

Project team

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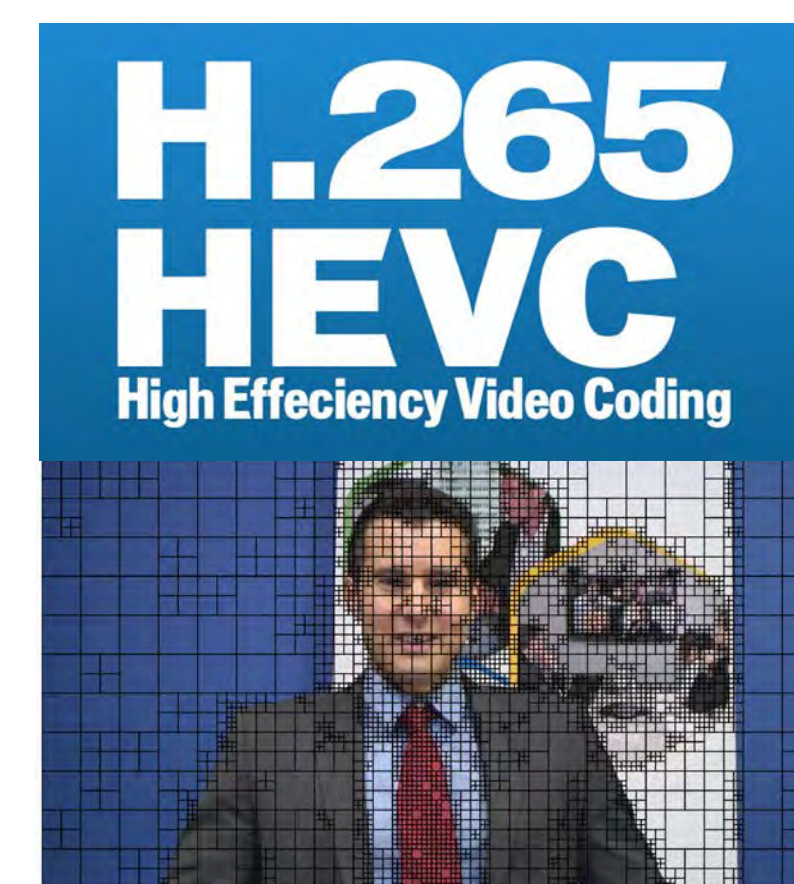
Supervision

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HEVC/H.265 standard

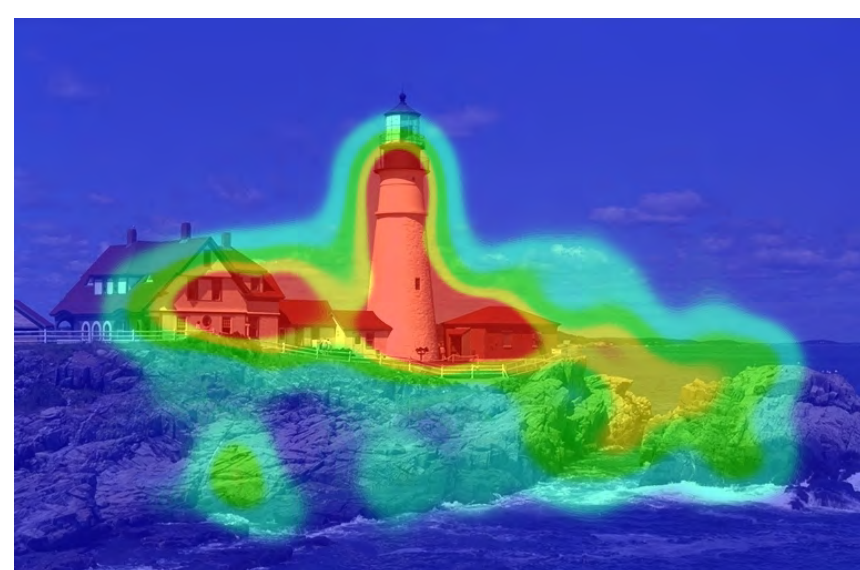
High Efficiency Video Coding

- Video coding standard jointly developed by the Moving Picture Experts Group (MPEG) and the Video Coding Experts Group (VCEG). Ratified as a standard on April 2013.
- Developed from the need of higher resolutions transmission and the slow growing of the data transmission capacities.
- Successor to H.264/MPEG-4 AVC (Advanced Video Coding). HEVC/H.265 is said to double the compression ratio compared to it.
- Provides substantially improved video quality at the same bit rate (compared to AVC/H.264).
- Supports 8K UHD and resolutions up to 8192x4320.



Saliency Map

Visual Attention Importance



- Map showing the zones that someone will more likely look at on a scene.
- Multiple interests from robotics to surveillance and watermarking.
- Final result is a combination of three different maps : an Intensity and Colors Saliency Map, an Orientation Saliency Map and a Movement Saliency Map.
- The first two of them are based on static information and can be done event for a still image.
- The last one is based on the movement on a scene and its exclusive to a video stream.

Our Work & Results

Saliency map from an encoded stream

- Since processing a saliency map is usually done after decoding a video, it is a time consuming process.
- Nevertheless all the information used to obtain the maps exists in the compressed stream.
- Obtaining the maps while the decoding takes place has a clear interest in saving time of processing a video.
- We based our implementation in obtaining an Intensity and a Movement Saliency Map from an HEVC encoded stream.
- After mixing both of them, we obtain a fair saliency map computed on the go.

