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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD FOR BRANCH SELECTION FOR PROBE ALIGNMENT

(57) Abstract: The invention relates to a method of analysing an object data set in which a tubular structure having a plurality of branches and bifurcations occurs, wherein said object data set assigns data values to positions in a multi-dimensional space, which data values relate to an object to be examined, and wherein the positions along the branches and of the bifurcations of said tubular structure are labelled, each branch and bifurcation having a unique label. In order to improve accuracy when applying the invention particularly for fully-automated vessel tracing, particularly in the vessel structure of the brain of a patient, the following steps are proposed according to the invention: selecting a starting point in or near a branch or bifurcation of interest of the tubular structure, orienting a probe comprising a sphere and a plane through the centre of the sphere around said starting point such that the plane goes through said starting point, adjusting the orientation of the probe such that the plane is orthogonal to the tubular structure and that the centre of the sphere is on the central axis of the tubular structure, thereby using surface vertices inside the sphere, said surface vertices being labelled according to the label of the nearest position along the branches and of the bifurcations, wherein only surface vertices are used for adjusting the orientation of the probe having a label equal to the label of the branch or bifurcation of interest or of the next bifurcation or extremity along the branch of interest.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB 02/04270

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G06T7/60

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 G06F

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, INSPEC, IBM-TDB

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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