Internal distribution code:
(A) [ ] Publication in OJ
(B) [ ] To Chairmen and Members
(C) [ ] To Chairmen
(D) [X] No distribution

Datasheet for the decision of 11 June 2013

Case Number: T 2264/08 - 3.4.03

Application Number: 05004228.2

Publication Number: 1569174

IPC: G07C 5/00

Language of the proceedings: EN

Title of invention:
Data recording apparatus and data recording method

Applicant:
Fuji Jukogyo Kabushiki Kaisha

Headword:
-

Relevant legal provisions:
EPC Art. 123(2)

Relevant legal provisions (EPC 1973):
EPC Art. 54, 84

Keyword:
"Main request - novelty (no)"
"Auxiliary requests 1 and 2 - added subject-matter (yes)"
"Auxiliary request 3 - clarity (no)"
"Auxiliary request 4 - allowable"

Decisions cited:
-

Catchword:
-

Europäisches Patentamt | European Patent Office | Office européen des brevets

Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 2264/08 - 3.4.03

D E C I S I O N
of the Technical Board of Appeal 3.4.03
of 11 June 2013

Appellant: (Applicant)
Fuji Jukogyo Kabushiki Kaisha
7-2 Nishishinjuku 1-chome
Shinjuku-ku
Toyko (JP)

Representative:
Vossius & Partner
Siebertstraße 4
D-81675 München (DE)

Decision under appeal:
Decision of the Examining Division of the European Patent Office posted 17 July 2008 refusing European patent application No. 05004228.2 pursuant to Article 97(2) EPC.

Composition of the Board:

Chairman: G. Eliasson
Members: V. L. P. Frank
T. Bokor

Summary of Facts and Submissions

I. This is an appeal against the refusal of European patent application No. 05 004 228 for the reason that the apparatus of claim 1 and the method of claim 6 of the main request did not involve an inventive step and that claim 1 of the auxiliary request was not clear.

II. At the oral proceedings before the board the appellant applicant filed amended description pages and requested that the decision under appeal be set aside and that a patent be granted on the basis of any of the main or auxiliary requests 1 to 4, all filed with letter dated 10 May 2013.

III. The independent claims of the main request read as follows:

> "1. A data recording apparatus (1) for storing vehicle data, comprising:
> a data acquiring unit for acquiring the vehicle data on a time-series basis:
> a random access memory (8) for recording the time-series vehicle data acquired by the acquiring unit;
> a data recording unit (9) being accessible by an affiliated system; and
> a data controlling unit for recording a series of the vehicle data which is recorded in the memory (8) and satisfies predetermined acquiring conditions in a predetermined period into the data recording unit (9);
> wherein the data acquiring unit is adapted to continue acquiring the vehicle data while the data

controlling unit records the series of the vehicle data in the data recording unit (9)."

"6. A data recording method of recording vehicle data, comprising the steps of:
acquiring the vehicle data on a time-series basis;
recording the acquired time-series vehicle data in a random access memory (8);
recording a series of the vehicle data recorded in the memory (8) and satisfying predetermined acquiring conditions, in a predetermined period into a data recording unit (9); and
continuing to acquire the vehicle data while a data controlling unit records the series of the vehicle data in the data recording unit (9)."

The independent claims of auxiliary request 1 read as follows (the amendments to the auxiliary requests with respect to the main request were highlighted by the board):

"1. A data recording apparatus (1) for storing vehicle data, comprising:
a data acquiring unit for acquiring the vehicle data on a time-series basis:
a random access memory (8) for recording the time-series vehicle data acquired by the acquiring unit;
a data recording unit (9) being accessible by an affiliated system; and
a data controlling unit for recording a series of the vehicle data which is recorded in the memory (8) and satisfies predetermined acquiring conditions in a predetermined period into the data recording unit (9), **wherein the acquiring**

conditions are recorded in the data recording unit (9);
wherein the data acquiring unit is adapted to continue acquiring the vehicle data while the data controlling unit records the series of the vehicle data in the data recording unit (9)."

"6. A data recording method of recording vehicle data, comprising the steps of:
acquiring the vehicle data on a time-series basis;
recording the acquired time-series vehicle data in a random access memory (8);
recording a series of the vehicle data recorded in the memory (8) and satisfying predetermined acquiring conditions, in a predetermined period into a data recording unit (9), **wherein the acquiring conditions are recorded in the data recording unit (9);** and
continuing to acquire the vehicle data while a data controlling unit records the series of the vehicle data in the data recording unit (9)."

The independent claims of auxiliary request 2 read as follows:

"1. A data recording apparatus (1) for storing vehicle data, comprising:
a data acquiring unit for acquiring the vehicle data on a time-series basis:
a random access memory (8) for recording the time-series vehicle data acquired by the acquiring unit;
a data recording unit (9) being accessible by an affiliated system; and

a data controlling unit for recording a series of the vehicle data which is recorded in the memory (8) and satisfies predetermined acquiring conditions in a predetermined period into the data recording unit (9), **wherein a mode file comprises the acquiring conditions and is recorded in the data recording unit (9)**; and
wherein the data acquiring unit is adapted to continue acquiring the vehicle data while the data controlling unit records the series of the vehicle data in the data recording unit (9)."

"6. A data recording method of recording vehicle data, comprising the steps of:
acquiring the vehicle data on a time-series basis;
recording the acquired time-series vehicle data in a random access memory (8);
recording a series of the vehicle data recorded in the memory (8) and satisfying predetermined acquiring conditions, in a predetermined period into a data recording unit (9), **wherein a mode file comprises the acquiring conditions and is recorded in the data recording unit (9)**; and
continuing to acquire the vehicle data while a data controlling unit records the series of the vehicle data in the data recording unit (9)."

The independent claims of auxiliary request 3 read as follows:

"1. A data recording apparatus (1) for storing vehicle data, comprising:
a data acquiring unit for acquiring the vehicle data on a time-series basis:

a random access memory (8) for recording the time-series vehicle data acquired by the acquiring unit;
a data recording unit (9) being accessible by an affiliated system; and
a data controlling unit for recording a series of the vehicle data which is recorded in the memory (8) and satisfies predetermined acquiring conditions in a predetermined period into the data recording unit (9), **wherein a mode file is composed of the contents of the vehicle data, the acquiring conditions, and operating conditions and is recorded in the data recording unit (9)**; and
wherein the data acquiring unit is adapted to continue acquiring the vehicle data while the data controlling unit records the series of the vehicle data in the data recording unit (9)."

"6. A data recording method of recording vehicle data, comprising the steps of:
acquiring the vehicle data on a time-series basis;
recording the acquired time-series vehicle data in a random access memory (8);
recording a series of the vehicle data recorded in the memory (8) and satisfying predetermined acquiring conditions, in a predetermined period into a data recording unit (9), **wherein a mode file is composed of the contents of the vehicle data, the acquiring conditions, and operating conditions and is recorded in the data recording unit (9)**; and
continuing to acquire the vehicle data while a data controlling unit records the series of the vehicle data in the data recording unit (9)."

The independent claims of auxiliary request 4 read as follows:

"1. A data recording apparatus (1) for storing vehicle data, comprising:
a data acquiring unit for acquiring the vehicle data on a time-series basis:
a random access memory (8) for recording the time-series vehicle data acquired by the acquiring unit;
a data recording unit (9) being accessible by an affiliated system; and
a data controlling unit for recording a series of the vehicle data which is recorded in the memory (8) and satisfies predetermined acquiring conditions in a predetermined period into the data recording unit (9), **wherein a mode file is composed of acquired contents, the acquiring conditions, and operating conditions and is recorded in the data recording unit (9), wherein the acquired contents are set as the vehicle data that are to be acquired from the vehicle**; and
wherein the data acquiring unit is adapted to continue acquiring the vehicle data while the data controlling unit records the series of the vehicle data in the data recording unit (9)."

"6. A data recording method of recording vehicle data, comprising the steps of:
acquiring the vehicle data on a time-series basis;
recording the acquired time-series vehicle data in a random access memory (8);
recording a series of the vehicle data recorded in the memory (8) and satisfying predetermined acquiring conditions, in a predetermined period

into a data recording unit (9), **wherein a mode file is composed of acquired contents, the acquiring conditions, and operating conditions and is recorded in the data recording unit (9), wherein the acquired contents are set as the vehicle data that are to be acquired from the vehicle**; and
continuing to acquire the vehicle data while a data controlling unit records the series of the vehicle data in the data recording unit (9)."

IV. The following document is mentioned in this decision:

D3 = DE 100 29 401 A

V. The appellant applicant argued essentially as follows:

– Document D3 did not disclose that the data controlling unit recorded vehicle data into the data recording unit, wherein the vehicle data satisfied "predetermined acquiring conditions". The meaning of the expression "predetermined acquiring conditions" was clear in view of the description as a whole and was defined in the application on page 13. In particular, the controlling unit analyzed whether or not one or more of the vehicle data stored in the random access memory satisfied predetermined conditions based on the particular contents of the vehicle data. In contrast to this, document D3 did not disclose that the processor analyzed the data in the random access memory. In fact, D3 disclosed an external hardware alarm signal containing a command for the processor to record data from the

random access memory into the recording unit. The command instructed the processor to select which values already stored in the random access memory were to be recorded into the recording unit. Based on the above crucial difference between the teaching disclosed in D3 and the subject-matter of the present application, the advantage of the present invention was that the recording apparatus of claim 1 worked independently from any external alarm signal generated by systems/units/devices or alarm sensors additionally installed in the vehicle. Therefore, the apparatus according to the present application could be used in different types of vehicles without any need of a further alarm triggering unit providing a particular command to the recording apparatus which data were to be recorded. The vehicle data was copied from the random access memory to the data recording unit (the "non-volatile memory") only if the predetermined acquiring conditions were satisfied.

– Basis for the amendments to the independent claims of auxiliary requests 1 to 4 could be found on description page 12, lines 20-22 in combination with page 13, lines 5-8 and page 22, lines 15-16. There it was described that the mode file was recorded in the data recording unit and that it comprised the acquiring conditions. Hence, the acquiring conditions were recorded in the data recording unit. The fact that the acquiring conditions were recorded into the data recording unit provided a technical advantage, so that the introduction of a new expression "mode file" in the claims could be omitted. In auxiliary request

2 it was further specified that the acquiring conditions were part of a "mode file", while in auxiliary request 3 the content of the "mode file" was specified. Auxiliary request 4 further defined the term acquired contents as the set of vehicle data that were to be acquired form the vehicle.

– According to the claims of auxiliary requests 1-4, the acquiring conditions were recorded in the data recording unit. Hence, not only the vehicle data (which satisfied the acquiring conditions), but also the acquiring conditions were recorded in the data recording unit. In the system of D3 the system controlling unit generated the signal to record the vehicle data from memory into the data recording unit. There would be a program in the system controlling unit for generating the signal. However, since the program should be fixedly installed in the system controlling unit (which was fixed on the vehicle), the program could not satisfy the claimed requirement relating to the "mode file" that "the mode file is recorded in the data recording unit".

– This difference provided the following technical advantage: a "mode file" appropriate to a given faulty condition was selected from a plurality of mode files and recorded in the data recording unit. Since the mode file to be used depended on the faulty conditions of the vehicle, replacement of the mode file was required every time the apparatus or the method was used for recording the vehicle data. Therefore, the mode file was

recorded in the data recording unit in which data were flexibly rewritable.

Reasons for the Decision

1. The appeal is admissible.

2. *Main request*

2.1 It is undisputed that document D3 discloses in the wording of claim 1 ([0047], [0048], Fig. 2; reference numerals according to D3 have been inserted by the board):

A data recording apparatus 26 for storing vehicle data, comprising:
a data acquiring unit 35 for acquiring the vehicle data on a time-series basis,
a random-access memory 33 for recording the time-series vehicle data acquired by the acquiring unit,
a data recording unit 38 being accessible by an affiliated system,
and a data controlling unit 35 for recording a series of the vehicle data which is recorded in the memory into the data recording unit,
wherein the data acquiring unit is adapted to continue acquiring the vehicle data while the data controlling unit records the series of the vehicle data in the data recording unit ([0048], "Der Zwischenspeicher 33 dient dem ständigen Speichern aller relevanten Fahrzeugsystem-Busdaten").

2.2 The appellant applicant argued that the feature that the data recorded into the data recording unit *"satisfies predetermined acquiring conditions in a predetermined period"* distinguished the claimed apparatus from the one disclosed in D3. According to the invention the acquiring conditions were the conditions that were applied to acquire/record the vehicle data in response to the acquired contents, eg sampling rate, trigger conditions, recording time, etc (page 13, lines 4-11; Fig. 3). It was thus clear that the data controlling unit decided under which conditions (ie the predetermined acquiring conditions) the vehicle data stored in the random access memory (RAM) should be copied into the recording unit.

2.3 Document D3 discloses that the command to record the vehicle data from the memory 33 into the data recording unit 38 is generated by a system controlling unit separate from the recording apparatus ("ein Abspeicherbefehl durch ein auslösendes Steuergerät des Fahrzeugsystems erzeugt wird", [0010]). This command contains the list of vehicle data to be recorded ("wobei der erzeuge Abspeicherbefehl eine Fahrzeugsystem-Datenliste der abzuspeichernden Fahrzeugsystem-Busdaten enthält", [0010]). According to a preferred embodiment of D3, however the data recording unit may be integrated into the system controlling unit ([0065]). D3 further discloses that the data recording apparatus may be programmed to record the relevant vehicle data at regular intervals, eg for its use as a tachograph ("Fahrtenschreiber") or for statistical purposes ([0053]).

2.4 In the system disclosed in D3 it is the system controlling unit which generates the command to record the vehicle data from the RAM into the data recording unit, the permanent memory, and sends this command to the data recording apparatus. It can do this however only on the basis of some predetermined criteria, ie according to "predetermined acquiring conditions" (for the implementation as a tachograph such predetermined condition is eg a fixed time interval). In a single integrated apparatus combining the system controlling unit and the data recording apparatus, the decision to record the vehicle data on the basis of these predetermined acquiring conditions is made in the data controlling.

2.5 The board judges for these reasons that the apparatus of claim 1 of the main request is not new (Article 54 EPC 1973). The main request is thus not allowable.

3. *Auxiliary requests 1 and 2*

3.1 Claim 1 of auxiliary requests 1 and 2 (AR1 and AR2) differs from claim 1 of the main request, respectively, in that it is specified that the data recording apparatus comprises (highlighting added by the board to show the added features):

(a) AR 1: a data controlling unit for recording a series of the vehicle data which is recorded in the memory (8) and satisfies predetermined acquiring conditions in a predetermined period into the data recording unit (9), **wherein the**

acquiring conditions are recorded in the data recording unit (9);

(b) AR 2: a data controlling unit for recording a series of the vehicle data which is recorded in the memory (8) and satisfies predetermined acquiring conditions in a predetermined period into the data recording unit (9), **wherein a mode file comprises the acquiring conditions and is recorded in the data recording unit (9);**

Corresponding amendments were made to claim 6 of auxiliary requests 1 and 2.

3.2 The appellant applicant argued that the description disclosed that the "mode file" was recorded in the data recording unit (page 12, lines 20-22) and that the "mode file" contained the acquiring conditions (page 13, lines 5-6). It was thus unavoidable to conclude that the acquiring conditions were recorded in the data recording unit.

3.3 The issue in question however is not whether there is a logical chain leading to the fact that the acquiring conditions are stored in the data recording unit, but whether the skilled person would derive directly and unambiguously from the application as filed the general idea that the acquiring conditions are recorded in the data recording unit irrespective of whether the other components of the "mode file" are also recorded there.

3.4 It is disclosed in the application that "The mode file is composed of the acquired contents, the acquiring conditions and the operating conditions" (page 13,

lines 5-6) and that "The mode files are recorded in advance in … the data recording unit 9" (page 12, lines 20-22). It is furthermore shown in Figure 3 that all three elements of the "mode file" are required for instructing the data controlling unit which vehicle data are to be recorded (ie the acquired contents), when and how the vehicle data is to be sampled (ie the acquiring conditions) and the duration of the sampling of data (ie the operating condition).

3.5 The appellant applicant argued that it was unnecessary to specify the presence of a "mode file" in the data recording unit or the full content of the "mode file" for achieving the underlying inventive concept of easy replacement of the acquiring conditions. Thus the generalization that only the acquiring conditions needed to be recorded in the data recording unit should be considered allowable.

3.6 The board however does not consider that the inventive concept underlying the present invention (ie the adaptation of the data recording apparatus to different faulty conditions of a vehicle) can be achieved by the replacement of the acquiring conditions only, but that it requires the replacement of the three elements contained in the "mode file". According to the application the "mode file" is selected depending on the faulty conditions of the vehicle (page 16, lines 8-18). It makes thus little sense to replace only the acquiring conditions and keep the acquired contents and the operating conditions for different faulty conditions. As can be seen in Figure 3 of the application different faulty conditions require different "mode files".

3.7 Furthermore, the specification in claims 1 and 6 of auxiliary request 2 that the acquiring conditions are part of a "mode file" adds no significant technical information, since the term "mode file" has no generally recognized meaning. Hence this feature has to be interpreted as merely meaning that the acquiring conditions are recorded as part of a file. This is however implicit in the concept of recording data in a digital medium.

3.8 Hence the generalized features that the acquiring conditions are recorded in the data recording unit as specified in claims 1 and 6 of auxiliary request 1 or that a "mode file" comprising the acquiring conditions is recorded in the data recording unit as specified in claims 1 and 6 of auxiliary request 2 is not directly and unambiguously derivable from the application as filed.

3.9 The board judges for these reasons that the amendments made to claims 1 and 6 of auxiliary requests 1 and 2 do not comply with the requirements of Article 123(2) EPC. Auxiliary requests 1 and 2 are thus not allowable.

4. *Auxiliary request 3*

4.1 Claims 1 and 6 of auxiliary request 3 specify that the "mode file" is composed of the contents of the vehicle data, the acquiring conditions and operating conditions and that it is recorded in the data recording unit.

4.2 The board however considers that the term "content of vehicle data" is not clear, since its meaning is not

understandable. The application discloses that *"The acquired contents are the contents of the vehicle data as the recorded object"* (page 13, lines 6-8). This statement however does not shed any light on the meaning of "content of vehicle data" or to the difference that exists between the "content of vehicle data" and the "vehicle data" itself.

4.3 The appellant applicant did not argue how this term should be interpreted or why it should be considered clear.

4.4 The board judges, for these reasons, that claims 1 and 6 of auxiliary request 3 are not clear (Article 84 EPC 1973). Auxiliary request 3 is thus not allowable.

5. *Auxiliary request 4*

5.1 Claims 1 and 6 of auxiliary request 4 specify that *"a mode file is composed of acquired contents, the acquiring conditions, and operating conditions and is recorded in the data recording unit (9), wherein the acquired contents are set as the vehicle data that are to be acquired from the vehicle"*.

5.2 As the content of the "mode file" is specified to consist of the three elements (acquired contents, acquiring conditions and operating condition) disclosed in the description (page 13, lines 4-6; Figure 3), the objection of undisclosed subject-matter that arose in relation to the corresponding claims of auxiliary requests 1 and 2 is overcome.

5.3 Furthermore, the term "acquired contents" is defined in claims 1 and 6 as the set of vehicle data that are to be acquired form the vehicle. This amendment is based on page 22, lines 14-16 of the description and clarifies the meaning of the term "acquired contents".

5.4 The description has been amended to bring it in conformity with the amended claims and for acknowledging prior art document D3.

5.5 The board thus concludes that the requirements of Article 84 EPC 1973 and Article 123(2) EPC are fulfilled.

5.6 The apparatus of claim 1 differs from the apparatus disclosed in document D3 in that a "mode file" composed of acquired contents, the acquiring conditions, and operating conditions is recorded in the data recording unit.

5.7 This feature allows that the "mode file" to be adapted in a simple manner to different faulty conditions of a vehicle either by exchanging the data recording unit, eg a memory card, in the data recording apparatus or by accessing the data recording unit through an appropriate interface and replacing the "mode file" by another with different contents (page 16, lines 8-18), since the data recording unit is accessible by an affiliated system.

5.8 The objective technical problem addressed by the invention can thus be formulated as to provide a data recording apparatus and method with increased versatility.

5.9 The board concurs with the appellant applicant that in the apparatus disclosed in document D3 the system controlling unit generates the command to record the data stored in RAM into the data recording unit as well as the list of vehicle data to be recorded (see point 2.3 of this decision). Such an arrangement neither requires nor allows modifications of what would be the equivalent of the "mode file", since each system controlling unit is specific to the system it controls and does not need to take into account failures of other systems of the vehicle. Thus the acquiring contents, the acquiring conditions or the operating conditions do not need to be modified. The skilled person has thus no reason to record the corresponding "mode file" in a modifiable manner.

5.10 Even if the system controlling unit would be integrated into the data recording apparatus, as it would be eg the case of a tachograph, there would be no reason for the skilled person to modify the list of vehicle data to be recorded or the way the data are recorded (eg the sampling rate), since a tachograph is a data recording system with a single purpose. There would thus be no incentive to modify the content of the "mode file" or to store the "mode file" on a medium that would allow its modification.

5.11 The other documents of the prior art cited in the European Search Report are less relevant to the present invention than document D3.

5.12 The board judges for these reasons that the data recording apparatus of claim 1 and the method of

claim 6 involve an inventive step within the meaning of Article 56 EPC 1973. Auxiliary request 4 is thus allowable.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the department of first instance with the order to grant a patent in the following version:

Description: pages 1, 6-31 as originally filed, pages 2-5, 32 as filed in the oral proceedings,

Claims: 1-8 of Auxiliary Request 4 filed with letter dated 10 May 2013,

Drawings: Sheets 1-6 as originally filed.

Registrar: Chair:

S. Sánchez Chiquero G. Eliasson