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**Datasheet for the decision
of 10 March 2016**

Case Number: T 1386/12 - 3.2.04

Application Number: 07112880.5

Publication Number: 1854518

IPC: A63F13/04

Language of the proceedings: EN

Title of invention:
Game operating device

Patent Proprietor:
Nintendo Co., Ltd.

Opponents:
Bigben Interactive SA
Datel Direct Ltd
Sunflex Europe GmbH
Steup, Mike

Headword:

Relevant legal provisions:
EPC Art. 100(a), 100(b), 100(c)
RPBA Art. 13

Keyword:

Amendments - added subject-matter (no)

Sufficiency of disclosure - (yes)

Novelty - (yes)

Inventive step - (yes)

Late-filed argument - admitted (no)

Remittal to the department of first instance - special reasons
for not remitting the case

Decisions cited:

G 0001/94, T 0305/87

Catchword:



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Case Number: T 1386/12 - 3.2.04

D E C I S I O N
of Technical Board of Appeal 3.2.04
of 10 March 2016

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Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted on
19 April 2012 concerning maintenance of the
European Patent No. 1854518 in amended form.

Composition of the Board:

Chairman A. de Vries
Members: J. Wright
T. Bokor

Summary of Facts and Submissions

I. The appellant-proprietor lodged an appeal, received 25 May 2012, against the interlocutory decision of the opposition division of 19 April 2012 on the amended form in which European patent no. 1854518 can be maintained and paid the appeal fee at the same time. Their statement setting out the grounds of appeal was filed on 28 August 2012.

The appellant-opponent also lodged an appeal against the above decision. The appeal was received on 15 June 2012 and the appeal fee paid at the same time. Their statement of grounds of appeal was filed on 17 August 2012.

II. The opposition was based on the grounds of lack of inventive step, Article 100(a) with 56 EPC, and added subject matter, Article 100 (c) EPC with Articles 123(2) EPC and 76(1) EPC.

The opposition division held that the patent as amended according to an auxiliary request met all the requirements of the EPC. In its decision it considered, amongst others, the following documents:

A1: WO 94/02931 A
A2: JP 08071252 A
A3: WO 97/09101 A
A4: US 5724106 A
A5: JP 2005063230 A

III. With letter of 23 November 2012 a first third-party filed a notice of intervention under Article 105(1)b EPC, simultaneously paying the required opposition fee and submitting the required reasoned statement. This

opposition was subsequently withdrawn with letter of 25 April 2014.

- IV. With letters of 27 December 2012 second and third third-parties, herein interveners II and III, filed notices of intervention under Article 105(1)b EPC, simultaneously paying the required opposition fees and submitting the required reasoned statements, which were the same in substance.

Intervenors II and III based their interventions on the grounds of Articles 100(a) EPC in combination with Articles 52(1) and 56 EPC (lack of inventive step), Article 100(b) EPC (insufficient disclosure) and Article 100(c) EPC (added subject-matter) in light of the prior art already cited and of the following further prior art and evidence:

- S1: US5554980 A
S2: EP 1100042 A
S5: US 6853308 B1
H1: Bamboozle! British channel 4 teletext quiz description [online] UK game shows.com [retrieved on 25 December 2012] Retrieved from the internet: <www.ukgameshows.com/ukgs/Bamboozle!>
H2: Goldstar/LG 52cm TV. Sales offer of TV type CE-21T22KX [online]. HiFi Forum.de, 4 December 2005 [retrieved on 23 December 2012].

- V. Summons to attend oral proceedings were issued on 24 September 2015, and a communication in which the board made preliminary observations in preparation for the oral proceedings was issued 18 December 2015.

With a letter of 9 February 2016 the appellant-opponent filed the following further documents together with arguments concerning lack of inventive step:

L1: JP-6 045153

L2: WO-2004/047011 A2.

Although duly summoned, neither of the interveners II or III replied to the summons.

Oral proceedings before the board were duly held on 10 March 2016 in the absence of the interveners II and III in accordance with Rule 115(2) EPC and Article 15(3) RPBA.

- VI. The appellant-proprietor requests that the decision under appeal be set aside and that the patent be maintained as granted or in the alternative that the patent be maintained based on sets of claims according to auxiliary requests I to III filed with letter of 14 March 2013, or auxiliary requests IV to VII filed with letter of 25 March 2013.

The Appellant-Proprietor further requests documents and arguments filed late by the Appellant-Opponent be not admitted and for the case not to be remitted to the opposition division but for all relevant grounds to be decided by the Board.

- VII. The appellant-opponent requests that the decision under appeal be set aside and the patent be revoked in its entirety. The appellant-opponent further requests that the case be remitted to the opposition division in the event that the opposition grounds under Articles 100(a) and 100(b) EPC raised by interveners II and III need to be considered.

VIII. The interveners II and III request in writing that the patent be revoked in its entirety.

IX. Claim 1 of the main request (as granted) reads as follows:

A game operating device (10), comprising:

a longitudinal housing (12) having a thickness capable of being held by one hand (62); a first operating portion (26,42) provided on said housing (10), said first operating portion (26,42) provided on a first plane (20) of said housing (12) along a longitudinal direction (C1); an imaging means (56) to capture image data; a data transmission portion (70) for transmitting data by radio waves,

a second operating portion (42,28) provided on a second plane (22) opposed to said first plane (20) of said housing (12) at a position reached by an index finger (62b) of said one hand (62) when a thumb (62a) of said one hand (62) is placed on said first operating portion (26, 42); and

a holding portion (18) formed at a position where it can be held by a palm (62P) and other fingers (62c, 62d, 62e) of said one hand (62) when a thumb (62a) is placed on said first operating portion (26, 42) and an index finger (62b) is placed on said second operating portion (42, 28) the device being characterised by:

the imaging means (56) being provided at an end (52) opposed to said holding portion (18) of said housing (10) in such a manner that it can perform imaging in a direction in which the thumb (56a) is faced when said thumb (56a) is placed on said first operating portion

(26,42) and said holding portion (18) is held by said palm (62P) and the other fingers (62c, 62d, 62e); an image processing means (76) being provided in such a manner that it can obtain high intensity portion data on the position of a high intensity portion of the image data provided by the imaging means (50); an acceleration sensor (68) being provided inside said housing (12); and said data transmitted by said data transmission portion (70) being a sequence of data including operational data from said operating portions (26, 42; 42, 28), acceleration data from said acceleration sensor (68), and said high intensity portion data."

X. The appellant-proprietor argued as follows:

Extension of subject-matter

The invention disclosed in the original application related to ergonomic and position finding, so granted claim 1 is not an arbitrary grouping of features but develops particularly the latter aspect of the invention. Radio waves are disclosed in a general sense. Even if in some places they are disclosed as weak, this has no significance for the invention.

Magnitude and area mean the same. Area data may be used for determining distance of the controller from the game machine. However, the controller's movement is determined only from the position of the "high intensity portion data" captured by the imaging means, as is evidenced by the reference to a Japanese prior art document cited in the application. Therefore claiming "position data" without "area data" or "magnitude data" does not add subject matter.

Acceleration data and high intensity portion data are constantly being updated to determine controller movement, so this data implicitly forms part of the data sequence described in the application as filed as being sent to the controller. Therefore explicitly claiming these parts of the data sequence in granted claim 1 is not an extension of subject matter.

An antenna is necessary for transmitting radio waves, so this feature is implicit in claim 1 as granted and does not need to be explicitly claimed.

The case should not be remitted to the opposition division but the Board should deal with all issues.

The issue of inventive step introduced by the appellant-opponent is filed very late and could not be dealt with without adjournment of proceedings. Therefore it should not be admitted. The fresh arguments and opposition ground introduced into the proceedings for the first time by the interveners II and III are also late filed so should not be admitted.

In any case the invention is sufficiently disclosed and novel and inventive over S1, and S2. Claim 1 as granted differs from S1 in several aspects, including that none of the embodiments disclose operating portions on two opposing surfaces. The differing features can be treated separately in assessing inventive step. Embodiment 36 describes a controller with an imaging means, but no accelerometer. It would not be obvious to combine these features in one embodiment, S1 only suggests to substitute one position determining means for another, but not to combine two such means in a single embodiment. The general statement that embodiments can be combined neither invalidates this suggestion nor

renders the specific combination of features claimed obvious.

S2 is a less promising starting point for arriving at claim 1 as granted, since it does not disclose a controller with an imaging means, but merely a light intensity detector. From S2 the skilled person has no reason to replace this detector with an imaging means. The skilled person has no reason to add an accelerometer to the controller of S2.

XI. The appellant-opponent argued as follows:

The application as filed and original claims concerned ergonomic aspects of a controller. Granted claim 1 however adds features related to position finding. Thus the claim as a whole constitutes a new and arbitrary grouping of features that extends beyond the original disclosure.

Furthermore there is no basis in the description for the claim features of: "radio waves", without qualifying that they are "weak"; for high intensity portion "position data" without "area data" and or "magnitude data"; for the data transmitted to include operational data from the second operating portion, not only the first; for the claimed data sequence to include acceleration data and high intensity portion data, and for transmitting data without mentioning an antenna.

The case should be remitted to the opposition division in accordance with jurisprudence of the EPO.

Moreover, the appellant-opponents arguments and evidence filed with their last submission should be admitted. The issue of inventive step was not raised in the grounds of

appeal because the arguments pertaining to added subject matter appeared to be sufficient to ensure revocation of the patent. Only on receiving the provisional opinion of the Board did the appellant-opponent have doubts in this regard. The proprietor has been aware of the new documents cited for a long time since they are cited in related cases involving the same parties. Therefore they should have no difficulty in dealing with the issues raised.

As regards the inventive step issues raised by the interveners, starting from S1, the controller of embodiment 36 has an imaging means, but no accelerometer. Various differing claim features can be dealt with separately for assessing inventive step. The problem related to the differing claim feature of having an accelerometer in addition to the imaging means is to more precisely determine position. S1 discloses to use accelerometers in other embodiments. The description tells the skilled person to combine different embodiments, so in solving this problem it would be obvious to add an accelerometer to the the controller of embodiment 36.

XII. The interveners II and III argued as follows:

There is only basis in the original application and the parent application for high intensity portion position data together with area data. Leaving off the area data is an unallowable intermediate generalisation.

According to granted claim 1, the camera must be provided to perform imaging in the direction of the thumb. However, as figure 29 shows, the thumb can point in different directions, so the skilled person would not

know how to arrange the camera and would therefore not be able to carry out the invention.

As for inventive step, any mouse type controller or TV remote controller is a game controller as documents H1 and H2 show. Therefore S1 is pertinent as a starting point.

Starting from S1, it is implicit that operating portions are on opposing surfaces, since this belongs to the skilled person's general knowledge. The remaining claim features are known from S1. Therefore the subject matter of claim 1 as granted lacks novelty with respect to S1. Even if S1 were seen as not disclosing operating portions on opposite surfaces, it would be obvious to do so, since this is known from the skilled person's general knowledge or any of documents A1, A3, A4, A5 or S5. The processing of high intensity image data to determine controller position is known from A2.

Starting from S2, the only differing claim features are the two operating portions on opposite surfaces of the controller and an accelerometer. The former difference is obvious from any of A1, A3, A4, A5 or S5. The latter feature is disclosed in A1. Therefore the claimed subject-matter is obvious.

Reasons for the Decision

1. The appeals and the interventions are admissible.
2. Background of the invention

The present invention concerns a game operating device that analyses its movements using an image taken by an imaging device (patent specification, paragraph [0001]).

The device should be easy to operate when held in a hand (specification, paragraph [0011]).

3. Added subject matter, Article 123(2) and 76(1) EPC

3.1 The patent is based on a divisional application from a parent application EP 06155077 published as EP 1 757 344. The description of parent and divisional as originally filed are identical.

3.2 Claim 1 as granted is directed at a game operating device. It is based on claim 1 of the original application, but was amended during the grant procedure inter alia by adding the following features:

"data transmission portion for transmitting data by radio waves" (referred to as feature 1e);

"an image processing means (76) being provided in such a manner that it can obtain high intensity portion data on the position of a high intensity portion of the image data provided by the imaging means (50)" (referred to as feature 1i)

"said data transmitted by said data transmission portion (70) being a sequence of data including operational data from said operating portions (26, 42; 42, 28), acceleration data from said acceleration sensor (68), and said high intensity portion data." (referred to as feature 1k).

It is not in dispute that these features relate to movement detection, not ergonomics. Nor is it disputed that they have no literal basis in the original claims, or in the claims of the parent application. If they are to meet the requirements of Article 123(2) EPC because

they have a basis in the originally filed description and drawings as the appellant-proprietor has argued, then the claimed subject matter would also not extend beyond the parent application as filed (Article 76(1) EPC) since the description and drawings of both documents are identical.

3.3 In deciding the question of allowability of amendments under Article 123(2) EPC, the Board, following well established practice (see Case Law of the Boards of Appeal, 7th edition, 2013 (CLBA), II.E.1 and the decisions cited therein), must consider whether the amendments in question are directly and unambiguously derivable by the skilled person from the application as filed, using normal reading skills and, where necessary, taking account of their general knowledge. Furthermore, (see CLBA, II.E. 1.2 and the decisions cited therein) it will normally not be admissible under Article 123(2) EPC to extract isolated features from a set of features originally disclosed only in combination in a particular embodiment unless the skilled person recognizes without any doubt that the isolated feature is structurally and functionally unrelated to those other features and may therefore be applied in a more general context. The same principles apply also in regard of the requirements of Article 76(1) EPC, see CLBA, II.F.1.1.

3.4 In the board's view, the amendments to claim 1 have a basis in the description of the application as filed, therefore also in that of the parent application, so they meet the requirements of Articles 123(2) and 76(1) EPC. In the following the Board will explain this view, making reference to the application as filed, unless stated otherwise.

- 3.5 The Board is not convinced that the subject matter of granted claim 1 as a whole is an inadmissible extension of subject matter by the simple fact of combining movement detection and ergonomic features.

The description (paragraph [0001]), introduces the invention as relating to a game operating device with an imaging device for detecting movement. The disclosure of the invention starts with its ease of physical operation (paragraph [0009]), in other words ergonomic aspects. Thus the original description frames the invention as a device combining movement determination with an ergonomic arrangement. The controller of original claim 1 also reflects this framework, with its imaging means and housing for holding in the hand.

The skilled person reads the amendments to granted claim 1 with this framework in mind. They see the various additional movement detection features as fleshing out this original framework. Thus, irrespective of how much weight the description gives ergonomic aspects, the amendments constitute a narrowing down rather than a new teaching juxtaposing movement detection and ergonomic aspects for the first time.

- 3.6 Radio waves feature

Radio waves are disclosed in paragraphs [0104], [0112] [0113], [0130], [0163] as being "weak" radio waves. Applying the approach for examining added subject matter outlined above, the Board must consider whether there is a *direct and unambiguous* disclosure of the more general teaching of "radio waves", in the sense that it would be immediately clear to the skilled person from the whole disclosure read in context that the features claimed are not bound structurally or functionally in any way to the

weak nature of the radio waves but can be understood in a much broader sense.

The game operating device 10, with its wireless module 70, is a wireless controller (see paragraph [0095]). The purpose of the radio waves in granted claim 1, be they weak or not, is to send data from the controller 10 to the game machine (cf. paragraph [0104], penultimate sentence). Nothing in the application suggests that the weakness of the radio waves plays any role in fulfilling this purpose. The only reference to the significance of radio wave strength, is that weak radio waves should not be blocked by the hands (paragraph [0163]). This might suggest stronger radio waves could more reliably communicate data, but not that radio waves need to be weak to carry data. Thus even where the skilled person reads that radio signals are weak, they attach no functional significance to their weakness.

Furthermore, in another part of the description, the skilled person reads that data is transmitted from the controller 10 "by radio (weak radio waves)" (paragraph [0116]). Thus here they are first presented with the generic concept of radio, implying radio waves in a broad sense, before the narrower concept of "weak radio waves". At best, the skilled person might understand the latter as a preferred kind of radio waves. However, the Board considers that, with the concept marked off in parentheses, it cannot negate the more general "radio" disclosure preceding it.

Reading further in the application, the skilled person is again presented with the general concept of the controller 10 transmitting radio wave signals, without being qualified as weak (paragraph [0147]). Whether or not the passage relates more to LED indicators, the

skilled person recognises the radio wave signals referred to as those that communicate data.

Thus the Board holds that the original application directly and unambiguously discloses transmitting data by radio waves in a general sense as claimed.

3.7 Data sequence including data from both operating portions (feature 1k)

In the Board's view it is implicit from the description as filed that the data sequence disclosed therein includes data, not only from the first operating portion (the B button 28, see paragraph [0072]), but also from the second operating portion 42 (the A button 42, see paragraph [0079]).

It is true that in paragraphs [0100], [0104] and [0112] data is said to be output from operating switches having reference numerals 24 to 32, 44 to 46. These correspond to those on the first (top) operating surface, including the thumb operable B button, 28 (figure 1). The reference 42 of the A button, located on the opposing (bottom) surface and operable by the index finger, is however absent.

The purpose of the A button is described in paragraph [0080]. Players press it to make real-time gaming decisions, e.g. jumping, punching and capturing. Thus data from the A button is essential for progressing games. Indeed operating signals from the A button are output together with, inter alia, operating data from the direction switch 26 (paragraph [0099]). Thus operating signals from both first and second operating portions are output. The only signal output means disclosed in the application is the data transmission

portion 70, also called the wireless module 70. Thus when the skilled person reads paragraph [0104], just as they do the claims with a mind willing to understand, they realise that, not only operating signals from the first operating portion, but also those from the second operating portion, with its game story driving A button, are implicitly included in the signals output by data transmission portion 70.

3.8 Feature of the operational, acceleration and high intensity data being transmitted in the data sequence (feature 1k)

The only disclosure of a data sequence is in paragraph [0112]. The first sentence relates to operation signals from operating switches. The following sentence says that operation data is output as a "...sequence of controller data together with acceleration data and high-intensity portion data,...". The appellant-opponent has argued that, in contradiction to granted claim 1, only the operation signals are disclosed here as being output as a sequence of data. The Board disagrees.

The skilled person reads paragraph [0112] with the framework of the invention in mind (inter alia a game operating device that detects movements with an imaging device, paragraph [0001]). Thus, far from the high-intensity portion data, that is the image data, being a static set of data that might only need to be communicated once, it is dynamic, changing as the player moves the operating device. By the same token acceleration data is equally dynamic (paragraph [0100]). Both these quantities are used by the game machine to progress the game, in addition to the data from the operating switches (paragraph [0104], last two sentences).

Thus, just as switches are pressed at different times during the game and form part of a data sequence, so too does the high intensity data and acceleration data change with time. Reading paragraph [0112] with this in mind, the skilled person understands that the optical high-intensity portion data and acceleration data can but be part of the data sequence. The Board therefore finds that there is a basis for the data sequence to include high intensity portion and acceleration data in the application as filed.

3.9 Disclosure of high intensity portion position data, without including area and or magnitude data (features 1i and 1k)

Whether or not, in the present context, area and magnitude mean the same, the Board is of the opinion that the application as filed directly and unambiguously discloses obtaining and transmitting high intensity portion data on the position of a high intensity portion of the image independently of area and or magnitude data.

The imaging information arithmetic is explained in paragraphs [0110] to [0017] in conjunction with figures 8 and 9. The imaging device 56 images infrared LEDs 108 A and 109 B that are positioned on the game display 104 (paragraph [0115], figure 9). The images are used to provide an operation signal corresponding to movement of the controller (paragraph [0116], last sentence). It is true that in paragraphs [0111] and [0116] the image processing circuit 76 is said to detect the high intensity portion's position *and* area. According to paragraph [0116], data on the positions *and magnitudes* of the high-intensity points is transmitted from controller to game machine.

Although the proprietor has speculated that the area data may be used to calculate distance between controller and screen, the application says nothing about this. The game machine is merely said to take advantage of changes in the transmitted high intensity point positions and magnitude data to obtain an operation signal corresponding to controller movement (paragraph [0116], last sentence). Therefore the application gives neither the area nor magnitude data any particular significance. Nor is it explained here how image position data is used to detect the controller's position.

However, the following paragraph ([0117]) states that a more detailed explanation is not provided because "the principle behind the imaging information arithmetic is well known as described in Japanese patent No. 342283". This document is first cited in paragraph [0003]. There position is said to be detected based on information on image positions of light emitters, without mention of area or magnitude data. In other words the imaging arithmetic is based on the high intensity portion *position* data.

Thus, in the Board's view, a complete and contextual reading of the relevant parts of the description by the skilled person shows that it is the position data, independent of magnitude or area, which is significant in detecting movement of the controller 10. For these reasons the Board sees no functional or structural relationship between the high intensity position data and area or magnitude data.

Following the approach outlined above, the Board holds that there is therefore a direct and unambiguous disclosure of an image processing means obtaining high

intensity portion data on the position of a high intensity portion of an image and transmitting this as claimed.

3.10 Transmission of data without mentioning an antenna

The Board is also not convinced that subject matter is added by claiming a data transmission portion without claiming an antenna. From their general knowledge, the skilled person knows that an antenna is necessary for transmitting radio waves. Thus the skilled person reads the claimed data transmission portion 70 as implicitly including an antenna, not as a new teaching of a radio transmission means that needs no antenna.

3.11 For all these reasons the Board finds that the subject matter of claim 1 as granted does not extend beyond the application as filed.

4. Admissibility of new opposition grounds, arguments and evidence in the interventions and remittal to the opposition division

4.1 In accordance with decision G 1/94 of 11 May 1994 (OJ EPO 1994, 787), see point 13 of the Reasons, intervention under Article 105 EPC in pending appeal proceedings may be based on any ground for opposition under Article 100 EPC. Therefore the opposition grounds raised by the intervening parties in their notices of opposition, as such timely filed within the sense of Article 105(1)b with Rule 89(1) EPC, cannot be said to be late filed and are all admissible. By the same token, all arguments and evidence relied on by the interveners II and III in their opposition notice, including those pertaining to opposition grounds already in the proceedings, can also not be late filed.

- 4.2 Under Article 111(1) EPC the board of appeal may either decide on the case itself or remit it to the department responsible for the appealed decision.

If a fresh ground for opposition is raised by the intervener, the case should normally be remitted to the first instance for further prosecution, unless special reasons present themselves for doing otherwise, for example when the patentee himself does not wish the case to be remitted, see G 1/94, point 13 of the Reasons. The same considerations are also applicable where the factual and evidentiary framework of the proceedings changes ("fresh case") due to the intervention.

In the present case the interventions introduce both a new ground of opposition, that mentioned in Article 100(b) EPC, and a fresh case under Article 100(a) EPC, novelty and inventive step, based mainly on documents S1 and S2, not previously on file.

Applying the above approach laid out in G 1/94, in view of the appellant-proprietor's request for all outstanding issues to be dealt with by the Board (letter of 24 February 2016, page 1), and also considering the inactivity of the interveners II and III by the time of the oral proceedings, the Board decides not to remit the case to the opposition division. The only arguments in support of the appellant-opponent's request to do the contrary was a mere reference to the settled case law of the Boards of Appeal. The Board therefore decided to deal with all the remaining issues itself.

5. Article 100(b) EPC

Granted claim 1 defines that the imaging means 56 "is provided ... in such a manner that it can perform

imaging in a direction in which the thumb is faced when said thumb is placed on said first operating portion". Thus the claim defines the pointing direction of the imaging means with reference to how the controller is held in the hand.

The skilled person reads this feature with a mind willing to understand i.e. in order to arrive at a technically sensible interpretation that takes into account the whole disclosure of the patent, see CLBA, II.A.6.1 and the case law cited therein.

How the controller is held in a hand is explained in the specification paragraph [0078] with reference to figures 3 (a side view) and 4 (a frontal view). The thumb 62a on the first operating portion 26 is consistently shown with its main axis parallel to the longitudinal axis of the controller body, with the thumbnail pointing in the same direction as the imaging means 56 (figure 4). This is not different in figure 29: irrespective of the thumb's inclination, its nail points forwards as must the imaging means. The skilled person will therefore have no difficulty in understanding the claimed orientational relationship between thumb and imaging means when it is held in the hand.

Furthermore, figures 1 and 2 and paragraphs [0056] to [0078] describe in great detail how the controller 10, with its imaging means 56 is to be constructed. Thus, not only is the skilled person able to make technical sense of the claim, with thumb and imaging device facing in the same direction, but they also have detailed information on how to make the device.

In the Board's opinion, the skilled person is thus provided with a clear and complete teaching for

realising a game operating device as claimed. Therefore the Board concludes that the opposition ground under Article 100(b) EPC does not prejudice maintenance of the patent as granted.

6. Article 100(a) EPC, novelty and inventive step

6.1 Admission of late filed evidence L1, L2 and arguments based thereon

In accordance with Article 12(2) RPBA, an appellant's statement of grounds of appeal should contain their complete case. Inter alia it should specify expressly all the facts, arguments and evidence relied on. In accordance with Article 13(1) RPBA, any amendment to a party's case after it has filed its grounds of appeal or reply may be admitted and considered at the Board's discretion and further this discretion shall be exercised in view of inter alia the complexity of the new subject-matter submitted, the current state of the proceedings and the need for procedural economy. Furthermore, amendments made after the summons to attend oral proceedings have been issued are also subject to the discretion afforded by Article 13(3) RPBA, according to which amendments to a parties case sought to be made after oral proceedings have been arranged shall not be admitted if they raise issues which the Board or the other parties cannot reasonably be expected to deal with without adjournment of the oral proceedings.

The appellant-opponent restricted their grounds for appeal to the issue of added subject matter. With a letter of 10 February 2016 the appellant-opponent argued for the first time in appeal that the subject matter of granted claim 1 lacked inventive step starting from two new documents L1 and L2.

Introducing these new facts, arguments and evidence after filing the grounds of appeal constitutes an amendment to the appellant's case in accordance with Article 13(1) RPBA. Furthermore, filed as they were after oral proceedings had been arranged, this change of case is also subject to the stricter admissibility criteria laid out in Article 13(3) RPBA.

Since the appellant-proprietor's request for the patent to be maintained as granted remained unchanged throughout the appeal proceedings, the Board sees no developments in proceedings that might have justified a change in the appellant-opponent's case.

If, as the appellant-opponent has argued, the appellant-proprietor was aware of the newly filed documents for a long time in the context of other cases, so too must the appellant-opponent have been aware of them for an equally long time. However, unlike the proprietor, they were also aware, or could have been, of their possible significance for the case in hand and had a long time to prepare themselves.

In the Board's view, it is therefore all the less convincing that there can have been any justification for waiting until shortly before the oral proceedings to reveal this entirely new line of argument to the other parties and the Board. Whether or not the appellant-opponent began to doubt the strength of their original arguments at a late stage in the proceedings, admitting such new arguments would be incompatible with the fair conduct of proceedings and procedural economy.

Nor can the issues be considered to lack complexity. Starting as they do from new documents, L1 a Japanese document without translation, the Board considers that

the new issues raised could not be properly examined without adjournment of proceedings.

For all these reasons the Board decided not to admit the appellant-opponent's written arguments pertaining to inventive step or documents L1 and L2.

6.2 Arguments of the interveners II and III

Since interveners II and III have based arguments on implicit features and feature combinations from various embodiments of the same document, the Board notes the following:

The jurisprudence relevant to implicit disclosure of features is reviewed in CLBA, I.C.3.3, and the decisions cited therein. As with explicit disclosures, the standard applied is that of the direct and unambiguous disclosure of a feature. In this context "implicit disclosure" means disclosure which the person skilled in the art would objectively consider as necessarily implied in the explicit content.

Furthermore, when determining the content of a prior art document it is not permissible to combine separate items belonging to different embodiments described in one and the same document, unless such combination has specifically been suggested. See CLBA, I.C.3.2, in particular T 305/87, reasons point 5.3.

6.3 Inventive step starting from document S1

6.3.1 S1 discloses various controllers for a multimedia system (column 1, lines 5 to 16). As documents H1 and H2 show, such a controller can operate a game, so the controller is a game operating device.

Although the interveners II and III have not distinguished between embodiments in arguing lack of inventive step, bearing in mind that features from different embodiments cannot be artificially grouped in a new combination, the Board starts its analysis from embodiment 36, with its various refinements described as embodiments 37 to 39, all described in columns 35 to 37 in reference to figures 68 to 71. Crucially these embodiments all have a 2D CCD sensor 75a as an imaging means, a central feature of the disputed patent (cf. specification paragraph [0001] and granted claim 1). Thus the Board sees the remaining embodiments, without imaging means, as being less promising starting points for arriving at the claimed invention in an obvious manner.

The housing is not described in embodiment 36, however the Board has no reason to doubt that it will be as for the other embodiments: where it is always shown longitudinal with a first, thumb operable portion on a first (upper) plane and a holding portion that can be held in the palm of the hand (cf. figures 2, switches 9, 127, 128, column 13, line 66 to column 14, line 43 and figures 4, 17, 18, 35, 43, 48, 49, 54-57).

The Board also considers that the imaging means 75a must implicitly be provided at an end opposing said holding portion as claimed and which in use will be directed toward a screen (see column 35, lines 29 to 33, figure 68, cf. figure 35).

The operating device also comprises an image processing means 75b, and a data transmission portion 75c (column 35, lines 29 to 41).

6.3.2 Differing features

Nowhere does S1 show or describe any operating portions located on the opposing (lower surface), nor is this implicit anywhere in S1. Indeed in S1 all switches are consistently shown on the top surface. For this reason alone, the subject matter of claim 1 is new vis-à-vis S1.

The arrangement of embodiment 36 is further silent as to whether the transmission portion 75c transmits radio waves, cf. column 35, lines 40 to 42, cf. column 18, lines 45 to 50, column 25, lines 39 to 46). Nor does S1 disclose that a data sequence is transmitted.

Although the imaging sensor 75a obtains high intensity portion data, not this data but a cursor signal is transmitted (column 35, lines 38 to 41).

Lastly, the controller does not comprise an acceleration sensor.

6.3.3 It is not disputed that the various differences identified solve different partial problems and can therefore be treated separately for the purpose of assessing inventive step. To confirm inventive step it suffices to demonstrate that one of these is not obvious in the light of the prior art.

6.3.4 Acceleration sensor difference

The appellant-opponent has suggested the problem associated with this difference to be to more precisely determine controller position.

In the Board's opinion, the skilled person would not obviously find the claimed solution to this in S1.

The underlying purpose of the S1 controller is to move a cursor around a screen, without the need for an underlying surface (column 2, line 54 to column 3, line 7). To achieve this, some embodiments have angular speed detectors for measuring *orientation* (embodiments 1 to 33, column 14, lines 5 to 30; column 15, lines 13 to 24; column 32, lines 64 to 66). Other embodiments have accelerometers (embodiments 33 to 35, column 32, line 64 to column 33, line 3). These controllers are said to monitor movement (column 32, line 64 to column 33, line 1). Finally, the controller of embodiment 36 (and its refinements, embodiments 37 to 39) has an imaging means 75a that enable the cursor to be controlled based on its *position* relative to fixed light transmitters 77b (column 35, lines 6 to 10 and lines 31 to 36). Thus only embodiments 37 to 39 are said to detect position of the controller, and none of these use an accelerometer.

The description of embodiment 36 explains that any position determining means can be used instead of the imaging means (column 35, lines 60 to 63). Whilst it might therefore be obvious to remove the imaging means altogether and substitute it for some other means of detecting position, this would not result in a hybrid arrangement with an imaging means. Nor indeed does S1 explain how an accelerometer might be used to detect position: embodiments 33 to 35 have accelerometers but these are said to monitor movement for driving the cursor but not for detecting position.

The Board is also not convinced that the generic statement at the end of the description (column 37, lines 31-32), that concepts in the various embodiments

can be combined, renders the specific combination of an accelerometer and imaging means in a single controller obvious. Such a general statement would not induce the skilled person to ignore the specific instruction in embodiment 36 to substitute rather than combine position determining means, let alone prompt them to single out the specific concepts of an accelerometer and an imaging means for combination in a new hybrid controller.

For these reasons alone the Board is not convinced that it would be obvious for the skilled person to modify the embodiment 36, or any of its sub-embodiments, 37 to 39, all with imaging means 75a, by adding an accelerometer. Therefore the Board holds that the teaching of S1, starting from embodiments 36 to 39, does not prejudice inventive step of claim 1. Whether or not it would be obvious for the skilled person to modify the arrangement of these embodiments to arrive at the remaining differing claim features can therefore remain unanswered.

6.3.5 In the Board's opinion, the remaining embodiments of S1, being more remote from the invention, would also not lead the skilled person to the invention as a matter of obviousness, nor has this been argued. Therefore the Board concludes that S1 does not prejudice inventive step of granted claim 1.

6.4 Inventive step starting from S2

In the Board's view S2 is a less promising starting point than S1 for the skilled person to arrive at the claimed invention in an obvious manner.

6.4.1 S2 discloses a TV mouse for remotely controlling a cursor on a TV screen (abstract, figure 5), thus also a

game operating device. The mouse has optical sensors. However these do not capture image data as claimed but only measure the relative amount of light received from a beacon (paragraphs [0010] and [0015] to [0017]). Nor does S2 mention any accelerometer, radio wave transmission (cf. paragraph [0012]) or operating portions on opposing surfaces (cf. figures 1 to 3).

6.4.2 Although the interveners II and III have pointed out that A1 discloses locating a remote mouse by means of light or accelerometers as *alternatives* to a magnetic sensor (page 7, lines 25 to 30), neither they nor any other party has said why it would be obvious to arrive at a combination of a light detection means and accelerometers in a single device such as that of S2. Nor has any party explained why it would be obvious for the skilled person to replace the light intensity sensors of S2 with an imaging means as claimed. Furthermore, the Board itself sees no reason for considering these steps obvious for the skilled person. Therefore, irrespective of whether or not the skilled person would, as a matter of obviousness, modify S2 to transmit data by radio waves and provide operating surfaces on opposing surfaces as is said to be known from A1, A3, A4, A5 or S5, or process data as claimed, said to be known from A2, the Board finds that S2 combined with the skilled person's general knowledge or the teaching of A1 has not been proven to prejudice inventive step of claim 1 as granted.

6.5 In conclusion, the arguments presented by the interveners II and III and the appellant-opponent have failed to demonstrate a lack of novelty or inventive step of the subject matter of claim 1 as granted.

7. From the above the Board concludes that none of the grounds for opposition mentioned in Article 100 EPC prejudice maintenance of the patent as granted. Therefore the patent can be maintained as granted, Article 101(2) EPC. Thus the Board need not consider the proprietor-appellant's auxiliary requests.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is maintained unamended.

The Registrar:

The Chairman:



G. Magouliotis

A. de Vries

Decision electronically authenticated