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**Datasheet for the decision  
of 9 March 2015**

**Case Number:** T 2080/10 - 3.5.02

**Application Number:** 03757361.5

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G10L21/02

**Language of the proceedings:** EN

**Title of invention:**  
Acoustical Virtual Reality Engine and Advanced Techniques for  
Enhancing Delivered Sound

**Applicant:**  
Synopsys, Inc.

**Relevant legal provisions:**  
EPC Art. 83, 84, 123(2)

**Keyword:**  
Sufficiency of disclosure - main request (no)  
Support in the description - main request (no)  
Added subject-matter - auxiliary requests (yes)



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Case Number: T 2080/10 - 3.5.02

**D E C I S I O N  
of Technical Board of Appeal 3.5.02  
of 9 March 2015**

**Appellant:** Synopsys, Inc.  
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**Representative:** Sackin, Robert  
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**Decision under appeal:** **Decision of the Examining Division of the  
European Patent Office posted on 18 May 2010  
refusing European patent application No.  
03757361.5 pursuant to Article 97(2) EPC.**

**Composition of the Board:**

**Chairman** M. Ruggiu  
**Members:** R. Lord  
W. Ungler

## Summary of Facts and Submissions

I. This is an appeal of the applicant against the decision of the examining division to refuse European patent application No. 03 757 361.5. The reason given for the refusal was that the independent claims of all of the then-valid requests were unclear, and thus did not meet the requirements of Article 84 EPC.

II. In the statement of grounds of appeal dated 23 September 2010 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 then on file (i.e. those of the main request filed with letter dated 19 March 2010), or on the basis of one of the first to third auxiliary requests filed with that statement of grounds of appeal. These represent the appellant's current requests.

In a communication accompanying a summons to oral proceedings dated 28 November 2014 the board commented *inter alia* on the arguments in the section headed "Clarity" in the statement of grounds of appeal, presented objections of lack of support in the description (Article 84 EPC) and insufficiency of disclosure (Article 83 EPC) with respect to the main request, and presented objections of added subject-matter (Article 123(2) EPC) with respect to all three auxiliary requests. The appellant did not respond in substance to this communication.

Oral proceedings before the board took place on 9 March 2015, at which, as indicated in a letter dated 5 March 2015, the appellant was not represented.

III. Claim 1 according to the appellant's main request reads as follows:

"A method for enhancing transmitted audio data, comprising:

coding audio data into a digitally formatted signal;

enhancing the digitally formatted signal by pre-emphasizing frequencies and dynamics expected to be lost or distorted, resulting in an enhanced audio signal;

transmitting the enhanced audio signal to a client site;

decoding data contained in the enhanced audio signal after transmission to the client site, resulting in a decoded audio signal; and

processing the decoded audio signal to recover frequencies and dynamics preserved by pre-emphasis of the frequencies and dynamics expected to be lost or distorted."

Claim 1 according to the appellant's first auxiliary request differs from that of the main request in that the phrase "expected to be lost or distorted" is deleted at both positions where it appears, and in that at the first of those positions it is replaced by "to compensate for signal distortion".

Claim 1 according to the appellant's second auxiliary request differs from that of the main request by the addition of the following at the end of the third paragraph:

", wherein enhancing includes modifying the signal in the time and frequency domains simultaneously, and then

generating an acoustic rendering of the signal based on predictive modeling".

Claim 1 according to the appellant's third auxiliary request combines the amendments of the first and second auxiliary requests.

IV. The appellant essentially argued as follows:

The objection of lack of clarity on which the decision under appeal was based was not justified, because the step of determining which frequencies and dynamics were expected to be lost was not essential to the invention and because the application contained numerous examples of what is meant by "frequencies and dynamics expected to be lost or distorted".

The amendment in claim 1 of the first auxiliary request had a basis in page 5, lines 11 to 22 and page 10, lines 4 to 16 of the application as originally filed. That of the second auxiliary request had a basis in page 6, lines 24 to 27 and page 38, lines 15 to 31 of the application as originally filed. Claim 1 of the third auxiliary request combined these two amendments.

### **Reasons for the Decision**

1. The appeal is admissible.
2. *Main Request*
  - 2.1 Claim 1 of the appellant's main request defines a method in which enhancement or processing of the audio signal is provided at both the server-side and at the client-side. Such a method has a basis in the

description of the original application only in the paragraph on page 10 referring to figure 1 (the references here being to the published international application WO 03/104924 A2). However, that disclosure explicitly relates only to enhancement and processing to recover "frequencies and dynamics expected to be lost or destroyed during transmission" (lines 15 and 16 on page 10), which restriction appears only in part in the present claim 1. Thus this passage does not provide support within the meaning of Article 84 EPC for the broad scope of the claim. Such support is also not provided by the remainder of the description, since the embodiments described with reference to figures 2 to 16 relate to processing only at the server-side or only at the client-side.

2.2 As a consequence of the above, it follows that the application contains no disclosure of what type of signal processing is to be carried out in a method as claimed in which pre-emphasis of frequencies and dynamics is applied at the server-side and, following loss or distortion (for instance during transmission), these are recovered by processing at the client-side. This represents a further lack of support in the description, contrary to the requirements of Article 84 EPC, but can also be seen as implying a lack of sufficiency of disclosure within the meaning of Article 83 EPC, in particular since it is not apparent how a frequency or dynamic which is lost during transmission could be subsequently recovered, whether pre-emphasised or not.

2.3 A further objection under Article 83 EPC arises with respect to the "dynamics" mentioned in the claim, which according to the above-cited passage on page 10 are expected to be lost or destroyed during transmission.

The appellant has referred on page 2 of the statement of grounds of appeal to examples in the application of the meaning of the term "dynamics". Indeed the description relating to figures 2 to 16 does disclose a number of aspects of the audio signal which can be considered to fall under this term. However, all of these aspects relate either to deficiencies in the original recording (e.g. absence of "live feel") or to deficiencies in the listening environment (e.g. ambient noise), none of which can be considered as "dynamics expected to be lost or destroyed during transmission". Thus, on the basis of the teaching of the application, the skilled person would not know what the "dynamics" were, which according to the claim were to be pre-emphasised and subsequently recovered, so that he would not be in a position to be able to carry out this aspect of the claimed invention.

2.4 The majority of the arguments presented by the appellant in the statement of grounds of appeal concerned novelty and inventive step. Those presented with regard to Article 84 EPC concerned only the objection of lack of clarity on which the decision under appeal was based. Thus none of these arguments is relevant to the above objections.

### 3. *Auxiliary Requests*

3.1 Claim 1 of the appellant's first auxiliary request differs from that of the main request by the deletion twice of the phrase "expected to be lost or distorted" and its replacement at the first instance by "to compensate for signal distortion". The appellant has indicated two passages of the original application as providing a basis for this amendment. The first of these (page 5, lines 11 to 22) however relates to

specific embodiments using a "ripping" program that processes audio signals at speeds faster than real-time at either the server-side ("upstream") or the client-side ("downstream"), in order to compensate for distortion which arises from compression prior to transmission. This teaching is thus distinct from the case covered by the present claim 1, in that for instance it concerns processing at either the client-side or the server-side, but not both. It is also more precise than the claimed case, in that for instance it specifies the details of the processing program. Thus this passage cannot provide a basis for the amendment to this claim. The second passage cited by the appellant in this respect (page 10, lines 4 to 16) corresponds in its wording (with the exception of additional references to transmission) to the wording of claim 1 of the main request, so also cannot provide a basis for the amendment to the claim. In the absence of any further relevant teaching in the original application, the board therefore concludes that this claim defines subject-matter extending beyond the content of the application as originally filed, contrary to the requirement of Article 123(2) EPC.

- 3.2 Claim 1 of the appellant's second auxiliary request differs from that of the main request by the addition of the phrase "wherein enhancing includes modifying the signal in the time and frequency domains simultaneously, and then generating an acoustic rendering of the signal based on predictive modeling". The appellant has cited passages at page 6, lines 24 to 27 and page 38, lines 15 to 31 of the original application as providing a basis for this amendment. However, both of these passages describe the process of enhancing the signal in significantly more detail, and do so only in the context of simulating the "feel" of a



live performance. Thus, in the first respect the amendment represents the arbitrary extraction of selected features from the disclosed embodiment, and in the second respect it represents the application of the disclosure relating to the addition of a characteristic which was missing in the original audio recording to the claimed case of recovering lost frequencies and dynamics, neither of which was disclosed in the original application. Therefore the board concludes that also this claim defines subject-matter extending beyond the content of the application as originally filed, contrary to the requirement of Article 123(2) EPC.

- 3.3 Since claim 1 of the appellant's third auxiliary request simply combines the amendments of the first and second auxiliary requests, the above arguments apply correspondingly. The board therefore concludes that this claim defines subject-matter extending beyond the content of the application as originally filed, contrary to the requirement of Article 123(2) EPC.
4. Since for the above reasons none of the appellant's requests is allowable, the appeal had to be dismissed.

**Order**

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chairman:



U. Bultmann

M. Ruggiu

Decision electronically authenticated