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D E C I S I O N
of 29 November 1993

Case Number: T 0197/92 - 3.5.1

Application Number: 87307143.5

Publication Number: 0259981

IPC: H04N 1/46

Language of the proceedings: EN

Title of invention:

Colour image processing method and apparatus

Applicant:

Canon Kabushiki Kaisha

Opponent:

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Headword:

-

Relevant legal norms:

EPC Art. 56, 111

Keyword:

"Limitation of the subject-matter claimed"

"Remittal to the first instance for further prosecution"

Decisions cited:

-

Catchword:

-



Case Number: T 0197/92 - 3.5.1

D E C I S I O N
of the Technical Board of Appeal 3.5.1
of 29 November 1993

Appellant:

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Representative:

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Decision under appeal:

Decision of the Examining Division of the
European Patent Office dated 22 October 1991
refusing European patent application
No. 87307143.5 pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: P.K.J. van den Berg
Members: C.G.F. Biggio
G. Davies

Summary of Facts and Submissions

I. European patent application No. 87 307 143.5, filed at the EPO on 12 August 1987 and claiming priority from patent applications No. 188 772/86 and 190 034/86, both filed in Japan on 13 August 1986, was published under the number EP-A2-0 259 981 on 16 March 1988.

II. The Examining Division refused the application with a decision dated 22 October 1991, which was based on the application as made up by:

Description pages:

- 1, 2, 5 to 7, 15 and 16 as originally filed,
- 3 filed with a letter dated 2 January 1991 (received on 2 January 1991), and
- 4, 4(A), 8 to 14, 17 and 18 filed with letter dated 11 September 1991 (received on 12 September 1991);

Claims:

Nos. 1 to 8 filed with letter dated 11 September 1991 (received on 12 September 1991);

Drawing Sheets:

- 1/3 and 2/3 as originally filed, and
- 3/3 filed with a letter dated 2 January 1991 (received on 2 January 1991).

The reason given for the refusal was that the application did not meet the requirements of Articles 52(1) and 56 EPC.

III. The following prior art documents were considered during the examination procedure:

- D1: US-A-2 799 722,
- D2: US-A-4 538 182,
- D3: EP-A-0 188 098, and
- D4: EP-A-0 205 332 (relevant pursuant to Article 54(3) EPC.

Documents D1 to D3 were mentioned in the appealed decision, in which the Examining Division stated that a person skilled in the art, knowing the teachings from D1 and D2, would have considered obvious the subject-matter of independent Claims 1 and 8, as filed on 12 September 1991.

The Examining Division reached the above conclusion having considered that the subject-matter of said independent Claims 1 and 8 corresponded, in essence, to that of independent Claim 1, as previously filed (4 January 1991), so that the objection of lack of an inventive step, raised in respect of said former Claim 1, applied, *mutatis mutandis* to Claims 1 and 8, as filed on 12 September 1991.

The Examining Division considered

- that the amendments introduced into independent Claims 1 and 8, as filed on 12 September 1991, vis-a-vis the aforementioned former Claim 1, only tended to clarify this latter claim, rather than to introduce any new and restrictive subject-matter capable of justifying the Appellant's assertion (contained in the letter dated 11 September 1991), that the apparatus shown by Figures 1 and 2 of the

application no longer fell within the scope of said independent Claims 1 and 8, filed with said letter; and

- the wording of said independent Claims 1 and 8 was so broad as to cover also said apparatus shown by Figures 1 and 2 of the application, since the method claimed by independent Claim 1 was directly derivable from the functional properties of the apparatus shown in Figure 1, when interpreted according to the teaching of the description as originally filed.

IV. The Appellant filed a notice of appeal on 19 December 1991 and paid the appropriate appeal fee the same day. Grounds for Appeal were filed on 25 February 1992.

The Appellant submitted that

- in response to the communication of the Examining Division dated 22 February 1991, further amended independent Claims 1 and 8 of narrower scope had been filed, on 12 September 1991, which were intended to claim the apparatus shown by Figure 4 and to exclude that shown by Figure 1;
- the interpretation of said claims by the Examining Division was not justified;
- if there was a genuine difference of opinion as to how the wording of the amended Claim 1 should be interpreted, then the Examining Division had committed a procedural violation in not giving the Appellant a further opportunity to clarify the claims and in particular Claim 1; and

- the Examining Division's reasons for rejecting Claims 1 and 8, as filed on 12 September 1991, were inappropriate.

Relying on these submissions, the Appellant requested interlocutory revision (Article 109(1) EPC), and the reimbursement of the Appeal Fee in accordance with Rule 67.

The Appellant further submitted that, although he believed that Claims 1 and 8, as filed on 12 September 1991, were not open to the objections set out in the appealed decision, he nevertheless wished to amend the claims further in order to make it quite clear that they did indeed claim only the apparatus shown by Figure 4. He therefore filed amended Claims 1 to 12, to be considered as an Auxiliary Request.

The Appellant finally submitted that, by limiting the subject-matter claimed by said Claims 1 to 12 to the apparatus shown by Figure 4, he had now defined, in said new claims, an invention, which was patentable over the considered citations D1 to D3.

To support the above, the Appellant pointed out in detail the essential difference existing between the method which could be carried out by the apparatus according to Figure 1 and by that according to Figure 4 (see: point 3.2 of the Grounds for Appeal).

The Appellant, consequently, requested the setting aside of the appealed decision and:

- that a patent be granted on the basis of the application, as refused by the Examining Division (Main Request), or alternatively

- that the application, so amended as to comprise Claims 1 to 12 filed on 25 February 1992 together with the Grounds for Appeal, be remitted to the First Instance for prosecution of the examination (Auxiliary Request). In the event that none of the above requests were allowed, he requested to be heard at Oral Proceedings.

V. In a communication pursuant to Article 110(2) EPC, the Board noted that the Appellant was contesting the appealed decision only because, in his opinion, the Examining Division had wrongly considered that the wording of independent Claims 1 and 8, as filed on 12 September 1991, was so broad that their scope extended to cover both the method which could be carried out by the apparatus according to Figure 4, and the method which could be carried out by the apparatus according to Figure 1, but, on the contrary, was not contesting the Examining Division's opinion, according to which the method which could be carried out by the apparatus according to Figure 1 lacked an inventive step over the teaching from the considered prior art documents D1 and D2.

The Board considered, therefore, that only two questions had to be investigated, namely:

- whether or not the Examining Division was right in appreciating the scope of independent Claims 1 and 8, as filed on 12 September 1991, and, consequently, in refusing the application because one, at least, of the two methods which, in its opinion, were claimed by said claims lacked an inventive step over the teaching from the considered prior art; and

- whether or not the newly filed independent Claims 1 and 7, according to the Appellant's Auxiliary Request, did indeed claim only the method which could be carried out by the apparatus according to Figure 4.

The Board considered, on the contrary, that the question whether or not the method which could be carried out by the apparatus according to Figure 4 effectively involved an inventive step over the considered prior art, did not need to be investigated, for the time being, because the Examining Division, having considered that a claim specifically claiming said method had never been submitted to it during the examination procedure, had never expressed even a preliminary opinion on the question.

According to the above considerations, the Board stated its reasons for considering that the Appellant's Main Request could not be granted; said reasons being largely analogous to those mentioned by the Examining Division in the appealed decision.

In respect of independent Claims 1 and 7 according to the Appellant's Auxiliary Request, the Board criticized the wording thereof as not making it unambiguously clear that said claims were intended to claim the apparatus shown in Figure 4 and to exclude that shown by Figure 1, as the Appellant had submitted.

The Board stated, nevertheless, that the Appellant's Auxiliary Request could possibly be granted, but only on condition that independent Claims 1 and 7, according to said request, the "Summary of the Invention" and the "Brief Description of the Drawings" were amended so as to state unambiguously that the apparatus shown by

Figures 1 and 2, as well as the methods, which could be carried out by said apparatus, did not pertain to the claimed invention.

Guidelines as to how the necessary amendments should be expressed were given by the Board, which stated that, if the said amendments, which appeared to be in conformity with the Appellant's submissions, were to be properly carried out, then the case could be remitted to the First Instance for further prosecution.

VI. On 26 May 1993, the Appellant filed

- amended description pages 4, 4a and 4b, intended to replace pages 4 and 4(A) of the previous description, and
- amended independent Claims 1 and 7 (pages 19 to 21), intended to replace previous independent Claims 1 and 7 (pages 19 to 21), and requested that said pages 4 and 4(A) of the previous description and previous independent Claims 1 and 7 (pages 19 to 21) be deleted.

He submitted that the amended application documents specified above had been amended in conformity with the guidelines indicated by the Board in the communication dated 29 January 1993, so that the wording of the newly-filed description pages and independent Claims 1 and 7 now unambiguously stated that said claims were intended to claim only the apparatus shown by Figure 4 and the method which could be carried out by said apparatus, whereas the apparatus shown by Figures 1, 2 and 3 and the methods which could be carried out by said apparatus were stated to fall outside the scope of said claims.

The Appellant, accordingly, requested the remittal to the First Instance for further prosecution of the examination procedure on the basis of the application as made up by:

Description pages:

- 1, 2, 5 to 7, 15 and 16 as originally filed,
- 3 filed with a letter dated 2 January 1991 (received on 2 January 1991),
- 4, 4a and 4b, as filed on 26 May 1993, and
- 8 to 14, 17 and 18 filed with letter dated 11 September 1991 (received on 12 September 1991);

Drawing-Sheets:

- 1/3 and 2/3 as originally filed, and
- 3/3 filed with a letter dated 2 January 1991 (received on 2 January 1991).

VII. Independent Claims 1 and 7, as filed on 26 May 1993, have the following wording:

1. "A method of processing a multi-color image in which a first color is selected, a second color is selected to replace the first color, an input color image signal from multi-color image is compared with the first color and if the same replaced by the second color, is characterised by the steps of:

- a) identifying a desired point of the multi-colored image which contains the first color by manually selecting said point;
- b) machine reading said first color contained by the identified point, thereby deriving a color image signal representing said first color;
- c) inputting a color image signal derived from the identified point;
- d) storing said derived color image signal;

- e) comparing the input color image signal from the multi-color image with the stored signal d) representative of the first color; and
- f) replacing the input color image signal by the selected second color image signal if that input signal equates to the stored signal."

7. "Apparatus for processing a multi-color image in which a first color of the multi-color image is replaced by a second color, characterised in that it comprises:

- a) manual selecting means for identifying a point of the multi-color image containing the first color to be changed;
- b) machine reading means (105) for reading said first color contained by the identified point, thereby deriving a color image signal representing said first color;
- c) means (SW14) for selecting the second color;
- d) means (105-108) for inputting said color image signal derived from the identified point;
- e) means (109) for storing the derived color image signal;
- f) means (110) for comparing an input color image signal with the stored signal representative of the first color; and
- g) means (113-116) for replacing the input color image signal by the selected color image signal if that input signal equates to the stored signal."

Reasons for the Decision

1. The appeal complies with Articles 106 to 108 and Rule 64 EPC and is therefore admissible.
2. The Board notes that on 26 May 1993 the Appellant merely requested that the application, in its presently effective text (see: Item VI, third paragraph thereof), be remitted to the First Instance for further prosecution of the examination procedure. The Board interprets such arequest as meaning that the Main and Auxiliary Requests, as put forward by the Appellant on 25 February 1992, have been thereby withdrawn.
3. However, the Board notes that the request for reimbursement of the appeal fee in accordance with Rule 67, put forward by the Appellant on 25 February 1992, was not withdrawn, at least not explicitly, in the Appellant's submissions filed on 26 May 1993.
 - 3.1 According to the Appellant's submissions, independent "method" Claims 1 and 8, as submitted to the Examining Division on 12 September 1991, were intended to claim only and uniquely the method which may be carried out with the apparatus according to Figure 4, but in no case, that which may be carried out with the apparatus according to Figure 1 (see: Grounds for Appeal, point 1.5 thereof).
 - 3.2 The Board understands thus that the Appellant's intention, when said Claims 1 and 8 were filed, was to "disclaim" the method which maybe carried out with the apparatus according to Figure 1.

3.3 If this was indeed the Appellant's intention, then the question which immediately arises is why the Appellant did not

- amend the application in such a way that the latter mentioned explicitly a suitable and unambiguous "disclaimer", or, alternatively,
- file, as alternative claims i.e. as an auxiliary request, those claims he has presently filed.

Both possibilities were indeed open to him, in response to the communication of the Examining Division dated 22 February 1991.

3.4 It is moreover noted that, according to the appealed decision, the Examining Division rejected the application, having considered that the subject-matter of independent Claims 1 and 8, as filed on 12 September 1991, corresponded, in essence, to that of independent Claim 1, as previously filed (4 January 1991), so that the objection of lack of an inventive step over the teachings from D1 and D2, raised in respect of said previous Claim 1, applied, *mutatis mutandis*, to Claims 1 and 8, as filed on 12 September 1991.

3.5 The Board finds that the Examining Division did not commit a procedural violation, of the kind referred to in Rule 67, in not giving the Appellant a further opportunity to clarify the claims, since, as pointed out by the Board in its communication dated 29 January (points 4 and 5 thereof), there was no genuine difference of opinion as to how the wording of Claims 1 and 8, as filed on 12 September 1991, should be interpreted.

4. With regard to the request that the application be remitted to the First Instance for further prosecution, the Board is of the opinion that

- the single question which needs to be investigated and answered is whether or not, having regard to the presently effective text of the application, independent Claims 1 and 7 may be considered as claiming nothing else than the apparatus shown by Figure 4 and the method which may be carried out with said apparatus; the apparatus shown by Figures 1, 2 and 3 and the methods which may be carried out with said apparatus falling outside the scope of said claims, whereas,
 - the question whether or not the apparatus according to Figure 4 and the method which may be carried out with said apparatus involves an inventive step over the considered prior art, does not need to be investigated, since such claims, specifically claiming said method and apparatus, were never submitted to the Examining Division which, consequently, never expressed even a *prima facie* opinion on such a question.
5. The application, in its present text, does not imply any subject-matter which was not disclosed in the application as originally filed. Consequently, no objection under Article 123(2) EPC arises in respect of the said text.
6. According to the Appellant's submissions, independent Claims 1 and 7 as presently effective, are intended to claim only the apparatus according to Figure 4 and the method which may be carried out with the said apparatus, and not to claim the apparatus according to Figures 1, 2 and 3 and the methods which may be carried out with said apparatus.

The Board understands these submissions as meaning that the Appellant's intention is to "disclaim" the apparatus according to Figures 1, 2 and 3 and the methods which may be carried out with said apparatus.

7. The Board notes that the "Brief Description of the Drawings", on the presently effective description page 4b, has been so amended as to state that: "Fig. 4 is a block diagram showing an embodiment of the present invention", whereas the arrangements according to Figures 1, 2 and 3 are explicitly stated to fall "outside the scope of the present claims".

The Board is of the opinion that the amended application does include a suitable and unambiguous "disclaimer" of the apparatus according to Figures 1, 2 and 3 and of the methods which may be carried out with said apparatus.

8. In the Grounds for Appeal filed on 25 February 1992 (see: point 3.2 thereof), the Appellant pointed out the essential difference between the apparatus according to Figure 4 and that according to Figure 1, by making the following submissions:

"In the embodiment of Figure 1, the operator selects, by means of switch SW1, one colour from a range of predetermined colours (in this example 24) which colour he judges to be closest to the colour in the original picture which is to be replaced.

The key point about this is that the operator has to exercise judgment and furthermore it is likely that because there are only a limited range of predetermined colours to choose from, that none of them will be exactly the colour that is in the original picture.

Having chosen this predetermined colour, which identifies the colour which is to be changed, the operator then selects the new colour to replace that selected by switch SW1, this being done by means of switch SW2.

This contrasts with the embodiment of Figure 4 in which the judgment of the operator in selecting the colour to be replaced is not required. This is because the operator simply identifies or designates the relevant part of the original picture (by some known means such as a digitiser) and signals representative of the colour of that designated portion of the picture are then fed into RAM 109 via the dividing ROMs 106 and ganged switches SW11, SW21 and SW31.

These stored signals are thus representative of the colour to be changed without the operator having to have made any colour judgment, as was the case in the embodiment of Figure 1.

Having stored a colour signal in RAM 109 representative of the point on the picture designated by the operator, the operator then moves the ganged switches SW11, SW21 and SW31 into their second position (108d, 108e, 108f) to cause signals representative of other parts of the picture to pass to the coincidence detection unit 110 where those signals are compared with the signals stored in the RAM 109, i.e. a comparison is made to decide whether the colour of a particular point on the picture is the same as the colour stored in RAM 109.

If the colour is the same, then the signal representative of it is replaced by a signal via switch SW41 and ROMs 113 representative of the second or "new" colour.

On the other hand, if the signal is not the same as that in RAM 109, i.e. the colours are different, then that first, original or "old" colour will be reproduced unchanged".

9. Having regard to both the presently effective independent "method" Claim 1 and "apparatus" Claim 7, the Board notes

- that, in said Claim 1, method steps a) to d) are defined by the following wording:

"a) identifying a desired point of the multi-colored image which contains the first color by manually selecting said point;

b) machine reading said first color contained by the identified point, thereby deriving a color image signal representing said first color;

c) inputting a color image signal derived from the identified point;

d) storing said derived color image signal;

- that, in said Claim 7, apparatus features a) to e) are defined by the following wording:

"a) manual selecting means for identifying a point of the multi-color image containing the first color to be changed;

b) machine reading means (105) for reading said first color contained by the identified point, thereby deriving a color image signal representing said first color;

c) means (SW14) for selecting the second color;

d) means (105-108) for inputting said color image signal derived from the identified point;

e) means (109) for storing the derived color image signal; "and

- that the "Summary of the Invention", on presently effective description pages 4 and 4a, has been redrafted in strict accordance with said presently effective Claims 1 and 7.

10. The Board is of the opinion that both the wordings quoted above imply that the operator "designates" and "identifies" one desired specific point of the original image only by manually directing towards the said point suitable "machine reading means" (digitizer) and, thereafter, lets said machine reading means "perform the job" resulting in the "determination" of the first colour, i.e. of the colour to be changed, without having to have made any colour judgment, as is the case in the apparatus according to Figure 1.

11. The Board is accordingly of the opinion that

- the essential difference between the method which may be carried out with the apparatus according to Figure 4, as opposed to that which may be carried out with the apparatus according to Figure 1, and
- the essential differentiating features of the apparatus according to Figure 4, as opposed to that according to Figure 1,

are as unambiguously expressed by both the presently effective "method" Claim 1 and "apparatus" Claim 7, as they were in the disclosure of the application, as originally filed, and in the Appellant's submissions pointing them out (see: point 3.2 of the Grounds for Appeal).

12. The Board is, consequently, of the opinion that
- the amendments, which were indicated as necessary by the Board in its communication dated 29 January 1993, have been properly carried out,
 - the Appellant's presently effective single request may be granted, and
 - the application, in its presently effective text, should be remitted to the First Instance for further prosecution; this being in conformity with the established jurisprudence of the Boards of Appeal, since such claims as presently effective independent Claims 1 and 7 were never submitted to the Examining Division.

Order

For these reasons, it is decided that:

1. The appealed decision is set aside.
2. The case is remitted to the first instance for further prosecution.
3. The request for reimbursement of the appeal fee is refused.

The Registrar:

The Chairman:

M. Kiehl

P.K.J. van den Berg