

# Ultimate Preview - Documentation

**Ultimate Preview** is a powerful Unity Editor extension designed to significantly enhance your asset previewing experience. Go beyond Unity's default limitations and visualize your 3D models, Animations, UI elements, Particle Systems, Line Renderers, and Visual Graph Effects (VFX) with improved lighting, and intuitive controls. **Ultimate Preview** is built to boost your productivity by offering a comprehensive and customizable preview window.

## Key Features:

- **Complete Preview System:** Unlike Unity's default preview, Ultimate Preview supports:
  - **3D Models:** Get a clear view of your models with superior lighting.
  - **UI Elements:** Preview your UI canvases and individual UI components directly within the preview window.
  - **Particle Systems:** Inspect your particle effects in action with precise playback controls, including a time slider to scrub through the effect and adjustable playback speed for fine-tuned previews.
  - **Visual Graph Effects (VFX):** Visualize your stunning VFX creations with enhanced clarity.
  - **Scene Game Objects:** Instantly preview any GameObject from your scene, not just prefabs.
  - **Multiple Items at Once:** Preview several assets simultaneously to compare and contrast.
- **Superior Lighting and Visuals:**
  - **Improved Lighting:** Say goodbye to poorly lit preview scenes. Ultimate Preview provides a well-lit environment, making your assets truly shine.
  - **Customizable Lighting:** Take full control of the lighting in your preview scene. Add and adjust additional custom lights with options for intensity, color, and rotation.
  - **Custom Skybox Support:** Elevate your preview experience by adding custom skyboxes to the scene. (Note: Custom skybox materials are only supported for URP and Built-in Render Pipelines. HDRP will display the default skybox).

- **Enhanced Animation Preview:**

- **Auto-Playing Animations:** No more tedious clicking! Animation clips automatically play, allowing for a smooth and continuous preview of your character movements.
- **Next/Prev Buttons:** Easily play the next or previous animation clip with a single click.
- **Lock Camera:** Keep your camera position fixed even when switching between different animation clips, ensuring a consistent viewing angle.
- **Camera Orientation Controls:** Easily orient the camera along the X and Y axes for precise viewing angles.
- **Reset Camera:** Quickly reset the camera to its default position and zoom.
- **2D Sprite Animation Preview:** Improves the visibility of 2D sprite animations by allowing you to hide the default grid that obstructs the view.
- **Customizable Floor:** Change the floor texture, tiling, color and opacity for a more visually appealing and informative preview. You can also hide the floor if desired.

- **Intuitive Controls and User Experience:**

- **Automatic Preview Activation:** Simply select an asset in your Project window, and the Ultimate Preview window will automatically become active.
- **Controls Toolbar:** All essential controls are easily accessible from the toolbar on top of the preview window.
- **Camera Field of View Control:** Adjust the camera's field of view to get the perfect perspective.
- **Customizable Background Color:** Set the background color of your preview window to optimize visibility.
- **UI/Sprite Always Facing Camera:** Ensure your UI elements and sprites are always oriented towards the camera for optimal viewing.
- **Playback Slider for Particle Systems:** Easily control the playback of your particle systems with a dedicated slider.
- **Zooming and Panning:**
  - **Zoom:** Use the scroll wheel to zoom in and out of the Game Object preview. Hold **Shift** while scrolling to zoom faster.
  - **Pan:** Use the Middle Mouse Button (MMB) to pan.
- **Max Active Ultimate Previews:** Set a limit on the number of concurrent Ultimate Preview windows. If the limit is reached, Unity's default preview

window will be shown instead. This is particularly useful for older PCs where multiple active preview windows might lead to performance slowdowns.

## Installation:

### 1. Import the Package:

- **For URP or Built-in Render Pipeline**

Simply import the main *Ultimate Preview* package into your Unity project from the **Package Manager**.

- **For HDRP**

If your project uses the **High Definition Render Pipeline (HDRP)**, you must also import the dedicated HDRP package **after** importing the main package.

The HDRP package is located at:

Assets/Voxel Labs/Ultimate

Preview/Packages/UltimatePreview\_HDRP.unitypackage

- **Switching from HDRP to URP or Built-in**

If you downgrade your project from HDRP to URP or Built-in in the future, you will need to re-import the URP/Built-in package.

The URP/Built-in package is located at:

Assets/Voxel Labs/Ultimate

Preview/Packages/UltimatePreview\_URP\_BuiltIn.unitypackage

### 2. Automatic Activation:

After importing, simply select any compatible asset (3D Model, UI Prefab, Particle System, VFX, etc.) in the **Project** window. The **Ultimate Preview** window will activate automatically.

### 3. Customizing Settings:

- a. Locate the **UltimatePreview – Settings** asset in your **Project** window.
- b. Or use the menu: **Tools → Ultimate Preview → Settings**.
- c. Adjust parameters under **Ultimate Animation Preview Settings** and **Ultimate GameObject Preview Settings** to tailor the preview window to your needs.

## Menu Shortcuts:

Ultimate Preview provides convenient menu shortcuts for quick access to its functionalities:

- **Toggle Ultimate Preview:** Tools/Ultimate Preview/Toggle Ultimate Preview (Ctrl + E)
  - Toggles the Ultimate Preview on or off for both Animation and Game Object.
- **Toggle Scene Preview:** Tools/Ultimate Preview/Toggle Scene Preview (Shift + R)
  - Toggles the ability to preview Game Objects directly from the scene.
- **Open Settings:** Tools/Ultimate Preview/Settings
  - Pings (highlights) the UltimatePreview - Settings Scriptable Object in your Project window, allowing you to quickly access and modify its properties.

## Settings Management:

### Ultimate Preview Settings Reference Holder

The `UltimatePreviewSettingsReferenceHolder` is a dedicated `ScriptableObject` that serves as a central reference for your active `UltimatePreviewSettingsData`. This ensures all components consistently access your preferred Ultimate Preview settings.

**Usage:** Create this asset via

Assets/Create/UltimatePreview/SettingsReferenceHolder. Then, assign your desired `UltimatePreviewSettingsData` asset to its `ultimatePreviewSettings` field.

### Ultimate Preview Settings:

The Ultimate Preview asset provides extensive customization options:

#### Ultimate Animation Preview Settings

These settings specifically apply to the preview of `AnimationClips`.

- **Is Enable:** Toggles the Ultimate Animation Preview window on/off.
- **Disable Play Mode Color Tint:** When enabled, this option prevents the Preview Window from being tinted with the PlayMode color overlay. Normally, Unity applies a color tint to indicate when the editor is in Play Mode. Enabling this setting ensures

that previews remain unaffected by the PlayMode tint, allowing you to view assets in their original colors without any overlay.

- **Is Lights Enable:** Enables/disables the custom lights for animation preview.
- **Ambient Color:** Sets the ambient light color for the animation preview window.
- **Camera Settings:**
  - **Default Zoom:** Initial zoom level for the camera.
  - **Default Camera Direction:** Initial rotation of the camera (X, Y Euler angles).
  - **Camera Field Of View:** Field of view of the camera.
  - **Clear Flags:** Determines how the background is rendered (Skybox or SolidColor).
  - **Skybox Material (Optional):** Assign a custom skybox material when Clear Flags is set to Skybox. (Note: Custom skybox materials are only supported for URP and Built-in Render Pipelines. HDRP will display a default skybox.)
  - **Background Color:** Sets the solid background color when Clear Flags is set to SolidColor.
- **Additional Lights:** A list of custom lights to add to the scene. Each light has:
  - **Enabled:** Toggle individual custom lights.
  - **Intensity:** Brightness of the light.
  - **Color:** Color of the light.
  - **Rotation:** Rotation of the light (X, Y Euler angles).
- **Floor Settings:**
  - **Hide Floor:** Toggles the visibility of the floor.
  - **Floor Texture (Optional):** Custom texture for the floor material.
  - **Floor Tiling:** Tiling of the floor texture.
  - **Floor Color:** Color tint for the floor. You can also modify the 'alpha' property of the color to change the opacity of the floor.
- **Animator Preview Settings (Requires Animator-Preview Add-on)**
  - **isAnimatorStatePreviewEnable:** Toggle Ultimate Preview for Animator State nodes
  - **isAnimatorStatePreviewEnable:** Toggle Ultimate Preview for Animator Transitions
  - **isAnimatorStatePreviewEnable:** Toggle Ultimate Preview for Animator Blend Tree (Requires Animator-Preview Add-on).
- **Default Avatar GameObject (Optional):** Assign a custom avatar GameObject to be used for animation previews when no model is explicitly selected, replacing Unity's default preview model.

- **Reset Playback Speed:** When enabled, the animation playback speed will reset to default when switching animations.

## Ultimate Game Object Preview Settings

These settings apply to the preview of 3D models, prefabs, UI, Particle Systems, VFX, and Scene Game Objects.

- **Is Enable:** Toggles the Ultimate Animation Preview window on/off.
- **Disable Play Mode Color Tint:** (Same as Animation Preview Camera Settings)
- **Is Lights Enable:** (Same as Animation Preview Settings)
- **Ambient Color:** (Same as Animation Preview Ambient Color Settings)
- **Camera Settings:** (Same as Animation Preview Camera Settings)
- **Additional Lights:** (Same as Animation Preview Additional Lights)
- **Max Active Ultimate Previews:** Limits the number of simultaneously active Ultimate Preview windows. If this limit is reached, Unity's default preview will be shown. This is particularly useful for older PCs where multiple active preview windows might lead to performance slowdowns.
- **Is Scene Game Object Preview Enable:** Enables/disables the ability to preview game objects directly from the scene.
- **Is Particles Preview Enable:** Enables/disables previewing of particle systems.
- **Is VFX Preview Enable:** Enables/disables previewing of visual effects.
- **Is UI Preview Enable:** Enables/disables previewing of UI elements.
- **Is Show Canvas:** Toggles the visibility of the UI canvas in the preview. When enabled, it shows the UI as it would appear within a canvas, with the canvas size determined by the current selected Game view resolution.
- **Is Ui Always Facing Camera:** Ensures UI elements always face the camera for better visibility.
- **Is Sprite Always Facing Camera:** Ensures sprites always face the camera.

## Toolbar Control Settings

These settings allow you to customize the visibility of various buttons and controls in the Ultimate Preview toolbar.

- **Toolbar Button Size:** Sets the size (width and height) of the toolbar buttons in pixels.

- **Show Preview Toggle:** Shows or hides the toggle button for enabling/disabling Ultimate Preview.
- **Show Skybox Toggle:** Shows or hides the toggle button for enabling/disabling the Skybox.
- **Show Light Toggle:** Shows or hides the toggle button for enabling/disabling custom lights.
- **Show Camera Reset Btn:** Shows or hides the button to reset the camera to its default position.
- **Show Lock Camera Toggle:** Shows or hides the toggle button to lock the camera's current position and rotation.
- **Show Camera Rotate Y Btn:** Shows or hides the button to rotate the camera along the Y-axis.
- **Show Play Next Anim Btn:** Shows or hides the button to play the next animation clip.
- **Show Play Prev Anim Btn:** Shows or hides the button to play the previous animation clip.
- **Show BG Color Picker:** Shows or hides the background color picker.
- **Show Settings Btn:** Shows or hides the button to open the Ultimate Preview settings.
- **Show Upgrade To Pro Btn:** Shows or hides the button to learn more about the Pro version.
- **Show Visibility Toggle:** Shows or hides the toggle button for object visibility (Toggle buttons for visibility of Renderer, Sprite, UI, Particles, VFX).
- **Show Floor Toggle:** Shows or hides the toggle button for the floor visibility.
- **Show Scene GO Preview Toggle:** Shows or hides the toggle button for previewing GameObjects directly from the scene hierarchy.

## Frequently Asked Questions (FAQs) & Troubleshooting:

1. **Model not appearing correctly in Animation preview in HDRP?**
  - a. Select the **'Auto'** option from the Avatar dropdown in the animation preview toolbar. This is a known Unity HDRP issue, not caused by Ultimate Preview.
2. **How do I fix the issue of the screen not clearing between frames when using URP with 2D Renderer?**
  - a. If you're using the URP (Universal Render Pipeline) with a 2D Renderer Asset as the default renderer, the camera depth buffer may not clear properly. To

resolve this, disable the **Skybox** option in the **Ultimate Preview** settings. This ensures the previous frame's texture is properly cleared.

**3. The editor goes into shader compilation and shows a loading progress when a heavy particle GameObject is selected.**

- a. To prevent this, you can build your game so that all shaders compile. Alternatively, you can try selecting all relevant GameObjects, drag them onto the scene, and enter play mode, ensuring all particles or gameobjects are visible in the camera which can sometimes help resolve this issue.

**4. UI is not showing in the preview.**

- a. Make sure you do **not** have the **IsShowCanvas** option enabled in the Ultimate Game Object Preview settings (Also available in toolbar above Preview window). When enabled, this option focuses the canvas, and if your UI element or GameObject is not inside the canvas, it might go out of the screen and not be visible. Toggling the IsShowCanvas option off should make the UI object visible.

**5. A particle system is not playing correctly in the preview.**

- a. If a particle system doesn't appear to be playing properly in the preview window, try enabling the **Force Render Particle** option from the toolbar above. This forces the particle system to render. Keep in mind that this is a performance-intensive operation and may cause the particle effect to stutter. In most cases, you won't need to use this option. However, it can be helpful for playing particle systems that rely on custom playback logic, such as those played with packages like [ParticleEffectForUGUI](#) or the script shared on the Unity Forum: [Particle systems in UI \(Screen Space - Overlay\)](#).

**6. How does the camera locking and resetting work?**

- a. **When the camera is locked (using the toggle):** The next time you switch animation clips or GameObjects, the camera will reset to the *locked* angle, zoom level, and pan.
- b. **When the camera is not locked:** Pressing the **Reset** button will reset the camera to the default angle and zoom level defined in the Ultimate Preview settings. If the camera is locked and you press the reset button, it will reset to the *locked* angle.



**Ultimate Preview** is your all-in-one solution for efficient and visually stunning asset previewing in Unity. Streamline your workflow and ensure your assets look their best with this essential Editor extension!

## Using Ultimate Preview with Ultimate Editor Enhancer:

Ultimate Preview is designed to work seamlessly with **Ultimate Editor Enhancer**. However, both assets include the same third-party Harmony DLL, which may cause the “An assembly with the same simple name '0Harmony' has already been imported” error.

To fix this:

1. Navigate to:  
Assets\Voxel Labs\Ultimate Preview\Editor\Plugins\Third party\Harmony\VoxelLabs.Harmony.dll
2. Delete the VoxelLabs.Harmony.dll file.
3. The conflict should now be resolved.

**Note:** These steps were tested with Ultimate Editor Enhancer v4.5.1. If they do not work with newer versions, please contact us.

## Using Ultimate Preview with vInspector 2:

Ultimate Preview is designed to work seamlessly with most third-party inspector extensions, including **vInspector 2**. By default, all core features of vInspector 2 will continue to function without any extra setup.

However, one feature requires a small manual adjustment: “**Create component windows with Alt+Drag**”.

To enable this feature when using Ultimate Preview follow these steps:

1. Open the file **VInspector.cs** from the vInspector 2 package.
2. At the very top of the script, add:

```
using VoxelLabs.UltimatePreview.Core;
```

3. Locate the following line:

```
static Type t_GameObjectInspector =  
typeof(Editor).Assembly.GetType("UnityEditor.GameObjectInspector");
```

4. Replace it with:

```
static Type t_GameObjectInspector =  
UltimatePreviewAPI.ultimatePreviewGameObjectInspectorType;
```

After making these changes, the **Alt+Drag component window creation** feature will work correctly alongside Ultimate Preview, while all other vInspector 2 features should continue working out of the box.

**Note:** *These steps were tested with **vInspector v2.0.14**. If they do not work with newer versions, please contact us.*

## Supported Unity Versions:

This asset supports the following Unity versions:

- **Unity 2022, 2023, and Unity 6** are Fully supported.
- **Unity 2021:** Requires 2021.2.0f1 or newer.
- **Unity 2020:** Requires 2020.3.20f1 or newer.

## Compare Plans:

### Community (Free):

- Lighting Customization
- Camera Customization
- Animation Auto-Play
- Enhanced 2D Animation Preview
- Enhanced 3D Animation Preview
- Enhanced 3D Model Preview

## Professional:

- Lighting Customization
- Camera Customization
- Animation Auto-Play
- Enhanced 2D Animation Preview
- Enhanced 3D Animation Preview
- Enhanced 3D Model Preview
- UI GameObject Preview
- Particle System Preview
- VFX Graph Preview
- Scene-GameObjects Preview
- Advanced Controls
- Auto-Rotate Sprites to Face Camera
- Multiple Concurrent Preview Windows

## Support:

For questions, bug report or feature requests, please contact: [contact@voxellabs.in](mailto:contact@voxellabs.in)

Made with ❤️ by **VoxelLabs**.

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

- Pro Version - <https://assetstore.unity.com/packages/slug/322974>
- Community Version - <https://assetstore.unity.com/packages/slug/260998>

Your feedback helps us improve and reach more developers!

Thank you for using Ultimate Preview!