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**Datasheet for the decision
of 25 January 2013**

Case Number: T 1987/10 - 3.5.06

Application Number: 06016557.8

Publication Number: 1892622

IPC: G06F 9/445

Language of the proceedings: EN

Title of invention:

Method and apparatus for updating of software and/or
collecting of operational data in a machine unit

Applicant:

Snap-on Equipment Srl a unico socio

Headword:

Automotive shop service machine/SNAP-ON EQUIPMENT

Relevant legal provisions (EPC 1973):

EPC Art. 56

Keyword:

"Inventive step - (yes) after amendment"

Decisions cited:

-

Catchword:

-



Case Number: T 1987/10 - 3.5.06

D E C I S I O N
of the Technical Board of Appeal 3.5.06
of 25 January 2013

Appellant: Snap-on Equipment Srl a unico socio
(Applicant) Via Provinciale per Carpi, 33
I-42015 Correggio (RE) (IT)

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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 13 April 2010
refusing European patent application
No. 06016557.8 pursuant to Article 97(2) EPC.

Composition of the Board:

Chairman: D. H. Rees
Members: A. Teale
C. Heath

Summary of Facts and Submissions

I. This is an appeal against the decision by the examining division, dispatched on 13 April 2010, to refuse European patent application No. 06 016 557.8. According to the reasons for the appealed decision, the subject-matter of the independent claims did not involve an inventive step, Article 56 EPC 1973, in view of D3 combined with D1, these documents being:

D1: DE 102 44 975 A1 and

D3: US 5 608 910 A.

II. A notice of appeal together with a statement of grounds of appeal were received on 10 May 2010 together with amended description pages and claims. The appellant requested that the appealed decision be set aside and that a patent be granted. The appellant also made an auxiliary request for oral proceedings. The appeal fee was paid on 10 May 2010.

III. In a letter received on 31 May 2012 the appellant requested accelerated processing of the case, stating that "the applicant intends to issue licenses for a patent of the invention".

IV. In an annex to a summons to oral proceedings the board stated that it allowed the request for accelerated processing, but expressed doubts *inter alia* as to the inventive step, Article 56 EPC 1973, of the claimed subject-matter and as to whether the description complied with Rules 27(1) (c) and 34(1) (c) EPC 1973.

V. With a response received on 21 December 2012 the appellant submitted amended description pages and claims.

VI. In the oral proceedings, held on 25 January 2013, the appellant submitted an amended set of claims and amended description pages. Withdrawing all other requests, the appellant requested as its main request that the decision under appeal be set aside and that a patent be granted in the following version:

Description:

pages 1 and 4, received with the notice of appeal, pages 2, 3, 9, 10 and 12 to 14, as originally filed, page 3a, received on 12 February 2010, pages 5, 6, 11 and 17, received on 21 December 2012 and pages 7, 8, 15 and 16, received in the oral proceedings on 25 January 2013.

Claims:

1 to 15, received in the oral proceedings on 25 January 2013.

Figures:

Sheets 1 to 4, as originally filed.

VII. At the end of the oral proceedings the board announced its decision.

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

"1. Method for exchanging data in memory means of at least one hardware device (20, 31) of a machine unit

being an automotive shop service machine and for making operational data available for further use outside the machine unit, the method comprising:

- connecting a first data storage device (22b) to the machine unit;
- checking whether the data stored in the memory means of the at least one hardware device (20, 31) comprises an older version than the version of data on the first data storage device (22b); and
- downloading data from the first data storage device (22b) in the memory means of the at least one hardware device (20, 31), thereby replacing the data stored in the memory means by the data stored in the first data storage device (22b), dependent on the result of the checking, wherein the method is characterized by:
 - before the step of connecting the first data storage device, disconnecting a second data storage device which is connected to the machine unit such that the step of disconnecting the second data storage device and the step of connecting the first data storage device form an exchanging operation, in which the second data storage device is exchanged by the first data storage device (22b),
 - continuously collecting operational data of the machine unit during operation of the machine unit, before the exchanging operation, by storing operational data of the machine unit in the second data storage device, and after the exchanging operation, by storing the operational data on the first data storage device,
 - using the operational data stored on the second data storage device outside the machine unit for at least one of research and development purposes, quality control, tracking of machine units through their life

time, and maintenance scheduling preferably by the manufacturer of the machine unit

wherein the stored operational data comprises at least one of issued error codes, diagnostic data, statistical data, performed service operations, operation counters."

"9. System comprising a machine unit being an automotive shop service machine comprising at least one microcontroller-based board (20, 31) specialized for a certain function of the machine unit, and at least one hardware interface (22a) for a user-operable removable connection of a first data storage device (22b) on which computer program code means or configuration data for the at least one microcontroller-based board (20, 31) are stored, the system further comprising means which are configured for carrying out a method according to one of the claims 1 to 8 and a stand alone PC into which the operational data from the second data storage device is downloaded."

Reasons for the Decision

1. *The admissibility of the appeal*

In view of the facts set out at points I and II above, the appeal is admissible.

2. *The request for accelerated processing*

2.1 According to the Notice from the Vice-President DG3 dated 17 March 2008 concerning accelerated processing before the Boards of Appeal (OJ EPO 2008, 220), parties

with a legitimate interest may ask the boards of appeal to deal with their appeals rapidly. Requests for accelerated processing must be submitted to the competent board either at the beginning of or during proceedings and should contain reasons for the urgency together with relevant documents. No particular form is required. Amongst others, the following circumstances could justify an appeal being dealt with particularly rapidly: where the decision of potential licensees of the patent in suit, that is the patent which is the subject of an appeal, hinges upon the outcome of the appeal proceedings. Whether or not a particular case is regarded as urgent will depend on the nature of the case and not merely on whether accelerated processing is requested by the parties.

2.2 In this particular case, since the appellant had stated that it intended to issue licenses for the present invention, and such circumstances are given in the Notice as an example of an urgent case, the board chose to regard this, despite the lack of any relevant supporting documents in this case, as an urgent case and one in which accelerated processing was appropriate. The board consequently allowed the request for accelerated processing and took this case considerably out of turn.

3. *The context of the invention*

The application relates to a machine unit used in an automotive shop, for example a wheel balancer or automotive diagnosis unit. The machine unit comprises computing hardware, for instance an embedded PC, running control software which continuously collects

operational data, namely issued error codes, calibration data, statistical data, performed service operations and operation counters. The invention concerns the updating/upgrading of control software or configuration data in the machine unit and the collection of operational data from the machine unit. Data is transferred to and from the machine unit using data storage devices, such as Compact Flash (CF) cards. Before a new data storage device (the "first data storage device" in claim 1) is connected to the machine unit, the previous data storage device (the "second data storage device" in claim 1), which contains stored operational data, is removed from the machine unit. The second data storage device is thus exchanged for the first data storage device. The machine unit checks to see whether the software/configuration data on the first data storage device is a newer version than that stored in the machine unit and, if so, replaces the data stored in the machine unit by that downloaded from the first data storage device, which is then used to store operational data. The removed, second data storage device is connected to a stand alone PC (see claim 9) to download the stored operational data for use, for instance by the manufacturer of the machine unit, in research and development, quality control, tracking of machine units through their life time and maintenance scheduling.

4. *The amendments to the application*

4.1 Claim 1 results from the combination of original claims 1, 5, 7, 9 and 21 with features taken from the description as originally filed, namely page 5, lines 15 to 17 and 20 to 22, page 6, lines 18 to 21, page 8,

lines 8 to 10, and page 16, lines 25 to 29. Claim 9 is based on the same disclosure as present claim 1 and, in addition, claim 16 and page 11, lines 20 to 21, as originally filed. The dependent claims 2 to 8 and 10 to 15 are based on claims 2 to 4, 8, 9, 10, 15, 18, 20, 22, 23, 25 and 26 as originally filed, respectively.

4.2 As to the description, pages 1, 4 to 8, 11, 15 and 16 have been adapted to the claims, Rule 27(1)(c) EPC 1973. Page 3a acknowledges, amongst others, D1 and D3, Rule 27(1)(b) EPC 1973. Unnecessary matter has been removed from pages 16 and 17, Rule 34(1)(c) EPC 1973.

4.3 The board is consequently satisfied that the amendments to the application satisfy Article 123(2) EPC regarding added subject-matter.

5. *The prior art*

5.1 *Document D3*

5.1.1 It is common ground between the board and the appellant that D3 forms the closest prior art on file. D3 concerns updating the firmware control program of a magneto-optical disk drive; see column 3, lines 59 to 62. When a disk is inserted into the drive a check is made whether the disk contains a version of the control program which is newer than that stored in a rewritable memory in the drive; see figure 7, step S707, and column 6, lines 20 to 30. If the version on the disk is newer, then the control program in the rewritable memory is replaced by the version on the disk; see figure 7, steps S708 and S709, figure 8 and column 6, lines 35 to 66.

5.1.2 Hence, in the terms of claim 1, D3 discloses the following features:

Method for exchanging data in memory means of at least one hardware device of a machine unit, the method comprising:

- connecting a first data storage device to the machine unit;
- checking whether the data stored in the memory means of the at least one hardware device comprises an older version than the version of data on the first data storage device and
- downloading data from the first data storage device in the memory means of the at least one hardware device, thereby replacing the data stored in the memory means by the data stored in the first data storage device, dependent on the result of the checking.

5.2 *Document D1*

5.2.1 D1 concerns updating the operating software (BS_ALT) of a telephone PBX (private branch exchange) in which the operating software and operating data ("Betriebsdaten" BD)) of the exchange are stored both in a volatile memory (DRAM) and a non-volatile memory (MMC1). At system start a "boot loader" program copies the software and operating data from the non-volatile memory to the volatile memory; see paragraph [0022], lines 5 to 15. All subsequent changes of exchange configuration data during operation of the exchange are not only stored in volatile memory but also in non-volatile memory, the latter ensuring that no changes in configuration are lost due to an interruption in

exchange operation, understood by the board to mean that the exchange is without power so that the contents of the volatile memory are lost; see paragraph [0016]. The operating data consist of user-specific data such as the telephone number plan of the exchange, user's names, access privileges and programmed call forwarding; see paragraph [0002], lines 10 to 15.

- 5.2.2 The exchange software is updated by replacing the non-volatile memory (see paragraph [0005], lines 1 to 6), during which the operating data need to be backed up, since, for instance, the new software may be bigger than the old version; see paragraph [0006], lines 8 to 11. The backup copy is then used to program the new non-volatile memory; see paragraph [0005], lines 10 to 14. The same memory card on which the new operating software (BS_NEU) arrives is used to back up the operating data; see paragraph [0010], lines 1 to 6. The exchange has a single card socket; see paragraph [0014], lines 1 to 7. Hence to update the software the previous memory card (MMC1) is removed and replaced by a new memory card (MMC2) containing the new software (BS_NEU); see paragraphs [0024] and [0025]. The operating data are backed-up on the new memory card; see figure 2. Then the new version of the software is transferred to the exchange. Once a new start of the new software has occurred, the operating data of the exchange are transferred back from the new memory card to the volatile memory of the exchange; see figure 3.

5.2.3 *Do the "operating data" known from D1 fall under the "operational data" set out in claim 1?*

The stored operational data set out in claim 1 comprise at least one of issued error codes, diagnostic data, statistical data, performed service operations and operation counters. In contrast, as argued by the appellant, the "operating data" known from D1 concern user-specified settings such as telephone numbers, names and permissions for configuring the telephone exchange; see paragraph [0023], lines 7 to 10. Hence, although the "operating data" known from D1 are data associated with operating the exchange, they play a different role to the operational data now set out in claim 1; in D1 the "operating data" are input to the exchange to configure it, whilst the claimed "operational data" are output by the machine unit to report on its operation.

5.2.4 *Does D1 disclose the uses of the stored operational data outside the machine unit specified in claim 1?*

Although in D1 the operating data are stored on a card (MMC1) which is removed in the course of updating the operating software, D1 neither discloses nor hints at the stored operating data being used outside the machine unit. D1 merely states that the removed card may be reused (see paragraph [0014], last sentence) or returned to the manufacturer (see paragraph [0027], last six lines), there being no mention of data on the card being used. The uses of the operational data now set out in claim 1 go beyond merely making operational data available for further use outside the machine unit which, as the board stated in its provisional opinion

in the annex to the summons to oral proceedings regarding a previous version of the claims, is known from D1; see the storage of operational data on a removable card. Hence the board finds that D1 does not disclose the uses of the stored operational data outside the machine unit specified in claim 1.

6. *Inventive step, Article 56 EPC 1973*

6.1 *Claim 1*

6.1.1 The subject-matter of claim 1 differs from the disclosure of D3 in the following features:

- i. the machine unit being an automotive shop service machine,
- ii. continuously collecting operational data of the machine unit during operation of the machine unit by storing operational data of the machine unit in a second data storage device, and, after exchanging the second data storage device by the first data storage device, by storing the operational data on the first data storage device,
- iii. the stored operational data comprising at least one of issued error codes, diagnostic data, statistical data, performed service operations and operation counters and
- iv. using operational data stored on the second data storage device outside the machine unit for at least one of research and development purposes, quality control, tracking of machine units through

their life time, and maintenance scheduling preferably by the manufacturer of the machine unit.

6.1.2 In the light of the above analysis, difference feature "ii" is known from D1 (in a wide sense of "operational data"), while difference features "i", "iii" and "iv" are not known from any of the prior art documents on file.

6.1.3 Difference feature "iv" solves the technical problem of monitoring the operation of the machine unit and is not hinted at by any of the prior art documents on file. The board finds that, starting from D3, it would not have been obvious to the skilled person to add this difference feature.

6.1.4 For the purposes of this decision it is consequently unnecessary to go into the question of whether it would have been obvious for the skilled person to combine D3 and D1 (disputed by the appellant), since even this combination does not render difference feature "iv" obvious.

6.1.5 Hence the board finds that the subject-matter of claim 1 involves an inventive step, Article 56 EPC 1973.

6.2 *Claim 9*

6.2.1 Since the system according to claim 9 comprises means configured for carrying out the inventive method according to claim 1, the subject-matter of claim 9 likewise involves an inventive step, Article 56 EPC 1973.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order to grant a patent in the following version:

Description:

pages 1 and 4, received with the notice of appeal,
pages 2, 3, 9, 10 and 12 to 14, as originally filed,
page 3a, received on 12 February 2010,
pages 5, 6, 11 and 17, received on 21 December 2012 and
pages 7, 8, 15 and 16, received in the oral proceedings
on 25 January 2013.

Claims:

1 to 15, according to the main request received in the
oral proceedings on 25 January 2013.

Figures:

Sheets 1 to 4, as originally filed.

The Registrar:

The Chairman:

B. Atienza Vivancos

D.H. Rees