Internal distribution code:

(A) [-] Publication in OJ
(B) [-] To Chairmen and Members
(C) [-] To Chairmen
(D) [X] No distribution

Datasheet for the decision of 3 February 2016

Case Number: T 1450/10 - 3.5.07

Application Number: 04748465.4

Publication Number: 1652184

IPC: G11B27/10, G11B20/12, H04N9/79, H04N5/76

Language of the proceedings: EN

Title of invention:
Recording medium having a data structure for managing reproduction of text subtitle data recorded thereon and recording and reproducing methods and apparatuses

Applicant:
LG Electronics, Inc.

Headword:
Subtitle data/LG ELECTRONICS

Relevant legal provisions:
EPC Art. 123(2)

Keyword:
Amendments - added subject-matter (yes)

Decisions cited:

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern
Boards of Appeal
Chambres de recours

European Patent Office
D-80298 MUNICH
GERMANY
Tel. +49 (0) 89 2399-0
Fax +49 (0) 89 2399-4465

Case Number: T 1450/10 - 3.5.07

D E C I S I O N
of Technical Board of Appeal 3.5.07
of 3 February 2016

Appellant: (Applicant)	LG Electronics, Inc. 20, Yoido-Dong, Youngdungpo-Gu Seoul 150-010 (KR)
Representative:	Vossius & Partner Patentanwälte Rechtsanwälte mbB Siebertstrasse 3 81675 München (DE)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 19 February 2010 refusing European patent application No. 04748465.4 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	R. Moufang
Members:	M. Rognoni
	R. de Man

Summary of Facts and Submissions

I. The applicant (appellant) appealed against the decision of the Examining Division to refuse the European patent application no. 04748465.4 which was originally filed as international application PCT/KR2004/001827 with the international publication no. WO 2005/010882.

II. In the contested decision, the Examining Division, *inter alia*, came to the following conclusions:

- claim 1 according to the main request filed with letter dated 25 November 2009 introduced subject-matter which extended beyond the content of the application as originally filed (Article 123(2) EPC);

- claim 1 according to the main request did not involve an inventive step within the meaning of Article 56 EPC;

- the subject-matter of claim 1 according to the auxiliary request 1 filed at the oral proceedings held on 26 January 2010 did not involve an inventive step within the meaning of Article 56 EPC;

- claim 1 according to the auxiliary request 2 filed at the oral proceedings covered subject-matter which extended beyond the content of the application as originally filed (Article 123(2) EPC);

- a third auxiliary request was not admitted since it *prima facie* did not overcome all objections

under Article 123(2) EPC raised with respect to the auxiliary request 2.

III. With the statement of grounds of appeal, the appellant submitted a new set of claims 1 to 10 and requested that the decision under appeal be set aside and a patent be granted on the basis of the new claims.

IV. In a communication accompanying the summons to oral proceedings dated 20 October 2015, the Board expressed the preliminary opinion that claim 1 according to the appellant's request did not appear to comply with Article 123(2) EPC. Notwithstanding the objection of added subject-matter, the Board noted that the appellant did not appear to have provided convincing arguments in support of the inventive step of the claimed medium.

V. In reply to the Board's communication, the appellant withdrew its request for oral proceedings with letter dated 9 December 2015.

VI. On 3 February 2016, oral proceedings were held as scheduled in the absence of the appellant.

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

"A recording medium having a data structure for managing reproduction of subtitle data, comprising:

a subtitle information area storing a plurality of subtitle information segments downloaded from an external source, each one of the subtitle information segments being represented by one PES packet of transport packets, wherein each one of the subtitle

information segments including a segment identifier identifying the subtitle information segment as one of text data and graphic data, wherein packet identifier of the text data being distinguishable from the packet identifier of the graphic data, either the text data or the graphic data being selected for a display,

wherein a first subtitle information segment of the subtitle information segments identified as the text data includes a palette ID identifying palette information for controlling color attributes of the text data, wherein a second subtitle information segment of the subtitle information segments identified as the text data is linked to the first subtitle information segment by an identifier."

The appellant's request further comprises independent claims 4, 5, 7 and 8 respectively directed to a method of recording a data structure, a method of reproducing a data structure, an apparatus for recording a data structure and an apparatus for reproducing a data structure.

Reasons for the Decision

1. The appeal is admissible.

2. The present application is concerned with the problem of managing and reproducing subtitle data and graphic image data of a recording medium, in particular a Blu-ray Disk ROM (BD-ROM).

2.1 According to the present invention (see published international application, page 4, first full paragraph) a plurality of objects of *"presentation graphic data*" may be displayed in one page and thus

define corresponding display regions. Data corresponding to each one of these objects, such as text subtitle data, bit map subtitle data and graphic image data, is recorded as an *"object data segment"* (ODS) (cf. page 4, second paragraph). As shown in Figure 2 of the application, *"Presentation Graphic Data"* comprises a *"Page Composition Segment"* (PCS), a *"Color Look-up Table Definition Segment"* (CDS), a plurality of *"Object Data Segments"* (ODS) and an *"End of Display Segment"* (END).

As specified in the last paragraph of page 4, each segment is first organised into an *"MPEG packetized elementary stream"* (PES) packet and again organized into MPEG *"transport packets"* (TPs) before being recorded on a BD-ROM. Hence, each segment is represented by a PES packet. A unique packet ID corresponding to the data type of the *"object data segment"* (ODS) is written into the corresponding PES packet. The unique packet ID is then used by the reproducing apparatus for identifying the data type of each PES packet. The *"presentation graphic data"* and the main audio/video streams are multiplexed into a single transport stream and stored as a single file.

2.2 Exemplary embodiments of the data structure for a PCS, an ODS and an EDS are shown in Figures 3, 5 and 6, respectively. Figure 5 shows in particular that an ODS comprises an *"object id"*, an *"object type"* and an *"object source"*, whereby the latter indicates whether the object is recorded on the BD-ROM or not. On the basis of the *"object source"*, the reproducing apparatus determines whether an object to be presented as *"presentation graphic data*" is recorded on the BD-ROM or is to be downloaded through a network such as the

Internet (see description, page 7, penultimate paragraph).

3. Claim 1 according to the appellant's request relates to a "*recording medium having a data structure for managing reproduction of subtitle data*". It comprises the following features itemised by the Board:

(a) a subtitle information area storing a plurality of subtitle information segments downloaded from an external source,
(b) each one of the subtitle information segments being represented by one PES packet of transport packets,
(c) wherein each one of the subtitle information segments including a segment identifier identifying the subtitle information segment as one of text data and graphic data,
(d) wherein packet identifier of the text data being distinguishable from the packet identifier of the graphic data,
(e) either the text data or the graphic data being selected for a display,
(f) wherein a first subtitle information segment of the subtitle information segments identified as the text data includes a palette ID identifying palette information for controlling color attributes of the text data,
(g) wherein a second subtitle information segment of the subtitle information segments identified as the text data is linked to the first subtitle information segment by an identifier.

4. According to the Examining Division, the following features of claim 1 then on file found no support in the original application:

(i) "*each one of the subtitle information segments including an identifier identifying the subtitle information segment as one of text data and graphic data*";

(ii) "*a first subtitle information segment of the subtitle information segments identified as the text data includes a palette ID*".

4.2 As to feature (i), which corresponds essentially to feature (c) of claim 1 of the appellant's request (see claim itemisation), the Examining Division noted that the subtitle data stream shown in Figure 2 consisted of several segments. Of these segments only the "*object data segment*" ODS shown in Figure 5 contained an identifier which identified the object data segment as one of text data and graphic data.

In other words, the Examining Division considered that all types of segments shown in Figure 2 represented "*subtitle information segments*" and that of these segments only the "*object data segments*" included the identifier referred to in feature (i).

5. The appellant has argued that the identifier in feature (i) objected to by the Examining Division was a "segment identifier" and amended claim 1 accordingly (see feature (c)).

5.1 Furthermore, the appellant has pointed out that, according to the description (page 4, lines 20 to 33), each segment was represented by one PES packet. A unique packet ID corresponding to the data type of the object data segment was written into the corresponding PES packet. Thus, each one of the PES packets, *i.e.*

each segment PCS, CDS and ODS, included this identifier.

6. Lines 17 to 33 on page 4 of the published international application read as follows:

"Each segment *in the hierarchical structure is first organized into an MPEG packetized elementary stream (PES) packet and again organized into MPEG transport packets (TPs) before being recorded on a BD-ROM. Namely,* each segment (e.g., PCS, CDS, ODS, etc.*) is represented by one PES packet.* A unique packet ID corresponding to the data type of the object data segment (ODS) is written into the corresponding PES packet*. For example, if the* object data segment *is BMP subtitle data,* a unique packet ID*, PID_bmp, is written into the corresponding PES packet. Likewise, if the object data segment is text subtitle data, a unique packet ID, PID_text, is written into the corresponding PES packet. The optical disk apparatus for reproducing the BD-ROM, therefore,* identifies the data type of each PES packet *by examining the packet ID written in the PES packet. The presentation graphic data and main audio/video streams are multiplexed into a single transport stream and stored as a single file.*"
(underlining/emphasis added)

6.1 According to the above passage of the description, each segment in the hierarchical structure of the presentation graphic data shown in Figure 2 is organised into MPEG PES and then again into MPEG TPs. In particular, each segment (PCS, CDS, ODS 1 to ODS p and END) is represented by one MPEG PES. As shown in Figure 2, a packet ID (PID_bmp or PID_text), identifying the data type in an object data segment ODS, is written into the corresponding PES packet, but

not in the PES packets of the PCS, CDS and END segments.

Hence, the description does not give support to the appellant's argument that each one of the PES packets, *i.e.* of the information segments such as PCS, CDS, ODS and END, included a packet ID corresponding to the data of the corresponding object data segment (ODS) (cf. statement of grounds of appeal, page 3, lines 2 to 6).

6.2 Evidence that the appellant's interpretation of the invention does not correspond to the teaching of the present application is also provided by Figure 2 showing that a single PCS may be associated with a plurality of ODSs which may have text or graphic data. In this case, it would not be possible to define a unique "segment identifier" for the PCS corresponding to text data or graphic data.

6.3 In fact, the Examining Division considered that the identifier referred to in feature (i) was the *"object_type"* shown in Figure 5, and not the packet ID. This interpretation seems more consistent with the wording of claim 1 which refers to two distinct identifiers, namely one for the segments in feature (c) and the other one for the PES packets in feature (d).

6.4 In any case, the Board finds no support in the original application for an identifier which identifies the type of data (text or graphic) and is located in each one of the subtitle information segments, e.g. PCS, CDS, ODS etc., or in each one of the corresponding PES packets.

7. As to feature (ii), corresponding to feature (f) of claim 1, the Examining Division observed that the *"page*

composition segment" PCS included a palette ID, but was not identified as the text data.

7.1 The appellant has contested the Examining Division's view that PCS, *"apparently identified with the first subtitle information"*, did not include an identifier identifying this segment as one of text data and graphic data. In the appellant's opinion, the application as originally filed clearly taught that all PES packets, i.e. all subtitle information segments had a unique packet ID corresponding to the data type of the corresponding object data segment. Hence the appellant considered that feature (ii) complied with Article 123(2) EPC.

7.2 In other words, the appellant has essentially acknowledged that the *"page composition segment"* PCS is in fact the "*first subtitle information segment"* including a palette ID identifying palette information (cf. statement of grounds of appeal, item 3.2) according to feature (f) of the claim itemisation.

7.3 The appellant's interpretation of feature (f) is however not consistent with the application as originally filed because only *"object type elements"* include an "*object type"* which identifies the type of data represented by the ODS (see published application, page 7, lines 9 to 18). Hence, the *"page composition segment"* PCS cannot be *"a first subtitle information segment of the subtitle information segments identified as the text data".* On the other hand, an ODS does not include a palette ID.

8. Hence, the Board agrees with the Examining Division that both features (i) and (ii), corresponding to features (c) and (f) of the claim itemisation, have no

support in the application as originally filed (Article 123(2) EPC).

9. According to feature (a), the claimed recording medium comprises *"a subtitle information area storing a plurality of subtitle information segments downloaded from an external source*".

In the Board's opinion, feature (a) can only mean that the subtitle information segments, namely PCS, CDS, ODS etc., stored in the medium's subtitle information area are downloaded from an external source.

9.1 The appellant has essentially submitted that feature (a) found support on page 7, lines 19 to 24.

9.2 As shown in Figure 5, the object data segment (ODS) includes a field "object_source". As specified at page 7, lines 19 to 28, *"*[t]*e object source is information for indicating that* the object is recorded on a BD-ROM disk or not*. An optical disk apparatus for reproducing the BD-ROM may determine whether an object to be presented as presentation graphic data is* an object recorded on the BD-ROM or downloaded through a network *such as the Internet. For example, an object source code of '0000 1111' may be recorded to indicate that the BD-ROM disk is the object source. Both or either of the object type information and the object source information may be included in the corresponding object data segment"* (underlining/emphasis added).

Thus, as explained at page 11, lines 4 to 15, "[i]*f the user requests selective reproduction of objects downloaded through a network such as the Internet* instead of the objects recorded on the BD-ROM 1*, the controller 10 checks the object source information and*

excludes objects having the code value (e. g.,'0000 1111') indicative of recorded objects, thereby selectively reproducing objects that have been downloaded through the network.

The controller 10 may refer to both the object source information and object type information and reproduce an object of a particular type recorded on the BD-ROM and an object of a particular type downloaded through the network separately or simultaneously" (underlining/emphasis added).

9.3 Hence, the application as filed does not disclose a recording medium which stores information segments downloaded from an external source, but teaches that an information segment stored on the recording medium may indicate that presentation graphic data is to be downloaded through a network by the medium reproducing apparatus.

10. In summary, the Board comes to the conclusion that also feature (a) relates to subject-matter extending beyond the content of the application as originally filed (Article 123(2) EPC).

11. As claim 1 of the appellant's sole request does not comply with Article 123(2) EPC, the application has to be refused.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

I. Aperribay R. Moufang

Decision electronically authenticated