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(54) **Clinical research workstation**

(57) An apparatus and a method for taking multiple physiological signals (e.g., ECG waveforms) from different sources as input, applying multiple algorithms in its core and generating results which are exported for use in clinical studies and research. The apparatus has a built-in database and a built-in spreadsheet (18) to provide a unified platform for all clinical research in the medical field, including, but not limited to, clinical core laboratory work and high-end clinical research.

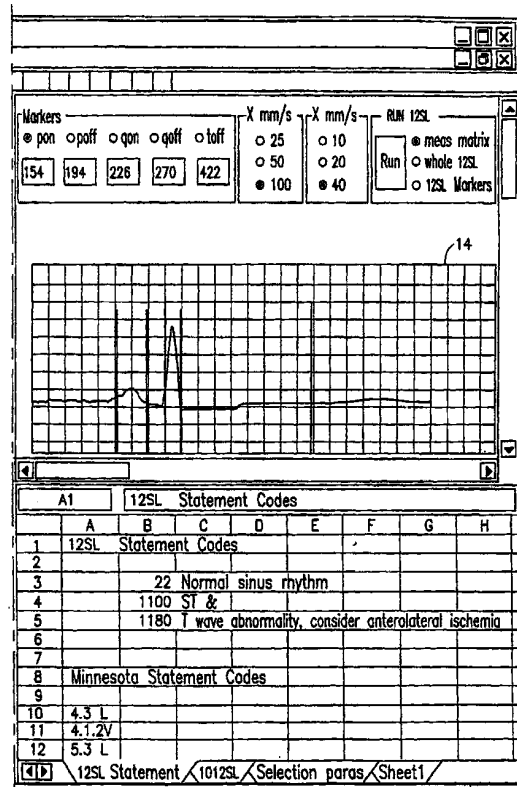


FIG.2B

18



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EUROPEAN SEARCH REPORT

Application Number  
EP 00 31 1579

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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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>19 May 2003</b>	Examiner <b>Artikis, T</b>
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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

EPO FORM 1503 03/82 (P04C01)



European Patent Office

EUROPEAN SEARCH REPORT

Application Number  
EP 00 31 1579

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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A	WO 91 02484 A (BIOMETRAK CORP) 7 March 1991 (1991-03-07) * page 12, paragraph 1 - paragraph 3 * * page 15, paragraph 3 - page 21, paragraph 3; figure 6 *	7	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
Place of search MUNICH		Date of completion of the search 19 May 2003	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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**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing more than ten claims.

- Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims 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 the first ten claims.

**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 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: 1-6

A system comprising a computer, a display screen and an operator interface. Following an input via the operator interface the computer controls the display to concurrently display data in first and second windows

1.1. Claims: 1-3,5-6

A system comprising a computer, which retrieves raw ECG data representing a plurality of ECG waveforms from memory and controls the display to concurrently display in a first window the plurality of ECG waveforms and in a second window an ECG waveform selected from said plurality of ECG waveforms

1.2. Claim : 4

A system comprising a computer, which has a memory for storing raw ECG files each representing ECG waveforms and a database with a record for each ECG file. The database records comprise a patient identifier, a pathname to the respective ECG file and parameter values characteristic of the ECG waveforms of the file. The computer loads database records to memory and controls the display to concurrently display the ECG waveforms in a first window and an array of the parameter values in a spreadsheet format in a second window

2. Claim : 7

A research workstation comprising a display screen, an operator interface, memory for storing raw ECG data each representing ECG waveforms, means for retrieving said raw ECG data, means for analysing said raw ECG data to generate parameter values and means for controlling the display to concurrently display the plurality of ECG waveforms in a first window and the parameter values in a spreadsheet format in a second window

3. Claims: 8-10

System and method for displaying a stored ECG waveform together with a plurality of intersecting markers, moving at least one of said markers relative to the ECG waveform according to directions by the user and analysing the ECG waveform to generate parameter values using the modified markers



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**LACK OF UNITY OF INVENTION  
SHEET B**

Application Number  
EP 00 31 1579

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:

Please note that all inventions mentioned under item 1, although not necessarily linked by a common inventive concept, could be searched without effort justifying an additional fee.

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

EP 00 31 1579

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.

19-05-2003

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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)	临床研究工作站		
公开(公告)号	<a href="#">EP1110503A3</a>	公开(公告)日	2003-07-16
申请号	EP2000311579	申请日	2000-12-21
申请(专利权)人(译)	GE MARQUETTE医疗系统, INC.		
当前申请(专利权)人(译)	GE MARQUETTE医疗系统, INC.		
[标]发明人	XUE QIUZHEN REDDY SHANKARA BONTHU		
发明人	XUE, QIUZHEN REDDY, SHANKARA BONTHU		
IPC分类号	A61B5/0452 A61B5/00 A61B5/0402 A61B5/044 G06F3/048		
CPC分类号	A61B5/7475 A61B5/00 A61B5/0402 A61B5/044 A61B5/7435		
优先权	09/469824 1999-12-22 US		
其他公开文献	EP1110503B1 EP1110503A2		
外部链接	<a href="#">Espacenet</a>		

摘要(译)

一种用于从不同来源获取多个生理信号(例如, ECG波形)作为输入的装置和方法, 在其核心中应用多个算法并生成导出用于临床研究和研究的结果。该装置具有内置数据库和内置电子表格(18), 为医学领域的所有临床研究提供统一平台, 包括但不限于临床核心实验室工作和高端临床研究。

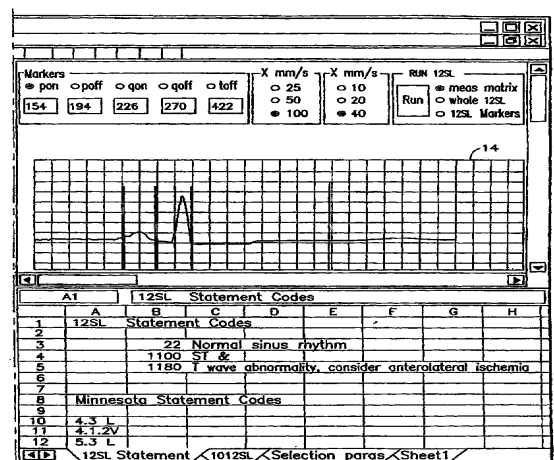


FIG.2B