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**Datasheet for the decision
of 19 November 2008**

Case Number: T 0111/05 - 3.5.04

Application Number: 00943118.0

Publication Number: 1197073

IPC: H04N 5/445

Language of the proceedings: EN

Title of invention:

Method and apparatus for performing a channel search in a television

Applicant:

Thomson Licensing

Opponent:

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Headword:

-

Relevant legal provisions:

RPBA Art. 13

Relevant legal provisions (EPC 1973):

EPC Art. 56

Keyword:

"Late-filed requests - admitted (yes)"
"Inventive step (no for all requests)"

Decisions cited:

-

Catchword:

-



Case Number: T 0111/05 - 3.5.04

D E C I S I O N
of the Technical Board of Appeal 3.5.04
of 19 November 2008

Appellant: Thomson Licensing
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Representative: Kerber, Thierry
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 14 September 2004
refusing European application No. 00943118.0
pursuant to Article 97(1) EPC 1973.

Composition of the Board:

Chairman: F. Edlinger
Members: M. Paci
C. Vallet

Summary of Facts and Submissions

- I. This appeal is against the decision of the examining division to refuse European patent application No. 00 943 118.0, published as WO 01/06771 A1.
- II. The decision under appeal was based on the ground that the subject-matter of claims 1 and 5 did not involve an inventive step (Article 56 EPC 1973) in view of the state of the art disclosed in
- D2: WO 99/35833 A1 and
- of the common general knowledge of the person skilled in the art.
- III. With the statement of grounds of appeal the appellant filed a set of amended claims replacing the claims on which the appealed decision had been based.
- IV. In an official communication accompanying the summons to oral proceedings the board expressed doubts whether the amended claims complied with Articles 84 and 56 EPC 1973.
- V. With a letter dated 20 October 2008 the appellant filed four amended sets of claims, these being claims 1 to 9 according to a new main request and claims 1 to 7 according to first to third auxiliary requests.
- VI. Oral proceedings were held before the board on 19 November 2008.

VII. The appellant's final requests were that the decision under appeal be set aside and that a patent be granted on the basis of the new main request or on the basis of one of the three auxiliary requests in the indicated order, all requests as filed with the letter dated 20 October 2008.

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

"Method of performing a channel search, in a video processing apparatus (12) having at least two video inputs (16, 26, 28, 30) adapted to receive input from respective video source and coupled to a display device (22), characterized by the steps of:

determining by an user a currently selected video input of the at least two video inputs;

detecting available channels from various possible channels on only the currently selected video input;

and

updating a channel list of all channels available for only the currently selected video input."

Claim 1 according to the **first auxiliary request** reads as follows:

"Method of performing a channel search, in a video processing apparatus (12) having at least two video inputs (16, 26, 28, 30) adapted to receive input from respective video source and coupled to a display device (22), characterized by the steps of:

determining by a user a currently selected video input of the at least two video inputs;

utilizing information generated from a previous full channel search regarding whether a video input is

coupled to a cable video signal source or an antenna video signal source in order to skip a cable/air detection routine

detecting available channels from various possible channels on only the currently selected video input;
and

updating a channel list of all channels available for only the currently selected video input."

Claim 1 according to the **second auxiliary request** reads as follows:

"Method of performing a channel search, in a video processing apparatus (12) having at least two video inputs (16, 26, 28, 30) adapted to receive input from respective video source and coupled to a display device (22), characterized by the steps of:

determining by a user a currently selected video input of the at least two video inputs;

utilizing information entered by a user regarding whether a video input is coupled to a cable video signal source or an antenna video signal source in order to skip a cable/air detection routine;

detecting available channels from various possible channels on only the currently selected video input;
and

updating a channel list of all channels available for only the currently selected video input."

Claim 1 according to the **third auxiliary request** reads as follows:

"Method of performing a channel search, in a video processing apparatus (12) having at least two video

inputs (16, 26, 28, 30) adapted to receive input from respective video source and coupled to a display device (22), characterized by the steps of:

determining by a user a currently selected video input of the at least two video inputs;

detecting only digital channels from various possible channels on only the currently selected video input; and

updating a channel list of all channels available for only the currently selected video input."

IX. The examining division's reasoning in the appealed decision, as far as it is still relevant to present amended claim 1 of the main request, can be summarised as follows.

D2 discloses a video processing apparatus having at least two video inputs adapted to receive input from respective video sources. The apparatus of D2 is coupled to a display device and comprises means for selecting one of the video inputs. Although D2 is not concerned with updating a channel list of all available channels, it is nevertheless obvious that such a list must be established and updated. The skilled person is thus faced with the problem of running a channel search routine that takes the plurality of video inputs into account. Running such a routine over the selected video input only or running it over all video inputs are two obvious alternatives between which the skilled person would choose without the exercise of inventive skill. Besides, should only one tuner be available for a selective connection with the various inputs, then the skilled person would have no other choice but to run

through exactly all the steps of claim 1 (possibly repeatedly for each respective video source).

Hence the subject-matter of claim 1 does not involve an inventive step (Article 56 EPC 1973) in view of D2 and the skilled person's common general knowledge.

X. The appellant argued essentially as follows.

Inventive step - main request

At the priority date of the application existing television apparatuses performed an automatic channel search on **all** the connected video sources. The automatic channel search thus took a very long time when several video sources were connected. The method of claim 1 solves this problem by only performing the channel search on the currently selected video input and by updating the channel list of all channels available for only this video input. Since only one video input is scanned, the time required for the channel search is reduced.

None of the cited prior art documents discloses or suggests a channel search on only the currently selected video input in a television apparatus having at least two video inputs. D2 teaches away from this idea because it allows the viewer to watch a particular channel while at the same time displaying channel banners of other channels in a unique format regardless of the source, which implies that all channels of all video sources must have already been scanned.

Hence the method of claim 1 of the main request was not suggested by the cited prior art.

Inventive step - first and second auxiliary requests

The method of claim 1 according to these requests comprises the additional step of utilising information generated from a previous channel search (first auxiliary request) or entered by the user (second auxiliary request) regarding whether a video input is coupled to a cable video signal source or an antenna video signal source in order to skip a cable/air detection routine. This step further reduces the time required by a channel search.

There is no suggestion of this additional step in D2.

Inventive step - third auxiliary request

The method of claim 1 according to this request differs from that of claim 1 of the main request in that only the **digital** channels of the currently selected video input are detected for updating the channel list. This step further shortens the channel search time if the user is only interested in digital channels and can assist the user in adjusting the position of a digital antenna for receiving the maximum number of digital channels.

Reasons for the Decision

1. The present decision was taken after the revised European Patent Convention ("EPC 2000") entered into force on 13 December 2007. Since the European patent application in suit was pending at that time, the board has to apply the transitional provisions in accordance with Article 7(1) of the Act revising the EPC of 29 November 2000 and the Decisions of the Administrative Council of 28 June 2001 (Special edition No. 1, OJ EPO 2007, 197) and 7 December 2006 (Special edition No. 1, OJ EPO 2007, 89). In the present decision the board follows the citation practice set out on page 4 of the 13th edition of the European Patent Convention.

2. The appeal is admissible.

Admissibility of the late-filed amended claims

3. In the official communication annexed to the summons to oral proceedings the board had informed the appellant that any further request had to be filed no later than one month before the date of the oral proceedings, which in the present case meant no later than on 19 October 2008. Since the amended sets of claims according to the main request and the first to third auxiliary requests were faxed by the appellant on 21 October 2008 (dated 20 October 2008), that is two days after the deadline set by the board, the admissibility of these amendments was discussed in the oral proceedings.

The board observed that the amendments to claim 1 of all requests overcame the objection of lack of clarity raised in the official communication annexed to the summons to oral proceedings and that they added no significant complexity to the case. For these reasons the board decided to exercise its discretion under Article 13(1) and (3) RPBA (see OJ EPO 2007, 536) to admit the late-filed requests.

Amendments (Article 123 EPC)

4. The amendments made to claim 1 according to the main request and the first to third auxiliary requests have a basis in the application as filed (see dependent claims 2, 3 and 4 and page 6, lines 4 to 7). The board is satisfied that the amendments comply with the requirements of Article 123(2) EPC.

Main request - inventive step (Article 56 EPC 1973)

5. As can be derived from pages 1 and 2 of the application as filed, as well as from the "Background of the invention" section in D2, it was generally known before the priority date of the present application for a video processing apparatus (such as a television, a television receiver or a "convergence system" as it is called in D2) to have two or more signal inputs adapted to receive various television signal sources between which the user could switch in order to view the channels carried by the signal source selected by the user (see page 1, lines 12 to 18, of the application as filed and page 1, lines 22 to 28, and figure 1A of D2). Each signal source (or video input in the terms of present claim 1) typically carried many television

channels (see page 1, lines 23 and 24, of the application as filed). It was also known that the video processing apparatus needed to know what channels were available for each signal input in order to skip those channels that did not carry television signals when the user was switching between the various channels (see from page 1, line 29, to page 2, line 1, of the application as filed). In order to fulfil this need, channel search routines were conventionally used for automatically detecting the active channels and for storing them in a channel list (see page 2, lines 1 to 10, of the application as filed).

In view of the above evidence, which was not contested by the appellant, the board is convinced that before the priority date of the present application a method of performing a channel search was known, in a video processing apparatus having at least two video inputs adapted to receive input from respective video sources and coupled to a display device, comprising the step of determining by a user a currently selected video input of the at least two video inputs.

The board regards the above known method as the closest prior art to the method of claim 1.

6. The method of claim 1 thus differs from this known method by the way the channel search is conducted, which is by detecting available channels from various possible channels on only the currently selected video input and by updating a channel list of all channels available for only the currently selected video.

7. The invention of claim 1 solves the objective technical problem of providing a channel search that shortens the time necessary for completing the channel acquisition process (see page 2, lines 19 and 20, of the application as filed).

8. It was well known to the person skilled in the art, in the present case a television engineer, that the channel scanning process is a time consuming operation because it is usually done by successively tuning the tuner of the video apparatus to the frequency of each of the channels. The more channels to be scanned, the longer it takes. In the case of a television system with several video inputs connected to respective video sources, with each source providing a plurality of channels, the skilled person would thus expect a full channel search to take a particularly long time. For these reasons, the skilled person would be aware of this technical problem and would try to find a solution to it as a matter of routine.

9. In order to solve this problem the skilled person would have considered routine measures such as: (1) performing the channel search when the apparatus is idle (i.e. when the user is not using the apparatus); (2) performing only a partial channel search, i.e. limited to the minimum necessary extent at one time (for instance to only the channels of the video input currently selected by the user) or (3) avoiding unnecessary duplication of work by reusing the results of a previous channel search. A time-consuming full channel search on all channels of all video inputs (antenna, cable, or the like), most likely one input source after the other because of different frequencies

and coding techniques, would probably remain the method of choice the very first time the apparatus is set up (as is generally known for channel auto-programming systems; see page 2, lines 1 to 3, of the application as filed). However subsequent updates of the channel list would logically be performed depending on the circumstances, for example according to one or more of the aforementioned methods (1), (2) or (3). For instance, if a new satellite receiver were connected for the first time to a video input of the apparatus then it would be obvious to update a channel list for only the channels of this new video input, not for those of other video inputs.

For the above reasons, the board considers that, having regard to the state of the art, it was obvious to only detect the available channels on the currently selected video source and to update the channel list accordingly.

10. The appellant argued that D2 did not suggest a channel search on only the currently selected video input in a television apparatus having at least two video inputs and taught away from the method of claim 1 because, according to the invention of D2, all channel banners had the same form regardless of the video input they come from. The board agrees that there is indeed no such suggestion in D2 because the invention of D2 solves a different problem, namely the display of channel banners in the same form regardless of the source. Thus D2 does not suggest a different solution to the objective problem of the present invention. The board has come to the conclusion that the method of claim 1 was obvious having regard to the state of the art which formed part of the skilled person's common

general knowledge and was evidenced for example in the "Background of the invention" section of D2 and confirmed in the present application.

11. For the above reasons, the main request is not allowable, since the method of claim 1 does not meet the requirement of Article 56 EPC 1973.

First and second auxiliary requests - inventive step

12. The method of claim 1 according to these requests comprises the additional step of utilising information generated from a previous channel search (first auxiliary request) or entered by the user (second auxiliary request) regarding whether a video input is coupled to a cable video signal source or an antenna video signal source in order to skip a cable/air detection routine. This step further reduces the time required by a channel search.
13. As indicated in section 9 *supra*, the board considers it as obvious for the skilled person to reuse information from a previous channel search in order to avoid an unnecessary duplication of work. This approach requires that the system stores information from a previous full channel search, including information on the source that has been connected to one of the video inputs. If a previously searched source is connected to a given input, it would be obvious to the skilled person that the execution of a cable/air detection routine is unnecessary and can thus be skipped, for example if no change in a recently updated channel list is to be expected. Asking the user to provide this information

instead of the system itself is regarded as an obvious alternative.

14. Hence the first and second auxiliary requests are not allowable, since the subject-matter of claim 1 according to each of them does not involve an inventive step.

Third auxiliary request - inventive step

15. The method of claim 1 according to this request differs from that of claim 1 of the main request in that only the **digital** channels of the currently selected video input are detected for updating the channel list. This step shortens the channel search time if the user is only interested in digital channels and can assist the user in adjusting the position of a digital antenna for receiving the maximum number of digital channels.
16. As explained under section 9 *supra*, the skilled person would consider performing a partial channel search, instead of a full one, in order to save time. Various criteria for limiting the search may be used. The search could, for instance, be limited to the currently selected video input, to digital channels, to analog channels, to the most often viewed channels, to a selection of channels made by the user, or to any combination thereof. Each of these possible limitations has predictable advantages and disadvantages which depend on the circumstances and on the user's preferences. The selection of searching only the digital channels is regarded as arbitrary in the absence of an unexpected technical effect associated

with this selection, and thus cannot be regarded as contributing to an inventive step.

17. For the above reasons the appellant's third auxiliary request is also not allowable because the subject-matter of claim 1 does not involve an inventive step.

18. Since none of the appellant's requests can be allowed, the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

D. Sauter

F. Edlinger