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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MATTHEW A. AHRENS, MARK J. MAYBEE, and
JEFFREY S. BONWICK

Appeal 2010-010603
Application 11/513,800
Technology Center 2100

Before KALYAN K. DESHPANDE, JASON V. MORGAN, and
MICHAEL J. STRAUSS, *Administrative Patent Judges*.

DESHPANDE, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF CASE¹

The Appellants seek review under 35 U.S.C. § 134(a) of a final rejection of claims 1-10 and 12-21, the only claims pending in the application on appeal. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

We AFFIRM-IN-PART.

The Appellants invented a system that includes a file system configured to create a snapshot of a hierarchical block tree (HBT) and storage pool. Specification ¶ 0009.

An understanding of the invention can be derived from a reading of exemplary claims 1 and 21, which are reproduced below [bracketed matter and some paragraphing added]:

1. A system, comprising:

[1] a file system configured to create a snapshot of a hierarchical block tree (HBT); and

[2] a storage pool, after the snapshot has been created, comprises:

[a] the snapshot comprising a copy of a first version of a root block, and

[b] the HBT comprising a second version of the root block, wherein the HBT is associated with a dead list, wherein the dead list specifies a block referenced in the snapshot and not currently referenced in the HBT,

[c] wherein the copy of the first version of the root block is created prior to overwriting the first version of the root block with the second version of the root block,

¹ Our decision will make reference to the Appellants' Appeal Brief ("App. Br.," filed January 28, 2010), Examiner's Answer ("Ans.," mailed April 28, 2010), and Final Rejection ("Final Rej.," mailed October 15, 2009).

[d] wherein the second version of the root block comprises references to a first block and a second block,

[e] wherein the copy of the first version of the root block comprises a reference to the first block and no reference to the second block, and

[f] wherein the storage pool comprises at least one physical storage device.

21. The computer readable storage medium of claim 20, wherein updating the empty dead list associated with the RBT comprises adding a block pointer associated with the first block and a birth time of the first block to the empty dead list.

REFERENCE

The Examiner relies on the following prior art:

Hitz	US 5,819,292	Oct. 6, 1998
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REJECTION

Claims 1-10 and 12-21 stand rejected under 35 U.S.C. §102(b) as being anticipated by Hitz.

ISSUE

The issue of whether the Examiner erred in rejecting claims 1-10 and 12-21 under 35 U.S.C. §102(b) as being anticipated by Hitz turns on whether Hitz describes a “dead list,” an “empty dead list,” updating the “empty dead list,” “a second dead list,” and “updating the empty dead list associated with the RBT comprises adding a block pointer associated with the first block and a birth time of the first block to the empty dead list.”

ANALYSIS

Claims 1-10 and 12-20

We have reviewed the Examiner's rejections in light of the Appellants' contentions that the Examiner has erred.

We disagree with the Appellants' conclusions. We adopt as our own (1) the findings and reasons set forth by the Examiner in the action from which this appeal is taken and (2) the reasons set forth by the Examiner in the Examiner's Answer in response to the Appellants' Appeal Brief. We concur with the conclusion reached by the Examiner. We highlight the following arguments for emphasis.

The Appellants contend that Hitz fails to describe that the hierarchical block tree (HBT) is associated with a "dead list" and an "empty dead list," as per independent claims 1 and 15 respectively. App. Br. 9-11. The Appellants also contend that Hitz fails to describe that the snapshot is associated with a "second dead list," and the "empty dead list" is updated, as per dependent claims 14 and 20 respectively. App. Br. 10-12.

We disagree with the Appellants. We agree with the Examiner that a "dead list" encompasses "block referenced in the snapshot and not currently referenced in the HBT" and Hitz describes a "difference in referenced blocks between the snapshot and the active file system" and this difference is a "dead list." Ans. 11-12 (citing Hitz 18:24-39). Accordingly, we also agree with the Examiner that "a second dead list" encompasses subsequently created "differences" between snapshots. Ans. 13-14 (citing Hitz 20:31-65). We further agree with the Examiner that if there are not any differences between the snapshot and the active file system, the result is an "empty dead

list” and the differences in subsequent snapshots update the “empty dead list.” Ans. 14-15. Additionally, we find that the “creation time” found by the Examiner describes the “birth time” as recited in claim 21. Ans. 15-16 (citing Hitz 10:57-67).

As such, we agree with the Examiner that Hitz describes the disputed limitations in claims 1, 14, 15, and 20.

Claim 21

The Appellants contend that Hitz fails to describe “updating the empty dead list associated with the RBT comprises adding a block pointer associated with the first block and a birth time of the first block to the empty dead list,” as per claim 21. App. Br. 12-13. The Examiner found that Hitz describes “the file system information (fsinfo) structure ... that also contains information ... including...the creation time of the file system.” Ans. 15-16 (citing Hitz 10:57-67). The Examiner further found that “[i]t is implicit that if the creation time of the file system is known then the birth time for every block is also known.” *Id.*

We disagree with the Examiner. Claim 21 requires, in part, “a birth time of the first block to the empty dead list.” That is, claim 21 requires a time for when the first block is added to the empty dead list. We disagree with the Examiner assertion that the creation time of the file system describes the creation time for every block in an empty dead list. The creation time of the file system is a completely different value or attribute than the creation time for other blocks, much less blocks updating an empty dead list.

Accordingly, we cannot sustain the Examiner's anticipation rejection of claim 21 because Hitz fails to describe claim 21. However we leave it to the Examiner to determine whether the limitations recited in claim 21 would have been obvious to a person with ordinary skill in the art.

CONCLUSION

The Examiner did not err in rejecting claims 1-10 and 12-20 under 35 U.S.C. §102(b) as being anticipated by Hitz.

The Examiner erred in rejecting claim 21 under 35 U.S.C. §102(b) as being anticipated by Hitz.

DECISION

To summarize, our decision is as follows.

- The rejection of claims 1-10 and 12-20 under 35 U.S.C. §102(b) as being anticipated by Hitz is sustained.
- The rejection of claim 21 under 35 U.S.C. §102(b) as being anticipated by Hitz is not sustained.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2010).

AFFIRMED-IN-PART

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