Title (en)

IMPROVED METHOD OF PRODUCING A COMPUTER GENERATED HOLOGRAM

Title (de)

VERBESSERTES VERFAHREN ZUR HERSTELLUNG EINES SYNTHETISCHEN HOLOGRAMMS

Title (fr)

PROCEDE AMELIORE PERMETTANT DE PRODUIRE UN HOLOGRAMME GENERE PAR ORDINATEUR

Publication

EP 1332411 A1 20030806 (EN)

Application

EP 01982590 A 20011105

Priority

- GB 0104885 W 20011105
- GB 0027133 A 20001107
- US 24704700 P 20001113

Abstract (en)

[origin: WO0239193A1] An improved methof of producing an interference based computer generated hologram (CGH), where the angle dependent and angle independent components of light emanating from point sources of light on a virtual 3D object are calculated separately. This allows the angle independent components to be calculated only once per point source of light, but enables the angle dependent components to be calculated on a each point source of light to each CGH pixel basis. This method reduces the number of calculations required to produce a CGH, thus reducing computational load, but fully retains the image quality of the 3D image.

IPC 1-7

G03H 1/08

IPC 8 full level

G03H 1/08 (2006.01); **G03H 1/16** (2006.01)

CPC (source: EP)

G03H 1/0808 (2013.01); G03H 2001/0833 (2013.01); G03H 2210/30 (2013.01); G03H 2210/36 (2013.01); G03H 2210/441 (2013.01); G03H 2210/452 (2013.01)

Citation (search report)

See references of WO 0239193A1

Citation (examination)

UNDERKOFFLER JOHN: "Occlusion processing and smooth surface shading for fully computed synthetic holography", PROC SPIE INT SOC OPT ENG; PROCEEDINGS OF SPIE, vol. 3011, 11 February 1997 (1997-02-11), pages 19 - 30, XP007903740

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