

One Click Background Remover

AI-Powered • Fully Offline • Unity Editor Tool

Product Documentation

Version 1.0

Overview

One Click Background Remover is a premium Unity editor tool for removing image backgrounds locally using AI. It is designed for 2D developers, UI artists, RPG creators, inventory icon pipelines, visual novel artists, and rapid prototyping workflows.

The tool runs fully offline with no internet dependency, no cloud API calls, and no subscription model. All processing happens on your machine using Unity's Inference Engine and the U2Net-P segmentation model.

Key Features

- One-click sprite background removal from the editor window or right-click context menu
- Fully offline AI inference — no internet connection required
- Batch processing with drag-and-drop queue and folder import
- Configurable settings: threshold, edge softness, cleanup strength, anti-halo, and more
- Before/After preview with checkerboard transparency display
- Transparent PNG export preserving original sprite import settings
- Responsive editor UI with horizontal and vertical layout modes

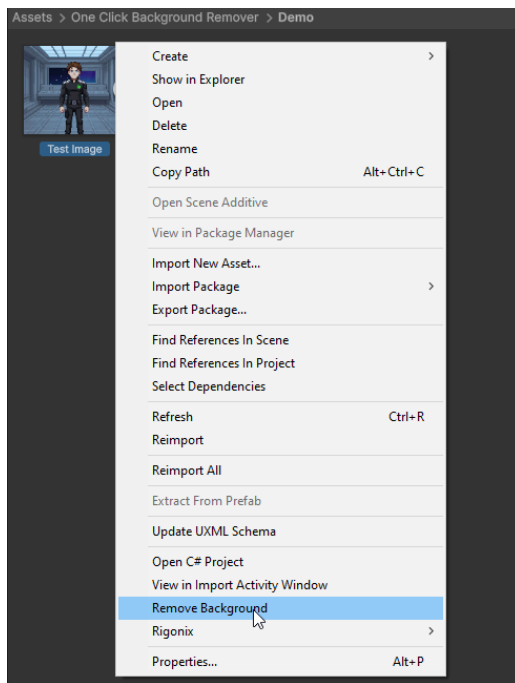
Requirements & Installation

- Unity 6 (6000.0 or later)
- Unity Inference Engine 2.2.2 or later — install via **Window** → **Package Manager** → **Unity Registry**, search for **Inference Engine** (package name: com.unity.ai.inference)

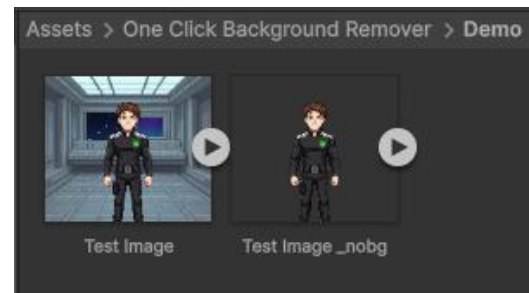
Quick Start

Import the package, then open Tools → Smart Sprite Background Remover. Drag your sprites into the drop zone (or click Select Folder), then hit Remove Background. Your transparent PNGs will appear next to the originals with a `_nobg` suffix. That's it.

For even quicker one-off use, select any texture in the Project window and right-click → Remove Background.



**Right Click On Any Sprite Or Texture,
Choose Remove Background**



OUTPUT

Usage

Editor Window

The editor window provides the full-featured workflow with settings, batch processing, and preview.

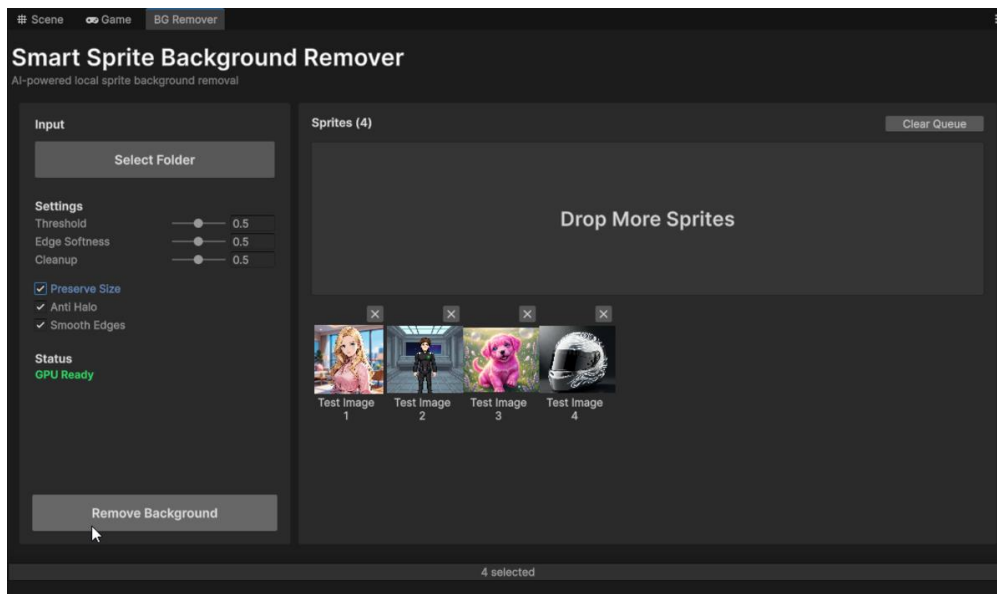
1. Open Tools → Smart Sprite Background Remover.
2. Drag sprites into the drop zone, or click Select Folder to import all textures from a folder.
3. Adjust settings in the left panel as needed (see Settings Reference below).
4. Click Remove Background to process all queued sprites.
5. Results are saved as <original_name>_nobg.png next to the original files.
6. Click any processed thumbnail to see the before/after preview.

Right-Click Context Menu

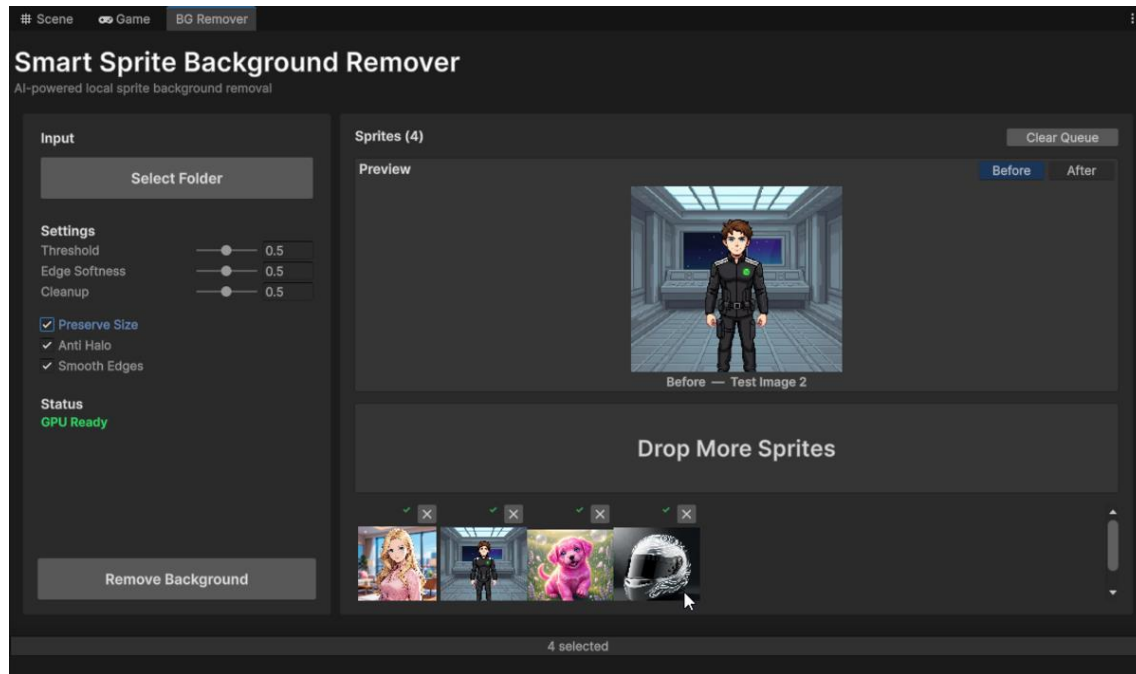
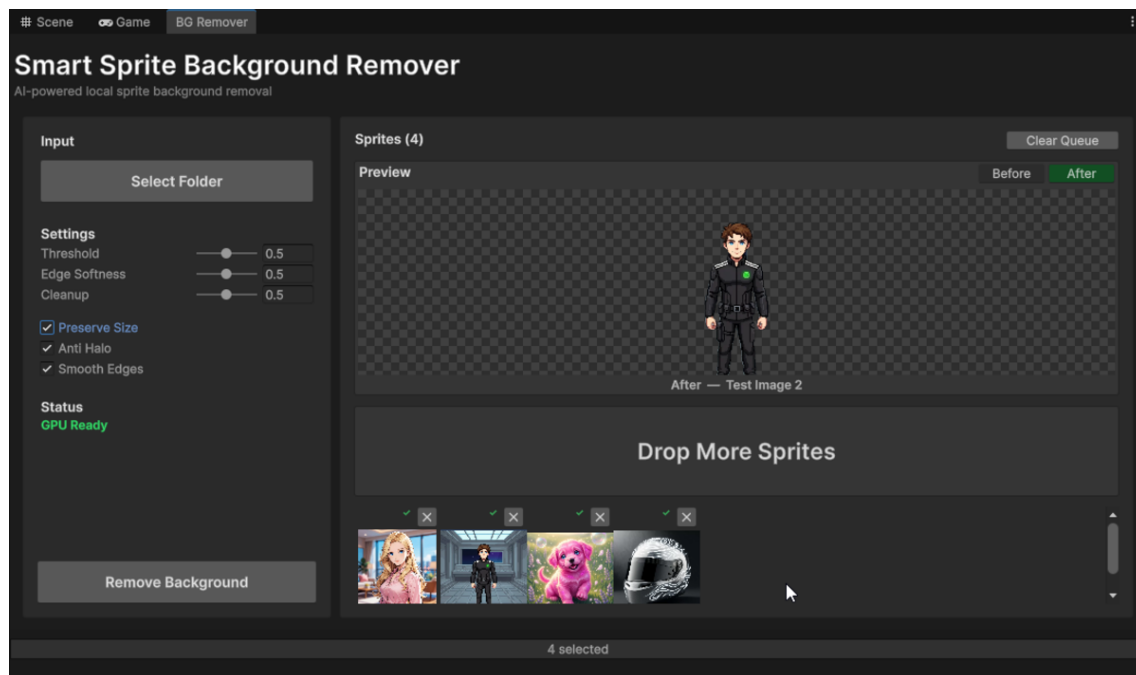
7. Select one or more textures in the Project window.
8. Right-click → Remove Background.
9. Processing uses default settings. A progress bar and completion dialog are shown.

Before / After Preview

After processing completes, click any thumbnail in the queue to select it. The preview panel appears above the drop zone showing the result. Use the Before and After toggle buttons to compare. The After view renders over a checkerboard background so you can clearly see the transparent cutout.



Remove Images In Bulk

*Before**After*

Settings Reference

All settings are configured in the left panel of the editor window. The right-click context menu uses default values.

Setting	Default	Description
Threshold	0.5	Controls how aggressively the background is cut. Higher = more removal, lower = preserves more semi-transparent edges.
Edge Softness	0.5	Feathering on mask edges. 0 = hard binary cutoff, 1 = maximum softness. Only active when Smooth Edges is on.
Cleanup	0.5	Pushes semi-transparent fringe pixels toward fully transparent. Higher = stronger cleanup of edge artifacts.
Preserve Size	On	Output matches original texture dimensions. When off, output is 320×320 (model resolution).
Anti Halo	On	Premultiplies RGB by alpha to eliminate bright halos on transparent edges.
Smooth Edges	On	Applies a smooth curve to the mask for softer foreground-to-background transitions.

Troubleshooting

Common issues and their solutions:

Issue	Solution
"Could not find u2netp.onnx"	The model file must be inside Assets/. Verify it was not deleted during import.
"Failed to load model"	Ensure Inference Engine 2.2.2+ is installed via Package Manager (com.unity.ai.inference).
Halo artifacts on edges	Enable Anti Halo and increase Cleanup. For stubborn halos, raise Threshold slightly above 0.5.
Edges too soft	Reduce Edge Softness toward 0, or disable Smooth Edges for hard binary cutoffs.
Edges too hard / jagged	Increase Edge Softness toward 1 and ensure Smooth Edges is enabled.
Processing is slow	Check Console for backend messages. GPU Compute is significantly faster than CPU fallback.
Output is 320×320	Enable Preserve Size in Settings. When off, output matches model resolution.

License

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