

Researchers at WMG at the University of Warwick (UK), have found **a way to compress and stream HDR video directly to monitors and mobile devices**
, such as an iPad.

The researchers, in partnership with University spinout **goHDR**, patented a method of real-time encoding and remote display of High Dynamic Range (HDR) video. With Portuguese partner **INESC Tec**
, they also have been able to demonstrate their technique in action on an iPad.

This means HDR video content can now be encoded and streamed directly to remote displays, including mobile devices, or sent for storage back at home-base. Gaming could be transformed too, with HDR content available for interactive online and cloud-based games.

While HDR imagery delivers the wide range of light intensity levels found in real scenes ranging from direct sunlight to details of dark shade, the amount of data required to capture all of this extra detail is huge.

HD true brightness footage generates **the equivalent of a CD worth of data every second**. A

goHDR-patented algorithm is capable of compressing HDR frames by at least 150:1 with minimal perceptual loss of quality. The partners developed a method that enables uncompressed HDR frames to be encoded and streamed to a remote device in real-time at encoding rates of more than 60 frames per second (fps) for 720p resolution on a 16-core computer.

“Previously HDR video compression had to be done off-line,” Alan Chalmers, professor of Visualisation at WMG, University of Warwick, and founder and Innovation Director of goHDR told the press. “This meant the HDR video data from a camera had to be first stored on special high-speed disks, encoded and finally transmitted. This could take many minutes, precluding any live broadcasts. Real-time encoding now opens up many more opportunities for people to experience HDR content directly.”

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