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**Datasheet for the decision
of 15 December 2014**

Case Number: T 1342/10 - 3.5.04

Application Number: 01201068.2

Publication Number: 1126719

IPC: H04N7/24

Language of the proceedings: EN

Title of invention:

Apparatus and method for selecting a channel among a plurality of channels in a packetized signal

Applicant:

THOMSON CONSUMER ELECTRONICS, INC.

Headword:

Relevant legal provisions:

EPC 1973 Art. 83, 84, 111(1)

Keyword:

Sufficiency of disclosure - (yes)
Claims - clarity after amendment (yes)
Remittal to the department of first instance - (yes)

Decisions cited:

Catchword:



**Beschwerdekammern
Boards of Appeal
Chambres de recours**

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Case Number: T 1342/10 - 3.5.04

D E C I S I O N
of Technical Board of Appeal 3.5.04
of 15 December 2014

Appellant: THOMSON CONSUMER ELECTRONICS, INC.
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 25 January 2010
refusing European patent application
No. 01201068.2 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman B. Müller
Members: C. Kunzelmann
R. Gerdes

Summary of Facts and Submissions

- I. The appeal is against the decision of the examining division to refuse European patent application No. 01 201 068.2 under Article 97(2) of the European Patent Convention (EPC).
- II. The application was refused on the grounds that claim 1 of the requests then on file was not clear and not supported by the description (Article 84 EPC), and that the application did not disclose the claimed invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art (Article 83 EPC).
- III. The applicant appealed and requested that the decision be set aside. With the statement of grounds of appeal, the appellant filed claims according to a main request as well as first and second auxiliary requests.
- IV. Claim 1 according to the main request reads as follows:

"A signal processing apparatus characterised in that the apparatus comprises:
means (607) for receiving a packetized signal from digital data transmission channels, said digital data transmission channels providing video, audio and data packets representing television programs; and
means (606, 608) for identifying and processing data packets containing program guide information (MPG, SPG) included in said packetized signal in at least one of the digital data transmission channels, said program guide information comprising television schedule data, and for identifying and processing packets carrying components of a selected television program (PR1, PR2, PR3) from one of said digital data transmission

channels using packet identifiers (SCID) listed in said program guide information (MPG, SPG), a plurality of user-selectable virtual channels being assigned to said digital data transmission channels, each selected television program corresponding to one of said virtual channels, said program guide information containing a sequence of data blocks (SEGM, APGD, CSSM, PISM) including a segment map block (SEGM) that contains information about the partitioning of said virtual channels into a plurality of data segments (SEG(0), SEG(1),...), each data segment carrying program information for a particular number of said virtual channels, each data segment having a corresponding channel to service segment map block (CSSM) that includes a channel information record (CI) for each virtual channel included in said data segment, said identifying and processing means using the segment map block (SEGM) to determine the proper data segment associated with the selected television program, and the channel to service segment map block (CSSM) corresponding to said data segment, to locate the desired channel information record (CI), to thereby acquire the video, audio and data packets from the proper digital data transmission channel for said selected program."

- V. The reasons for the decision under appeal may be summarised as follows:

The objective of the application was the provision of a comprehensive and logical organisation for transmission of multiple television programs in digital form. A key technical effect of the invention was flexibility. Any program could be assigned or reassigned, whenever a master program guide was transmitted, to any transponder or data time slot, in a fashion which was

completely transparent to the user. The user would only see the unchanged program title and virtual channel.

In claim 1 of both the main and subsidiary requests, the feature "identifying and processing packets carrying components of a selected television program (PR1, PR2, PR3) from one of a plurality of channels using packet identifiers (SCID) listed in said program guide information (MPG, SPG)" was an essential element to achieve the object of the invention. However, this feature merely formulated the result to be achieved. Thus it was not clear and not supported by the description in its entire breadth, so that claim 1 was not allowable under Article 84 EPC. This feature was not common general knowledge.

Moreover, from the description it was not clear how the packets carrying the components of the relevant program selected by the user were identified. The description and figure 5a did not disclose how the SCIDs were located and how they were identified. In particular, the description did not teach how to retrieve the SCIDs of the selected program from the master program guide or the special program guide. For instance, the master program guide would have to comprise clear explanations of the locations of the pointers to the SCIDs of the elementary streams of the selected program. Figure 5 also did not disclose how to use the SCIDs to identify the relevant program. The description of the way in which the master guide carried information about the SCIDs of the components of each of the programs was not sufficiently clear and complete for the invention to be carried out. Hence the application did not meet the requirements of Article 83 EPC.

Under the heading "further comments" the examining division stated that in view of the formulation of the claims then on file it was not possible to determine whether or not the priority document disclosed the claimed invention, and that examination as to the requirements of Article 52(1) EPC would still have to be performed.

VI. The appellant's arguments may be summarised as follows:

The invention aimed at enabling the selection of a virtual channel from a plurality of virtual channels in response to user-entered data (page 4, lines 13 to 20). In an example, the virtual channels were distributed over 256 transmission channels from a transmission satellite to a receiver, and the selected virtual channel was assigned to an appropriate digital data transmission channel by means of program schedule data. In practice, getting the correct virtual channel meant getting the identity of the appropriate transponder and getting the appropriate time slot in the time-multiplexed data stream transmitted from this transponder (page 5, lines 15 to 21). This could be done dynamically by means of the received program guide information. Thus the number of virtual channels could be higher than the number of transmission channels (e.g. page 5, lines 32 to 34). Each virtual channel could carry a number of successive programs, each of those including a number of program components called services (page 6, lines 34 to page 7, line 2.) Each service of each program was identified by a unique Service Component Identifier SCID (page 7, lines 4 and 5), and the information for the respective service was transmitted in packets, all with appropriate SCIDs (page 7, lines 5 to 8).

The program guide data included a Master Program Guide MPG (for current TV programs) and one or more Special Program Guides SPGs (for future TV programs) (page 5, lines 15 to 21). The MPG and the SPG comprised a sequence of data blocks (page 8, lines 10 to 12 and 33 to 35).

Both the MPG and the SPG were partitioned into segments (page 8, lines 24 to 30), each segment carrying program information for one or more virtual channels. The appropriate segment for any virtual channel number could be derived from the SEGMENT MAP block (SEGM) of the MPG, namely through the field SEGMENT LIST (fig. 5a, page 9, lines 4 to 7). The MPG also provided the way of accessing any SPG by means of a PROGRAM GUIDE MAP (PGM) of a block ADDITIONAL PROGRAM GUIDE DATA (APGD) (fig. 5c).

For a thus derived segment of a given MPG or SPG, the virtual channel information could be obtained from the CHANNEL TO SERVICE SEGMENT MAP (CSSM) (page 9, lines 11 to 21) and the program information from the PROGRAM INFORMATION SEGMENT MAP (PISM) (page 9, lines 11 to 16 and 21 to 24). In particular, the CSSM gave the relevant SCIDs for the segment (SCID LIST in fig 5a).

In operation of the invention, the user selected a TV program by moving a cursor to a block of a program guide display. From the position of the cursor, the virtual channel and the program time information were derived. The virtual channel number was used to determine the proper segment and the program time information was used to determine the proper program guide (MPG or one of any SPGs). From the proper segment and the proper program guide the relevant CSSM and PISM maps could be accessed (page 10, lines 11 to 16). The

number of the virtual channel was used to acquire the relevant SCIDs for the services for this channel, and the time information was used to determine the appropriate timing data. With the target transponder, SCIDs and timing being known, the data packets were selected from the data stream received from the transponder by examining the data packets for the proper SCIDs of the program (page 10, line 17 to page 11, line 4).

This functioning of the invention was clear for a person skilled in the art intending to implement the described invention. Thus one embodiment of the invention was disclosed in detail. Moreover, the key features of the invention were mentioned in the independent claims. For a person skilled in the art it would have been straightforward to derive a number of alternative embodiments of the invention, based on the key features of the claims. Thus it was not appropriate to limit the claims to the particular described example, and the claimed scope of protection was justified in view of the nature of the invention. Hence the requirements of Article 83 EPC were met.

The claims were supported by the description (see, for instance, the parts of the description referred to above). Functional features were permissible in a claim, and broadness of a claim in itself was not prohibited under Article 84 EPC, provided the claim was supported by the description. Hence the requirements of Article 84 EPC were met.

Reasons for the Decision

1. The appeal is admissible.
2. *Disclosure of the invention (Article 83 EPC 1973)*
 - 2.1 According to Article 83 EPC 1973, "The European patent application must disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art". It is established case law that an invention is in principle sufficiently disclosed if at least one way is clearly indicated enabling a person skilled in the art to carry out the invention, provided that one way enables a person skilled in the art to obtain substantially all embodiments falling within the ambit of the claims (see the Case Law of the Boards of Appeal of the European Patent Office, 7th edition 2013, points II.C.4.1 to 4.4).
 - 2.2 In the present case the detailed explanations given in the statement of grounds of appeal, with the parts of the description and the figures indicated therein, convinced the board that a person skilled in the art was able to carry out the invention.
 - 2.3 The examining division identified the following features of the invention as being insufficiently disclosed in the application:
 - a) the identification of the packets carrying the components of the relevant program selected by the user;
 - b) the location of the SCIDs.

- 2.4 With respect to point a), the appellant argued convincingly that in particular page 10, line 17 to page 11, line 4 describe that the identification and selection of the relevant packets from the data stream received from the transponder are carried out by examining the data packets for the proper SCID 12 bit code. If the SCID of the data packet received matches the SCID of the desired television program as listed in the program guide, then the data packet is routed to the proper data processing sections of the receiver. The description does not give details of the hardware used for the examination of the data packets, but the board finds that such hardware and implementation details are not required in the present case. The invention is described and claimed in general, functional terms which are usual in the relevant technical field. These terms are also appropriate in view of the conceptual nature of the invention.
- 2.5 As to point b), the exact location of the SCIDs is a question relating only to the particular embodiment described. As discussed above, the invention is claimed in general, functional terms. The exact location of the SCIDs is not an essential feature of the invention in the sense that the object of the invention can only be carried out if the SCIDs have a particular location. What is relevant is that the SCIDs can be identified and retrieved. In particular, as convincingly argued by the appellant, for a person skilled in the art it would have been straightforward to derive a number of alternative embodiments of the invention, such as by changing the positions of parameters and fields in the data structure.
- 2.5.1 In this respect, some of the appellant's explanations are based exclusively on figure 5, but do not indicate

corresponding parts of the description. Indeed, the description of the example illustrated in figure 5 does not explain all the fields of the data structure of figure 5, and some fields are dealt with only very briefly. For instance, the description relating to the SCID LIST illustrated in figure 5a only discloses that SCIDs are listed in the program guide (page 10, lines 27 to 35). In this respect the examining division found that the description and drawings did not disclose how to retrieve the SCIDs of the selected program from the master program guide. However, since the claimed invention does not comprise a feature specifying details of the way in which the SCIDs of the selected program are retrieved from the master program guide, this brevity of the description does not result in an objection under Article 83 EPC 1973. Instead it reflects the generality of the invention.

3. *Clarity (Article 84 EPC 1973)*

3.1 The examining division identified the expression "identifying and processing packets carrying components of a selected television program (PR1, PR2, PR3) from one of a plurality of channels using packet identifiers (SCID) listed in said program guide information" as being unclear and not supported by the description.

3.2 The board however finds that the corresponding feature in present claim 1 ("means (606, 608) for identifying and processing data packets containing program guide information (MPG, SPG) included in said packetized signal in at least one of the digital data transmission channels, said program guide information comprising television schedule data, and for identifying and processing packets carrying components of a selected television program (PR1, PR2, PR3) from one of said

digital data transmission channels using packet identifiers (SCID) listed in said program guide information (MPG, SPG)") is a functional feature. Functional features are common in the given technical field. In the present case they are also appropriate in view of the conceptual nature of the invention.

3.3 The board also finds that a person skilled in the art would have been able to implement a means performing this function, using only his/her common general knowledge. The identification of data packets using packet identifiers was common practice at the priority date and *a fortiori* at the date of filing of the present application.

3.4 Thus the board finds that the objection under Article 84 EPC raised in the decision under appeal does not apply to the present claims.

4. *Remittal (Article 111(1) EPC 1973)*

4.1 The examining division indicated in its "further comments" that examination would still have to be performed. The board sees no reason in the present case to go beyond its primary task of examining the contested decision. Full examination as to patentability requirements is the task of the examining division.

4.2 In view of the above, the board decided to exercise its discretion in remitting the case to the department of first instance for further prosecution.

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 Chairman:



K. Boelicke

B. Müller

Decision electronically authenticated