BESCHWERDEKAMMERN DES EUROPÄISCHEN PATENTAMTS

BOARDS OF APPEAL OF THE EUROPEAN PATENT OFFICE

CHAMBRES DE RECOURS DE L'OFFICE EUROPEEN DES BREVETS

Internal distribution code:
(A) [ ] Publication in OJ
(B) [ ] To Chairmen and Members
(C) [X] To Chairmen

D E C I S I O N
of 24 October 2000

Case Number: T 0857/98 - 3.5.1

Application Number: 91305919.2

Publication Number: 0465179

IPC: H04N 1/32

Language of the proceedings: EN

Title of invention:
Electronic copying/printing machines

Patentee:
XEROX CORPORATION

Opponent:
Océ-Nederland B.V.

Headword:
-

Relevant legal provisions:
EPC Art. 52(1), 56, 100(a), 102(3)

Keyword:
"Inventive step - main request (no)"
"Maintenance in amended form"

Decisions cited:
-

Catchword:
-

Europäisches Patentamt | European Patent Office | Office européen des brevets

Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0857/98 - 3.5.1

D E C I S I O N
of the Technical Board of Appeal 3.5.1
of 24 October 2000

Appellant: (Proprietor of the patent)
XEROX CORPORATION
Xerox Square
Rochester
New York 14644 (US)

Representative:
Grünecker, Kinkeldey,
Stockmair & Schwanhäusser
Anwaltssozietät
Maximilianstrasse 58
D-80538 München (DE)

Respondent: (Opponent)
Océ-Nederland B.V.
St.Urbanusweg 43
NL-5914 CC Venlo (NL)

Representative:
Van de Sande, Jacobus
Océ-Nederland B.V.
Postbus 101
NL-5900 MA Venlo (NL)

Decision under appeal: **Interlocutory decision of the Opposition Division of the European Patent Office posted 27 May 1998 concerning maintenance of European patent No. 0 465 179 in amended form.**

Composition of the Board:

Chairman: P. K. J. van den Berg
Members: A. S. Clelland
P. H. Mühlens

Summary of Facts and Submissions

I. This appeal is by the patentee against the decision of the Opposition Division to maintain patent No. EP-A-465 179 in amended form, based on a fourth auxiliary request. The appellant's main request was that the patent be maintained on the basis of the claims as granted with claim 1 amended to refer to a job interrupt process for a digital, as opposed to an electronic, printer.

II. In the discussion of the main request in the opposition proceedings the issues were primarily whether the subject-matter of independent claim 1 was novel and whether that of independent claim 2 involved an inventive step. *Inter alia* the following documents were cited:

D3: GB-A-1 531 401,

D5: Abstract of JP-A-60 45834,

D6: JP-A-60 45834 and translation.

III. At the oral proceedings before the Board the appellant maintained the main request and sought to reintroduce auxiliary requests 1 to 3 as considered by the Opposition Division. A further auxiliary request, referred to hereinafter as the "further auxiliary request", was that the patent be maintained on the basis of independent claim 2, i.e. on the basis of the main request minus claim 1. The respondent asked that the appeal be dismissed.

IV. Claims 1 and 2 of the main request read as follows:

"1. A job interrupt process for a digital printer (2) comprising, the steps of:
(a) temporarily interrupting scanning of the job currently being scanned to commence scanning of a special job;
(b) while performing step (a), continuing printing of the interrupted job;
(c) when scanning of the special job is completed, or at least sufficient has been scanned to enable printing of the special job to be started, interrupting printing of the job then in process, and starting printing of the special job;
(d) resuming scanning of the interrupted job when scanning of the special job is completed, and
(e) resuming printing of the interrupted job when printing of the special job is completed."

"2. A method of processing jobs input in the form of documents to provide prints with a scanner for scanning the documents and converting the documents to image signals, and a printer for printing prints using the image signals, the scanner and printer operating asynchronously with respect to one another, comprising the steps of:
a) providing a job file with processing instructions for each job;
b) scanning the job documents to provide image signals for use in making prints;
c) arranging the job files in an ordered queue for printing:
d) printing the jobs using the image signals in the order in which the job files are arranged in the queue;
e) providing a job file with processing instructions

for a special job;
f) interrupting scanning of the job documents to scan the documents comprising the special job, while continuing uninterrupted printing of the jobs currently in the queue;
g) scanning the documents comprising the special job in accordance with the instructions from the job file for the special job, to provide image signals for use in printing the special job;
h) placing the job file for the special job in the print queue ahead of the job files of the other print jobs in the queue when the special job is ready for printing;
i) in response to step (h), interrupting the job currently being printed, and starting printing of the special job in accordance with the instructions from the job file for the special job using the image signals;
j) following scanning of the last document in the special job, resuming scanning of the documents of the other jobs, and
k) when printing of the special job is complete, resuming printing of the interrupted job."

Reasons for the Decision

1. *Admissibility of auxiliary requests 1 to 3*

1.1 In the course of the oral proceedings before the Board the appellant sought to reintroduce the auxiliary requests 1 to 3 considered by the Opposition Division. It was argued that as these requests were already on file, both the Board and respondent were aware of them. The respondent on the other hand argued that he had not

been made aware that such requests might be filed and was not prepared to discuss them.

1.2 The Board notes that when the statement of grounds of appeal was filed the sole request was to maintain the patent on the basis of the main request before the Opposition Division. In a subsequent communication the rapporteur, on behalf of the Board, asked for confirmation that none of the auxiliary requests was maintained and drew attention to the "Guidance for parties to appeal proceedings and their representatives", OJ EPO 1996, page 342, point 3.3, which states that a party wishing to submit amendments to the patent documents in appeal proceedings should do so as early as possible, and that the Board may disregard amendments not submitted in good time, as a rule four weeks before the date set for the oral proceedings. In response to this communication the appellant merely confirmed the main request and made no comment on the auxiliary requests.

1.3 The appellant, by raising auxiliary requests 1 to 3 for the first time in the appeal procedure at the oral proceedings, failed to observe the above-mentioned time limit, so that neither the Board nor the respondent was given sufficient time to study them. In the circumstances, the Board has no alternative but to refuse to admit these requests.

1.4 The further auxiliary request, which the respondent objected to because it was late-filed, consisted of the main request minus claim 1. It therefore involved no extra work on the part either of the Board or the respondent and for this reason was admitted to the proceedings.

2. *Background to the invention*

2.1 The classic photocopier, sometimes referred to as an electrophotographic or light-lens photocopier, projects an image onto an electrostatically charged photosensitive cylinder or web to which toner is then applied and which is brought into contact with copying paper, after which the transferred image is fixed by heating. Such photocopiers can be described as "synchronous" inasmuch as all parts are directly coupled and scanning of an image results in subsequent output of the same, copied, image. An example of such a photocopier is known from D1, in which a photosensitive web stores several images; any image scanned and stored will, with a slight delay, be copied.

2.2 An alternative to an electrophotographic copier comprises a scanner and a printer; since the scanner and printer are only coupled electrically it is in principle possible for the device to be asynchronous, that is, for scanning to be carried out separately from printing by the provision of a data buffer between scanner and printer. D3 is an example of such a device.

2.3 The patent is concerned with a problem specific to asynchronous copiers, namely the most efficient manner of interrupting an existing job in order to allow a more urgent job to be copied. In such a copier the provision of a buffer raises the question of how the skilled person would implement an interrupt function whilst minimising the resulting disruption and maximising throughput.

3. *Inventive step*

3.1 It was common ground between the parties that the single most relevant document is D3, which however makes no mention of providing an interrupt function. In D3, read buffers supply data from the scanner to a bus for storage in main memories which can hold a plurality of pages. The question before the Board has accordingly been how the skilled person would implement an interrupt function in the D3 copier.

3.2 As noted at point 2.3 above, a primary criterion for the skilled person is the requirement that throughput be maximised, i.e. that the copier be kept working with minimal interruptions and without the need to re-scan pages. It was suggested by the appellant that if the skilled person were to provide an interrupt function in D3 he would empty the buffer, carry out the urgent job, and thereafter re-scan the uncopied documents of the interrupted job into the buffer. The Board does not consider that such a procedure meets the goal of maintaining a high throughput since it requires rescanning of the documents deleted from the buffer. More plausible is the suggestion that in order to keep the work flowing the old job would continue to be printed until scanning of the urgent job is sufficiently advanced for it to be printed, at which time the data flow to the printer is switched from the old to the new job.

3.3 This implies that the sequence of steps set out in claim 1 is merely that which the skilled person would necessarily perform in order to maximise throughput. Self-evidently scanning of the current job must be interrupted to commence scanning of the urgent job,

step (a). While the urgent job is being scanned it would be efficient to continue printing of the existing job, step (b). Thereafter, as soon as scanning is sufficiently advanced, the existing job would be interrupted and the urgent job printed, step (c). Self-evidently, once the urgent job has been completed, scanning of the interrupted job would be resumed, step (d), and thereafter also printing, step (e). The Board accordingly considers that the skilled person, faced with the problem of providing an interrupt in the D3 system, would without the exercise of invention arrive at the subject-matter of claim 1, Articles 52(1) and 56 EPC. The main request is accordingly not allowable.

3.4 The appellant argued against the above analysis, considering that the cited art nowhere suggested the simultaneous processing of an existing and an urgent job as was done in the patent. All the prior art documents, it was argued, allowed the existing job to continue until it was fully cleared and only then started the new job, there being no suggestion of scanning the new job whilst printing the old. The only arrangement which permitted an interrupt in the same sense as the patent was that of the Japanese documents D5/D6, which did not disclose scanning but merely referred to printing. In D5/D6 all the data was already stored and the patentee's problem did not arise.

3.5 In arriving at its conclusion the Board has not started out from D5/D6 but from D3. It has not been contested by the appellant that the provision of an interrupt feature is a desirable one which the skilled person would, at the claimed priority date, have sought to

implement. Nor has the appellant contested that the skilled person could be expected to maximise throughput in any practical printer. From this background it appears to the Board that the implementation of an interrupt feature in the D3 copier, in which a buffer memory is present, could only be implemented efficiently if the data in the buffer were retained and used for printing until new data became available. Although the appellant argued that the simultaneous processing of an existing and an urgent job gave rise to issues of complexity which required the exercise of invention for their solution, claim 1 does not reflect such complexity and merely states the obvious *desiderata* for efficient copying.

3.6 Turning now to claim 2, the subject of the further auxiliary request, this claim is directed to a method of processing jobs and refers to a scanner and a printer operating asynchronously, as discussed above. The claim includes all the steps of claim 1 and additionally specifies how the printer is organised, referring to job files in an ordered queue, the jobs being printed in accordance with their position in the queue unless a special job is requested, in which case the job file of the special job is placed in the print queue ahead of the job files of the other print jobs when this special job is ready for printing.

3.7 In the Board's view these are the self-evident steps which would be taken in any batch printer having a high throughput. It is obvious that in such a printer the jobs must be queued; in documents D5/D6 job files are arranged in an ordered queue and provision is made to interrupt an existing job to enable an urgent job. The Board accordingly concludes that the subject-matter of

claim 2 is open to the same objection of lack of inventive step as claim 1, Articles 52(1) and 56 EPC.

4. There being no further admissible requests, it follows that the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

M. Kiehl P. K. J. van den Berg