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Datasheet for the decision of 29 March 2006

Case Number: T 0190/03 - 3.5.01

Application Number: 94116589.6

Publication Number: 0651573

IPC: H04N 7/087

Language of the proceedings: EN

Title of invention:
Top televideo decoder with improved command device with a multiple call subtitles key

Patentee:
EDICO S.r.l.

Opponent:
Interessengemeinschaft für Rundfunkschutzrechte GmbH Schutzrechtsverwertung & Co. KG

Headword:
Multiple subtitles/EDICO

Relevant legal provisions:
EPC Art. 54(3), 56

Keyword:
"Inventive step - all requests (no)"
"Common general knowledge including routine design skills"

Decisions cited:
T 0939/92, T 0214/01

Catchword:
-

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Case Number: T 0190/03 - 3.5.01

D E C I S I O N
of the Technical Board of Appeal 3.5.01
of 29 March 2006

Appellant: (Opponent)
Interessengemeinschaft
für Rundfunkschutzrechte GmbH
Schutzrechtsverwertung & Co. KG
Bahnstrasse 62
D-40210 Düsseldorf (DE)

Representative:
Kinnstätter, Klaus
Maryniok & Eichstädt
Patentanwälte GbR
Kuhbergstrasse 23
D-96317 Kronach (DE)

Respondent: (Patent Proprietor)
EDICO S.r.l.
Via Kircher, 7
I-00197 Roma (IT)

Representative:
Eisenführ, Speiser & Partner
Patentanwälte Rechtsanwälte
Postfach 10 60 78
D-28060 Bremen (DE)

Decision under appeal:
Decision of the Opposition Division of the European Patent Office posted 9 December 2002 rejecting the opposition filed against European patent No. 0651573 pursuant to Article 102(2) EPC.

Composition of the Board:

Chairman: S. Steinbrener
Members: W. Chandler
G. Weiss

Summary of Facts and Submissions

I. This appeal is against the decision of the opposition division to reject the opposition against European patent No. 0 651 573.

II. The opposition division reasoned that the subject-matter of claim 1 was novel over earlier European patent application EP-A-0 578 300 (D1) because the table generated in the teletext decoder of D1 could not be considered to be a "TOP" table as required by claim 1 (see decision, page 4). Furthermore, the subject-matter of claim 1 was inventive starting from the closest prior art of EP-A-0 468 447 (D2) because the following series of steps was required, which required foreknowledge of the invention (Guidelines C-IV, 9.9 – now 9.10.2): a) providing an incentive to modify the known arrangement to access multiple subtitle pages; b) identifying the next subtitle page by glancing through the TOP table; c) identifying and displaying a next subtitle page by pressing the same subtitle key again (see decision, page 6).

III. The appellant (opponent) lodged an appeal against the decision, paid the prescribed fee, and filed with the statement of grounds inter alia the following new documents:

D4: EP-A-0 264 565

D6: F. Pilz: "Codierte Übertragung von Zeichen im Fernsehen", Funk-Technik, 32nd issue, No. 20, 1977, page 347.

D7: Technische Richtlinie ARD/ZDF, No.8 R5: "'TOP'-Verfahren für Fernsehtext", Institut für

Rundfunktechnik, 2nd edition, December 1991, pages 1 to 6 and 43 and 44.

IV. In the course of the appeal proceedings, the respondent (patent proprietor) objected to the Chairman of the Board under Article 24(3) EPC because of suspected partiality. The Chairman was replaced by his alternate for examining the objection (Article 24(4) EPC), which was subsequently refused.

V. In a communication, the Board with the original Chairman set out the issues to be discussed at the oral proceedings. In a response, the respondent filed claims of a first to third auxiliary request and pages 83 to 93 from Rundfunktechnische Mitteilungen, vol. 31, no.2, 1987, G. Eitz et al.: "TOP - Ein Verfahren zur vereinfachten Anwahl von Fernsehtext-Tafeln durch den Zuschauer" (D8).

VI. Oral proceedings, requested by both parties as an auxiliary measure, were held on 29 March 2006.
The appellant requested that the decision under appeal be set aside and that the patent be revoked in its entirety.
The respondent requested that the appeal be dismissed (main request), or that the patent be maintained in accordance with one of auxiliary requests 1 to 3, submitted at the oral proceedings before the Board.
At the end of the oral proceedings, the Chairman announced the decision.

VII. Claim 1 as granted reads as follows:

"Receiver of television signals comprising a teletext decoder of the type known as TOP system, said teletext decoder being controlled by a central control unit (8) receiving commands from a command device equipped with a subtitles key (ST), characterized in that said central control unit (8) comprises elements for controlling, selecting and providing display (102, 103, 104, 105) which, when the said subtitles key is pressed identify and provide display of one page marked as teletext subtitle page, by examining the table provided by the TOP system and allow direct access to the identified subtitle page and when the same subtitles key is pressed again identify and provide display of the next subtitle page, if any, provided in the received television signals, by glancing through the TOP table and examining what is the next existing page marked as subtitle page."

Claim 1 of the first auxiliary request adds to the end of claim 1 of the main request:

"and that the said pressing of the subtitles key of the remote control unit provides direct access to one of the aforementioned pages (for example of the lower number); and that, by pressing once again the same key, access is had, to a second page of subtitles (for example that being the successive in the sequence of numbers); and so on, if there are still subtitled pages; when there are no more, pressing the key will once again give access to the first of which."

Claim 1 of the second auxiliary request adds to the end of claim 1 of the main request:

"and that said elements for selecting (103, 104) identify the subtitle page having the lowest value in said table (Basic TOP table) at the moment of the first pressing of the said subtitles key."

Claim 1 of the third auxiliary request adds to the end of claim 1 of the main request:

"and that said control unit is able to execute the following operations:
- a block (100), which is a starting block for starting the operation of selecting the subtitles pages; control passes to the first block (101), which is a control block; it controls whether the subtitles key has been pressed on the command device (remote control unit); in the affirmative case control passes to the second next block (102); in the negative case control passes back to the first block (101);
the second block (102) is a control block; it controls whether the page displayed is a page of subtitles, comparing the number with the Basic TOP table; in the affirmative case control passes to the third block (103); in the negative case control passes to the fourth block (104);
the third block (103) provides for identifying the successive page of subtitles to that displayed, glancing through the TOP; control passes to the fifth block (105);
the fourth block (104) provides for identifying the first page of subtitles, examining the TOP from the beginning; control passes to the fifth block (105);

the fifth block (105) provides for displaying the page identified where the block has passed it to the control; control is then passed to the sixth block (1O6); the sixth block (106) is the end of the operations block; control can pass back to the starting block (10O) or to another operative block similar to control circuit."

VIII. The appellant argued as follows:

Even if a decoder "of the type known as TOP system", as claimed in claim 1, usually meant that the broadcaster generated the TOP table and transmitted it to the receiver, this was not necessarily always the case. It also covered the case in D1 where the table was generated in the receiver. D7 supported this view in the penultimate paragraph on page 44 where it described an alternative operation of the decoder in a so-called "TOP-like" operation ("TOP-ähnlicher Betrieb") in which the receiver actually generated the TOP table. Furthermore, D8 only mentioned in the paragraph bridging pages 88 and 89 that it was necessary to have the TOP table available, not that the broadcast side had to generate it.

Regarding inventive step, claim 1 differed from the closest prior art, D2, by the features of displaying the next subtitle page, if any, when the subtitle key was pressed again, and that this was achieved by glancing through the TOP table. Although D2 only mentioned a single page of subtitles, it was well-known that there could be more than one. The patent acknowledged this at column 1, lines 53 to 55. Also D1, which had a priority date of 1992, acknowledged in the

introduction at column 2, lines 8 to 17 that in the Netherlands there were three national television stations each with different subtitle pages. D6 also disclosed at the top of column 2 subtitles in languages ("entsprechenden Sprachen").

The problem for the skilled person was therefore how to handle several pages of subtitles. A designer of a general purpose decoder would not have known which pages had the subtitles, nor which subtitle page the user would prefer. Thus, the solution of going to a first subtitle page and then accessing the others by incrementing the page number was not realistic, nor was that of always viewing the same subtitle page. Providing separate keys for each subtitle page was not practical because it depended on the number of available subtitle pages. The only remaining solution was to step through the subtitle pages using the subtitle key as in claim 1.

Since the TOP table identified which pages contained subtitles, it was obvious to use it to find the next subtitle pages as claimed.

Furthermore, other comparable problems were solved in an analogous way using the TOP table. For example, the next page, next block or next group were found by searching the TOP table for the page, group or block identifiers (see D4, page 5, lines 9 to 12).

When looking for something it was obvious to start at the beginning and then look for successive items in sequence as defined in the first auxiliary request.

Selecting the lowest subtitle page first, as in the second auxiliary request was trivial.

The third auxiliary essentially repeated in other words the features in the preceding auxiliary requests. The only new feature was that at the end, control could pass back to the starting block or to "another operative" block. However, the microprocessor had to do something at the end and these were obvious choices.

IX. The respondent argued as follows:

It was clear from the claimed decoder of the type known as TOP system, that the broadcaster generated the TOP table. D7 could not be used to redefine this well-known system. In particular, D7 mentioned at page 43, lines 4 to 5 that the TOP table was transmitted on specific pages. The TOP-like operation cited by the appellant only related to the situation where there was faulty reception and the decoder could not receive the normal TOP table. A distinguishing feature of the claimed teletext decoder was accordingly the ability to search for the TOP table on received pages.

Regarding inventive step, D2 only disclosed one subtitle page and it did not disclose how the subtitle key worked. Furthermore, none of the prior art solved the problem of accessing multiple subtitles. Moreover, all of the solutions proposed by the appellant were possible and there was no hint for the claimed one, so that the appellant's approach was speculative. In any case, the TOP system grouped pages with similar content, so that the simplest solution was to group the subtitle pages together and to use the next page key to access

subsequent pages (see D8, page 85 last paragraph to page 86, first paragraph).
The three subtitle pages in D1 were from different transmitters not from the same one as in the invention.

There was no prior art suggesting accessing the first subtitle page and then the pages in sequence as in the first auxiliary request. Other solutions would have been to display the last page viewed or the most viewed page.

Selecting the lowest subtitle page first, as in the second auxiliary request was not trivial, and it was not suggested in D2.

The particular selection of operations in the third auxiliary essentially was an invention, which was not obvious from D2.

Reasons for the Decision

1. The appeal complies with the requirements referred to in Rule 65(1) EPC and is, therefore, admissible.

2. The patent relates to displaying subtitles (e.g. for the hard of hearing or in other languages) on a television having a TOP teletext function. It is common ground that in the TOP system there is a TOP table (see e.g. D4, Figure 1) containing descriptors for all the pages currently being sent by the broadcaster. The receiver uses this table to work out which pages to store in its limited memory depending on the page currently being viewed, and to determine which pages to

display when the user presses the "next page" (to go to a page having similar content), "next group" (to go to pages having related content) or "next block" (to go to pages with different content) buttons on the remote control. There is an entry in the table for pages that contain subtitles (D2, column 2, lines 28 to 30 or D4, page 5, lines 12 to 13). It is also known to provide a button on the remote control for displaying subtitles (D2, column 2, lines 34 and 35).

Novelty of main request

3. Novelty is the only issue in connection with D1 because it is only prior art under Article 54(3) EPC. The Board agrees with the opposition division that claim 1, in particular through the wording "comprising a teletext decoder of the type known as TOP system", is limited to a system in which the broadcast side generates and transmits the TOP table, whereas in D1 the receiver generates the table (see in particular, column 6, lines 7 to 32).

4. The appellant sought an interpretation of the TOP system in which the receiver generated the TOP table based on the alternative operation of the decoder in a so-called "TOP-like" operation disclosed in D7. However, the Board agrees with the respondent that this TOP-like operation only relates to a recommendation for the situation where there is faulty reception and the decoder cannot receive the normal TOP table. The Board therefore judges that the claimed decoder would still have to be able to receive a normal TOP table and is therefore distinguished from the decoder of D1, which cannot do so.

5. It is common ground that the subject-matter of claim 1 is novel over D2, the closest prior art under Article 54(2) EPC.

6. The subject-matter of claim 1 is therefore novel (Articles 54(2) and (3) EPC).

Inventive step of main request

7. The respondent disputes that D2 discloses the feature that one subtitle page is identified using the TOP table. However, the Board judges that this is implicit in such a TOP system because this is the point of identifying subtitle pages with a special code in the TOP table. Moreover, D4, cited by D2 at column 3, lines 5 to 8, implies at page 5, lines 12 to 13 that it is the intention that the subtitle identifiers in the TOP table operate in an analogous manner to group identifiers, which are used to find the group index pages.

8. Thus, the Board judges that claim 1 differs from D2 by the features of identifying and displaying the next subtitle page, if any, when the subtitle key is pressed again, and that these further subtitle pages are identified by glancing through the TOP table.

9. Regarding the judgement of inventive step, the opposition division decided that there was a series of steps required to arrive at the invention. Firstly, there was no incentive to modify the arrangement of D2 ("step a" in the decision). Even if there was, the skilled person would not inevitably arrive at the

above-mentioned distinguishing features ("step c" and "step b", respectively). Rather the skilled person would group the subtitle pages as argued by the respondent. However, the Board is not in agreement with these findings.

10. Firstly, the Board judges that the subject of "step a", namely modifying the arrangement of D2 to handle several pages of subtitles is the problem solved by the invention in the sense of the problem and solution approach, favoured by the boards of appeal when judging inventive step (Guidelines for Examination at C-IV, 9.8.2). As explained for example in T 939/92 (OJ EPO 1996, 309) at point 2.4.3, formulating the problem involves assessing the effects of the distinguishing features. It is then assumed that the skilled person would in fact seek to achieve these effects, so that achieving them becomes the technical problem. It is thus inherent in the problem and solution approach that the skilled person would look for a solution to the problem, so that the Board judges that there is, by definition, an incentive to modify the known arrangement ("step a").

11. Deriving the problem from the effects of the distinguishing features rather than the features themselves also helps to avoid defining a problem that contains inventive elements, for example with elements or pointers to the solution. As a further safeguard against a problem that is inadmissibly posed with hindsight, it is also checked whether the problem is already known or obvious, so that the skilled person would consider solving it. In this respect, the first question is whether multiple subtitle pages were known

at the priority date. The Board judges that there is sufficient evidence that they were. Firstly, the patent acknowledges this at column 1, lines 53 to 55. Secondly, D6 discloses at the top of column 2 subtitles in languages ("entsprechenden Sprachen"). Given that multiple subtitle pages were available, the Board judges that it would have been an immediately obvious desideratum to gain access to, and try to view them.

12. The next step is to decide whether the state of the art suggests the solution. Firstly, the Board agrees with the appellant that it is a matter of routine design that the designer of consumer electronic equipment would seek a flexible solution and consider designing a general purpose decoder that would work with as many variants of transmitted signals as possible, in particular if those variants are individually determined by different broadcasting stations. Thus, it would not be assumed that the subtitles are on fixed pages, or that the user would want to see a fixed page or subtitle. Since the TOP table specification already provides a subtitle page identifier and uses it to find the single subtitle page in D2 (see point 7, above), the Board judges that it would be an obvious extension to use it to determine all pages containing the subtitles, namely to glance through the TOP table ("step b").

13. The skilled person would also have to implement the operation on the remote control. The Board agrees that there are several options, but judges that when trying to provide a flexible solution, the skilled person would not seriously consider the solution of always viewing the same subtitle page, or providing separate

keys for each subtitle page. This leaves the solution of going to a first subtitle page and accessing the others by incrementing the page number, or stepping through the subtitle pages using the subtitle key as claimed ("step c").

The respondent argues that the skilled person would choose the former because in the TOP system, pages with similar content are grouped. However, the Board agrees with the appellant and judges that a flexible solution would not assume any fixed assignment of the subtitle pages. Furthermore, in the absence of a subtitle key, it may be that the skilled person would consider using the page or group keys to find subtitle pages. However, starting from D2, there is already a subtitle key that is used to find the first subtitle page. In the Board's view, the skilled person would not consider it user-friendly to use the subtitle key to call up the first page of subtitles and then switch to the page navigation functions to find further subtitle pages, but would try and keep the subtitle navigation functions in one place. The Board thus agrees with the appellant that the skilled person would consider it as a matter of normal design to use the subtitle key again to find the next page of subtitles, if any, in the same way that the next group or block is found by pressing the group or block key again ("step c").

14. The Board notes that in connection with the obviousness of a solution chosen from various possibilities, it is sufficient that the chosen one is obvious and not necessarily relevant that there are several other possible solutions (see also T 214/01 by the present Board in a different composition, at point 3.11). Moreover, T 939/02 (supra), states at points 2.5.2 and

2.5.3, albeit in the field of chemistry, that a arbitrary selection of a solution from a number of possibilities in the absence of a hint to do so is not inventive if not justified by a hitherto unknown technical effect that distinguishes the claimed solution from the other solutions. In the present case, the Board cannot see any unknown or surprising effects, but only immediately predictable ones.

15. The respondent also considered that the invention could not be found obvious because there was no prior art disclosing or suggesting the feature of pressing the subtitle key again, which is essentially the opposition division's reason in connection with "step c". However, in the Board's view the skilled person possesses not only the knowledge of the prior art, but also, especially in this field, the ability to make routine design choices. When searching for a solution to the problem posed, the skilled person cannot simply ignore a necessary step in the design process, but must choose some solution. When choosing a solution, the skilled person would be conditioned by previous solutions to the same or similar problems. These are effectively "hints" for the solution chosen that the respondent and opposition division allege are lacking. In the present case, as explained above, the display of subtitles had been solved by using a subtitle key and the display of pages of the same type had been solved by repeated pressing of the same key. Combining these known techniques leads to the claimed solution in an obvious manner.

16. T 939/92 (supra) also has something to say on this point. It states at point 2.3 that

> "… the absence of a reference to a particular document does not mean that there is no state of the art, as this could reside solely in the relevant common general knowledge, which, again, may or may not be in writing, i.e. in textbooks or the like, or be simply a part of the unwritten 'mental furniture' of the notional 'person skilled in the art'."

Although the decision states that, if disputed, common general knowledge has to be proved like any other fact under contention, the Board judges that this does not necessarily apply to the "mental furniture". This relates, for example, to routine design skills guiding the skilled person when solving the problem, rather than facts in the form of technical teachings. Such skills may relate to general principles of circuit or system design and are often necessary just to understand the prior art in the field. In the present case examples of this are: considering a flexible solution (see point 12, above); repeating or stopping at the end of a sequence (see points 19 and 23, below); or accessing the lowest number in a sequence first (see point 21, below). In the Board's judgment, routine design skills also include straightforward abstractions or analogous applications of techniques already used in the existing prior art since it is a goal in most technical fields to avoid "re-inventing the wheel". An example of this in the present case is designing a function (repeated pressing of subtitle key) to work in

analogy with existing functions (repeated pressing of group key) in D2 (see point 15, above).

The Board notes that if such routine design skills were not acknowledged, virtually any modification would be non-obvious leading to a minimal level of inventive step that would obstruct others making such routine improvements.

17. The Board accordingly judges that the subject-matter of claim 1 of the main request does not involve an inventive step (Article 56 EPC).

Inventive step of first auxiliary request

18. Although the parties argued in terms of accessing a first page and accessing pages in sequence in connection with the first auxiliary request, the Board does not find that claim 1 is so limited, these limitations being only in brackets in the claim. It merely states that pressing the key accesses one of the pages and that further pressing accesses a second page and so on, until there are no more pages, whereupon the first one is accessed again. The claim thus only specifies that all the pages are repeatedly accessed in some undefined sequence.

19. The Board judges that the ability to access all the pages is a self-evident requirement when solving the above mentioned problem of handling several pages of subtitles. Furthermore, in the Board's view, repeating the access sequence is another obvious design choice, being an alternative to stopping at the end of the first sequence.

20. The Board accordingly judges that the subject-matter of claim 1 of the first auxiliary request does not involve an inventive step (Article 56 EPC).

Inventive step of second auxiliary request

21. The second auxiliary request does specify that the lowest numbered subtitle page is accessed first. It is again true that no document actually discloses or suggests this feature, but even more so than in the case of the main request, the Board considers that this is a purely routine design choice. The skilled person would have to choose a page to access initially and in the Board's view choosing the lowest value first is an obvious possibility. Applying the respondent's arguments in connection with the first auxiliary request to this request, it can be seen that there are indeed several possibilities for the first page to be accessed. However, as also mentioned above, the fact that there are other solutions does not detract from the fact that the skilled person would consider starting with the lowest numbered page as an obvious possibility.

22. The Board accordingly judges that the subject-matter of claim 1 of the second auxiliary request does not involve an inventive step (Article 56 EPC).

Inventive step of third auxiliary request

23. Claim 1 of the third auxiliary request essentially adds to claim 1 of the main request the blocks of the flowchart in Figure 2, which is an implementation of

the operation of selecting the subtitle pages. However, the Board agrees with the appellant that the starting block, control block, the blocks for identifying the successive page and first page of subtitles and the displaying block are repetitions of the functions already found to be known or obvious in connection with the previous requests. The Board also agrees that the remaining end of operations block gives two possibilities, namely repeating or not repeating, which as discussed in connection with the first auxiliary request (see point 19) are obvious choices.

24. The Board accordingly judges that the subject-matter of claim 1 of the third auxiliary request does not involve an inventive step (Article 56 EPC).

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar: The Chairman:

P. Guidi S. Steinbrener