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**Datasheet for the decision
of 28 January 2016**

Case Number: T 1679/10 - 3.5.04

Application Number: 06015034.9

Publication Number: 1746834

IPC: H04N7/173

Language of the proceedings: EN

Title of invention:

Systems, methods, and apparatus for trick mode

Applicant:

Broadcom Corporation

Headword:

Relevant legal provisions:

EPC R. 137(4) (version of 13 December 2007)

Keyword:

Amended claims - relating to unsearched subject-matter (yes)
Amended claims - unity of invention with original claims (yes)

Decisions cited:

T 0708/00, T 0789/07

Catchword:



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Case Number: T 1679/10 - 3.5.04

**D E C I S I O N
of Technical Board of Appeal 3.5.04
of 28 January 2016**

Appellant: Broadcom Corporation
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted on 9 March 2010
refusing European patent application
No. 06015034.9 pursuant to Article 97(2) EPC.

Composition of the Board:

Chairwoman: T. Karamanli
Members: M. Paci
R. Gerdes

Summary of Facts and Submissions

- I. The appeal is against the decision of the examining division refusing European patent application No. 06015034.9 published as EP 1 746 834 A2.
- II. The decision under appeal was based on the grounds that the independent claims of the main request and of the (first) auxiliary request were not allowable under Rule 137(4) EPC (in the version of Rule 137 EPC which entered into force on 13 December 2007) and that therefore the application was refused in accordance with Article 97(2) EPC.
- III. With the statement of grounds of appeal the appellant maintained its main and first auxiliary requests - which were re-filed - and reintroduced the second auxiliary request which it had withdrawn during the oral proceedings before the examining division. 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, alternatively, of one of the first or second auxiliary requests. The appellant also conditionally requested oral proceedings. The appellant furthermore requested the reimbursement of the appeal fee under Rule 103(1)(a) EPC because of an alleged substantial procedural violation. Finally, the appellant also "suggested" that the board should remit the case to the examining division for further prosecution because substantive examination had not been carried out on the pending requests (see page 14 of the statement of grounds of appeal).
- IV. In a communication under Article 15(1) RPBA (Rules of Procedure of the Boards of Appeal, OJ EPO 2007, 536),

annexed to the summons to oral proceedings, the board expressed the provisional opinion that the examining division should not have found the amended claims according to the main request and the first auxiliary request unallowable under Rule 137(4) EPC (in the version of Rule 137 EPC which entered into force on 13 December 2007). The board also explained why it was of the view of that the reimbursement of the appeal fee under Rule 103(1)(a) EPC was not justified. Lastly, the board informed the appellant that it was inclined to set the decision aside and remit the case to the department of first instance for further prosecution.

V. With a letter of reply dated 11 December 2015, the appellant informed the board that its request for reimbursement of the appeal fee under Rule 103(1)(a) EPC was withdrawn and that its request for oral proceedings was explicitly maintained to avoid any decision deviating from the board's opinion in the communication annexed to the summons to oral proceedings to remit the case to the department of first instance. The appellant also announced that it did not intend to attend the oral proceedings unless the board intended to deviate from its opinion that the case should be remitted to the department of first instance.

VI. The board held oral proceedings on 28 January 2016. As announced, the duly summoned appellant did not attend. The chairwoman noted that the appellant had requested in writing 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, alternatively, of one of the first or second auxiliary requests, all requests filed with letter of 18 December 2009 and re-filed with the statement of grounds of appeal. At the end of the oral

proceedings the chairwoman announced the board's decision.

VII. Claim 7 according to the appellant's main request reads as follows:

"A system for processing video data, said system comprising:
storage (405) for receiving a normal video stream (100);
a video decoder (420) for decoding the normal video stream (100) encoded by a first encoding scheme to a decoded normal video stream; and
a first circuit (425) for generating a trick mode stream (105) from the normal video stream (100) by encoding the decoded normal video stream with a different encoding scheme from the first encoding scheme which is easier to decode than the first encoding scheme."

VIII. In the reasons for the decision under appeal, the examining division essentially argued that the amended claims contravened Rule 137(4) EPC because they referred to unsearched subject-matter and were not linked by a single general inventive concept for the following reasons:

The application as filed disclosed two groups of embodiments of a trick mode generation method and system, namely server-side generation embodiments and client-side generation embodiments.

The client-side generation embodiments were not searched because the original set of claims 1 to 10 referred only to server-side embodiments. That was clearly the case for original claims 1 to 9. As to

original claim 10, it was so broad that it could have been construed as referring to both types of embodiments; however, it was interpreted by the search division in the light of the other claims as referring to server-side generation embodiments only and the examining division referred the applicant to point 2.5 of the European search opinion drafted by the search division. Any other interpretation of original claim 10 would have resulted in a non-unity objection.

In contrast, the claims according to the main request, in particular the most significant independent claim 7, referred to client-side generation embodiments disclosed in the application as originally filed. These embodiments, and thus also the subject-matter of the claims according to the main request, were not searched.

The generation of a trick mode stream was known from prior-art document D1.

The original set of claims and the set of claims according to the main request lacked unity of invention *a posteriori* in view of D1, because their respective special technical features (STF) solved different technical problems.

Hence the amended claims according to the main request contravened Rule 137(4) EPC.

The same conclusion was reached for the amended claims according to the (first) auxiliary request.

IX. The appellant essentially argued that the decision under appeal was incorrect, because the non-unity analysis was based on wrong considerations and the

examining division had not used the correct criteria for applying Rule 137(4) EPC as set forth in various decisions of the boards of appeal.

Reasons for the Decision

1. The appeal is admissible.

Applicable law

2. It is not disputed by the appellant that the version of Rule 137 EPC which entered into force on 13 December 2007 is the version which applies to the present application.

Indeed, the present application was filed on 19 July 2006 and is still pending. Therefore, according to Article 1, No. 1, of the Decision of the Administrative Council of 28 June 2001 on the transitional provisions under Article 7 of the Act revising the European Patent Convention of 29 November 2000 (OJ EPO 2007, Special Edition No. 1, 197), revised Article 123 EPC applies to the present application since it was pending on the date when "EPC 2000" entered into force (13 December 2007). Accordingly, Rule 137 EPC, which entered into force on the same date, is applicable to the present application since this provision relates to the provisions of Article 123 EPC (Article 2 of the Decision of the Administrative Council of 7 December 2006 amending the Implementing Regulations to the European Patent Convention 2000 (OJ EPO 2007, Special Edition No. 1, 89)).

The board notes that the texts of Rule 137(4) EPC and Rule 86(4) EPC 1973 are identical. The board also

observes that Rule 137 EPC was further amended by the Decision of the Administrative Council of 25 March 2009, the amendments including the transfer of the provisions of Rule 137(4) EPC to Rule 137(5) EPC. However, according to Article 2 of that Decision, the version of Rule 137 EPC which entered into force on 1 April 2010 only applies to European patent applications for which the European search report or the supplementary European search report was drawn up on or after 1 April 2010. In the present case, the search report was drawn up on 26 April 2007. Hence Rule 137 which entered into force on 1 April 2010 does not apply to the present application.

In the remainder of the present decision, any reference to Rule 137 EPC should be understood as a reference to the version which entered into force on 13 December 2007, unless otherwise specified.

Main request - Rule 137(4) EPC

3. Rule 137(4) EPC reads as follows:

"Amended claims may not relate to unsearched subject-matter which does not combine with the originally claimed invention or group of inventions to form a single general inventive concept."

Rule 137(4) EPC thus provides that amended claims are not admissible if the following two conditions are met:

- (1) the amended claims relate to unsearched subject-matter and
- (2) the amended claims lack unity of invention with the originally claimed invention or group of inventions.

4. *First condition of Rule 137(4) EPC - amended claims relating to unsearched subject-matter*

4.1 The extent of the search for prior art to be conducted when drawing up the European search report is defined in Article 92(1) EPC 1973 (which was applicable when the search report was drawn up for the present application on 26 April 2007, since the revised EPC 2000 had not yet entered into force). Article 92(1) EPC 1973 states that the European search report shall be drawn up "on the basis of the claims, with due regard to the description and any drawings".

The extent to which the description and drawings are to be taken into consideration for the search has been developed further in the jurisprudence of the boards of appeal (see, for instance, decision T 708/00, OJ EPO 2004, 160, point 4, second paragraph, of the Reasons). The Guidelines for Examination in the EPO (hereinafter "Guidelines") at B-III, 3.5 (in the June 2005 version in force when the European search report was drawn up, in the April 2009 version in force at the date of the decision under appeal and in the current version of November 2015) correctly summarise this jurisprudence as follows:

"In principle, and insofar as possible and reasonable, the search should cover the entire subject-matter to which the claims are directed or to which they might reasonably be expected to be directed after they have been amended [...]."

The European search report should thus have been drawn up based on the above principles. The board concurs with the finding in decision T 789/07 that features

from the description or drawings which should have been searched **must be deemed searched** for the purposes of Rule 137(4) EPC even if, in the specific case, the search did not actually cover these features (see point 3 of the Catchword and points 9 and 12 of the Reasons).

4.2 In the present appeal case, all the reasons given by the examining division as to why the amended claims related to unsearched subject-matter were based on the finding that all the claims of the application as filed related to **server-side** generation embodiments and none of them related to **client-side** generation embodiments.

The appellant, however, disputed the validity of this finding. It argued that original claim 10 should have been construed as relating to **client-side** generation embodiments and should have been searched accordingly.

The validity of this argument will now be examined.

Claim 10 of the application as filed reads as follows:

"system for processing video data, said system comprising:
storage for receiving a normal video stream;
and
a first circuit for generating a trick mode stream from the normal video stream."

The board first observes that original claim 10 is very broad in scope. Nor does it have any dependent claim which could be used for further determining the subject-matter to which it relates.

The board also notes that original claim 10 is silent as to where said storage and said first circuit are physically located. They could be both in a server or both in a user terminal. Either of these two options makes technical sense and corresponds to at least one embodiment disclosed in the application as filed. On the one hand, it could be argued that the use of the word "storage" in original claim 10, which in the description (see paragraphs [0048], [0051] and [0062]) was only used in the context of **client-side** generation embodiments, might be regarded as an indication that original claim 10 was intended to relate to these embodiments. However, on the other hand, the word "storage" does not exclude **server-side** generation embodiments because it was implicit to the skilled person that the normal video stream received by a server had to be stored somewhere in the server, at least in a buffer memory.

Hence, the wording of claim 10 of the application as filed, even when considered in the light of the description and drawings, did not give a clear indication of which embodiments this claim was meant to cover.

Moreover, since all the other original claims relate exclusively to the **server-side** generation embodiments, the overall impression given by the set of original claims is that it only relates to the **server-side** generation embodiments.

In the light of the above observations, the board considers that the search division could not reasonably expect that original claim 10 would be amended during examination proceedings by adding features from the

description and drawings relating to **client-side** generation embodiments.

For the sake of completeness, the board adds that it would go too far to construe B-III, 3.5 of the Guidelines as meaning that it would be sufficient to have one broad independent claim in the application as filed, with no dependent claims, in order to be entitled to a search extending to all the features of a large number of embodiments covered by the wording of that claim. Hence, in the present case, even assuming *arguendo* that the search for original claim 10 should have considered client-side generation embodiments, it would still be doubtful that the search should have been extended to the specific feature from the description, now in claim 7 of the main request, that the trick mode stream is generated by encoding the decoded normal video stream using a different encoding scheme easier to decode than the encoding scheme used for encoding the normal video stream.

- 4.3 For the above reasons, the board concurs with the examining division's conclusion that the subject-matter of claim 7 (and of the corresponding claim 1) of the main request **must be deemed unsearched** for the purposes of Rule 137(4) EPC.

In other words, **the first condition** of Rule 137(4) EPC (amended claims relating to unsearched subject-matter) is **met**.

5. *Second condition of Rule 137(4) EPC - amended claims lacking unity of invention with the originally claimed invention or group of inventions*

5.1 The examining division found in its decision that, since all the features of original claims 7 and 8 were known from D1, the special technical feature (STF) of the original set of claims was the feature in original dependent claim 9 that the trick mode stream comprised pictures having **a lower resolution** than pictures from the normal video stream. This STF had the technical effect of reducing the bandwidth requirements for the transmission of the trick mode stream (see decision under appeal, sections B.1, B.4.2 and B.4.3).

In contrast, the STF of the claims of the main request was the use of **a different encoding scheme** for the trick mode stream which was **easier to decode** than the encoding scheme used for encoding the normal play stream (see claim 7 of the main request). This STF had the technical effect of reducing the processing requirements for the decoding of the trick mode stream (see decision under appeal, sections B.4.4 and B.4.5).

5.2 The board concurs with the examining division that the provision of a lower resolution trick mode stream results in a reduction of bandwidth requirements. However, this STF also has the technical effect of reducing the processing requirements for the decoding of the trick mode stream (see paragraph [0034] of the application). Hence, the STF of the original set of claims and the STF of the claims of the present main request **both solve the same technical problem** of reducing the processing requirements for the decoding of the trick mode stream. They thus relate to **a single general inventive concept**.

5.3 The examining division took the view that the technical effect of reducing processing requirements was not achieved.

It stated: "whilst the potential may be there, neither the claims, nor the description hold features to demonstrate or implement an actual reduction of processor load (other considerations enter in the decoding of low-resolution streams, e.g. interpolation, deblocking...)" (see decision under appeal, B.4.3.2).

The board does not agree. In general, a lower resolution video stream is easier to decode, i.e. requires less processing resources, than a "normal" resolution video stream. Of course, processing requirements are also influenced by other parameters, such as the video standard. The skilled person would, however, be aware that the decoding effort is in general related to the resolution of the video stream. This technical effect is also clearly indicated in the application as filed (see paragraph [0034]). It is noted that, as presented throughout the entire description, the focus of the invention is on easier decodability, with a limited number of different measures being disclosed to achieve this effect. Such measures are essentially lower resolution of the trick mode stream, fewer data dependency restrictions and more random access points (see paragraphs [0003] to [0006], [0031], [0034], [0035] and [0050]).

The examining division also took the view that D1 disclosed on page 4, lines 5 to 10, a server-side trick mode generation system that encoded the trick mode stream into a standard MPEG stream, meaning that the processing requirements for the decoding of the trick

mode stream were the same as the processing requirements for the decoding of the normal play stream. Considering that the clients used a single decoder for both the normal stream and the trick mode stream decoding, the processing requirement for the decoding had a lower limit which was set by the decoding of the normal play stream, and that lower limit was already achieved with the method and system of document D1.

The board disagrees with this finding. Firstly, the invention is not restricted to the use of a single decoder. Secondly, the trick stream will normally be processed independently of the normal video stream, which results in lower processing requirements due to its lower resolution.

- 5.4 For the above reasons, the board is of the view that the original set of claims and the claims of the main request relate to the same general inventive concept. In other words, there is **unity of invention** between these two sets of claims, even *a posteriori* in the light of prior-art document D1.

The same conclusion of unity of invention applies between the client-side generation embodiments and the server-side generation embodiments.

It follows from the above that **the second condition** of Rule 137(4) EPC (lack of unity) is **not met**.

6. *Conclusion on Rule 137(4) EPC for the main request*

The board is thus of the view that the amended claims meet the first condition (amended claims relating to

unsearched subject-matter) but not the second condition (lack of unity) of Rule 137(4) EPC.

Since both conditions have to be met, the examining division wrongly concluded that the main request was "not allowable" under Rule 137(4) EPC.

Remittal

7. The subject-matter of the amended claims according to the main request, which includes (unsearched) features taken from the description, has not yet been examined by the department of first instance with respect to the substantive requirements of the EPC. Hence, the board considers it inappropriate at the present stage of the proceedings to carry out examination of the amended claims itself. As a consequence it cannot accede to the appellant's request to grant a patent on the basis of the claims of the main request.

Instead, the board, exercising its discretion under Article 111(1) EPC 1973, has decided to remit the case to the department of first instance for further prosecution. The appellant obviously has no objection, since it "suggested" such remittal on page 14 of its statement of grounds of appeal.

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 for further prosecution.

The Registrar:

The Chairwoman:



K. Boelicke

T. Karamanli

Decision electronically authenticated