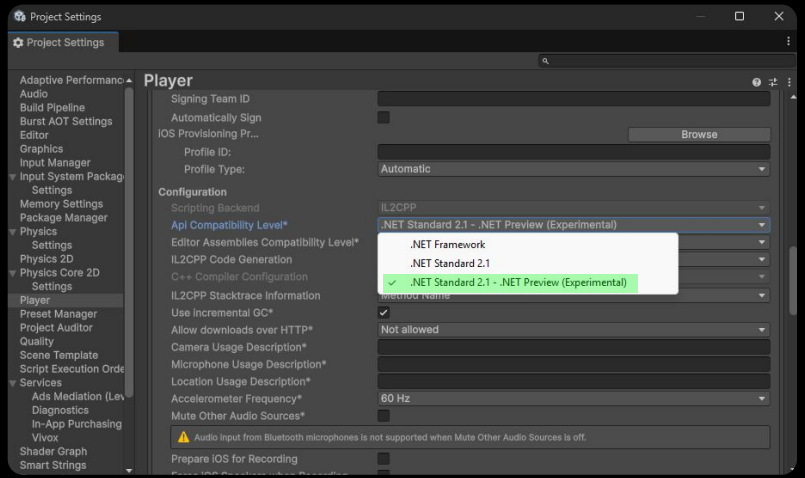
Engine Foundations

CoreCLR

Experimental players

- → CoreCLR Desktop Player
- → IL2CPP iOS Player





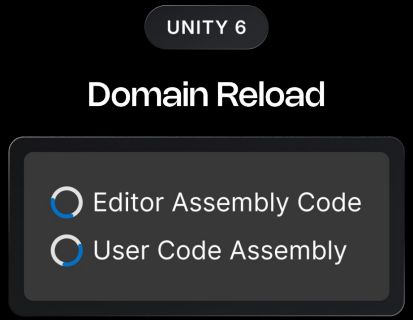
CoreCLR in Unity 7

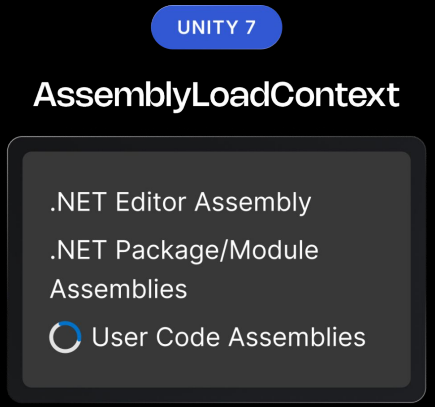
Less time waiting

- → ~~Domain reload~~ → AssemblyLoadContext
- → .NET10 / C#14
- → MSBuild/csproj compilation

Supported players

- → CoreCLR
- → IL2CPP

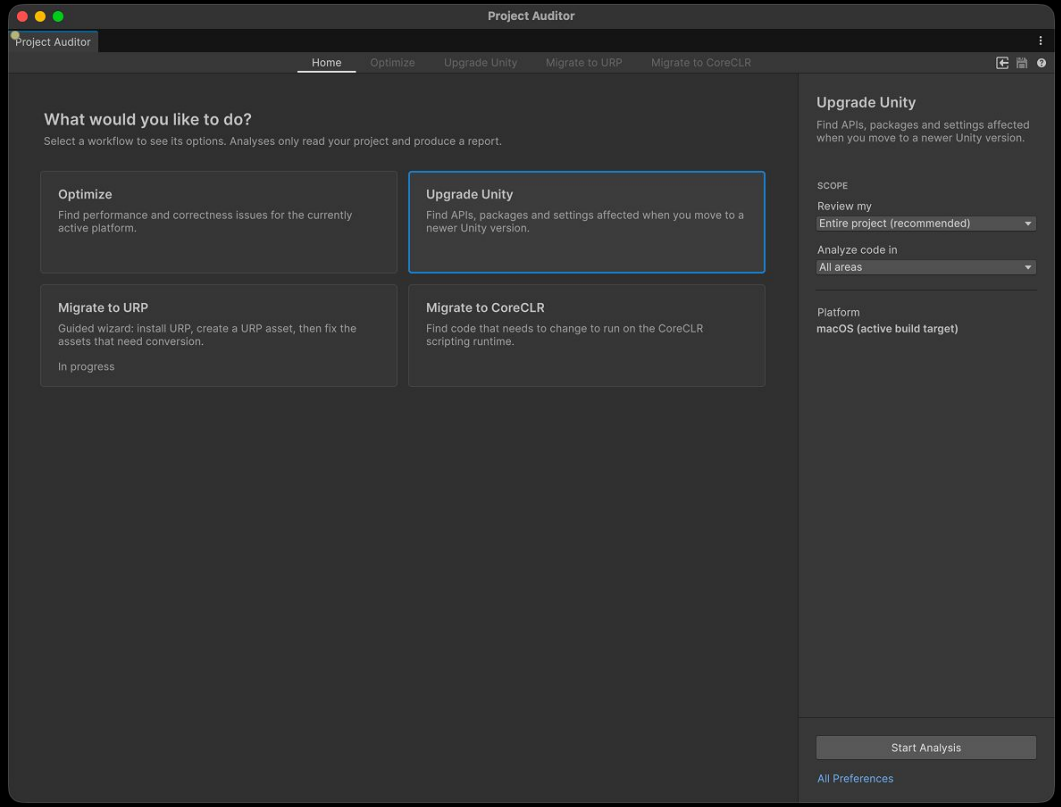




Project Auditor

Simplifying upgrades

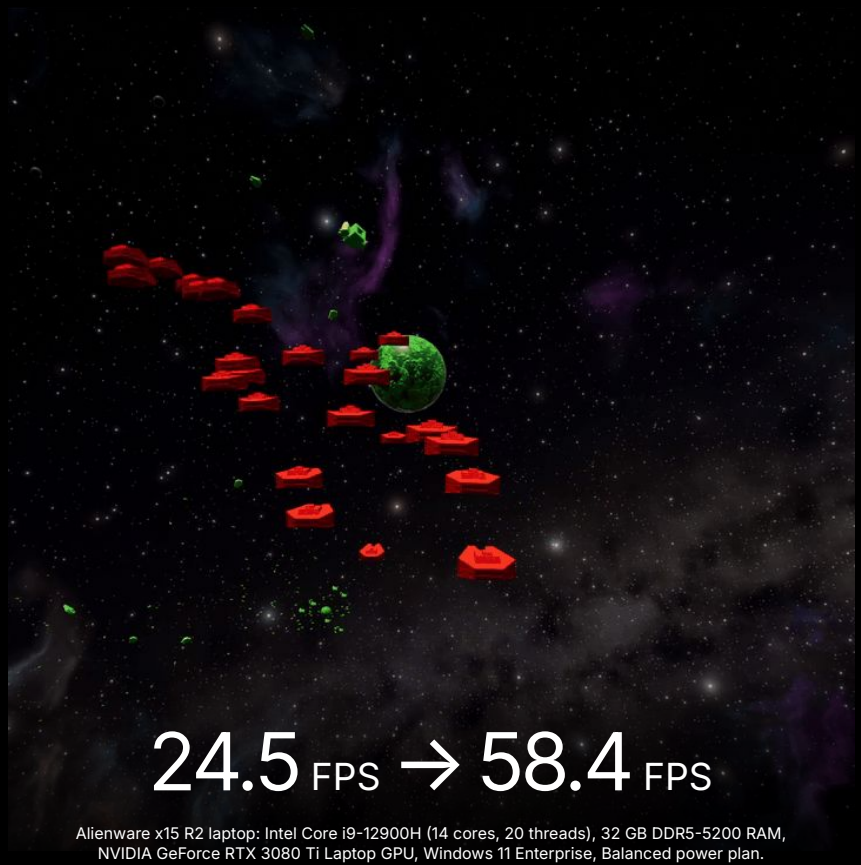
- → New upgrade workflows
- → Upgrade from 6.7 to 7.0
- → Migrate projects to URP
- → Migrate to CoreCLR



ECS for All

A new foundation of ECS

- → Entities at the heart of the Engine
- → Performance by default
- → Entities for every GameObject
- → Updated transforms



Alienware x15 R2 laptop: Intel Core i9-12900H (14 cores, 20 threads), 32 GB DDR5-5200 RAM, NVIDIA GeForce RTX 3080 Ti Laptop GPU, Windows 11 Enterprise, Balanced power plan.

ECS for All

New ECS authoring flows

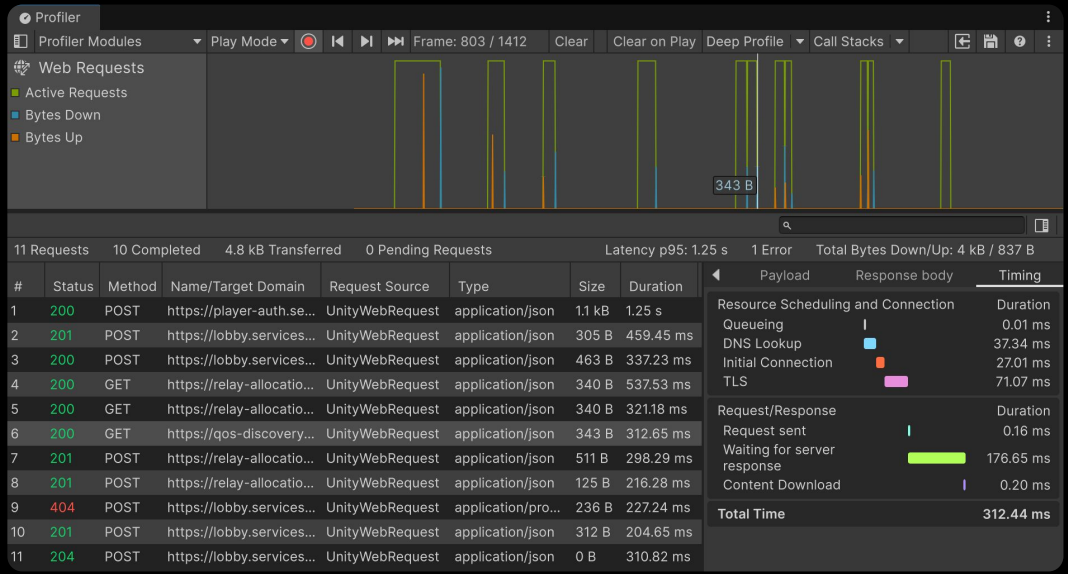
- → Add Data Components to GameObjects and prefabs
- → Author ECS faster without subscenes or baking scripts



Web Requests Profiler

See every service call

- → Full timing breakdown
- → Latency and error tracking
- → Detailed request inspection
- → Live bandwidth graph



Unified Netcode

One package

- → Netcode for GameObjects supported
- → Client prediction
- → Massive scale
- → Delta compression



CloudBehaviours

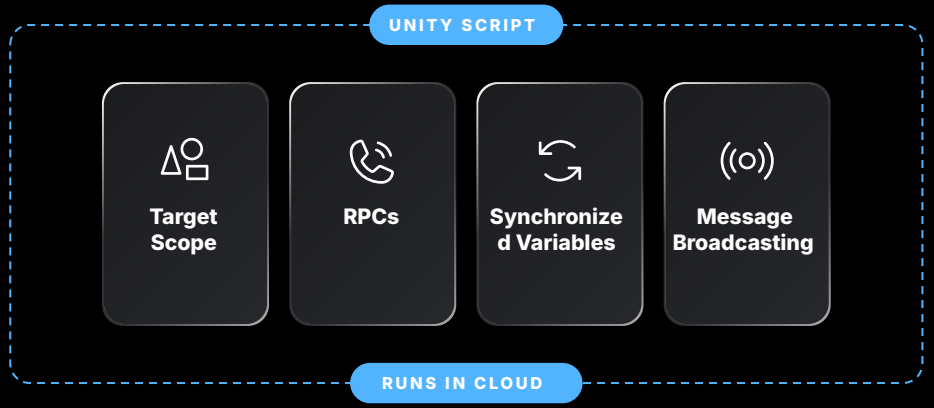
Unity-native cloud logic

- → Stateful cloud logic
- → Live state syncing
- → Secure by design
- → Native to Unity

```
[StateScope(Scope.MultiplayerSession)]
public class MatchState : CloudBehaviour
{
        // synced to every player
        public int Round;

        // callable from your game
        public void NextRound() => Round++;
 }
```

What are cloud behaviours?



Event-Driven Online Games

Player Metagame

Unity Native

Low Cost

Iterate Rapidly

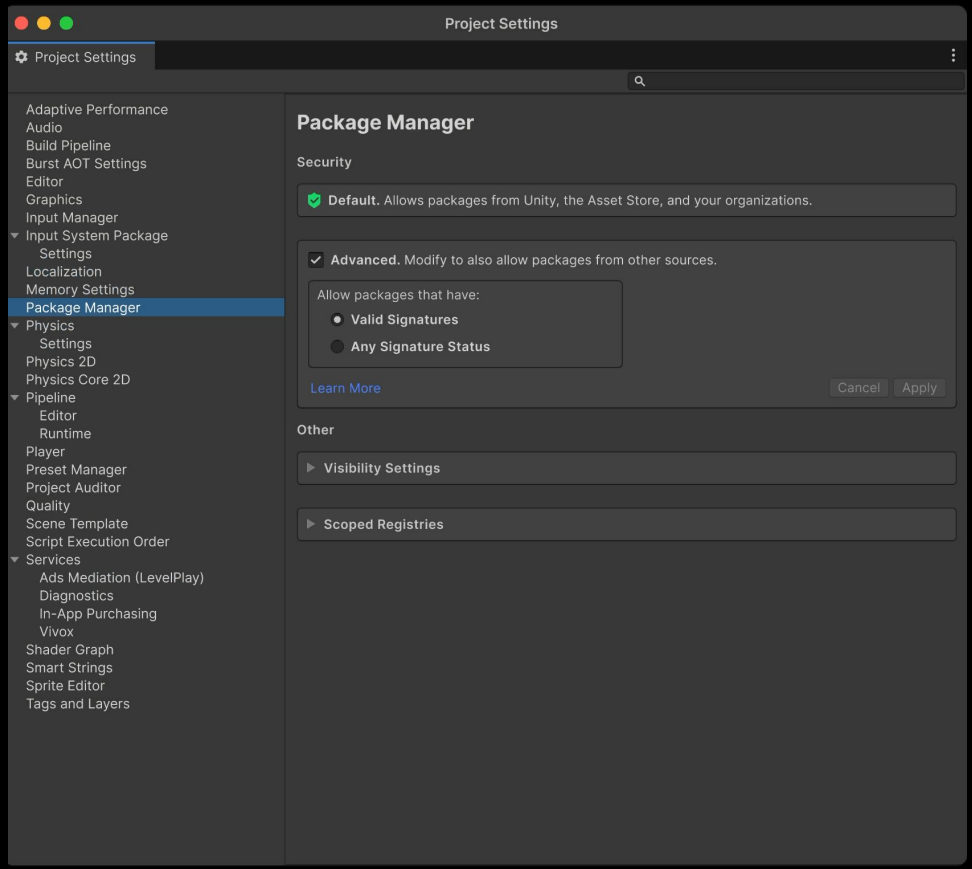
Shared State

Secure by Design

Unity Core Standards

Package security settings

- → Project-wide security thresholds for the package supply chain
- → Gives you the ability to set Package Security settings based on your risk tolerance
- → Supports enterprise security expectations



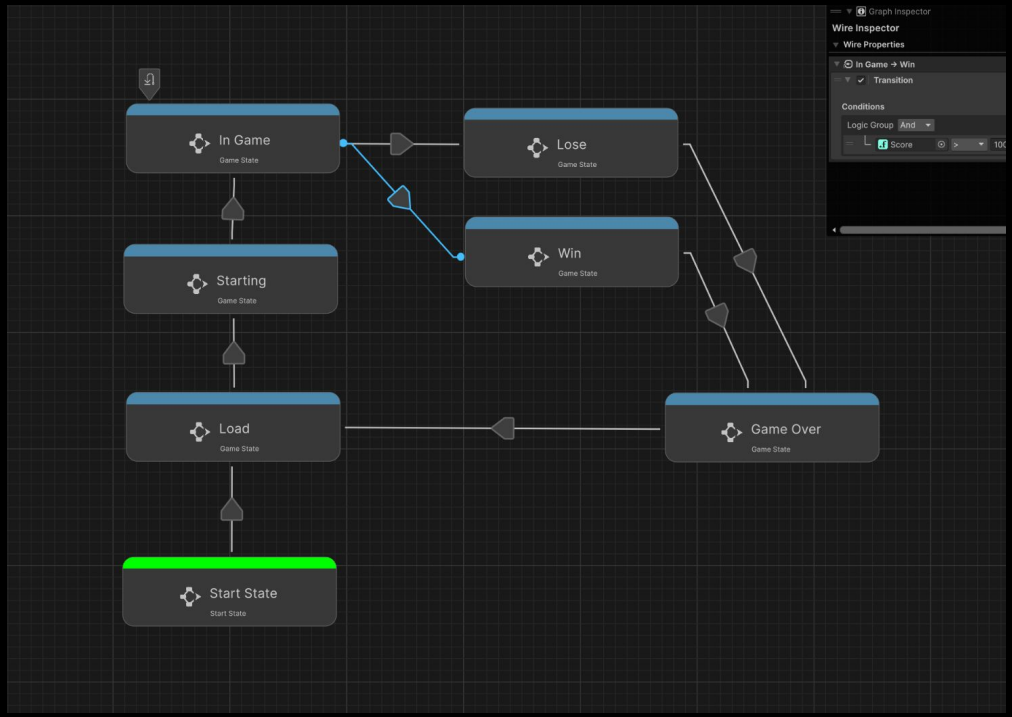


Authoring

Graph Toolkit

Customizable graph tools

- → State machines
- → Live debugging
- → Richer nodes
- → More tool customization



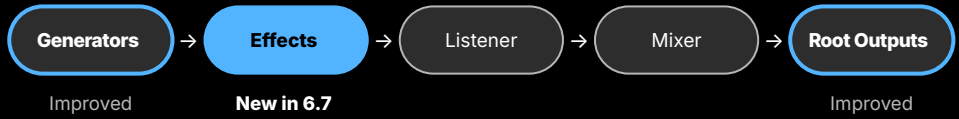
Scriptable audio pipeline

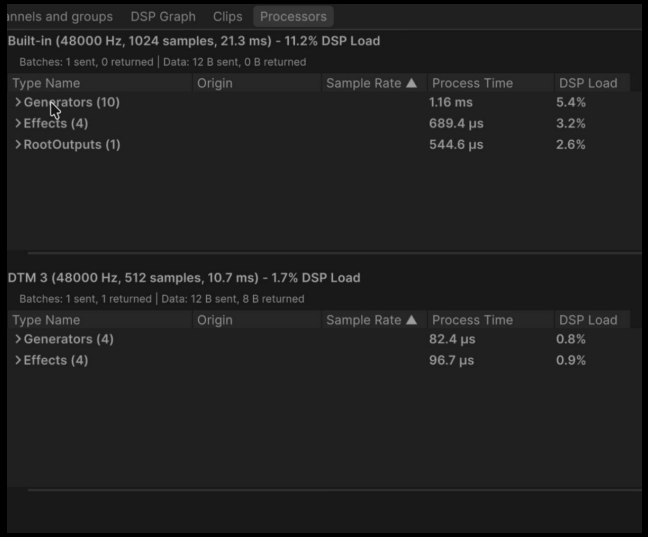
Extend Unity Audio:

- → Burst and Jobs compatible
- → No thread stalls
- → Profiling of processors
- → Enhanced Audio Foundation

One model, three processor types so far:

- **Audio Generators**
- **Effects**
- **Root outputs**



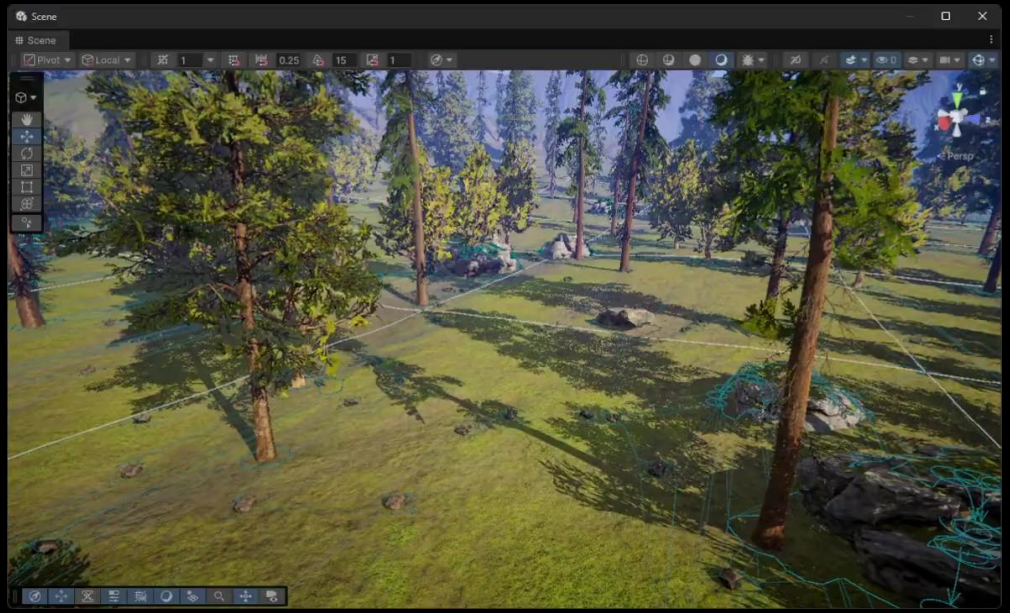


Navigation and pathfinding

Low level API and Terrain Trees

Query the NavMesh safely from jobs with NavWorld

- → Pathfinding and movement along the NavMesh
- → Polygon geometry, connectivity, and generated links
- → Run many NPCs in parallel



Input System

Priority-based Input

→ Precise control of actions when bindings overlap

Sensor and device-capability parity

→ Location, Compass and Device orientation

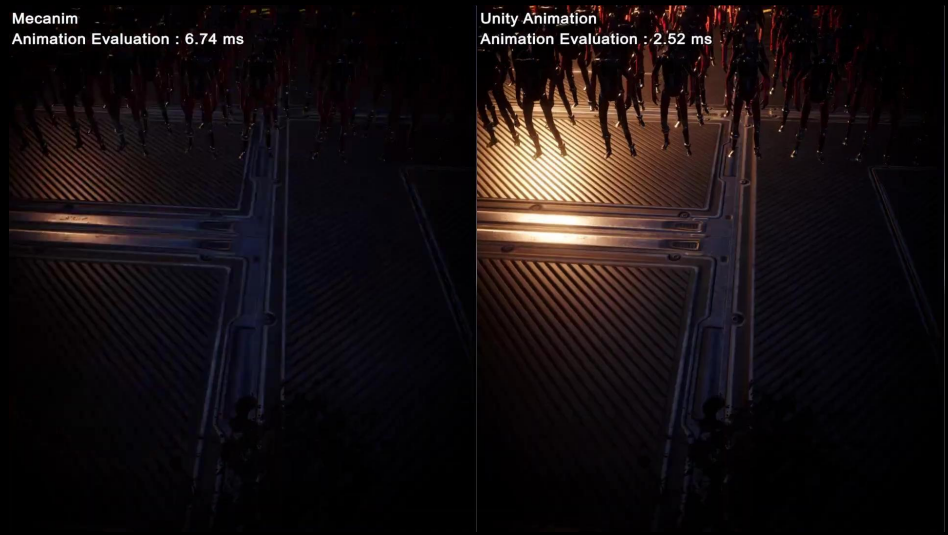
→ Platform support: Pen, touch and mouse

→ Parity with legacy Input Manager



New Unity Animation Foundation

- → Low level Bursted C# Animation API
- → ECS compatible
- → Supports Transforms,
- → Sprites and Properties
- → 2x+ performance in heavy Animation simulations
- → More improvements coming later in 7; Swappable Animator backend



Animator backend performance comparison on a high-end PC

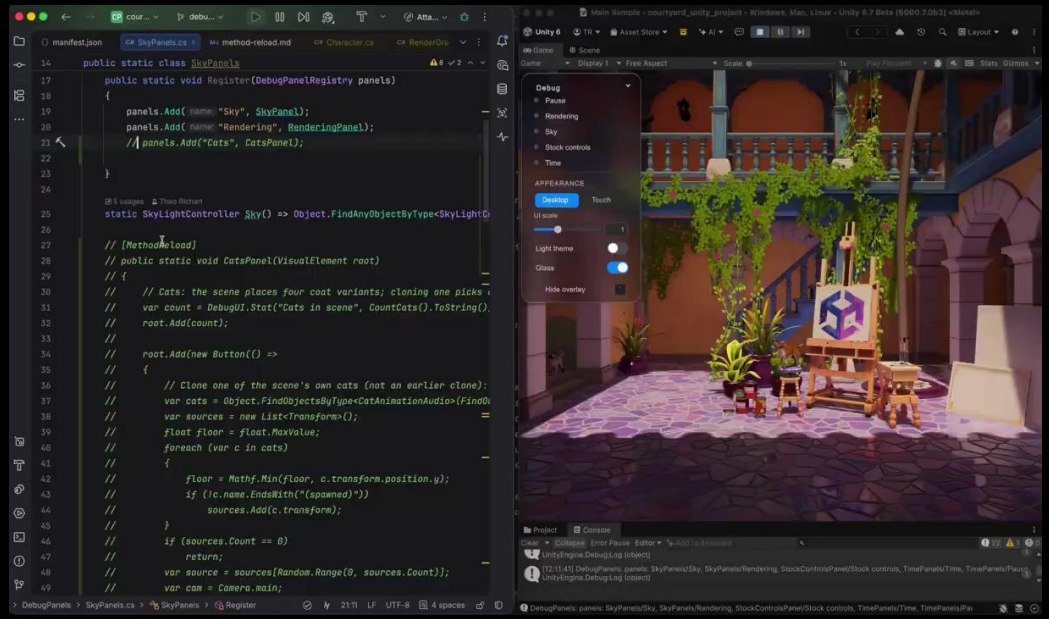


CLI and Pipeline

Method Reload

What it unlocks

- → Edit code while your game runs
- → Push changes to devices, no rebuild
- → Runs on IL2CPP platforms
- → Built for developers and agents
- → Opt in per method, with safe fallback



Content directories

What it unlocks

- → Faster builds
- → Build-analysis tools
- → Dependency tree
- → Remote distribution coming
- → Local available now

Asset bundles vs. Content directories

ASSET BUNDLES	CONTENT DIRECTORIES

Unity CLI

What it unlocks

- → Terminal, CI, and AI agent workflows
- → Faster iteration
- → Beyond the Editor: CLI extensions
- → Generators via CLI

What’s next

- → Agent identity and guardrails
- → End-to-end device validation

Unity CLI and agents

- → Built-in best practices
- → Expert-authored skills
- → Plug-ins for leading AI coding agents

Compatible with agents such as:

OpenAI

Claude

Grok

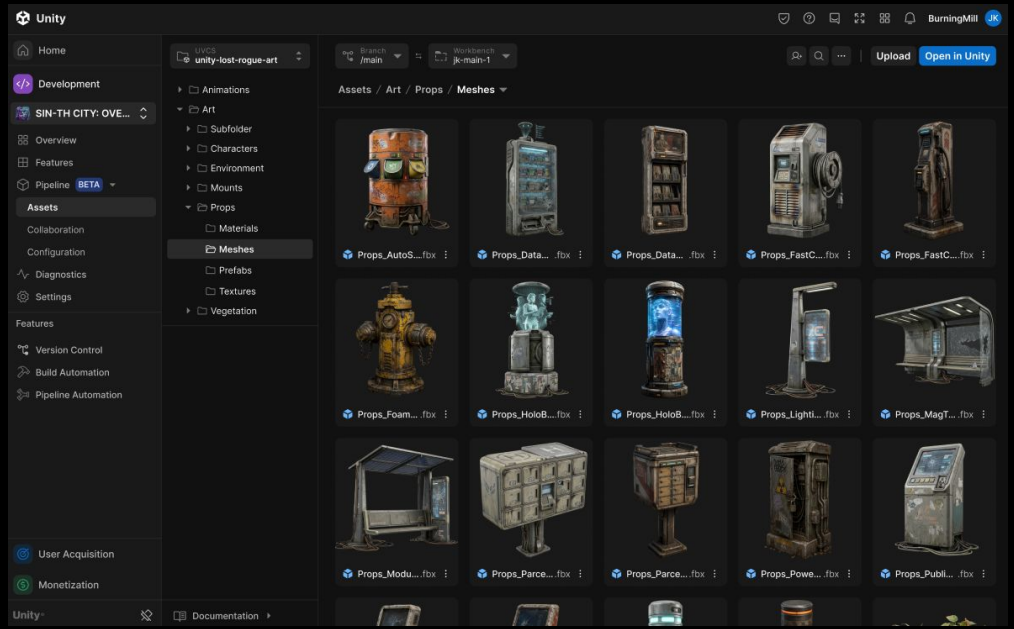
Google Antigravity

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Unity Pipeline

What it unlocks

- → Access your Unity Projects without the Editor
- → Formal API contracts
- → Web dashboard
- → Multiple access points through API, CLI & tools
- → Deep links, comments, web preview

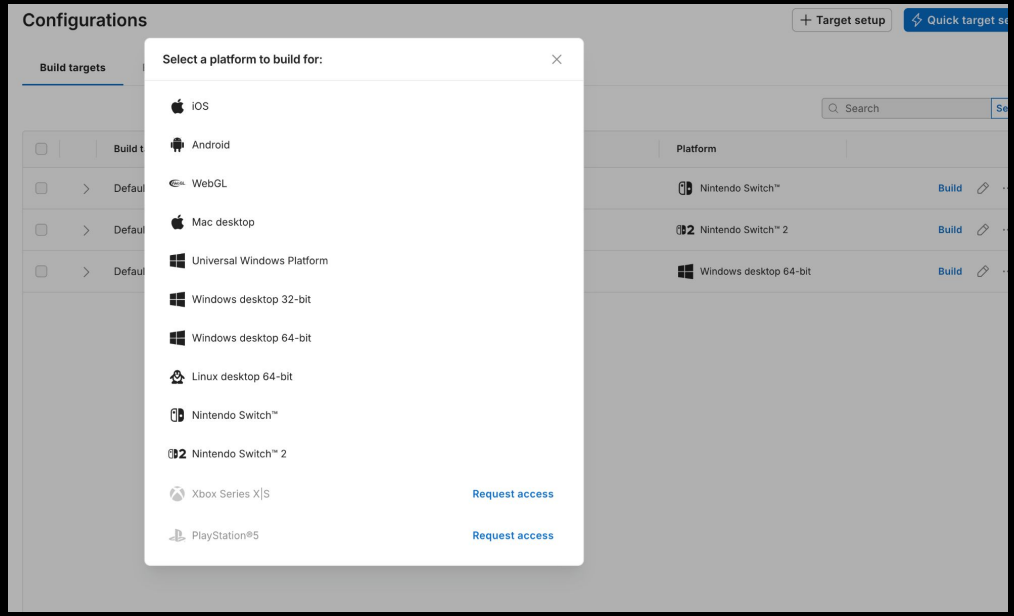


Automation

What it unlocks

- → CI/CD for Unity projects
- → Build in the cloud for Nintendo Switch™ and Nintendo Switch™ 2
- → Faster builds with premium cache
- → Higher performance compute

** Nintendo Switch is a trademark of Nintendo*

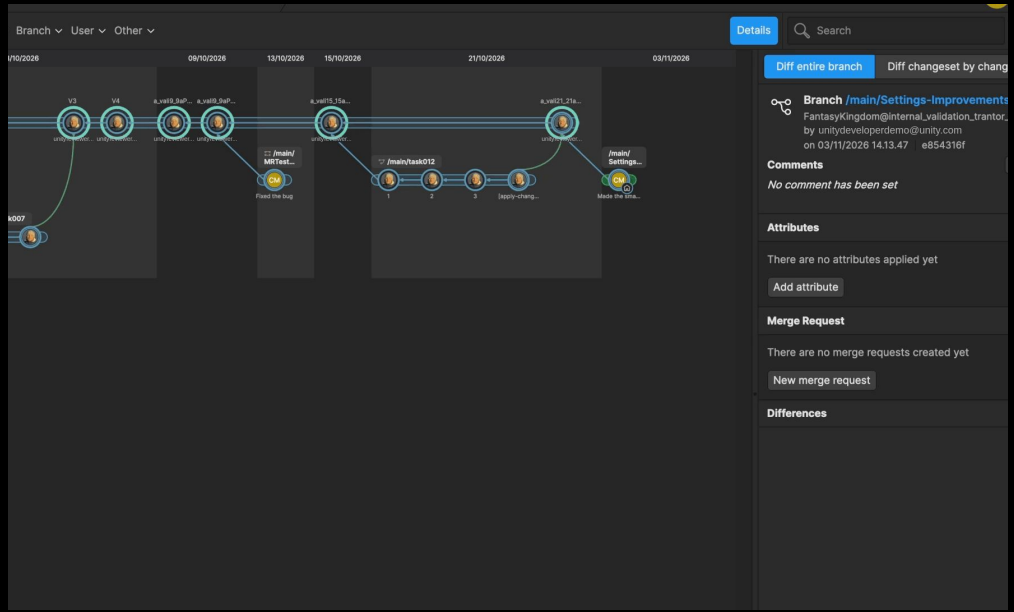


Merge Requests

What it unlocks

→ Code reviews, merge rules, and mergebots unified in UVCS

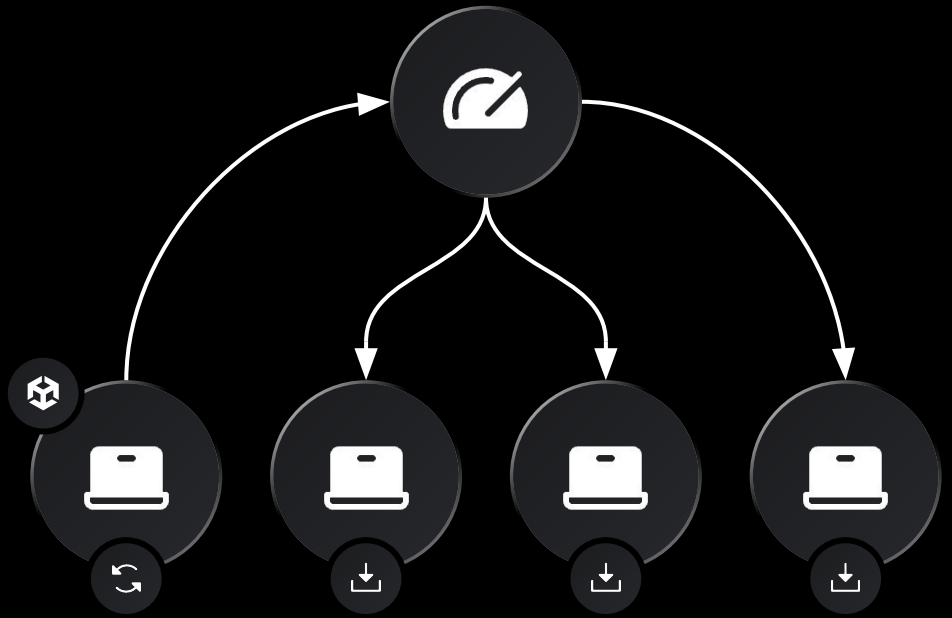
→ See where every request stands, and which ones need your review



Accelerator V2

What it unlocks

- → Faster reimports and rebuilds
- → Unity-hosted, with quick setup
- → Rebuilt on UVCS
- → Included with your DevOps license
- → Free self-hosted version coming soon





Graphics and Rendering

James Stone

Render pipeline strategy

THE PATH TO UNIVERSAL RENDER PIPELINE (URP)

Surface Cache GI

What it unlocks

- → Dynamic indirect diffuse lighting
- → Balance between runtime performance and visual quality
- → Dependable across the widest range of hardware



Indirect diffuse lighting contributed through Surface Cache GI, applied to the Atrio courtyard demo. Content credit: Unity internal project

Screen Space Reflections

What it unlocks

- → Produce real-time glossy reflections
- → Minimal setup or authoring required
- → Also supported for mobile



Screen Space Reflections applied to the Atrio courtyard demo.
Content credit: Unity internal project

Ground Truth Ambient Occlusion

What it unlocks

- → More physically grounded contact shadows
- → Now integrated into the Volume system
- → Blend different AO settings across a scene



Higher quality contact shadows through GTAO applied to the Atrio courtyard demo. Content credit: Unity internal project

Deepen Physically Based Foundation

What it unlocks

- → Physical Light Units
- → Auto Exposure
- → Physically Based Sky



Internal test content, final implementation may differ.
Content credit: Unity internal demo.

Volumetric Fog

What it unlocks

- → Performant, easy-to-use volumetric effects
- → Integrated with the Volume framework



Unity Volumetric Fog applied to URP 3D Sample - Garden Scene

Light Falloff Mode

Easier migration from Built-In

→ Quadratic mode makes URP lights fade like Built-In

→ Bring existing Built-In content and its lighting to URP



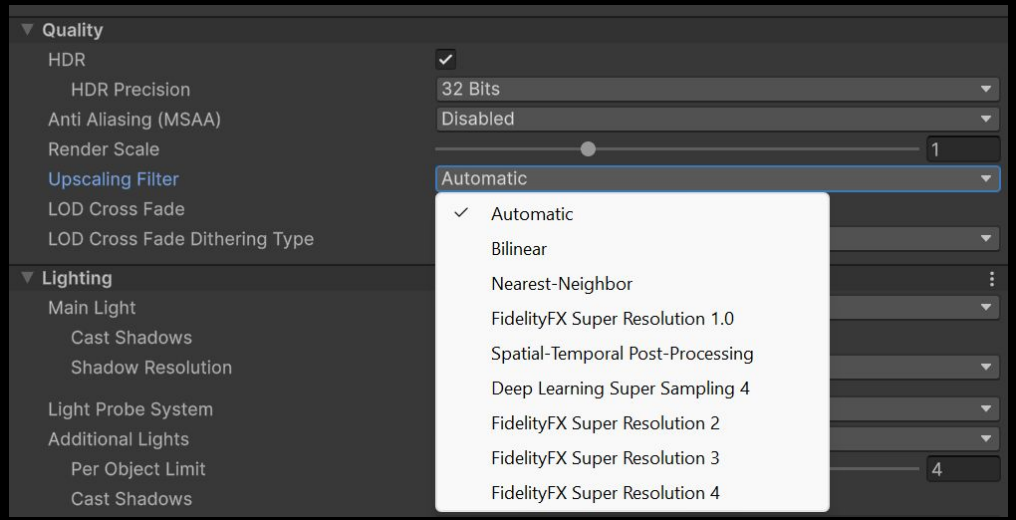
Light values carried over from Built-In can look different in URP.
Lower left: Quadratic falloff. Upper right: Inverse Square (default).

Content credit: Modular Dungeon - Catacombs, Tobyfredson, Unity Asset Store

Modern upscaling

Modern upscalers on URP

- → STP as default
- → DLSS 4.5 super sampling
- → FSR 2, 3, and 4
- → MetalFX
- → Console-specific upscalers
- → Partner-integrated upscalers, including Qualcomm's ANF



Stencil support in Shader Graph

For portals, see-through effects and more

- → Per-material stencil settings, without layers, Render Objects, or hand-written shader code
- → Stencil also works in shadow maps, so masked objects can cast matching shadows



Characters stay visible behind walls, using Shader Graph materials with stencil settings and no custom shader code.
Content credit: Stealth Game: Haunted House, Unity Technologies, Unity Asset Store

Unity Graphics Kernel (UGK)

- → New graphics backend for Unity
- → More performance, better stability on modern graphics APIs
- → Unlock latest GPU capabilities
- → Easier to debug with a graphics validation layer





Neural Rendering

- → Neural inference integration in URP
- → Neural training bridge to ML frameworks
- → Fast inference via Linear Algebra and Cooperative Vectors on DX12
- → Neural Texture Compression

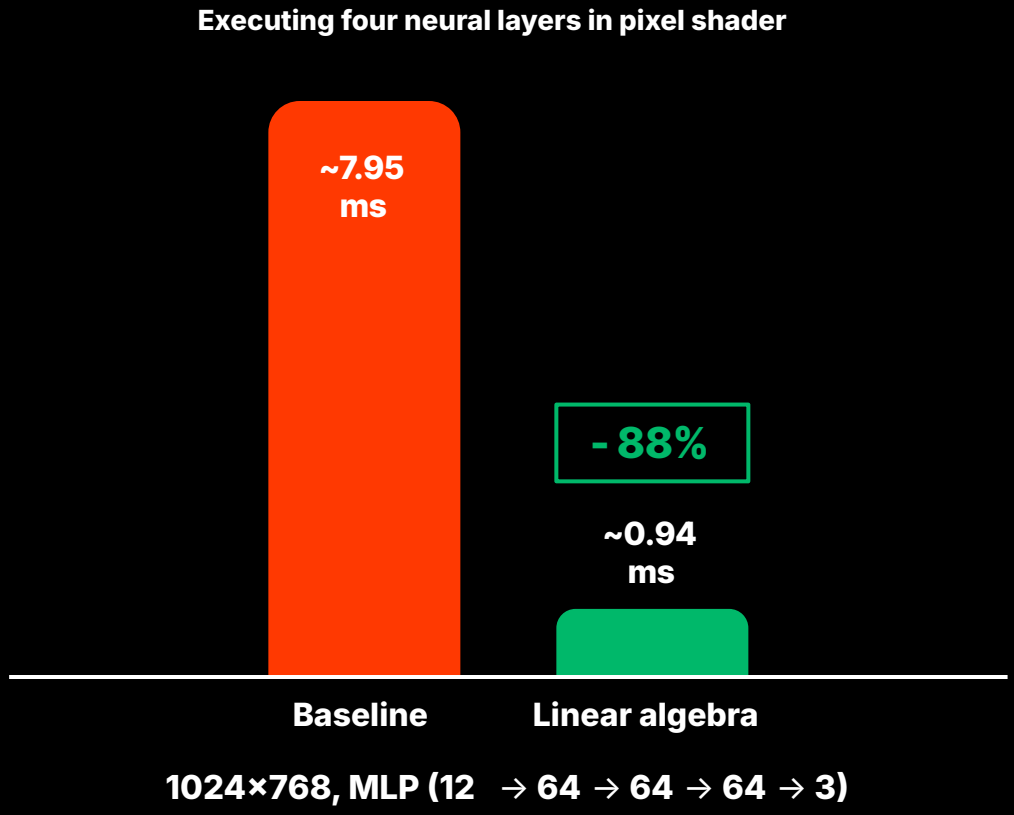


Texture memory usage

Source: Unity "Atrio" sample project

Shader compilation

- → DXC, HLSL 2021 and Linear Algebra support
- → Lighting-fast compilation via fast shader build profiles
- → Advanced Shader Delivery (ASD) for DirectX 12
- → Compute shader tracing





2D

2D Graphics in 6.7 LTS

Configurable, extensible, and seamlessly upgradable 2D graphics

- → Custom 2D lights and shadows
- → 2D injection points for custom Render Passes
- → RenderSprite APIs



"Bunny Blitz" (2D and 3D Sample Project), Unity Technologies, Unity Asset Store

Physics Core 2D in 6.7 LTS

Components for Physics Core 2D

- → New Pose, Area, and Constraint components
- → All the multithreaded power of Physics Core 2D in a familiar workflow



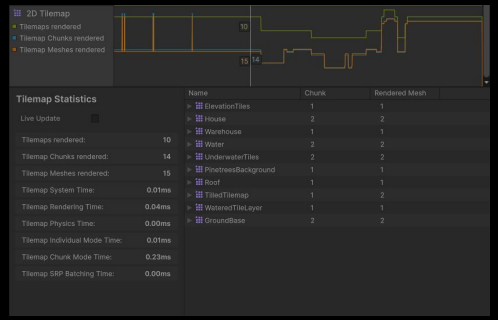
Source: Bunny Blitz Physics Core 2D Samples by Unity Technologies

2D Profilers in 6.7 LTS

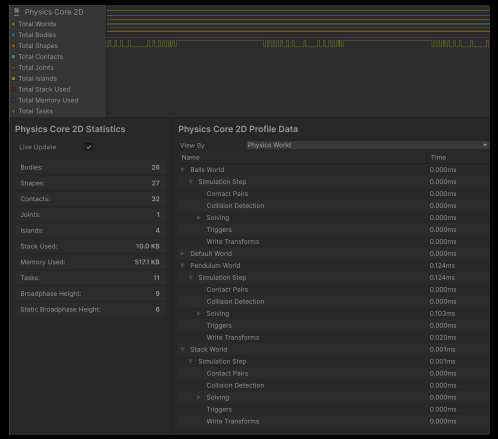
Comprehensive 2D profiler suite

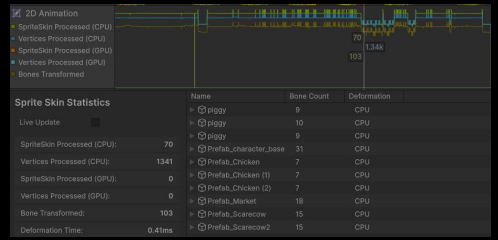
Deeper analysis with new 2D profilers:

- → Sprite
- → 2D Sprite Skin
- → Tilemap
- → 2D graphics
- → Physics Core 2D









2D in Unity 7

2D animation workflows

- → High-level controls for 2D characters
- → Secondary motion powered by 2D physics



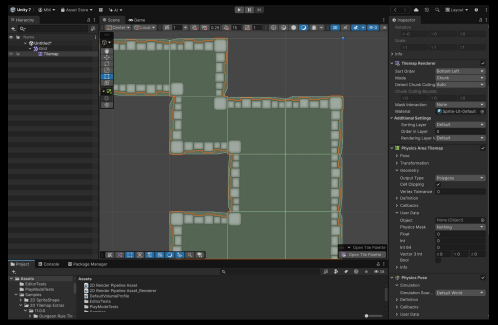
Manga witch character © Unity Technologies, "2D Animation Samples," Unity Asset Store. Source: assetstore.unity.com/packages/2d/characters/2d-animation-samples-354550

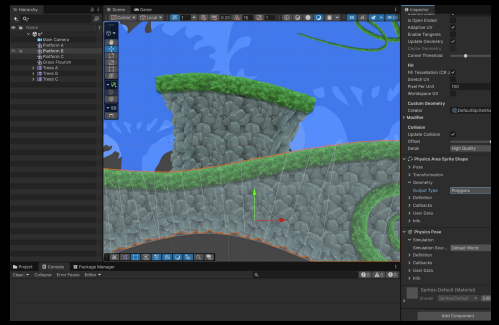
2D in Unity 7

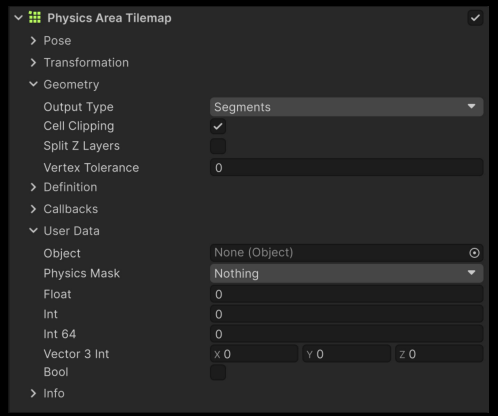
2D physics integration

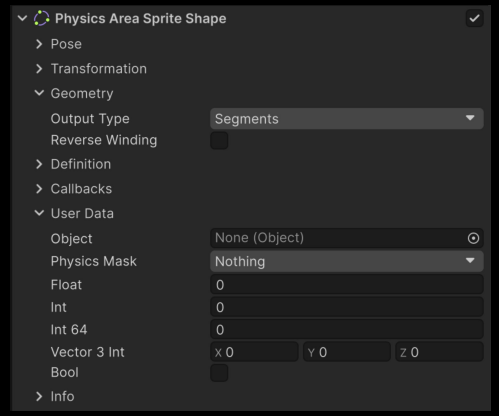
→ Physics Core 2D deeply integrated into 2D animation, Tilemaps, SpriteShapes

→ Higher performance, more control, and more automation





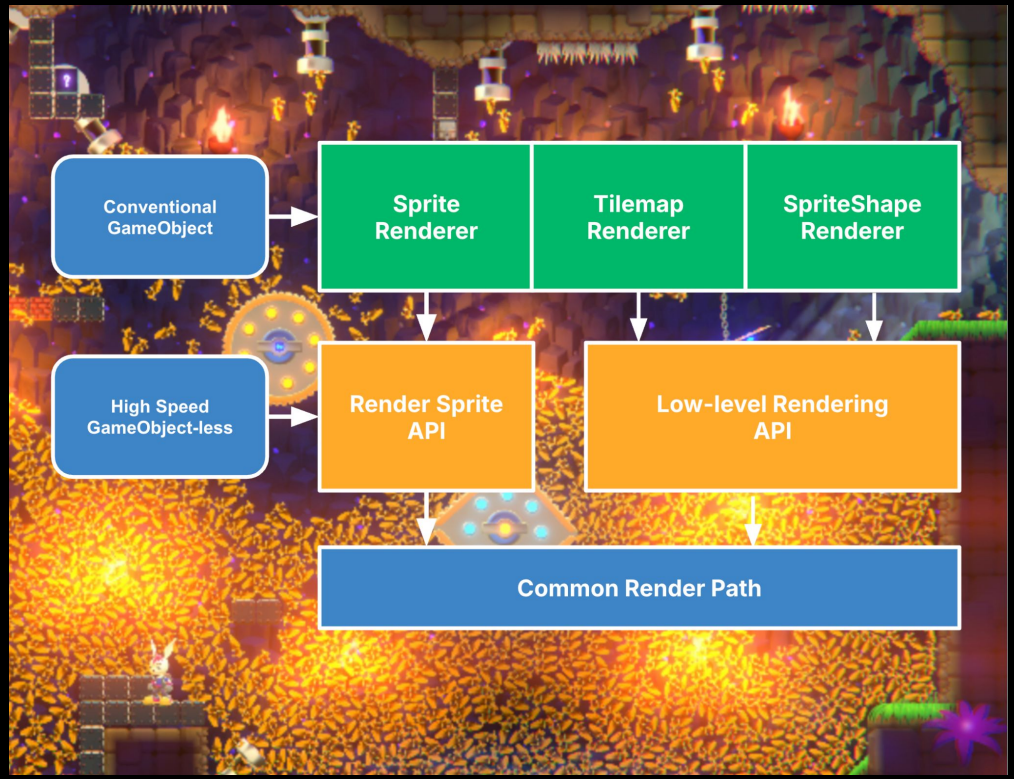




2D in Unity 7

High-performance rendering APIs

→ Low-level APIs in the spirit of RenderSprite for faster rendering of Tilemaps and SpriteShapes



"Bunny Blitz" (2D and 3D Sample Project), Unity Technologies, Unity Asset Store

2D in Unity 7

Rendering 2D in 3D

→ Improved authoring and graphics workflows for rendering 2D objects in 3D scenes



RPG Hero by Unity Technologies, "2D Animation Samples," Unity Asset Store.
Source: assetstore.unity.com/packages/2d/characters/2d-animation-samples-354550



UI Systems

UI Toolkit in 6.7 LTS

Rich and dynamic UI

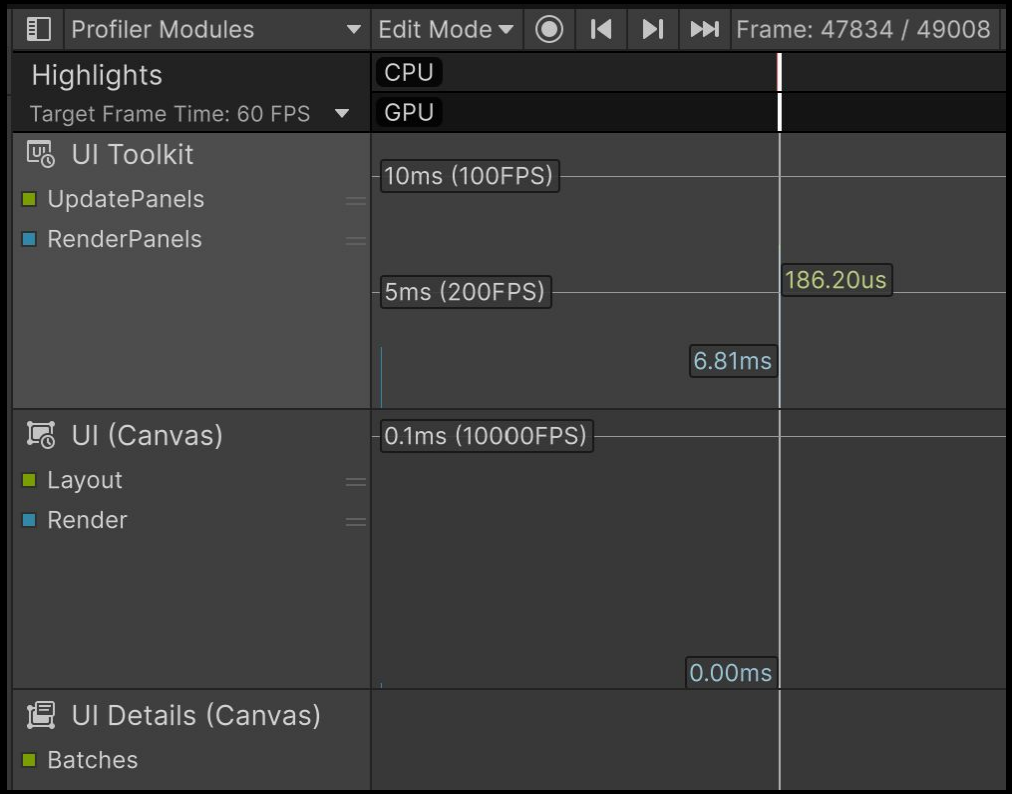
- → Author in the Scene view
- → Keyframe animation
- → Polished effects with USS
- → Better Inspector integration



UI Toolkit in 6.7 LTS

Predictable performance on more devices

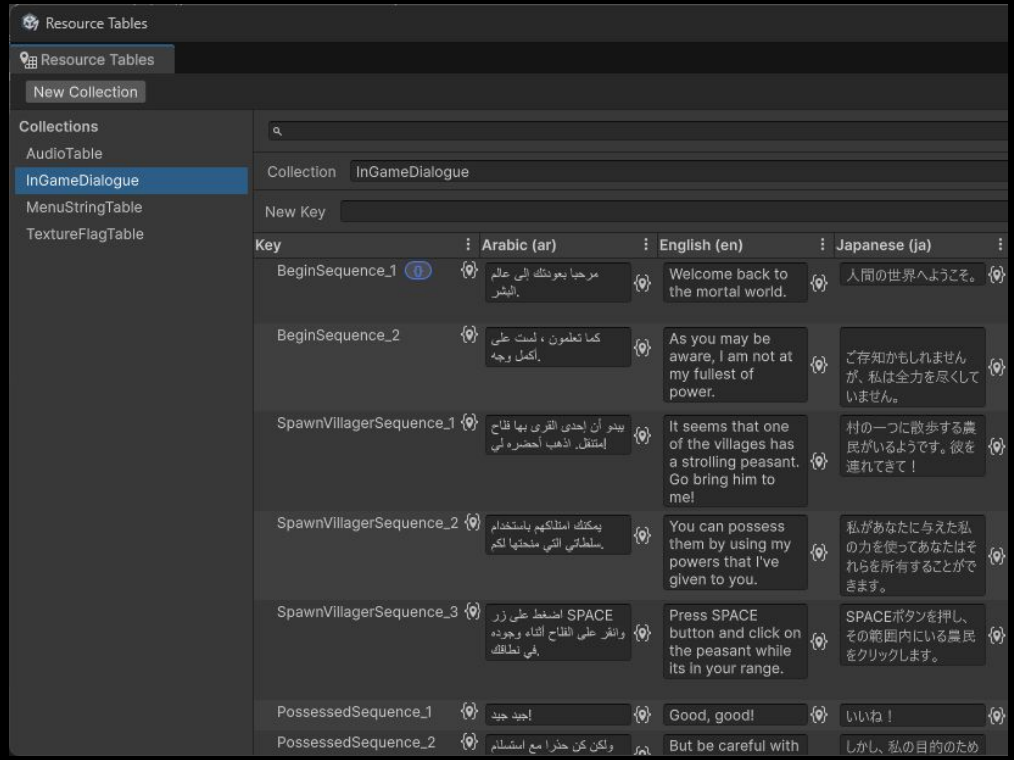
- → Faster USS selectors
- → Lighter class lists
- → Wider device support
- → UI Profiler module



Text and localization

Every language, with less setup

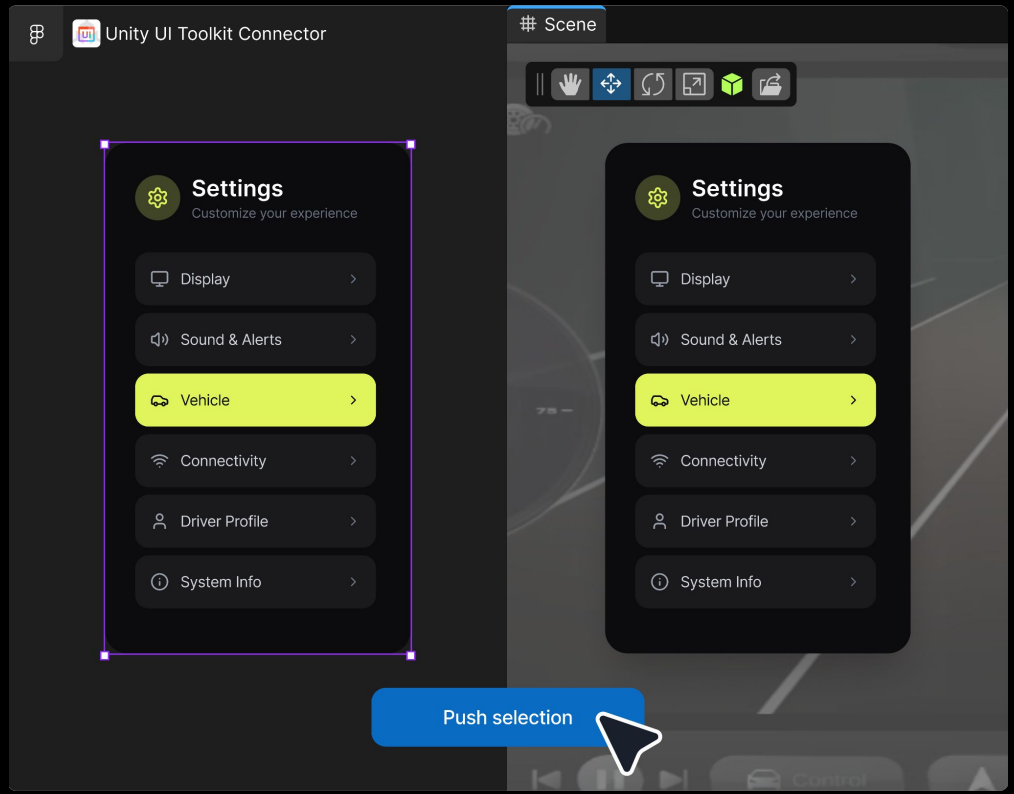
- → Advanced Text Generator by default
- → Built-in localization
- → Standalone Smart Strings
- → Unified table editor



UI in Unity 7

Available as experimental today

- → Grid layout, UI components
- → Shader Graph UI filters
- → StyleSheet editing mode
- → Multiple UI Builder windows
- → Screen reader support for runtime panels
- → Curved UI for world space and VR
- → Font Subsetter keeps only the glyphs you use
- → Advanced Text Generator in TextMesh Pro
- → UI Toolkit Connector for Figma Design





Platforms

Tarrah Alexis

Official Googlebook support in 2027

ANDROID

Bring your Unity games to Googlebook and across form factors

- → **Easy path from mobile Android:** Bringing your game to Googlebook is simple
- → **Improved input and large screen support:** Keyboard and mouse, game controller, and large-screen support
- → **Across devices:** Many improvements extend to every form factor, including phones, tablets, foldables, and beyond

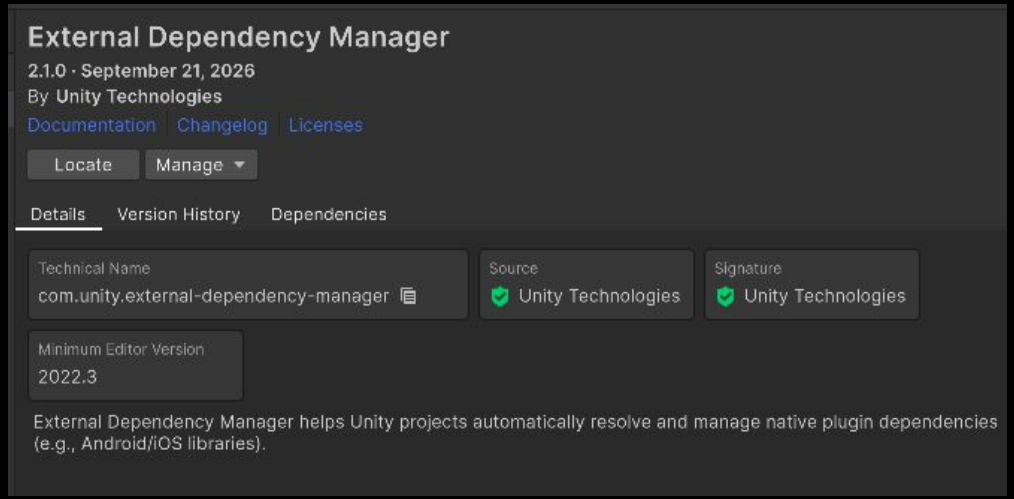


Mobile - External Dependency Manager

ANDROID IOS

Mobile dependency management, now built into Unity

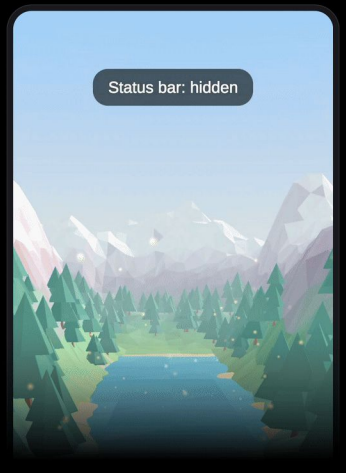
- → Enables plug-ins and creators to define native iOS and Android dependencies
- → Faster compatibility with Engine updates
- → Parity with Google EDM4U format for smooth migration
- → Supports Unity 2022.3 and up



Android



→ Get details on your game's startup performance with ApplicationStartInfo API

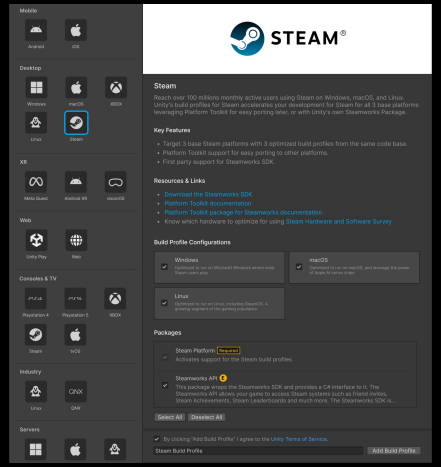


→ Take advantage of the full screen while safely adapting UI to system bars

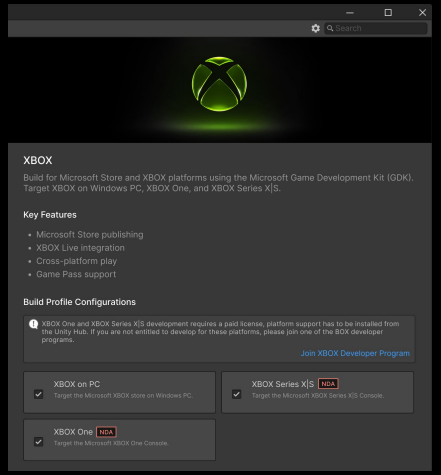


→ Reach more players with support for controllers with digital triggers and rumble

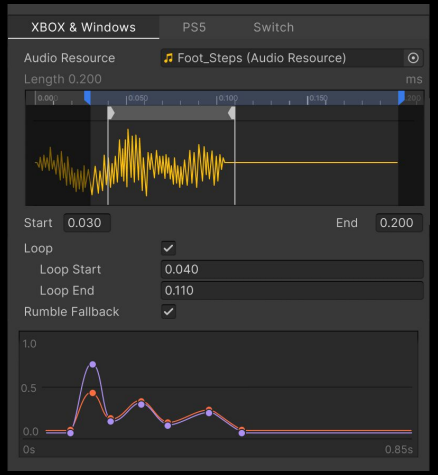
PC & XBOX



→ Steam Build Profiles for Windows, Mac & Linux



→ A single multi-target build profile across XBOX targets



→ Single haptics workflow for Windows & XBOX

Meta VR Glasses

START BUILDING WITH UNITY TODAY



XR

Coming in Unity 6.7 and Unity 7



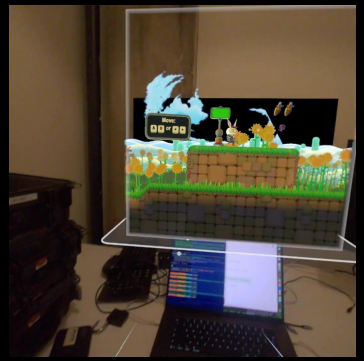
→ Spatial Audio now supports 7.1.4 surround sound

META VR ANDROID XR



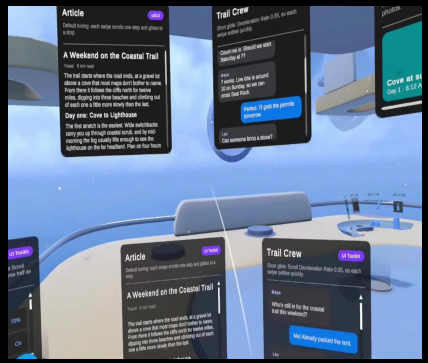
→ 2D App Spatialization make your 2D app more immersive with stereo depth

META VR ANDROID XR



→ Spatial Containers to run multiple apps at once

ANDROID XR



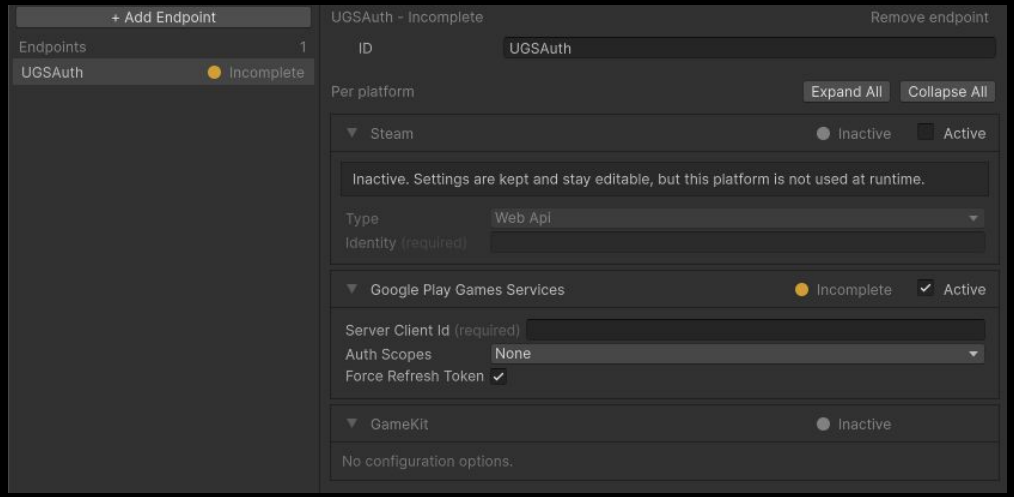
→ Microgestures for improved navigation

META VR ANDROID XR

Platform Toolkit

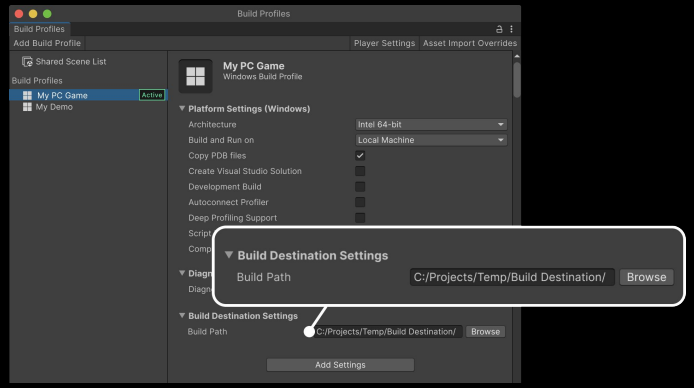
Access new platform services through a Single API

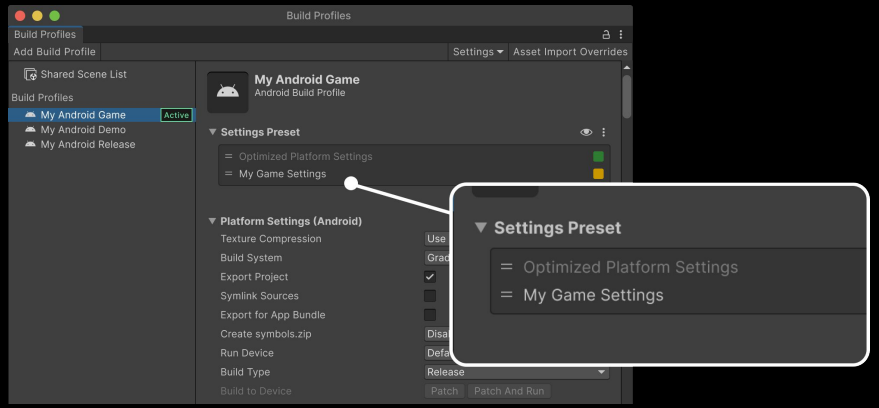
- → New leaderboard API
- → Platform service authentication tokens
- → Support for Meta Quest 3 & 3S



Design Subject to Change

Build Profiles





Build destination override

→ Route builds to any output path from the command line or scripts

Compositional settings

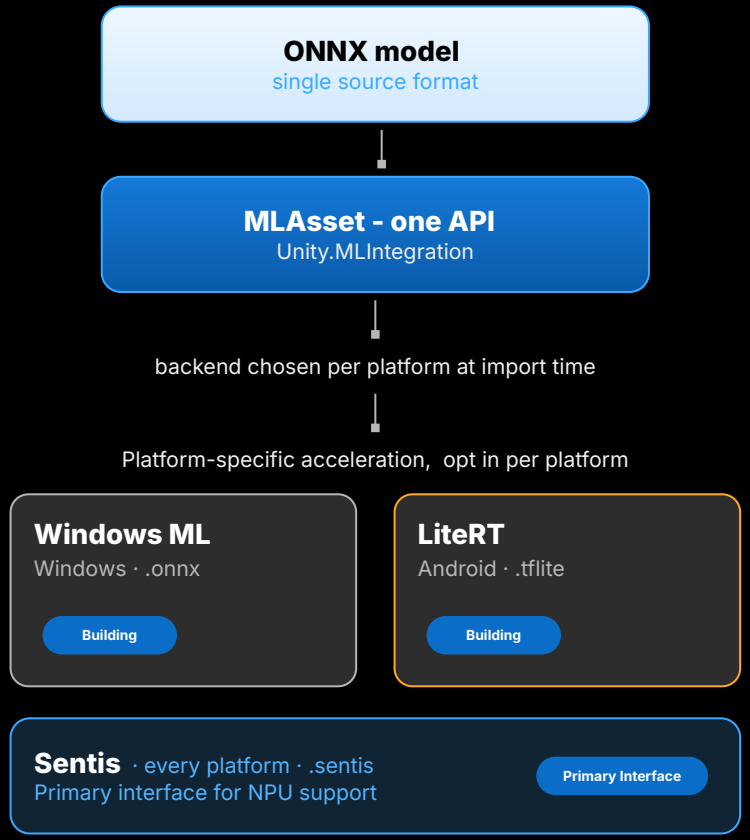
→ Save partial overrides for Graphics, Quality, or other settings as reusable Settings Containers/Presets

→ Share them across your Build Profiles and team

Unity Sentis

NPU support for on-device AI

- → Run machine learning workloads on Neural Processing Units (NPUs) directly
- → Support for LiteRT and WindowsML
- → Target different ML frameworks via a unified interface




Unity 7

Thank you


Unity®