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Datasheet for the decision of 19 February 2020

Case Number: T 1061/17 - 3.5.05

Application Number: 11811495.8

Publication Number: 2661679

IPC: G06F3/14, G06F1/32, G09G5/00

Language of the proceedings: EN

Title of invention:
SYSTEM TIMEOUT RESET BASED ON MEDIA DETECTION

Applicant:
Google Technology Holdings LLC

Headword:
SYSTEM TIMEOUT RESET BASED ON AUDIO VIDEO MEDIA DETECTION / Google

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - (no) - obvious alternative

Decisions cited:

Catchword:

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Beschwerdekammern

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Case Number: T 1061/17 - 3.5.05

D E C I S I O N
of Technical Board of Appeal 3.5.05
of 19 February 2020

Appellant: (Applicant)	Google Technology Holdings LLC 1600 Amphitheatre Parkway Mountain View, CA 94043 (US)
Representative:	Maikowski & Ninnemann Patentanwälte Partnerschaft mbB Kurfürstendamm 54-55 10707 Berlin (DE)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 29 November 2016 refusing European patent application No. 11811495.8 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chair	A. Ritzka
Members:	N. H. Uhlmann
	F. Blumer

Summary of Facts and Submissions

I. The appeal lies from the examining division's decision to refuse European patent application No. 11811495.8.

II. The examining division made reference to the following documents:

D1 US 6 018 803;
D2 US 2004/049705;
D3 US 2009/172218;
D4 EP 2 192 774;
D5 US 2010/250985;
D6 EP 1 238 689;
D7 US 2007/003030;
D8 US 2005/047617.

III. The examining division decided that the main request did not meet the requirements of Article 56 EPC and that the first and second auxiliary requests did not meet the requirements of Article 123(2) EPC.

IV. In its statement setting out the grounds of appeal the appellant maintained the main request and submitted amended first to third auxiliary requests.

V. The board scheduled oral proceedings.

VI. In the summons, the board set out its provisional view of the case. It considered, *inter alia*, that the requests on file did not meet the requirements of Article 56 EPC.

VII. By letter dated 29 January 2020, the appellant submitted arguments and filed an auxiliary request IV.

VIII. During the oral proceedings before the board the appellant submitted an auxiliary request V.

IX. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the main request as filed with letter dated 7 October 2016 during examination proceedings or, alternatively, on the basis of any of the first, second and third auxiliary requests, all as filed with the statement setting out the grounds of appeal dated 10 April 2017, or on the basis of auxiliary request IV as filed with letter dated 29 January 2020, or on the basis of auxiliary request V as filed during the oral proceedings before the Board on 19 February 2020.

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

"An electronic device (102), comprising:

a high-definition multimedia interface, HDMI, connector (106) configured to be coupled to a peripheral (104), the HDMI connector (106) for transferring audio data in an audio channel and video data in a video channel between the electronic device (102) and the peripheral (104);

a processor configured to execute a power manager application (152), the power manager application (152) being configured to timeout the HDMI connector after a period of time is exceeded without detecting user interaction with the electronic device (102) such that transfer of data via the HDMI connector is interrupted; and

a media data monitor (150) configured to detect whether audio data (144) is in an audio channel (156) of the HDMI connector (106), and responsive to the audio data being detected in the audio channel of the HDMI connector (106), to communicate a reset signal to the power manager application (152),

wherein the power manager application (152) in response to the reset signal is configured to reset the system timeout such that the period of time is not exceeded while audio data is detected."

XI. In claim 1 of the first auxiliary request, the term "electronic device" is replaced by the term "mobile device".

XII. Claim 1 of the second auxiliary request is based on claim 1 of the first auxiliary request. The wording "responsive to the audio data being detected and not user interaction" is added after the term "system timeout" in the last integer of the claim.

XIII. Claim 1 of the third auxiliary request is based on claim 1 of the second auxiliary request. The wording ", user interaction with the mobile device includes a key-press, a mouse or other pointing device input, a touch-screen or touch-pad input or an audio input from a microphone" is added at the end of the integer defining the processor.

XIV. Claim 1 of auxiliary request IV is based on claim 1 of the first auxiliary request. The "such that" clause in the integer defining the processor is worded "such that transfer of video data along with corresponding audio data via the HDMI connector is interrupted".

XV. Claim 1 of auxiliary request V is based on claim 1 of auxiliary request IV and further specifies that the media data monitor is configured to detect ", during execution of an application playing video along with audio," whether audio data is in the audio channel.

Reasons for the Decision

The application in this case pertains to a device and method for preventing the playback of media data being interrupted when a user is passively watching a movie, i.e. when no user interaction takes place.
It is foreseen that the device detects audio data in an HDMI connector and then prevents the interruption.

Main request

1. Patentability

The board finds that the subject-matter of claim 1 does not involve an inventive step.

1.1 Prior-art document D1 pertains to the field of power management in computer systems. It addresses a problem which occurs when multimedia movies are played without a user initiating any user input via the keyboard or mouse. When this occurs, an automated power management facility relying on user input may consider the computer system to be in an idle state and a suspend mode may be entered while the movie is still in progress (column 1, lines 13 to 38).

As a solution to this problem, D1 teaches that the utilization of a bus in the computer system may be detected and used to reset a global standby timer (column 2, lines 26 to 33 and 53 to 54).

In view of the above explanations, the board holds that document D1 forms a suitable starting point for an inventive-step analysis. In particular, the application in suit relates to the same problem (paragraphs 1 and 2).

1.2 Document D1 discloses an electronic device comprising audio and video interfaces coupled to a video device 126 and an audio device 128 (Figure 1 and column 3, lines 28 and 29). Implicitly, these interfaces transfer audio and video data between the electronic device and the audio and video devices.

Furthermore, D1 discloses a timeout function which is based on an idle timer. In particular, the timer value is counted down and if no mouse or keyboard events are detected a suspend mode, or lower-power mode, is entered or other power management measures are taken (column 1, lines 17 to 25 and column 3, lines 31 to 35).

Additionally, D1 discloses a bus utilization detection circuit, which is capable of detecting the playing of MPEG movies or video activity, on the basis of the detection of a sustained, and not bursty, bandwidth (column 7, lines 14 to 17 and 54 to 55, and column 9, lines 7 to 11). Upon detection, the idle timer is reset. Consequently, the idle timer does not reach a zero value (column 6, lines 57 to 64).

1.3 Document D1 does not disclose the following features of claim 1:

m1 an HDMI connector for transferring data between the electronic device and the peripheral

m2 in the event of timeout, transfer of data via the HDMI connector is interrupted

m3 instead of detecting video activity on a bus, it is detected whether audio data is in an audio channel of the HDMI connector.

1.4 The board considers that these three distinguishing features lead to separate effects and not to any synergistic effect. Accordingly, features m1, m2 and m3

will be addressed individually in the following reasoning.

1.5 The use of HDMI connectors and cables was so widespread in 2010 that the skilled person would effortlessly opt for providing such a connector in an electronic device which comprises audio and video interfaces.
Additionally, the bus utilization detection circuit may detect signals which represent bus activity on a PCI or any other type of bus (D1, column 4, lines 21 to 23).
Moreover, paragraphs 9 and 14 of the description state that either combined video/audio connectors or different connectors may be employed. Hence, feature m1 does not contribute towards an inventive step.

1.6 With regard to feature m2, the board holds that it is obvious that the transfer of video and audio data is interrupted if the entire electronic device enters a suspend mode (D1, column 1, lines 17 to 25 and column 3, lines 31 to 35).

1.7 Feature m3 leads to the same effect as achieved in document D1: the media playback is continued despite there being no user interaction.
Moreover, the application in suit does not disclose any effect which is specifically based on the detection of audio data in an audio channel of the HDMI connector.
On the contrary, paragraphs 35 to 40 pertain to the detection of video data.

1.8 Consequently, the board considers that the objective technical problem to be solved is to provide an alternative configuration for making sure that the media playback is continued.

1.9 Prior-art document D6 describes a games console which is equipped with a screensaver. It dims the screen after ten minutes of inactivity if there is no input

from the controller ports. The screensaver is disabled on the movie player and music player screens during playback; see paragraph 76. Hence, document D6 pertains to a related problem and would be considered by the skilled person when looking for a solution to the objective technical problem.

1.10 Document D6 teaches that the screen is not dimmed during music playback. Thus, the person skilled in the art would be motivated to modify the bus utilization detection circuit known from document D1 to detect audio activity. In this regard document D1 discloses that the bus utilization circuit may be "used to detect other types of activities such as soft modem activities for example" (column 7, lines 54 to 58).

1.11 The application in suit does not attribute any significance to the detection of audio data at the HDMI connector specifically. Rather, it is explained in paragraph 10 that "a media data monitor (e.g., a software application) detects the audio data in an audio channel of the HDMI connector, and/or detects the audio data at an input or output port of the electronic device". Furthermore, the description does not point out any difficulties with detecting audio data at an HDMI connector, nor is the board aware of any.

1.12 The appellant argued that document D1 did not disclose the detection of a particular type of data, but only the detection of levels of activity on a peripheral bus.

The board is not persuaded. First, while based on levels of activity on a bus, the playing of movies is indeed detected in D1, which implies that movie, or video, data is detected. Second, the application in suit does not describe in any detail how audio data is detected.

1.13 In view of the explanations in sections 1.7 to 1.12, distinguishing feature m3 does not contribute towards an inventive step.

1.14 The appellant submitted that the detecting of audio data in the audio channel of the HDMI connector was "based on a simple signal detection, e.g. detecting the presence or absence of an electric signal, in a single output channel of an HDMI connector".
This is not correct because at an HDMI interface audio data is interleaved with video data, and other data, using "Transition-Minimized Differential Signaling (TMDS)". No dedicated electrical signal, or wire, is foreseen for audio data. In this sense, the HDMI interface is similar to a computer bus in which video data and audio data are interleaved with other data.

Consequently, there is no synergistic effect from the distinguishing features m1 and m3.

1.15 The appellant's assertion that the audio signal was indicative of an ongoing or terminated state of video playback in "frequent video or multimedia applications" is not correct in every case. For example, depending on the specific use, some multimedia applications may output only pictorial information. Moreover, claim 1 refers only to transferring audio and video data, not to any "video playback".

1.16 The board notes that signal analysis over a period of time is needed when detecting video data (as described in document D1) and when detecting audio data, otherwise short periods of silence in a movie may lead to unwanted timeout of the HDMI connector.

1.17 The appellant argued that document D6 did not state "music playback", that paragraph 76 described the "music player" in contrast to a "movie player" and that

D6 did not provide any incentive for the skilled person to consider detecting an audio signal for determining movie playback.

These arguments are not convincing. D6 clearly teaches that during playback the screensaver is disabled on the music player screen. The fact that D6 discloses a movie player does not negate this teaching. Hence, there is a suggestion to disable the screensaver when music, i.e. audio, is reproduced. This points the skilled person to an alternative configuration as set out above in sections 1.8 to 1.11. The board notes in this regard that document D1 discloses the detection of a signal, albeit of a video signal.
Furthermore, claim 1 does not require that movie playback is to be detected.

1.18 The appellant explained that the method in D1 was primarily aimed at distinguishing between different video activities, pointing to column 2, lines 27 to 38 of D1. For this reason, D1 was not suitable as starting point for an inventive-step analysis.

The board is not convinced. As explained in section 1.1 above, the application in suit and D1 address the same problem. Furthermore, claim 1 does not specify the detection of audio data in any detail.

First auxiliary request

2. Patentability

Rather than an "electronic device", the independent claims refer to a "mobile device".

Bearing in mind that mobile computer systems, for instance laptops, were generally known well before the priority date of the application in suit, the subject-matter of the independent claims does not involve an

inventive step, for the reasons set out above with regard to the main request.

Second auxiliary request

3. Amendments

In its preliminary opinion the board raised an added-matter objection with regard to claim 1. In this regard, the board agrees with the appellant that the wording to which the board objected – "responsive to the audio data being detected and not user interaction" – could be interpreted in accordance with the original disclosure of the application, to the effect that the system timeout is reset when audio data is detected, independently of any user interaction.

Consequently, the added-matter objection is withdrawn.

4. Patentability

Document D1 discloses that the idle timer is reset when video activity is detected (see section 1.2 above), independently of any user interaction. Hence, the subject-matter of claim 1 does not involve an inventive step, for the reasons set out above with regard to the first auxiliary request.

Third auxiliary request

5. Patentability

Claim 1 additionally refers to a number of user interaction input techniques (lines 14 to 17).

With regard to inventive step, the board notes that document D1 discloses keyboard and mouse events as triggers for resetting an idle timer (column 1, lines 23 to 25). Consequently, the subject-matter of claim 1 does not involve an inventive step.

Auxiliary request IV

6. Patentability

Claim 1 has been amended to additionally recite that the transfer of video data along with corresponding audio data via the HDMI connector is interrupted.

As noted in section 1.6 above, the transfer of audio and video data is interrupted in the device in D1, too. Thus, the subject-matter of claim 1 does not involve an inventive step, for the reasons set out above with regard to the first auxiliary request.

Auxiliary request V

7. Patentability

Claim 1 is based on claim 1 of auxiliary request IV and further specifies that the media data monitor is configured to detect ", during execution of an application playing video along with audio," whether audio data is in the audio channel.

Document D1 discloses that activity is detected while an MPEG video is played (see section 1.2 above). Clearly, an MPEG video can include audio and video data.

For these reasons, and as explained above with regard to auxiliary request IV, the subject-matter of claim 1 does not involve an inventive step.

8. Conclusion

None of the appellant's requests satisfies the requirements of the EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chair:

C. Rodriguez Rodriguez A. Ritzka

Decision electronically authenticated