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Datasheet for the decision
of 17 August 2020

Case Number: T 1504/17 - 3.2.04

Application Number: 11176961.8

Publication Number: 2524721

IPC: A63F13/211, A63F13/40

Language of the proceedings: EN

Title of invention:
Information processing program, information processing
apparatus, information processing system and information
processing method

Applicant:
Nintendo Co., Ltd.

Headword:

Relevant legal provisions:
EPC Art. 123(2), 54, 56

Keyword:
Amendments - added subject-matter (no)
Novelty - (yes)
Inventive step - (yes)

Decisions cited:

Catchword:

Case Number: **T 1504/17 - 3.2.04**

D E C I S I O N
of Technical Board of Appeal 3.2.04
of 17 August 2020

Appellant:	Nintendo Co., Ltd.
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted on 7 February 2017 refusing European patent application No. 11176961.8 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	J. Wright
Members:	C. Kujat
	W. Van der Eijk

Summary of Facts and Submissions

I.   The appeal was filed by the appellant (applicant)
        against the decision of the examining division to
        refuse the patent application in suit (hereinafter "the
        application").

II.   The examining division decided that the subject matter
        of the independent claims that were admitted into the
        proceedings lacked novelty or inventive step.

III.   Since the Board found the appellant's main request to
        be allowable, oral proceedings scheduled for
        18 August 2020 were cancelled.

IV.   The appellant-applicant requests with letter of
        5 August 2020 that the decision under appeal be set
        aside and that a patent be granted on the basis of the
        main request, filed as auxiliary request I on
        17 July 2020 or, in the alternative, on the basis of a
        first auxiliary request, filed as the main request on
        17 July 2020 or auxiliary request II, likewise filed on
        17 July 2020.

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

        "An information processing program (400) executed by a
        computer (10) of an information processing apparatus
        (3) for controlling an object (300) displayed on a
        display device (2) based on inputs from a movement
        sensor (701) for detecting a movement and an input
        section (9,72), wherein the movement sensor (701)
        detects at least one of an acceleration and an angular
        velocity, the information processing program causing
        the computer to function as:

display means (10, S1, S20) for displaying one of a
plurality of areas (A, B, C) on an entire screen of the
display device as a display area;
object determination means (10,S6) for determining an
object included in the display area as a target to be
moved to another one of the plurality of areas based on
an input from the input section; and
display switching means (10, S9, S10, S91, S101, S13,
S14, S20) for, when a predetermined movement wherein an
acceleration or an angular velocity is greater than or
equal to a predetermined value is detected by the
movement sensor in a state where the object included in
the display area being displayed on the display device
has been determined as the target to be moved,
switching the displaying of the area to the other one
of the plurality of areas different from the display
area currently displayed as a new display area, and
displaying the other area on the display device
together with the object determined as a target to be
moved by the object determination means".

Other independent claims 17, 18, 19 have corresponding
features to claim 1, albeit formulated in terms of an
information processing apparatus, system and method
respectively.

VI.   In the present decision, reference is made to the
        following documents:

        D1: US 2009/0241038A1
        D2: Masatomo Kobayashi and Takeo Igarashi "Boomerang:
        Suspendable Drag-and-Drop Interactions Based on Throw-
        and-Catch Metaphor", UIST 2007 Proceedings of the 20th
        annual ACM symposim on User interface software and
        technology, October 2007, pages 187-190.

D3:   Karsten Köper, Erik Simon, Harald Uenzelmann et
al "Ambermoon" game manual, Thalion Software, 1993,
Retrieved from the Internet: https://
www.gamesdatabase.org/Media/SYSTEM/Commodore_Amiga//
Manual/formated/Ambermoon_-_1993_-_Thalion_software.pdf
[retrieved on 8 January 2014]
D4: US 2006/0258455 A1
D5: Anonymous: "How to Move Wii Channels - wikiHow",
archived from the Internet Archive, archive.org, on
4 May 2011, http://web.archive.org/web/20110504232049/
http://www.wikihow.com/Move-Wii-Channels
D6: EP 2006764 A2
D7: US 5554980 A

VII.   The appellant-applicant's arguments can be summarised
        as follows:

        The claims of the main request do not add subject
        matter extending beyond the application as filed. None
        of the prior art discloses display switching means
        which switches in response to a movement sensor
        detecting an acceleration or angular velocity greater
        than or equal to a predetermined value. Therefore the
        subject matter of the independent claims is both new
        and involves an inventive step.

Reasons for the Decision

1.   The appeal is admissible.

2.   Background

        The application (see published application, EP2524721
        A2, paragraphs [0002] to [0008]) is concerned with
        performing display control of objects using a movement

sensor (of a hand-held controller) that allows an
object on a display area (screen) to be selected and
moved to another display area intuitively and with
improved operability.

3.   Added subject matter

3.1   The subject matter of claim 1 is a direct combination
        of original claims 1 and 17. Therefore, claim 1 does
        not contain added subject matter extending beyond the
        application as filed, Article 123(2) EPC.

3.2   Since the subject matter of the other independent
        claims 17, 18, 19 corresponds to that of claim 1, these
        likewise meet the requirements of Article 123(2) EPC.

4.   Main request, clarity

        The Board considers the subject matter of claim 1 to be
        clear. In particular, specifying that an area of a
        plurality of areas is displayed on an entire screen of
        a display device clearly defines what is meant by both
        an area and its relationship to the display device's
        screen (cf. impugned decision, point 6.2).

        Moreover, the description (page 7) has been amended to
        conform with the independent claims so that it supports
        those claims. Therefore, the Board is of the opinion
        that the application meets the requirements of Article
        84 EPC.

5.   Novelty of claim 1 with respect to D5

5.1   D5 (see page 1, photo) discloses how to move Wii
        channels, thus it is implicit that it runs an
        information processing program executed by a computer

of an information processing apparatus. The programme
controls an object (Wii channel to be selected) that is
displayed on a display device (the screen device shown
in the photo).

5.2   According to D5 (see top of page 2), a user grabs a
        channel to move by pointing at it and pressing the A
        and B buttons. Then the channel can be dragged
        somewhere else by moving the cursor. The A and B
        buttons constitute an input section (cf. application,
        column 14, lines 25 to 30 and column 15, lines 14 to
        17) and dragging movement implies the user moves the
        handheld input device of the Wii. Therefore D5
        discloses controlling the object based on inputs from a
        movement sensor for detecting movement and an input
        section. Furthermore, it is generally known to the
        skilled person that the Wii's on-board movement sensor
        includes acceleration and angular velocity detection
        (and it is likewise known to detect position/movement
        by imaging the infrared lights of the Wii sensor bar).

5.3   D5 also discloses (see page 2, "Tips", +/- buttons
        moves from one page to the next) that the programme can
        display a plurality of pages, each, when displayed,
        occupying the entire screen of the display device. So
        D5's program can cause the computer to function as
        display means for displaying one of a plurality of
        areas on an entire screen of the display device as a
        display area, as claim 1 requires.

5.4   As has been touched on, D5 explains that the Wii
        channels, which are objects on the page (display area),
        can be selected with A and B buttons as a target for
        moving, including to a different page. Therefore, D5
        discloses determination means for determining an object
        in a display area to be moved to another display area

based on an input from the input section. Once so moved, the object appears on the new page, in other words D5's programme causes the computer to act as a display switching means, switching to display a new display area, with the targeted object that has been moved there, as the last feature of claim 1 stipulates.

5.5   Therefore, the question of novelty hinges on whether, in D5, switching of an object between areas occurs when a predetermined movement of at least one of an acceleration and an angular velocity being greater or equal to a predetermined value is detected by the movement sensor in a state where the object included in the display area being displayed on the display device has been determined as the target to be moved. In the Board's view, D5 does not disclose this.

5.6   Rather, in D5, to move a channel to another page (in claim 1's terms: move an object to a new display area), an object is dragged and then hovered over the [virtual] + or - button on the side of the screen. Whilst the dragging of the object from its original position to, for example, the + button, requires a predetermined movement in terms of a displacement to a predetermined end position, D5 does not disclose to sense this movement by detecting acceleration or angular velocity, let alone by comparing this to a threshold. Indeed, since in D5 it appears that only the end *position* of the movement is predetermined, and not *how* it is reached, detection can but be independent of any acceleration or angular velocity exceeding a threshold.

5.7   Therefore, the Board considers that the subject matter of claim 1 is new with respect to D5.

6.   Novelty of claim 1 with respect to the remaining cited prior art

        The Board considers that the remaining available prior art does not take away novelty of the subject matter of claim 1.

6.1   D1 (see abstract and claim 1) discloses moving objects from one area of virtual space to another based on pointing position, thus independent of acceleration or angular velocity exceeding a threshold. Although (see paragraphs [0147] to [0149]) the hand held controller of D1 includes, for example, an acceleration sensor, it is merely disclosed to use the output of this for game processing (see for example paragraph [0151]), without suggesting to use it for moving an object between areas as claimed.

6.2   D2 (see abstract and page 187, right hand column and page 188 "THE BOOMERANG TECHNIQUE") discloses to move an object to a new area, in a simulated throwing of the object. However, rather than doing so by detecting acceleration or angular velocity exceeding a threshold, a dragged object is "thrown" by moving a mouse at a certain speed whilst dragging an object and then releasing the mouse button.

6.3   D3 discloses a game controlled by a mouse (see page 20, first paragraph). However, there is no suggestion to switch a displayed figure by detecting acceleration or angular velocity exceeding a threshold. Rather (see top of page 22) figures appear to be moved by dragging and dropping by holding and releasing the LMT (linke Maustaste - left mouse button).

6.4   D4 discloses a game in which figures are controlled
         positionally by detecting the position (not the
         acceleration or angular velocity) of a pointer on a
         touch screen (see abstract).

6.5   D6 (see abstract, paragraphs [0003] and [0008] and
         claim 1 with figure 16) discloses to control the
         position of an object in a virtual world by
         sequentially accumulating acceleration vector data.
         However it does not disclose a display switching means,
         let alone one operating by detecting when acceleration
         (or angular velocity) exceeds a threshold.

6.6   D7 discloses (see column 1, lines 5 to 16, column 8,
         lines 25 to 55) a hand held controller with an
         accelerometer. However, D7 does not suggest a display
         switching means by detecting acceleration or angular
         velocity exceeding a threshold. Rather it appears to
         disclose compensating the effect of gravity on position
         detection by using orthogonally arranged
         accelerometers.

7.   Main request, claim 1, inventive step

7.1   The Board is of the opinion that a display switching
         means switching a target object from one area to
         another by determining when acceleration or angular
         velocity exceeds a threshold is a technical feature
         (cf. impugned decision, reasons, point 6.2.1). The
         feature implies the use of technical means
         (acceleration sensor/angular velocity sensor) to detect
         a particular movement and uses this to determine how an
         object is controlled in a game space. Therefore, it is
         not a game aspect, such as a game rule, or specific to
         a particular role-playing game but a technical way of
         controlling an object in a game space.

7.2   D5 in combination with the skilled person's general
         knowledge

         As already explained, in D5 a display switching means
         requires a user to move an object to a new display area
         by dragging it to and hovering over a particular button
         (see above, point 5.6). In contrast, the claim defines
         display switching means switching a target object from
         one area to another by determining when acceleration or
         angular velocity exceeds a threshold. In other words a
         user must accelerate or turn the movement sensor in a
         particular way to switch display of a targeted object.

         In the Board's view, this difference makes the game
         world display switching experience akin to how a user
         might move an object in the physical world, and thus
         fulfils the application's object (see published
         application, paragraphs [0005] and [0030]) of moving an
         object more intuitively and thus with greater ease
         (improved operability in the words of the application).

         Therefore, the Board considers that the objective
         technical problem can be formulated as: how to adapt
         the program of D5 so that display switching a targeted
         object is easier for the user.

         In the Board's view (cf. impugned decision, section 8),
         however common place the knowledge of comparing a
         variable value derived from a movement sensor to a
         threshold in the field of user interfaces might be (no
         evidence on file proves this is so), the skilled person
         would not, when solving the objective technical
         problem, apply this knowledge to the program of D5.
         This is because D5 teaches to switch displays for an
         object in a way (hovering over a predefined button)

which is fundamentally independent of *how* an object is moved. It only requires the object to somehow arrive at a particular area of the screen (the button). Therefore, whatever steps the skilled person might consider to simplify operation of D5's arrangement from their general knowledge, they would not include detecting when acceleration or angular velocity exceeds a threshold.

7.3   Inventive step combining other available prior art

None of the available prior art (see the above discussion of novelty) discloses switching display for a target object by detecting when acceleration or angular velocity exceeds a threshold.

Therefore, however obvious the combination of any of this prior art might be, such a combination would not lead the skilled person to an information processing programme having a display switching means as claimed.

7.4   The Board concludes that the subject matter of claim 1 involves an inventive step, Article 56 EPC.

8.   Main request, novelty and inventive step, claims 17, 18, 19

The above considerations of novelty and inventive step with respect to claim 1 of the main request also apply to the remaining independent claims because they have corresponding features to claim 1 (formulated in terms of an information processing apparatus, system and method).

9.   Description

The Board notes that the original description (page 1) acknowledges prior art of equal relevance as D5, therefore it meets the requirements of Rule 42 (1)(b) EPC. Moreover, page 7 of the description has been adapted to reflect amendments in the independent claims in accordance with the requirements of Rule 42(1)(c) EPC. Therefore the Board is also satisfied that the description is correctly adapted to the pending main request.

10.   The Board concludes that the grounds for refusal of the application do not hold against the main request. This request therefore meets the requirements of the EPC and the Board need not consider the appellant-applicant's auxiliary requests.

Order

For these reasons it is decided that:

1.   The decision under appeal is set aside.

2.   The case is remitted to the examining division with
        order to grant a patent in the following version:

        Description:
        Pages 1 to 6 and 8 to 41 of the description as
        originally filed with letter of 9 August 2011,
        Page 7 filed with letter of 5 August 2020

        Claims:
        1 to 19 of the main request, filed as Auxiliary request
        I on 17 July 2020.

        Drawings:
        Sheets 1/30 to 30/30 of the drawings as originally
        filed with letter of 9 August 2011.

The Registrar: The Chairman:

C. Eickhoff   J. Wright

Decision electronically authenticated