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[Continued on next page]

(54) **Title:** ANATOMY-DEFINED AUTOMATED CPR GENERATION

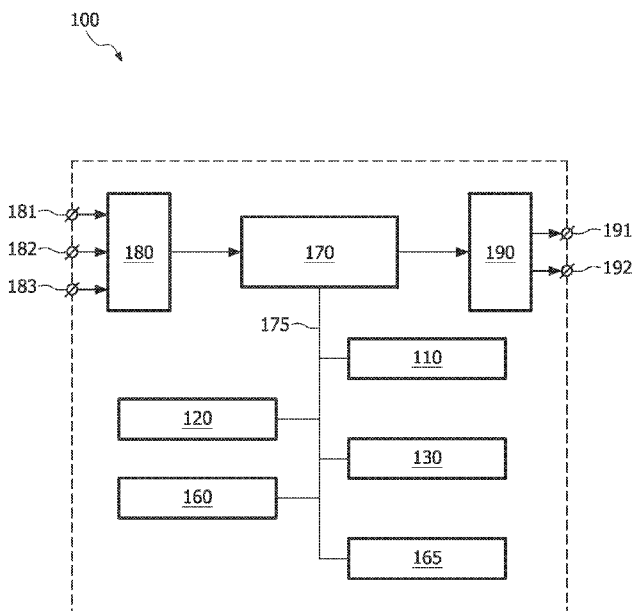


FIG. 1

(57) **Abstract:** The invention relates to a system (100) for visualizing an object in image data using a first cross-section surface coupled to a model of the object, the system comprising a model unit for adapting a model to the object in the image data, a surface unit for adapting the first cross-section surface to the adapted model on the basis of the coupling between the first cross-section surface and the model, and a visualization unit for computing an image from the image data on the basis of the adapted first cross-section surface. The first cross-section surface may be used to define a slice of the image data for visualizing useful features of the object. Any suitable rendering technique, e.g. maximum intensity projection, can be used by the visualization unit to compute the image based on the slice of the image data defined by the first cross-section surface. Because the first cross-section surface of the invention is coupled to the model, the position, orientation and/or shape of the surface is determined by the model adapted to the object in the image data. Advantageously, adapting the model to the object in the image data and the coupling between the first cross-section surface and the model enable the first cross-section surface to be adapted to the image data. Thus, the shape, orientation and/or position of the adapted first cross-section surface is/are based on the shape, orientation and/or position of the adapted model. Adapting the first cross-section surface directly to the object based on features in the image data would be less reliable and less accurate because the surface comprises fewer features of

the object than the model.

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B. FIELDS SEARCHED
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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal, INSPEC, COMPENDEX, BIOSIS, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	TOMAZ VRTOVEC ET AL: "Automated curved planar reformation of 3D spine images", PHYSICS IN MEDICINE AND BIOLOGY, TAYLOR AND FRANCIS LTD. LONDON, GB, vol. 50, no. 19, 7 October 2005 (2005-10-07), pages 4527-4540, XP020084355, ISSN: 0031-9155, DOI: 10.1088/0031-9155/50/19/007 sections 2 and 3 ----- -/--	1-12

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See patent family annex.

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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.
X	<p>SAROUL L ET AL: "Exploring curved anatomic structures with surface sections", VIS 2003. IEEE VISUALIZATION 2003. PROCEEDINGS. SEATTLE, WA, OCT. 19 - 24, 2003; [ANNUAL IEEE CONFERENCE ON VISUALIZATION], NEW YORK, NY : IEEE, US, 19 October 2003 (2003-10-19), pages 27-34, XP010671733, DOI: 10.1109/VISUAL.2003.1250351 ISBN: 978-0-7803-8120-9 section 4</p> <p style="text-align: center;">-----</p>	1-12
X	<p>NAOKI YOSHIOKA ET AL: "Bezier surface reformation: an original visualization technique of cervical nerve roots on myelographic CT", RADIATION MEDICINE, SPRINGER-VERLAG, TO, vol. 24, no. 8, 1 October 2006 (2006-10-01), pages 600-604, XP019440097, ISSN: 1862-5274, DOI: 10.1007/S11604-006-0067-5 the whole document</p> <p style="text-align: center;">-----</p>	1-12
X	<p>LU X ET AL: "B-spline based curved planar reformation of medical volume data", JOURNAL OF INFORMATION AND COMPUTATIONAL SCIENCE MARCH 2008 SUN YAT-SEN (ZHONGSHAN) UNIVERSITY CN, vol. 5, no. 2, March 2008 (2008-03), pages 545-552, XP008155436, section 3</p> <p style="text-align: center;">-----</p>	1-12