

Title (en)

METHOD AND ARRANGEMENT FOR THREE-DIMENSIONALLY RECOGNIZABLE REPRESENTATION

Title (de)

VERFAHREN UND ANORDNUNG ZUR RUMLICH WAHRNEHMAREN DARSTELLUNG

Title (fr)

PROCEDE ET DISPOSITIF POUR EFFECTUER UNE REPRESENTATION PERCEPTIBLE TRIDIMENSIONNELLEMENT

Publication

EP 1665816 A1 20060607 (DE)

Application

EP 04765318 A 20040917

Priority

- EP 2004010421 W 20040917
- DE 10344323 A 20030922

Abstract (en)

[origin: WO2005032152A1] The invention relates to methods and arrangements for unaided three-dimensionally recognizable representation. The aim of the invention is to render the 3D optical structure as unresolvable as possible to the naked eye while improving the quality of the three-dimensionally recognizable representation. Said aim is achieved by a method for three-dimensionally recognizable representation, in which a plurality of individual image elements (α_{hij}) are simultaneously made visible, said image elements (α_{hij}) reproducing partial information from several views (A_k ($k=1 \dots n$)) of the scene/object. Directions of propagation are predefined for the light emitted by the image elements (α_{hij}) with the aid of a structural plate. For this purpose, the structural plate is provided with a plurality of optical elements that are arranged in sequences. According to the invention, the mean geometrical distance (p') between two adjacent sequences of light-transmitting optical elements on the structural plate meets the condition $p' = p$, wherein $p = G * \sin(0.017^\circ)$, G representing four times the diagonal length of the image element (α_{hij}) raster. Also disclosed are arrangements for implementing the inventive method.

IPC 1-7

H04N 13/00

IPC 8 full level

G02B 27/22 (2006.01); **H04N 13/00** (2006.01); **H04N 13/04** (2006.01)

CPC (source: EP KR US)

H04N 13/00 (2013.01 - KR); **H04N 13/31** (2018.04 - EP US)

Citation (search report)

See references of WO 2005032152A1

Citation (third parties)

Third party :

- US 6064424 A 20000516 - VAN BERKEL CORNELIS [GB], et al
- EP 0829744 A2 19980318 - SHARP KK [JP]
- US 2003067460 A1 20030410 - TOMONO TAKAO [KR]
- JP H08331605 A 19961213 - SANYO ELECTRIC CO
- WO 03024122 A1 20030320 - 4D VISION GMBH [DE], et al
- KAPLAN S.H.: "THEORY OF PARALLAX BARRIERS", SMPTE JOURNAL, vol. 59, 1 July 1952 (1952-07-01), pages 11 - 21, XP000645716

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2005032152 A1 20050407; CN 1860800 A 20061108; DE 10344323 A1 20050421; EP 1665816 A1 20060607; JP 2007506124 A 20070315; KR 20060064678 A 20060613; US 2007139615 A1 20070621; US 2011285698 A1 20111124

DOCDB simple family (application)

EP 2004010421 W 20040917; CN 200480027260 A 20040917; DE 10344323 A 20030922; EP 04765318 A 20040917; JP 2006526590 A 20040917; KR 20067005587 A 20060321; US 57319004 A 20040917; US 97350910 A 20101220