

GPURsize2 2.0.0

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About GPURsize2

GPURsize2 resizes and reshapes images with GPU-accelerated filters shared across After Effects, Premiere Pro, Photoshop, and OpenFX hosts such as DaVinci Resolve. It supports exact pixel dimensions, percentage scaling, four-corner distortion, multipass resizing, pixel-art methods, content-aware scaling, and optional output sharpening.

Installation

The release archive contains `Mac` and `Win` directories. Each includes the After Effects/Premiere, Photoshop, and OpenFX builds for that platform. Install only the files for the applications you use. After Effects and Premiere share the same GPURsize2 Adobe plug-in.

DaVinci Resolve also requires the packaged `GPURsize2.setting` Fusion macro. Copy it to Resolve's user `Fusion/Macros` directory when installing manually. Restart each host after installing or replacing a plug-in.

Size modes

Pixels

Choose a standard resolution preset or enter an explicit **New width** and **New height**. **Aspect ratio** controls how the source fits when the requested dimensions have a different shape:

- **Do not care** fills the exact requested dimensions.
- **Touch from Outside** covers the destination while preserving aspect ratio.
- **Touch from Inside** fits inside the destination while preserving aspect ratio.

Percentage

Set width and height independently as percentages of the source. A value of `100% x 100%` preserves the original dimensions. Different width and height values create non-uniform scaling.

Free Distort

Move **Top left**, **Top right**, **Bottom left**, and **Bottom right** to map the image into a four-corner shape. The mapping remains projective when corners cross or the shape approaches a triangle. Multipass is unavailable because the distortion is evaluated as one projective transform.

Resize methods

GPUResize2 includes conventional reconstruction filters, edge-aware upscaling, pixel-art methods, and content-aware scaling.

Group	Methods	Typical use
Fast	Nearest, Bilinear, Area	Previews, masks, and straightforward scaling
Smooth	Triangle, Bell, B-Spline	Softer images and reduced harsh edges
Balanced	Catmull-Rom, Mitchell, Kaiser	General-purpose photographic and graphic work
Detailed	Lanczos 3, Lanczos 4, Lanczos 6, EWA LanczosSharp	Detail retention with possible ringing on strong edges
Edge-aware	FSR 1 EASU	Upscaling while retaining prominent edges
Pixel art	Scale2x, Eagle	Hard-edged low-resolution artwork
Content-aware	Content-Aware	Changing proportions while protecting salient content

Choosing an interpolation filter

There is no single best filter for every image. Compare the result at the final output size, especially around fine texture, diagonals, and transparent edges. Disable post-sharpen while comparing filters so you can judge the resize itself. Ringing means light or dark bands next to a strong edge.

Nearest copies the closest source pixel without blending. Use it for blocky pixel art; whole-number enlargement keeps pixel blocks uniform.

Bilinear blends neighboring pixels for a simple, soft result. It is a useful baseline when comparing more detailed filters.

Area averages the source footprint covered by an output pixel. Start here for reduction. In Free Distort, this option uses Triangle filtering instead.

Triangle uses linearly decreasing weights over a wider neighborhood than Bilinear. Try it when you want a softer transition across edges.

Bell uses a smooth, piecewise-quadratic bell-shaped kernel. It favors gentle transitions over crisp fine detail.

B-Spline is a smoothing cubic filter. Try it on graphics or imagery where hard edges look too harsh.

Catmull-Rom is a sharper cubic filter. It can emphasize detail, but inspect high-contrast edges for ringing.

Mitchell balances smoothing and sharpness. It is a useful starting point for mixed photographic and graphic content, though some ringing is possible.

Lanczos 3 / 4 / 6 use windowed-sinc kernels with radii of 3, 4, or 6 before downscale footprint adjustment. Compare them on fine detail and strong edges: a larger neighborhood changes the result and increases sampling work, but does not guarantee a better image. All three can produce ringing.

Kaiser combines a sinc kernel with a Kaiser-Bessel window. Compare its edge and texture rendering with Lanczos when choosing a detailed filter.

EWA LanczosSharp combines samples in a two-dimensional elliptical neighborhood rather than separate horizontal and vertical filter passes. Compare diagonal edges and fine textures with the other detailed filters, and check strong edges for ringing.

FSR 1 EASU adapts reconstruction to local edges during enlargement. It is a spatial upscaler, not an AI detail-generation method. For ordinary resizing that reduces either dimension, or leaves both unchanged, this option uses Area instead; Free Distort uses its EASU path.

Scale2x and Eagle offer a separate approach to pixel-art edge reconstruction. Use their controls below to tune how nearby colors are grouped. Content-Aware changes where image content is placed during scaling; its controls are also described below.

Pixel Art tuning

Edge sensitivity controls how readily Scale2x and Eagle classify nearby pixels as belonging to the same region. Lower values preserve more hard transitions; higher values allow more edge reconstruction.

Content-Aware tuning

Amount. Blends between regular geometric scaling and content-aware redistribution.

Protect alpha. Includes transparency boundaries in the importance map.

Rigidity. Controls how strongly local structures resist deformation.

Multipass

Iterations is the exact number of geometric resize stages. Additional iterations distribute a large resize over several progressively sized passes. The selected filter is evaluated on every pass, so its character intentionally accumulates rather than being normalized to match a single pass.

Content-Aware, Scale2x, and Eagle support the same authored iteration count. Free Distort uses one projective pass and therefore disables this control.

Post-sharpen

Post-sharpen is a separate output-resolution pass after the complete resize. It can be enabled or disabled independently and has an **Amount** range of `0–200%`.

RCAS

RCAS is an edge-adaptive sharpening method. **Noise protection** reduces the response in noisy or finely textured regions. Increase protection when grain or compression noise becomes too prominent.

Unsharp Mask

Unsharp Mask sharpens differences around a blurred copy of the output. **Radius** sets the size of affected detail, while **Threshold** limits the effect in low-contrast regions. Large radii can produce visible halos around high-contrast edges.

DaVinci Resolve

Use the packaged **GPUResize2** Fusion macro for a resize that must publish new frame dimensions downstream. The macro combines the GPUResize2 OFX renderer with a native one-to-one format republish step. The raw OFX node is available for diagnostics and other OpenFX hosts, but Resolve may otherwise retain the source format metadata at MediaOut.

Practical notes

- Inspect transparent edges over both light and dark backgrounds.
- Area is a strong starting point for reduction; detailed filters are useful when their edge ringing is acceptable.
- Nearest, Scale2x, and Eagle are intended for artwork where blended pixels are undesirable.
- For extreme changes, compare one iteration with several iterations at full output resolution.
- Apply post-sharpen while viewing the final delivery size rather than a scaled preview.