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**Datasheet for the decision
of 23 May 2014**

Case Number: T 0445/11 - 3.5.04

Application Number: 03256059.1

Publication Number: 1411520

IPC: G11B27/10, G11B27/34,
G11B19/02, G06F17/30

Language of the proceedings: EN

Title of invention:

Optimizing media player memory during rendering

Applicant:

MICROSOFT CORPORATION
Panasonic Corporation

Headword:

Relevant legal provisions:

EPC Art. 123(2)
EPC 1973 Art. 84

Keyword:

Amendments - added subject-matter - main request (yes)
Claims - clarity - auxiliary request (no)

Decisions cited:

Catchword:



**Beschwerdekammern
Boards of Appeal
Chambres de recours**

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Case Number: T 0445/11 - 3.5.04

**D E C I S I O N
of Technical Board of Appeal 3.5.04
of 23 May 2014**

Appellant: MICROSOFT CORPORATION
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Appellant: Panasonic Corporation
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted on 17 September
2010 refusing European patent application No.
03256059.1 pursuant to Article 97(2) EPC.

Composition of the Board:

Chairman F. Edlinger
Members: A. Dumont
B. Müller

Summary of Facts and Submissions

- I. The applicants appealed against the decision refusing European patent application No. 03 256 059.1, published as EP 1 411 520 A2, on the ground that the claims lacked clarity within the meaning of Article 84 EPC.
- II. With the statement of grounds of appeal, the appellants filed sets of claims according to a main request and two auxiliary requests.
- III. In an annex to the summons to oral proceedings, the board *inter alia* informed the appellants that it tended to share the findings in the impugned decision as to lack of clarity of claim 1 according to the main request filed with the statement of grounds of appeal. It further observed that claim 13, which combined, on a single device, modules for authoring metadata in a computing device and modules executed in the media player, appeared unallowable under Article 123(2) EPC. Furthermore, the board stated that it was minded not to admit the auxiliary requests into the proceedings because they did not appear to address the reasons for the impugned decision.
- IV. In the oral proceedings, the appellants withdrew the first and second auxiliary requests and submitted an amended set of claims 1 to 12 of an auxiliary request 1. They requested that the decision under appeal be set aside and that the case be remitted to the examining division for further prosecution on the basis of the claims of the main request filed with the statement of grounds of appeal or, alternatively, on the basis of the claims of auxiliary request 1.

V. Claims 10 and 13 according to the main request read as follows:

"10. An executable computer-readable medium having computer-executable components for optimizing and accelerating operation of a media player on a consumer electronic device (112), said consumer electronic device (112) having a memory, said media player accessing a media rendering computer-readable medium for rendering media files (302) stored thereon, said executable computer-readable medium being separate from the memory of the consumer electronic device, said components comprising:

a preparation module for execution by a computing device (102) separate from the consumer electronic device (112), so as to obtain metadata for one or more selected media files (302), wherein the obtained metadata includes a reference to a storage location for each of the one or more selected media files (302) on the media-rendering computer-readable medium, said computer-readable medium being separate from the memory of the consumer electronic device, and wherein the metadata further describes content associated with each of the one or more selected media files (302);

an initialization module for execution by the computing device (102), so as to create one or more data structures accessible by the media player prior to rendering the one or more selected media files (302) by the media player on the consumer electronic device (112);

an organization module for execution by the computing device (102), so as to populate the one or more created data structures from the initialization module with the

obtained metadata from the preparation module, wherein the created one or more data structures comprise a data structure representative of memory optimizing data for optimizing the memory of the consumer electronic device (112) during rendering of the one or more selected media files (302) by the media player by being categorized for one of maintaining the metadata on the consumer electronic device during media player startup and maintaining the metadata on the consumer electronic device at all times; and

a writer module for execution by the computing device (102), so as to store the populated data structures from the organization module on the computer-readable medium with the selected media files (302), said populated data structures stored on the media-rendering computer-readable medium with the selected media files (302) so that the obtained metadata of the populated data structures categorized for media player startup will not be not retained in the memory of the consumer electronic device (112) during rendering."

"13. The computer-readable medium of claim 10, further comprising:

an input module for retrieving the populated data structures stored on the computer readable medium prior to rendering the selected media files; and

a filter module for identifying the selected media files in response to the data structures retrieved via the input module, said selected media files adapted to be rendered by the media player."

VI. Claim 1 according to auxiliary request 1 reads as follows:

"A method of optimizing and accelerating operation of a media player on a consumer electronic device (112), said consumer electronic device (112) having a memory, said media player accessing a computer-readable medium for rendering media files (302) stored thereon, said method comprising:

obtaining, by a computing device (102) separate from the consumer electronic device (112), metadata for one or more selected media files (302), wherein the obtained metadata includes a reference to a storage location for each of the one or more selected media files (302) on the computer-readable medium, said computer-readable medium being separate from the memory of the consumer electronic device, and wherein the metadata further describes content associated with each of the one or more selected media files (302);

creating, by the computing device (102), a data structure accessible by the media player prior to rendering the one or more selected media files (302) by the media player on the consumer electronic device (112), said data structure including a first file for binary metadata and a second file for text metadata;

populating, by the computing device (102), the data structure with said obtained metadata, wherein the data structure is representative of memory optimizing data for optimizing the memory of the consumer electronic device (112) during rendering of the one or more selected media files (302) by the media player by being categorized for one of maintaining the metadata on the consumer electronic device during media player startup and maintaining the metadata on the consumer electronic device at all times, wherein said first file is

populated with the content associated with the one or more selected media files (302) in binary format and said second file is populated with the content associated with the one or more selected media files (302) in text format, said data structure including the reference to the location of each of the selected media files on the computer-readable medium; and

storing, by the computing device (102), the populated data structure on the computer readable medium with the selected media files (302), so that the obtained metadata of the populated data structure categorized for being maintained on the consumer electronic device during media player startup will not be retained in the memory of the consumer electronic device (112) during rendering, wherein the text content of the data structure is not required until rendering of the media files (302) on the computer-readable medium."

VII. The reasoning in the decision under appeal may be summarised as follows:

The description distinguishes between authoring a medium on the one hand and rendering the medium on the other hand. The method of claim 1 is understood to correspond to at least said authoring. It is not clear what the expression "memory optimizing data for optimizing the memory of the consumer electronic device during rendering" means. This merely defines data in terms of a result to be achieved. It further indicates that a data structure is populated with categorised metadata, and that the metadata categorised for being maintained on the consumer electronic device during media player startup will not be retained in the memory of the consumer electronic device during rendering. It is not clear whether this implies a separate step of

"categorising" performed in the method of claim 1. The question arises as to whether "categorising" means a data structure provided with flags or other distinguishing features from which the media player can determine the category of metadata, whether a "category" is merely an inherent characteristic of the data contained in the data structure or, alternatively, whether the media player is free to decide which metadata to maintain during media player startup, which would mean that the categorisation mentioned in claim 1 is performed only during rendering by the media player. In conclusion, it is not clear how the categorisation characterises the created data structures, and, consequently, how it characterises the claimed method. This renders the scope of claim 1 unclear, contrary to Article 84 EPC.

VIII. The appellants' arguments may be summarised as follows:

Extension of subject-matter (main request)

Claims 10 and 13 according to the main request essentially correspond to claims 11 and 14 as originally filed, so that claim 13 complies with Article 123(2) EPC.

Clarity

Paragraphs [0047] and [0060] of the description explain the operation of the authoring software and of the rendering software, respectively. The invention supports enhanced operation of the media player during rendering by providing a particular data structure, which permits efficient memory usage by freeing up memory after startup of the media player (see paragraphs [0008] and [0009] of the description).

Although the step of "rendering" does not take place in the method of claim 1, what is important is that the data structure provides the capability of categorising metadata, so that metadata will be maintained in the media player memory either during startup only or at all times. The fact that claim 1 covers different implementations does not make it unclear, since the specific way in which the data structure could be categorised is not crucial to the invention.

Reasons for the Decision

1. The appeal is admissible.
2. Main request
 - 2.1 Claim 10 relates to a (single) medium storing computer-executable components, in particular a preparation module, an initialisation module, an organisation module and a writer module. It is uncontested that these modules are for authoring metadata in a computing device (personal computer 102 in Figure 1; Figure 6). Claim 13 depends on claim 10 and sets out further modules comprised on the medium, namely an input module and a filter module. It is also uncontested that these further modules are for rendering metadata in a media player on a consumer electronic device (112 in Figure 1), which according to claim 10 is separate from the computing device. Compared to typical computing devices, the consumer electronic device has less processing power and memory available for processing metadata (see for instance paragraphs [0004] and [0005] in the description).

- 2.2 There is no explicit disclosure in the description (and drawings) of a single medium storing together modules relating to authoring and to rendering.
- 2.3 The appellants argue that claims 10 and 13 according to the main request essentially correspond to claims 11 and 14 as originally filed. However, claim 11 as originally filed relates to "one or more computer-readable media" having computer-executable components, whereas dependent claim 14 as originally filed relates to the "computer-readable media of claim 11" in the plural form. Thus those claims do not disclose directly and unambiguously a (single) medium storing together all the modules mentioned above.
- 2.4 As a result, amended claim 13 infringes Article 123(2) EPC and the main request is not allowable.
3. Auxiliary request 1
 - 3.1 Auxiliary request 1 addresses the objection of added subject-matter raised against claim 13 according to the main request (see the reasoning in section 2 above) in that claim 13 has been deleted. Although presented at a late stage in the oral proceedings, this amendment to the appellant's case does not raise new and complex issues. Therefore the board has exercised its discretion under Article 13(1) RPBA in admitting the request into the proceedings.
 - 3.2 Although claim 1 designates the claimed invention as a method of optimising and accelerating the operation of a media player on a consumer electronic device (112) and contains further references to the operation of the rendering media player, it exclusively sets out steps to be carried out by the computing device (102) during

authoring, with steps consisting in populating a data structure and storing it together with media files on a computer-readable medium. Claim 1 is accordingly understood as relating to an authoring method with the object of optimising and accelerating the operation of a media player during rendering.

3.3 The method of claim 1 sets out in its "populating" step that the data structure is populated by the obtained metadata and is representative of memory optimising data for optimising the memory of the consumer electronic device during rendering. To this end, the metadata are categorised for either maintaining the metadata on the consumer electronic device during media player startup or maintaining the metadata on the consumer electronic device at all times. The method of claim 1 further sets out in its "storing" step the achievable effect on the consumer electronic device of the thus populated data structure, in that the metadata of the populated data structure categorised for being maintained on the consumer electronic device during media player startup will not be retained in the memory of the consumer electronic device during rendering.

3.4 The description states that available media players (on consumer electronic device 112) may have different capabilities of rendering media content and related metadata, depending on the size of their internal memory (see paragraph [0005], [0059] and [0060]). Thus, media players may have different startup times, and the rendering of compressed media may take some time. In the described embodiments, there is no instance of a piece of information included in the data structure which would indicate that some metadata of this kind is maintained either during startup or at all times in the media player. Corresponding language is also absent

from claim 1. A "category" is also not an inherent characteristic of the metadata contained in the data structure. The characteristics of metadata of different categories are therefore unclear, at least at the authoring stage when it is not yet known on which media player the media content will be rendered.

3.5 The appellants argue that the specific way of categorising a data structure is not crucial to the invention and that the key aspect of the invention is the fact that the data structure is capable of being categorised. However, each particular rendering media player will decide, depending on its own internal software and possibly on settings by media player users, whether metadata fall into the one or the other category mentioned above. Claim 1 does not contain a technical feature of the authoring method which would allow this decision to be made during the populating step. In other words, claim 1 defines the invention, in particular the categorising process in the "populating" step, only in terms referring to a possible or probable ("probably be held totally or partially" in paragraph [0047]) future behaviour (maintain or retain metadata), or to a possible effect or advantage (memory optimisation, accelerated operation) in one or some of the media players on which the media files will be rendered.

3.6 Claim 1 further sets out a separation of metadata in either a first file for binary metadata or a second file for text metadata, wherein the text content of the data structure is not required until rendering. Those files respectively correspond to the CONTENTS file and the TEXT file according to the description. The separation allows for cache optimisation in the media player (see paragraphs [0044] and [0081]). The

information within the CONTENTS file may in turn be categorised for either maintaining the metadata on the consumer electronic device during media player startup or maintaining the metadata on the consumer electronic device at all times (see paragraph [0047]). Thus further separating binary and text metadata in two files limits the categorising process to binary metadata contained in the first file but it does not contribute to clarifying the process of determining the category of the various binary metadata within the first file during the populating step of claim 1.

3.7 In conclusion, it cannot be determined with certainty whether an authoring method executed on a computing device would fall under claim 1, when populating and storing the (first file of the) data structure on a computer-readable medium.

3.8 For these reasons, claim 1, also when read in the light of the description, is unclear (Article 84 EPC 1973) and auxiliary request 1 is not allowable.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



K. Boelicke

F. Edlinger

Decision electronically authenticated