Title (en)

THREE-DIMENSIONAL IMAGING METHOD, INSTALLATION IMPLEMENTING SAID METHOD, METHOD FOR CONFIGURING SUCH AN INSTALLATION, COMPUTER PROGRAMME IMPLEMENTING SAID METHOD

Title (de)

VERFAHREN ZUR DREIDIMENSIONALEN BILDGEBUNG, DAS VERFAHREN IMPLEMENTIERENDE INSTALLATION, VERFAHREN ZUM KONFIGURIEREN EINER SOLCHEN INSTALLATION, DAS VERFAHREN IMPLEMENTIERENDES COMPUTERPROGRAMM

Title (fr)

PROCEDE D ' IMAGERIE TRIDIMENSIONNELLE, INSTALLATION METTANT EN UVRE UN TEL PROCEDE , PROCEDE DE CONFIGURATION D 'UNE TELLE INSTALLATION, PROGRAMME D ORDINATEUR METTANT EN UVRE UN TEL PROCEDE

Publication

EP 1861791 A1 20071205 (FR)

Application

EP 06726088 A 20060314

Priority

- FR 2006000561 W 20060314
- FR 0502564 A 20050315

Abstract (en)

[origin: WO2006097621A1] The invention concerns a method for three-dimensional imaging of a volume to be imaged executed by several computers connected in parallel: an emitting machine (13c) transmits to a network enabling transfer rates at least equal to 100 megabits per second (Mb/s), data delivered by an acquisition system corresponding to a set of projections of the volume, acquired in accordance with various incidences. The data are duplicated inside the network towards a plurality of processing machines (14a, , 14h), which receive each the received data. In each processing machine the correspondence between the received data and the transmitted data is ascertained. Each processing machine processes the data to reconstruct a fraction of the three-dimensional image of the volume to be imaged. At the end of the acquisition, and hence of the inline real-time reconstruction, a dedicated machine collects the set of fraction of images to reconstitute the three-dimensional image. The resulting improved systolic processing compared to the known multicast MPI (message passing interface) enables the speed, reliability and flexibility of the real-time tomographic restitution of moving small laboratory animals to be increased at a lower cost.

IPC 8 full level

G06F 15/173 (2006.01); **A61B 6/03** (2006.01); **G06T 11/00** (2006.01); **H04L 12/18** (2006.01); **H04L 29/06** (2006.01)

CPC (source: EP US)

A61B 6/03 (2013.01 - EP US); **A61B 6/4441** (2013.01 - EP US); **A61B 6/466** (2013.01 - EP US); **A61B 6/508** (2013.01 - EP US); **A61B 6/5205** (2013.01 - EP US); **A61B 6/56** (2013.01 - EP US); **G06T 11/003** (2013.01 - EP US); **H04L 67/1001** (2022.05 - EP US); **H04L 69/329** (2013.01 - EP US); G06T 2211/428 (2013.01 - EP US)

Citation (search report)

See references of WO 2006097621A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2006097621 A1 20060921; EP 1861791 A1 20071205; FR 2883393 A1 20060922; FR 2883393 B1 20070907; US 2011149025 A1 20110623

DOCDB simple family (application)

FR 2006000561 W 20060314; EP 06726088 A 20060314; FR 0502564 A 20050315; US 88628706 A 20060314