

Video Transformations

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Overview

Salsify supports an extensive library of digital asset transformations as part of configuring your channel or catalog's digital asset export. You can resize and crop images, apply watermarks, and much more. You can also apply transformations to video files. [Click here](#) for more information on image transformations.

Transform Videos

Optionally provide any instructions for transforming each image and each video, including resizing, cropping, or padding. By default, each image and video will simply be copied as-is.

For more information on image and video transformations, see our [knowledge base article](#).

How Video Transformations Work

Each transformation has two parts, the parameter and the value, separated by an underscore, and each pair is separated by a comma. So in our example, we are applying three transformations. The width is being changed to 404, the height is being changed to 720, and a basic default scale is applied.

The video URL contains the instructions for the transformation. They are combined in a comma-delimited string as part of the URL. In this example, the transformation section is `/w_720,h_404,c_scale`.

Transformations are combined into a comma-delimited string of transformation codes. For example, scaling the sample video to 720x404:

https://images.salsify.com/video/upload/s--YVxIUxEI--/h_404,w_720/jahhec5661mjej53y278.mp4

The `/w_720,h_404,c_scale` instructs the system to set the width to 720, height to 404, and use scale as the crop mode. You can modify the URL (as above) or click *Download a Sample* in the channel settings to test our your transformation.

For example, if you remove the transformation string from the URL and paste the resulting URL into your browser, you'll see the original size.

<https://images.salsify.com/video/upload/s--YVxIUxEI--/jahhec5661mjej53y278.mp4>

You can apply the transformations in the table below to the example image to see how it changes.

See the Reference section below for all of the available options. Click the name of the section in the list below to skip to the section in the table you're interested in:

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Video Transformations Reference

URL Parameter	Value	Description
Resizing and cropping videos		
w	Integer or float	The required width of a transformed video.
	80	An integer value resizing width to 80 pixels.
	0.2	A float value resizing video to 20% of its original size.
h	Integer or float	The required height of a transformed video.
	40	An integer value resizing height to 40 pixels.
	0.3	A float value resizing video to 30% of its original size.
c	String	A crop mode that determines

how to transform the video for fitting into the desired width & height dimensions.

scale	Change the size of the video to match the given width and/or height. All original video parts will be visible and are stretched if necessary to fill the new dimensions, This is the default cropping mode.
fill	Create a video with the exact given width and height while retaining original proportions. Uses only a portion of the original video that fills the given dimensions.
fit	Change video size to fit in the given width and height while retaining original proportions. All original video parts are visible and the resulting image will fit in the given dimensions, maintaining aspect ratio and scaling up or down as needed.
limit	Used for creating a video that does not exceed the given width or height while retaining original proportions. All original video parts are visible and scaled down if needed.
pad	Scale the video up or down as needed to fit in the given width and height while retaining original proportions. Padding will be added if the original video proportions do not match the required ones.
lpad	Same as the 'pad' mode but doesn't scale the video up if your requested dimensions are larger than the original

		video's.
	crop	Used to extract a given width and height out of the original video. The original proportions are retained and so is the size of the graphics. Used together with x and y coordinates for specifying the section to crop (or with the gravity parameter).
ar	String or float	Resizes the video to a new aspect ratio.
	4:3	A string value in the form a:b, where a is the width and b is the height. The example value resizes the aspect ratio to 4/3.
	2.5	A decimal value representing the width divided by the height. The example value resizes the aspect ratio to 5/2.
g	String	Decides which part of the video to keep while 'crop', 'pad' and 'fill' crop modes are used. For overlays, this decides where to place the overlay.
	north_west	North west corner (top left).
	north	North center part (top center).
	north_east	North east corner (top right).
	west	Middle west part (left).
	center	The center of the video (default value).
	east	Middle east part (right).
	south_west	South west corner (bottom left).

	south	South center part (bottom center).
	south_east	South east corner (bottom right).
b	String	Defines the background color to use in the case of padding.
	blue	Fill the background with a named color.
	rgb:9090ff	Fill the background with the color defined by a RGB hex triplet. Client libraries support a # shortcut (e.g. #9090ff).
	rgb:999	Fill the background with the color defined by a 3 character RGB value. Client libraries support a # shortcut (e.g. #999).

Rotating videos

a	Integer	Rotate a video by the given degrees.
	90	Rotate video by 90 degrees clockwise.
	-20	Rotate video by 20 degrees counterclockwise.

Video Settings

f (or file extension)	String	Format conversion to the given web format while normalizing and optimizing for web and mobile viewing.
	webm	Convert a video to the WebM format.
	mp4	Convert a video to the MP4 format.

	ogv	Convert a video to the OGV format.
	flv	Convert a video to the FLV format.
	m3u8	Create the index and fragment files necessary for HTTP Live Streaming (HLS).
vc	String	Select the video codec and control the video content of the profile used (the profile mainly controls which devices/browsers to support).

auto

Normalize and optimize the video for web viewing with default settings. Default settings applied for each format:

MP4

Video codec: h264, profile: baseline, quality: 70, audio codec: aac, audio frequency: 22050.

WebM

Video codec: vp8, quality: 70, audio codec: vorbis, audio frequency: 22050.

OGV

Video codec: theora, quality: 70, audio codec: vorbis, audio frequency: 22050.

FLV

Video codec: h264, profile: high, quality: 70, audio codec: aac, audio frequency: 22050.

	[::[]]	Specific values to apply for video codec, profile and level. Examples: <ul style="list-style-type: none">• h264:baseline• h264• h264:baseline:3.1
q	Integer	Control the video quality. 1 is the lowest quality and 100 is the highest. Reducing quality generates videos smaller in file size. See the video_codec parameter for the default values for each format.
	50	Generate a video using a low quality of 50.
br	Integer or String	Advanced control of video bit rate in bits per second.
	200000	Integer number of bits per second.
	500k	String supporting 'k' and 'm' for kilobits and megabits respectively e.g., '500k' or '1m'. The 'k' and 'm' are supported on the server-side.
Video Effects		
e	String:Integer	Apply a filter or an effect on a video. The value includes the name of the effect and an additional parameter that controls the behavior of the specific effect.
	accelerate:100	Speeds up the video playback speed by %100. A negative

		value would slow down the playback speed (Range: -50 to 100 Default: 0).
	noise:10	Adds 10% visual noise to the video, visible as a random flicker of "dots" or "snow" (Range: 0 to 100 Default: 0).
	deshake:32	Remove small motion shifts from the video with a maximum extent of movement in the horizontal and vertical direction of 32 pixels (Range: 16, 32, 48 or 64 Default: 16).
	fade:2000	Fade in to the beginning of the video over 2000 milliseconds. A negative value would fade out at the end of the video (Default: 1000).
	contrast:50	Increase the contrast by 50.
	brightness:30	Increase the brightness by 30.
	saturation:-20	Decrease the saturation by 20.
	gamma:15	Increase the gamma by 15.
	vignette:40	Apply a vignette effect with a value of 40.
	volume:70	Increase the volume by 70%.
	reverse	Play the video or audio file in reverse.

Video Flags

f	String	Set a flag that alters the default transformation behavior.
	splice	Splice the video stipulated as an overlay on to the end of

the container video instead of adding it as an overlay.

	layer_apply	Apply all chained transformations, until a transformation component that includes this flag, on the last added overlay instead of applying them on the containing video.
	no_stream	Don't stream a video that is currently being generated on the fly. Wait until the video is fully generated.
	truncate_ts	Truncate (trim) a video file according to the included metadata (relevant only where the metadata includes a directive to play only a section of the video).
	waveform	Create a waveform image (in the format specified by the file extension) from the audio or video file.

Audio Settings

ac	String	Control the audio codec or remove the audio channel
	none	Remove audio channel
	aac	Set audio codec to aac (mp4 or flv only)
	vorbis	Set audio codec to vorbis (ogv or webm only)
	mp3	Set audio codec to mp3 (mp4 or flv only)
af	Integer	Control audio sample frequency.

44100

This parameter represents an integer value in Hz and can only take one of the following values: 8000, 11025, 16000, 22050, 32000, 37800, 44056, 44100, 47250, 48000, 88200, 96000, 176400 or 192000.

Animated GIFs and animated WebPs

vs

Integer or String

Relevant for conversion of video to animated GIF or WebP. If not specified, the resulting GIF or WebP samples the whole video (up to 400 frames, at up to 10 frames per second). By default the duration of the animated image is the same as the duration of the video, no matter how many frames are sampled from the original video (use the delay parameter to adjust the amount of time between frames).

20

Integer - The total number of frames to sample from the original video. The frames are spread out over the length of the video, e.g. 20 takes one frame every 5%.

'2.3s'

String - The number of seconds between each frame to sample from the original video. e.g. 2.3s takes one frame every 2.3 seconds.

dl

Integer

Controls the time delay between the frames of an animated image, in milliseconds.

20

Sets the delay between

frames of the animated image to 20 milliseconds.

Adding overlays

l	String	Add an overlay over the base video. You can control the dimension and position of the overlay using the width, height, x, y and gravity parameters. The string identifier is the public ID of an uploaded image you want to overlay or one of the special overlay types.
	badge	Add the overlay of an uploaded image with the public ID 'badge'.
	text:Roboto_30p:Hello World	Add a 'Hello World' text overlay using the Roboto font and 30px size characters.
	subtitles:sample.srt	Add subtitles as specified in the 'sample.srt' file to the video.
	subtitles:arial_20:sample.srt	Add subtitles in 20 pixel Arial font as specified in 'sample.srt'.
	lut:lut_name.3dl	Apply the specified 3D LUT file to the video.
	video:dog	Add the overlay of an uploaded video with the public ID 'dog'.

Offset parameters for Trimming and Overlays

so	Float or string	Offset in seconds or percent of a video, normally used together with the end_offset and duration parameters. Used to specify one of the
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following:

- The start of the video to be kept after trimming.
- The frame to use when generating an image thumbnail.
- When an overlay starts displaying.

	2.63	Float representing seconds
	'35p'	String representing a percent value
	'35%'	String representing a percent value (only supported in client libraries and is converted to 35p in the generated URL).
	auto	Automatically selects a suitable frame from the first few seconds of the video (only relevant for generating image thumbnails).
eo	Float or string	Offset in seconds or percent of a video, normally used together with the start_offset and duration parameters. Used to specify: <ul style="list-style-type: none">• The end of the video to be kept after trimming.• When an overlay ends displaying.
	5.33	Float representing seconds.
	'75p'	String representing a percent value.
	'55%'	String representing a percent value (only supported in client libraries and is converted to 55p in the generated URL).

du	Float or string	Offset in seconds or percent of a video, normally used together with the start_offset and end_offset parameters. Used to specify: <ul style="list-style-type: none"> • The duration the video displays. • The duration an overlay displays.
	6.12	Float representing seconds
	'60p'	String representing a percent value.
	'40%'	String representing a percent value (only supported in client libraries and is converted to 40p in the generated URL).
-	[float, float] or [string, string] or a range	Shortcut to set video cutting using a combination of start_offset and end_offset values. Client library only.
	[2.66, 3.21]	Float values in seconds.
	['35%', '70%']	Strings representing percent values.
	['35p', '70p']	Strings representing percent values.
	2.66..3.21 or '35p..65p'	Range of float values in seconds, or range of strings representing percent values (in frameworks supporting ranges only).