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**Datasheet for the decision
of 24 October 2018**

Case Number: T 1984/14 - 3.2.07

Application Number: 02715280.0

Publication Number: 1385674

IPC: B26D3/00, B26D5/00

Language of the proceedings: EN

Title of invention:

IMPROVED METHOD AND APPARATUS FOR PRECISION CUTTING OF
GRAPHICS AREAS FORM SHEETS

Patent Proprietor:

Esko Graphics Kongsberg AS

Opponents:

Zünd Systemtechnik AG
Grafitroniks
Zünd Skandinavien ApS

Headword:

Relevant legal provisions:

EPC Art. 54(2), 117(1), 123(2)

Keyword:

Evidence - standard of proof - hearing witness - balance of probabilities

Novelty - (no)

Amendments - extension beyond the content of the application as filed (yes)

Decisions cited:

Catchword:



Beschwerdekammern
Boards of Appeal
Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 1984/14 - 3.2.07

D E C I S I O N
of Technical Board of Appeal 3.2.07
of 24 October 2018

Appellant: Esko Graphics Kongsberg AS
(Patent Proprietor) Kirkegårdsveien 45
3601 Kongsberg (NO)

Representative: Caspary, Karsten
Kroher-Strobel
Rechts- und Patentanwälte PartmbB
Bavariaring 20
80336 München (DE)

Respondent: ZÜND SYSTEMTECHNIK AG
(Opponent 1) Industriestrasse 8
9450 Altstätten (CH)

Representative: Kaminski Harmann
Patentanwälte AG
Landstrasse 124
9490 Vaduz (LI)

Respondent: Grafitroniks
(Opponent 2) 14 rue des Flandres
94400 Vitry sur Seine (FR)

Representative: Kohn, Philippe
Gevers France
41, avenue de Friedland
75008 Paris (FR)

Respondent: Zünd Skandinavien ApS
(Opponent 3) Knudsminde 4b
8300 Odder (DK)

Representative: Nielsen, Leif
Patrade A/S

Ceresbyen 75
8000 Aarhus C (DK)

Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 1 August 2014
revoking European patent No. 1385674 pursuant to
Article 101(3) (b) EPC.**

Composition of the Board:

Chairman I. Beckedorf
Members: V. Bevilacqua
 G. Patton
 C. Narcisi
 C. Brandt

Summary of Facts and Submissions

- I. The patent proprietor (appellant) lodged in due time and form an appeal against the decision of the opposition division revoking the European patent No. 1 385 674.
- II. Three oppositions had been filed against the patent as a whole, raising the grounds for opposition according to Article 100(a) (lack of novelty, lack of inventive step), (b) and (c) EPC.
- III. In the decision under appeal, the opposition division found that the subject-matter of claim 1 of the patent as granted lacked inventive step over the content and teaching of document **D28a (print-out from the i-cut 3.0 help page)** taken in combination with the common general technical knowledge of the skilled person, and that the amendments made to the then submitted auxiliary requests contained added subject-matter.
- IV. The appellant requested

that the decision under appeal be set aside and that the patent be maintained in amended form on the basis either of the claims 1 to 13 of the patent as granted (main request),
or, alternatively, of one of the sets of claims filed as first and second auxiliary requests with the statement setting out the grounds of appeal.

Respondents I and III requested

that the appeal be dismissed.

Respondent II did not submit any request.

V. The Board communicated its preliminary assessment of the case to the parties pursuant to Article 15(1) RPBA, and oral proceedings were held on 24 October 2018. For further details of the course of the oral procedure, reference is made to the minutes thereof. The decision was pronounced at the end of the oral proceedings.

VI. **Claim 1 of the main request** reads as follows:

"Method for cutting at least one graphics area (42a, 42b) from a sheet (40) of material which includes such graphics area (42a, 42b), comprising:

applying a plurality of registration marks (44) on the sheet (40) of material at and about the graphics area (42a, 42b) in predetermined positions with respect thereto at the time the graphics which define such graphics area (42a, 42b) are applied, the plurality of registration marks (44) including an initial subset (46) which is located on no more than one side of the graphics area (42a, 42b); and, at the time of cutting, performing the following steps:

placing the sheet (40) of material on a sheet-receiving surface (16) with the initial subset (46) adjacent to a registration mark main sensor (22);

sensing the subset (46) to ascertain the position and orientation of the sheet (40) of material and to infer approximate positions of the plurality of registration marks (44) thereon;

thereafter sensing the precise positions of the registration marks (44) on the sheet (40) of material; and

cutting the graphics area (42a, 42b) from the sheet (40) of material in response to the precise positions of the registration marks (44) with respect to the graphics area (42a, 42b) at that time,

whereby cutting occurs precisely despite two-dimensional distortion of the sheet of material prior to cutting."

Claim 1 of the 1st auxiliary request, reads as follows (amendments over claim 1 of the main request are highlighted by the Board):

"Method for cutting at least one graphics area (42a, 42b) from a sheet (40) of material which includes such graphics area (42a, 42b), comprising:

applying a plurality of registration marks (44) on the sheet (40) of material at and about the graphics area (42a, 42b) in predetermined positions with respect thereto at the time the graphics which define such graphics area (42a, 42b) are applied, the plurality of registration marks (44) including an initial subset (46) which is located on no more than one side of the graphics area (42a, 42b); and, at the time of cutting, performing the following steps:

placing the sheet (40) of material on a sheet-receiving surface (16) with the initial subset (46) adjacent to a registration mark main sensor (22);

sensing the subset (46) **in the field of view of the main sensor (22)** to ascertain the position and orientation of the sheet (40) of material and to infer approximate positions of the plurality of registration marks (44) thereon;

if the subset (46) is not in an expected location, automatically determining the coordinate region (45) of the subset (46) on the sheet-receiving surface (16);

in response to the determining step, automatically repositioning the main sensor (22) to the coordinate region (45) such that the subset (46) is within the field of view of the main sensor (22)

thereafter sensing the precise positions of the registration marks (44) on the sheet (40) of material; and cutting the graphics area (42a, 42b) from the sheet (40) of material in response to the precise positions of the registration marks (44) with respect to the graphics area (42a, 42b) at that time,

whereby cutting occurs precisely despite two-dimensional distortion of the sheet of material prior to cutting."

Claim 1 of the 2nd auxiliary request, reads as follows (amendments over claim 1 of the main request are highlighted by the Board):

"Method for cutting at least one graphics area (42a, 42b) from a sheet (40) of material which includes such graphics area (42a, 42b), comprising:

applying a plurality of registration marks (44) on the sheet (40) of material at and about the graphics area

(42a, 42b) in predetermined positions with respect thereto at the time the graphics which define such graphics area (42a, 42b) are applied, the plurality of registration marks (44) including an initial subset (46) which is located on no more than one side of the graphics area (42a, 42b); and, at the time of cutting, performing the following steps:

placing the sheet (40) of material on a sheet-receiving surface (16) with the initial subset (46) adjacent to a registration mark main sensor (22);

sensing the subset (46) **in the field of view of the main sensor (22)** to ascertain the position and orientation of the sheet (40) of material and to infer approximate positions of the plurality of registration marks (44) thereon;

if the subset (46) is not in an expected location, automatically determining the coordinate region (45) of the subset (46) on the sheet-receiving surface (16);

wherein automatically determining the coordinate region (45) of the subset (46) includes:

moving the main sensor (22) in a predetermined pattern surrounding the expected location of the subset (46) and

stopping the movement of the main sensor (22) when the coordinate region (45) of the subset (46) is located within the field of view of the main sensor (22);

thereafter sensing the precise positions of the registration marks (44) on the sheet (40) of material; and cutting the graphics area (42a, 42b) from the sheet

(40) of material in response to the precise positions of the registration marks (44) with respect to the graphics area (42a, 42b) at that time,

whereby cutting occurs precisely despite two-dimensional distortion of the sheet of material prior to cutting."

VII. Insofar as relevant to the present decision, the appellant argued substantially as follows; the party's arguments are dealt with in more detail in the reasons for this decision.

The applicable standard of proof was not met by the evidence related to public availability of D28a submitted by the respondents.

The testimony given by the witnesses cited by the appellant showed beyond any reasonable doubts that customers were requested to sign non disclosure agreements.

D28a failed to disclose the following steps of claim 1 of the main request:

- applying an initial subset on no more than one side of the graphics area;
- placing the sheet of material on a sheet-receiving surface with the initial subset adjacent to a registration mark main sensor and sensing the subset.

There was no clear reason, in the circumstances of the present case, to assume that specifically the feature "in the field of view of the main sensor" should have been added already during opposition, because it was

not clear, at the outcome of the deliberation of the opposition division on the then first auxiliary request, which one of the two contested amendments contravened the requirements of Article 123(2) EPC.

Basis for the claimed subject-matter according to the auxiliary requests was to be found in the combination of the passage at page 5, lines 1-3, of description of the application as filed (WO 02/081158) with the passage from page 6, line 24, to page 7, line 3.

VIII. Insofar as relevant to the present decision, respondent I argued substantially as follows; the party's arguments are dealt with in more detail in the reasons for this decision.

The appellant construed the features "on no more than one side of the graphics area", "adjacent to a registration mark main sensor" and "sensing the subset" more strictly than a skilled reader would have done.

Based on the correct interpretation thereof, the subject-matter of claim 1 of the main request lacked novelty over the content of the disclosure of D28a.

The auxiliary requests were not to be admitted because no reason was submitted, and none was apparent, why they could not have been filed during opposition proceedings, when an objection against the absence of the feature "in the field of view of the main sensor" was specifically raised and discussed.

The subject-matter of claim 1 of both auxiliary requests had no basis in the application as filed because the two passages indicated by the appellant related to two distinct embodiments.

- IX. Concerning the above mentioned issues of public availability of D28a, novelty of the subject-matter of claim 1 of the main request, admissibility and unallowable extension of the auxiliary requests, respondent III did not submit arguments going beyond those of respondent I, summarized above.

- X. Respondent II did not submit any observations.

Reasons for the Decision

- 1. Public availability of D28a
 - 1.1 The appellant argued that the evidence submitted by the respondents, who were not directly involved in the prior use of the 1-cut software 3.0, was not evaluated in the appealed decision applying a sufficiently strict standard of proof.

The public availability of D28a was in fact acknowledged in the absence of documents showing when, by whom, where and how exactly publication was made.

The appellant also argued that, since the alleged public prior use of the i-cut software 3.0 completely fell within its sphere, the testimony of its witnesses proved beyond any reasonable doubt that strict non-disclosure rules were **always** in place.

1.2 The Board disagrees for the following reasons.

1.2.1 Standard of proof

According to the established case law (see Case Law of the Boards of Appeal, 8th edition 2016, III.G.4.3.1), evidence is to be assessed in terms of what seems most probable (balance of probabilities), whereby an exception is to be made for public prior use objections where practically all the supporting evidence lay within the power and knowledge of an opponent (see also supra, III.G.4.3.2 "Public prior use").

As in the present case the opposite is true, because practically all the supporting evidence lay within the power and knowledge of the patent proprietor (i.e. the appellant), the "balance of probabilities standard", as distinct from "beyond all reasonable doubt" or "absolute conviction" is to be applied.

1.2.2 Allowable forms of evidence

The opposition division was not prevented from deciding on the public availability of D28a by taking into account the testimonies of Mr. Bendixen, Mr. Andersen and Mr. Potebnya.

Because the EPC does not require that certain questions of fact may only be proven by certain means of evidence, the assessment and evaluation of evidence concerning when, by whom, where and how exactly document D28a was made available to the public was not to be made exclusively on the basis of written pieces of evidence.

1.2.3 Testimonies of Mr. Bendixen, Mr. Andersen and Mr. Potebnya

Mr. Bendixen had direct experience of the development and commercialisation of the i-cut software before the priority date and was in a position to remember detailed and concrete information in this respect.

He wrote D28a (see page 34 of the minutes of the taking of evidence) when he was still working for MGE (before November 2000), and stated that this help page related to the i-cut version 3.0.

D28a was made available, according to Mr. Bendixen, **when he sold** this software as this help page was part of the installation package thereof (as confirmed by M. Andersen). The sale is confirmed by Mr. Bendixen who named several buyers (see the second paragraph at page 13, first paragraph at page 16 of the minutes, the last two paragraphs at page 34). The Board notes that the appellant did not contest these particularly important statements of the witness.

Mr. Bendixen also clearly refuted the existence of non-disclosure agreements signed by his customers.

As Mr. Bendixen left MGE in November 2000, the above sales occurred **before the priority date**.

The Board notes that in spite of the fact that the prior use completely fell within the sphere of the appellant, this party failed to submit evidence putting into doubt the credibility of the above statements of Mr. Bendixen, by showing, for example, that the end customers named by Mr. Bendixen were bound by non-disclosure agreements.

The testimony of the witnesses offered by the appellant (Mr. Andersen and Mr. Potebnya) also did not raise doubts on the crucial points of the testimony of Mr. Bendixen.

Mr. Andersen indicated to be aware of the existence of a confidentiality policy at MGE, but also clearly confirmed that he had no direct knowledge of customers or potential customers who signed non-disclosure agreements.

Mr. Potebnya confirmed that he had no direct experience on the existence of non-disclosure agreements signed by the customers to which Mr. Bendixen sold the software before the priority date, because he started working for the appellant after that date.

The Board sees therefore no reason to question the credibility of Mr. Bendixen and cannot identify mistakes in the evaluation of evidence made and the conclusions drawn by the opposition division.

Document D28a is thus considered as being part of the state of the art under Article 54(2) EPC.

2. Claim 1 of the main request - Lack of novelty

2.1.1 It is common ground between the parties that D28a discloses a method for cutting at least one graphics area from a sheet of material which includes such graphics area, comprising:

applying a plurality of registration marks on the sheet of material at and about the graphics area in predetermined positions with respect thereto at the

time the graphics which define such graphics area are applied and

sensing the precise positions of the registration marks on the sheet of material; and

cutting the graphics area from the sheet of material in response to the precise positions of the registration marks with respect to the graphics area at that time,

whereby cutting occurs precisely despite two-dimensional distortion of the sheet of material prior to cutting.

It is also acknowledged by all parties that D28a discloses that the plurality of registration marks includes an initial subset, because in this document a first and a second register marks are mentioned, which are used to ascertain the position and orientation of the sheet of material (see the third paragraph of this document).

D28a therefore also discloses the following steps of the method of claim 1 of the main request:

placing the sheet of material on a sheet-receiving surface (see the first two lines of D28a);

sensing the registration marks of the subset to ascertain the position and orientation of the sheet of material and to infer approximate positions of the plurality of registration marks thereon.

2.2 The appellant referred to paragraph [53] of the patent in suit and argued that D28a failed to disclose that

the initial subset was located **on no more than one side** of the graphics area.

This was because, according to the appellant, the interpretation given to this feature by a skilled reader was that two marks were located on the same side of a graphics area **only** if the segment connecting them did not intersect said area, as clearly shown, for example, in figure 2 of the patent in suit.

2.3 The Board sees no reason for considering that this rather restrictive interpretation, which is by the way also not supported by paragraph [53] and figure 2 of the patent in suit, because no connecting segment is mentioned or shown therein, would be the one chosen by a skilled reader of claim 1 of the main request.

As established in the case law (supra, II.A.6.1), a broad term used in a claim is not to be construed narrowly, even if, as in the case at issue, the narrower interpretation would refer to a structure which is common (see figure 2 of the patent in suit), but not exclusive, in the technical field concerned.

Reading a broadly formulated claim only technically illogical interpretations should be excluded.

As argued by respondent I, followed by the Board, two registration marks are on the same side of a graphics area when, drawing a line crossing on the graphics area and defining two sides thereof, they are located on the same side of the line (and of the graphics area).

D28a discloses an initial subset consisting of two diagonally opposed registration marks, as well as the

presence of a graphics area on the sheet of material to be cut.

The first and second registration marks of this subset are inevitably, as discussed above, located on the same side of said graphics area, because based on the above interpretation two marks always satisfy the requirement of being on the same side of a graphics area, as the "side" of a graphics area can be arbitrarily defined.

D28a therefore discloses that the initial subset is located **on no more than one side** of the graphics area.

- 2.4 The appellant also argued that as D28a clearly disclosed that the method started by moving the main sensor to the mark at the top right of the sheet to first identify this mark, and then to the second mark, this document failed to disclose that the sheet was placed on a sheet-receiving surface **with the initial subset adjacent as a whole to a registration mark main sensor** and that the **subset was sensed as a whole**.

Paragraph [50] of the patent in suit made clear in this context, that that the initial subset had to be processed (positioned and sensed) as a whole.

The appellant also stated, by referring to paragraph [53] of the patent in suit (where "rapid determination" is mentioned) that "adjacent to a registration mark main sensor" did not mean "in the field of view thereof", but rather "close enough thereto, so that it can be quickly reached and sensed by moving the main sensor".

2.5 The Board disagrees again.

2.5.1 D28a clearly discloses that the sheet is placed in such way that both registration marks (at the top right, at the bottom left) are within the work area of the main sensor, so that they can be reached and sensed after movement thereof.

This corresponds to the interpretation given by the appellant, and shared by the Board, to this feature.

This document therefore discloses that the sheet is placed on a sheet-receiving surface **with the initial subset adjacent to a registration mark main sensor.**

2.5.2 Claim 1 of the main request does not, based on a proper interpretation of its wording (see point 2.3 above) imply that the subset is to be sensed as **a whole**. In this context the Board notes that this limitation is also not mentioned in paragraph [50] of the description, which only states that the main sensor **may be** an optical device responsive to registration marks, which does not mean an optical device able to read two marks at the same time.

D28a discloses that the two marks constituting the initial subset (and therefore the subset) are sensed by the main sensor, one after the other.

This document therefore discloses that the **subset is sensed by the main sensor.**

2.5.3 The subject-matter of claim 1 of the main request is therefore not novel over the content of the disclosure of D28a.

3. Auxiliary requests - Unallowable amendments

3.1 The appellant argued that the statement at page 5, lines 1-3, of the description of the application as filed, mentioning a step of placing the graphics sheet with the initial position orientation determining subset adjacent to a registration mark sensor, was to be read in combination with all the embodiments subsequently described, and in particular with the passage at page 6, lines 24-31, of said original description where the step of automatically determining the coordinate region of the subset on the sheet-receiving surface was mentioned.

3.2 The Board disagrees, and considers that these two steps relate to two distinct embodiments, the one at page 5 requiring that the initial subset is initially positioned adjacent to the main sensor, the other one also working with other initial positions of the initial subset.

This is made evident by the fact that in the passage at page 6, lines 24-31, the step of placing the sheet on a sheet receiving surface is re-formulated without the limitation that the initial positioning orientation determining subset is to be adjacent to a registration mark sensor such that it can be quickly reached.

This is because this passage relates to a different method where this feature is no longer necessary, because the method now comprises a step of automatically determining the coordinate region of the subset on the sheet receiving surface.

3.3 The appellant also argues that the step of placing the graphics sheet with the initial position orientation

determining subset adjacent to a registration mark sensor was implicitly present also in the method described at page 6, lines 24-31, because of the "expected location" mentioned in lines 27 and 28.

- 3.4 The Board disagrees again, because this "expected location" is completely independent from the position of the main sensor when the sheet is placed on a sheet receiving surface and therefore does not correspond to the initial position mentioned at page 5, lines 1-3 ("adjacent to a registration mark sensor") which is clearly linked to the position of main sensor.
- 3.5 Based on the above the subject-matter of claim 1 of both auxiliary requests contravenes the requirements of Article 123(2) EPC because it comprises the following two steps in combination:
- placing the sheet of material on a sheet-receiving surface with the initial subset adjacent to a registration mark main sensor;
 - automatically determining the coordinate region of the subset on the sheet-receiving surface.
4. In view of the Board's findings with regard to the non-compliance with Article 123(2) EPC of the claimed subject-matters according to the two auxiliary requests, the request by respondent I that these requests not be admitted into the appeal proceedings does not need to be formally decided upon. Even if these requests were to be admitted, they could not constitute a basis for the maintenance of the patent, because they contravene, as discussed above, the requirements of Article 123(2) EPC.

Hence, the present decision can be and is taken irrespective of the result of the discussion on admissibility of the two auxiliary requests.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



G. Nachtigall

I. Beckedorf

Decision electronically authenticated