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Datasheet for the decision
of 11 June 2010

Case Number: T 0461/06 - 3.5.04
Application Number: 00937631.0
Publication Number: 1183863
IPC: H04N 5/00

Language of the proceedings: EN

Title of invention:
A system for acquiring and processing broadcast programs and program guide data

Applicant:
Thomson Licensing

Opponent:
-

Headword:
-

Relevant legal provisions:
RPBA Art. 13

Relevant legal provisions (EPC 1973):
EPC Art. 54(1), 56

Keyword:
"Amendments admitted in oral proceedings (yes)"
"Novelty (main request) (no)"
"Inventive step (auxiliary request) (no)"

Decisions cited:
-

Catchword:
-
Case Number: T 0461/06 - 3.5.04

DECISION
of the Technical Board of Appeal 3.5.04
of 11 June 2010

Appellant: Thomson Licensing
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Representative: Kohrs, Martin, et al
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Composition of the Board:
Chairman: F. Edlenger
Members: A. Teale
T. Karamanli
Summary of Facts and Submissions

I. This is an appeal against the decision by the examining division to refuse European patent application No. 00 937 631.0, published as international application No. WO 00 72582 A1.

II. According to the reasons for the appealed decision, the wording of claim 1 was unclear, Article 84 EPC 1973, and the subject-matter of claim 1 lacked inventive step, Articles 52(1) and 56 EPC 1973, in view of inter alia the following document:

D1: US 5 808 694 A.

III. A notice of appeal was received from the applicant (appellant). In a subsequently filed statement of grounds of appeal the appellant requested that the decision be set aside and that a patent be granted on the basis of the claims according to a main and an auxiliary request filed with the grounds of appeal.

IV. In an annex to a summons to oral proceedings the board raised clarity objections under Article 84 EPC 1973 against inter alia claim 1 of the main and auxiliary requests and questioned whether the subject-matter of claim 1 of these requests was novel and inventive in view of D1.

V. With a letter dated 10 May 2010 the appellant filed amended claims according to a main and an auxiliary request. The appellant also provided arguments in support of the novelty and inventive step of the claimed subject-matter.
VI. During the oral proceedings held on 11 June 2010 the appellant submitted amended claims according to a main and an auxiliary request and requested that the decision under appeal be set aside and that a patent be granted on the basis of claims 1 to 15 of the main request, or, as an auxiliary measure, according to claims 1 to 15 of the auxiliary request.

VII. Claim 1 according to the main request reads as follows:

"Method for tuning a selected channel by acquiring program guide information conveyed on one of a plurality of broadcast channels in a video decoder, comprising the steps of: selecting a program guide type from a plurality of different types of program guide; associating a program guide of said selected program guide type with a broadcast channel by updating a database in said video decoder; and acquiring a program guide of said selected program guide type; characterized in that said broadcast channels are associated with at least two different types of program guides selected from said plurality of different types of program guides including said acquired program guide of said selected program guide type and, tuning the channel selected by the user by using the program guide which is associated with the selected channel".

VIII. Claim 1 according to the auxiliary request reads as follows:

"Method for tuning a selected channel by acquiring program guide information conveyed on one of a plurality of broadcast channels in a video decoder,
comprising the steps of: selecting a program guide type from a plurality of different types of program guide; associating a program guide of said selected program guide type with a broadcast channel by updating a database in said video decoder; and acquiring a program guide of said selected program guide type in accordance with a predetermined priority order; characterized in that said broadcast channels are associated with at least two different types of program guides selected from said plurality of different types of program guides including said acquired program guide of said selected program guide type."

IX. In the oral proceedings the board first raised clarity and novelty objections against the claims according to the main and auxiliary requests filed with the letter dated 10 May 2010. The appellant argued that the association of broadcast channels with a plurality of program guides, set out in claim 1 according to the main and auxiliary requests, meant that, while each broadcast channel in a bouquet was only associated with one program guide, the entirety of the broadcast channels was associated with a plurality of EPGs (electronic program guides). An analogue TV channel could however only be associated with VBI (vertical blanking interval) EPG data. In response to this discussion the appellant filed new main and auxiliary requests.

**Main request**

The board argued that it was implicit from figure 12 of D1 that the selection of a channel such as "CNN" also resulted in a search for associated data to tune to and
receive the channel. The board also pointed out that page 14, lines 16 to 19, of the published application and figure 12 of D1 both concerned a GUI (graphical user interface) presenting several channels for selection.

The appellant argued, regarding admissibility, that he had only become aware at the oral proceedings of a difference in interpretation of the first three steps in claim 1 between him and the board. He regarded these steps as setting out the normal selection of a channel and referred to page 14, lines 15 to 23, page 11, lines 25 to 32, and page 12, lines 2 to 3, of the published application in support of his interpretation. As to the substance of the request, claim 1 had been amended to make it clear that the selected EPG was used to select a channel. The amendment to claim 1 changed the order of the method steps. D1 taught to start an EPG and then to select a channel, all the channels being linked to the same EPG. D1 failed to describe using a second program guide type to acquire program guide information if there was a problem in acquiring a broadcast channel using information from a first program guide type. According to claim 1 however, there were several EPGs. The sequence of the steps, first selecting a program guide type and then associating and acquiring the selected program guide type, not merely program guide data, was important. Moreover a GUI was not the same as an EPG. According to the invention, a frequency scan was performed, then a user selected a channel and then an EPG was loaded to tune to the selected channel. Figure 10 of the published application showed a type of program guide.
Auxiliary request

The board did not raise any objections regarding the admissibility of this request. As to its substance, the board referred to figure 12 of D1 which showed a plurality of broadcast channels associated with a plurality of program guides, namely those derived from the VBI data and the MPEG bit stream respectively. Each channel was however only associated with one EPG, which in the art was known as a "This Channel" EPG. The selecting and associating steps set out in claim 1 seemed to relate to the steps set out, for instance, in figure 3 of the published application, which concerned the initialization of a video receiving apparatus. The board also referred to the statement in D1 (column 18, lines 11 to 13) that the EPG receiver can embed a receiving circuit for receiving all EPG data of the AV system. In the light of this disclosure it seemed obvious to search for program guides serially in a predetermined priority order, since one had to start somewhere.

The appellant argued that the selecting and associating steps set out in claim 1 related to the normal user selection of a broadcast channel by first starting one of several EPGs and then using that EPG to launch the desired broadcast channel. According to D1, column 1, lines 52 to 63, EPG data had to be distinguished from the EPG itself. The published application (see page 7, lines 5 to 9) also explained the content of the EPG data. In D1 the various program guides were combined into a sole EPG; see column 17, for instance at lines 17 to 21. The feature added to claim 1 according to the auxiliary request, namely acquiring a program guide of
the selected program guide type "in accordance with a predetermined priority order", related to the fact that the application mentioned two digital EPG types, namely PSI and PSIP, and, if both were available, the receiver could be adapted to receive one EPG type in preference to the other. This was not disclosed in D1. Moreover, making such a decision in the receiver was not the only possibility; a selection between PSI and PSIP could also be dictated by the transmitter. If more analogue EPGs were broadcast than digital EPGs it would be quicker to search for analogue EPG data first.

X. At the end of the oral proceedings the board announced its decision.

**Reasons for the Decision**

1. **Admissibility of the appeal**

   The appeal is admissible.

2. **The admissibility of the appellant's main and auxiliary requests**

2.1 Both of these requests concern an amendment of the appellant's case after oral proceedings have been arranged. Under Article 13(1) RPBA (OJ EPO 2007, 536) any amendment to the appellant's case after he has filed his grounds of appeal may be admitted and considered at the board's discretion. The discretion shall be exercised in view of *inter alia* the complexity of the new subject-matter submitted, the current state of the proceedings and the need for procedural economy.
Moreover, according to Article 13(3) RPBA, amendments sought to be made after oral proceedings have been arranged shall not be admitted if they raise issues which the board cannot reasonably be expected to deal with without adjournment of the oral proceedings.

2.2 In both cases only claim 1 has been amended, the amendments being in response to the debate in the oral proceedings regarding the requests then on file. The amendments are also sufficiently minor as to allow the board to assess their effect without adjournment of the oral proceedings. The appellant's main and auxiliary requests were consequently admitted into the proceedings, Article 13 RPBA.

3. The interpretation of claim 1 according to the appellant's main and auxiliary requests

3.1 The board and the appellant have interpreted claim 1 of both requests, in particular the expression "selecting a program guide type from a plurality of different types of program guide", differently. Hence the interpretation of claim 1 of both requests in the light of the description and figures is crucial to the present decision.

3.2 According to the published description (see page 2, lines 17 to 26), the invention concerns the acquisition of program guide information conveyed on one of a plurality of broadcast channels, for instance terrestrial and cable television broadcasts. Such broadcasts can be either in an analogue or a digital signal format. In the case of an analogue format, program guide information is typically of a VBI
(vertical blanking interval) type, whereas, in the case of a digital format, program guide information is typically of an MPEG PSI (program specific information) type or an ATSC PSIP (program and system information protocol for terrestrial broadcast and cable) type; see page 4, lines 8 to 19. According to page 9, lines 20 to 24, multiple guides - such as a guide of PSIP type and a guide of PSI type - may be acquired and their data combined. The description and figures disclose two approaches to acquiring program guide data which differ as to when acquisition takes place.

3.3 According to what is termed "approach 1" in what follows, channel scanning can be performed upon system initialization to scan through received channels and to associate a particular program guide type with each individual channel; see page 5, lines 1 to 5, and page 10, line 5, to page 13, line 1. Initialization may be performed at power-on, or during low use periods (for instance, at night) or during a background operation that is invisible to a user; see page 10, lines 8 to 10. Figure 3 shows a flowchart of a decoder initialization method for scanning through received terrestrial channels to associate individual terrestrial broadcast channels with corresponding program guides (see page 3, lines 7 to 10). A priority order is established in that an attempt is first made to acquire a digital PSIP program guide (see step 210). If this fails and the channel is digital then an attempt is made to acquire the "PAT/PMT" data of an MPEG PSI program guide (see step 235 and page 8, lines 9 to 13), success of either attempt causing the available program guide to be acquired and stored in internal memory and a database to be updated with the
availability of the corresponding program guide; see page 10, lines 15 to 28, and steps 220 and 245. Figure 4 shows a corresponding initialization method for cable broadcast channels.

3.4 According to what is termed "approach 2" in what follows (see figure 2 and page 8, line 31, to page 10, line 4; figure 5 and page 11, line 25, to page 12, line 12, of the published application), a program guide availability scan can be performed in response to a user channel change command or user entry of a channel identification number (see figure 2; step 105). If no program guide type is associated with this channel, available program guides are searched for in a priority order (see step 110), a program guide type is associated with a broadcast channel (see step 115) and program guide data is acquired (see step 120). Such an association advantageously reduces the need to search for a guide to be used in processing a future selected broadcast channel and reduces program and channel acquisition times; see page 9, lines 1 to 3 and page 11, line 32, to page 12, line 6.

3.5 The board finds that claim 1 of both requests can be understood in the sense of either approach 1 or approach 2. Both approaches involve the selection of a program guide type from a plurality of different types of program guide and the association of a program guide of said selected program guide type with a broadcast channel by updating a database in the video decoder; see steps 210, 215 and 220 in figure 3 and steps 110 and 115 in figure 2, respectively. Both approaches moreover involve acquiring a program guide of the selected program guide type in a predetermined priority
order; see page 10, lines 17 to 19 and 25 to 28, and figure 2, steps 115 and 120, respectively. Both approaches also allow the broadcast channels to be (collectively) associated with at least two different types of program guides selected from said plurality of different types of program guides including said acquired program guide of said selected program guide type; see page 9, lines 20 to 21. Furthermore both approaches allow a channel selected by the user to be tuned by acquiring program guide information associated with and conveyed on one of a plurality of broadcast channels; see the program guide shown in figure 10.

3.6 The appellant has argued that the selecting and associating steps set out in claim 1 of both requests relate to the normal user selection of a broadcast channel by first starting one of several EPGs and then using the EPG to launch the desired broadcast channel, the appellant having referred to page 11, lines 25 to 32, page 12, lines 2 to 3, and page 14, lines 15 to 23, of the published application in support of his interpretation. The board finds that, although approach 2 (see above) does concern user selection of a broadcast channel (see figure 2; step 105), the expression in claim 1 according to both requests "selecting a program guide type from a plurality of different types of program guide" cannot be understood to mean that the user chooses between one of several EPGs. Nor can it be understood as excluding an initialization process or as being restricted to a search for information of another program guide type when a user selects a channel and program guide information of the associated program guide type is not available. On the contrary, according to approach 2, in
particular step 110 of figure 2 and figure 5 (see point 3.4 above), the channel selected by the user may be a new channel and in an initialization process for this channel a program guide type is selected, namely firstly the PSIP type; see page 9, lines 5 to 8. The system then tests to see whether an EPG of PSIP type is available. Hence, contrary to the appellant's argument, the expression in claim 1 of both requests cannot be interpreted in the context of approaches 1 and 2 in the description and figures to mean a user selection, but rather as an automated selection for finding an available program guide type for a particular channel as part of the method shown in figures 3, 4 and 5; see steps 210, 310 and 410, respectively. Moreover the above expression in claim 1 of both requests concerns the selection of a program guide type, not of an EPG from a choice of EPGs. The board also notes that the first two cited passages relied on by the appellant, namely page 11, lines 25 to 32, and page 12, lines 2 to 3, confirm the above interpretation that the claimed method covers an initialization process for a new channel which has no associated program guide information. The third cited passage (page 14, lines 15 to 23) merely refers to the user selection of broadcast channels using stored EPG data, but does not mention either the selection of a program guide type or the association of a program guide type with a broadcast channel, and is thus not relevant to the present decision.

4. Document D1

4.1 D1 discloses an electronic program guide system comprising an EPG receiver, a television and an
integrated receiver/decoder (IRD). The system receives EPG information both by terrestrial broadcast using the television (see figure 5: "VBI data") and satellite broadcast using the IRD (see figures 3A and 3B: "bit stream"), the two EPGs then being stored and integrated by the EPG receiver for display to the user via the television; see column 2, lines 3 to 9, and figure 12. The VBI EPG is shown in figure 14 and contains program guides for three local TV channels. The IRD receives an MPEG EPG (see figure 13) containing program guides for three satellite TV channels: "CNN", "MTV" and "M!"; see column 5, lines 41 to 53. The board regards it as implicit in the disclosure of D1 that the derivation of the VBI EPG and the MPEG EPG involves the selection of a program guide type (for instance, MPEG) from a plurality of different program guide types (MPEG and VBI) before acquiring a program guide for a particular channel ("This Channel" EPG) and the updating of a database to associate a program guide of the selected type with a broadcast channel, for example the association of an MPEG EPG with the CNN broadcast channel. According to column 18, lines 11 to 13, the EPG receiver can comprise a single receiving circuit for receiving all of the EPG data, in other words, both the VBI EPG and the MPEG EPG. The EPG shown in figure 12 is derived by integrating the VBI EPG data and the MPEG EPG data shown in figures 14 and 13, respectively; see column 13, lines 36 to 43, and column 17, lines 17 to 21. When a user selects a channel from the integrated EPG the system displays that channel on the television; see column 14, lines 39 to 48.

4.2 The board finds that it is implicit in the integrated EPG shown in figure 12 that the entirety of broadcast
channels (shown in the left-most column) is associated with a plurality of different types of EPGs (shown in the remaining columns).

5. **Novelty, Article 54(1) EPC 1973**

5.1 *The appellant's main request*

In the light of the above analysis, D1 discloses, in the terms of claim 1, a method for tuning a selected channel (e.g. "CNN" in figure 12) by acquiring program guide information (see MPEG EPG in figures 12 and 13 and column 5, lines 41 to 53) conveyed on one of a plurality of broadcast channels in a video decoder, comprising the steps of: selecting a program guide type (MPEG) from a plurality of different types of program guide; associating a program guide of said selected program guide type with a broadcast channel by updating a database in said video decoder; and acquiring a program guide of said selected program guide type. Said broadcast channels (see figure 12) are associated with at least two different types of program guides (MPEG/VBI) selected from said plurality of different types of program guides including said acquired program guide of said selected program guide type. Moreover the channel selected by the user is tuned by using the program guide which is associated with the selected channel.

Although the particular sequence of selecting, associating and acquiring a program guide of a particular type is not explicitly disclosed in D1, the board considers that the system first has to make a choice as to the format in which the guide is
transmitted, be it as ancillary data in a digital television program or as VBI data in an analogue television program.

The board consequently finds that the subject-matter of claim 1 according to the appellant's main request is known from D1 and thus not new, Article 54(1) EPC 1973. Of course, if claim 1 were given a more restrictive interpretation as to the sequence of steps, claim 1 would share the fate of claim 1 of the auxiliary request for the reasons given below.

5.2 The appellant's auxiliary request

It follows from the analysis of claim 1 according to the appellant's main request above that the subject-matter of claim 1 according to the auxiliary request differs from the disclosure of D1 in the step of acquiring a program guide of the selected program guide type in accordance with a predetermined priority order.

The subject-matter of claim 1 according to the appellant's auxiliary request is consequently new, Article 54(1) EPC 1973, having regard to D1.

6. Inventive-step, Article 56 EPC 1973

The skilled person solving the technical problem of realizing the electronic program guide system known from D1 in the light of the disclosure in D1 of a receiving circuit dedicated for receiving all the EPG data (see column 18, lines 11 to 13) would have considered the sequential reception of the different types of EPG data as a usual matter of design. In doing
so, the use of a predetermined order for receiving the different types of EPG data would have been the simplest and therefore an obvious solution and would necessarily have imposed a corresponding priority order.

The appellant has argued that the priority order of reception of different EPG types could also have been dictated from the transmitter, so that it would not have been obvious to make this decision on reception, yielding the advantage that if, for instance, more analogue EPGs were broadcast than digital EPGs, then receivers could save time by searching for analogue EPG data first. The board does not however accept this argument, since the appellant has not offered any evidence that at the priority date it was known, or even technically possible, to dictate the priority order of reception of different EPG types from the transmitter. Moreover the fact that other (transmitter-related) solutions might have been possible at the priority date of the present application does not detract from the fact that, for the reasons given above, it would have been obvious for the skilled person starting from D1 to select a (receiver-related) solution falling within claim 1. Consequently the board finds that the subject-matter of claim 1 does not involve an inventive step, Article 56 EPC 1973.

7. Conclusion

Since neither the appellant's main nor auxiliary request is allowable, the appealed decision cannot be set aside.
Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:    The Chairman:

L. Fernández Gómez    F. Edlinger