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Datasheet for the decision  
of 12 November 2018

Case Number: T 1648/13 - 3.5.07
Application Number: 05821645.8
Publication Number: 1825472

Language of the proceedings: EN

Title of invention:  
Method and apparatus for video editing on small screen with minimal input device

Applicant:  
Core Wireless Licensing S.à r.l.

Headword:  
Video editing/CORE WIRELESS

Relevant legal provisions:  
EPC Art. 52(2)(d), 54(1), 56  
EPC 1973 Art. 54(3), 54(4)

Keyword:  
Inventive step - main request (no) - auxiliary request (yes) - mixture of technical and non-technical features  
Novelty - auxiliary request (yes) - prior European application
Decisions cited:
T 1214/09, T 0505/13
Case Number: T 1648/13 - 3.5.07

DECISION
of Technical Board of Appeal 3.5.07
of 12 November 2018

Appellant: Core Wireless Licensing S.à r.l.
(Applicant)
12, rue Jean Engling
1466 Luxembourg (LU)

Representative: Derry, Paul Stefan
Venner Shipley LLP
200 Aldersgate
London EC1A 4HD (GB)

Decision under appeal: Decision of the Examining Division of the European Patent Office posted on 12 April 2013 refusing European patent application No. 05821645.8 pursuant to Article 97(2) EPC

Composition of the Board:

Chairman R. Moufang
Members: P. San-Bento Furtado
R. de Man
Summary of Facts and Submissions

I. The appeal lies from the decision of the Examining Division to refuse European patent application No. 05821645.8 after the appellant's disapproval of the text intended for grant. The present application was filed on 16 December 2005 as international application PCT/IB2005/003802, which was published as WO 2006/064358, and claims the priority of US application 11/016,098 filed on 17 December 2004. In the decision under appeal the Examining Division cited the following documents:

D4: EP 1 806 920 A1, published in accordance with Article 158(3) EPC 1973 on 11 July 2007;

The European patent application D4 was filed on 15 September 2005 as international application PCT/JP2005/017038 and claims the priority of Japanese application JP 2004285824 with filing date of 30 September 2004.

The application was refused for lack of novelty under Article 54(3) and (4) EPC 1973 of claims 1 to 8, 11 and 12 of a main request over European application D4, in so far as the same contracting states DE, FR and GB were designated, and for lack of inventive step, Articles 52(1) and 56 EPC, of the subject-matter of all claims of the main request in view of document D7 in combination with the teachings of document D5.

II. With the statement of grounds of appeal the appellant requested that the decision be set aside and that a patent be granted on the basis of the main request
considered in the decision under appeal, which was re-submitted with the grounds of appeal.

III. In a communication accompanying the summons to oral proceedings, the Board was of the preliminary opinion that claim 1 was novel over document D4, but that the subject-matter of independent claims 1 and 9 appeared to lack inventive step because they concerned implementations of a non-technical method of displaying two video streams in a given manner, that implementation using known conventional technical means in a usual way. Moreover, none of the claims of the request then on file seemed inventive over document D7.

IV. With a letter of reply the appellant filed a first auxiliary request.

V. Oral proceedings were held on 12 November 2018, during which the appellant submitted amended claims 1 to 11 to replace the previous claims of the first auxiliary request. At the end of the oral proceedings, the chairman pronounced the Board's decision.

VI. The appellant's final requests were that the decision under appeal be set aside and that a patent be granted on the basis of the main request filed with the statement of grounds of appeal or, in the alternative, on the basis of the first auxiliary request filed at the oral proceedings before the Board.

VII. Claim 1 of the main request reads as follows:
"A method comprising:

displaying a first video stream, the first video stream including a plurality of frames, and a second video stream, the second video stream being distinct from the first video stream and including a plurality
of frames, such that at least one of the plurality of frames within the first video stream and at least one of the plurality of frames within the second video stream overlap at an overlapping image area, wherein displaying comprises displaying the first video stream along a horizontal axis and displaying the second video stream along a vertical axis such that at least a portion of at least one additional frame outside of the overlapping image area from each stream is also displayed."

VIII. Claim 1 of the first auxiliary request reads as follows:
"A method comprising:

displaying a first video stream, the first video stream including a plurality of frames, and a second video stream, the second video stream being distinct from the first video stream and including a plurality of frames, such that one of the plurality of frames within the first video stream and one of the plurality of frames within the second video stream overlap at an overlapping image area, and such that at least one frame in the overlapping image area is at least partially transparent such that both frames are visible, wherein displaying comprises displaying frames of the first video stream along a horizontal axis and displaying frames of the second video stream along a vertical axis such that at least a portion of at least one additional frame outside of the overlapping image area from each stream is also displayed;

in response to user input, changing the frames displayed in the overlapping image area by moving the first video stream left/right and moving the second video stream up/down; and

selecting the frames displayed in the overlapping image area for creating a single video stream by
transitioning between the first video stream and the second video stream."

Claims 2 to 5 of the first auxiliary request are dependent upon claim 1.

Claim 6 of the first auxiliary request reads as follows:
"A computer program product, comprising computer program code which, when executed by a computer apparatus, causes the computer apparatus to perform a method according to any of the preceding claims."

Claim 7 of the first auxiliary request reads as follows:
"An electronic device, comprising:

means (32, 56) for displaying a first video stream, the first video stream including a plurality of frames, and a second video stream, the second video stream being distinct from the first video stream and including a plurality of frames, such that one of the plurality of frames within the first video stream and one of the plurality of frames within the second video stream overlap at an overlapping image area, and such that at least one frame in the overlapping image area is at least partially transparent such that both frames are visible,

wherein the means for displaying comprises means for displaying frames of the first video stream along a horizontal axis and displaying frames of the second video stream along a vertical axis such that at least a portion of at least one additional frame outside of the overlapping image area from each stream is also displayed;

means (56) responsive to user input for changing the frames displayed in the overlapping image area by
moving the first video stream left/right and moving the second video stream up/down; and means (56) for selecting the frames displayed in the overlapping image area for creating a single video stream by transitioning between the first video stream and the second video stream."

Claims 8 to 11 of the first auxiliary request are dependent upon claim 7.

IX. The appellant's arguments, where relevant to this decision, are discussed in detail below.

**Reasons for the Decision**

1. The appeal complies with the provisions referred to in Rule 101 EPC and is therefore admissible.

The invention

2. The present application concerns a system and a method for a user to quickly and easily view two different video clips simultaneously for video editing purposes and in particular for selecting a particular video frame for use in clipping and/or combining two video clips e.g. by cross-fading or wiping (see international publication, paragraphs [0001], [0005], [0013] and [0018]). According to the description, the invention is particularly advantageous when used in devices with small screens (paragraphs [0004] and [0006]).

2.1 In order to facilitate matching two video clips ("video streams" in the claims), in the present invention the frames of one video clip are arranged along a vertical timeline and the frames of the other video clip along a horizontal timeline. Either video clip can be moved
along the respective timeline by moving an input device
to the left and right, for the video arranged
horizontally, and up and down, for that arranged
vertically (paragraph [0005]).

2.2 The two video clips are displayed to cross each other
such that corresponding two frames, one from each
video, overlap on one image area. Leading and trailing
frames of the overlapping frames may be shown for both
video streams (paragraph [0015], Figures 3 and 4). At
least one frame in the overlapping image area is at
least partially transparent such that the overlapping
frames of both videos are visible (paragraph [0014],
original claim 9).

Main request

3. Technical contribution and inventive step - claim 1

3.1 Claim 1 merely defines a particular way of displaying
two video streams by specifying how the video frames of
each video are arranged on the display for the purpose
of presenting the video streams to the user. From the
text of the claim it is impossible to derive any other
purpose of displaying the two video streams in the
specific way claimed, let alone a technical purpose.
The video streams could be displayed in that manner for
instance for aesthetical reasons.

The appellant's argument that the horizontal and
vertical orientation led to a technical effect related
to the ease with which video clips could be displayed
and edited on a small screen is not convincing with
regard to claim 1 of the main request. This claim does
not define at all the interaction with the user, an
editing purpose or editing steps. The Board is not
convinced either that "ease of display" is achieved and that that by itself could be considered a technical effect in the context of claim 1.

Although claim 1 implicitly requires the use of technical means, including a computer and a display, all the other features of claim 1 do not achieve a technical effect and relate to presentation of information as such, which is excluded from patentability under Article 52(2)(d) and (3) EPC.

3.2 In accordance with established case law, such features lack technical character and cannot contribute to inventive step. The claim describes the method features only in terms of how the video streams are displayed on the screen. It does not describe specific details of the implementation, which thus has to be assumed to be well known.

The Board thus concludes that the method of claim 1 corresponds to an implementation of a non-technical method of displaying two video streams in a given manner, that implementation using widely known conventional technical means in a usual way.

3.3 It follows that claim 1 does not fulfil the requirements of Article 56 EPC over a general-purpose computer including a well-known display.

First auxiliary request

4. Claim 1 of the first auxiliary request differs from that of the main request essentially in that
(a) "displaying the first/second video stream along a horizontal/vertical axis" was amended to
"displaying the frames of the first/second video stream ...";
and in that the following features were added:
(b) at least one frame in the overlapping image area is at least partially transparent such that both frames are visible;
(c) in response to user input, the frames displayed in the overlapping image area are changed by moving the first video stream left/right and the second video stream up/down;
(d) the frames displayed in the overlapping image area are selected for creating a single video stream by transitioning between the first and the second video streams.

5. Clarity and support - Articles 84 and 123(2) EPC

5.1 Claim 1 of the first auxiliary request is supported by original claims 8 to 12, in combination with features disclosed on page 3, last three lines, to page 4, third line, and on page 6, third to fifth lines, the same applying for corresponding independent claims 6 and 7. Dependent claims 2 to 5 correspond to original claims 14, 15, 12 and 13, respectively. The same basis holds for dependent claims 8 to 11, which recite features of an electronic device corresponding to those of method claims 2 to 5.

5.2 There are no outstanding clarity objections.

5.3 The Board is therefore satisfied that the claims of the first auxiliary request satisfy the requirements of Articles 84 and 123(2) EPC.
6. **Technical contribution and inventive step**

6.1 Due to the additional features, an inventive-step reasoning similar to that given above with regard to the main request cannot be applied to claim 1 of the first auxiliary request, as explained in the following.

6.2 In general, the implementation of a graphical user interface (GUI) includes non-technical aspects of the GUI layout but also technical aspects regarding user-computer interaction (for an overview of decisions see Case Law of the Boards of Appeal, 8th edition, July 2016, I.D.9.1.6). In decision T 1214/09 of 18 July 2014 the present Board found that a particular arrangement of thumbnail file images did not contribute to the technical solution of the problem of enabling more efficient image retrieval (reasons 4.8.8), but that providing a mechanism for inputting a selection from a number of items was a technical task (reasons 6.3). Similarly, in decision T 505/13 of 6 June 2018 the Board found that, even though the user interface in that case fulfilled user requirements of a non-technical nature, the decisions of what input mechanisms to use in the user interface to support those tasks were of a technical nature (reasons 8.3).

6.3 In the present case, amendments (c) and (d) introduced specific features of a user-interface for video editing in a computer which are technical features going beyond a non-technical method for presentation of information. Unlike claim 1 of the main request, the method of claim 1 of the first auxiliary request can no longer be seen as concerning mere presentation of information. The consideration of which features of the claimed invention make a technical contribution has hence to be reviewed.
6.4 In the Board's opinion, the display of the frames of the video streams vertically and horizontally makes a technical contribution in combination with the other features of the claimed invention, since it influences the way the user interacts with the computer to perform a video-editing operation for combining two video streams by selecting a frame from each video stream.

6.5 Since the Board is not convinced that the claimed solution is notoriously known, a comparison with the prior art other than a general purpose computer is necessary.

7. **Novelty - Document D4**

7.1 Since European application D4 was published after the date of priority of the present application, but enjoys an effective filing date prior to that of the present application (see section I above), it may only form part of the state of the art under Article 54(3) and (4) EPC 1973 with regard to the question of novelty.

7.2 In the decision under appeal, the Examining Division found that document D4 disclosed all the features of claim 1 of the then main request in paragraphs [0135] and [0164] to [0168] and Figures 10A to 12B.

7.3 The cited passages of D4 describe a method for removing a portion of a video stream consisting of GOP (group of pictures) units, each such unit comprising a number of frames. The video stream is first displayed in a "GOP mode" as a sequence of GOP-unit thumbnails along a horizontal axis. The thumbnail that is currently selected is shown in an area 500C (paragraph [135], Figures 10A, 10B and 11A). When the user operates the
Up key, the system shifts to a "frame mode" in which the frames of the currently selected GOP-unit are displayed along a vertical axis, so that the user can select one of the frames as an edit point (paragraphs [0143] and [0164], Figures 11B to 12B). The vertical frame sequence overlaps the horizontal GOP sequence in the area 500C. When the right or left key is operated in the frame mode, the system changes to the GOP mode and displays only the GOP-unit thumbnails along the horizontal axis (paragraph [0173]).

7.4 In the grounds of appeal the appellant disagreed with the interpretation of "video stream" by the Examining Division and contested that document D4 disclosed displaying two video streams. As was commonly known in the art, a video stream comprised a number of frames that were included in a sequence for the purpose of playing back as video. The GOP-unit thumbnail array of images of D4 was not intended to be played as a video and were not a video stream.

The appellant also argued that the images arranged vertically in the system of document D4 were part of the same video stream as the I pictures displayed horizontally. Document D4 did not disclose the video streams as being distinct from each other, it only disclosed displaying different portions of a single video stream. Furthermore, it did not disclose the overlapping frames. The frames displayed vertically in the system of D4 were the frames represented by the selected thumbnail displayed in the center of the horizontal array of pictures.

7.5 The Board agrees that the system of D4 is different from the present invention. Document D4 does not disclose the feature of overlapping frames, since the
area 500C of overlap between the horizontal and vertical arrays of Figures 11B to 12B displays either the common frame between the two video streams (the frame used to represent the GOP-unit) or only a frame of the vertical stream 600. In the frame mode, in which the system displays a horizontal GOP sequence and a vertical frame sequence, the area 500C is used to select a single frame, whereas in the claimed method one frame from each video stream is selected.

7.6 The subject-matter of claim 1 is hence new over the disclosure of document D4 (Article 54(1) EPC).

8. Inventive step - Document D7

8.1 Document D7 discloses systems for video editing which display video-frame sequences of two distinct video streams (or clips or cuts) to be edited along horizontal time lines (column 14, line 35 to column 16, line 9, Figure 1; column 4, lines 25 to 51, Figure 3; column 22, line 42 to column 24, line 29, Figures 17A and 17B). In each of the systems of Figures 1 and 3, two different video streams are displayed along horizontal time lines (column 14, lines 35 to 39, Figure 1, time lines 102 and 103; column 4, lines 25 to 28, Figure 3, time lines 302, 303). Using either of those video editing systems, the user may append one video stream to the other by means of "effect editing" in such a way that "a picture is switched over to another one while the contents of the picture are changed" using some visual effect (column 1, lines 47 to 49). For example, in Figure 1 the synthesised video stream 104 is obtained from video streams 102 and 103 by applying a dissolve effect to transition a scene in video clip 102 to one in video clip 103 (column 14, lines 50 to 55). A third horizontal line is used to
render the film image synthesised from both videos using the chosen effect (column 14, lines 54 and 55, Figure 1, time line 104), or an "effect pattern symbol" (column 4, lines 38 to 43, Figure 3, time line 304).

In order to append one video to the other by "effect editing", the user may select the overlapping range of both videos (column 4, lines 34 to 37; column 15, lines 14 to 26) and a wipe or a dissolve effect (or pattern) to be used for transitioning from the first to the second video stream (column 4, lines 38 to 43, column 15, line 52 to column 16, line 4, Figure 1).

8.2 The method of claim 1 differs from that of document D7 at least in that it includes features b and c listed under point 4. above and in that (e) the second video stream is displayed along a vertical axis and (f) one frame within the first video stream and one within the second video stream overlap at an overlapping image area; where (g) the overlapping image area is used to select the frames for creating a single video stream.

8.3 The systems disclosed in document D7 support the kind of video editing operation involving a transition described in claim 1.

Therefore, the distinguishing features represent an alternative solution to implement a user interface for combining two video streams by a transition, where a frame from each video stream has to be chosen for the editing operation.
8.4 Document D7 does not include any pointer to the solution. Moreover, in order to display the second video stream along a vertical axis in one of the systems disclosed in document D7, the system's user interface and its technical functioning would have to be completely redesigned. The Board is of the opinion that the skilled person would not modify any of the solutions of document D7 in that manner. Document D7 discloses video editing systems that provide complete solutions and advanced video-editing functionality. Some of the functionality supported, e.g. a number of frames constituting the transition or the simultaneous display of the result, could not be supported without major redesign if the second video frames were displayed along a vertical line.

8.5 The subject-matter of claim 1 is therefore inventive over the disclosure of document D7.

9. **Inventive step - document D5**

9.1 Document D5 discloses a video browsing interface which simultaneously displays a scene key-frame list (scene list) along a horizontal axis, and a scene-structure key-frame list (scene-structure list) for a selected scene along a vertical axis (paragraphs [0037] and [0039], Figure 2). The scene list is composed of key frames representing each scene, and the scene-structure list is composed of important key frames of a scene (paragraph [0038]). The user can move to a position of a media file by "determining which part of key frames represents a desired scene, and selecting a corresponding key frame" (paragraph [0040]).
Document D5 refers to the possible use of the interface for editing (paragraph [0070]), but does not give any details of such a solution.

10. The user interface of document D5 has a different purpose than the present invention. It supports video browsing of one video, whereas the present invention concerns video editing of two videos.

The scene and scene-structure lists of document D5 are similar to those disclosed in document D4, since they are used to select a single frame of a video stream. Using the horizontal sequence, the user browses from one scene to another; using the vertical sequence the user may browse within the scene selected in the horizontal sequence. This concept is very different from that of the present invention, in which the frames of the two video streams can be independently shifted along the two directions.

10.1 Document D5 does not disclose an editing operation based on one frame from a first video stream and one frame from a second video stream, nor how to select two video frames, one from each video stream. The subject-matter of claim 1 differs from the method of document D5 in that two frames, one of each video stream, overlap at an overlapping image area and in that it includes features b to d.

10.2 In order to arrive at the present invention starting from the disclosure of document D5, the skilled person would have to fundamentally change the way a frame of a video sequence is chosen in document D5. In the Board's opinion, that would involve a complete change of the system of document D5, which would not be an obvious choice. In fact, it is even questionable that
document D5 is an appropriate starting point for the inventive-step assessment of the claimed invention, since it does not solve a problem of video editing or selecting two frames, one from each video stream.

10.3 The subject-matter of claim 1 is therefore inventive over the disclosure of document D5.

11. **Inventive step - conclusion**

11.1 For the reasons given above, the subject-matter of claim 1 of the first auxiliary request is inventive over documents D5 and D7. The same conclusion applies to independent claims 6 and 7, which correspond to claim 1, and to claims 2 to 5 and 8 to 11, by virtue of their dependence upon the corresponding independent claim 1 or 7.

11.2 The Board is therefore satisfied that the first auxiliary request fulfils the requirements of Article 56 EPC.

**Conclusion**

12. The main request is not allowable because it does not fulfil the requirements of Article 56 EPC. With regard to the first auxiliary request, the Board is satisfied that the subject-matter is new and inventive and that the claims are allowable. The decision under appeal is therefore to be set aside.
Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the department of first instance with the order to grant a patent on the basis of claims 1 to 11 of the amended first auxiliary request filed at the oral proceedings, figures 1 to 5 as published and a description yet to be adapted.

The Registrar:     The Chairman:

I. Aperribay       R. Moufang

Decision electronically authenticated