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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WEI HU, YUNRUI LI,
VINAY SRIHARI, and RAMANA YERNENI

Appeal 2010-000151[1]
Application 10/982,135
Technology Center 2100

Before JEAN R. HOMERE, JAMES R. HUGHES, and
ANDREW J. DILLON, *Administrative Patent Judges*.

HOMERE, *Administrative Patent Judge*.

DECISION ON APPEAL

[1] The real party in interest is Oracle International Corp. (App. Br. 1.)

I. STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1-51. (App. Br. 2.) We have jurisdiction under 35 U.S.C. § 6(b).

We reverse and enter a new ground of rejection.

Appellants' Invention

Appellants invented a method and system for performing log-based recovery by allowing a plurality of worker processes to process in parallel a plurality of work items in a log, each work item representing an ordered operation on a corresponding data object. (Spec. ¶[0007].) In particular, upon reading a subset of work items from the log, each work process produces a sequentially ordered set of work items corresponding to the data objects. (*Id*. at ¶ [0022].)

Illustrative Claim

> 1. A method for processing sequences of work items from a log, wherein each work item in said log corresponds to a particular data object, the method comprising the computer-implemented steps of:
>
> each of a plurality of Worker processes performing the steps of :
>
> reading, from said log, a subset of the work items;
>
> producing one or more sequentially ordered sets of work items;
>
> wherein each of said one or more sequentially ordered sets corresponds to one or more data objects;

> wherein each of said one or more sequentially ordered sets includes work items for the one or more data objects to which the sequentially ordered set corresponds; and
>
> wherein, within each of said one or more sequentially ordered sets, work items are ordered in the same relative order as the work items were ordered in the log.

Prior Art Relied Upon

Mohan	US 5,170,480	Dec. 8, 1992

Rejections on Appeal

The Examiner rejects claims 1-51 as follows:

1. Claims 26-45 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

2. Claims 1-51 stand rejected under 35 U.S.C. § 102 (b) as being anticipated by Mohan.

II. ANALYSIS

Non-Statutory Subject Matter Rejection

Appellants argue that the computer-readable storage medium recited in claims 26-45 is not directed to non-statutory subject matter because it is directed to a storage medium that can be read by a computer. Therefore, the claimed storage medium excludes intangible signals and transmission media that merely carry information as opposed to storing them. (App. Br. 9-11.) In response, the Examiner submits that because the Specification fails to

specifically define a computer-readable storage medium to exclude a carrier waves, and transmission media that can be encompassed in a computer-readable, the cited claims do encompass such transitory signals. (Ans. 18-20.)

We do not agree with the Examiner. We find that the computer-readable storage medium is directed to a tangible storage medium, which can be read by a computer. While a computer-readable medium is broad enough to encompass both tangible media that store data and intangible media that carry a transitory, and propagating signal containing information, a computer readable storage medium is distinguished therefrom as it is confined to tangible media for storing data. Therefore, because the cited claims are limited to a tangible medium within one of the four statutory classes of 35 U.S.C. § 101, they are directed to statutory subject matter.[2] Therefore, appellants have shown that the Examiner erred in concluding that claims 26-45 are directed to non-statutory subject matter.

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[2] "If a claim covers material not found in any of the four statutory categories, that claim falls outside the plainly expressed scope of § 101 even if the subject matter is otherwise new and useful." *In re Nuijten*, 500 F.3d 1346, 1354 (Fed. Cir. 2007). "A transitory, propagating signal . . . is not a 'process, machine, manufacture, or composition of matter' [under 35 U.S.C. § 101]" and therefore does not constitute patentable subject matter under § 101. *Id.* at 1357. Claims that are so broad that they read on nonstatutory as well as statutory subject matter are unpatentable. *Cf. In re Lintner*, 458 F.2d 1013, 1015 (CCPA 1972) ("Claims which are broad enough to read on obvious subject matter are unpatentable even though they also read on nonobvious subject matter."). This is now USPTO policy. *See Subject Matter Eligibility of Computer Readable Media*, 1351 Off. Gaz. Pat. Office 212 (Feb. 23, 2010).

Anticipation Rejection

Appellants argue that the Examiner erred in rejecting claim 1 as being anticipated by Mohan because Mohan's disclosure does not describe each of a plurality of worker processes that read a subset of data of work items from a log to thereby produce a sequentially ordered set of work items, as recited in independent claim 1. (App. Br. 5-6.) According to Appellants, Mohan's Redo records cannot be correlated to the worker processes because the Redo records cannot perform any action. In response, the Examiner finds that Mohan's Redo records describe the plurality of worker processes. (Ans. 15.)

We do not agree with the Examiner. Claim 1 requires that each of the processes perform certain active steps such as reading work items from a log and producing an ordered set of the work items. We find, in contrast, that Mohan's Redo records are mere data that are incapable of performing any of the recited steps. Instead, the Redo records seem to describe the work items that are read and produced by the processes recited in the claim.

Consequently, we will not sustain the Examiner's anticipation rejection of claims 1-51, which all recite the disputed limitations set forth above.

III. NEW GROUND OF REJECTION

We enter the following new ground of rejection pursuant to our authority under 37 C.F.R. § 41.50(b).

35 U.S.C. § 102(b) Rejection

Appellants argue that Mohan's hash process and the queue servers cannot be construed as a plurality of worker processes because the hash process is only a single process, and the plurality of queue servers do not read from the log. (App. Br. 5-6.) We do not agree with Appellants. First, we note that the claim does not require that the worker processes read the work items directly from the log. Thus, by reading the subset of Redo records that the hash process obtained from the log, each of Mohan's queue servers indirectly reads the records originated from the log, and then processes the records as an ordered set before they are forwarded to the buffer manager. (See Fig. 3, col. 5, ll. 1-16.)

Thus, we find that Mohan's disclosure describes the disputed limitations recited in independent claim 1.

Regarding claim 2, Appellants argue that Mohan does not describe that the worker processes read the work items without them being partitioned by a coordinator process prior to the reading. We do not agree with Appellants. Because the claim does not indicate whether the coordinator is placed before or after the worker processes, we find the claimed coordinator process can be read on Mohan's buffer manager, which does not partition the records before they are read by the queue servers.

IV. OTHER ISSUES

The Board of Patent Appeals and Interferences is a review body rather than a place of initial examination. We have made the rejection regarding

claims 1 and 2 under 37 C.F.R. § 41.50(b). However, we have not reviewed the remaining claims 3-51 to the extent necessary to determine whether these claims are anticipated by Mohan /or other prior art. We leave it to the Examiner to determine the appropriateness of any further rejections based on this or other references. Our decision not to enter a new ground of rejection for all claims should not be considered as an indication regarding the appropriateness of further rejection or allowance of the non-rejected claims.

V. DECISION

1. We reverse the Examiner's rejection of claims 1-51.

2. We reject claims 1and 2 as being anticipated under 35 U.S.C. § 102(b) by Mohan.

37 C.F.R. § 41.50(b) provides that, "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review."

37 C.F.R. § 41.50(b) also provides that the Appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new grounds of rejection to avoid termination of proceedings (37 C.F.R. § 1.197 (b)) as to the rejected claims:

> (1) *Reopen prosecution*. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .

> (2) *Request rehearing*. Request that the proceeding be reheard under 37 C.F.R. § 41.52 by the Board upon the same record. . . .

REVERSED
37 C.F.R. § 41.50(b)

Vsh