Datasheet for the decision of 25 January 2019

Case Number: T 1382/13 - 3.4.01
Application Number: 05776551.3
Publication Number: 1779294
IPC: G06K9/00
Language of the proceedings: EN

Title of invention:
APPARATUS AND METHOD FOR PROCESSING VIDEO DATA

Applicant:
Euclid Discoveries, LLC

Headword:
Processing Video Data / EUCLID DISCOVERIES

Relevant legal provisions:
EPC Art. 83
EPC R. 42(1)(c), 42(1)(e)
RPBA Art. 12(4)
Keyword:
Sufficiency of disclosure - (no)
Description - technical problem and solution cannot be understood
Description - no clear disclosure of one way of carrying out the invention
Case Number: T 1382/13 - 3.4.01

DE C I S I O N
of Technical Board of Appeal 3.4.01
of 25 January 2019

Appellant: Euclid Discoveries, LLC
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted on 4 February 2013
refusing European patent application No.
05776551.3 pursuant to Article 97(2) EPC.

Composition of the Board:
Chairman P. Scriven
Members: F. Neumann
R. Winkelhofer
Summary of Facts and Submissions

I. The appeal is directed against the decision of the Examining Division to refuse European patent application 05 776 551.3. The application was refused because claim 1 of the main request did not meet the requirements of Article 123(2) EPC and claim 1 of the auxiliary request met neither the requirements of Article 123(2) EPC nor of Article 84 EPC.

II. With the statement setting out the grounds of appeal, the appellant requested that the contested decision be set aside and a patent be granted on the basis of a main request (filed with submission of 16 December 2012 and resubmitted with the grounds of appeal), or on the basis of one of four auxiliary requests (filed with the grounds of appeal). Oral proceedings were conditionally requested.

III. The Board issued a communication in preparation of oral proceedings. In it, the Board addressed the issue of Article 123(2) EPC with respect to claim 1 of the main request. Objections were also raised under Article 83 and Rule 42 EPC. The Board also indicated that the auxiliary requests did not appear to be admissible.

IV. The oral proceedings were cancelled, after the Board was informed that the appellant would not attend.

V. There was no substantive response to the Board's communication.
VI. Claim 1 of the main request reads as follows:

An apparatus for the purpose of generating an encoded form of video signal data from a plurality of video frames, comprising:
a means of detecting an object in the video frame sequence;
a means of tracking said object through two or more frames of the video frame sequence;
a means of identifying corresponding elements of said object between two or more frames;
a means of modeling such corresponding elements to generate modeled correspondences;
a means of resampling pel data in said video frames associated with said object, said resampling means utilizing said modeled correspondences;
a means of segmenting said pel data associated with said object from other pel data in said video frame sequence; and
a means of decomposing said segmented object pel data, said means of decomposing comprising Principal Component Analysis.

VII. The wording of the claims of the auxiliary requests is not relevant for the present decision and so will not be reproduced here.

VIII. The arguments of the appellant, insofar as they are pertinent, are set out below in the reasons for the decision.
Reasons for the Decision

Main request

1. Claim 1 of the main request was refused for failure to comply with the requirements of Article 123(2) EPC. In examining the appeal, the Board established that additional objections arose under Article 83 and Rule 42(1)(c) and (e) EPC. On the one hand, the application does not contain an explanation of the invention as defined in claim 1. On the other hand, the contents of the description are deficient, since neither the technical problem and its solution, nor one way of carrying out the invention, are disclosed. These objections were set out in the Board's communication and were not contested by the appellant. They form the basis of the present decision.

2. Article 83 EPC

2.1 Article 83 EPC requires that the invention be disclosed in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.

2.2 The invention as defined in claim 1 relates to an apparatus, incorporating a number of processing "means", for generating encoded video signals. However, the application does not disclose how the various "means" defined in claim 1 are to be implemented.

2.3 The "Brief Description of the Drawings" (published application, page 6, lines 4-10) indicates that Figure 2 illustrates the "major modules for processing video".
The individual processing means defined in claim 1 each have a corresponding processing module in Figure 2. However, the individual processing modules of Figure 2 are not explained in detail anywhere in the application. The description provides some detail with respect to a number of processing operations, but it is not apparent how these processing operations are related to the processing modules of Figure 2 or, correspondingly, to the individual "means" of claim 1.

2.4 For example, it is not clear which of the processing operations set out in the description are used in the "means of modeling such corresponding elements to generate modeled correspondences" of claim 1. Page 9 includes a section entitled "Local Registration". This operation involves the "assignment of correspondences between elements of identified objects in two or more video frames". However, it is not clear from the description whether this operation is the one used in the "Model Correspondences" module of Figure 2 or the "means of modeling such corresponding elements" of claim 1. Similarly, the "Diamond Search" and "Phase-based Motion Estimation" of pages 9 and 10 both generate finite differences whose values are later factored into higher-order motion models. However, it is not clear whether these motion models are somehow related to the "means of modeling such corresponding elements" of claim 1.

2.5 As a result, there is no indication in the application which of the processing operations of the description correspond to which of the "means" of claim 1 and, consequently, there is no disclosure as to how each of the "means" of claim 1 are to be implemented.
2.6 In addition, the description explains that signal data are analysed to identify salient components which are then further analysed to identify variant and invariant sub-components (page 6). In the "Detection & Tracking" modules (pages 7-8), the salient components can then be encoded "using techniques that are typically not available to existing video processing methods" or standard video coding techniques: the invention determines and then employs the most efficient encoding technique (page 7, line 26 to page 8, line 3). However, the description does not identify or explain the techniques which are "typically not available" and, in view of their (typical) non-availability, they cannot be considered to be common general knowledge. The description is, therefore, incomplete with respect to the disclosure of the encoding techniques which may be employed by the claimed means for detecting and tracking an object.

2.7 For these reasons, the application does not disclose the claimed invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.

2.8 The explanation of the invention given in the grounds of appeal ("Revolutionary Concept") is not reflected in the description of the present application. In particular, page 7 of the grounds presents an example in which "Lena's eye" is transmitted from a first smartphone to a second smartphone. This is done by reducing the 16x16 pels of the eye to a "10x1 concise object vector" using the equations set out on page 7 of the grounds, in order to reduce the bandwidth for transmission. Neither this example, nor the equations involved, appear in the application and so this
explanation cannot help to remedy the insufficient disclosure of the invention in the application.

2.9 Consequently, the application does not comply with Article 83 EPC.

3. Rule 42(1)(c), (e) EPC

3.1 Coupled to the above objection is the failure to comply with Rule 42(1)(c) EPC, which requires that the description disclose the invention, as claimed, in such terms that the technical problem, and its solution can be understood.

3.1.1 On page 2, it is stated that the primary objective "is to process input data to produce an output which is meaningful for a specific application". It is then stated that a variety of processing techniques may be used to achieve this goal, without, however, stating which techniques. Page 3 points out that conventional processing techniques suffer from slow data communication speeds, large storage requirements and disturbing perceptual artifacts, but does not indicate what the solution to these problems might be. Thus, whilst technical problems are presented in the description, their solutions cannot be derived therefrom.

3.2 Rule 42(1)(e) EPC requires that the description describe at least one way of carrying out the invention claimed.

3.2.1 The description presents only an aggregation of processing techniques, without indicating how - or if - they are linked to each other. Although Figure 2
illustrates a linked sequence of processing steps, this sequence is not reflected in the description. As outlined in section 2.3 above, it is not apparent from the description which of the processing techniques described could be used for which of the steps illustrated in Figure 2.

3.3 For these reasons, the description does not comply with the requirements of Rule 42(1)(c), (e) EPC.

4. In view of the above findings, it is not necessary to examine whether the amendments to claim 1 meet the requirements of Article 123(2) EPC.

Auxiliary requests

5. It may be derived from Article 12(4) RPBA that the Board has the power to hold inadmissible requests which could have been presented in the first instance proceedings.

6. Auxiliary requests 1 to 3 correspond to auxiliary requests 1 to 3 which were withdrawn at the oral proceedings before the Examining Division. It is established case law that the Boards of Appeal do not consider (admit) requests which were withdrawn during first instance proceedings (Case Law of the Boards of Appeal of the European Patent Office, 8th edition, IV.E.4.3.3 c)).

7. At the oral proceedings before the Examining Division, the appellant was given - and took - the opportunity to file an auxiliary request. This auxiliary request consisted of a single method claim. The Examining
Division held that this claim infringed Article 123(2) EPC, since no basis could be found for a number of the individual method steps. Once the objections to that auxiliary request were known, the appellant was invited to file a further auxiliary request. This invitation was declined.

8. Auxiliary request 4, which was filed with the grounds of appeal, addresses the objections of the Examining Division in that it consists of a single method claim which corresponds precisely to the processing steps set out in Figure 2. In accordance with the case law, since the appellant was both in a position to make this submission in the first instance proceedings, and could have been expected to do so under the circumstances, auxiliary request 4 need not be considered in the appeal proceedings (Case Law of the Boards of Appeal of the European Patent Office, 8th edition, IV.E.4.3.1).

9. Consequently, none of the auxiliary requests is considered in the appeal proceedings (Article 12(4) RPBA).

Cancellation of oral proceedings

10. Oral proceedings were appointed as a result of the appellant's request. The appellant subsequently stated that it would not be represented at the oral proceedings. In accordance with the case law, such a statement should normally be treated as equivalent to a withdrawal of the request for oral proceedings (Case Law of the Boards of Appeal of the European Patent Office, 8th Edition, III.C.2.3.1). The oral proceedings were, therefore, cancelled.
Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

R. Schumacher P. Scriven

Decision electronically authenticated