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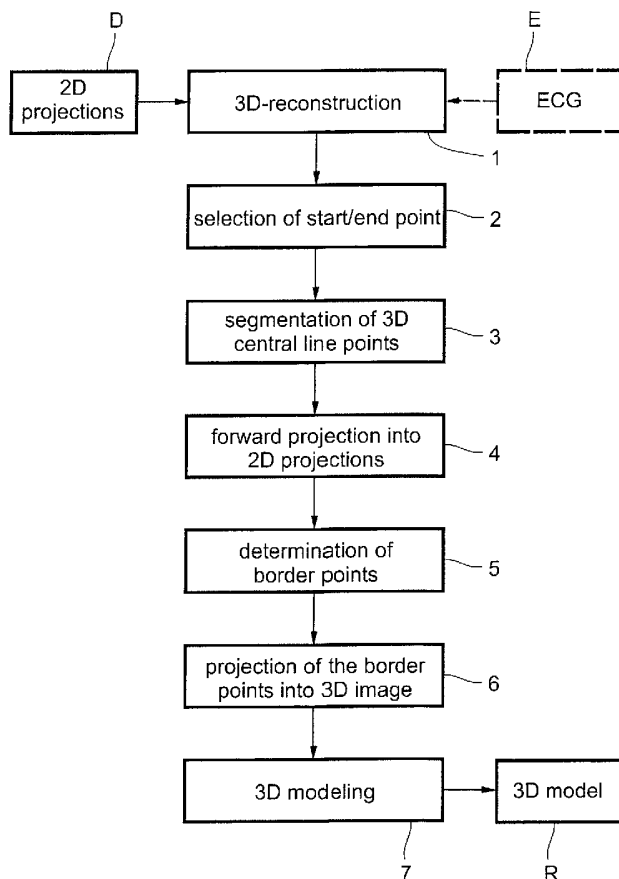
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[Continued on next page]

(54) Title: METHOD FOR THE 3D MODELING OF A TUBULAR STRUCTURE



(57) Abstract: The invention relates to a method for the 3D modeling of a three-dimensional tubular structure of an examination object from a number of 2D projection images (D) of the tubular structure (H) taken from different projection directions. In order to be able to implement such a method with considerably less user interaction while retaining the same degree of accuracy, the following steps are proposed according to the invention: a) reconstruction of a 3D image (B) from the 2D projection images (D), b) selection of at least one 3D central line point (MO) in the 3D image (B), said 3D central line point being located in the tubular structure (H), c) segmentation of other 3D central line points (M) of the tubular structure (H) in the 3D image (B), d) forward projection of the 3D central line points (M), which have been segmented in the 3D image (B), into the 2D projection images (D'), e) determination of border points of the tubular structure (H) in the 2D projection images (D') on the basis of the 3D central line points (Z) that have been projected in, and f) back-projection of the border points from the 2D projection images (D') into the 3D image (B).

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B. FIELDS SEARCHED		
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C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	NIKI N ET AL: "Three-dimensional image analysis of blood vessels using cone-beam CT" NUCLEAR SCIENCE SYMPOSIUM AND MEDICAL IMAGING CONFERENCE, 1994., 1994 IEEE CONFERENCE RECORD NORFOLK, VA, USA 30 OCT.-5 NOV. 1994, NEW YORK, NY, USA, IEEE, US, 30 October 1994 (1994-10-30), pages 1519-1523, XP010150522 ISBN: 0-7803-2544-3	1,4,9,10
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<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C.		
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° Special categories of cited documents :		
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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.
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A	<p>MOVASSAGHI B ET AL: "Quantitative analysis of 3D coronary modeling in 3D rotational X-ray imaging" 2002 IEEE NUCLEAR SCIENCE SYMPOSIUM CONFERENCE RECORD. / 2002 IEEE NUCLEAR SCIENCE SYMPOSIUM AND MEDICAL IMAGING CONFERENCE. NORFOLK, VA, NOV. 10 - 16, 2002, IEEE NUCLEAR SCIENCE SYMPOSIUM CONFERENCE RECORD, NEW YORK, NY : IEEE, US, vol. VOL. 3 OF 3, 10 November 2002 (2002-11-10), pages 878-880, XP010663665 ISBN: 0-7803-7636-6 sections I. Introduction and IV. Discussion</p>	1,5-9
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