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D E C I S I O N
of 25 October 2005

Case Number: T 0598/05 - 3.4.02

Application Number: 98928497.1

Publication Number: 0934546

IPC: G02B 27/22

Language of the proceedings: EN

Title of invention:
Lenticular Screen Adaptor

Applicant:
Koninklijke Philips Electronics N.V.

Opponent:
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Headword:
-

Relevant legal provisions:
EPC Art.

Keyword:
"Remittal to first instance for further prosecution"

Decisions cited:
-

Catchword:
-



Case Number: T 0598/05 - 3.4.02

D E C I S I O N
of the Technical Board of Appeal 3.4.02
of 25 October 2005

Appellant: Koninklijke Philips Electronics N.V.
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NL-5621 BA Eindhoven (NL)

Representative: White, Andrew Gordon
Philips Electronics UK Limited
Patents and Trade Marks Department
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 15 October 2004
refusing European application No. 98928497.1
pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: A. Klein
Members: M. Rayner
C. Rennie-Smith

Summary of Facts and Submissions

I. The applicant has appealed against the decision of the examining division refusing European patent application number 98 928 497.1. Documents D1 (EP-A-724 185) and D2 (EP-A-570 806) were cited for the first time in a second communication during the examination procedure. The next substantive official action was the decision now under appeal, according to which the subject matter of claim 1 as presented to the examining division was considered to lack an inventive step over the disclosure of document D1 alone or a combination of the teachings of documents D1 and D2.

II. In the statement setting out the grounds for appeal, the appellant requested that the decision under appeal be set aside and a patent granted based on claims, including three amended independent claims 1, 4 and 9, filed therewith. These independent claims are worded as follows, amendments made when compared with the independent claims before the examining division are shown underlined:

"1. A method for controlling pixel addressing of a pixel display device to drive the display device as an N view autostereoscopic display when a lenticular screen is overlaid, the number of pixels per lens is not an integral number and image pixel data for N discrete views to be interlaced is provided, the method comprising the steps of:
obtaining data defining at least the lenticular screen lenticule pitch, the pixel pitch, the number of views N, and the lenticular screen position relative to the display device pixels;

applying a predetermined algorithm to derive, from the obtained data and for each display pixel, which of the N views it is to carry; said algorithm including the non-integer ratio of the lenticule pitch to the pixel pitch and for each display pixel, extracting the corresponding pixel data for the assigned view from the data provided.

4. A display configuration utility carried on a removable record carrier and for reading by means for controlling display driver circuitry of a pixel display, the utility when run controlling pixel addressing to drive the display device as an N view autostereoscopic display when a lenticular screen is overlaid, the number of pixels per lens is not an integral number and image pixel data for N discrete views to be interlaced is provided, the utility effecting the steps of: obtaining data defining at least the lenticular screen lenticule pitch, the pixel pitch, the number of views N, and the lenticular screen position relative to the display device pixels; deriving, from the obtained data and for each display pixel, which of the N views it is to carry; the calculation including the non-integer ratio of the lenticule pitch to the pixel pitch and for each display pixel, extracting the corresponding pixel data for the assigned view from the data provided.

9. Driver apparatus operable to generate a per-pixel drive signal for output to a pixel display device, said apparatus comprising an image data store coupled with display image formatting means, said formatting means being operable to extract per-pixel data from the store and format said drive signal:

characterised in that said apparatus is reconfigurable to drive the display device as an N view autostereoscopic display when a lenticular screen is overlaid, the number of pixels per lens being a non-integral number, said image data store holding pixel data for N views to be interlaced, and the formatting means having an input to receive data identifying the lenticule pitch, the pixel pitch, and position relative to the display device pixels and being operable to derive, for each display pixel, which of the N views it is to carry, the calculation including the non-integer ratio of the lenticule pitch to the pixel pitch and to extract the corresponding pixel data for that view from the data store."

III. According to the appellant, the amendments made are supported by the documents as originally filed. The amended claims refer to a number of pixels per lens being a non-integer number. In the appellant's view neither of the prior art documents D1 nor D2 make any reference to the ratio of the lenticule pitch to the pixel pitch, and the control of pixel addressing by an algorithm that uses the ratio of lenticule pitch to the pixel pitch is a novel and inventive solution to the problem of controlling a pixel addressed display when the pitch of the pixel does not match the pitch of the lens array overlying the screen.

IV. The board issued a communication, in which, amongst other things, it observed that the subject matter mentioned in section III above was not dealt with in the decision of the examining division, which also did not take any action in the context of Article 109(1) (Interlocutory revision). The board sought the

appellant's view as to whether it wished the board to make a detailed examination of the case or to remit the file back to the examining division for consideration of the subject matter concerned.

- V. In reply to the communication of the board, the appellant declared its wish for the board to remit the case back to the Examining Division for further prosecution.

Reasons for the Decision

1. The appeal is admissible.
2. The amendments made to the independent claims as shown in the underlined portions in section II of the facts and submissions were not present in the claims upon which the decision to refuse the patent application was based. Those claims did not mention, for example, a non-integer number or ratio. The chain of reasoning on inventive step as given in the decision is not therefore convincing in relation to the claims presently on file, for example, figures 4 and 5 of document D1 show 4 pixels per lens. Interlocutory revision would have offered an appropriate opportunity for considering the claims as amended.
3. Consequent to the appellant's request to this effect and to ensure that there is no loss of instance in relation to matters relating to the examination and not yet dealt with by the first instance, remittal for further prosecution is appropriate.

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 for further prosecution.

The Registrar:

The Chairman:

P. Martorana

A. G. Klein