

WHY SENCOGI®

...for H.264

- 40% less bandwidth
- 40% less storage cost
- 40% less buffering
- **Save codec licensing** - use cheaper H.264 to get the same compression as H.265
- **Better compatibility** - get H.265's bitrate on devices that only have H.264 hardware decoders
- **Compress realtime video** 40% smaller or 40% better quality

...for HEVC / H.265

- 40% less bandwidth - fit 4k video down to an average internet connection
- **Higher quality** - for the same bitrate, get higher resolution and fewer compression artefacts
- **The world's lowest bitrate** for any subjective quality. Sencogi H.265 has the world's best subjective quality vs bitrate curve



Sencogi® - H264/H265

The world's best video compression

40% more compression with no loss in quality by encoding only what you see

Which of these videos looks the most compressed?



3 MB video

VS



1.8 MB video

-40% file size

Better quality

HOW IT WORKS

- Standard codecs compress the frame equally. Sencogi® compresses unequally. Sencogi produces a salience map of each frame, showing where people would notice artefacts
- Sencogi tells the codec to vary the encoding for each block of video. Information is removed from the non-salient parts of the image, taking care not to introduce visible artifacts
- Removing non-salient information gives an average 40% saving on high resolution video and 30% on low resolution video (below 426*224)
- People don't notice the difference. Industry-standard subjective video quality tests published in peer-reviewed journals: Mele, Millar, Rijnders (2018) "Sencogi Spatio-

HIGH PERFORMANCE

- Only Sencogi's salience model is fast enough for realtime video compression on mobile devices. It works realtime on H.264 and H.265, for x86 and ARM without dedicated hardware
- < 5% processor increase over the video codec
- Sencogi bitstream conforms with H.264 or H.265, so works on existing hardware decoders

HOW YOU CAN TEST IT

- We provide you with a Sencogi-enabled FFmpeg toolchain that you can use to evaluate Sencogi with your own content and encoding settings
- Subjective test - see if people notice the missing data

Temporal Saliency: a New Metric for Predicting Subjective Video Quality on Mobile Devices" HCI International 2018

- No change to the codec workflow - use your existing FFmpeg or x264/5 toolchain

- Demo is restricted to 1 minute. Video is invisibly watermarked

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COMPARE - See why Sencogi is the world's best video compression

	x264	x265	V-Nova	Euclidiq	Beamr	SENCOGI
lowest bitrate for any subjective quality						●
highest subjective quality for any bitrate		○				●
100% compatibility	●	○		●	●	●
realtime video	●					●
simple licensing	●		●	●	●	●
tier-1 tech customers	●	●	●	○	●	●

WHO WE ARE

Cogisen is based in Rome, Italy. We have developed and patented a new family of algorithms for high-speed video processing, using frequency-domain techniques. Our saliency algorithms are many times faster than state of the art, and more accurate at predicting video compression saliency, by using image and motion information.

Sencogi is already in use by tier-1 tech customers. Millions of consumers are already watching low bandwidth Sencogi video now without realising it.

