

Parallax Exporter

Adobe Photoshop

Plug-In for tvOS and visionOS User Guide

Windows Edition

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About Parallax Exporter

Parallax is a visual effect used throughout tvOS and visionOS to convey when an element, such as an app icon or a movie poster, is in focus. A UI element is in focus when the user highlights the element, but has not yet selected it. Through image layering, transparency, scaling, and motion, parallax produces a 3D effect with a sense of realism and vitality.

Parallax Exporter is an Adobe Photoshop plug-in for previewing and exporting layered images created in Photoshop for Apple TV and Apple Vision Pro.

Apple TV

A layered image consists of between two and five distinct layers that come together to form a single image.

Use Parallax Exporter to test your layered images in Photoshop, make sure they appear as expected during the parallax effect, and export them as layered images (`.lsrc`). You can then import the exported images directly into your Xcode project. Xcode can also be used to preview `.lsrc` images exported by Parallax Exporter.

Apple Vision Pro

A layered image consists of one background layer and one or two distinct, additional layers that come together to form a single image.

Use Parallax Exporter to test your layered images in Photoshop, make sure they appear as expected during the parallax effect, and export them as layered images (`.xlsrc`). You can then import the exported images directly into your Xcode project. Xcode can also be used to preview `.xlsrc` images exported by Parallax Exporter.

For detailed information about parallax and layered images, including sizing and safe zone specifications, see [Human Interface Guidelines](#).

Important: Parallax Exporter provides an approximation of the parallax effect. Always preview your assets within your app on an actual device prior to submitting your app.

Wide Gamut Assets

Wide gamut artwork uses the Display P3 color profile and has a bit depth of 16 bits per channel. Standard gamut artwork generally uses a narrower sRGB color profile and has a decreased bit depth of 8 bits per channel.

Wide gamut artwork is preferred in tvOS and visionOS apps and for Movies and TV cover art, however it is not strictly required. Many of the artwork submission templates Apple provide use wide gamut by default, but you can use standard gamut artwork when working within the templates.

For more information on wide gamut artwork, watch the [Get Started with Display P3 video](#) and [Human Interface Guidelines](#).

Parallax Exporter supports Display P3 assets and is capable of exporting both Display P3 and sRGB `.1sr` and `.x1sr` files.

System Requirements

The Parallax Exporter Photoshop plug-in recommends:

- Windows 10 64-bit (version 22H2) or later; LTSC versions are not supported
- 16GB RAM or more
- Adobe Photoshop 2023 (v24.1) or later

Installing Parallax Exporter

To install the Parallax Exporter Photoshop plug-in:

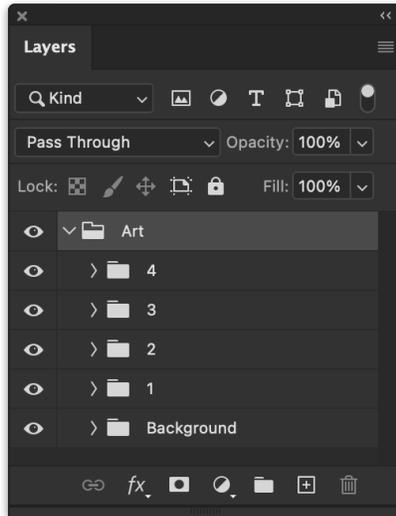
1. Download the Parallax Exporter plug-in from the [Parallax image tools](#) section of the Apple Developer website.
2. Quit Photoshop if it's open.
3. Double-click the Parallax Exporter installer.
4. When prompted, grant permission to install the software.
5. Click Next to begin the installation process.
6. Review the software license agreement, select "I accept the agreement," and click Next.
7. Wait for installation to complete.
8. Click Finish.

Working with Parallax Exporter

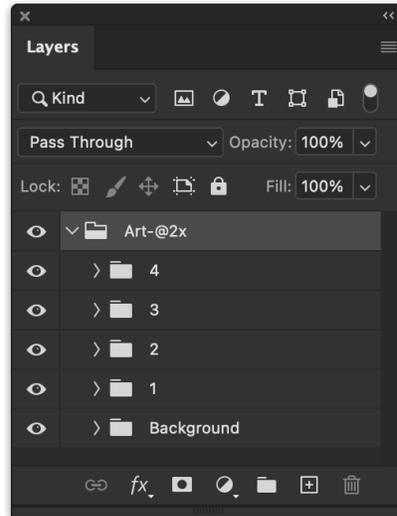
AppleTV: Preparing a Photoshop Document for Parallax

1. Make sure the document contains between two and five layers.
2. Depending on the document color profile, place the layers into a group named either Art, Art-P3, Art-@2x or Art-P3@2x.

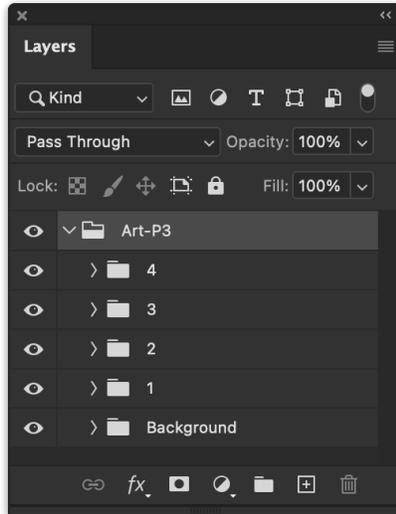
For sRGB use "Art"



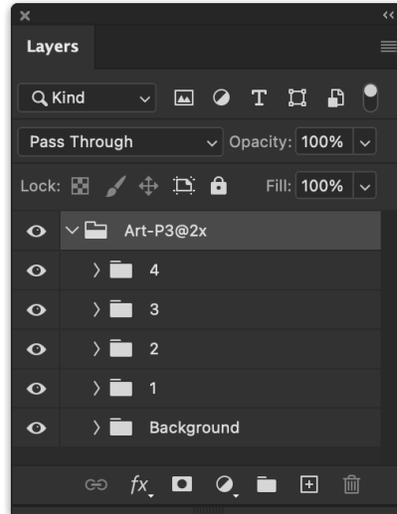
For sRGB at 2x use "Art-@2x"



For Display P3 use "Art-P3"



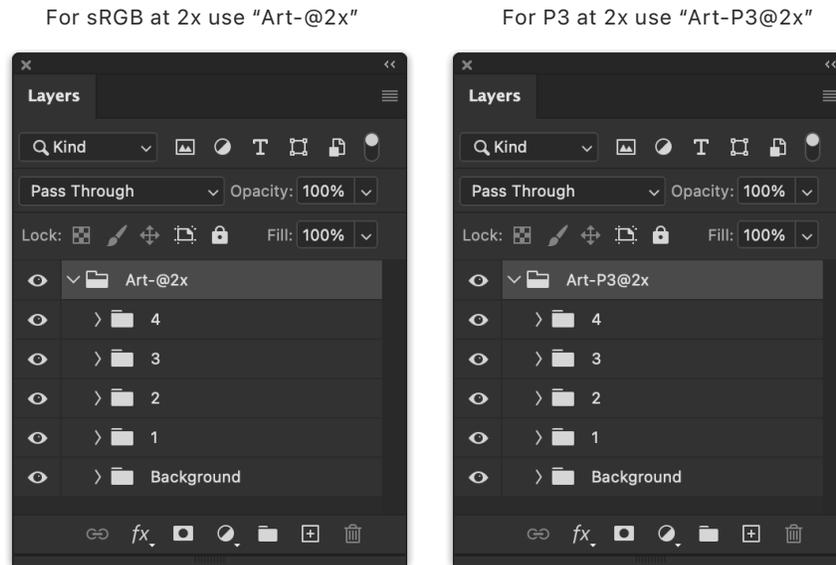
For Display P3 at 2x use "Art-P3@2x"



3. Make sure layer and folder names are unique, and don't contain special characters.
4. Make sure all layers have clean alpha channels and aren't masked.
5. Make sure layers with blend modes and adjustment layers are clipped to a parent layer.
6. Make sure the background layer is opaque.
7. Review and follow any additional layered image guidelines, including sizing and safe zone specifications. See [Human Interface Guidelines](#).

Apple Vision Pro: Preparing a Photoshop Document for Parallax

1. Make sure the document contains two or three layers.
2. Depending on the document color profile, place the layers into a group named either Art-@2x or Art-P3@2x.

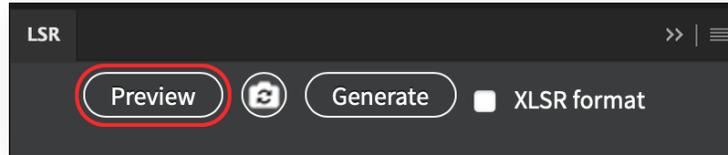


3. Make sure layer and folder names are unique, and don't contain special characters.
4. Make sure all layers have clean alpha channels and aren't masked.
5. Make sure layers with blend modes and adjustment layers are clipped to a parent layer.
6. Make sure the background layer is opaque.
7. Review and follow any additional layered image guidelines, including sizing and safe zone specifications. See [Human Interface Guidelines](#).

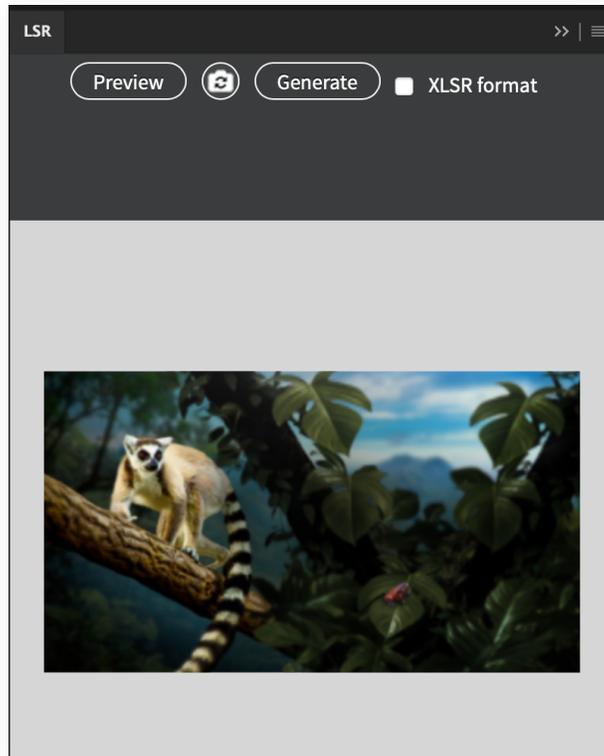
Previewing the Parallax Effect

To generate a preview of an opened, layered Photoshop document:

1. Choose Plugins > Apple LSR UXP > LSR.
2. Click the Preview button in the LSR pane

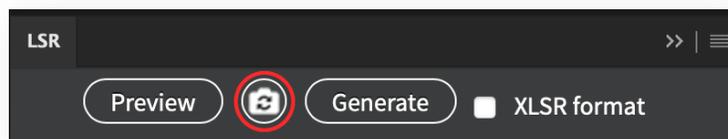


Once the preview has been generated, drag the cursor over the image in the LSR pane to manually preview the parallax effect.



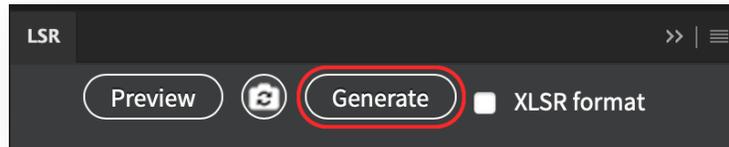
Click the Camera Pan button to enable the automatic animation and preview the parallax effect.

After editing the document, click the Preview button again in the LSR pane to generate and display the updated preview.

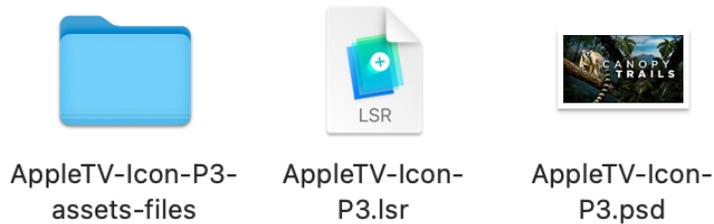
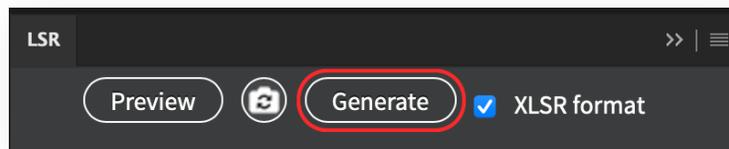


Exporting Layered Images

To export a `.lsr` image, click the Generate button in the LSR pane. An `assets-files` folder is exported alongside the layered image. The opened, layered Photoshop document is exported into the same folder as the Photoshop file itself. The `assets-files` folder contains files used to generate the layered image and display a preview in Photoshop. It is not intended for use in your app.



To export a `.xlsr` image, enable the XLSR format checkbox and click the Generate button in the LSR pane.

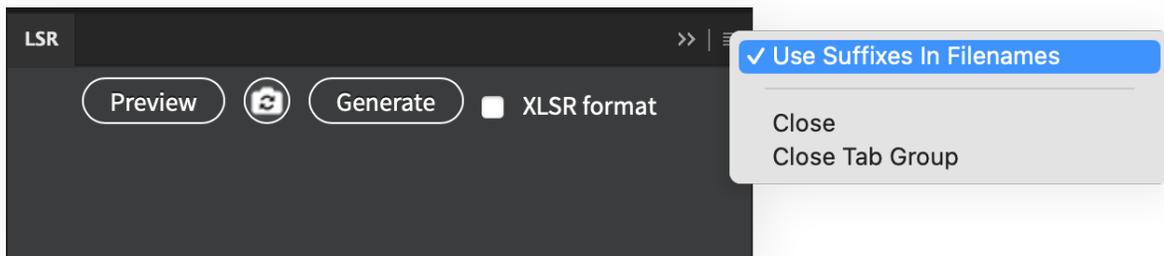


Remove -p3 from LSR Export

Toggle this setting by clicking on the top right corner menu in the LSR plugin.
This setting is persistent across Photoshop sessions.

If the setting is unchecked, the export will be named:
AppleTV-Icon.lsr

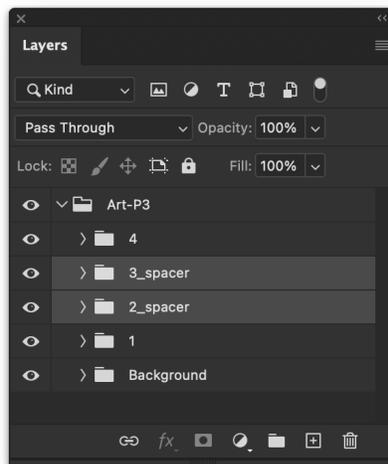
Otherwise, it will be named:
AppleTV-Icon-p3.lsr



Spacer Layers

You can now include spacer layers in your Photoshop composition to increase the parallax effect of the top layers of the LSR. This is useful when you have a very simple composition with only 2 or 3 layers.

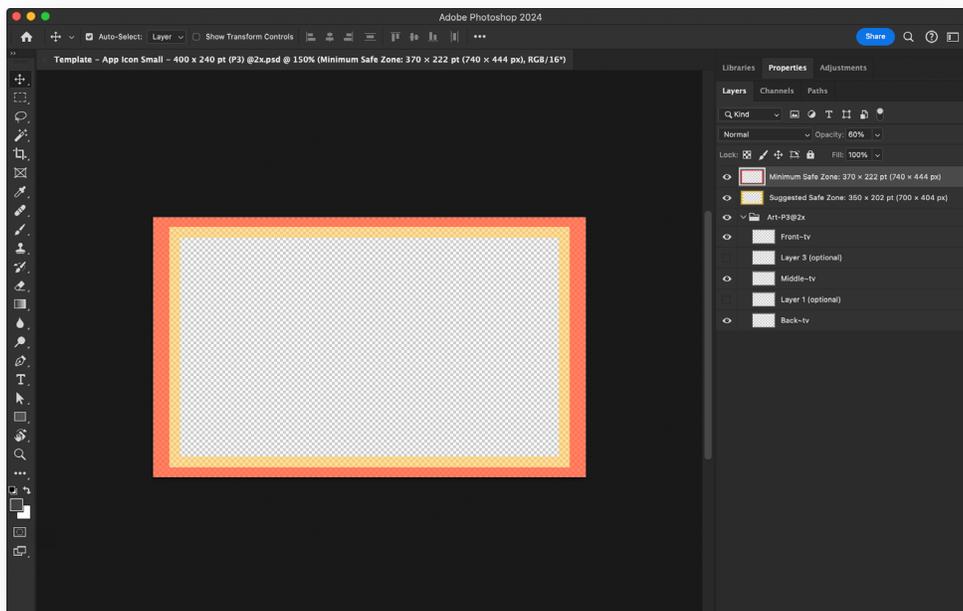
To do this, create an empty layer group and name it X_spacer or X-spacer (where 'X' represents the layer group number). The plugin will recognize this layer group and export a 1x1 PNG instead. Here's an example of 2 spacer layer groups in a Photoshop document:



Templates

Small Layered App Icons

For small layered app icons, a safe zone template is available for download from the [Apple Design Resources > tvOS](#) section. This template is the correct size for a small layered app icon, and includes a safe zone that will help you ensure that content is positioned appropriately. It also includes placeholder layers within an Art folder. Use this template as a starting point for creating small layered app icons. For additional information about creating app icons for Apple TV, see [App Icons](#) in [Human Interface Guidelines](#).



Cover Art for Movies and TV Shows

For Movies cover art, download the latest templates from [iTunes Partner > Movies](#) and for TV, [iTunes Partner > TV](#). These templates are setup to use the Display P3 color profile. In the template layer groups and safe areas are pre-defined to assist you in creating cover art that is to specification. For a quick overview on how to create LSR cover art, watch the “Creating Cover Art” video on [iTunes Partner > Movies > Videos](#). For additional information about creating Cover Art for Movies and TV Shows for Apple TV, see [Images > tvOS](#) in [Human Interface Guidelines](#).

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