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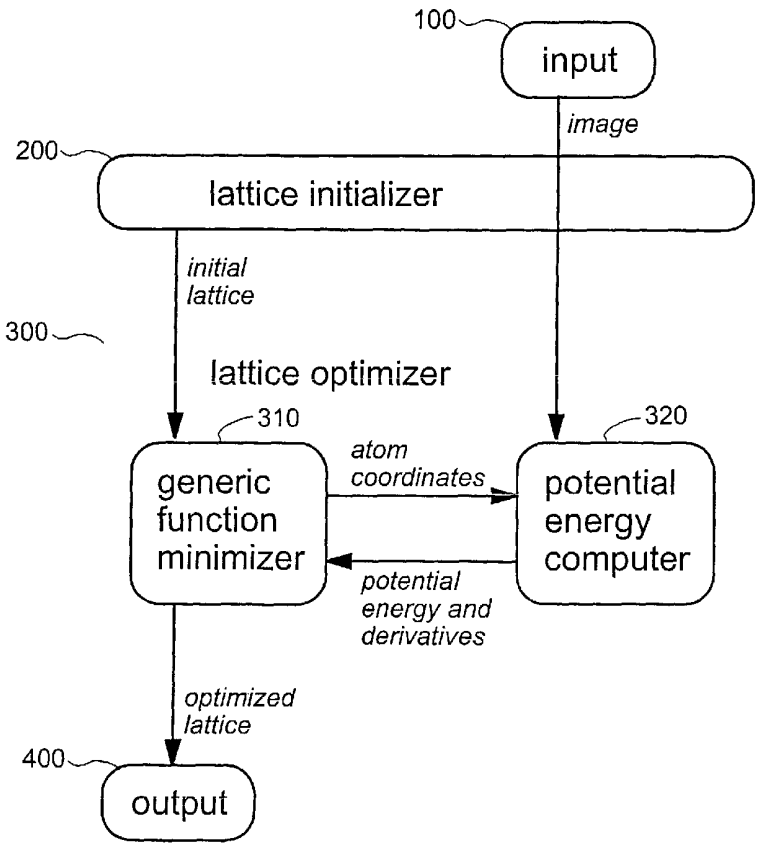
[Continued on next page]

(54) Title: METHOD FOR ALIGNING A LATTICE OF POINTS IN RESPONSE TO FEATURES IN A DIGITAL IMAGE



(57) Abstract: A system and method for generating a lattice of points that respects features in a digital image. The method comprises a process for initializing the lattice, and a process for optimizing the configuration of that lattice with respect to the image features. The optimization process operates by adjusting points of the lattice to extremize a composite function of the spatial coordinates of the lattice points. The lattice points are interpreted as atoms. Each lattice point contributes a potential function to an atomic potential field. The image represents another potential field. The composite function is a weighted sum of the atomic and image potential fields evaluated at the lattice points.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G06T

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 859 645 A (LATHAM ROY WESTLAKE) 12 January 1999 (1999-01-12) abstract; figure 6 column 1, line 20 - line 40 column 2, line 40 - line 63 column 7, line 19 -column 8, line 4 ---	1-58
A	LABELLE L ET AL: "COMPUTATION OF IMAGE REPRESENTATION BASED ON ACTIVE TRIANGULAR MESHES THROUGH GEOMETRICAL SURFACE EVOLUTION" PROCEEDINGS OF THE SPIE, SPIE, BELLINGHAM, VA, US, vol. 3024, no. 2, February 1997 (1997-02), pages 843-854, XP000700348 abstract page 845, line 1 -page 847, line 19 --- -/--	1-58

[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

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Name and mailing address of the ISA	Authorized officer
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication,where appropriate, of the relevant passages	Relevant to claim No.
A	SHIMADA K ET AL: "BUBBLE MESH: AUTOMATED TRIANGULAR MESHING OF NON-MANIFOLD GEOMETRY BY SPHERE PACKING" PROCEEDINGS OF THE THIRD SYMPOSIUM ON SOLID MODELING AND APPLICATIONS. SALT LAKE CITY, MAY 17 - 19, 1995, PROCEEDINGS OF THE SYMPOSIUM ON SOLID MODELING AND APPLICATIONS, NEW YORK, ACM, US, vol. SYMP. 3, 17 May 1995 (1995-05-17), pages 409-419, XP000530140 ISBN: 0-89791-672-7 abstract; figures 3,4,5 sections 3.1-3.5 ---	1-58
A	US 5 923 777 A (JO JAE-MOON ET AL) 13 July 1999 (1999-07-13) abstract; figures 2,3A,5A column 1, line 12 -column 2, line 36 column 2, line 44 -column 3, line 3 ---	1-58
A	EP 0 974 936 A (BIOSENSE INC) 26 January 2000 (2000-01-26) abstract; figures 4,5A,5B,5C,7 page 11, line 15 -page 15, line 26 -----	1-58

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