

Ultimate Thumbnails – Documentation

Ultimate Thumbnails is a powerful Unity Editor extension designed to automatically generate high-quality, properly lit, and informative thumbnail icons for your assets. Go beyond Unity's limited default previews for 3D Models, Sprites, Particles, and UI to ensure your project's assets are always presented clearly and professionally in the Project window.

Key Features:

- **Superior 3D Previews:** Generates icons for 3D Models with improved, customizable lighting, making your assets truly shine, unlike the poorly lit Unity defaults.
- **Correct Sprite Orientation:** Automatically rotates 2D Sprites to always face the camera, eliminating the "weird angle" issue common in default previews.
- **Particle System Support:** Generates proper, visible thumbnail icons for Particle Systems, replacing the empty default icons.
- **UI Element Previews:** Creates clear icons for UI elements (Canvases, Text, Images, etc.).
- **Highly Customizable:** Fine-tune camera angle, lighting, background color, and more to achieve the perfect icon style.
- **Project Window Integration:** Seamlessly displays the generated icons in both Grid and List views of the Project window.

Installation & Setup

1. Installation

1. Open your Unity project.
2. Import the **Ultimate Thumbnails** package into your project.
3. After importing, you will have to generate the icons for assets, to do so this, follow the steps mentioned in the section 'Running Generation from the Settings Editor' or 'Running Generation from Menu Items'

2. Automatic Activation

After importing, the asset's icon generation system is automatically active.

- Icons will be generated or updated when you import a compatible asset (3D Model, Sprite, Particle System, UI, etc.) or when an asset is modified.
- The generated thumbnails will immediately replace the default icons in your Project window's Grid and List views.

3. Customizing Settings

All core settings are controlled via a dedicated ScriptableObject asset:

1. **Locate the Settings Asset:** Find the 'UltimateThumbnails - Settings' asset in your project (e.g., in an "VoxelLabs/Ultimate Thumbnails/Settings" folder).
2. **Access via Menu:** Alternatively, use the main Unity menu: **Tools → Ultimate Thumbnails → Settings** (Exact menu path may vary).

Adjust the parameters within this asset to tailor the icon style and generation behavior to your project's needs.

Icon Generation Management:

While **Automatic Activation** handles new and modified assets, you must manually run the generation for existing assets already in your project. Icon generation can be managed from the main **Settings Editor** or via **Menu Items**.

1. Running Generation from the Settings Editor:

Open the 'UltimateThumbnails - Settings' asset and use the **Action Buttons** section:

Button	Action	Description
Generate Icons	Generate icons for all assets (skips assets that already have icons).	Useful for an initial run on existing projects.
Delete All Icons	Delete all previously generated icons.	Clicking this button will delete all the generated icons.

Delete & Generate All Icons	Delete and regenerate icons for all assets (regenerates even if icons already exist).	Use this if you change settings and want to update every existing icon.
Delete Icons with Missing Object	Delete icons for assets that are missing or have been deleted from the Project.	Cleans up orphaned icon files.
Clear Cache	Clears all in-memory cached icons.	Clears in-memory cached icons and preview data.

2. Running Generation from Menu Items:

You can perform quick actions directly from the Unity top menu:

- **Tools → Ultimate Thumbnails → Generate All Icons:** Use this if you change settings and want to update every existing icon.
- **Tools → Ultimate Thumbnails → Delete and Generate All Icons:** Performs a full scan and generates only missing icons.
- **Tools → Ultimate Thumbnails → Clear All Icons:** Clicking this button will delete all the generated icons.
- **Tools → Ultimate Thumbnails → Clear Cache:** Clears in-memory cached icons and preview data.
- **Tools → Ultimate Thumbnails → Settings:** Selects the settings file in project panel.

3. Context Menu Actions (Right-Click)

When one or more assets are selected in the Project window, right-click to access quick generation/cleanup options:

- **Assets → Ultimate Thumbnails → Generate Icons For Selected:** Generates icons only for the assets currently selected.
- **Assets → Ultimate Thumbnails → Generate Missing Icons For Selected:** Generates icons only for the currently selected assets that do not already have thumbnails.
- **Assets → Ultimate Thumbnails → Clear Icons For Selected:** Deletes existing icons only for the assets currently selected.

- **Assets → Ultimate Thumbnails → Select Icon In Explorer:** If a single prefab is selected, this reveals the associated generated icon file in your operating system's file explorer.

Settings Reference

The main configuration is found in the ' UltimateThumbnails - Settings' ScriptableObject, which is divided into three main sections: **Icon Generation Settings**, **Game Object Icon Settings**, and **Icon Preview Settings**.

Icon Generation Settings

Property	Description
Auto Generate Icons	If enabled, the asset will automatically generate/regenerate icons when an asset is imported or modified.
Icon Size	The final resolution at which the icons will be generated (e.g., X128, X256). Affects icon quality, size in the Project window, and generation time.
Icon Generation Mode	The quality and speed of the rendering process. 'Detailed' provides high-quality icons. 'Fast' provides quicker, but lower-quality icons.
Folders To Exclude	Drag and drop specific folders here to completely exclude them from icon generation.
Items To Exclude	Drag and drop specific individual assets (e.g., specific models, materials) to exclude them from icon generation.

Use Custom Renderer Profile (URP Only)	If enabled, a custom renderer profile will be used instead of the default renderer for icon generation.
Renderer Profile Index (URP Only)	Index of the custom renderer profile to use when custom renderer profile is enabled.

GameObject Icon Settings (Preview Customization)

These settings control the visual style (camera, lighting, and object handling) of the generated icons for 3D Models, Sprites, Particles, and UI.

Lighting & Environment

Property	Description
Ambient Light Color	Sets the ambient light color used in the preview environment.
Additional Lights	A list of custom lights to add to the preview scene for better lighting on 3D models. Each light can be configured with Intensity , Color , and Rotation .
Default Camera Direction	The default rotation (Pitch, Yaw Euler angles) of the preview camera for 3D models.

Object Handling

Property	Description
Canvas Resolution	Resolution of the canvas used when capturing UI icons. Affects how UI elements are rendered.

Show Particles In Icon	If enabled, generates a proper icon preview for Particle Systems .
Show UI In Icon	If enabled, generates a proper icon preview for UI elements .
Show VFX In Icon (Experimental)	If enabled, generates an icon preview for Visual Effect Graph (VFX) assets. Note: In some cases, the VFX icon may appear empty or may not generate correctly.
UI Face Camera	If enabled, 3D UI elements will always face the camera for a clear icon.
Sprites Face Camera	Crucial for sprites. If enabled, 2D sprites will always face the camera to prevent weird angles and ensure visibility.
Inverse Sprite Direction	If enabled, inverts the default facing direction of sprites when 'Sprites Face Camera' is active.

Icon Preview Settings (Project Window Display)

These settings control how the generated icons are displayed in the Project window.

Property	Description
Is Enable	Toggles the custom icon preview in the Project window on or off.
Show Icon In List View	If enabled, the custom icon preview will be shown when the Project window is in List View .
Enhance Visibility	If enabled, applies visibility enhancements (e.g., high-contrast outline) to the icon preview for better legibility.

Background Color	The solid background color used for the generated icons.
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Grid View Settings

Property	Description
Padding Percentage	The percentage of empty space padding around the icon in Grid View.
Show Asset Type Icon	If enabled, displays a small Unity asset type icon (e.g., a gear for a Script) over the custom icon.
Asset Type Icon Position	Position of the Unity asset type icon overlay in Grid View (e.g., Bottom Left).

List View Settings

Property	Description
Padding Percentage	The percentage of empty space padding around the icon in List View.
Show Asset Type Icon	If enabled, displays a small Unity asset type icon next to the custom icon in List View.
Asset Type Icon Position	Position of the Unity asset type icon next to the custom icon in List View (e.g., Start).

Toolbar Settings

These settings are for the optional toolbar that appears above the asset preview window, offering quick controls over the preview environment.

Property	Description
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Show Toolbar	Shows or hides the entire toolbar above the asset preview.
Show Preview Toggle	Shows or hides the toggle button for enabling/disabling the custom preview within the preview window itself.
Show Visibility Enhancer Toggle	Shows or hides the toggle button for enhancing visibility (e.g., high-contrast background).
Show BG Color Picker	Shows or hides the background color picker tool on the toolbar.

Fixing Black Background or Post-Processing Issues in Generated Thumbnails (URP)

In some URP projects, generated thumbnails may appear with a **black background** or have **post-processing effects applied** (bloom, color grading, vignette, etc.).

This happens because Ultimate Thumbnails by default uses the **active URP Renderer** assigned via **Quality Settings**, and any Fullscreen features on that renderer will also affect thumbnail rendering.

Follow the steps below to fix this or watch this [video](#).

Step 1: Locate the Active URP Asset

1. Open **Edit → Project Settings**.
2. Go to **Quality**.
3. Note the **Render Pipeline Asset** assigned to that quality level.
 - a. This is your active **URP Pipeline Asset**.

Step 2: Create a Dedicated Thumbnail Renderer

1. In the **Project window**, locate the URP Pipeline Asset identified above.
2. Select it and look for the **Renderer List** section in the Inspector.

3. Click the + button to **Add a new Renderer**.
4. Create a new **URP Renderer Data asset** and name it **ThumbnailRenderer** and assign it to **Renderer List**.

Step 3: Disable Post-Processing & Fullscreen Features

1. Select the newly created **ThumbnailRenderer**.
2. In the Inspector:
 - a. Remove or disable **all Renderer Features**.
 - b. Make sure **Post-Processing** is **disabled**.
 - c. Ensure no fullscreen effects (custom passes, blit features, outlines, etc.) are present.
3. This renderer should be a **clean, minimal renderer**.

Step 4: Assign the Thumbnail Renderer in Ultimate Thumbnails

1. Open **Ultimate Thumbnails Settings**.
2. Enable: **Icon Generation Settings** → **Use custom renderer profile**
3. Enter the index of the new assigned **ThumbnailRenderer** in **the Renderer Profile Index Field**.

Step 5: Regenerate Thumbnails

1. Re-run the **Icon/Thumbnail Generation** process.
2. The generated thumbnails should now:
 - a. Have a **proper transparent or correct background**
 - b. **Ignore post-processing effects**
 - c. Match the expected clean preview

Notes & Tips

- This issue is **URP-specific** and commonly caused by:
 - Fullscreen renderer features

- Post-processing volumes
 - Custom render passes
- Always keep a **separate renderer** for thumbnail generation.
- Avoid using your **gameplay renderer** for thumbnails.

Support

For questions, bug reports, or feature requests, please contact: contact@voxellabs.in

Thank you for using Ultimate Thumbnails!

If you're enjoying Ultimate Thumbnails, please consider rating us on the Unity Asset Store:

- Review Link - <https://assetstore.unity.com/packages/slug/340970>

Your feedback helps us improve and reach more developers!

Thank you for using Ultimate Thumbnails!