



Real-Time Light Field Visualisation

A hybrid solution for real-time interactive light-field visualization of time-varying volumetric data in Augmented and Virtual Reality

Overview

Trinity Researchers have developed a system for visualizing complex scientific, engineering, education, marketing and entertainment data on these emergent Augmented Reality (AR) Virtual Reality (VR) Light-field displays and will facilitate a real-time high-fidelity interactive visualization.

These Light Field displays are the next significant advancement in display technology. They will bring increased levels of perceptual quality, with parallax, accommodation and convergence cues making interactions more life-like and compelling. However, such displays require significant higher computational resources.

Advantages

There is at present no interactive solution for real time rendering of complex AR/VR images using Light Field Displays. Light Field displays will become commoditised over the next few years so the opportunity to deploy solutions for real time volumetric display of AR/VR and mixed reality data sets using these displays is significant.



Applications

There many potential applications for Light Field Real Time and Interactive AR/VR. In first instance let's consider:

In particular the medical imaging opportunity is the most relevant in the short term as real time interaction with Light Field dynamic medical image is a powerful tool in clinical diagnostics. The market growth in this sector has been projected by Source Grand View Research Inc. The global medical holography market size was valued at USD 356.4 Million in 2016. It is expected to post a CAGR of 31.0% during the forecast period. Increasing adoption of medical holographic techniques and products in biomedical research activities is one of the key trends stimulating this growth.



Technology Sector
Digital Content, VR/AR

Patent Details
Patent Pending

Opportunity
Research collaboration
Available to License

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Market Opportunity

Available to License or for further collaborative work to bring prototype to product phase.