

User Guide

Version 1.0.0

Introduction

Snap Studio Pro is a powerful Unity Editor tool for capturing 3D prefabs, props, and animations as polished 2D sprites and icons.

It combines professional lighting, post-processing, batch capture, animation export, and multi-angle support into a single streamlined system — built for speed, consistency, and studio-grade results.

Whether you're generating single prefab icons, full character animation libraries, environment props, or dynamic shadows, Snap Studio Pro gives you complete creative control with unmatched flexibility, efficiency, and ease of use.

Developer's Notes

Snap Studio Pro was built by one guy (me) and my AI co-pilot — over hundreds of nights, thousands of test passes, and every render pipeline Unity could throw at me.

I've tried to design every tab, toggle, and default setting the way I'd want it as a user: **zero setup, instant results, full control when needed**.

This tool has been tested meticulously across Built-In, URP, and HDRP — covering edge cases most people never even hit.

But if you do hit one? Tell me. I'll fix it.

Because even though I'm just one person with a full-time job, I built this tool to **work for you** — not the other way around.

– Rev

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Installation & Setup

Supported Unity Versions

Snap Studio Pro officially supports Unity 6 — across all major pipelines:

- Built-In Render Pipeline (with or without Post Processing Stack v2)
- Universal Tender Pipeline (URP)
- High Definition Render Pipeline (HDRP)

Snap Studio Pro automatically detects the active render pipeline and configures itself dynamically.

No manual setup is required beyond assigning the correct URP or HDRP asset in **Project Settings > Graphics** if applicable.

Built-In projects (with or without Post Processing Stack v2) are fully supported without additional configuration.

Older Unity Versions:

Pre-Unity 6 versions (such as Unity 2022 and 2023) are **not officially supported** by Snap Studio Pro.

You are welcome to test Snap Studio Pro on older versions if you choose. If you encounter issues, we are happy to **test compatibility on request** and **may provide simple workarounds** if a quick fix is possible.

However, Snap Studio Pro development and official support targets Unity 6 onwards — no backported fixes or ongoing updates will be guaranteed for older Unity versions.

UI Overview

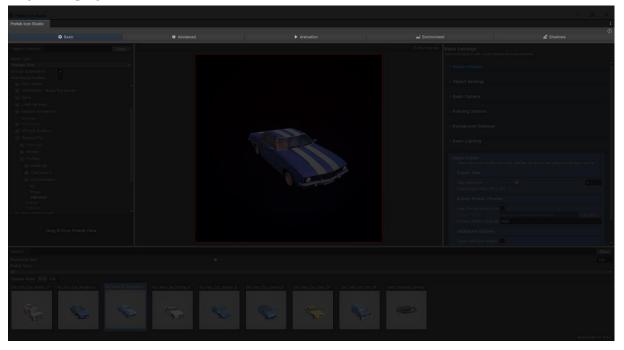
Snap Studio Pro is structured into four primary panels:

- Folder & Search System Organize and locate prefabs efficiently.
- Thumbnail Repository Manage captured icons and preview/export thumbnails.
- **Preview Scene** Visualize prefabs with real-time lighting and post-processing.
- **Settings & Customization** Adjust capture settings, lighting, framing, and overlays.



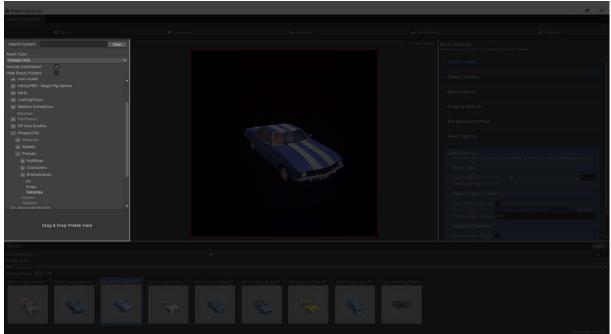
Core Features

Main Menu



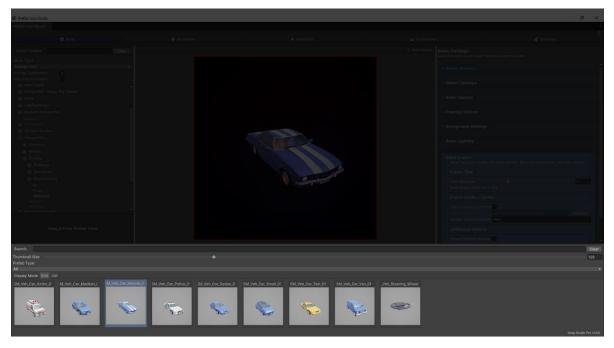
The Main Menu in Snap Studio Pro is your central hub for managing tools, settings, and customization options. It provides intuitive navigation to various tools, settings, and customization options essential for creating and refining 3D prefab icons. Users can effortlessly manage projects, explore advanced lighting controls, adjust material settings, and utilize powerful framing and overlay options. With its user-friendly interface and comprehensive functionality, the Main Menu empowers developers and designers to streamline their workflow and achieve stunning visual results.

Folder & Search System



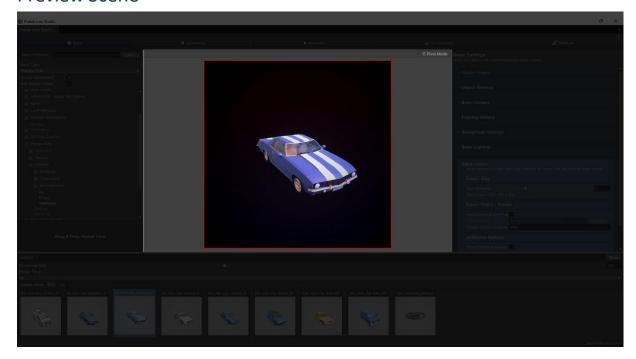
Easily navigate through your project's folders to locate the prefabs you want to capture. Use keywords to quickly find folder names, then decide whether to search only the current folder or include all subfolders for broader results. Drag-and-drop functionality lets you quickly display a prefab from your collection.

Thumbnail Repository



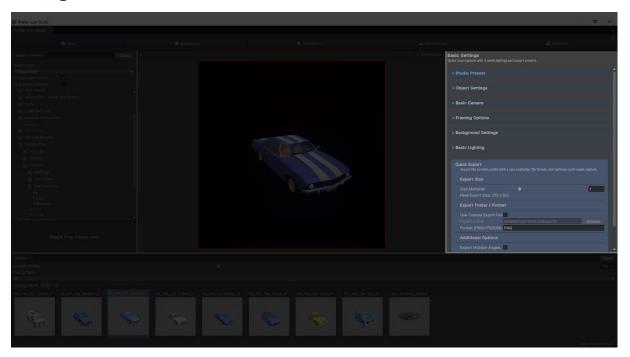
Stores and displays generated icons from your selected folder in one convenient place. Adjust their size with a built-in slider, then search by prefab name to quickly locate specific assets. If you use Icon Capture Pro's custom prefab metadata, you can also filter icons based on categories (see the Prefab Meta Data section for more details

Preview Scene



Experience real-time visualization of your prefab. Use the left and right mouse buttons to control rotation, scroll to adjust its position, and toggle between the object's pivot or a centred pivot—all with a simple click.

Settings & Customization



This is where the Main Menu options appear. From here, you can adjust lighting, framing, background, overlays, and camera settings to customize your prefab icons. Whether you want a quick tweak or full scene styling, all the key customization tools are found here.

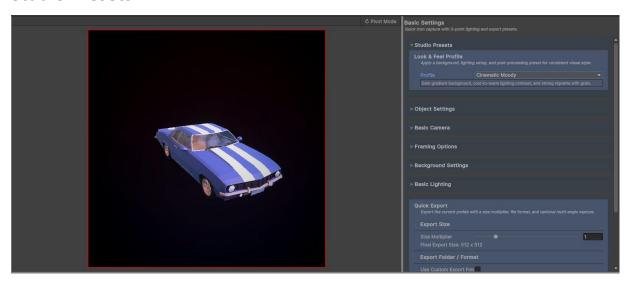
Basic Features

The **Basic Tab** is your starting point — designed for quick, clean icon captures with minimal setup. Apply studio presets, tweak object rotation, adjust camera framing, and export instantly using streamlined controls. Ideal for first-time users or rapid iteration.

Want a quick tour of the basics?

Watch the Snap Studio Pro Basic Features demo on YouTube

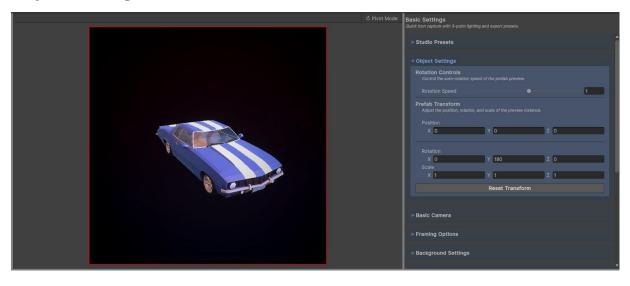
Studio Presets



Apply predefined lighting, background, and camera styles instantly with a single click. Studio Presets are designed to give your captures a consistent professional look without needing manual tweaking.

Choose from options like Neutral Professional, Stylized Punchy, Cinematic Moody, and more, or revert to a blank setup if you prefer starting from scratch.

Object Settings

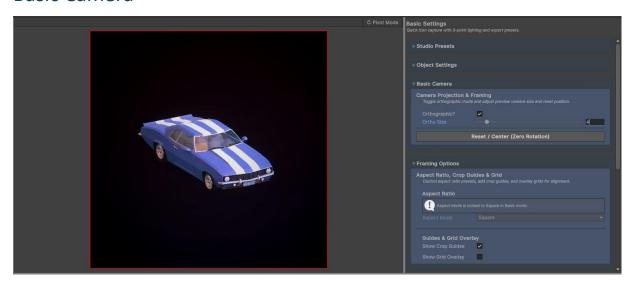


Adjust the rotation pivot, live rotation speed, and reset the prefab's transform inside the

preview scene.

Useful for controlling how prefabs spin during rotation, or for centering and realigning objects before capture.

Basic Camera

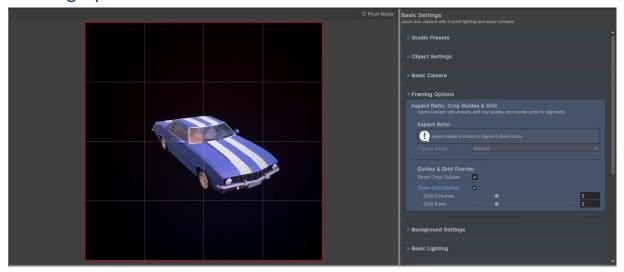


Adjust the preview camera's field of view, perspective/orthographic mode, and camera positioning relative to the prefab.

Useful for fine-tuning how your prefab appears in the final capture, whether you need dramatic angles, top-down views, or standard front-facing shots.

Includes an instant reset option to return the camera to the auto-framed starting position if needed.

Framing Options

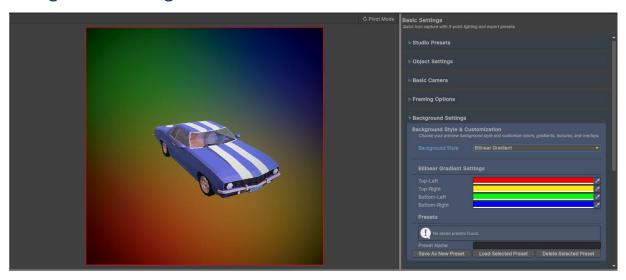


In the Basic tab, captures are locked to a square 1:1 aspect ratio for maximum consistency.

You can optionally enable a customizable grid to overlay in the preview scene to help align your prefab visually.

The grid is **for preview only** and will not appear in the final exported images.

Background Settings



Customize the background of your captures with options including solid colors, gradients, checkerboards, noise textures, or transparent backgrounds.

Background changes are visible in the preview scene and exported images (except when using transparent mode).

Ideal for matching project branding, creating neutral backgrounds for sprites, or setting up stylized scenes.

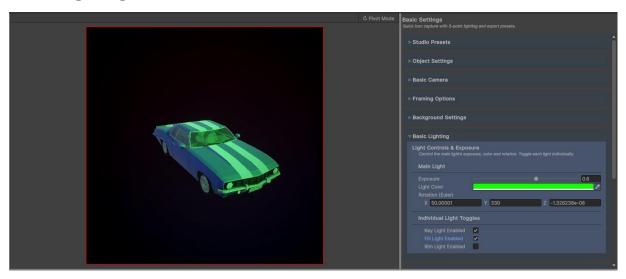
Tip: Transparent background mode is ideal when preparing assets for UI, 2D games, or sprite sheets where you need clean cutouts without a visible backdrop.

Transparent Alpha in URP

Snap Studio Pro fully supports transparent background export — but Unity's URP pipeline requires alpha to be enabled manually in the URP asset settings. This quick video walks you through exactly how to set it up to avoid black or solid-color backdrops in your exported PNGs.

Using URP? Want clean transparent backgrounds? Watch how to enable alpha transparency in URP

Basic Lighting



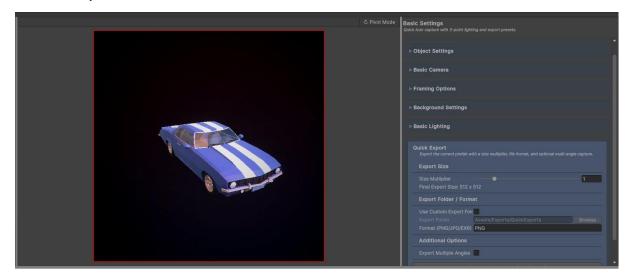
In the Basic Tab, you can adjust the Main (Key) Light's intensity and color, and toggle the Fill and Rim lights on or off for simple control over your scene's lighting.

This allows quick basic lighting adjustments without diving into complex setups.

Full detailed lighting control (per-light rotation, shadows, advanced settings) is available in the **Studio Lighting Panel** under the Advanced Tab.

Tip: For full cinematic lighting control, open the Studio Lighting Panel in the Advanced Tab, where you can individually rotate, color, and adjust all three lights.

Quick Export



Quickly capture and export a snapshot of the current prefab using your active scene setup.

Choose the output resolution, file format (PNG, JPG, EXR), and export folder — all from one compact panel.

Designed for speed: ideal for users who want immediate exports without manually adjusting advanced settings.

Tip: Use the Size Multiplier slider to easily scale exports up to 4K without adjusting camera or scene settings.

Advanced Features

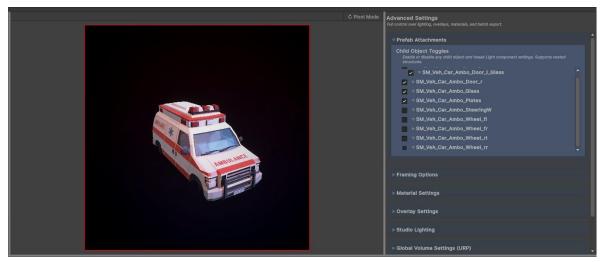
The **Advanced Tab** unlocks full control over your scene — from material overrides and overlay settings to precise lighting and post-processing.

It's where you go when you want to fine-tune every visual detail and push the quality of your exports to a professional level.

See prefab attachments, advanced lighting, material overrides, and more in action:

Watch the Advanced Features demo on YouTube

Prefab Attachments

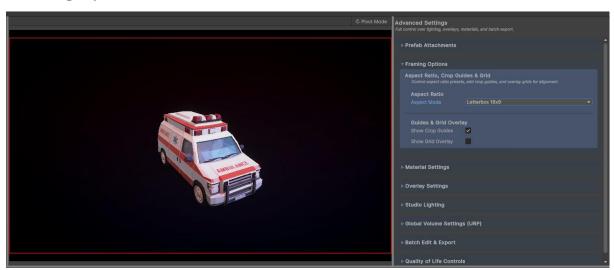


Enable or disable child objects for precise capture control. Useful for hiding weapons, effects, accessories, or other parts without needing to modify the original prefab asset. Changes only affect the preview scene and capture — the prefab itself remains untouched.

Lights and child cameras attached to a prefab can also be toggled off individually, allowing you to fully control extra lighting or dynamic effects added by the prefab.

Tip: Disable embedded lights on prefabs like characters, vehicles, or props to prevent them from overpowering the studio lighting setup during capture.

Framing Options



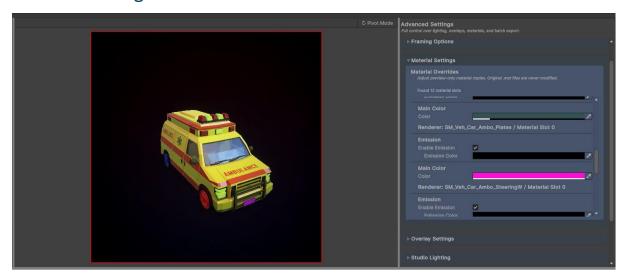
Unlock full aspect ratio control — including standard presets like 1:1, 16:9, 4:3, 9:16, and a fully custom aspect mode.

Use these options to match the export framing to your target platform, whether it's wide cinematic banners, mobile portraits, or custom UI needs.

Grid overlays remain strictly for visual reference during setup — they are never included in the exported files.

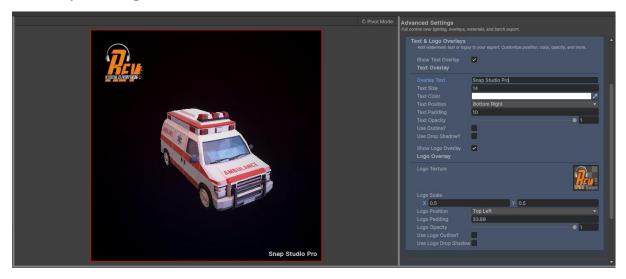
Tip: Use Custom Aspect Mode when designing for unusual resolutions like storefront banners, UI icons, or custom dialogue box backgrounds.

Material Settings



Freely modify your prefab's materials for both preview and export without affecting the original asset. Experiment with different looks and finishes, then capture the perfect visual result.

Overlay Settings

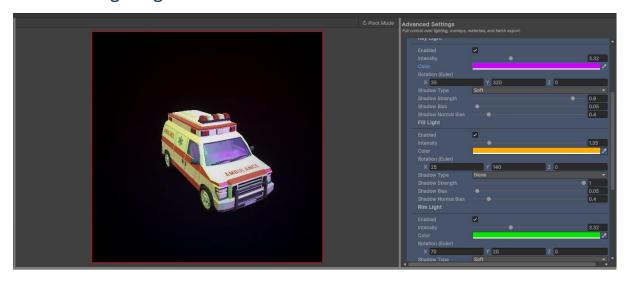


Add watermarks, logos, or text overlays onto the preview scene for branding, asset versioning, or work-in-progress labelling.

Overlay Export (Planned in V2)

Overlays are currently visible in the preview scene only and are **not included in the exported images** yet — full overlay export support is planned for Snap Studio Pro V2.

Extended Lighting Controls

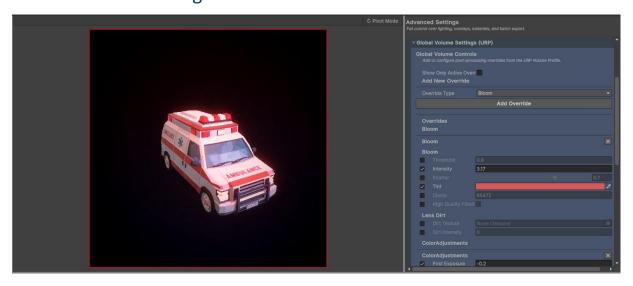


Full 3-point lighting control for advanced users who want professional-grade captures. Adjust the rotation, intensity, color, shadow settings, and enable/disable each light individually (Key, Fill, Rim) to create cinematic lighting setups.

Studio Lighting gives you complete control beyond the Basic Tab's quick adjustments — perfect for achieving stylized, dramatic, or product-style icon captures.

Tip: Combine a rotated Rim Light with a strong Fill Light to create "hero shots" where the object edges glow against a darker background — perfect for weapons, characters, or icons that need a premium feel.

Global Volume Settings



Add, adjust, or remove full post-processing overrides during capture, regardless of your active render pipeline.

Snap Studio Pro supports URP, HDRP, and Built-In Render Pipeline (with or without Post Processing Stack v2 installed).

Customize visual effects like Bloom, Color Grading, Vignette, and more to achieve cinematic, stylized, or polished final captures — all without modifying your main project settings.

Note: Using bloom may cause Unity to display some harmless errors, which have been resolved in newer Unity versions. If these appear, you can safely delete them from your console.

Tip: Use moderate Bloom and Color Grading to make icons or sprites pop without needing custom shaders — especially useful for mobile games and store icons.

Batch Edit & Export



Snap Studio Pro's Batch Edit & Export system allows you to capture multiple prefabs automatically with consistent framing, lighting, and export settings.

It uses a Frozen Transform system — your initial prefab's position, rotation, and scale are locked at batch start, and applied across every capture, ensuring perfect visual consistency without snapping or shifts.

For best results, batch similar assets together (e.g., all weapons, all props, all characters) to ensure uniform framing and lighting.

While Snap Studio Pro's batch system can handle assets of different sizes, shapes, and styles, grouping similar assets tends to produce more predictable and polished captures.

Very large, tall, or uniquely shaped assets may require minor manual adjustments for ideal results.

Export Features

- Supports single-angle and multi-angle (directional) batch captures
- Multi-Angle Mode
 - → Automatically generate 4, 8, or 16 directional rotations
 - → Or fully customize rotation angles manually
- Organized Export Structure
 - → Exports are neatly sorted into folders per prefab and/or per angle, making large batch captures clean and easy to manage
- Supports high-resolution exports up to **4K** in the following formats:
 - PNG Lossless format, supports transparency
 - o **JPEG** Compressed format, smaller file size
 - o **EXR** High dynamic range (HDR) format for professional workflows
- **Tip 1:** Group similar assets together (e.g., all props, all characters) in a single batch session to minimize framing differences and ensure uniform visual styling.
- **Tip 2:** Snap Studio Pro's custom Prefab Metadata allows you to filter and batch specific categories of prefabs quickly making it easier to keep exports organized even in huge projects.
- **Tip 3:** Enable Multi-Angle Export Mode to instantly create full directional libraries (4, 8, or 16 rotations) per prefab all organized automatically into clean subfolders, perfect for game-ready asset pipelines.

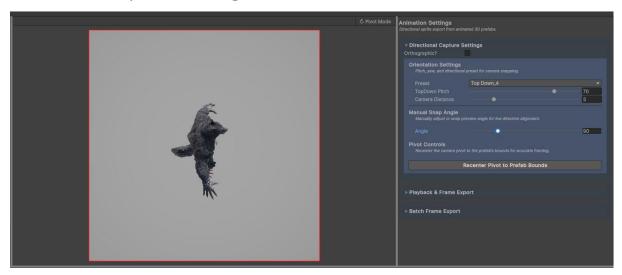
Animation Features

The **Animation Tab** is built for character and FX export. Preview animations, scrub through frames, and capture directional movement at up to 16 angles — with optional spritesheets and high-res output. Perfect for RPGs, platformers, and top-down games needing frame-perfect directional libraries.

Watch how directional capture, playback, and batch animation exports work:

Watch the Animation Workflow demo on YouTube

Directional Capture Settings



Snap Studio Pro's Directional Capture system ensures consistent and precise orientation when capturing animated prefabs.

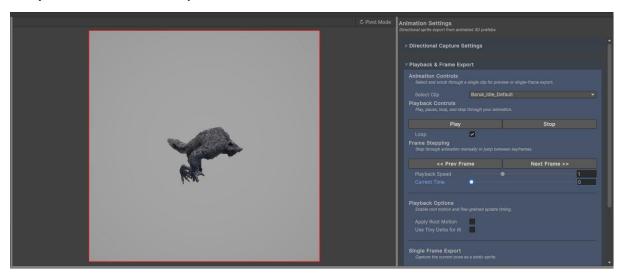
Directional Capture Modes

Automatically snap rotations to common game development angles like side-scrolling (90° steps), top-down 4-direction (0°, 90°, 180°, 270°), 8-direction (every 45°), or even 16-direction captures for ultra-smooth movement.

Sliders allow fine-tuning of both prefab rotation and camera angle to guarantee perfect alignment, ensuring uniformity across every animation frame and direction.

Tip: Capturing 8 or 16 directions dramatically improves movement smoothness in top-down, isometric, and action RPG games — giving your characters more fluid directional transitions.

Playback & Frame Export

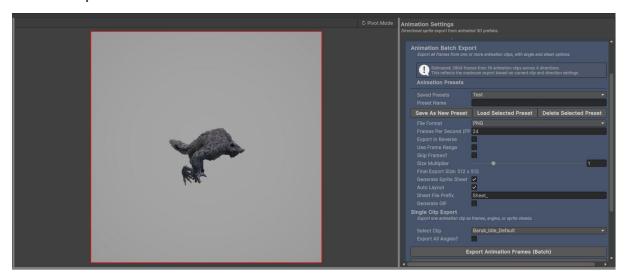


Preview and control animated prefabs directly inside Snap Studio Pro's preview scene. Scrub through animations manually, play them in real-time, or jump between keyframes with next/previous frame buttons.

At any moment, capture a high-resolution snapshot (up to 4K) of the current animation frame — perfect for creating custom pose shots, sprite work, or detailed promotional images.

Tip: Use frame-by-frame controls to capture perfect poses — ideal for title screens, ability icons, or marketing screenshots showcasing your animated characters at their best moment.

Batch Export Frames



Automate the full animation capture process with Snap Studio Pro's Batch Export Frames system.

Choose whether to export a single animation, all animations inside a controller, and/or multiple directional angles per animation.

Batch export frames supports flexible setups:

- Capture a single animation clip at a single angle (simple)
- Capture a single animation at all angles (4, 8, or 16 directions)
- Capture every animation in the Animator Controller at a single angle
- Capture every animation at every angle (full directional animation libraries)

Snap Studio Pro can automatically generate **spritesheets** for every animation if enabled

each spritesheet is saved into the same subfolder alongside the individual captured frames for easy project organization.

No manual intervention needed — Snap Studio Pro handles animation playback, directional snapping, frame capture, and spritesheet assembly automatically.

Tip 1: Capturing all animations at 8 or 16 angles lets you instantly generate complete movement libraries for RPGs, strategy games, or isometric projects — with no extra manual rotation or editing.

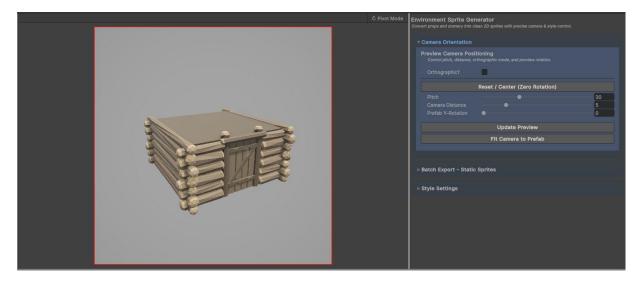
Tip 2: Snap Studio Pro automatically saves both individual frames and assembled spritesheets in the same subfolder — giving you flexibility depending on whether you need raw frames or ready-to-import sheets.

Environment Features

The **Environment Tab** is focused on static props — like scenery, tiles, and modular assets. Use frozen transforms and fixed camera angles to batch-export perfectly aligned 2D sprites from your 3D prefabs. Designed for building consistent, tile-ready assets.

Static sprite capture, camera framing, and multi-angle exports for scenery:
Watch the Environment Features demo on YouTube

Camera Orientation



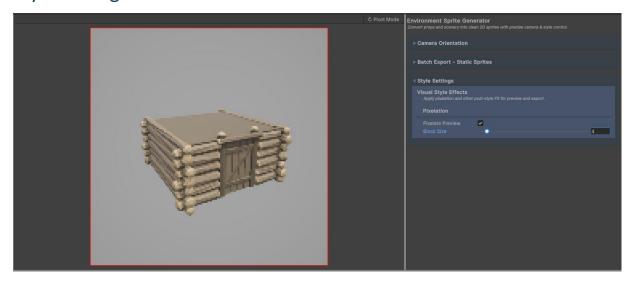
Customize the camera setup for static prefab captures, including position, angle, field of view, and perspective vs orthographic mode.

Choose different preset styles (Side View, Top-Down, Isometric) or manually tweak camera angles for custom asset pipelines.

Ideal for capturing props, tiles, scenery, UI elements, or any non-animated asset needing consistent visual style.

Tip: Use Orthographic mode when capturing environment props or tiles — it guarantees perfectly flat, perspective-free sprites ready for 2D tilemaps or UI work.

Style Settings

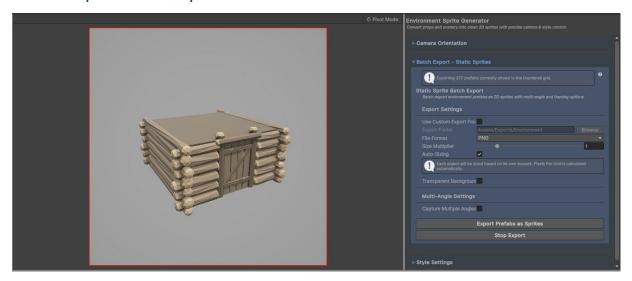


Apply pixelation effects to your prefab captures directly inside the preview scene. Pixelation is applied live before capture, allowing you to generate retro-style sprites or low-resolution visual assets without modifying your original prefabs or needing post-processing shaders.

Future updates will expand this panel with additional style effects like Grayscale, Hue Shifting, and Posterization.

Tip: Pixelation is perfect for retro games, UI icons, or creating unique placeholder assets during early prototyping without needing full sprite rework.

Batch Export Static Sprites



Batch capture multiple static prefabs (like props, trees, scenery, and buildings) into clean, consistent 2D sprites.

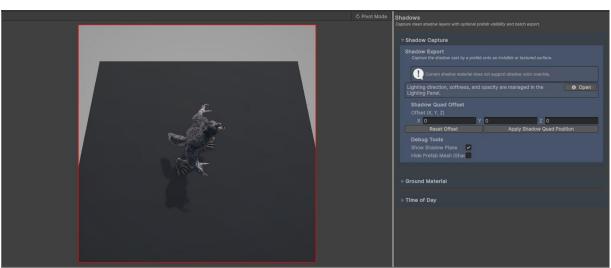
Set a frozen framing style across the batch to ensure uniformity and optionally capture single angles or multi-angle rotations for objects needing different directional looks. Exports are neatly organized into folders for easy project integration.

Tip: When batch capturing scenery or environment props, use consistent camera settings and frozen transforms to avoid size shifts between exported assets — making assembling 2D environments much faster.

Shadow Features

The **Shadow Tab** lets you capture clean, realistic shadows — either alongside your prefab or as standalone transparent layers. Ideal for 2D layering, promo shots, or capturing time-of-day moods with full control over lighting angle and shadow opacity.

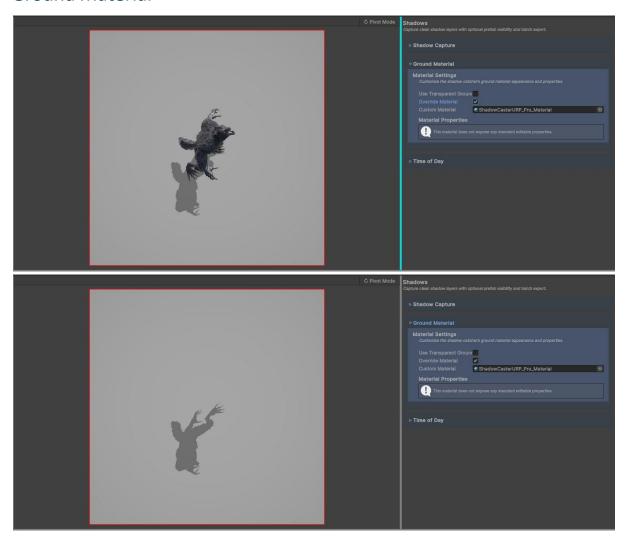
Shadow Capture



In URP, Snap Studio Pro supports transparent shadow capture: shadows are cast onto an invisible ground plane and exported cleanly onto transparent backgrounds, perfect for 2D games or compositing.

You can choose to capture the full prefab + shadow or just export the shadow separately if needed.

Ground Material



Customize the ground plane used during shadow captures, including its color, material, texture, and reflectivity.

Snap Studio Pro's ground system behaves differently depending on the active render pipeline:

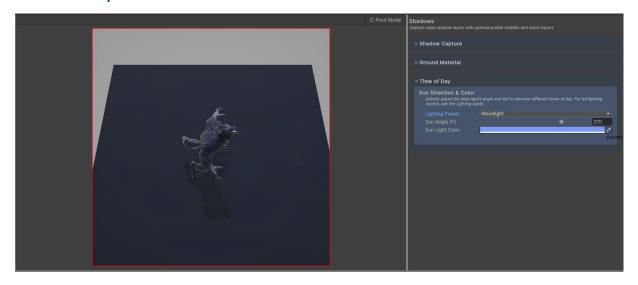
- **Built-In RP / HDRP**: Shadows are captured visually against a styled ground (grey, white, colored). Perfect for marketing shots or polished promotional renders.
- **URP**: Supports fully transparent shadow captures shadows are cast onto an invisible ground and exported cleanly with transparency, ideal for 2D sprite layering in games.

Tip 1: In URP, exporting shadow-only textures with transparency allows you to

dynamically re-layer shadows under characters or props in your game scenes at runtime — no manual compositing needed.

Tip 2: In Built-In RP and HDRP, use soft ground colors (like light grey) and mild shadow opacity for polished marketing renders and store-ready promo images.

Time of Day



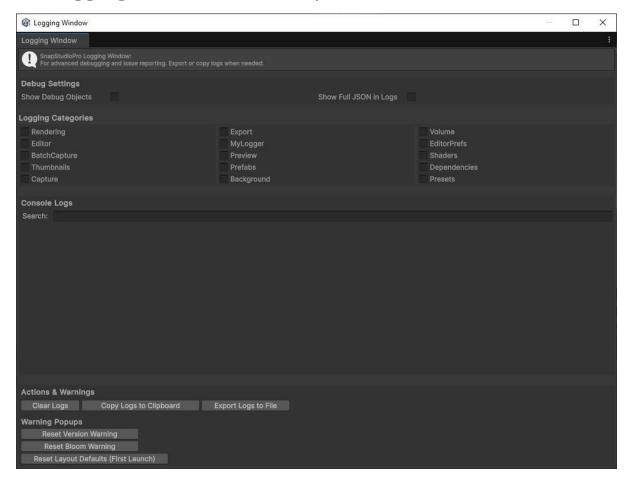
Dynamically adjust the lighting angle, intensity, and color to simulate different times of day in your captures — from sunrise to noon to dusk.

The Time of Day panel controls the rotation of the main directional light (the Key Light), automatically updating both prefab lighting and shadow directions.

Perfect for creating different moods or matching asset captures to various in-game lighting setups without manually adjusting every light.

Tip: Lower the sun angle slightly and shift the color toward orange to create a "golden hour" effect — perfect for giving your characters or props a soft, cinematic glow.

Debugging & Performance Optimization



Snap Studio Pro includes a custom Debug Console designed to make troubleshooting easier without cluttering your Unity Console.

You can toggle individual debug systems on or off — including camera data, volume setup, export logs, and environment information — allowing you to capture only the information you need during development or support.

Snap Studio Pro also automatically logs useful system info (Unity version, render pipeline, Snap Studio Pro version) with exported debug logs — making it easier to report issues or replicate user environments during support.

Prefab Metadata System

Want to see how to tag, filter, and clean prefab metadata? Watch the Prefab Metadata System demo on YouTube

Overview

Snap Studio Pro includes a Prefab Metadata System that allows users to categorize, filter, and organize prefabs using custom metadata tags.

This makes batch exporting, searching, and organizing assets more efficient by grouping prefabs into predefined types (e.g., "Character", "Props", "Environment").

Metadata is stored locally on prefabs during capture and batch operations — and can be fully scanned, viewed, and removed using the built-in Metadata Manager before final project builds if needed.

Key Features

- **Prefab Type Filtering** Assigns each prefab a category (e.g., Environment, Character, Props, UI) for easier searching and batch exporting.
- **Custom Metadata Database** Users can expand or modify prefab categories using a simple ScriptableObject (PrefabTypeDatabase).
- **Custom Inspector Integration** Adds a clean dropdown menu for selecting prefab types inside the Unity Editor no manual typing needed.
- **Tag Support** Add multiple tags to prefabs for advanced filtering (coming in future updates for extended support).
- Metadata Manager Tool: Scan your project to identify all prefabs containing Snap Studio Pro metadata — selectively remove metadata from individual prefabs, multiple prefabs, or clean it from all prefabs in one click before project builds.

Prefab Type Filtering

Each prefab can be assigned a type, which determines how it is filtered and displayed inside Snap Studio Pro's interface.

Example:

- Assign "Character" to all player and NPC prefabs.
- Assign "Props" to weapons, items, environment clutter.
- Assign "UI" to interface prefabs.

Prefab Type Database (Customizable Categories)

Users can define their own prefab categories inside a ScriptableObject (PrefabTypeDatabase).

You can:

- Add new prefab types (e.g., "Vehicles", "Weapons", "Tiles")
- Remove prefab types you don't use
- Modify prefab categories anytime without touching Snap Studio Pro's core code

Default Types:

- Environment
- Character
- Props
- UI

Tip: Before final game builds, use the Metadata Manager to clean any prefabs still carrying Snap Studio Pro metadata — keeps your shipped game builds clean and lightweight.

UI Customization & Theming

Snap Studio Pro isn't just powerful — it's personal.



Every part of the UI can be customized to match your preferred workflow, mood, or visual style.

- Choose from built-in themes: dark, light, synthwave, minimalist, cinematic, and more
- Or create your own theme using the **full customizer** every panel, button, font, and background can be styled
- Every panel in Snap Studio Pro can be resized freely just click and drag the edges. Perfect for widescreen setups, dual monitors, or focused work on specific panels.
- Presets and custom themes are **saved automatically**, so your setup is ready every time you open Snap

Great for accessibility too — larger fonts, high contrast, or comfort mode themes are supported.

Want to see how it works?

Watch the UI Customization demo on YouTube

Best Practices & Optimization

- Use Studio Presets like Neutral Professional or Stylized Punchy to ensure consistent lighting and background across all exports.
- Batch by Category or Object Size when possible grouping similar prefabs (e.g., all weapons, all props, or same-height characters) ensures more consistent framing and visual output.
- Leverage Prefab Metadata to auto-filter and batch similar asset types without manual drag-and-drop.
- Use Frozen Transform Mode during batch export to maintain consistent position, rotation, and scale — perfect for uniform icon libraries.
- Tested with 10,000+ Prefabs: Snap Studio Pro has been stress-tested with massive export jobs, including high-res (4K) multi-angle batches — with no bottlenecks or crashes.
- Enable Multi-Angle Mode only when needed (4/8/16) to keep file sizes manageable and exports clean.
- Use Transparent Backgrounds when preparing assets for UI, 2D games, or spritesheets — especially when layering in-engine.
- Apply Overlays to watermark or brand your work during WIP stages, or to visually mark asset versions in large libraries (e.g., v1.0, test, rejected).
- Use Animation Directional Export when building sprite libraries you'll get a complete movement set with zero manual rotation needed.

Support & Updates

Snap Studio Pro is actively supported and maintained.

If you encounter any issues, have feature requests, or simply want to reach out:

- Visit the official Unity Asset Store page (for updates, releases, and documentation links)
- Join the <u>community forum or Discord</u> to ask questions, share feedback, or show off your captures

Snap Studio Pro is built to stay fast, reliable, and driven by real-world developer feedback.