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Case Number: T 2297/10 - 3.5.03

Application Number: 01934442.3

Publication Number: 1304856

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Language of the proceedings: EN

Title of invention:
REMOTE DATA CONTROL SYSTEM AND MEASURING DATA GATHERING METHOD

Applicant:
ARKRAY, Inc.

Headword:
Remote data control system/ARKRAY

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - main request, first to third auxiliary requests (no)

Decisions cited:
T 1639/07

Catchword:

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Beschwerdekammern
Boards of Appeal
Chambres de recours

European Patent Office
D-80298 MUNICH
GERMANY
Tel. +49 (0) 89 2399-0
Fax +49 (0) 89 2399-4465

Case Number: T 2297/10 - 3.5.03

D E C I S I O N
of Technical Board of Appeal 3.5.03
of 11 June 2014

Appellant: (applicant)	ARKRAY, Inc. 57, Nishi Aketa-Cho, Higashi-kujo, Minami-ku Kyoto-shi, Kyoto 601-8045 (JP)
Representative:	Piésold, Alexander James Dehns St Bride's House 10 Salisbury Square London EC4Y 8JD (GB)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 9 July 2010 refusing European patent application No. 01934442.3 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	F. van der Voort
Members:	K. Schenkel
	R. Cramer

Summary of Facts and Submissions

I. This appeal is against the decision of the examining division refusing European patent application No. 01934442.3, publication number EP 1 304 856 A.

II. The reason given for the refusal was that the subject-matter of claims 1 of a main request and a first, second and third auxiliary request did not involve an inventive step (Articles 52(1) and 56 EPC) having regard to the disclosure of:

D1: US 5 558 638 A.

In the decision under appeal reference was also made to the following document:

D5: WO 98/38909.

III. In the statement of grounds of appeal the appellant requested that the decision be set aside and that a patent be granted on the basis of the claims of the main request, as filed with the letter dated 13 October 2008, or, in the alternative, on the basis of the claims of one of the first to third auxiliary requests, all filed with the letter dated 25 May 2010. Oral proceedings were conditionally requested.

IV. In a communication accompanying a summons to oral proceedings the board, without prejudice to its final decision, raised objections under Articles 52(1) and 56 EPC (lack of inventive step) in respect of the subject-matter of the independent claims of the main request and all auxiliary requests.

V. In response to the summons the appellant filed with a letter dated 12 May 2014 a complete set of claims of the main request and submitted further arguments in support.

VI. Oral proceedings were held on 11 June 2014.

The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims of the main request as filed with the letter dated 12 May 2014 or, in the alternative, on the basis of the claims of one of the first to third auxiliary requests, all as filed with the letter dated 25 May 2010.

At the end of the oral proceedings, after due deliberation, the chairman announced the board's decision.

VII. Claim 1 of the main request reads as follows:

"A remote data management system comprising a measuring device (3) with which a managed person can perform a measurement of data, and a data management device (1) for managing measured data of each managed person that is obtained with the measuring device, wherein the measured data obtained with the measuring device is collected and managed by the data management device via a communications network (10), the remote data management system further comprising:
a communications device (12) for connection to said measuring device, having a measured data storage means (22) for storing measured data obtained by the measuring device and a data transmission means (23) for transmitting the measured data to the communications network, wherein, when connected to the measuring

device, the communications device is arranged to receive measured data from the measuring device and store the measured data in the measured data storage means, and when a transmission request for the measured data is received from the data management device, the communications device is arranged to read out the measured data stored in the measured data storage means and transmit the measured data to the data management device via the communications network using the data transmission means; and the data management device comprises a received data storage means (12) for storing received measured data together with a time of reception for each managed person, and
a control means (11) for controlling the timing at which the data management device connects to the communications device of each managed person via the communications network and performs a transmission request for the measured data, characterised in that the control means is arranged to determine the timing at which to carry out the transmission request to the communications device of each managed person based on a most recent time of reception of the measured data stored in the received data storage means for that managed person."

VIII. Claim 1 of the first auxiliary request reads as follows:

"A remote data management system comprising:
a plurality of measuring devices (3) with which managed persons can each perform a measurement of data; and
a data management device (1) for managing measured data of each managed person that is obtained with the measuring devices, wherein the measured data obtained with each measuring device is collected and managed by

the data management device via a communications network (10),
the remote data management system further comprising: communications devices (12) for connection to each of said measuring devices, each communications device having a measured data storage means (22) for storing measured data obtained by the measuring device and a data transmission means (23) for transmitting the measured data to the communications network, wherein, when connected to the measuring device, the communications device is arranged to receive measured data from the measuring device and store the measured data in the measured data storage means, and when a transmission request for the measured data is received from the data management device, the communications device is arranged to read out the measured data stored in the measured data storage means and transmit the measured data to the data management device via the communications network using the data transmission means; and
the data management device comprises a received data storage means (12) for storing received measured data together with a time of reception for each managed person, and a control means (11) for connecting to the communications device of each managed person via the communications network,
characterised in that the control means is arranged to control the timing at which the data management device connects to the communications device of each managed person via the communications network and is arranged to perform a transmission request for the measured data, the control means being arranged to determine the timing at which to carry out the transmission request to the communications device of each managed person based on a most recent time of reception of the

measured data stored in the received data storage means for that managed person."

IX. Claim 1 of the second auxiliary request differs from claim 1 of the first auxiliary request in that it additionally includes the following feature:

"wherein the measuring devices are blood glucose level meters".

X. Claim 1 of the third auxiliary request differs from claim 1 of the second auxiliary request in that it additionally includes the following feature:

"wherein the transmission request is performed after a predetermined amount of time has passed from the time at which measured data were previously received from a particular managed person".

Reasons for the Decision

1. *Main request - inventive step*

1.1 D1 discloses a remote data management system according to the preamble of claim 1 of the main request. More specifically, using the language of claim 1, D1 discloses (see Fig. 2) a remote data management system including a measuring device 210, 220, 230, 122, 124, 130 with which a managed person can perform a measurement of data, and a communications device 150 ("base unit") for connection to said measuring device, having a measured data storage means 418 (Figs. 4A and 4B) for storing measured data in a data storage means 418 (Figs. 4A and 4B) and a data transmission means 450 ("modem") for transmitting the measured data via a

communications network 500 to a data management device 600 ("care center") for managing measured data of each managed person that is obtained with the measuring device (column 4, lines 26-40; column 7, lines 35-48; column 8, lines 7-14; column 14, lines 41-44).

The data management device 600 may initiate a data transfer from the communications device 150 to the data management device 600, which implies that the data management device 600 sends a transmission request to the communications device 150 (column 18, line 42 to column 19, line 1). Further, the data management device 600 includes a received data storage means 660 ("patient database computer") and a control means 650 ("workstation") for controlling the timing at which the data management device connects to the communications device of each managed person via the communications network and performs a transmission request for the measured data (column 4, lines 26-38, column 18, line 42 to column 19, line 1, and Figs 1, 2 and 4B).

It is implicit that the communication protocol (column 28, line 67, to column 29, line 3, and claim 38) includes a time of reception of the measured data, which is stored in the received data storage means together with the received measured data for each managed person.

The board notes that D1 does not give further details regarding the timing of the sending of the transmission requests.

1.2 The system of claim 1 thus differs from the system disclosed in D1 in that, according to the characterising portion of claim 1, the control means is arranged to determine the timing at which to carry out

the transmission request to the communications device of each managed person based on a most recent time of reception of the measured data stored in the received data storage means for that managed person.

At the oral proceedings the appellant agreed that this was the distinguishing feature of claim 1 in comparison to the system of D1.

1.3 The appellant argued that the technical problem underlying the subject-matter of claim 1 was that of preventing transmissions of measurements which were concentrated at specific times, as set out in the present application.

1.4 The board however disagrees. The objective technical problem must be derived from effects directly and causally related to the technical features of the claimed subject-matter (cf. e.g. T 1639/07, point 2.5 of the reasons). In order to be able to prevent a concentration of data transmissions or, in other words, to reduce the number of simultaneous data transmissions, it would be necessary to control the timing relationship between data transmissions of different communications devices. However, claim 1 does not include features which concern that timing relationship. Hence, a technical effect from which the problem of avoiding a concentration of data transmissions could be directly and causally derived cannot be attributed to the features of claim 1.

1.5 As noted above, the subject-matter of claim 1 differs from the system of D1 in that the control means is arranged to determine the timing at which to carry out the transmission request to the communications device of each managed person based on a most recent time of

reception of the measured data stored in the received data storage means for that managed person. The technical effects resulting from this feature are various. One effect is that the time period between two consecutive data transmissions may be controlled. In other words, the distinguishing feature may provide a timing regime for the data transmissions.

1.6 Starting out from D1, the technical problem underlying the subject-matter of claim 1 may therefore be seen in implementing the data management system of D1 in the embodiment in which the data transmissions are initiated by the data management device (D1, column 18, last line, column 19, first line).

1.7 The skilled person would, when starting out from D1 and faced with the above-mentioned technical problem, consider document D5, since this document also relates to a remote data management system (see the abstract). D5 discloses a medical monitoring device which can store the measured data for subsequent transmission to a remote device (page 7, lines 10-20, page 33, penultimate line to page 34, line 13). The data is transmitted to a data management device (Fig. 1, "remote device 100") capable of polling the monitoring device (page 37, lines 20-22), polling implying the sending of a transmission request to the monitoring device. Possible polling schemes include a periodic monitoring (page 37, lines 32-35), which in the board's view means that the polling events, which include the transmission requests, occur at regular intervals. In order to achieve regular intervals between two consecutive polling events the timing has to be based on the time of the most recent polling event. In other words, for periodic monitoring, the timing at which to carry out the transmission request to the

communications device of each managed person has to based on a most recent time of reception of the measured data for that managed person.

1.8 The appellant argued that the periodic monitoring in D5 is not presented as a solution to the problem of preventing transmissions of measurements concentrated at specific times. Independently of what might be seen as the correct objective technical problem, the board notes that the fact that the problem to be solved is not mentioned in a prior-art document does not *per se* prevent a skilled person from taking that document into consideration.

As noted above, D1 discloses an embodiment of the data management system in which the data to be transmitted is measured by the communications device which does not initiate the data transmission. The data transmission is initiated by the remote data management device which is not informed about new measurements of data. Hence, the skilled reader would appreciate that some sort of timing regime at the remote data management device is necessary in order to avoid measured data not being transmitted in due time or even at all.

D5 discloses a data management system in which, as in D1, the data transmission from a monitoring device is triggered by a remote data management device which subsequently receives the monitored data. Further, D5 discloses *inter alia* a periodic polling scheme (page 37, lines 32-35) which provides the effect that the time delay between a measurement of data and its subsequent transmission is defined by the periodicity of the polling scheme.

1.9 Hence, the skilled person would take the teaching of D5 into consideration and, on applying it to the system of D1, would arrive, without the exercise of inventive skill, at a remote data management system which includes all the features of claim 1 of the main request.

1.10 For the above reasons, the board concludes that the subject-matter of claim 1 of the main request does not involve an inventive step (Articles 52(1) and 56 EPC). The main request is therefore not allowable.

2. *First auxiliary request - inventive step*

2.1 Claim 1 of the first auxiliary request (see point VIII above) essentially adds the following features:

i) the remote data management system comprises a plurality of measuring devices and a plurality of communications devices for connection to each measuring device; and

ii) the control means is arranged to perform a transmission request.

Re i): D1 discloses a plurality of patient sites (column 4, l. 10-14; Fig. 1) each equipped with a communications device ("base unit 150") (column 4, l. 61-62) which in turn is connected to respective measuring devices 210, 220, 230, 124, 122, 130 (Fig. 4A).

Re ii): D1 discloses that the data management device ("care center 600") may initiate the data transmission, i.e. send the transmission request, which implies that a part of the data management device, e.g. one of the

workstations 650 for communication with the communications devices (column 4, l. 26-28), is arranged to perform the transmission request.

2.2 For the above reasons and the reasons set out at point 1 above, the board concludes that the subject-matter of claim 1 of the first auxiliary request does not involve an inventive step (Articles 52(1) and 56 EPC). The first auxiliary request is therefore not allowable.

3. *Second auxiliary request - inventive step*

3.1 Claim 1 of the second auxiliary request (see point IX above) adds the feature that the measuring devices are blood glucose level meters.

D1 discloses that the measuring devices connected to a communications device ("base unit 150") include a glucometer for measuring the glucose level in a patient's system (Fig. 2; column 5, l. 42-56; column 24, l. 54-59).

3.2 For the above reasons and the reasons set out at points 1 and 2 above, the board concludes that the subject-matter of claim 1 of the second auxiliary request does not involve an inventive step (Articles 52(1) and 56 EPC). The second auxiliary request is therefore not allowable.

4. *Third auxiliary request - inventive step*

4.1 Claim 1 of the third auxiliary request (see point X above) adds the feature that the transmission request is performed after a predetermined amount of time has

passed since the time at which measured data were previously received.

4.2 As noted at points 1.7 and 1.8 above, D5 discloses a medical monitoring device with a data management device which periodically sends a transmission request. Periodically means that a transmission request is performed after a predetermined amount of time has passed since the previous transmission took place.

4.3 For the above reasons and the reasons set out at points 1 to 3 above, the board concludes that the subject-matter of claim 1 of the third auxiliary request does not involve an inventive step (Articles 52(1) and 56 EPC). The third auxiliary request is therefore not allowable.

5. As there is no allowable request, it follows that the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

G. Rauh F. van der Voort

Decision electronically authenticated