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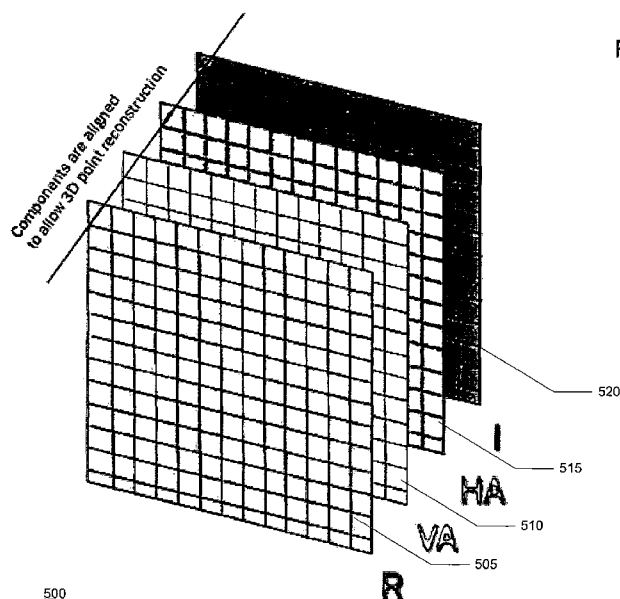
(54) **Title:** METHODS AND APPARATUS FOR POINT CLOUD DATA MANAGEMENT

FIG. 5

(57) **Abstract:** Methods and apparatus are provided for processing of data representing points in space wherein each is represented by components defining its position in a coordinate system and at least one parameter. For each point, the data are separated into a layer per component, and each component is assigned to a cell of a two-dimensional grid of cells such that corresponding cells of multiple layers contain the components of a point. A component of a point is retrieved by reference to a grid position corresponding to the point and to a layer corresponding to the component. Each layer is segmented into patches of cells such that a component of a point can be retrieved by reference to a grid position of a patch within a layer and to a grid position of a cell within a patch. A layer is compressed using an associated codec.



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INTERNATIONAL SEARCH REPORT

International application No.
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A. CLASSIFICATION OF SUBJECT MATTER

IPC: see extra sheet

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: G06F, G06Q

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

SE, DK, FI, NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal, PAJ, 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	WO 03088085 A1 (UNIV ARIZONA ET AL), 23 October 2003 (2003-10-23); whole document --	1-58
X	WO 02088907 A2 (SALK INST FOR BIOLOGICAL STUDI), 7 November 2002 (2002-11-07); whole document -- -----	1-58

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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“E” earlier application or patent but published on or after the international filing date

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“X” document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

“Y” document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

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Information on patent family members

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