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Aktenzeichen / Case Number / N<sup>o</sup> du recours : T 297/86 - 3.2.1

Anmeldenummer / Filing No / N<sup>o</sup> de la demande : 80 901 371.7

Veröffentlichungs-Nr. / Publication No / N<sup>o</sup> de la publication : 0 031 358

Bezeichnung der Erfindung: Press presetting method

Title of invention:

Titre de l'invention :

Klassifikation / Classification / Classement : B41F 31/04, B41L 27/06

### ENTSCHEIDUNG / DECISION

vom / of / du 29 September 1989

Anmelder / Applicant / Demandeur :

Patentinhaber / Proprietor of the patent /

Titulaire du brevet :

Harris Graphics Corporation

Einsprechender / Opponent / Opposant :

M.A.N.-Roland

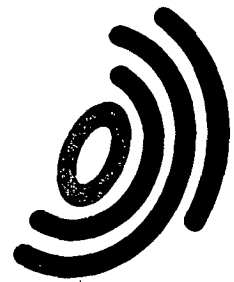
Stichwort / Headword / Référence :

EPÜ / EPC / CBE Article 56 EPC

Schlagwort / Keyword / Mot clé :

"Inventive Step (yes)"

Leitsatz / Headnote / Sommaire



Case Number : T 297 /86 - 3.2.1

**D E C I S I O N**  
of the Technical Board of Appeal 3.2.1  
of 29 September 1989

**Appellant :**  
(Opponent) M.A.N.-ROLAND  
Druckmaschinen Aktiengesellschaft  
Postfach 529  
6050 Offenbach/Main (DE)

**Representative :**

**Respondent :**  
(Proprietor of the patent) HARRIS GRAPHICS CORPORATION  
200 Seminole Avenue  
Melbourne, Florida 32901 (US)

**Representative :**  
Warren, Anthony Robert  
BARON & WARREN  
18 South End  
Kensington  
London W8 5BU (GB)

**Decision under appeal :** Decision of Opposition Division of the European  
Patent Office dated 14 August 1986 rejecting  
the opposition filed against European patent  
No.0 031 358 pursuant to Article 102(2) EPC.

**Composition of the Board :**

**Chairman :** P. Delbecque  
**Members :** F. Brösamle  
O. Bossung

Summary of Facts and Submissions

I. Patent No. 0 031 358 was granted on 26 September 1984 with two independent claims in response to European patent application No. 80 901 371.7 filed on 23 June 1980 and published on 8 July 1981.

II. Independent Claim 1 reads as follows:

"1. A method of automatic control of a printing press comprising the steps of

scanning a representation of an image to be printed to derive therefrom objective data representing the average density of the inked image in areas corresponding to those controlled by keys of an ink fountain,

producing multiple printed copies of the image as a result of subjective operator intervention in the setting of the fountain keys,

recording both the objective data and subjective data representing the setting of the fountain keys as set by the operator for a plurality of different press runs,

analyzing both the objective data and the key setting data by examining a plurality of harmonic components thereof sufficiently large to represent accurately that data,

correlating by a linear regression analysis respective harmonic components of the objective data and subjective data over said plurality of press runs and storing said linear regression parameters,

thereafter scanning a representation of a new image to be printed to derive objective data therefrom,

analyzing the new objective data by examining its harmonic components, and by applying the regression parameter data for each previously found harmonic values, deriving therefrom key setting instructions for presetting the press."

III. A notice of opposition to this European patent was filed on 26 June 1985 by the Appellant (Opponent) requesting that it be revoked since its subject-matter failed to meet the requirements of patentability due to lack of inventiveness. The opposition was based on the following documents:

D1 Printamat - ein Automatisierungssystem für Rotationsdruckmaschinen; Der Polygraph 8-77, pages 489 to 492.

D2 MAVO - ein System zur Verringerung der Einrichte- und Stillstandszeiten an Rollenoffsetmaschinen; Der Polygraph 22-75, pages 1393 to 1400;

D3 Optimierung der Maschineneinstellung und Untersuchung des Fortdruckverhaltens der Offsetdruckmaschinen mit Hilfe meßtechnischer Methoden; FOGRA (Institutsmitteilung 3.208, München, 1973).

IV. The Opposition Division rejected the opposition in a decision dated 14 August 1986. It is concluded in this decision that the combination of the teachings of D1 to D3 would not lead to the subject-matter of independent Claims 1 and 2.

V. On 28 August 1986 the Opponent (Appellant) filed an appeal against this decision and paid the appeal fee on 4 September 1986. In the Statement of Grounds of Appeal received on 11 December 1986 the Appellant argues that the subject-matter of Claim 1 lacks inventive step in the light of D1, D2, D3 and of

D4 "Offsetpraxis" 5/79, pages 64, 65, 68 and 70  
and

D5 "Der Polygraph" 20/77, pages 1692 to 1694,

whereby D4 and D5 were cited for the first time in the Statement of Grounds of Appeal.

Claim 2 of the attacked patent is in the opinion of the Appellant not valid in the light of D3, D4 and D5.

Consequently he requests that the decision of the Opposition Division be set aside and the patent be revoked.

VI. The Respondent (Proprietor) contests the Appellant's arguments and defends in a first attempt the patent in its granted form.

Having regard to D4 and D5 the Respondent sees no reason for their late introduction into the proceedings and comes to the conclusion that their late introduction should be taken into account in any award of costs to the patentees, see letter of 23 July 1987, remark 7.

VII. In a communication of the Board dated 6 May 1988 the Board pointed out that D4 and D5 are irrelevant in respect of the subject-matter of Claim 1 and that D5 as regards the subject-matter of Claim 2 would prejudice the validity of this claim under the provisions of Article 56 EPC.

VIII. As a consequence of the Board's communication the Respondent deleted Claim 2 and defended the patent only on the basis of Claim 1.

The Appellant did not comment on the Board's communication of 6 May 1988.

#### Reasons for the Decision

1. The appeal complies with Articles 106 to 108 and Rule 64 EPC; it is admissible.
2. As already stated in the communication of the Board, documents D4 and D5 are not relevant in respect of the subject-matter of Claim 1 so that these documents are disregarded in the following, Article 114(2) EPC, since Claim 2, for the subject-matter of which D5 was relevant, was deleted by the Respondent.

According to Article 104(1) EPC as a general rule each party to the proceedings (opposition, appeal) shall meet the costs he has incurred. The Board sees no reason for charging costs of one party to the other party in the present case, since D5 was considered in respect of Claim 2 by the Board, Article 114(1) EPC, and the late citation of D5 cannot be considered as an abuse of the appeal proceedings and since costs incurred during taking of evidence or in oral proceedings are not existent.

3. The claim (Claim 1 of the attacked patent) is not open to objections concerning Article 123(2) and (3) EPC, since this claim corresponds to Claim 1 in its original wording and since this claim is defended unamended in the appeal proceedings.

4. The claimed subject-matter is based on a method of automatic control of a printing press which method comprises the following steps in that it:

- (1) derives objective data by scanning and recording the average density of the inked images in areas corresponding to those controlled by keys of an ink fountain;
- (2) records subjective data representing the setting of the fountain keys by the press operator;
- (3) analyses both subjective and objective data by examining a plurality of harmonic components thereof sufficiently large to represent accurately that data;
- (4) correlates by linear regression analysis the objective and subjective data over a plurality of press runs, and stores the linear regression parameters; and
- (5) analyses new objective data by examining its harmonic components and by applying the regression parameters to derive therefrom key setting instructions.

It is clear that objective data (step 1) and that subjective data (step 2) are used and linked together to effect an acceptable setting of the printer ink dispensing keys in order to achieve savings of time and paper. The pressman's subjective judgments and the objective data received from the scanner are subsequently analysed (step 3) and correlated for a plurality of press runs, whereby the regression parameters are stored (step 4) to be applied to new objective data in order to derive therefrom key setting instructions (step 5).

5. The Appellant admits that the claimed teaching is novel, see letter of 9 December 1986, page 4, paragraph 1 and page 5, line 2.
  
6. It has therefore to be assessed whether or not the claimed subject-matter is based on an inventive step.
  - 6.1 The nearest prior art document is D2, see in particular page 1394, left column, lines 16 to 20 and lines 37 to 40, page 1397, column 2, lines 19 to 25, page 1398, left column (objective data) and right column (subjective data) as well as page 1399, column two and right column. From this document it is known to combine objective data derived from a scanner for presetting a printing press. The operator can modify these settings by activating a control lever on the control panel if he intends to change the settings to get nearer to a model sheet ("Kontroll-exemplar"). On page 1398, left column at the end of the second paragraph it is moreover set out that the objective data cannot be immediately used to set the keys because there is no linear interrelationship between the key settings and the coverage. As a result D2 teaches that objective data can be obtained by a scanner, that these data have to be processed (microcomputer, see page 1398, column 2, lines 1/2) and that the operator can readily modify these calculated setting data if his personal subjective judgment calls for a modification.
  
  - 6.2 What is not known from D2 is the way in which objective and subjective data
    - (i) are analysed to derive harmonic components of these data sufficiently large to represent accurately the data
  
    - (ii) are correlated and stored



(iii) and how new objective data are analysed and are combined with parameters obtained from the correlation of data to derive therefrom key setting instructions.

In step (i) a plurality of harmonic components are examined; in step (ii) the correlation is carried out by linear regression analysis and linear regression parameters are stored; in step (iii) again harmonic components are analysed and combined with the linear regression parameters.

6.3 The objectively remaining problem of the claimed subject-matter when starting from D2 is therefore that one indicated on column 1, line 64 to column 2, line 6 of the attacked patent i.e. to generate key setting information, which will result in acceptable quality printing as early in the press run as possible thereby combining subjective data of the press man and objective data from a scanner.

The problem as such is clearly not inventive, since it is a general attempt to reduce time and money when presetting the print press for a new program. This judgment is clearly supported for instance by D2, in which document it is taught to combine for exactly this purpose the press-man's subjective data with the objective data of the scanner to reduce presetting-time of the print-press, see page 139, right column and page 1394, left column, lines 16 to 19.

6.4 The Board is, however, convinced that the claimed teaching is based on an inventive step for the following reasons:

None of the features (i) to (iii) as set out above in 6.2 can be seen from documents D1 to D3.

What can be seen from D2 is an analysis of subjective data in that the operator judges from the print quality in which way the keys have to be set; this is, however, not the teaching of the claim under discussion, see above in 6.2 steps (i) to (iii).

Document D3 concerns a statistical analysis and evaluation of colour density fluctuations in printed products in order to get values for machine control and adjustment, see pages 59, 80, 81, 84, 100 to 102 of D3. A harmonic analysis of objectively measured data (coverage) is not carried out; this is also true for the subjective data representing the operator's influence, so that overall neither objective nor subjective data are analysed in a way prescribed in the claim. Furthermore no linear regression analysis is carried out to correlate these data and to obtain linear regression parameters which are stored and used to assess new objective data and their influence on the key settings. As a result D3 is not closer to the claimed teaching than D2.

Document D1 only deals with optical scanning and automatic control of a printing press. No combined setting system of the keys is disclosed taking simultaneously objective and subjective data into account and doing this in a way as defined in the claim under discussion i.e. following the steps (i) to (iii) of 6.2.

Since none of the steps (i) to (iii) can be derived from D1, D2 and D3 the Board comes to the conclusion that even the combination of those documents does not lead to the claimed press presetting method.

6.5 There can be no doubt for the Board that a harmonic analysis per se is known in mathematics. Another possibility for analysing data would be a linear poly-

nominal analysis; still other possibilities for data analysis exist.

It is the merit of the present invention that it has been recognised that the harmonic analysis approximates most closely the actions of the machine operator (subjective data).

The selection of a certain method of data analysis is therefore a first step for obtaining the wished quality printing when the printing press has to be preset.

Steps (ii) and (iii) according to 6.2 are based on the parameters obtained by the harmonic analysis and they make sure that the efficiency of the press-presetting is higher than a mere adjustment of the press only using conventional methods for linking objective and subjective data, since they interrelate the coverage and the key opening after a restricted number of runs. Very early in the presetting operation the best parameters of the press can be reached; as a consequence waste of paper and time can be reduced.

- 6.6 The statement of the Appellant that D3 is already based on statistical methods and that the harmonic analysis is well known to practitioners cannot be accepted by the Board, since it is considered to be based on an ex-post-facto analysis. From D1 to D3 no useful hint for the claimed data-treatment can be derived and in the Board's view the harmonic analysis is only one method out of a multitude of possibilities; it is therefore not justified to contend that the choice of exactly this method of analysis would be obvious to a practitioner.

6.7 Summarising, the Board comes to the conclusion that the subject-matter of the single claim is based on an inventive step so that this claim (Claim 1 of the patent) is valid and can justify the maintenance of the patent in amended form.

6.8 The description of the patent is not yet completely consistent with the single claim:

- (a) obviously lines 39 to 65 of column 2 have also to be deleted as a consequence of the deletion of granted Claim 2;
- (b) "2" in line 4 of column 4 obviously should read "3";
- (c) "foun-tain" in line 51 of column 4 should read "fountain";
- (d) "64" in line 60 of column 4 should read "65";
- (e) "from" in line 43 of column 5 should read "form".

These amendments to the description are either of a clerical nature or the consequence of the deletion of Claim 2 and overall so obvious, that the agreement of the Appellant could be expected without asking for his formal agreement.

Order

For these reasons, it is decided that:

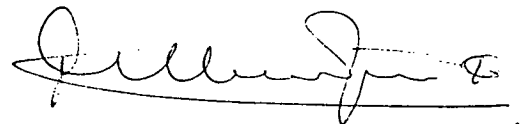
- (a) The decision of the Opposition Division is set aside.
- (b) The case is remitted to the first instance with an order to maintain the patent on the basis of the following documents:
  - columns 1 to 8 of patent No. 0 031 358 with the above amendments (see point 6.8)
  - Claim 1 of patent No. 0 031 358, now "Claim"
  - Figures 1 to 9 of patent No. 0 031 358.

The Registrar:



S. Fabiani

The Chairman:



P. Delbecque

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