

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAVID A. BISHOP,
TIMOTHY M. HOLCK, TELFORD KNOX, JR.,
CHARLES L. RABY, ROBERT C. SHAY,
MARK D. TURNER and STEPHEN A. YEAMANS

Appeal No. 96-1233
Application 08/259,368¹

ON BRIEF

Before JERRY SMITH, FLEMING and CARMICHAEL, Administrative
Patent Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

¹ Application for patent filed June 14, 1994. According to appellants,
this application is a continuation of Application 07/713,486, filed June 10,
1991.

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This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 17-23 and 25-30, which constitute all the claims remaining in the application.

The disclosed invention pertains to a method and apparatus for monitoring the resources assigned to one or more computer processors. Predefined events are indicated by generating event signals at the start and at the end of an event. Performance data on the event is measured, and the performance data is stored for only a selected subset of the event signals.

Representative claim 17 is reproduced as follows:

17. A system for monitoring the performance of one or more computer processors and a plurality of processor resources assigned to said one or more processors, the system comprising:

control program means executing on each of said one or more computer processors for generating event signals at a start and an end of predefined events;

monitor control means for controlling collection of performance data and for displaying performance data;

data collection means for collecting performance data from said one or more computer processors, the data collection means being responsive to said monitor control means, said data collection means further comprising:

storage means for storing performance data;

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processor resource monitor means for testing the status of said processor resources;

event signal filter means for testing each event signal, and writing to said storage means only that data associated with a selected subset of event signals.

The examiner relies on the following references:

Ellsworth	5,072,376	Dec. 10, 1991 (filed June 10, 1988)
Blasciak	5,103,394	Apr. 07, 1992 (filed Dec. 21, 1989)

Claims 17-23 stand rejected under 35 U.S.C. § 102(e) as being anticipated by the disclosure of Blasciak. Claims 25-30 stand rejected under 35 U.S.C. § 103. As evidence of obviousness the examiner offers Blasciak alone with respect to claim 25 and adds Ellsworth with respect to claims 26-30. A rejection under the second paragraph of 35 U.S.C. § 112 was withdrawn in the answer.

Rather than repeat the arguments of appellants or the examiner, we make reference to the brief and the answer for the respective details thereof.

OPINION

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We have carefully considered the subject matter on appeal, the rejections advanced by the examiner and the evidence of anticipation and obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellants' arguments set forth in the brief along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer.

It is our view, after consideration of the record before us, that the disclosure of Blasciak does fully meet the invention of claims 17, 18 and 20-22, but does not fully meet the invention as recited in claims 19 and 23. We are also of the view that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the obviousness of the invention as set forth in claims 25-30. Accordingly, we affirm-in-part.

We consider first the rejection of claims 17-23 under 35 U.S.C. § 102(e) as being anticipated by the disclosure of Blasciak. Anticipation is established only when a single prior art reference discloses, expressly or under the

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principles of inherency, each and every element of a claimed invention as well as disclosing structure which is capable of performing the recited functional limitations. RCA Corp. v. Applied Digital Data Sys., Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir.); cert. dismissed, 468 U.S. 1228 (1984); W.L. Gore and Assocs. v. Garlock, Inc., 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

The examiner purports to read the invention of claims 17-23 on the disclosure of Blasciak [answer, pages 4-7]. With respect to independent claim 17, appellants primarily argue that Blasciak does not disclose the control program means and the event signal filter means as recited in claim 17. Specifically, appellants argue that the portions of Blasciak that the examiner points to as meeting these limitations do not in fact meet the recitations of claim 17. We find ourselves in agreement with the examiner with respect to claim 17.

Appellants' arguments are not commensurate in scope with the invention of claim 17. Appellants argue that Blasciak provides a monitoring system that is contained in

another device and not a program means executing on the computer processor. Claim 17, however, only requires that a control program means executes on the computer processor. It does not require that the elements of the measuring means also be located there. Blasciak clearly has a control program means which executes on his computer processor. Appellants also argue that Blasciak does not generate event signals as intended in their invention. Blasciak clearly generates signals indicative of when an event to be measured starts and when the event ends. Blasciak monitors these start-stop event pairs for evaluation [note columns 15-16]. It is our view that the measurement of these start-stop pairs in Blasciak demonstrates that these start-stop pairs must be generated in Blasciak within the meaning of the language broadly used in claim 17. Appellants argue that Blasciak does not teach the event filter means of claim 17. Blasciak discloses, however, that all occurrences of an event are stored as well as a subset of the events which meet a limiting condition [note Figure 14 and counters 22, 23 and 26]. The data stored in the qualified counters of Blasciak represent a filtered subset of data as recited in claim 17. Appellants argue that the event

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signals of claim 17 have event data generated therewith, yet such language does not appear in claim 17. Appellants proposed to amend the claim to include this language, but such amendment has not been entered. The remaining arguments made by appellants with respect to independent claim 17 recite operational differences between the disclosed invention and the Blasciak device which are not commensurate in scope with the invention as claimed. For all the reasons just discussed, we sustain the examiner's rejection of claim 17 under 35 U.S.C. § 102. Appellants make no additional arguments with respect to dependent claims 20 and 21 so these claims fall with claim 17 from which they depend.

With respect to dependent claim 18, the examiner has shown how he reads the claim on Blasciak [answer, pages 5-6]. Appellants make some of the same arguments considered above with respect to claim 17. These arguments are not persuasive for the reasons already discussed above. Appellants argue that the starting and stopping of a counter in Blasciak is not analogous to the combining of data recited in claim 18. We do not agree. The change in value of the counter from a start value to an end value clearly represents a combination of

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those two values. Therefore, we also sustain the rejection of claim 18 under 35 U.S.C. § 102.

With respect to dependent claim 19, appellants argue that Blasciak does not teach the polling means as claimed. The examiner asserts that the polling means is implied in Blasciak. We have considered the portion of Blasciak relied on by the examiner, and we agree with appellants that there is no disclosure therein of the polling means for polling permanent and volatile storage status and generating performance data based on the polling results. Therefore, we do not sustain the rejection of claim 19 as anticipated by the disclosure of Blasciak.

With respect to independent claim 22, appellants argue that the examiner has failed to identify any teaching in Blasciak of generating event signals and storing only selected ones of the event signals [brief, pages 16-17]. These arguments were previously considered with respect to other claims and were determined not to be persuasive. Therefore, we sustain the rejection of claim 22 under 35 U.S.C. § 102.

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With respect to independent claim 23, appellants argue that the Blasciak teaching of measuring time by starting and stopping a counter is not the same as the claimed use of a hardware timer which generates time stamps and determines time intervals by analyzing these time stamps. Although both Blasciak and the claimed invention measure intervals of time, we agree with appellants that the measurement in Blasciak does not perform the steps specifically recited in claim 23. Since the rejection is based on anticipation under 35 U.S.C. § 102, we do not sustain the rejection of claim 23.

We now consider the rejection of independent claim 25 under 35 U.S.C. § 103 as being unpatentable over the teachings of Blasciak taken alone. In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness.

See In re Fine,

837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (CCPA 1966), and to provide a reason why one having ordinary skill in the pertinent art would have

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been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

With respect to claim 25, the examiner basically asserts that Blasciak teaches all the recitations of claim 25 except for the step of periodically testing each of the memory blocks to determine whether the memory block is allocated or not. The examiner observes that the "basic capability" is present in Blasciak, and "all of the elements necessary to

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measure allocation are provided in Blasciak" [answer, pages 8-9]. Appellants argue that although the problem of measuring allocation was well known, Blasciak has no teaching related to the specific method recited in claim 25 [brief, pages 19-21]. We agree with appellants.

Blasciak's teaching of measuring memory use cannot be said to suggest the measurement of allocated memory and the determination of whether allocated memory only has been accessed within a monitor time interval. The examiner's observation that Blasciak has the capability to be modified to implement the invention of claim 25 does not support obviousness within the meaning of 35 U.S.C. § 103. Such modification could only come from the improper hindsight reconstruction of the invention based on appellants' own disclosure. Therefore, we do not sustain the rejection of independent claim 25 under 35 U.S.C. § 103.

We now consider the rejection of claims 26-30 under 35 U.S.C. § 103 as being unpatentable over the teachings of Blasciak and Ellsworth. With respect to independent claim 26, the examiner applies Blasciak in the same manner as before, and the examiner cites Ellsworth as teaching the desirability

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of measuring idle time in a processor. The examiner observes that it would have been obvious to use the Blasciak measurement system to measure idle time as suggested by Ellsworth and to limit the measurement by priority [answer, pages 9-10]. Appellants point to several recitations of independent claim 26 which they argue are not suggested by the proposed combination of Blasciak and Ellsworth. We again find ourselves in agreement with appellants.

The examiner simply concludes that the recitations of claim 26 would have been obvious in view of the teachings of Blasciak and Ellsworth, but we are unable to find any teachings in the applied prior art that would have suggested summarizing processor idle time and processor resource utilization in the manner specifically recited in claim 26. The evidence of record in this case simply does not support the findings of the examiner. Therefore, we do not sustain the examiner's rejection of claim 26 under 35 U.S.C. § 103. Since claims 27-30 depend from claim 26, we also do not sustain the rejection of these claims.

In summary, the rejection of claims 17-23 under 35 U.S.C. § 102 has been sustained with respect to claims 17, 18

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and 20-22 but has not been sustained with respect to claims 19 and 23. The rejection of claims 25-30 under 35 U.S.C. § 103 has not been sustained. Therefore, the decision of the examiner rejecting claims 17-23 and 25-30 is affirmed-in-part.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

	Jerry Smith)	
	Administrative Patent Judge)	
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)	
	Michael R. Fleming)	BOARD OF
PATENT	Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES

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James T. Carmichael)
Administrative Patent Judge)

JS/cam

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Mark S. Walker
IBM Corporation
Intellectual Property
Law Dept., 932
11400 Burnet Road, Zip 4054
Austin, TX 78758