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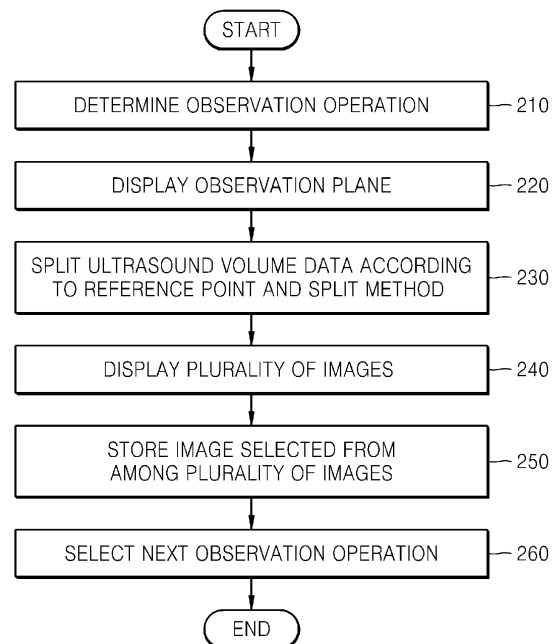
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(54) **Method and apparatus for managing and displaying ultrasound image**

(57) A method of managing an ultrasound image, the method including storing a plurality of pieces of setting information to respectively match a plurality of observation operations for diagnosing an object, each of the plurality of pieces of setting information including at least one from among information about an observation plane that splits ultrasound volume data in a predetermined direction, information about a split method of splitting the ultrasound volume data, and information about a reference point; displaying a plurality of plane images for a current observation operation, wherein the plurality of plane images are obtained based on a piece of the setting information matching the current observation operation; storing an image selected from among the plurality of plane images according to an external input signal such that the selected image matches the current observation operation.

**FIG. 2**



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EUROPEAN SEARCH REPORT

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A	* abstract * * paragraph [0017] - paragraph [0038] * * figures 1,3-8 *	1,4,9, 10,12, 14,15	
Y	EP 2 289 418 A1 (MEDISON CO LTD [KR]) 2 March 2011 (2011-03-02)	1-10,12, 14,15	
A	* abstract * * paragraph [0012] - paragraph [0031] * * figures 1,3,5 *	11,13	
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	* abstract * * paragraph [0010] - paragraph [0019] * * paragraph [0037] - paragraph [0042] * * figures 3A, 3B, 5 *		
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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 22 May 2014	Examiner Artikis, T
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document	

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EUROPEAN SEARCH REPORT

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The present search report has been drawn up for all claims			
Place of search <b>Munich</b>		Date of completion of the search <b>22 May 2014</b>	Examiner <b>Artikis, T</b>
<b>CATEGORY OF CITED DOCUMENTS</b> X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document	

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**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing claims for which payment was due.

Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

**LACK OF UNITY OF INVENTION**

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).

**LACK OF UNITY OF INVENTION  
SHEET B**

Application Number

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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

## 1. claims: 1-10, 12, 14, 15

A method of managing an ultrasound image, the method comprising: determining a reference point and an observation plane of ultrasound volume data; obtaining a plurality of images by splitting the ultrasound volume data, based on the reference point and the observation plane; and storing an image selected from among the plurality of images according to an external input signal such that the selected image matches a current observation operation from among a plurality of observation operations for observing an object. The corresponding apparatus and computer-readable recording medium are also claimed.

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## 2. claims: 11, 13

A method of displaying an ultrasound image, the method comprising: displaying an order of a current observation operation for diagnosing an object in a plurality of observation operations, on a first region of a screen; displaying at least one of an observation plane corresponding to the current observation operation, a reference point, and a split method of splitting ultrasound volume data, on a second region of the screen; and displaying a plurality of images of planes that split the ultrasound volume data based on the observation plane and the reference point, on a third region of the screen. The corresponding apparatus is also claimed.

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ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

专利名称(译)	用于管理和显示超声图像的方法和设备		
公开(公告)号	<a href="#">EP2700364A3</a>	公开(公告)日	2014-07-02
申请号	EP2013178932	申请日	2013-08-01
[标]申请(专利权)人(译)	三星麦迪森株式会社		
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IPC分类号	A61B8/00 A61B8/08 G01S7/52 G01S15/89 A61B8/13 G06T19/00		
CPC分类号	A61B8/5223 A61B8/0866 A61B8/0883 A61B8/13 A61B8/463 A61B8/465 A61B8/483 A61B8/523 A61B8/5292 G01S7/52073 G01S7/52074 G01S15/8993 G06T19/00 G06T2219/008		
代理机构(译)	LORENZ , MARKUS		
优先权	1020120090898 2012-08-20 KR		
其他公开文献	EP2700364B1 EP2700364A2		
外部链接	<a href="#">Espacenet</a>		

摘要(译)

一种管理超声图像的方法，该方法包括存储多条设置信息以分别匹配用于诊断对象的多个观察操作，所述多条设置信息中的每一条包括关于一个的信息中的至少一个。在预定方向上分割超声体积数据的观察平面，关于分割超声体积数据的分割方法的信息，以及关于参考点的信息；显示用于当前观察操作的多个平面图像，其中，基于与当前观察操作匹配的一条设置信息获得多个平面图像；根据外部输入信号存储从多个平面图像中选择的图像，使得所选图像与当前观察操作匹配。

FIG. 2

