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D E C I S I O N
of 19 November 2002

Case Number: T 0527/00 - 3.5.1
Application Number: 92122127.1
Publication Number: 0550911
IPC: H04N 5/44, H04N 5/262
Language of the proceedings: EN

Title of invention:
Programmable picture-outside-picture display

Patentee:
THOMSON CONSUMER ELECTRONICS, INC.

Opponent:
Intressengemeinschaft für Rundfunkschutzrechte GmbH
Schutzrechtsverwertung & Co. KG

Headword:
POP control/THOMSON

Relevant legal provisions:
EPC Art. 54, 56, 84, 123(2)

Keyword:
"Novelty - main request (no)"
"Added subject-matter - first auxiliary request (yes)"
"Clarity - second auxiliary request (no)"

Decisions cited:
-

Catchword:
-



Case Number: T 0527/00 - 3.5.1

D E C I S I O N
of the Technical Board of Appeal 3.5.1
of 19 November 2002

Appellant: THOMSON CONSUMER ELECTRONICS, INC.
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 17 April 2000
revoking European patent No. 0550911 pursuant
to Article 102(1) EPC.

Composition of the Board:

Chairman: S. V. Steinbrener
Members: R. R. K. Zimmermann
S. C. Perryman

Summary of Facts and Submissions

I. European patent No. 0 550 911 was granted to the appellant for a television apparatus having a multiple image display function. The patent, claiming 8 January 1992 as date of priority, took effect on 5 November 1997 on the basis of following patent claim 1:

"A television apparatus, comprising:
means (90) for storing a set of signals corresponding to a set of video sources;

video signal processing means (94), coupled to said storing means (90), for developing a multiple picture display by using one of said signals to select one of said video sources from said set of video sources to generate a main picture (22) of said display (20) and by using all of said signals corresponding to said set of video sources to generate supplemental pictures (24) of said display, smaller in size than said main picture; and,

control means (82) responsive to viewer activation (e.g., 93) for choosing said set of video sources and for selecting said main picture from among said supplemental pictures, characterized by:

said multiple picture display (20) having an on-screen indication (e.g., 34, 62, 66, 68, 72) identifying which one of said supplemental pictures corresponds to said main picture; and,

said control means (82) automatically selecting said main picture (22) from among said supplemental pictures (24) responsive to repositioning of said on-screen indication."

II. An opposition was filed against the patent in its entirety on 4 August 1998 on the grounds of Article 100(a) EPC in respect of novelty and inventive step. Regarding the relevant prior art, the opponent (the respondent in the present appeal proceedings) referred, among others, to the following document published in 1991:

D3: EP-A-0 413 838

With a decision posted on 17 April 2000, the opposition division revoked the patent in particular since the claimed invention lacked novelty relative to document D3.

III. The appellant filed a notice of appeal against the decision on 20 May 2000, requesting reversal of the appealed decision, maintenance of the patent as granted, and oral proceedings as a subsidiary measure; the appeal fee was paid on the same day. In a written statement filed on 9 August 2000, the appellant set out the grounds of appeal and filed, as a subsidiary request, an amended claim 1 reading as follows:

"A television apparatus, comprising:

means (90) for storing a set of signals corresponding to a set of video sources;

video signal processing means (94), coupled to said storing means (90), for developing a multiple picture display by using one of said signals to select one of said video sources from said set of video sources to generate a main picture (22) of said display (20) and by using all of said signals corresponding to said set of video sources to generate supplemental pictures (24) of said display, smaller in size than said main picture;

control means (82) responsive to viewer activation (e.g., 93) for choosing said set of video sources and for selecting said main picture from among said supplemental pictures; and,

an indicator generator (98) responsive to said control means for supplying on-screen indications (32) identifying displayed video sources; characterized by:

said multiple picture display (20) having an extra on-screen indication (e.g., 34, 62, 66, 68, 72) supplied by said indicator generator for identifying which one of said supplemental pictures corresponds to said main picture;

said control means (82) being responsive to one switch actuation (e.g., 93-UP or 93-DN) for repositioning said extra on-screen indication to a different one of said supplemental pictures; and,

said main picture (22) being automatically changed, responsive to said repositioning of said extra on-screen indication, to be the same as said different one of said supplemental pictures (24) to which said extra on-screen indication is repositioned."

Following a reply filed by the respondent and a communication pursuant to Article 11(2) RPBA, public oral proceedings took place before the Board on 19 November 2002, at the conclusion of which the Board announced its decision. At the oral proceedings, the appellant handed over a further subsidiary request, amending the last two paragraphs of claim 1 filed on 9 August 2000, which read now as follows:

"said control means (82) being responsive to one switch actuation (e.g., 93-UP or 93-DN) for repositioning said extra on-screen indication to a different one of said supplemental pictures and for automatically changing

said main picture (22), responsive to said repositioning of said extra on-screen indication, to be the same as said different one of said supplemental pictures (24) to which said extra on-screen indication is repositioned."

The Board raised objections to the wording "responsive to said repositioning of said extra on-screen indication" in the last paragraph of claim 1 according

to both subsidiary requests since the technical meaning of such a responsive-to-repositioning feature was obscure; also the support in the description and the disclosure in the application as originally filed was put into question.

IV. The appellant agreed with the first instance to the extent that document D3 provided prior art relevant to the invention as claimed. In its view however, this document did not disclose, in combination, (a) a TV multi image system for displaying supplemental pictures of which one always renders the video signal from the same source than the main picture, (b) providing an on-screen indication identifying which one of said supplemental pictures corresponds to said main picture, and (c) automatically selecting the main picture from among said supplemental pictures in response to repositioning of said on-screen indication. This solution was particularly user-friendly since for selecting the main picture only the on-screen indication had to be repositioned, easily accomplished by a one-click technique using an up/down switch for example.

As described explicitly in document D3, the embodiment of figure 5(a) did not automatically make the main picture correspond to the selected supplemental picture, which was a precondition for achieving the advantages of the present invention. In this prior art system the user had first to place the cursor on a supplemental picture and secondly activate a remote control button. In document D3, figure 5(d), although showing an on-screen indication in the form of a picture frame identifying the supplemental picture

selected as main picture, the user could, in distinction to the present invention, move another picture into this frame without automatically changing the main picture. The handling of the TV system was thus considerably more difficult with the D3 system when compared with the present invention.

The advantage of the inventive one-click technique resulted from the automatic change of the main picture in response to repositioning the on-screen indication. This feature, although admittedly not explicitly disclosed in the application as originally filed, followed from the whole concept of the invention in a clear and direct way since the user by activating the up/down switch of the remote control, for example, repositioned the on-screen indication and selected, with this action, the video source for rendering the main picture. The amendments as to both auxiliary requests, therefore, did not add any features which had not already been apparent to the skilled reader from the application as filed.

The amendments introduced by the second auxiliary request were motivated by the intention to clarify that the automatic change regarding the main picture was caused by the remote control means which also allowed repositioning of the extra on-screen indication to a different one of said supplemental pictures. The amendments also complied with the requirement that claims be clear: in particular the technical teaching defined by the words "responsive to said repositioning of said extra on-screen indication" in the last part of claim 1 was clear from reading the definition in its

whole context, although the grammatical reference was not formally defined.

- V. The appellant accordingly requested that the decision under appeal be set aside and that the patent be maintained as main request as granted, or as first auxiliary request on the basis of claims 1 to 13 of the subsidiary request submitted on 9 August 2000, or as second auxiliary request on the basis of claims 1 to 13 submitted at the oral proceedings on 19 November 2002.

The respondent (opponent) requested that the appeal be dismissed.

- VI. According to the respondent document D3 was clearly novelty-destroying relative to claim 1 of the main request, in particular taking into account the quite general and functional wording used in the claim. Although this document disclosed that a main picture different from the supplemental pictures was displayed before a supplemental picture was selected for display or that the supplemental pictures might be moved around under the border or frame displayed in figure 5(d) of document D3, such statements were directed to a transitory situation only, in which for example the supplemental picture marked by the extra on-screen indication did not yet correspond to the main picture, and thus irrelevant for the present apparatus claim whose functional features did exclude that under some operating conditions a main picture different from the supplemental pictures was displayed.

VII. In addition, the said responsive-to-repositioning feature in claim 1 of both auxiliary requests only defined in an ambiguous manner that the automatic change of the main picture was somehow caused by repositioning the on-screen indication. However, according to the application as originally filed, the user alone selected the main picture, which was then indicated on-screen in a parallel manner to the selection and change process. The picture change did thus not occur in response to the on-screen indication as claimed, but was rather triggered directly by the remote control means when actuated by the user.

Reasons for the Decision

1. The appeal complies with the requirements of Articles 106 to 108 and Rules 1(1) and 64 EPC and is thus admissible. However, the appeal is not allowable for the reasons set out below.

Main request

2. Having regard to the prior art derivable from document D3, the subject-matter of claim 1 (main request) lacks novelty within the meaning Article 52(1) and paragraphs 1 and 2 of Article 54 EPC.

3. Document D3 is novelty-destroying because all of the claim features are at least implicitly disclosed in this document. Document D3 is primarily concerned with a particular improvement of remote control units for navigating through a program menu on a TV receiver (see Document D3, column 1, lines 1 to 18, 42 to 55). The TV receiver has features of a "modern" but nevertheless

known digital TV system providing a PIP (picture-in-picture) - or POP (picture-outside-picture)-function. This appears from figures 2, 3(a), 5(a) and 5(d) and the indication in claim 2 of document D3 that TV receiver having a multiple picture display are known ("bekannte Mehrfachbilddarstellung").

Therefore, the Board has no reservations in accepting the view taken unanimously by the parties to the appeal proceedings and the first instance in its contested decision that the television receiver to which document D3 refers comprises means for storing a set of signals produced by video sources, video signal processing means and control means of the kind defined in the first part of claim 1.

4. Undisputedly, the graphical user interface shown in document D3, figure 5(a), for example, allows the user to select the main picture by using a remote control for selecting one of the supplemental pictures displayed. With respect to the content of the multiple picture display, however, the appellant argued that the prior art did not use "all of said signals corresponding to said set of video sources to generate supplemental pictures" on the TV display (2nd paragraph of claim 1), meaning that the prior art of document D3 would not at all times, contrary to the invention, render a video signal provided by the said set of video sources and displayed as supplemental pictures on the screen.

The text of document D3 explaining that figure 5(a) shows a TV picture in which the size reduced pictures of four "further" programmes are inserted (see

column 7, lines 26 to 35) indeed seems to support this argument. However, neither from claim 1 nor from anywhere else in the specification of the contested patent is there derivable a feature of the kind argued for by the appellant which limits the definition of the claimed apparatus to this end. The cited claim features actually have functional character, which means that the apparatus is defined to be suitable for developing a multiple picture display by using the video signals as indicated in claim 1, which does not mean that developing a multiple picture display by using other or other constellations of video signals is excluded.

Actually, a TV receiver in accordance with the appellant's interpretation would rather be an annoyance to the user who would always be required first to define a new list of video sources (say the three TV channels shown in figures 1 to 3 of the present patent specification), before a switch-over to another one of the say forty TV channels not yet in the original list could take place. Neither the wording of the claim nor any other passage of the description makes it appropriate to construe the claim as limited to TV receivers whose manipulation would be so inconvenient.

5. Furthermore, the appellant argued that a graphical user interface like the one shown in figure 5(a) of document D3 never allowed display of a main picture which corresponded to a supplemental picture, an essential feature of the present invention, since as shown in figure 5(a) the supplemental picture was replaced by the indication "TV" and did therefore not correspond to the main picture as claimed for the present invention.

However, claim 1 does not clearly define how the apparatus responds to the selection of a supplemental picture; certainly, an on-screen indication identifies the supplemental picture corresponding to the main picture. Nevertheless, this definition does not imply that the identified supplemental picture renders the same image as the main picture. On the contrary, the patent specification, at column 6, lines 26 to 36 concerning the image displayed on the selected smaller screen 25 (contested patent, figures 5 to 7), explicitly indicates that "the selected channel can be darker ... or if desired blanked entirely", a statement which excludes construing the claim along the line argued by the appellant.

6. This leaves, as the only possible difference distinguishing the claimed apparatus from the prior art TV receiver, the claim features defining that the selection of the main picture by the control means takes place "automatically" and "responsive to repositioning of said on-screen indication" (last paragraph of claim 1).

According to the appellant these features mean that the viewer has only to pose the cursor on one particular supplemental picture in order to effect the display of the corresponding video source on the main screen.

The claim wording, however, raises doubts as to what the term "responsive" in this responsive-to-repositioning feature actually refers to and, as a consequence of this ambiguity, what technical meaning it has to be given. Basically, with varying degrees of

linguistic plausibility, the reference may be to the control means, to the automatic selecting process, as the appellant argued at some point in the proceedings, or to the supplemental pictures, which are undoubtedly responsive to repositioning of the on-screen indication.

7. Consulting the description and drawings it becomes evident, for example from figure 8, that neither the control means nor any other technical element effective in the selection of the main picture is responsive to repositioning of said on-screen indication. The cause-and-effect chain is actually the reverse: the on-screen indication is responsive to a remote control having, for example, up/down control switches 93 and to a channel selection circuit 82 coupled in forward direction to an indicator generator 98 for providing a visible indication for identifying the selected main channel (see for example column 7, lines 17 ff.).

The said responsive-to-repositioning feature does thus not distinguish the claimed apparatus from the prior art as derivable from document D3. Since in document D3 after actuating the "click-button" the control means automatically changes the main programme, claim 1 does not define any technical feature which provides, relative to document D3, novelty (Articles 52(1) and 54 EPC); the main request is thus not allowable.

8. If the Board followed the interpretation given by the appellant to the claim that the claim features read in context mean that repositioning of the on-screen indication and selection of the main picture is effected by a kind of "one-click" activation of the

remote control, novelty could be acknowledged since the prior art of document D3, because of the electro-optical type of remote control used, requires a moving of the remote control plus pushing the click-button. Modifying the system for allowing a simple "one-click" activation, however, would be an obvious alternative when instead of the very particular electro-optical remote control of document D3 a conventional device having up/down switches is used, as indicated in the introductory part of document D3, since with such a conventional remote control pushing the up/down switch normally changes immediately the program displayed on the main screen. The claimed invention would then, for this reason, fail to meet the requirement of inventive step as set out in Article 56 EPC.

First auxiliary request

9. According to the amended claim 1 the indicator generator 98 now supplies on-screen indications 32 as well as an "extra on-screen indication" e.g. 34, 62, 66, 68, 72. The application as originally filed, however, does not disclose that the on-screen indications 32, the channel numbers, are "supplied" by the indicator generator 98. In column 8, lines 10 ff. of the published application it is only indicated that the "indicator generator 82 is operable to identify a selected one of the supplemental channels for display as the main channel by use of a distinct on-screen presentation of ... or its channel number 32", which does not imply that indicator generator supplies the channel number 32. The description and drawings of the application actually leave it rather open which element supplies this information; only in column 5, lines 26 f.

an "on-screen character generator of the television" is mentioned whereby the relevance for the embodiment using the indicator generator 98 remains unclear. The claim amendment regarding the function of the indicator generator 98 is thus considered to add new subject-matter to the content of the application as originally filed.

10. The last paragraph of claim 1 has been amended so that the feature "responsive to said repositioning of said extra on-screen indication" has now shifted to a position where it refers to the automatic change process. Reading the claim as requiring this cause-and-effect relationship, however, means that the claim is directed to subject matter extending beyond the original application for the reasons already given (see in particular point 7 above). The first auxiliary request is therefore not allowable under Article 123(2) EPC.

Second auxiliary request

11. The last two paragraphs of claim 1 have been amended in the second auxiliary request so that it is now the control means which automatically changes the main picture. Nevertheless the problematic feature "responsive to said repositioning of said extra on-screen indication" remains in the claim, but it is now left undefined; its meaning and any relation to other features remains obscure. The claim does thus not meet the requirement of clarity of the claims as set out in Article 84 EPC. The second auxiliary request is on this ground alone already not allowable.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

M. Kiehl

S. V. Steinbrener