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D E C I S I O N
of 20 May 2003

Case Number: T 0158/01 - 3.5.1

Application Number: 92113837.6

Publication Number: 0543089

IPC: H04N 5/445, G09G 1/16, G09G 5/00

Language of the proceedings: EN

Title of invention:
Video display adjustment and on-screen menu system

Patentee:
Belisha Overseas Ltd.

Opponents:
NANAO CORPORATION
Interessengemeinschaft für Rundfunkschutzrechte e.V.
Koninklijke Philips Electronics N.V.
DMV Marketing-, und Vertriebs GmbH

Headword:
Video display adjustment/BELISHA

Relevant legal provisions:
EPC Art. 56

Keyword:
"Inventive step (yes, after amendment)"

Decisions cited:
G 0004/92

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0158/01 - 3.5.1

D E C I S I O N
of the Technical Board of Appeal 3.5.1
of 20 May 2003

Appellant: (Proprietor of the patent)	Belisha Overseas Ltd. The Lake Building Suite 120 Wick Hams Quay, 1 Road Town Tortola (VG)
Representative:	Dini, Roberto, Ing. Via Castagnole, 59 I-10060 None (Torino) (IT)
Respondent 02: (Opponent 02)	Interessengemeinschaft für Rundfunkschutzrechte e.V. Bahnstrasse 62 D-40210 Düsseldorf (DE)
Representative:	Eichstädt, Alfred, Dipl.-Ing. Maryniok & Partner, Kuhbergstrasse 23 D-96317 Kronach (DE)
Respondent 04: (Opponent 04)	DMV Marketing-, und Vertriebs GmbH Michael-Haslbeck-Strasse 13 D-85640 Putzbrunn (DE)
Representative:	Säger, Manfred, Dipl.-Ing. Patentanwälte Säger & Partner Visut 93 CH-7014 Trin (CH)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted 28 December 2000 revoking European patent No. 0543089 pursuant to Article 102(1) EPC.**

Composition of the Board:

Chairman: S. V. Steinbrener
Members: R. S. Wibergh
P. Mühlens

Summary of Facts and Submissions

I. This is an appeal against the opposition division's decision to revoke European Patent No. 0 543 089.

II. Four notices of opposition to the patent, based on Article 100(a),(b),(c) EPC, had been filed. The following prior art was in particular referred to:

D2: GB-A-2 155 714

D4: JP-A-2-312368 (with English translation)

D6: US-A-4 991 023

D9: G. K. Lunn et al., "A multisystems on screen display for TV MCU", IEEE Transactions on Consumer Electronics, Vol. 35, No. 4, 1989, pp. 803-809.

III. In the course of the first instance proceedings Opponent 01 and Opponent 03 withdrew their oppositions.

IV. The opposition division decided that the grounds for opposition mentioned in Article 100(b) and (c) EPC did not prejudice the maintenance of the patent but that the invention did not involve an inventive step, Article 100(a) with 56 EPC. The patent was considered in different versions in accordance with the patent proprietor's main and first to fourth auxiliary requests.

V. The patent proprietor lodged an appeal against this decision, arguing that the invention according to the requests before the opposition division or according to

two new auxiliary requests 5 and 6 involved an inventive step. Furthermore, the conduct of the opposition division during the oral proceedings was criticised as partial.

VI. Respondent 04 (Opponent 04) requested with letter dated 20 January 2002 that the appeal be dismissed.

VII. The Board summoned the parties to oral proceedings. In an annex to the invitation comments were made on the claims according to the Appellant's (patent proprietor's) different requests. It was also stated that the Board saw no reason for assuming that the opposition division had not treated the parties fairly during the oral proceedings.

VIII. On 25 March 2003 the Appellant filed claims 1 and 7 according to a new main request and new auxiliary requests 1 and 2.

IX. Oral proceedings were held on 20 May 2003. The Appellant and Respondent 02 (Opponent 02) attended. The Appellant filed new independent claims 1 and 7 as unique request. Claim 1 was, apart from minor amendments, identical with claim 1 of the previous main request.

X. Claim 1 reads:

"An apparatus for adjusting of video display controls in a multi-frequency video display, said video display to be tuned to the frequency of a horizontal sync signal of a wide variety of video adaptor cards of computer systems, and having a screen for displaying

information received from said computer systems, said apparatus comprising:

- an input control block (18) for providing user input;
- a microcontroller (24) capable of receiving said user input from said input control block (18), said microcontroller being capable of controlling the adjustment of said video display controls;
- a memory block (25) being capable of storing parameters of said adjusted video display controls, said memory block being electrically connected to said microcontroller;
- a display adjustment block (14) capable of providing said parameters of said adjusted video display controls to said multi-frequency video display in order to set the video display controls, said display adjustment block (14) being coupled to and controlled by said microcontroller (24);

characterized by:

- an on-screen-display block (16) capable of displaying on the screen of said multi-frequency video display visual representations of said adjusted video display controls across different frequency modes of said multi-frequency video display, wherein the absolute size of said displayed visual representations is controlled across different frequency modes of said multi-frequency video display;
- said displayed visual representations being formed by characters each of them being created by a character display information relating to a number of pixel lines, said character display information being stored in a character memory (42);
- said control of the absolute size of said displayed visual representations being performed by said on-screen-display block (16) through indication for every

horizontal sync signal which pixel line of the current character display information is read out from said character memory (42) and repeating said indicated pixel line depending on the received horizontal frequency thereby keeping the absolute vertical size of said visual representations fairly constant across different frequency modes".

Claim 7 is a corresponding method claim.

XI. Respondent 02 argued at the oral proceedings that the invention was obvious in particular in view of a combination of documents D2, D6 and D9. A new argument was developed based on the drawings of D9.

XII. The Appellant requested that the decision under appeal be set aside and that the patent be maintained on the basis of claims 1 and 7 filed in the oral proceedings; claims 2 to 6 and 8 to 12 as granted; description as granted with page 1 to be amended by an insertion filed on 25 March 2003.

XIII. Respondent 02 requested that the appeal be dismissed. At the end of the oral proceedings the Board announced its decision.

Reasons for the Decision

1. *Amendments*

The Board is satisfied that the amendments made to the claims do not contravene Article 123(2),(3) EPC.

2. *Clarity*

Claims 1 and 7 are regarded as fulfilling the requirements of Article 84 EPC. It may be noted that the use of the word "fairly" ("keeping the absolute vertical size of said visual representations *fairly* constant across different frequency modes") is allowable since the invention only permits approximate size adjustment and thus cannot be defined more precisely.

3. *The prior art*

3.1 D6 describes an apparatus for adjusting video display controls in a multi-frequency video display. The display is tuned to the frequency of a horizontal sync signal of a wide variety of video adaptor cards of computer systems (column 1). It has a screen (CRT 68, figure 1A) for displaying information received from these computer systems. The apparatus comprises an input control block (4) for providing user input; a microcontroller (1) capable of receiving said user input from said input control block and controlling the adjustment of the video display controls (column 1, lines 27 to 30); a memory block being capable of storing parameters of said adjusted video display controls, this memory block being electrically

connected to said microcontroller (column 1, lines 31 and 32); and a display adjustment block capable of providing the parameters of the adjusted video display controls to the multi-frequency video display in order to set the video display controls, this display adjustment block being coupled to and controlled by said microcontroller (column 1, lines 44 to 47). Thus D6 discloses the features of the preamble of claim 1. There is no on-screen display (OSD).

3.2 D2 describes OSD for adjusting parameters (such as brightness) of a common TV screen (see in particular page 1, lines 48 to 65).

3.3 D9 describes an OSD system for TV which is compatible with different scanning standards (see the abstract). It is explicitly mentioned that the width (ie horizontal size) of the characters displayed can be kept constant over non-standard horizontal frequencies by making the character pixel read-out rate proportional to the horizontal sync frequency (see page 804, section 2.2: "The PLL Time Base"). If the same is achieved for the character height (vertical size), this is not said.

4. *Inventive step*

4.1 Novelty not being in dispute, only the question of inventive step need be considered. D6 is taken as starting point. The described apparatus, having the features contained in the preamble of claim 1, has no OSD. OSD was however a well known technique at the priority date of the opposed patent, as exemplified by D2, and offered a convenient way of setting parameters.

As to combining D6 and D2 the Appellant has pointed out that if an OSD technique would be used for the D6 monitor the displayed characters would in general be distorted because of the varying number of scan lines used in different computer systems. Therefore, in the Appellant's view, it was not obvious to combine the two teachings.

Respondent 02, on the other hand, is of the opinion that the skilled person would have made an effort to overcome any such distortion problem.

4.2 In the Board's view, merely desiring to add OSD to the system known from D6 was an evident aim which cannot be become inventive because of problems appearing when the combination is tried. This is all the more the case since the need to adjust the size of OSD characters to various TV standards (rather than computer standards, but the technique is the same) was not a new problem but had previously been recognised, eg in D9. Starting from D6, the actual technical problem with which the skilled person was faced was therefore to find a way of keeping the size of the OSD characters (more or less) constant.

4.3 The size of a character involves its horizontal and vertical dimensions, but the invention according to claim 1 is only concerned with the vertical size: each pixel line of a character is read out repetitively depending on the received horizontal sync signal. The underlying assumption is that "higher horizontal frequencies indicate an increased vertical resolution" (page 4, lines 22, 23 of the patent specification) . If the resolution is high the number of displayed scan

lines is larger than normal and a character stored as a certain number of pixel lines would appear compressed if each pixel line were read out only once.

4.4 The solution as claimed to this problem can, in the view of Respondent 02, be found in D9. According to the Respondent, although this document does not explicitly mention keeping the vertical size of OSD characters constant the skilled person would deduce from figures 5 to 7 and certain passages in the text that in the high definition modes (IDTV, EDTV, and "Japan HDTV") each line of a character matrix is read out twice, thus doubling its height.

The Appellant denies that D9 discloses this.

4.5 The Board first notes that the Respondent's argument based on D9 was presented for the first time at the oral proceedings before the Board. Since the text in D9 does not mention the feature in question explicitly, the circuit diagrams in the drawings are the only possible basis for it. Respondent 02 has referred to three diagrams, each showing one part of the circuit. Any relationship between the signals involved must be deduced from these drawings but since no signal waveforms are given it is not possible to verify the result. Thus the basis for the argument is rather weak. Moreover, the Respondent admitted during the discussion between the parties that his interpretation of D9 relied on there being an error in the text: it is stated at page 805, left column, that "/t/he feedback signal, M15, to the phase comparator is 15 kHz when mode flag is set and changes to 31 kHz when mode flag is reset", but the argument in fact requires the

opposite relation. At least at first sight it is not apparent from the associated drawings that the text actually contains this error. The Board therefore cannot accept the conclusion drawn by Respondent 02, namely that the skilled person would necessarily conclude that individual lines of the character matrix are read out repetitively in the high definition TV modes. Nor is it self-evident that every high definition mode requires this measure. As the Appellant has pointed out, at least in the Japanese HDTV (known as MUSE) a frame is split up in four fields, each of which contains roughly the same number of lines as a standard field (eg NTSC). Therefore a displayed OSD character would have the same height in a standard field and a MUSE field, a conclusion which is incidentally supported by figure 8 of D4. Thus, it cannot be determined with a sufficient degree of certainty that the skilled person would regard D9 as involving the problem to be solved or leading him to its solution.

4.6 Respondent 02 has relied solely on D9 to demonstrate that the last feature of claim 1 is obvious, and indeed no other cited document appears to disclose more relevant art. Thus, the subject-matter of claim 1 involves an inventive step. For analogous reasons also the method defined in claim 7 involves an inventive step.

5. It should be stressed that the fact that the Board does not accept the Respondent's argument in this case does not mean that drawings of electrical circuits in the prior art would be of minor relevance. On the contrary, the skilled person in the field of electronics would

always be likely to study circuit diagrams closely. But clearly caution is necessary whenever information which can allegedly be drawn from diagrams goes beyond - or even contradicts - the accompanying text. $

It may also be added that although there is usually no objection against a new line of argument based on previously cited prior art being developed at oral proceedings (cf G 4/92, headnote II, EPO OJ 1994,149 in this respect) it is advisable to communicate such reasoning beforehand if it is complex or relies on assumptions. This would have been possible in the present case since the essential features of the claim under consideration were known for almost two months before the oral proceedings. To do so may also be in the interest of the party presenting the new reasoning since unexpected arguments which are difficult to assess at short notice may be met by equally unexpected counter-arguments.

6. Although the independent claims are regarded as fulfilling the requirements of the EPC some of the dependent claims - which are still those of the patent as granted - may need revision (eg claims 3 and 9). Furthermore, the technical problem which is solved by the now considerably limited claim 1 does not become clear from the introduction to the description, which is mostly about adjusting video display controls (cf Rule 27(1)(c) EPC). The case is therefore remitted to the first instance for examination of any necessary modifications of the dependent claims and the description.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the first instance with the order to maintain the patent on the basis of claims 1 and 7 filed in the oral proceedings; dependent claims and description to be adapted.

The Registrar: The Chairman:

M. Kiehl S. V. Steinbrener