GPUResize version: 1.1

About

GPUResize is a GPU accelerated plugin for Adobe After Effects and Adobe Premiere with realtime performance and advanced image interpolation abilities that are missed in these packages.

We, authors of GPUResize, do believe that there's no such thing as one and only perfect image scaling algorithm - instead, we are introducing several different ones, allowing artists to make their choice.
Use cases of GPUResize aren't only limited to simple SD to HD video upscaling, but instead could vary from pixel-sharp upscaling of animated pixel art to downscaling your 4k and 8k camera footages while keeping extra detail.

Installation

GPUResize can be installed by copying the contents of the archive into one of the After Effects/Premiere shared plug-in folders.

Windows:

After Effects and/or Premiere CS5:

C:\Program Files\Adobe\Common\Plug-ins\CS5\MediaCore

After Effects and/or Premiere CS5.5:

C:\Program Files\Adobe\Common\Plug-ins\CS5.5\MediaCore

After Effects and/or Premiere CS6:

C:\Program Files\Adobe\Common\Plug-ins\CS6\MediaCore

After Effects and/or Premiere CC and CC2014:

C:\Program Files\Adobe\Common\Plug-ins\7.0\MediaCore

OSX:

After Effects and/or Premiere CS5:

/Library/Application Support/Adobe/Common/Plug-ins/CS5/MediaCore/

After Effects and/or Premiere CS5.5:

/Library/Application Support/Adobe/Common/Plug-ins/CS5.5/MediaCore/

After Effects and/or Premiere CS6:

/Library/Application Support/Adobe/Common/Plug-ins/CS6/MediaCore/

After Effects and/or Premiere CC and CC2014:

/Library/Application Support/Adobe/Common/Plug-ins/7.0/MediaCore/

Evaluation version of GPUResize doesn't have any time limitations, and instead outputs additional overlay on top of the footage..
You can register/buy the plugin by pressing the **Register…** link, which is visible in the demo version.

Plugin's parameters

Preset

Comp

sets height and width of the resulting image to the size of the layer's comp.

Common tv/motion picture formats

720x480 NTSC DV
720x486 NTSC D1
720x576 PAL DV/D1
960x720 DVCPRO HD 720p
1280x1080 DVCPRO HD 1080 29.97
1440x1080 DVCPRO HD 1080 25
1280x720 HDTV 720p
1920x1080 HDTV 1080p
3840x2160 UHDTV 2160p
7680x4320 UHDTV 4320p
1828x1332 Academy 2K
2048x1556 Full Aperture Native 2K
3656x2664 Academy 4K
4096x3112 Full Aperture 4K
4096x2160 Digital Cinema native 4K

6144x3160 Red 6K
5616x4096 IMAX Digital

Custom

Enables **New Width** and **New Height** params.

New Width

Resulting width in pixels.

New Height

Resulting height in pixels.

Aspect ratio

Touch from inside/Touch from outside

Lets you to resize your source image to the size of your comp, touching its frame according to the option.

Do not care

Should be most probably used for all other resizing scenarios.

Filter

Nearest (pixel-exact)

Performs nearest neighbor image scaling. It is similar to ‘Draft’ layer quality setting in After Effects, excepting you don’t have to care about layer quality setting anymore, it will always keep your pixels sharp. It could be used for upscaling of pixel art and ’gif style’ animations.

Bilinear (cheap, classic)

Performs bilinear image scaling (same as Best layer quality in all versions of After Effects prior to CC).

Triangle (cubic, smooth, triangle shaped)

Cubic triangle filter, the weighting decreases with increasing distance from the pixel. It provides slightly better, yet smoother results than the usual bilinear filter.

Bell (cubic, smooth, bell shaped)

Smooth cubic filter with Bell-curve.

B-Spline (smooth spline filter)

This cubic filter uses B-spline interpolating functions instead of classic cubic splines, which in general yield quite smooth results.

Catmull-Rom (cubic, very sharp)

Sharpening cubic filter with Catmull-Rom spline interpolation.

Mitchell (cubic, neutral)

Mitchell-Netravali's separable cubic filter, good for downsampling real-world images. Very precise filter without blurring yet without much ringing/sharpening.

Lanzcos3/Lanzcos4/Lanzcos6 (HiQ, sharp)

Lanzcos (pronounced "LAHN-tsosh") is named after a Hungarian mathematician and probably the best filter in terms of detail preservation and sharpness while resampling ‘usual’ real-world images. Lanzcos3/Lanzcos4/Lanzcos6 are performing filtering with the size of the window equal to 3,4 and 6 pixels respectively.

Kaiser (HiQ, smooth)

Kaiser-Bessel window filter; very good results, but smoother than Lanzcos.

Multipass options:

Multipass downscale

Does exactly what it says on the tin. Mipmap style filtering, use it for big downsampling ratios (more than 2 times).

Stairstep upscale

Added by popular demand; interpolating multiple times in small increments until the goal size is reached; you can use it with any interpolation filter, but prepare to wait a bit, when you’ll be upscaling from 512x to 8k using complex filters like Kaiser/Lanzcos with this option. Generally we would advise to try also it with simpler cubic image filters - such combo might just shine with several complex image types.

Known issues

Turn off OpenGL, if you're using AE CS5/CS5.5 on OSX

If you are using older version of After Effects (CS5/CS5.5) on OSX, we would recommend turning OpenGL off in Edit>Preferences under the Preview tab, if you are getting an OpenGL related errors while using the plugin (and you most probably WILL experience such errors).

Keep your scale 100%

Be sure you're not changing the scale of your footage/composition after the GPUResized did the job. Otherwise the host will attempt to apply its own interpolation algorithms on top of the output of GPUResize, which will make the plugin's work redundant.