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**Datasheet for the decision
of 13 March 2019**

Case Number: T 0950/15 - 3.5.03

Application Number: 09774927.9

Publication Number: 2362988

IPC: H04H60/56

Language of the proceedings: EN

Title of invention:

SIMULCAST RESOLUTION IN CONTENT MATCHING SYSTEMS

Applicant:

Media Instruments SA

Headword:

Content matching system/MEDIA INSTRUMENTS

Relevant legal provisions:

EPC Art. 84, 123(2)

RPBA Art. 13(1)

Keyword:

Clarity (no); added subject-matter (yes) - main and 1st
auxiliary requests

Admissibility (no) - 2nd auxiliary request

Decisions cited:

Catchword:



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Case Number: T 0950/15 - 3.5.03

D E C I S I O N
of Technical Board of Appeal 3.5.03
of 13 March 2019

Appellant: Media Instruments SA
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Representative: Hoeger, Stellrecht & Partner
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted on 15 December
2014 refusing European patent application No.
09774927.9 pursuant to Article 97(2) EPC.

Composition of the Board:

Chairman F. van der Voort
Members: T. Snell
S. Fernández de Córdoba

Summary of Facts and Submissions

- I. This appeal is against the decision of the examining division refusing European patent application No. 09774927.9 with publication number WO 2010/049809 A1. The application was refused on the grounds of lack of clarity (Article 84 EPC) and added subject-matter (Article 123(2) EPC) with respect to claim 1 of the main request. An auxiliary request was not admitted as claim 1 prima facie did not comply with Articles 84 and 123(2) EPC either.
- II. Together with the statement of grounds of appeal, the appellant filed claims respectively of a new main request and a new auxiliary request. The appellant requested that the decision be set aside and a patent be granted on the basis of either request.
- III. In a communication accompanying a summons to oral proceedings, the board gave a preliminary opinion agreeing with the examining division that claim 1 of the main request did not comply with Articles 84 and 123(2) EPC. The same objections applied to claim 1 of the auxiliary request.
- IV. In a response to the board's communication dated 13 February 2019, the appellant filed claims respectively of a new main request and a new [first] auxiliary request on which the further proceedings were to be based.
- V. Oral proceedings were held on 13 March 2019.

At the oral proceedings, the appellant filed a second auxiliary request.

The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims of the main request or, in the alternative, of the [first] auxiliary request, both requests as filed with the letter dated 13 February 2019, or of the second auxiliary request, as filed during the oral proceedings.

After due deliberation, the chairman announced the board's decision at the end of the oral proceedings.

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

"An apparatus to identify media sources, the apparatus comprising:

a scanning engine (7) to:

compare unknown media signatures (5, 30) generated from unknown media corresponding to a first viewing segment with reference signatures (6, 40) generated from reference media provided by a plurality of reference media sources (50), the unknown media signatures (5, 30) and the reference signatures (6, 40) having respective timestamps, the first viewing segment corresponding to a period of time in which a media device (3) that presented the unknown media was tuned to a same one of the reference media sources (50);

determine tracking segments (60-64) for the first viewing segment, the tracking segments (60-64) being associated with respective ones of the reference media sources (50), respective ones of the tracking segments (60-64) representing respective strings of consecutive matches between the unknown media signatures (5, 30) corresponding to the first viewing segment and

respective reference signatures (6, 40) for the respective ones of the reference media sources (50), the scanning engine (7) to iteratively determine a first one of the tracking segments (60-64) associated with the first viewing segment and a first one of the reference media sources (50) by:

(i) determining whether a first time interval between a first one of the reference signatures (6, 40) of the first one of the reference media sources (50) corresponding to a match with a first one of the unknown media signatures (5, 30) associated with a present processing iteration and a second one of the reference signatures (6, 40) of the first one of the reference media sources (50) corresponding to a previous match with a second one of the unknown media signatures (5, 30) associated with a previous processing iteration is the same as a second time interval between the first one of the unknown media signatures (5, 30) and the second one of the unknown media signatures (5, 30), and

(ii) in response to determining that the first time interval and the second time interval are the same, appending the second one of the reference signatures (6, 40) to the first one of the tracking segments (60-64); and

after the tracking segments (60-64) for the first viewing segment are determined, evaluate time lengths of the tracking segments (60-64) to identify which reference media source in the plurality of reference media sources (50) provided the unknown media corresponding to the first viewing segment, a respective time length for the first one of the tracking segments (60-64) being given by a difference

between a first timestamp associated with an initial signature stored in the first one of the tracking segments (60-64) and a second timestamp associated with a last signature stored in the first one of the tracking segments (60-64); and

a memory (8) to store the tracking segments (60-64)."

VII. Claim 1 of the first auxiliary request reads as follows:

"An apparatus to identify media sources, the apparatus comprising:

a scanning engine (7) to:

compare unknown media signatures (5, 30) generated from unknown media corresponding to a first viewing segment with reference signatures (6,40) generated from reference media provided by a plurality of reference media sources (50), the unknown media signatures (5, 30) and the reference signatures (6, 40) having respective timestamps, the first viewing segment corresponding to a period of time a media device (3) that presented the unknown media was tuned to a same one of the reference media sources (50);

determine candidate tracking segments (60-64) for the first viewing segment, the candidate tracking segments (60-64) associated with respective ones of the reference media sources (50), respective ones of the candidate tracking segments (60-64) representing respective strings of consecutive, synchronous matches between the unknown media signatures (5, 30) corresponding to the first viewing segment and respective reference signatures (6, 40) for the

respective ones of the reference media sources (50), a match between a first one of the unknown media signatures (5, 30) and a first one of the reference signatures (6, 40) of a first one of the reference media sources (50) being synchronous when a first time interval between the first one of the reference signatures (6, 40) and a preceding second one of the reference signatures (6, 40) of the first one of the reference media sources (50) corresponding to a previous match with a corresponding second one of the unknown media signatures (5, 30) is the same as a second time interval between the first one of the unknown media signatures (5,30) and the second one of the unknown media signatures (5, 30); and

after the tracking segments (60-64) for the first viewing segment are determined, evaluate time lengths of the candidate tracking segments (60-64) to identify which reference media source in the plurality of reference media sources (50) provided the unknown media corresponding to the first viewing segment, a respective time length for the first one of the candidate tracking segments (60-64) being given by a difference between a first timestamp associated with an initial signature stored in the first one of the candidate tracking segments (60-64) and a second timestamp associated with a last signature stored in the first one of the candidate tracking segments (60-64); and a memory (8) to store the tracking segments (60-64)."

VIII. Claim 1 of the 2nd auxiliary request reads as follows (with amendments with respect to the main request being indicated for ease of comprehension):

"An apparatus to identify media sources, the apparatus comprising:

a scanning engine (7) to:

compare unknown media signatures (5, 30) generated from unknown media corresponding to a first viewing segment with reference signatures (6, 40) generated from reference media provided by a plurality of reference media sources (50), the unknown media signatures (5, 30) and the reference signatures (6, 40) having respective timestamps and being numbered, the first viewing segment corresponding to a period of time in which a media device (3) that presented the unknown media was tuned to a same one of the reference media sources (50);

determine tracking segments (60-64) for the first viewing segment, the tracking segments (60-64) being associated with respective ones of the reference media sources (50), respective ones of the tracking segments (60-64) representing respective strings of consecutive matches between the unknown media signatures (5, 30) corresponding to the first viewing segment and respective reference signatures (6, 40) for the respective ones of the reference media sources (50), the scanning engine (7) to iteratively determine ~~a first one of the~~ respective tracking segments (60-64) associated with the first viewing segment and ~~a first the~~ respective one of the reference media sources (50) by:

- (i) iteratively determining whether a first time interval between a first one of the reference signatures (6, 40) of the ~~first one of the~~ respective reference media sources (50)

corresponding to a match with a first one of the unknown media signatures (5, 30) associated with a present processing iteration and a second one of the reference signatures (6, 40) of the ~~first one of the~~ respective reference media sources (50) corresponding to a the previous match with a second one of the unknown media signatures (5, 30) associated with a previous processing iteration is the same as a second time interval between the first one of the unknown media signatures (5, 30) and the second one of the unknown media signatures (5, 30), and

(ii) in response to determining that the first time interval and the second time interval are the same, appending the second one of the reference signatures (6, 40) to the ~~first one of the~~ respective tracking segments (60-64); and

after the tracking segments (60-64) for the first viewing segment are determined, evaluate time lengths of the tracking segments (60-64) to identify which reference media source in the plurality of reference media sources (50) provided the unknown media corresponding to the first viewing segment, a respective time length for the first one of the tracking segments (60-64) being given by a difference between a first timestamp associated with an initial signature stored in the first one of the tracking segments (60-64) and a second timestamp associated with a last signature stored in the first one of the tracking segments (60-64), wherein the reference media source with the longest associated tracking segment is identified as the source of the unknown media; and

a memory (8) to store the tracking segments (60-64)."

Reasons for the Decision

1. *Main request - clarity (Article 84 EPC) and added subject-matter (Article 123(2) EPC)*

1.1 The broad concepts underlying the presently claimed subject-matter are set out in the description as filed, cf. page 5, line 26 ff.:

"An audience measurement system generates signatures of unknown pieces of content being viewed by the panel members. The signatures of the unknown pieces of content are stored and transmitted to a central processing site, where they are compared with reference signatures for their identification.

The signatures of the unknown content may be obtained remotely from a media presenting device, such as a television or radio, from an audio wave or an electromagnetic wave passing through the air. Alternatively, the signatures may be obtained directly from the audio or video components (or both) of a broadcast signal from the electrical output of the media presenting device.

A scanning engine finds matches between the signatures of the unknown and known content, and stores consecutive matches so as to build tracking segments, which are strings of matches that indicate a full coincidence between the unknown content and one or more known pieces of content for a certain period of time.

... [W]hen the signatures of more than one known piece of content match the signatures of the unknown content, the system associates the unknown content to the known piece of content with the longest tracking segment."

1.2 Claim 1 has been limited during prosecution to include features taken from the embodiment disclosed in Fig. 5 and described on page 14, line 26 to page 17, line 28 of the description. However, some of the amendments introduced are neither clear within the meaning of Article 84 EPC nor directly and unambiguously based on the application as filed, contrary to Article 123(2) EPC, for the following reasons.

1.3 In accordance with the description (cf. page 16, 2nd paragraph), a tracking segment is constructed in the following way:

"If a match is found (block 107) the process proceeds to block 108 to check if the reference signature that matches the viewing segment's signature is synchronous with the previous matched reference signature (i.e., the time interval between the two signatures in the viewing segment is exactly the same as the one between the two corresponding matching signatures in the reference signatures file). If so (or always in the case of the first signature of each viewing segment), the process stores the matching signature appending it to the previously saved signatures, creating in this way a Tracking Segment for Broadcast Source N (block 109). The process then increments the signature counter (block 110) and repeats the matching process for the next signature until the

end of the viewing segment is reached (block 111)." (Board's underlining).

- 1.4 It follows that a tracking segment is constructed in an iterative manner by appending a reference signature at the end of each iteration, iterations continuing until the end of the viewing segment is reached. Claim 1 however only mentions two iterations ("a present processing iteration" and "a previous processing iteration"), which would build only part of a tracking segment (assuming there are more than two appended reference signatures such as in all the examples shown in Fig. 2). This leaves it entirely open how the rest of the tracking segment is to be constructed.

The appellant argued in this respect that it was implicit that the iterations continued as defined until the end of the segment.

However, this is not reflected in the wording of the claim, leading to the conclusion that claim 1 does not clearly define the matter for which protection is sought, contrary to Article 84 EPC.

Neither does claim 1 comply with Article 123(2) EPC because it embraces embodiments in which the remaining part of the tracking segment is constructed in other ways to that defined in respect of the two iterations mentioned in claim 1. No other ways are however supported by the application as filed.

- 1.5 A further objection is that it follows from the above-cited passage of the description that time intervals are determined in respect of two consecutive cases of a match between a viewed signature and a reference signature, whereas claim 1 refers only to a "previous"

match and a "previous" processing iteration, i.e. to any previous match and any previous iteration rather than the immediately preceding one.

The appellant appeared to agree with the board's interpretation but argued that the definition in claim 1 was supported by the application as filed. In this respect, he referred to the case of a match followed by a mismatch followed by a match, whereby the two matches did not concern consecutive iterations.

The board however notes that, as disclosed in the application as filed, the time intervals are established between consecutive matches, whereas, just to give one plausible example, claim 1 embraces a non-disclosed apparatus in which time intervals are always established with reference to the timestamp of the first signature of the tracking segment, i.e. between non-consecutive matches. The appellant's argument is therefore not convincing.

- 1.6 Finally, in the board's view, claim 1 consists of an unallowable intermediate generalisation. In this respect, claim 1 includes a selection of features taken from the detailed embodiment relating to Figure 5 (cf. page 14, line 26 ff.). In accordance with case law, it is not normally possible to base an amended claim on the extraction of isolated features from a set of features originally disclosed only in combination, e.g. a specific embodiment in the description (cf. Case Law of the Boards of Appeal, 8th Edition 2016, page 439, point 1.7). In the board's view, it is not directly and unambiguously derivable from the description and drawings as filed that the particular combination of features of present claim 1 could form an embodiment in

isolation from the totality of features of the described embodiment, contrary to Article 123(2) EPC.

- 1.7 In this respect, referring to Fig. 5 and the above cited passage of the description on page 16, 2nd paragraph, the "time interval comparison" features of claim 1 refer to block 108 of Fig. 5 labelled "synchronous?". This block is intrinsically embedded within a processing loop for constructing a tracking segment in which, inter alia, a counter is used, firstly to obtain the signature indicated by the counter (block 105), and secondly to increment the counter value on each iteration until the end of the viewing segment is determined (block 110; cf. page 15, lines 11-17 and page 16, lines 15-19). These features are however not included in claim 1. It is further noted that in the description (cf. page 15, lines 10-11), it is stated in connection with this embodiment that each signature of each viewing segment is both "time stamped and numbered", rather than having only a timestamp, as claimed. Finally, claim 1 includes a step for evaluating time lengths of the tracking segments to identify which reference source provided the unknown media, but omits to include the feature of identifying the longest tracking segment. This feature is however an integral part of the embodiment of Fig. 5 (cf. blocks 118 and 120) and was moreover included in claim 1 as originally filed. There is therefore no direct and unambiguous basis in the application as filed for omitting this feature from claim 1.

- 1.8 Consequently, the board concludes that claim 1 does not comply with Articles 84 and 123(2) EPC.

2. *First auxiliary request - claim 1 - Articles 84 and 123(2) EPC*

2.1 With respect to claim 1 of the main request, claim 1 of the auxiliary request is essentially amended such that:

the tracking segments are now referred to as "candidate tracking segments"; and

the matches between the unknown media signatures and respective reference signatures are now explicitly "synchronous" matches, noting however that the definition for synchronous in claim 1 of the request is based on the same comparison of time intervals as already defined in claim 1 of the main request.

2.2 The board considers that these amendments make no difference to the objections set out above in connection with claim 1 of the main request. At the oral proceedings, the appellant also conceded that there was no difference between the main and the first auxiliary requests as regards these issues.

2.3 Consequently, claim 1 of the auxiliary request does not comply with Articles 84 and 123(2) EPC either.

3. *Second auxiliary request - admissibility*

3.1 This request was filed at a late stage of the oral proceedings and therefore constitutes an amendment of a party's case within meaning of Article 13(1) RPBA, according to which the admissibility of the request is at the discretion of the board. In accordance with case law, a request need not be admitted if it is not prima facie allowable.

3.2 In this respect, *prima facie*, several of the objections raised by the board in connection with claim 1 of the main request have not been overcome:

Re point 1.4 : The claim still leaves open how a tracking segment is constructed to the end, since it still only mentions two iterations.

Re point 1.5: The wording "corresponding to the previous match [formerly "a previous match"] ... associated with a previous processing iteration" does not clearly refer to the match immediately preceding the present iteration.

Re points 1.6 and 1.7: The amendments do not overcome the objection with regard to the intermediate generalisation as set out above with regard to the role of the counter. Moreover, although it is now stated that the unknown media signatures and the reference signatures have respective timestamps and are numbered, in the description this only applies to the signatures of each viewing segment (i.e. the unknown signatures) and not to the reference signatures (cf. page 15, lines 11-12).

3.3 The board therefore exercised its discretionary power pursuant to Article 13(1) RPBA by not admitting the second auxiliary request.

4. *Conclusion*

As there is no allowable request, it follows that the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



G. Rauh

F. van der Voort

Decision electronically authenticated