

TECHNICAL ANALYSIS OF ANALOGIES OF STEREO DISPLAYING TECHNIQUES WITH 3D GENERATED SCENES IN VISUALIZATION

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Abstract: *Scientific visualization often requires display and perception of depth and 3D in various applications. A CGI application has been designed to allow interactive construction of stereo images from POV-Ray SDL models that has enabled comparison between two different methods of encoding stereo images. Red-cyan anaglyphs and interleave images for LCD shutter glasses have been considered in this paper. Two methods of encoding and viewing stereo images on computer monitors have been studied. Either method is not perfect: the logic cannot be cheated. Half of information in L and R pictures is lost. In interleaved image, every other line has been omitted from the resulting picture, halving the effective image resolution. Half of dots in image are going to be rendered in vain each time. In a common anaglyph, blue and green colour channels are lost from the left picture and red channel from the right.*

Key words: *scientific visualization, POV-Ray, red-cyan anaglyphe, LCD shutter glasses, 3D image*



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