

Title (en)

APPARATUS AND METHOD FOR PARALLEL AND PERSPECTIVE REAL-TIME VOLUME VISUALIZATION

Title (de)

GERÄT UND VERFAHREN ZUR PARALLELEN UND PERSPEKTIVISCHEN ECHTZEIT-VOLUMEN-VISUALISIERUNG

Title (fr)

APPAREIL ET PROCEDE POUR LA VISUALISATION DE VOLUME EN TEMPS REEL, EN PARALLELE ET EN PERSPECTIVE

Publication

EP 0992023 A4 20010418 (EN)

Application

EP 98918164 A 19980413

Priority

- US 9807405 W 19980413
- US 4301397 P 19970415
- US 91057597 A 19970801

Abstract (en)

[origin: WO9847105A1] An apparatus including a three-dimensional buffer (438); a pixel bus (442); a plurality of rendering pipelines (440); and a control unit(454). Each rendering pipeline includes a first slice unit (544); a compositing unit (464); a two-dimensional slice compositing buffer (474); and a first interpolation unit (472 or 546). Sample point values are combined with pixels of the compositing buffer in the compositing unit along a plurality of interslice ray segments (410) which extend only between a current slice contained in the slice unit and a slice contained in the two-dimensional slice compositing buffer. Gradients are also computed at voxel positions to improve accuracy.

IPC 1-7

G06T 15/00

IPC 8 full level

G06T 15/00 (2006.01); **G06T 15/10** (2006.01)

CPC (source: EP)

G06T 15/10 (2013.01)

Citation (search report)

- [X] PFISTER H ET AL: "CUBE-4 - A SCALABLE ARCHITECTURE FOR REAL-TIME VOLUME RENDERING", PROCEEDINGS OF THE SYMPOSIUM ON VOLUME VISUALIZATION,US,NEW YORK, IEEE/ACM, 1996, pages 47 - 54, XP000724429, ISBN: 0-89791-865-7
- [X] MACHIRAJU R K ET AL: "EFFICIENT FEED-FORWARD VOLUME RENDERING TECHNIQUES FOR VECTOR AND PARALLEL PROCESSORS", PROCEEDINGS OF THE SUPERCOMPUTING CONFERENCE,US,LOS ALAMITOS, IEEE COMP. SOC. PRESS, vol. -, 15 November 1993 (1993-11-15), pages 699 - 708, XP000437407
- See references of WO 9847105A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

WO 9847105 A1 19981022; AU 7113998 A 19981111; AU 732652 B2 20010426; CA 2285966 A1 19981022; EP 0992023 A1 20000412; EP 0992023 A4 20010418; JP H11508386 A 19990721

DOCDB simple family (application)

US 9807405 W 19980413; AU 7113998 A 19980413; CA 2285966 A 19980413; EP 98918164 A 19980413; JP 52592798 A 19980413