



# The Unity Roadmap

As of November 19th, 2025  
Latest version @ [unity.com/roadmap](https://unity.com/roadmap)



# Safe Harbor Statement

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# Developer Confidence

# Production Verification (PV)

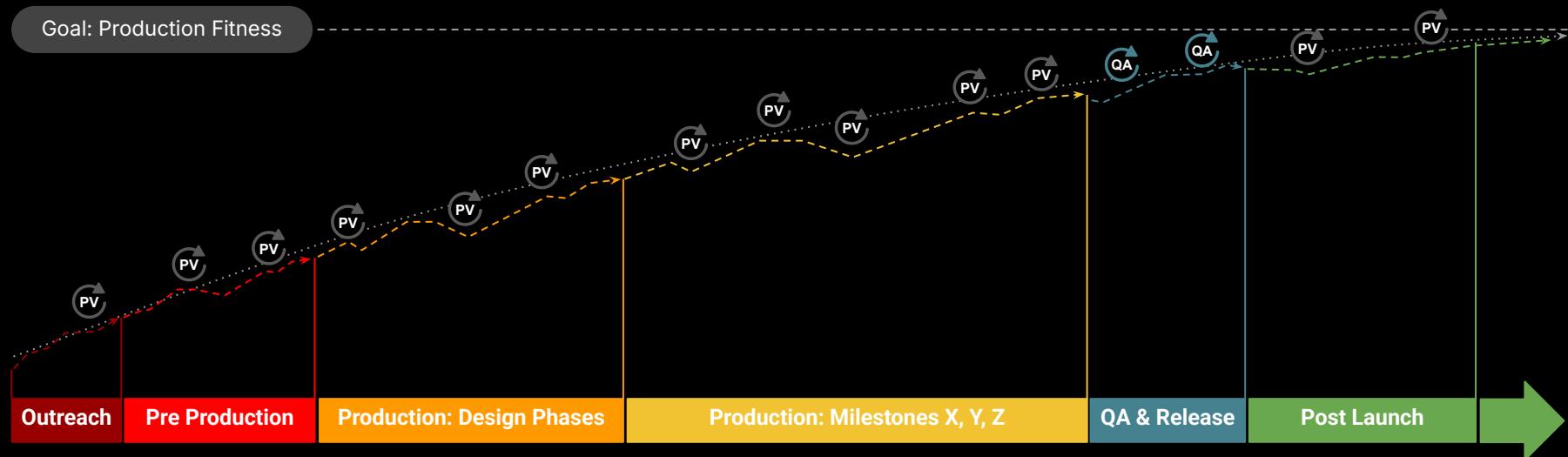
Unity 6.3 LTS production verified with:

- **Survival Kids** by Unity and Konami
- **VRising** by Stunlock Studios
- **Phasmophobia** by Kinetic Games
- **5 Supersonic** Mobile Titles
- **Thrasher** by Puddle Games
- **Den of Wolves** by 10 Chambers



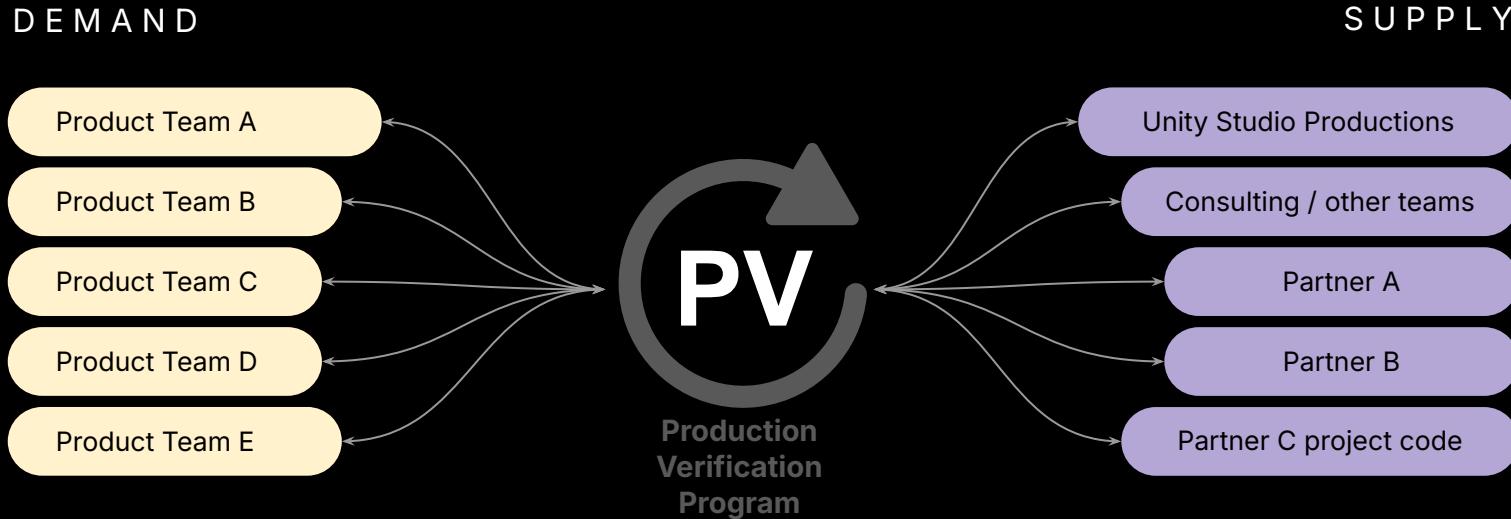


# Production Verification (PV)



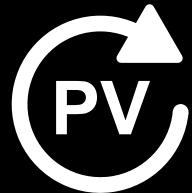


# Production Verification (PV)



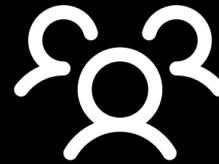


# Production Verification (PV)



## Production Verification

Unity Studio Productions  
& Consulting



## Partner Council

External partners  
by invitation only



## Code Sharing

External partners  
by invitation only



## Focus on Quality pays off

**70%+**

Internally reported  
issues

**-43%**

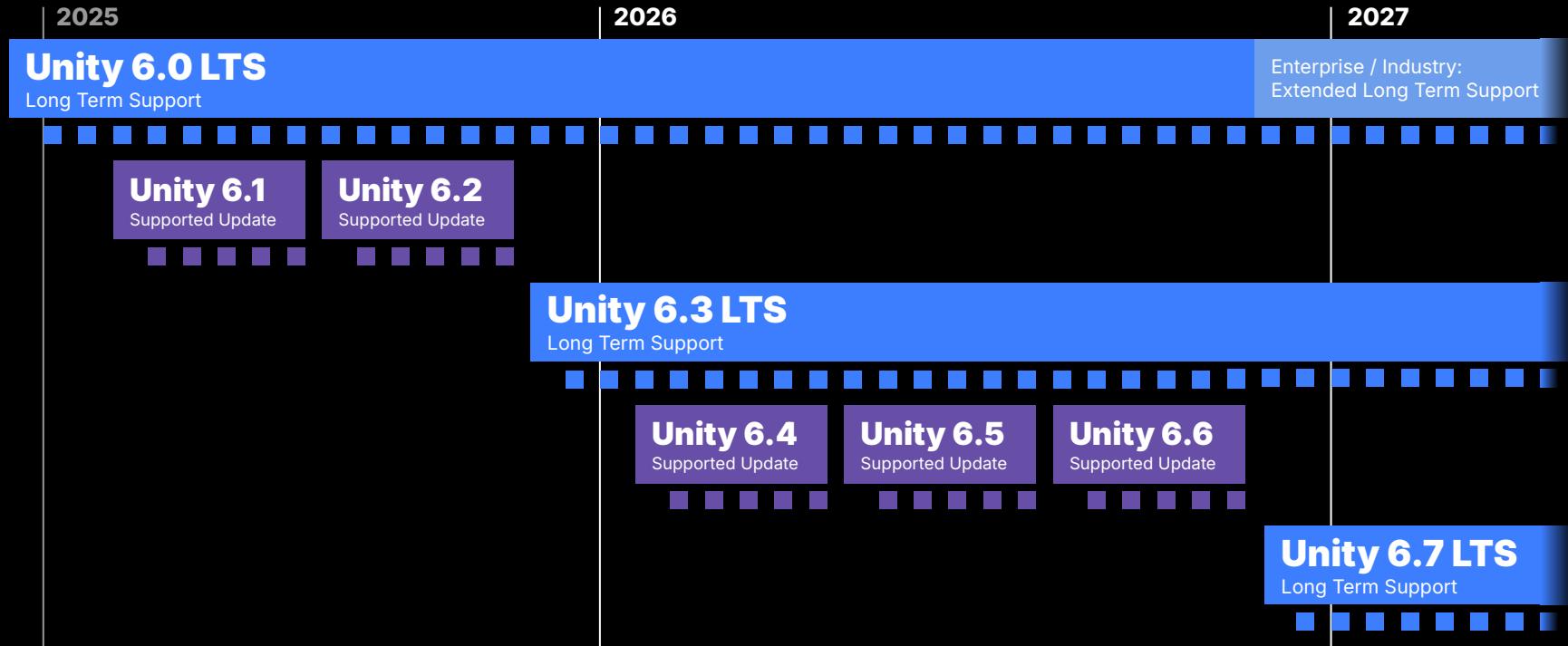
Median priority  
regression time to fix  
(now around 8 days)

**-54%**

Regressions in  
active backlog



# Unity 6 quarterly releases





# Developer Data Framework

**Diagnostics**

Diagnostics is [Developer Data](#) that Unity collects on your behalf at runtime to improve compatibility. This includes crash logs, ANRs, error traces, and other telemetry. You can access diagnostics from your project in the Unity Dashboard.

**Build Setting Default**

This setting acts as the default for all build targets and build profiles unless manually collects Diagnostics Data for this project automatically and uses it in accordance with the [Developer Data framework](#).

Diagnostics Data  Enabled

**!** The [Developer Data framework](#) is Unity's approach to how data is collected in the Unity ecosystem. It gives you control over what data Unity collects on your behalf across products, services, and systems.

## Conservative defaults

Defaults ensure your data is used the way you and your players want.

6.2

[Collection Settings](#) [Usage Settings](#)

**Control the use of your Developer Data.** These settings allow you to tell Unity how you want to use your Developer Data across the ecosystem. Usage Settings work in conjunction with Unity products and services and allow you to manage the Developer Data the way you want.

When you use a Unity product or service that relies on Developer Data, you are instructing Unity to use that data to provide the service for your benefit. In addition, you can also allow broader usage to enable the types of features and functionality you deem valuable independently from your active products. *Unity will only use Developer Data in accordance with your settings and only for authorized purposes.* [Learn more](#)

**Your Unity products and services** [Always](#)

Allow Unity to provide the products and services you use for your benefit and to improve your experience as a developer. When you use a Unity product or service, you are instructing Unity to use the Developer Data it requires to deliver that service and to analyze that data in order to detect errors, prevent fraud and abuse, understand usage patterns, and improve Unity products and services. No other uses are permitted without your authorization.

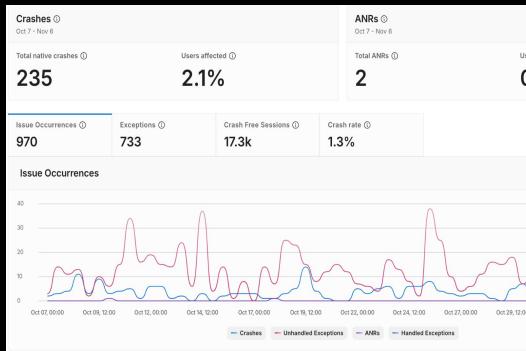
**Customer-facing features and functionality** [Always](#)

Allows Unity to combine your Developer Data with that of other customers who have also done the same so that Unity may provide you with various features and functionality that require appropriately aggregated and de-identified cross-customer data. Depending on their specific data needs, certain features may require that you allow your data to be used in this way in order for you to use the feature yourself. Any such features will be clearly indicated so that you can make informed and intentional decisions about your data. [Show examples](#)

## Flexible data collection controls

Centralized settings and remote controls that evolves with your game's strategy.

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## Help Unity's product quality

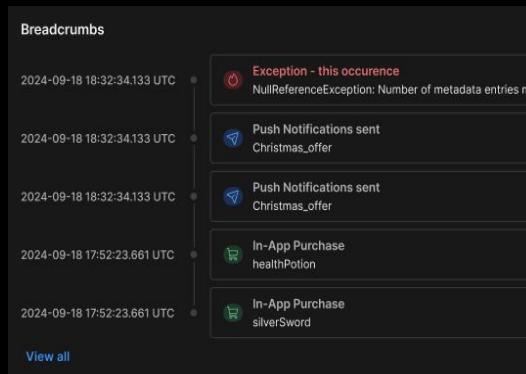
Engine Diagnostics enabled by default for monitoring stability and ANR\* events.

\*Application Non-Responsive

6.2

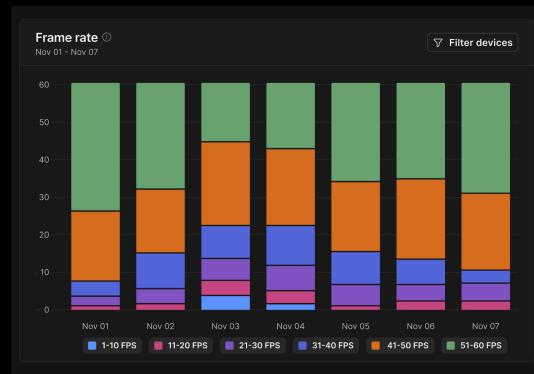


# Engine Diagnostics



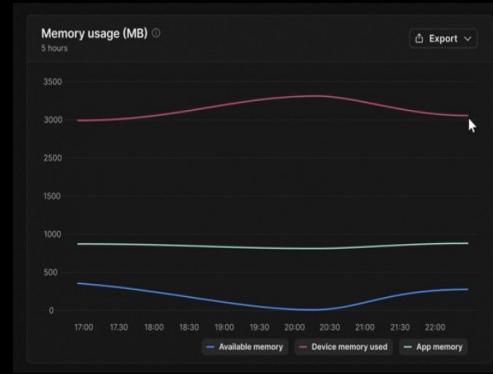
## Accelerate issue resolution

Robust diagnostics: alerts, custom logs & breadcrumbs, aggregations, and more



## Sharper insights

Advanced filters, richer graphs, and actionable metrics.



## Diagnostics where you work

Ready for analysis in dashboards or your own tools via unified data export.

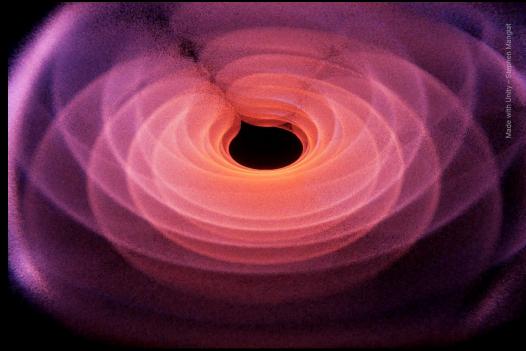
6.3 LTS

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# From Developer Data to Data Ecosystem



## Supporting your live games

Diagnostics and Developer Data Framework backported in 2026.



## Unified data and pipeline

Unified object model and optimized data infrastructure to improve data quality.



## Turn signals to powerful insights

Expanding telemetry to 1st and 3rd party sources for richer insights.

22 LTS

6.0 LTS

6.3 LTS

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6.4



# Unity Core Standards

Studio Registry

Open Source

AssetStore

3rd-party websites

Unity

Git





# Unity Core Standards

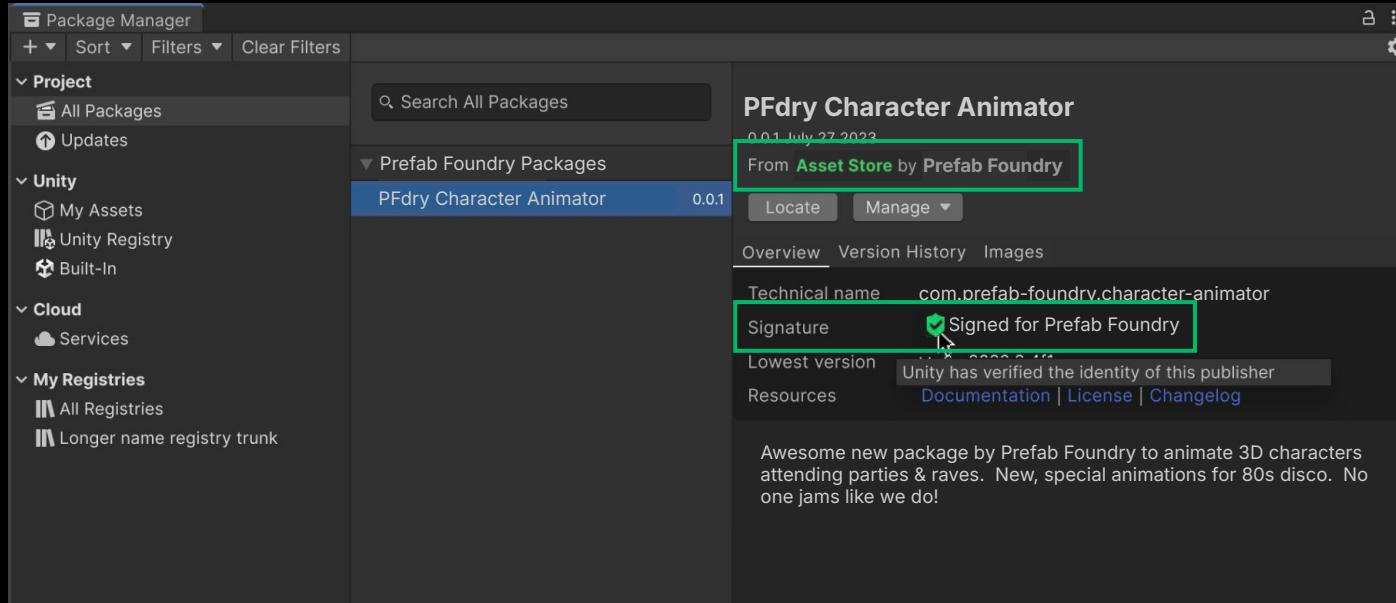




# Unity Core Standards



**Signed Controlled Distribution**



6.3 LTS

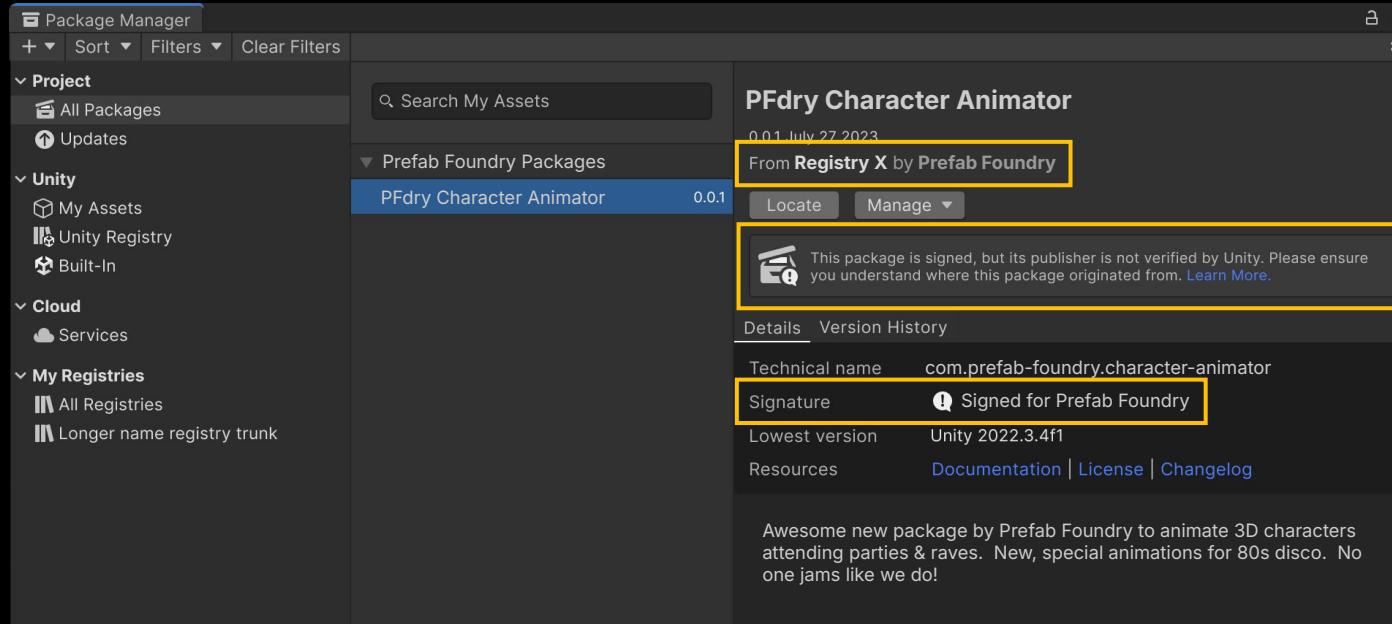
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# Unity Core Standards

Signed and independently distributed



6.3 LTS



# Unity Core Standards

Unsigned

The screenshot shows the Unity Package Manager interface. On the left, the sidebar includes sections for Project (All Packages, Updates, Errors & Warnings), Unity (My Assets, Unity Registry, Built-In), Cloud (Services), and My Registries (All Registries, Longer name registry trunk). The main content area displays the 'Prefab Foundry Packages' section, specifically the 'PFdry Character Animator' package. The package details are as follows:

Details	Value
Technical name	com.prefab-foundry.character-animator
Signature	⚠ Missing
Lowest version	Unity 2022.3.4f1
Resources	<a href="#">Documentation</a>   <a href="#">License</a>   <a href="#">Changelog</a>

A note at the bottom of the package details states: "Unity can't verify this package because it doesn't have a signature. Use signed packages to reduce risk to your project. [Learn More](#)".

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# Unity Core Standards



## Unity Asset Store



**BETA**  
Apply for  
Early Access

Unity Made

Asset Store

Studio Internal



**Signed Controlled  
Distribution**

Smooth addition to the  
project. No questions asked.

Open Source

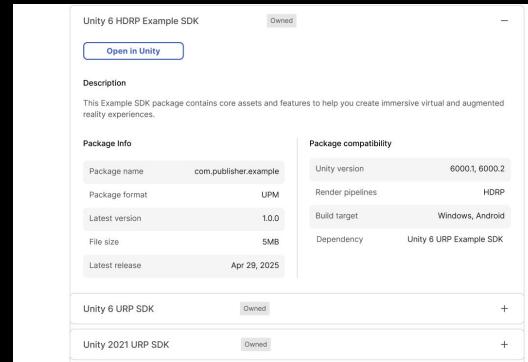
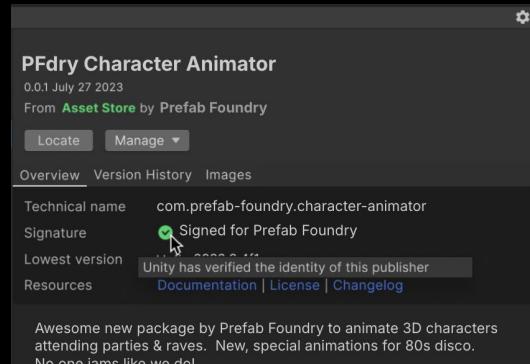
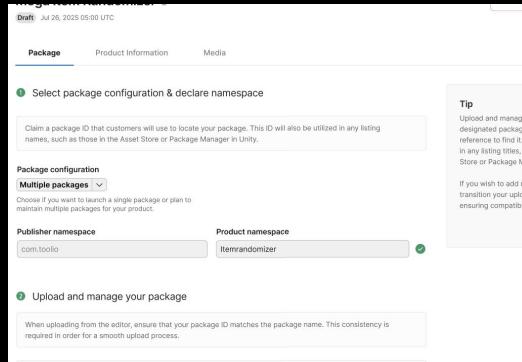
Web Share

**Signed and Independently  
distributed**

Unity provides data points  
to guide project addition.



# Package Manager Integration



## Beta Package Authoring

Create multiple, modularized packages within a single product, with versioning

22 LTS

6.0 LTS

6.3 LTS

## Package Signatures

Packages now have signatures to verify their origin, and that they hasn't been tampered with.

6.3 LTS

## Streamlined Integration

Packages state compatibility, provide version selection, acquire dependencies automatically, and exist outside of the Asset folder for reduced project size.

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**Develop**

FAST

**Deploy**

EVERYWHERE

**Grow**

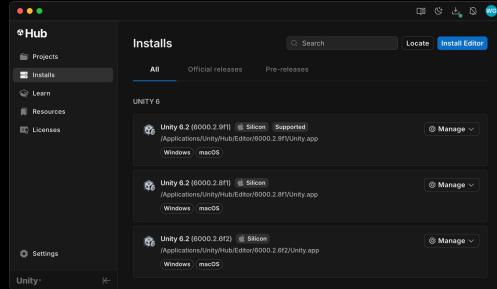
YOUR GAME



# Develop Fast



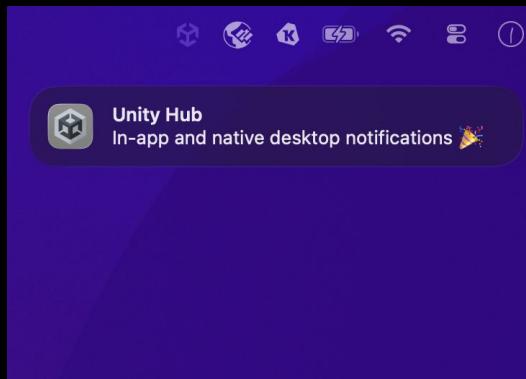
# Unity Hub



## Quality of Life

Improved Hub UX with UI refresh and greater customization.

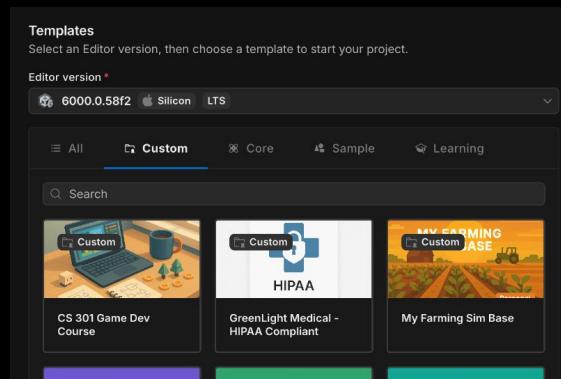
6.3 LTS



## Notifications

In-app or on your desktop.  
Never miss an update.

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## Custom Templates

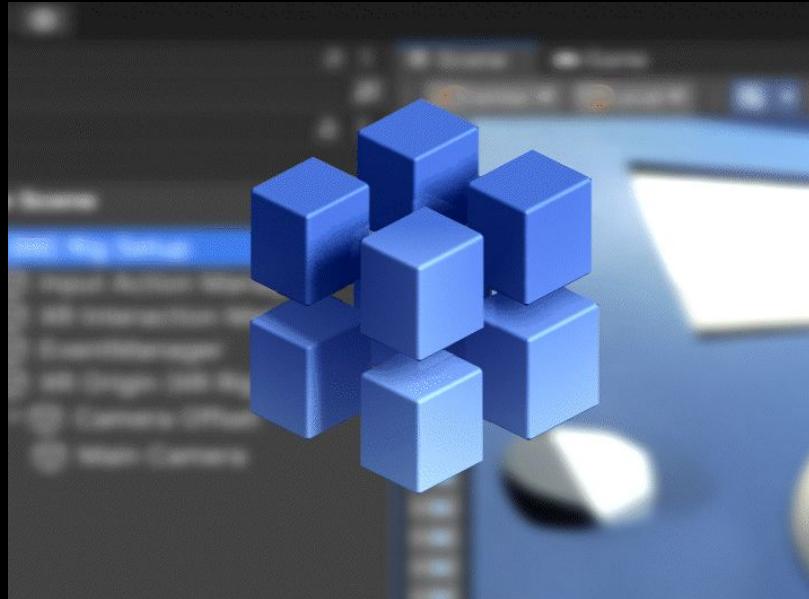
Tailored to your needs.  
Launch projects pre-configured and ready.

6.4



# Unity Building Blocks

- Starting point to quickly add functional features to your project
- Add to your project at any stage of development and customize
- Available on the Asset Store with scripts and a test scene to help you get started



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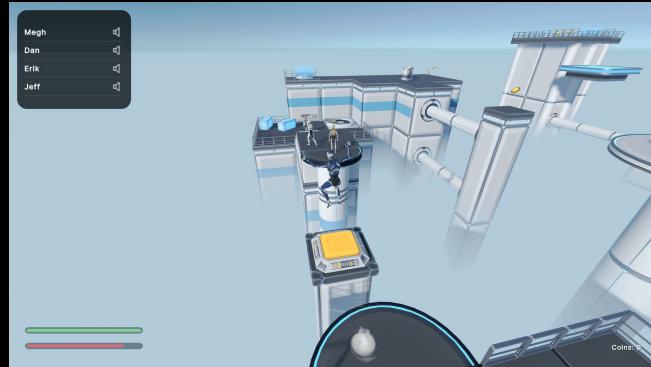
# New 3D Multiplayer Templates



## Multiplayer FPS

An extensible multiplayer FPS sample, networked by default. Bridges Netcode for Entities performance with GameObject systems.

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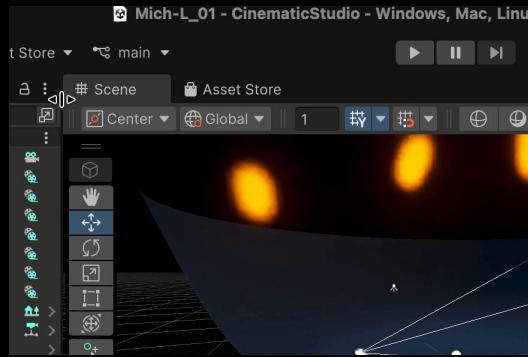
## Multiplayer Third-person Gameplay

A multiplayer prototyping kit that uses Netcode for GameObjects, features Unity Building Blocks content for quick iteration.

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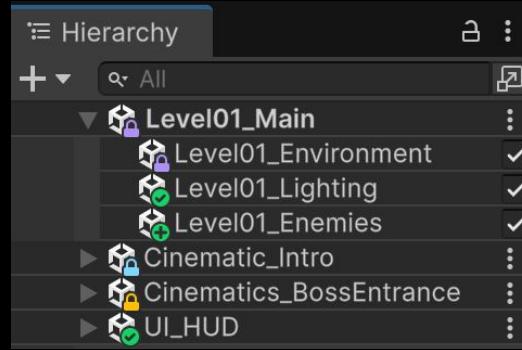
# Unity Version Control



## Editor Toolbar Redefined

- View project status
- Track and manage changes
- Perform key actions with a single click

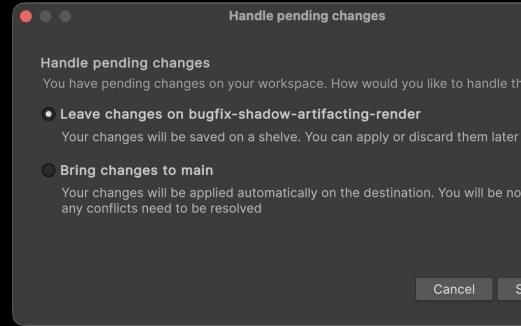
6.3 LTS



## Improved Hierarchy View

- Now includes Unity Version Control actions and status icons
- Prevent changes on locked scene

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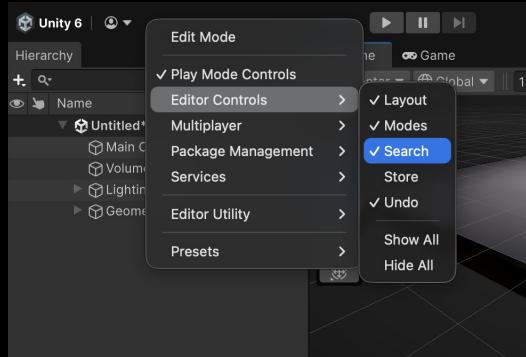


## Streamlined Workflows

- Switch branches without losing work
- Use labels to tag and compare a project's versions

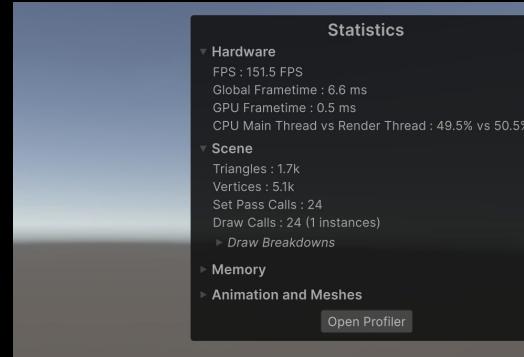
6.3 LTS

# Unity Editor



## Customizable Main Toolbar

- Show, hide and rearrange toolbars
- Extensible API to add new functions



## New Editor Stats Window

- Identify bottlenecks, prioritize fixes
- More accurate and detailed metrics
- Quick access to the Profiler



## Grid and Snapping Workflow

- Faster access to settings
- Clearer, consolidated controls
- Fully customizable grids

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6.4

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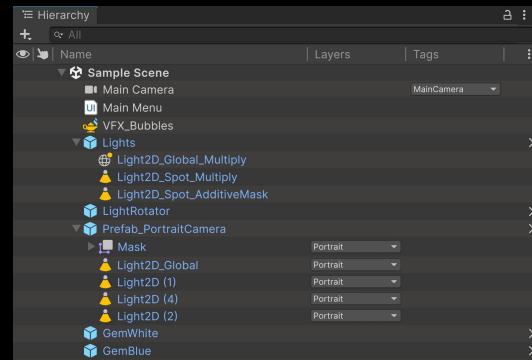


# Unity Editor



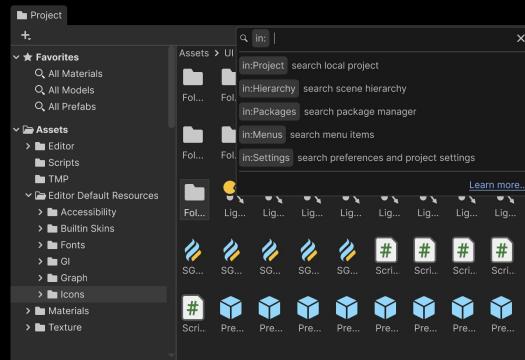
## Search Performance, Simplified

- New backend for faster and more reliable search
- Better scalability for large projects



## Faster, More Flexible Hierarchy

- Efficiently handles millions of objects
- Visual indicators for GameObject
- Customizable columns



## Unified Search Experience

- Intuitive and simple to use
- Accessible across the Editor

6.3 LTS

6.6

6.7 LTS

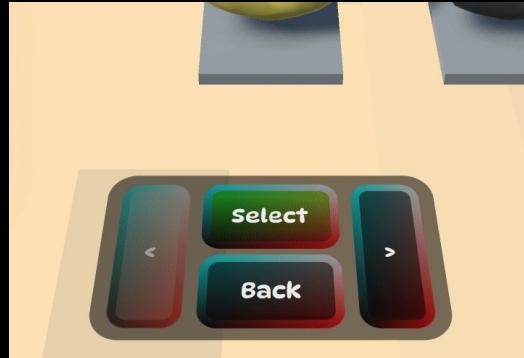


# UI Toolkit - World space and advanced visuals



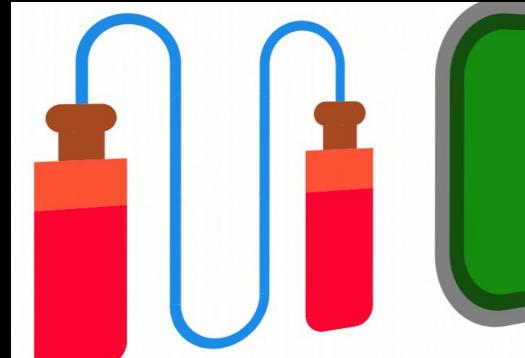
## World Space UI

- Place UI directly in 3D scenes
- Crisp visuals at any scale
- Fully compatible with XR



## Custom Shaders & Filters

- Customize UI using ShaderGraph
- Apply predefined or custom post-processing effects



## Vector Graphics

- Import SVG files into the project
- Resolution-independent visuals
- Antialiased vector rendering

6.2

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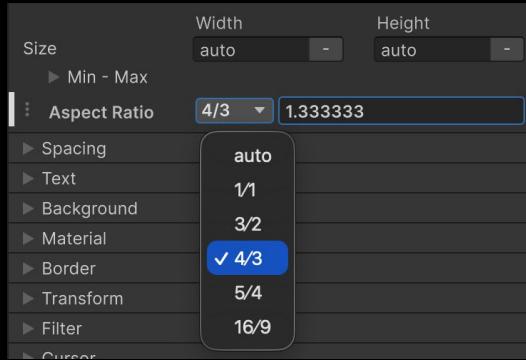
6.3 LTS

# UI Toolkit - Additional improvements



## Image Control

- Improved control over resizing and scaling
- Now accessible in the UI Builder



## Aspect Ratio Property

- Consistent width-to-height proportions
- Behaves like CSS aspect-ratio



## New public APIs

- Pseudo states
- Control base classes and interfaces
- Text navigation and manipulation

6.3 LTS

6.3 LTS

6.3 LTS

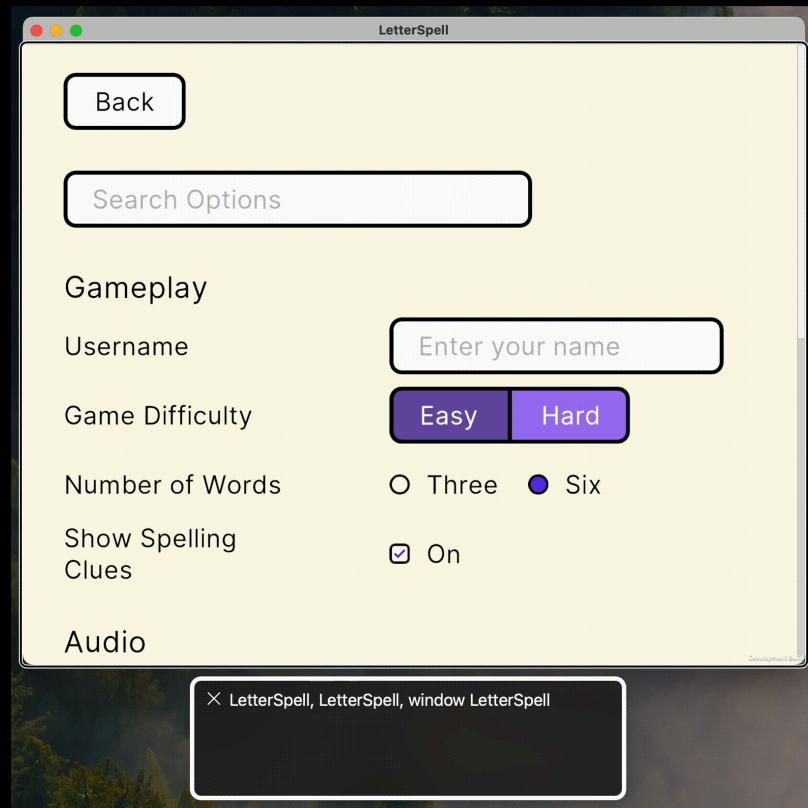


# Accessibility

- Windows and macOS screen reader
- New accessibility roles
- Mobile and desktop scrolling
- Improved API & documentation

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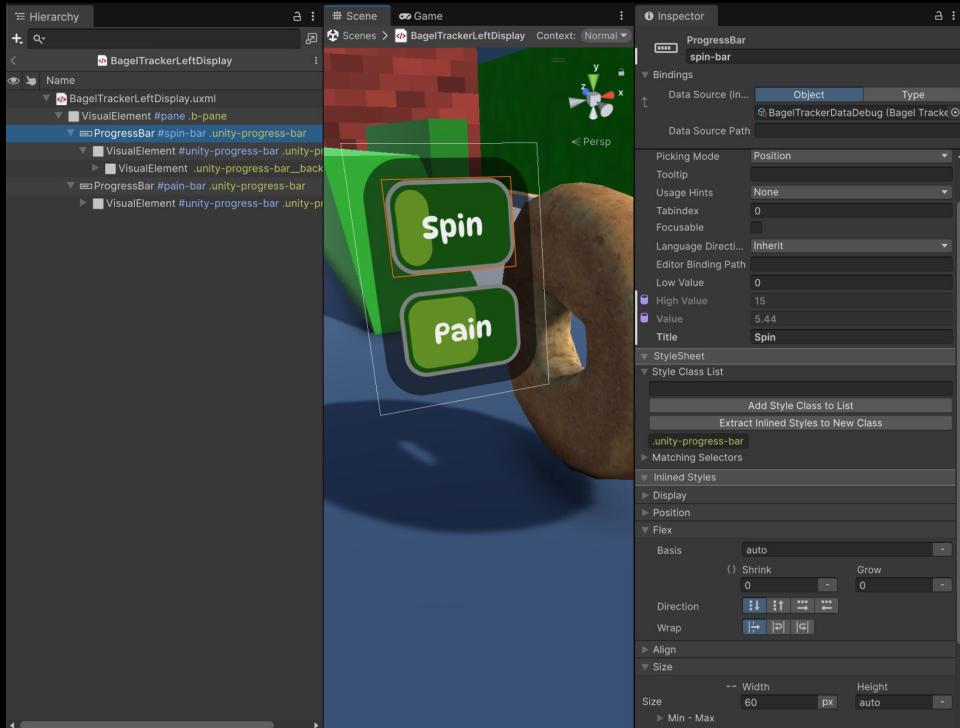
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# UI Toolkit - What's next

- Complex animation
- Custom shaders improvements
- In-scene authoring
- Performance profiling tools



6.7 LTS

# Unity UI (uGUI)

- uGUI remains critical feature
- Fully supported in Unity 6 series
- Production Verification unlocking :
  - Quality of life improvements
  - Performance optimizations
- TextMesh Pro also supported in Unity 6
  - Quality of life improvements
  - Performance optimizations

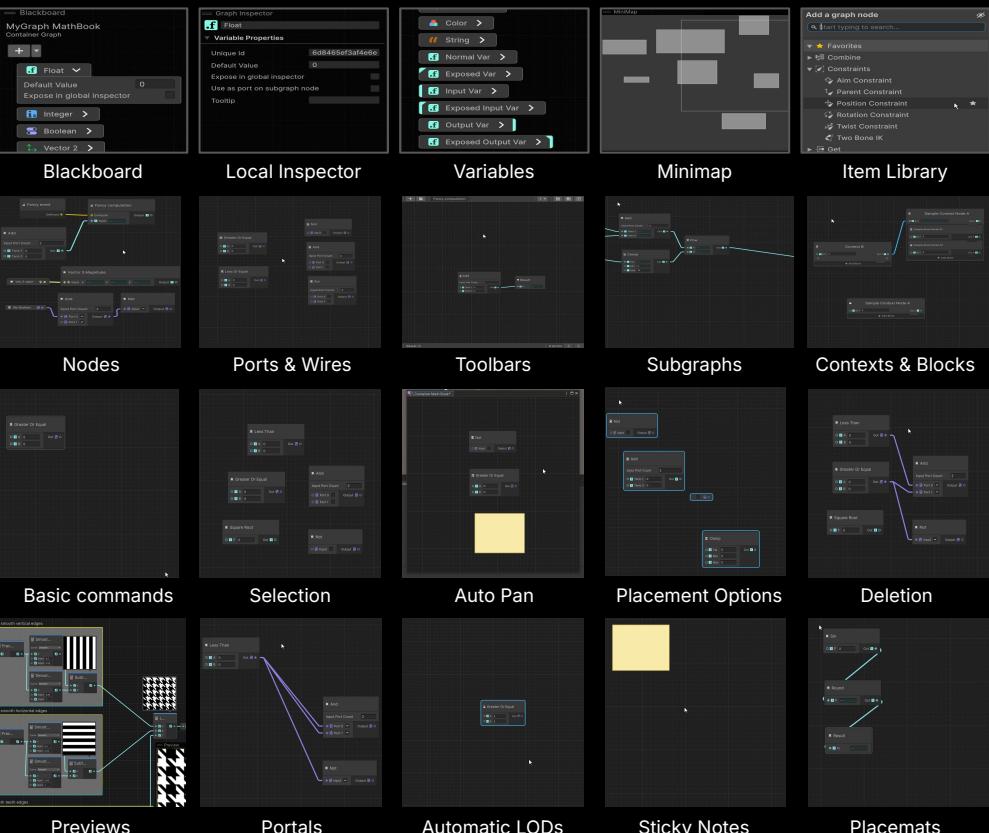
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# Graph Toolkit

- Becomes a core module
- What's next:
  - Vertical Ports
  - API for Graph Creation
  - Node Customization



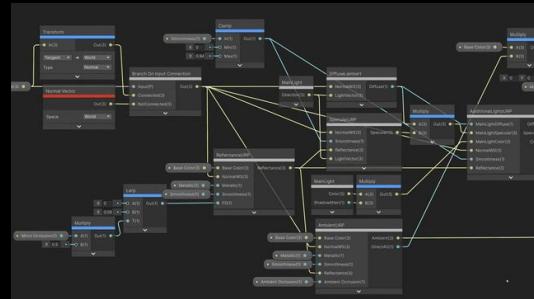


# Shader & VFX authoring improvements



## Graph templates

- Start from what you want to achieve
- Make your own team templates



## UI Toolkit, Terrain, Custom Lit

- Author without code in Shader Graph



## Top requested functionalities

- Nested properties, improved inspector customization, dynamic keywords, 8 Tex. Coords support,... + Stencil settings (6.5)
- VFX GPU events instancing
- New samples & learning content

6.3 LTS

6.3 LTS

6.3 LTS



# Graphics performance



## Improved batching

- Renderer Shader User Value (RSUV) for SRP Batcher



## XR post process (URP)

- XR tile-based Optimizations



## Improved culling

- Small objects shadows GPU occlusion culling

6.3 LTS

6.3 LTS

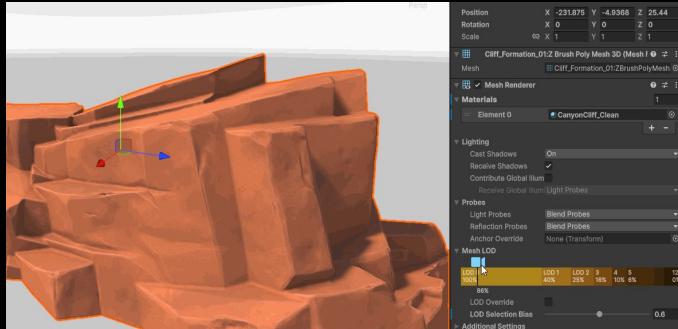
6.6

# Level of Detail (LOD)



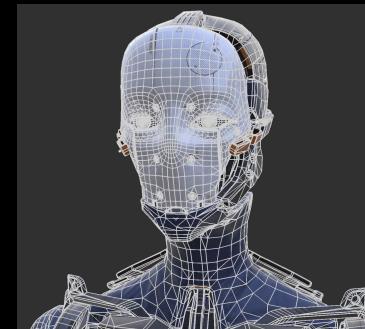
## Mesh and Skinned Mesh LOD

- Optimized memory
- In-Editor generation
- Mesh LOD API
- Scene labels



## Mesh LOD Debug

- Inspector sliders



## Expand LOD generation

- Control over decimation
- More LOD generators
- Asset Transformer SDK ('Pixyz')

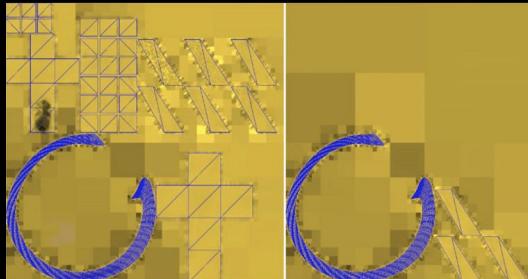
6.3 LTS

6.4

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# Improved lighting quality, performance and workflow



## Ease of use and performance

- Lightmap UV packing with xAtlas
- Low-level unified Ray Tracing API
- Improved mobile bloom performance



## High quality lighting in URP

- Screen Space Reflections



## Fully dynamic diffuse GI

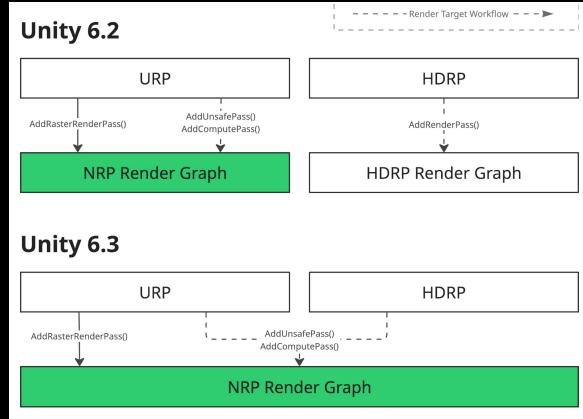
- Faster authoring with Surface Cache GI
- Dynamic: destruction, procedural content...

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6.7 LTS

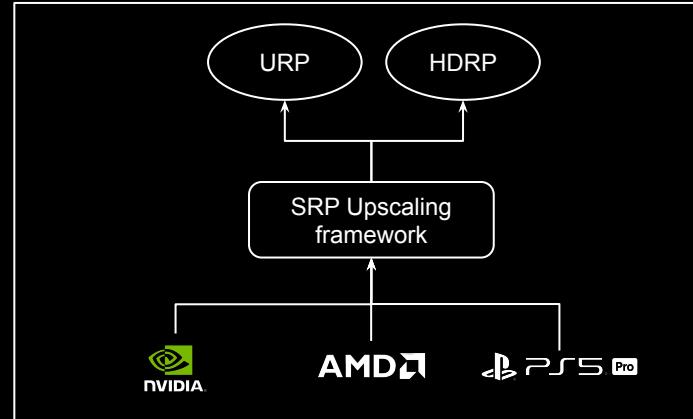
# Unification and Extensibility



## Render Graph for all!

- Single backend for all SRPs
- Easier and optimized customization

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## Cross pipeline upscaling framework

- Plug-in your own upscaler
- NVIDIA DLSS 4 Super Resolution
- AMD FidelityFX(TM) Super Resolution 3 Technology
- PlayStation® Spectral Super Resolution (PSSR)

6.5



# Input System rebinding sample



## End User Rebinding

- Result of a key feature request
- UI for any supported device
- Observability of input actions

6.3 LTS



## Gameplay Example

- Actual game with in-game actions
- Observability of input actions
- Showing dynamic binding labels

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# Physics



## Swappable physics backends

→ Switching physics engines becomes possible

6.4



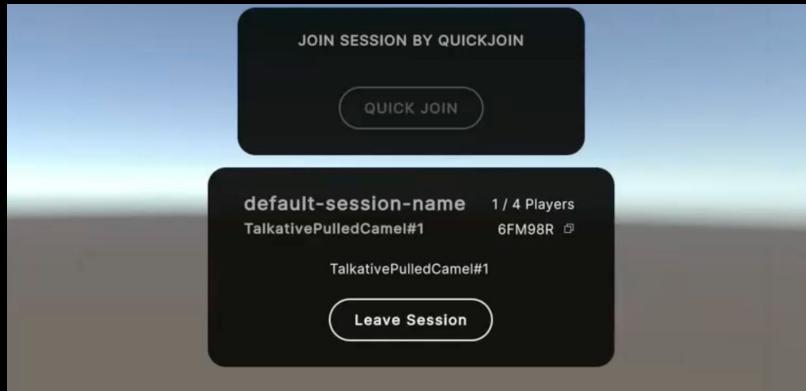
## Unity Physics improvements

→ Direct solvers available in Unity  
→ More versatility for complex interactions

6.4



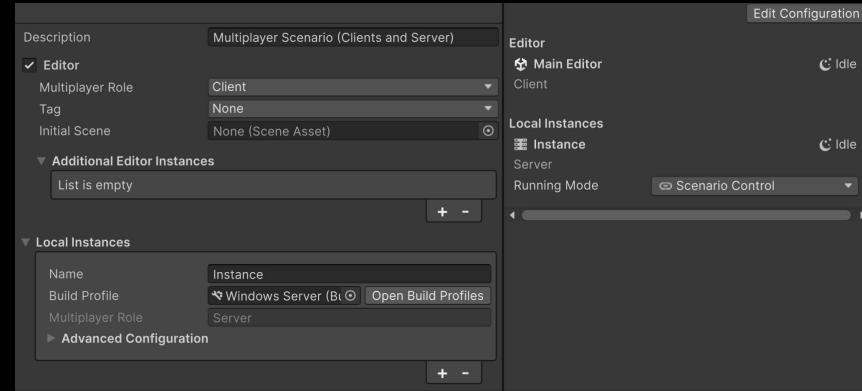
# Get started faster with multiplayer



## Multiplayer Building Blocks

→ Go fast from concept to playable

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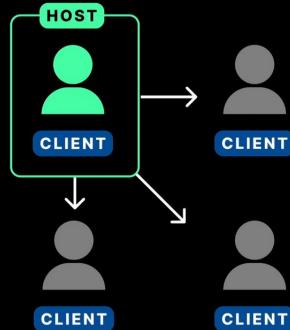


## Further with Multiplayer Play Mode

→ Test quickly with multiple players and host directly in Editor  
→ Independent instances provide flexibility and faster iteration

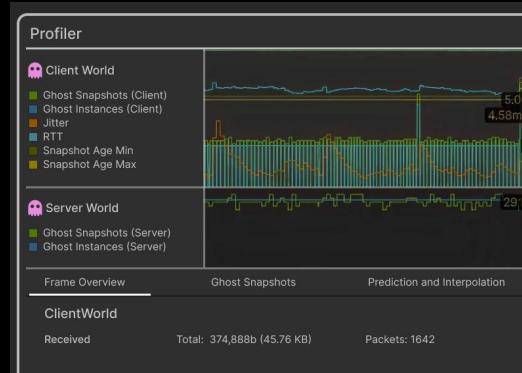
6.3 LTS

# Host migration and Netcode updates



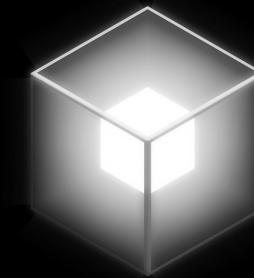
## Host Migration

- Handle disconnections with client host migration for Netcode for Entities



## Troubleshooting Tools

- Debug network traffic with the Network Profiler for Netcode for Entities



## ECS for all

- Bring features of Netcode for Entities to all GameObject projects

6.3 LTS

6.3 LTS

6.7 LTS



# Flexible insight-driven Matchmaking

← f0f06116-912c-428c-b719-70e8a5554eb4

Overview		
<b>Mismatch Summary</b> Mismatched data points at a high level		
Player Count	<span>Mismatch</span>	Total Player Count. Ticket had 5 players, but rule required 8-10.
Custom Rule	<span>Mismatch</span>	preferred_region. Ticket's 'EU' does not match rule's 'NA'.
<b>Ticket Overview</b> Basic details for this ticket.		
Ticket ID	f0f06116-912c-428c-b719-70e8a5554eb4	
Timeout time	2023-10-26 14:35:12 UTC	
Pool name	MyGame_Ranked_5v5	



## Get insights and troubleshoot

- Greater insights into matchmaking issues

6.4

## Backfill your teams with precision

- Conditional backfilling for custom needs

6.4

# Cloud-code optimized for turn-based multiplayer

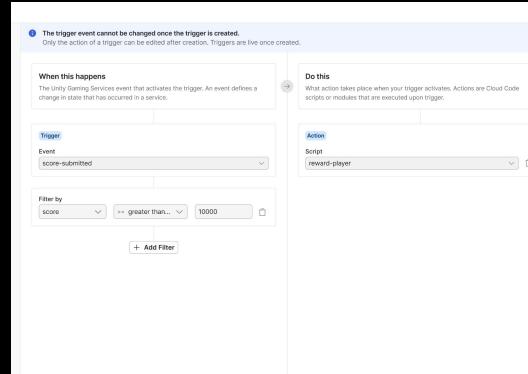
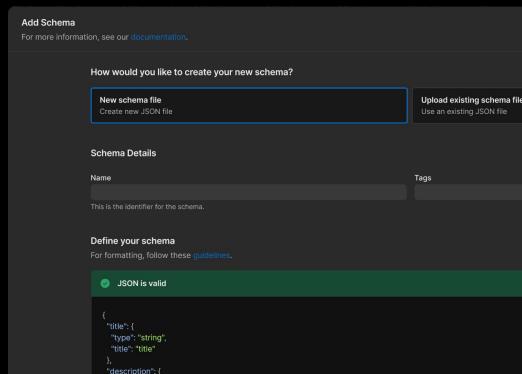
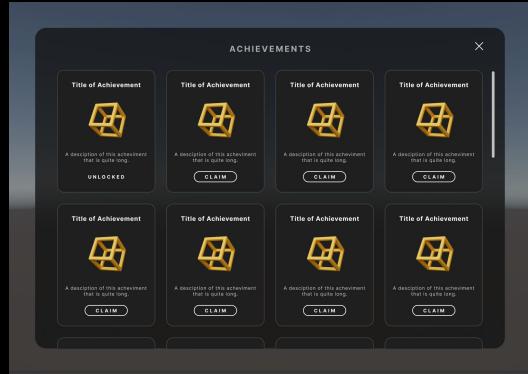
- Event-driven for Card, Puzzle, and Idle games
- Bridge Unity gameplay code with cloud services
- Ready-to-use and cost-effective solution



6.7 LTS



# Game backend



## LiveOps Building Blocks

- Off-the-shelf LiveOps and Multiplayer features

## Structured game data

- Standardized LiveOps data with Schema-driven validation

## Setup game-driven workflows

- Triggers and Secret Manager opens up extensions to 3rd party integration

6.3 LTS

6.5

6.5



# 2D Graphics



## Rendering 3D as 2D

- Mesh / Skinned Mesh Renderers in 2D URP
- Mesh renderers lit by 2D Lights, interact with Sprite Masks
- Sorted like Sprites



## 2D URP Extensibility

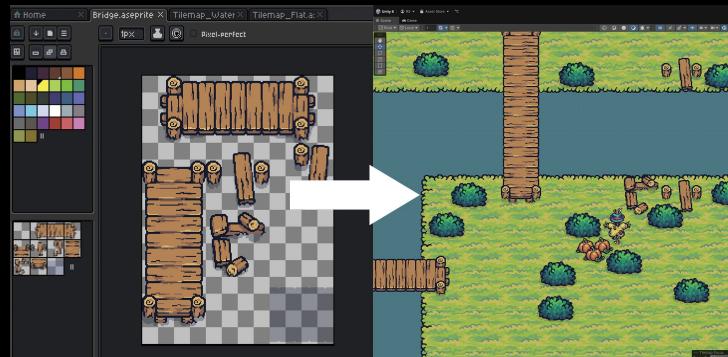
- APIs and injection points enable custom rendering
- New graphical objects like custom 2D lights & pipelines
- Improves project upgradability and scalability

6.3 LTS

6.7 LTS



# Aseprite importer & Tilemaps



## Aseprite Importer - Tilemap Support

- Aseprite 'Tile Set' Import Mode
- Generates sprites, sheet, tiles, and a Tile Palette

6.1

UNITE/



## Tilemap Optimization with Entity IDs

- New, opt-in tile system for Tilemaps
- Solves performance bottleneck caused by managed objects
- Compatible with Jobs for parallel, high-performance updates

6.4

UNITE/



# Sprite Atlas

The image shows the Unity Editor interface with the 'Sprite Atlas Analyzer' open. On the left, a sidebar displays various reports: 'All Sprite Atlases' (60), 'Atlas Page Count > 1' (7), 'Source Textures with compr...' (15), 'Texture Space Wastage > 4...' (24), 'Sprite Count <= 1' (8), and 'Textures contain different s...' (3). The main panel shows a detailed view of a 'Knight' sprite, including its name, type (Master), and packing settings (Allow Rotation, Tight Packing, Alpha Dilation, Padding). Below the settings is a preview of the sprite and its texture.

## Sprite Atlas Analyzer

- Find common atlasing issues: compressed source textures, multi-page atlases and underutilized texture space

The image shows the Unity Editor interface with a code editor window. The code is written in C# and demonstrates the use of the SpriteAtlasRuntimeConfig and SpriteAtlasManager classes to create a sprite atlas. The code includes comments explaining the creation of a new runtime configuration, setting the scale multiplier, and creating the sprite atlas using the provided name tag and configuration.

```
objectData.asset = inputSprites[atlasFit.index].GetEntityId();
objectData.packInfo = new Vector4(atlasFit.position.x, atlasFit.position.y, atlasFit.size.x, atlasFit.size.y);
atlasPage.assets[i] = objectData;

var textureData = new TextureData[1];
Scale(packedTexture, (int)((float)packedTexture.width * multiplier), (int)packedTexture.height);
textureData[0].texture = packedTexture.GetEntityId();
textureData[0].mapName = "_MainTex";
atlasPage.packedTextures = textureData;
atlasPacked[pageIndex++] = atlasPage;

var config = new SpriteAtlasRuntimeConfig();
config.scaleMultiplier = multiplier;
SpriteAtlasManager.CreateSpriteAtlas(nameTag, config, atlasPacked);
```

## Sprite Atlas Runtime API

- Enable runtime Sprite Atlas creation and management
- Optimized for dynamic content

6.3 LTS

6.4



## 2D Bone animation performance

- Multi-threaded
- Faster Shadows
- Bone data uses less memory
- Cached deformed sprites
- Deformation calculations only on move

Coming next

- Faster AABB (Axis-Aligned Bounding Box)



6.3 LTS



## 2D Low-level physics APIs

- Highly parallelized up to 64 cores
- Independent and parallel 2D physics worlds
- Compatible interopability with GameObjects
- Supports XY, XZ & ZY 2D planes
- Powerful query system
- Opt-in API, doesn't affect existing projects



6.3 LTS

6.7 LTS

# Compiler optimization



## Burst Determinism

- Floating Point Determinism across CPU architectures
- Galaxy Game sample demonstrates ECS determinism

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```
agnostic push
agnostic ignored "-Winvalid-offsetof"
agnostic ignored "-Wunused-variable"

IL2CPP_METHOD_ATTR LinearColor_t6096 LightmapperUtils_ExtractIndirect_m5776 (Light_t1E684* __0_1
method)

    Light_t1E68* L_0 = __0_1;
    NullCheck(L_0);
    Color_t0001 L_1;
    L_1.Light_get_color_mE7EB(L_0, NULL);
    Light_t1E6847* L_2 = __0_1;
    NullCheck(L_2);
    float L_3;
    L_3 = Light_get_intensity_mBFA2(L_2, NULL);
    Light_t1E6847* L_4 = __0_1;
    NullCheck(L_4);
    float L_5;
    L_5 = Light_get_bounceIntensity_m5350(L_4, NULL);
    LinearColor_t6096 L_6;
    L_6 = LinearColor_Convert_m0E220(L_1, ((float)il2cpp_codegen_multiply(L_3, L_5)), NULL);
    return L_6;
```

```
IL2CPP_METHOD_ATTR float LightmapperUtils_ExtractInnerCone_m8B2B(Light_t1E68* __0_1, const Runtime
```

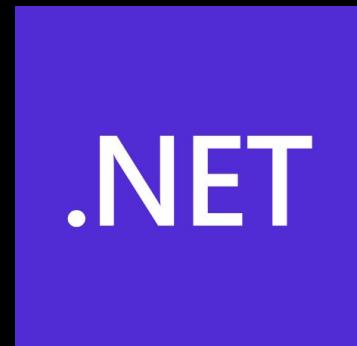
## IL2CPP Improvements

- Build Size Improvements targeting mobile / web
- Runtime Performance Improvements

6.7 LTS



# Faster, incremental architecture updates



## Internal Milestone

→ Unity 6 proof of concept

## Internal Milestone

→ Support for CoreCLR GC  
→ Internal testing  
→ Burst as a module

## Validation

→ Production Verification  
with internal productions  
and selected customers

## Experimental

→ CoreCLR Desktop Player  
Technical Preview

## .NET Modernization

→ CoreCLR Desktop Player  
release  
→ CoreCLR Editor  
→ Updated IL2CPP

6.4

6.5

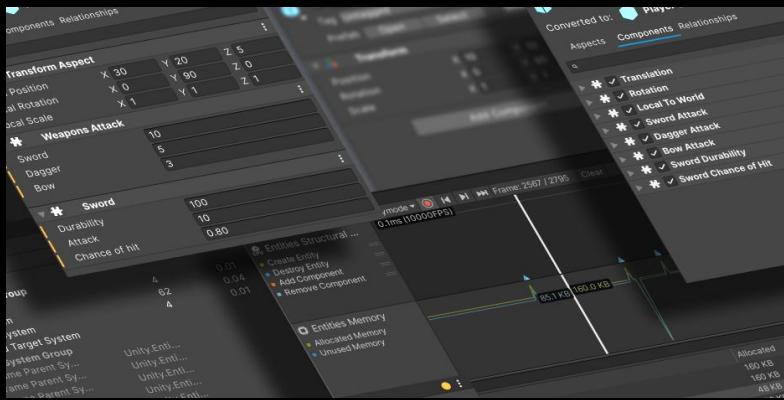
6.6

6.7 LTS

6.x



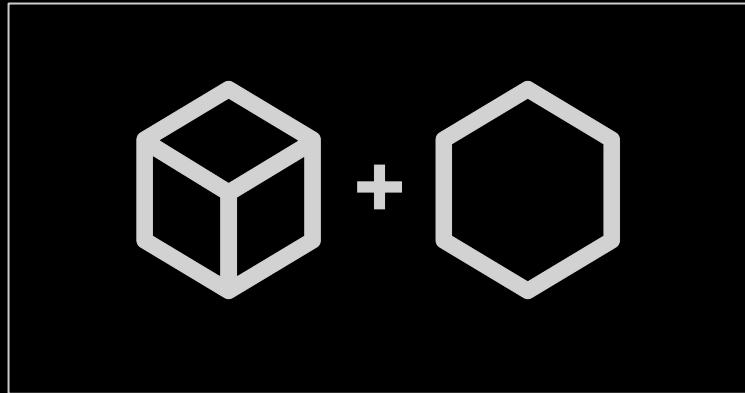
# Faster, incremental architecture updates



## ECS for all in Unity 6

- Entities as a core package
- Faster release cycle

6.4



## Unified Runtime

- ECS can access/modify GameObject Transforms
- Common IDs between Entities and GameObjects

6.6

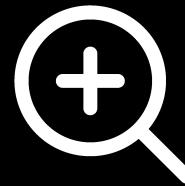


# Agentic Development with Unity AI



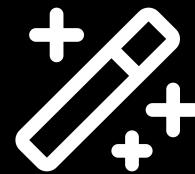
## Infrastructure

A stronger back-end for thorough, performant answers and code



## Context

More understanding for increased relevance in complex scenarios



## Workflows

Embedded agents & generations meet you where you are

In Beta



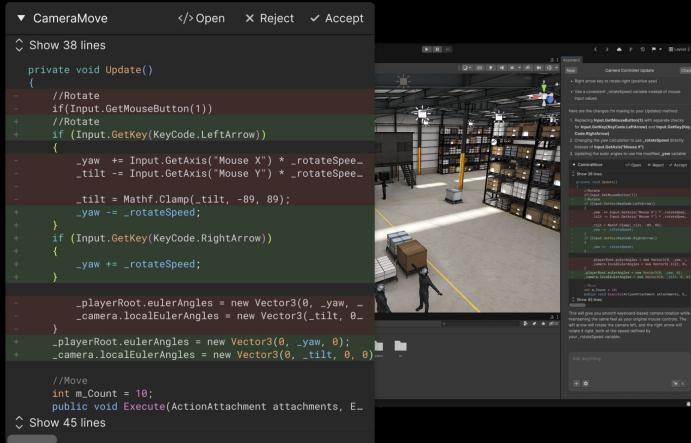
# Agentic Infrastructure



## Orchestration Handles Complex Prompts

- Improved planning and reasoning
- Multi-step resolution
- Routing to tools and agents

6.4



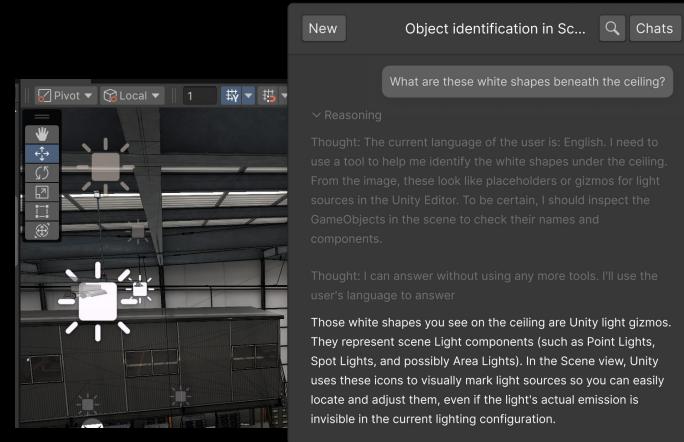
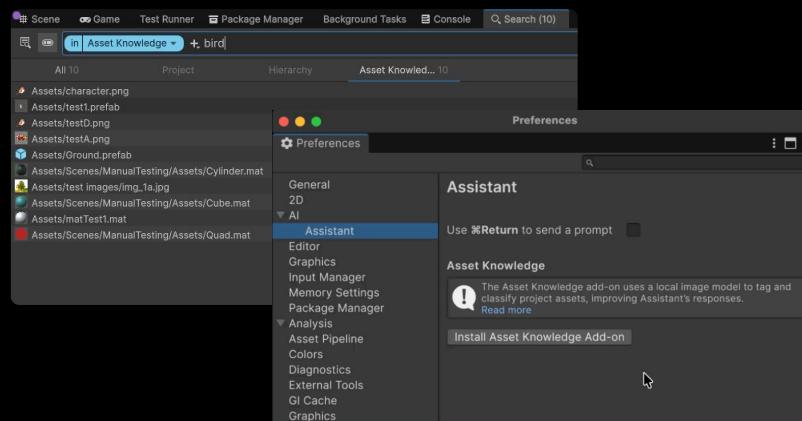
## Production-Safe Code, Transparency, Full Control

- Dependency-aware code changes
- git integration
- Visual diff tool

6.4



# Context



## Better Focused Answers

- Project Indexing and search for larger context
- Intelligent Context Retrieval for focused context
- Stronger game comprehension

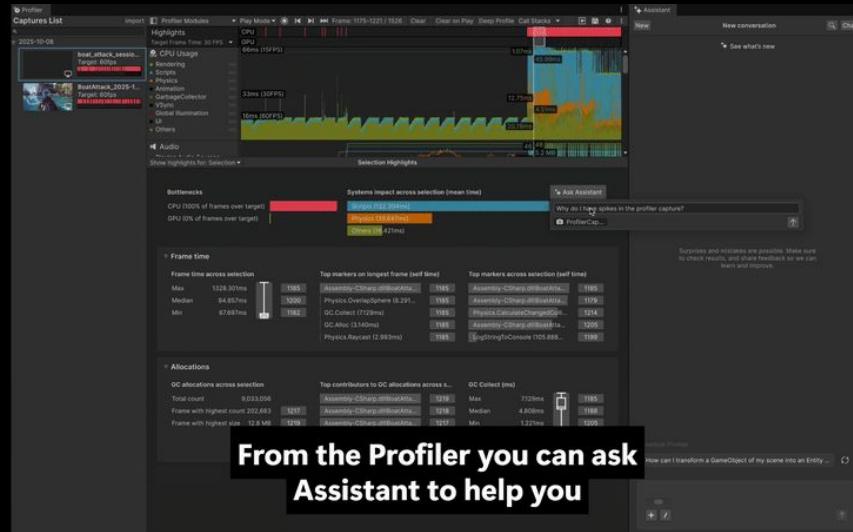
6.4

## Visual Debugging & Composition

- Vision models can now receive images from your project, scene, or references
- Stronger game comprehension

6.4

# Context



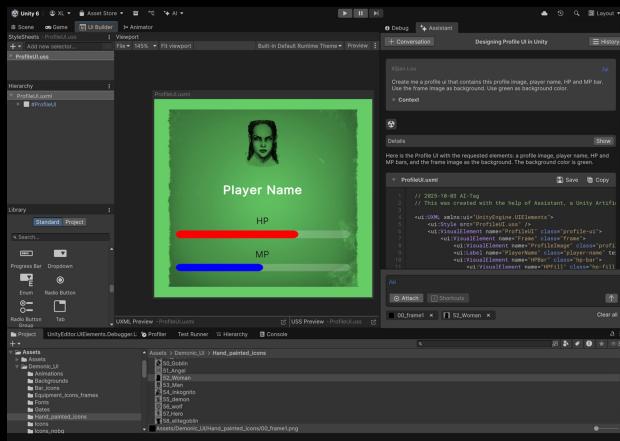
## Models Can Analyze Profiler Data

- Assistant analyzes Profiler data to find bottlenecks and suggest optimizations
- Easier to make a more performant game

6.5



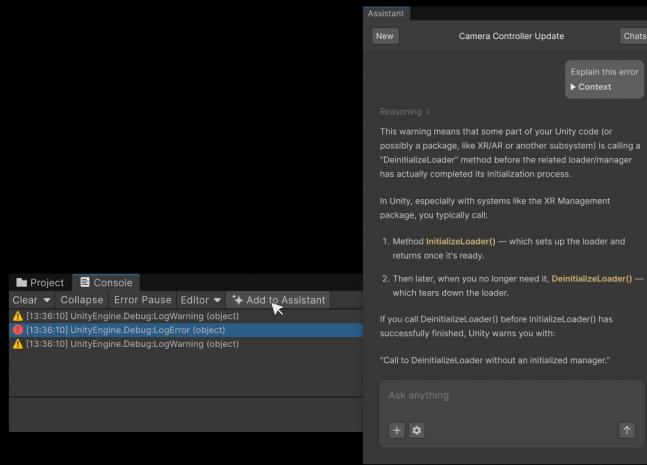
# Workflows: Embedded Agents



## UI Builder Agent

- Text to UI Toolkit layouts (USS & UXML)
- Rapid iteration on UI designs

6.4



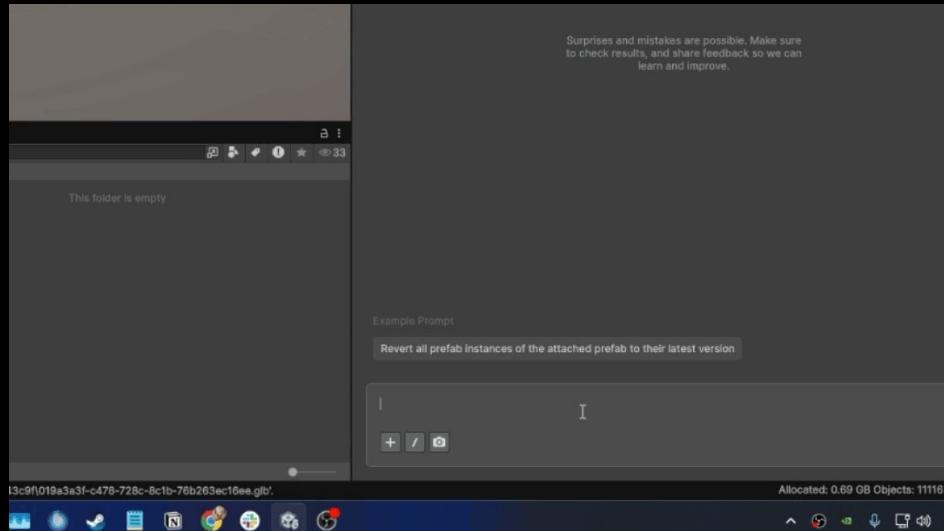
## QA Agent

- Helps validate your builds
- Monitors console logs
- Creates simple play mode tests

6.6



# Workflows: Generative



## Embedded, Richer Asset Generation

Produce a growing list of asset types, seamlessly inside the Assistant to support rapid prototyping.

### New:

- UI Toolkit layouts (USS & UXML)
- Realistic Skyboxes
- Performant 3D meshes & textures
- Effects
- And more



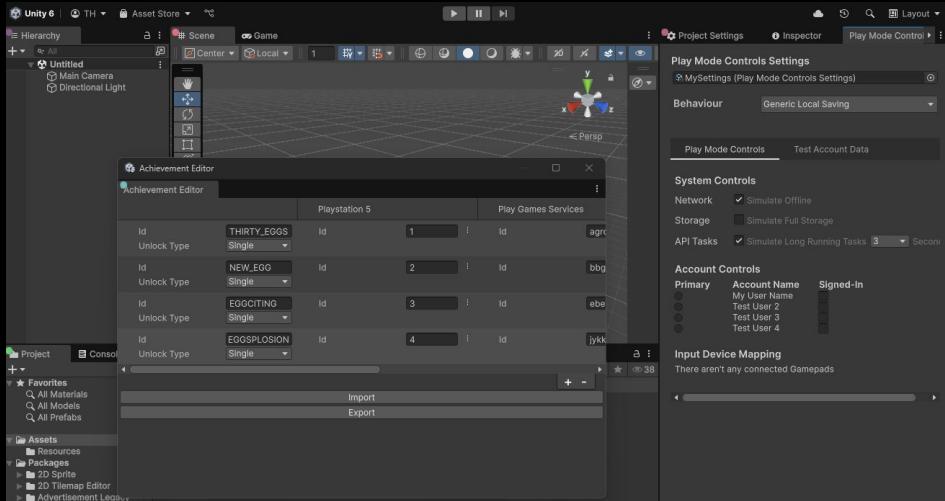
# Deploy Everywhere



# Platform Toolkit

## Cross Platform API

- Abstract common features
- Pass certification more reliably
- Test all features in-editor
- Integrate with a single package



6.3 LTS

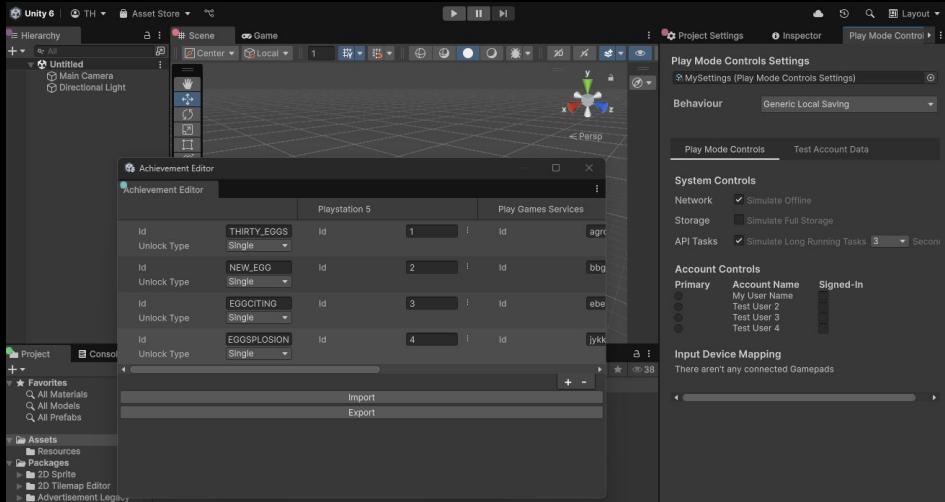
UNITE/



# Platform Toolkit

## Benefits

- Write platform integrations once
- All features supported in editor
- Configuration in editor
- Validation and testing tools
- Fast integration
- Fast iteration



6.3 LTS



# Platform Toolkit

## Supported features

- Accounts
- Achievements / Trophies
- Storage
- Data Store
- Controller Ownership
- Capabilities

## Supported Platforms

- Android™ / Google Play Game Services
- iOS / Gamekit
- Nintendo Switch™
- Nintendo Switch™ 2
- PlayStation®5
- Windows / GDK
- Windows / Steam
- Xbox One
- Xbox Series X | S

6.3 LTS

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\*Nintendo Switch is a trademark of Nintendo





## Nintendo Switch 2

- Day one support
- Proven certification pass through in-house developed titles
- Enhance your existing titles

6.0 LTS

6.3 LTS

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Skate Story - Sam Eng / Devolver Digital



LEGO Voyagers - Light Brick Studios / Annapurna Interactive

\*Nintendo Switch is a trademark of Nintendo





# XR



## Expanding capabilities on Android XR

- Facial expressions
- Augment real-world objects
- Automated Dynamic Resolution
- 3D Surface Reconstruction

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## Unlocking innovative spatial experiences on Quest

- Environment Raycast
- Room Mesh
- Faster post-processing





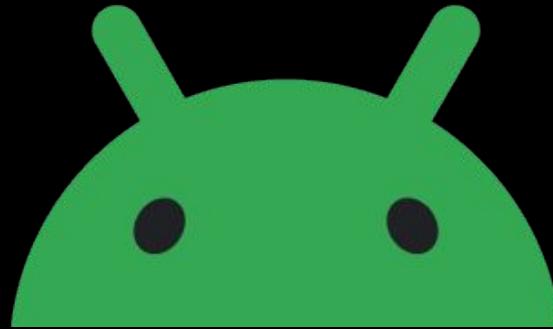
# Mobile

- DisplayConnection.swift
- DisplayController.swift
- DisplayLinkCommon.swift
- GraphicsDevice.swift
- MetalRenderer.swift
- Renderer.swift
- UnityBackbuffer.swift

## Apple

- Modernization of the Unity x Apple OS glue layer
- Moving to Swift
- New Public APIs for lifecycle management

6.6



## Android

- Loading times improvements & thinLTO support
- Safe Area & Insets improvements
- Extended support for Foldable devices

6.6



# HTTP/2 & gRPC

- HTTP/2 enabled by default for UWR to improve server and client-side load
- Available now for ALL platforms

6.3 LTS

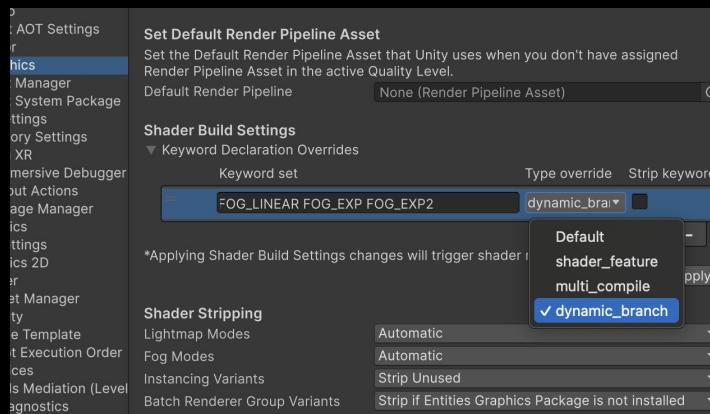
- UWR APIs to support gRPC integrations

6.5

	HTTP 1.1	HTTP 2
Download time	16 sec	14.5 sec
Server CPU peak	69%	38%
Client CPU peak	17%	17%
Client CPU load	15-16%	13-14%



# Per-profile shader settings

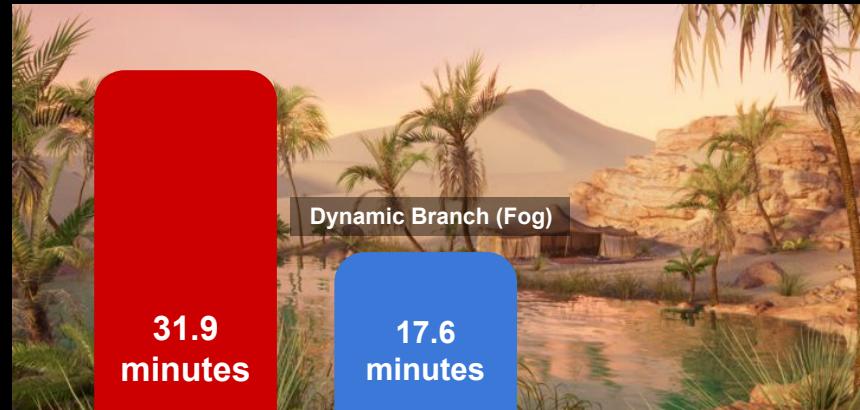


## Shader Build Settings

- Exclude and convert shader keywords to reduce the project compilation time. Without scripting!

6.3 LTS

URP 3D Sample (Highest Quality) - Shader Compilation Time



## Build Profile Override

- Override the shader build settings on a Build Profile basis for fast development builds, while maintaining optimal performance

6.3 LTS



# Modern graphics APIs

Gear.Club Unlimited 3 - Eden Games



## Performance, stability, memory

- DX12 as default on Windows
- Split Jobs for multithreading in Editor
- Stability with Device Filtering
- Graphics State Collection API

6.2

No Rest for the Wicked - Moon Studios



## Optimized memory for DX12

- Tight Buffer Alignment
- Scratch Buffer Optimizations

6.3 LTS

URP 3D Sample - Unity



## Smoother rendering and gameplay

- Utility functions & WebGPU support
- VFX Graph compatibility
- Editor UI and workflow automation

6.5



# Unity Build Automation

#47 iOS - Release

Full Log Compact Log Raw Log Changes (356) >

Build failures detected (2) View as plain text Download log

Script Compiler Error Unknown Line 2744

Your Unity scripts failed to compile. Check the logs for specific error messages and ensure all scripts are valid and compatible with the Unity version you're using.

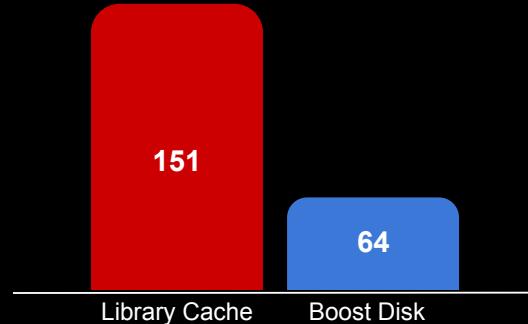
Go to line 2744

Was this suggestion helpful?

## Build Failure Categorization

- Troubleshoot faster with improved insights with new categorization

Build Time in Minutes - Phasmophobia  
(Kinetic Games) - 80 GB Project



## Boost Disks

- Reduce avg incremental build time by up to 58% on Phasmophobia, scales with project size

Artifact Retention

Configure retention rules to automatically delete older artifacts

Cancel Save

Retain artifacts for ⓘ 90 days

Retention Strategy ⓘ

Delete Artifacts

Delete Artifacts and Build Attempt

## Artifact Retention

- Optimize storage and security with build artefacts data retention policies

6.3 LTS

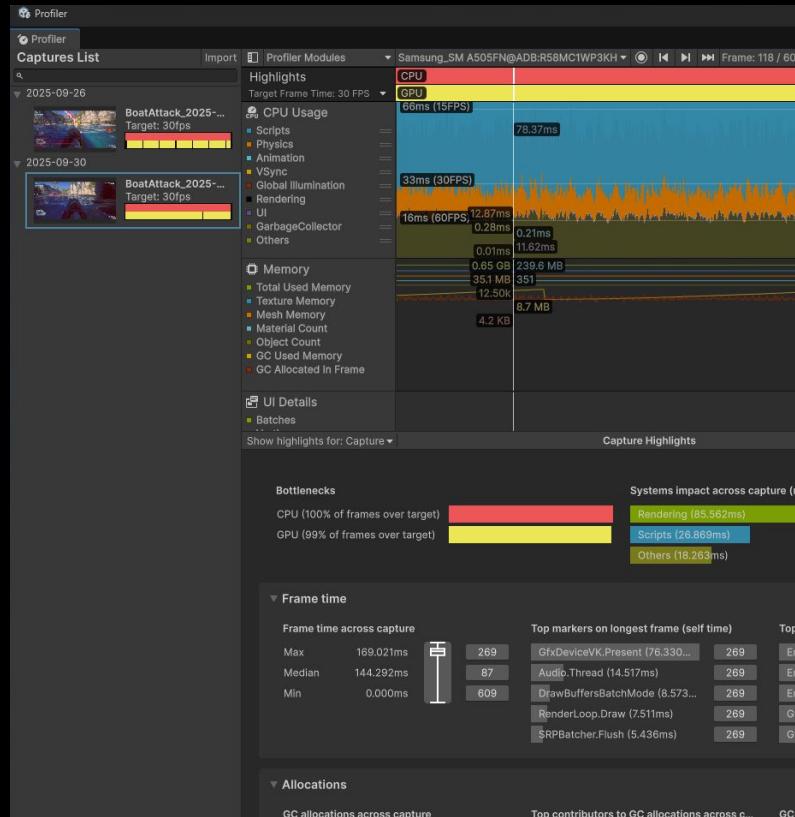
6.4

6.4



# Profiler Overview

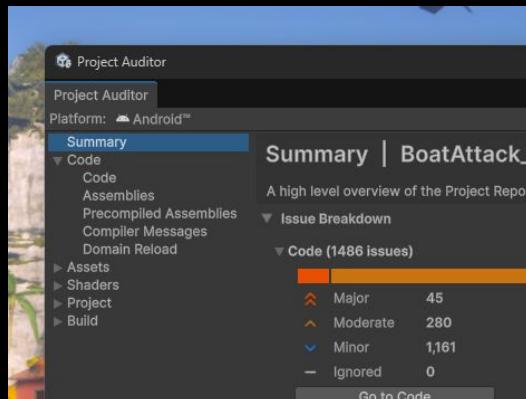
- Track your performance over time
- Get a simple summary of your data
- Drill down into what is expensive
- Optimize where it makes a difference



6.3 LTS

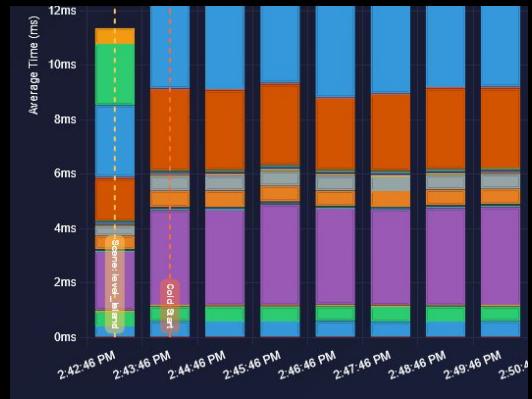


# Profiling



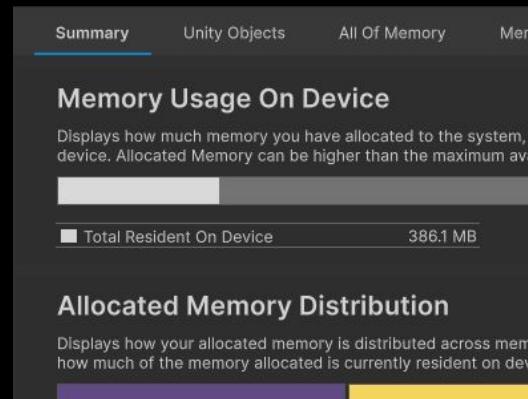
## Project Auditor in the Editor

- Enables easier analysis of your Unity project for common issues



## Real world performance data

- Optimize your game based on live games performance measurements



## Memory Profiler better insights

- Objects that remain in memory, or unknown/untracked memory

6.4

6.5

6.5

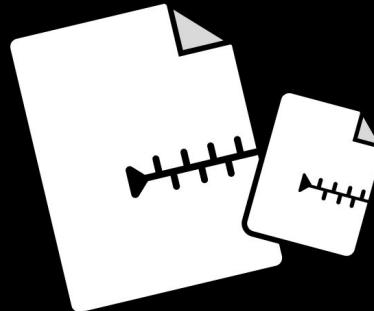


# Optimized live content with Addressables



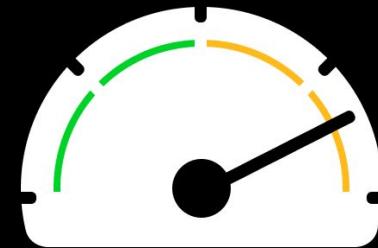
## Documentation

- Hundred of pages, warnings, and error messages reviewed



## Smaller Asset Bundles

- Reworking how TypeTrees are handled leading to reduced memory footprint!



## Addressables Backend

- Faster, simpler, with better dependency management

6.3 LTS

6.5

6.7 LTS



# Grow your Game



# Build and Evolve Your Game Economy

- New economy approach
- Modular and outcome-focused
- Production-ready workflows
- Ship and iterate faster

Project name

Releases

Manage Releases Release Pointers Monitoring

All Releases

Search by release name or description

Date Range Environment Release Pointer Sort by: Recently modified

Release 2.1

Environment: Production

Bug fixes.

Latest

Release ID: 124890214 | Created on: April 20th, 2024, at 09:12 UTC | Duplicate of: Release 2.0 in Production

Release 2.1

Environment: Staging

Bug fixes.

Release ID: 124890242 | Created on: April 20th, 2024, at 09:12 UTC | Duplicate of: Release 2.0 in Production

Release 2.0

Environment: Dev

Bug fixes.

Release ID: 124890242 | Created on: March 20th, 2024, at 11:11 UTC | Duplicate of: Release 1.9 in Staging

Release 1.9

Environment: Production

Bug fixes.

Release ID: 124890242 | Created on: March 20th, 2024, at 11:11 UTC | Duplicate of: Release 1.9 in Staging

Documentation Manage Environments

Assign Release Pointers New Release



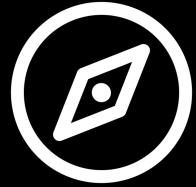
## A New Era for In-Game Purchases

- Walled gardens opening up
- Evolving regulations
- Negotiate lower fees
- Engage players directly
- Flexible payment and rewards
- Greater transaction control



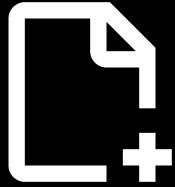


# The Next Level of Unity IAP



## Maximize revenue through choice

Multiple checkout flows  
Providers per market to  
Players beyond app stores



## One product catalog

Make changes once  
Unity syncs across stores  
Maintain full control



## Data-driven actionable insights

Unified purchase data  
One dashboard  
Optimize globally

In Beta

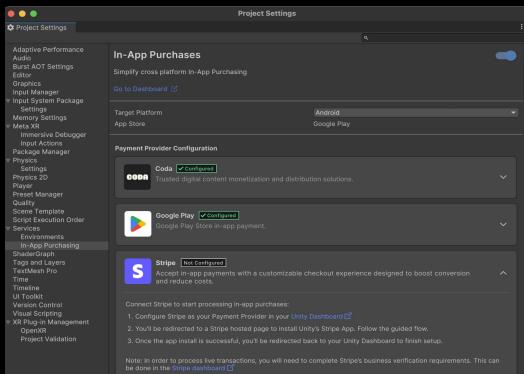
UNITE/





# Maximize IAP Revenue

```
1 public PurchaseProcessingResult ProcessPurchase
2 {
3     bool validPurchase = true;
4
5     var validator = new CrossPlatformValidator(
6         AppleTangle.Data(), Application.identity);
7
8     var result = validator.Validate(e.purchase);
9
10    if (validPurchase) {
11        // Unlock the appropriate content here
12    }
13
14    return PurchaseProcessingResult.Complete;
15 }
16
17 }
```



## Reliable Purchase APIs

- Built-in server-side checks for predictable, secure transactions

## All Your Stores, One Workflow

- Unified store management across app stores and payment providers

## Optimize Revenue with Data

- Actionable insights from unified transaction data

6.3

6.4

6.4



# More effective in-game economy tools

PLATFORMS

All Platforms

Apple App Store (Connected, 12 products, Manage)

Google Play (Connected, 12 products, Manage)

Steam (Connected, 8 products, Manage)

Xbox Store (Pending, 5 products)

Search entitlements...

ENTITLEMENT	TYPE	PLU
Gold Pack 100	CONSUMABLE	3 / 3 g
Gold Pack 500	CONSUMABLE	3 / 4 g
Premium Battle Pass	NON CONSUMABLE	2 / 2 g
VIP Membership Monthly	SUBSCRIPTION	2 / 2 g
Starter Bundle	NON CONSUMABLE	2 / 3 g

Economy Manager > MainCatalog

CATALOGS

MainCatalog

SeasonalCatalog

EventCatalog

TestCatalog

CATEGORIES

All Items

Currencies

Consumables

Equipment

Power-ups

Search SKUs...

+ New SKU

INSPECTOR

health\_potion

Type: Consumable

Description: Restores 50 HP in

CURRENT

Gold Pack (100)

gold\_100

\$ 3.99 USD

Gold Pack (500)

gold\_500

\$ 4.99 USD

CURRENT

Health Potion

consumable

% 50 HP

CURRENT

Legendary Sword

equipment

% 500 HP

CURRENT

Speed Boost

powerup

% 100 Gold

CURRENT

Shield Powerup

powerup

% 100 Gold

PRICING

Price Points

50

Bundle Mix

Payment Provider

Save Changes

Monetization Testing > A/B Tests

TEST STATUS

Active Tests

Completed: 1

Drafts & Paused: 1

TEST TYPES

Price Points

Bundle Mix

Payment Provider

Gold Pack 500 - Price Test

test\_001

Impressions	Conversions	Revenue	Conv. Rate
10,240	432	\$2,353.68	4.22%

2 variants - 5 days remaining

Starter Bundle Test

test\_002

Impressions	Conversions	Revenue	Conv. Rate
8,965	490	\$4,847	5.47%

3 variants - 3 days remaining

Payment Provider A/B

test\_003

Impressions	Conversions	Revenue	Conv. Rate
15,234	857	\$8,570	5.62%

2 variants - 7 days remaining

## Cross-platform entitlement

→ Store entitlements across platforms

## Cross-platform Catalog

→ Manage your SKUs and catalogs from one place

## Experimentation & testing tools

→ Test different content, price points, and bundles

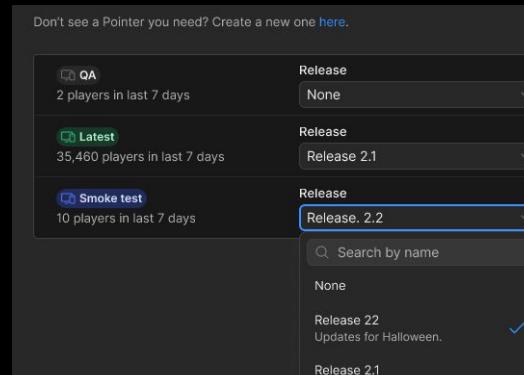
6.6

6.4

6.5



# LiveOps - Remote live content



## From editor to player

- Ship from the Editor: atomic releases, QA, and rollback built in

## Streamline release management

- Automated, flexible workflows to ship across providers faster with lower risk

## Targeted player experiences

- Segmentable variants: the right content, to the right player, at the right time

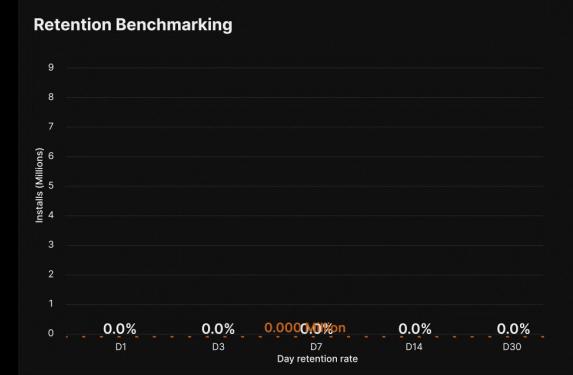
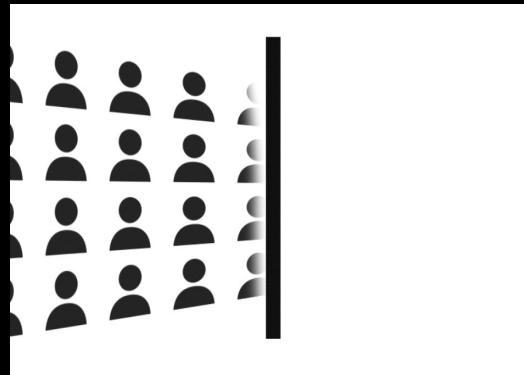
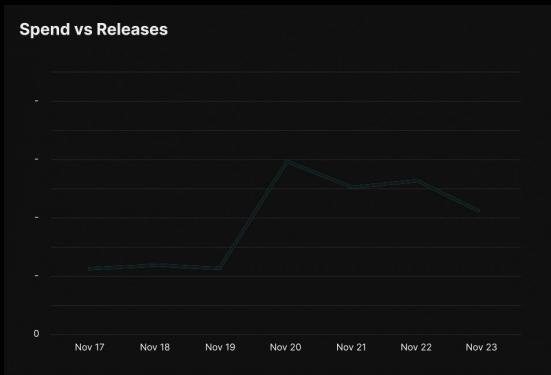
6.5

6.5

6.5



# Optimize your Game with Data



## Richer insights where you work

- Integrated and unified performance, player, and business data

6.4

## Personalization

- Bring your audience to unified stateful and stateless segmentation

6.4

## Insights at Scale

- Market insights & ML-driven LiveOps tailored to your gameplay

6.4



Production  
Verification

3D as 2D

2D Physics

Build & Iteration time

Cross-platform  
Commerce



Core Standards

Diagnostics

Agentic AI workflows



New Platforms

Platform  
Toolkit



Performance  
optimization



# The Unity Roadmap