



THIRA

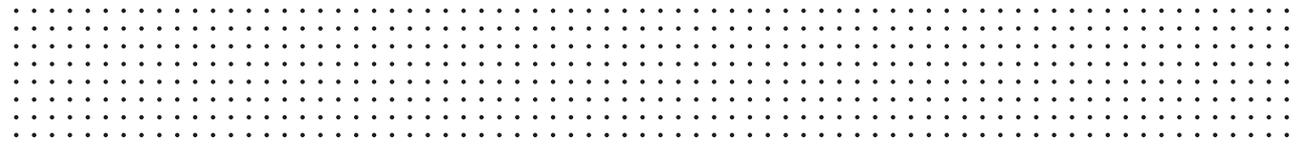
Enabling technologies for high resolution content interchange and delivery

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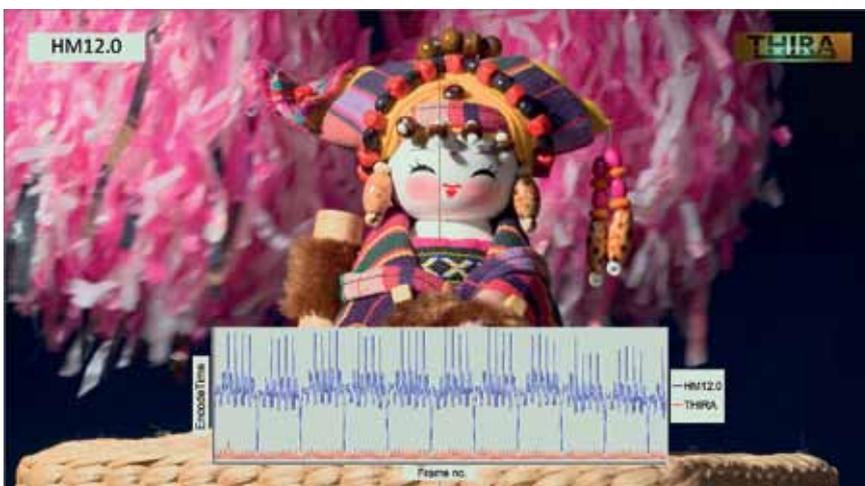


What we're doing

THIRA is a collaborative project led by the BBC and co-funded by InnovateUK which addresses usage of larger resolution video formats. This emerging trend in video content production and display pushes video traffic to unmanageable levels unless new, more efficient compression techniques are brought to bear.

High definition content is becoming an integral part of global broadcasting, setting the standard for streaming, satellite, cable and terrestrial transmissions. More importantly, it is generating extremely large amounts of data that need to be delivered to a large number of users. Up to now, the distribution of conventional media has only been made possible by the application of compression systems that reduce the size of content sufficiently to be stored and distributed on a mass scale. Continuing this trend and exploiting recent breakthroughs in compression technology, the emerging HEVC standard provides a base for handling very high resolution content.

Underpinning the capabilities of HEVC are computationally expensive, extremely complex and resource demanding algorithms. The main objective of this project is to research and develop economically viable, i.e., resource constrained, technology for very high definition content handling. The goal is to facilitate storage and transmission of the huge amounts of data contained in very high resolution content, paving a way for the provision of much greater quality of experience, facilitating quick deployment in a variety of important applications and sectors.



Why it matters

After HD and 3D, consumers are now demanding even higher definition and improved content fidelity. Services which make use of these UHD formats are expected to be delivered with the HEVC standard given its better coding efficiency compared to AVC. The higher coding efficiency of HEVC is obtained by using powerful coding tools coupled with an increased flexibility in the encoder choice for different coding modes. These novel tools and higher flexibility lead to an increased computational complexity demand which makes problematic the applicability of UHD content. In order to reduce the complexity and resources needed to compress UHD content, fast and efficient codecs are researched.

Partners

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