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D E C I S I O N
of 6 November 1996

Case Number: T 0321/95 - 3.4.2

Application Number: 90200827.5

Publication Number: 0391498

IPC: G01C1 1/00

Language of the proceedings: EN

Title of invention:

A system of "Computer Aided Surveying" for obtaining digital,
3D topographic information

Patentee:

GEERIS HOLDING NEDERLAND B.V.

Opponent:

-

Headword:

-

Relevant legal provisions:

EPC Art. 123(2), 84 and 56 EPC
Rule 67 EPC

Keyword:

"Main request: subject-matter extended: no; clarity: yes"
"Inventive step: yes"
"Procedural violation: no; reimbursement of appeal fees: no"

Decisions cited:

-

Catchword:

-



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Boards of Appeal

Chambres de recours

Case Number: T 0321/95 - 3.4.2

D E C I S I O N
of the Technical Board of Appeal 3.4.2.
of 6 November 1996

Appellant: GEERIS HOLDING NEDERLAND B.V.
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Representative: Land, Addick Adrianus Gosling
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 7 November 1994
refusing European patent application
No. 90 200 827.5 pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: E. Turrini
Members: M. Chomentowski
M. Lewenton

Summary of Facts and Submissions

I. European patent application No. 90 200 827.5 (publication No. 0 391 498) was refused on the grounds that claim 1 submitted by the applicant was not clear.

II. The claim concerned a method for the compilation of digital files of detailed three-dimensional topographic data for surveying purposes, which data consisted of co-ordinates of point in the terrain and corresponding topographic point codes, line codes and plane codes, comprising the following steps:

- making recordings from the surroundings of three successive station positions which did not have to be known in coordinates, the recordings containing the entire horizon from the zenith to far under the horizon so that a sequence of three associated recordings was obtained; and
- subsequently comparing the determining spatial directions in comparison to the local horizontal plane, starting from the station position towards each point in the terrain to be defined in co-ordinates,

wherein use was made of measurement means and calculation means for the determination of the points to be defined in co-ordinates.

This method was characterized in that two or more recordings were measured at substantially the same time by the measuring means whereby also each point to be defined occurring on two or more successive recordings was available at substantially the same time.

The Examining Division took the following view:

It was derivable from the application that an essential condition to perform the method of claim 1 was that points in the terrain had to occur various time on subsequent recordings; however, the formulation in the claim, whereby also each point to be defined occurring on two or more successive recordings was available at substantially the same time, only meant that, when a point to be defined occurred on two or more successive recordings, then it was available at substantially the same time, and this was thus different from the essential condition. Moreover, the formulation "from the zenith to far under the horizon" was too vague.

Further deficiencies were mentioned as comments not forming part of the decision, whereby in particular it was stated that it was not clear in the sense of Article 84 EPC what the spatial directions in the claim were determining, how the spatial directions were defined and how the comparing was performed. Moreover, the following was set forth concerning inventive step: The method of claim 1 was distinguished from the method known from D1 EP-A-0 290 678 only in that two or more recordings were measured at substantially the same time by the measuring means; D3 US-A-4 669 048 showed measuring means with which two recordings were measured; the problem to solve was similar in D1 and D3, i.e. points to be defined occurred on two or more recordings and this information on the recordings had to be transformed to three-dimensional topographic information. Thus, using the measuring means of D3 in the method of D1 would not imply an inventive step.

- III. The appellant (applicant) lodged an appeal against this decision and, in particular requested reimbursement of the appeal fee.
- IV. In the communication dated 1 March 1996, the board of appeal expressed the opinion that claim 1 of the main request submitted with the statement of grounds of appeal, which was identical with claim 1 having formed the basis of the decision under appeal, and claim 1 of the auxiliary request submitted with said same statement of grounds, contained amendments which appeared to result in the subject-matter of the application being unduly extended and the claims being unclear, but that a new claim 1, based on the auxiliary request and containing amendments as in the example annexed to the communication, could meet these deficiencies and be allowable having regard to the prior art. Moreover, the appellant's attention was drawn to the possibility of organizing oral proceedings, should there be substantial disagreement with respect to the annexed text.
- V. With letter dated 29 May 1996, the appellant submitted a new main request and a new auxiliary request, the latter corresponding to the text of claim 1 suggested by the board. This letter contained the statement that, for formal reasons, the request for oral proceedings was maintained (sic!).
- VI. In the communication dated 13 August 1996 and annexed to the summons to oral proceedings, the board expressed the opinion that claim 1 of the main request appeared to lack clarity but that, as already stated, the auxiliary request seemed to be allowable.
- VII. With letter dated 14 October 1996, the appellant filed the text of claim 1 of a new main request and a document consisting of pages i to xx and 7 to 12 of a

PhD-thesis of Dr.B.J.Beers, showing on page iv the copyright date 1995 for explaining better the terms used in the invention and withdrew the request for oral proceedings. Claim 1 of the main request is the only independent claim of the set of 5 claims, and reads as follows:

"1. A method for the compilation of digital databases of detailed three-dimensional topographic data for surveying purposes, which data consists of coordinates of points, including two or more basic points of which the coordinates are known, in the terrain and corresponding topographic point codes, line codes and plane codes, comprising the following steps:

- making either photographically or electronically panoramic recordings from the surroundings of at least three successive station positions which do not have to be known in coordinates, the recordings containing the entire horizon from the zenith to at least 110 degrees (120 gon) far under the horizon, so that the sequence of at least three associated recordings is obtained; and
- subsequently comparing the determining spatial directions in comparison to the local horizontal plane, starting from the station position towards each point in the terrain to be defined in coordinates, wherein use is made of measurement means and calculation means for the determination of the points to be defined in coordinates, wherein two successive recordings are measured at substantially the same time by the measuring means, the mutual distance of successive station positions being such that each point in the terrain to be measured and defined occurs in two various successive recordings."

VIII. The appellant requested that the decision under appeal be set aside and a patent be granted on the basis of, in particular, the main request consisting of:

Description: Pages 1 to 5 (until line 30) filed with applicant's letter of 8 October 1992, whereby pages 3 to 5 are renumbered 2A, 2B and 2C according to appellant's request dated 14 October 1996, Pages 3 (lines 29 to 39) and 4 to 17 as originally filed, Amendments on page 7 according to applicant's letter of 8 October 1992;

Claims: No. I.1 filed appellant's letter of 14 October 1996;
No. 2 to 5 filed with applicant's letter of 8 October 1992;

Drawings: Sheets 1/11 to 11/11 as originally filed.

IX. The appellant submitted the following arguments in support of its requests:

Claim 1 of the main request results from the combination of the features of original claim 1 with original dependent claim 2 and features of the original description that the points to be measured are shown on at least two pictures, whereby moreover the detailed three-dimensional topographic data in the terrain for surveying purposes consists of coordinates of points, including two or more basic points of which the coordinates are known. Thus, the subject-matter of the application has not been extended. Moreover, with these additional features, the present method is correctly defined; the terms are not ambiguous for the skilled person, as can be also seen from the filed pages of the PhD-thesis of Dr.B.J.Beers, on the same subject. Therefore, the present claim 1 is clear. It has not

been disputed that the nearest prior art is represented by D1, and that the present method is new having regard to D1. The present method starts from the method of D1, which is of the same type. D1 does not teach a method wherein two successive recordings, i.e. for instance pictures, are measured at substantially the same time by the measuring means. The aim of the present invention is to adapt the increasing demand for detailed three-dimensional topographic data to the increasing demand by an increase in automation by which better databases can be built and the information can be supplied quickly. Neither D1 nor D3 teach a method wherein recordings made successively are measured substantially simultaneously. Therefore, the subject-matter of present claim 1 involves an inventive step.

The proceedings between the EPO and the applicants are governed by general principle of good faith. This principle has been violated; during an interview with the primary examiner of the Examining Division which had taken place at the EPO on 16 November 1993, there had been an oral agreement that the examiner would telephone the appellant to discuss orally a new claim after being filed; however, a negative decision was issued after the filing of said new claim, without any such agreed discussion. Therefore, because of this procedural violation, reimbursement of the appeal fee is justified.

Reasons for the Decision

1. The appeal is admissible.

2. *Main request*

2.1 Allowability of the amendments

Present claim 1 results from the combination of the features of original claim 1 with original dependent claim 2 and the original description (see in particular page 4, lines 11 to 27), that the points to be measured are shown on at least two pictures. Moreover, the feature is included that the detailed three-dimensional topographic data in the terrain for surveying purposes consists of coordinates of points, including two or more basic points of which the coordinates are known, as derivable from the original description (see page 6, line 29 to page 7, line 34 and Figures 2A, 2B and 2C). Therefore, the European patent application satisfies the requirement of Article 123(2) EPC that it may not be amended in such a way that it contains subject-matter which extends beyond the content of the application as filed.

2.2 Clarity

The method of present claim 1 is for the compilation of digital databases of detailed three-dimensional topographic data for surveying purposes. These data consist of coordinates of points, including two or more basic points of which the coordinates are known, in the terrain. Thus, with two or more basic known points in the terrain, there is a basis for determining the coordinates of other points in the terrain and corresponding topographic point codes, line codes and plane codes.

The method comprises the following steps:

- making either photographically or electronically panoramic recordings from the surroundings of at

least three successive station positions which do not have to be known in coordinates, the recordings containing the entire horizon from the zenith to at least 110 degrees (120 gon) far under the horizon, so that the sequence of at least three associated recordings is obtained; and

- subsequently comparing the determining spatial directions in comparison to the local horizontal plane, starting from the station position towards each point in the terrain to be defined in coordinates, wherein use is made of measurement means and calculation means for the determination of the points to be defined in coordinates, wherein two successive recordings are measured at substantially the same time by the measuring means, the mutual distance of successive station positions being such that each point in the terrain to be measured and defined occurs in two various successive recordings. It is to be noted that it is derivable from the whole application that the recordings are made successively, but that the recordings themselves, for instance pictures, are measured at the same time. It is also to be noted that the formulation "from the zenith to far under the horizon" has been completed by numerical values (from the zenith to at least 110 degrees (120 gon)) and is thus no more vague. It is also to be noted that spatial directions can be determined between known basic points and other points of the terrain, so that there is no ambiguity in this respect as to the definition of these spatial directions or as to how comparing is performed. Incidentally, it is to be noted that, with letter dated 14 October 1996, the appellant filed a document consisting of pages i to xx and 7 to 12 of a PhD-thesis of Dr.B.J.Beers, showing on page iv the copyright

date 1995; taking into account this published document on the same subject, it is credible that the terms used in the invention are not ambiguous for the skilled person in the relevant technical field.

It is also to be noted that, since the formulation of a clear claim has been a constant difficulty during the procedure in the present case, it is considered that, in the interest of clarity, the form of a claim with a statement and a characterising portion suggested by Rule 29(1)EPC is not appropriate.

Therefore, the method of present claim 1 is defined correctly and without ambiguity, so that the claim is clear in the sense of Article 84 EPC.

2.3 Novelty

It has not been disputed that the nearest prior art is represented by D1. It has not been disputed either that D1 does not teach a method wherein two successive recordings, i.e. for instance pictures, are measured at substantially the same time by the measuring means. Therefore, the subject-matter of present claim 1 is novel in the sense of Article 54 EPC.

2.4 Inventive step

The present method starts from the method of D1, which is of the same type. However, D1 does not teach a method wherein two successive recordings, i.e. for instance pictures, are measured at substantially the same time by the measuring means. The aim of the present invention, as mentioned in the present application (see page 1, lines 1 to 18; page 2, line 17 to page 2A, line 7), is to adapt the increasing demand

for detailed three-dimensional topographic data to the increasing demand by an increase in automation by which better databases can be built and the information can be supplied quickly. Indeed, a method is known from D3 (see column 1, lines 5 to 14; column 2, line 1 to column 3, line 54; the Figure) using measuring means with which two recordings were measured. However, the method of D3, which is a method of computer-supported, semi-automatic evaluation of aerial stereo images, belongs to a technical field different from that of D1 and, moreover, as convincingly argued by the appellant, is not directly derivable as a method wherein recordings made successively are measured substantially simultaneously. Therefore, the subject-matter of present claim 1 does not result from an obvious combination of the methods of D1 and D3 and involves an inventive step in the sense of Article 56 EPC.

2.5 Thus, claim 1 of the main request is allowable and a patent can be granted (Art. 52(1) and 97(2) EPC).

3. Therefore, it is not necessary to consider the auxiliary request.

4. *Reimbursement of the appeal fees*

4.1 The appellant has requested reimbursement of the appeal fee. According to Rule 67 EPC, the reimbursement of appeal fees shall be ordered in the event of interlocutory revision or where the board of appeal deems an appeal to be allowable, if such reimbursement is equitable by reason of a substantial procedural violation.

The appellant has submitted, in support of its request, that the proceedings between the EPO and the applicants are governed by the general principle of good faith and that this principle had been violated; during an

interview with the primary examiner of the examining division which had taken place at the EPO on 16 November 1993, there had been an oral agreement that the examiner would telephone the appellant to orally discuss a new claim after being filed; however, a negative decision was issued after the filing of said new claim, without any such agreed discussion.

- 4.2 The following is to be noted with respect to evidence concerning the facts during said interview:

The appellant's representative has made, in his last letter, dated 14 October 1996, the following statement: "Apart from my memory this agreement is evidenced by the first page of my letter dated 18 November, 1993 to applicant". It is thus derivable that, since no other evidence has been provided by the appellant, none is available. However, this letter of 18 November 1993 has not been communicated to the examining division; it is internal in the relations between the appellant and its representative and, whichever its content, can only represent the opinion of the representative.

In this respect, the result of consultation concerning said interview was sent to the appellant with a communication dated 3 December 1993; this communication, the tenor of which was very negative having regard to the allowability of the application, indicated only that a new time limit of 4 months was set and that the appellant would file new claims, but did not include any indication about an agreement concerning a telephone call by the examiner after said filing. Moreover, it is to be noted that the appellant did not contest this result of the consultation; on the contrary, in its letter dated 13 June 1994 for filing a new main claim, there is no indication about said agreement concerning a telephone call by the examiner after said filing, but it is stated that the applicant

"would prefer" to discuss further amendments to this main claim by telephone.

Therefore, from the content of the present file, no evidence for an agreement concerning a telephone call by the primary examiner after the filing of new claims is derivable.

- 4.3 It is further to be noted that the statement of grounds of appeal contains comments, according to which it was also clear from the content of the last letter of the applicant in the examination procedure that it could never have been intended as an invitation to end the discussion and to issue a negative decision, that it was also indicated in said letter that subclaims would be filed later on the proceedings. However, the appellant has not submitted any argument about a violation of the requirements of Rule 86(3) EPC, that after receipt of the first communication of the examining division, the applicant may, of his own volition, amend once the description, claims and drawings provided that the amendment is filed at the same time as the reply to the communication, but that no further amendment may be made without the consent of the examining division.

Thus, in view of the lack of evidence about any agreement in the sense mentioned by the appellant and in view of the appellant's comments and arguments concerning the procedure at the EPO, it is directly apparent that, as also admitted in the last paragraph of the statement of grounds of appeal, there has been a "miscommunication" between the primary examiner and the appellant.

- 4.4 The following is to be added concerning the examination procedure having led to the present appeal:

The present file shows that there had been three communications of the EPO concerning respectively the claims as originally filed and two successive sets of claims filed by the applicant, and a further communication dated 3 December 1993 concerning the result of the interview of 16 November 1993 at the EPO; the application was refused by taking into account the text of a fourth text of the main claim. The appellant has not submitted any argument that the requirement of Article 113(1) EPC, that the decisions of the European Patent Office may only be based on grounds or evidence on which the parties concerned have had an opportunity to present their comments, had in any way be violated during the examination procedure, and the board does not see any such violation either.

Indeed, the appellant has additionally argued that the appeal would not have been necessary if the examining division would have allowed further discussion, as was orally agreed upon during the interview. However, this argument can also only be considered as the appellant's personal opinion which, in any case, does not convince the board that the case was just before a positive conclusion of the examination procedure, since it has been necessary, before arriving at the present decision in the appeal procedure, to issue a communication accompanied by a suggested text of the main claim based on a new submitted text of the claim, i.e. the auxiliary request in the statement of grounds of appeal, and furthermore an invitation to oral proceedings.

- 4.5 Thus, there is no derivable evidence that there had been any agreement in the sense mentioned by the appellant, but only a "miscommunication" between the primary examiner and the applicant. Moreover, an indication that the applicant has not been treated correctly in the sense of the Convention during the

examination procedure is not derivable from the present file. It is also to be noted that there was no request from the applicant to appoint oral proceedings, even auxiliarily, as a protective measure, during the examination procedure. Thus, the examining division did not act hastily in concluding that the application still contained deficiencies, and was entitled to issue immediately, in good faith, without substantial procedural violation, a negative decision.

Therefore, the appellant's request for reimbursement of the appeal fee is rejected (Rule 67 EPC).

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the examining division with the order to grant a patent on the basis of the following documents:

Description: Pages 1 to 5 (until line 30) filed with applicant's letter of 8 October 1992, whereby pages 3 to 5 are renumbered 2A, 2B and 2C according to appellant's request dated 14 October 1996, Pages 3 (lines 29 to 39) and 4 to 17 as originally filed, Amendments on page 7 according to applicant's letter of 8 October 1992;

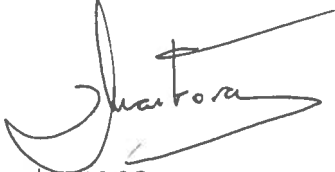
Claims: No. I.1 filed appellant's letter of 14 October 1996;

No. 2 to 5 filed with applicant's letter
of 8 October 1992;

Drawings: Sheets 1/11 to 11/11 as originally filed.

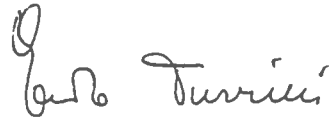
3. The request for reimbursement of appeal fees is rejected.

The Registrar:



P. Martorana

The Chairman:



E. Turrini

MCH

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