



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
90/009,129	04/29/2008	7174352	112056-0500P1	9442

24267 7590 02/20/2009
CESARI AND MCKENNA, LLP
88 BLACK FALCON AVENUE
BOSTON, MA 02210

EXAMINER

ART UNIT PAPER NUMBER

DATE MAILED: 02/20/2009

Please find below and/or attached an Office communication concerning this application or proceeding.



DO NOT USE IN PALM PRINTER

(THIRD PARTY REQUESTER'S CORRESPONDENCE ADDRESS)

Ronald L. Yin
DLA Piper US LLP
2000 University Avenue
East Palo Alto, CA 94303

EX PARTE REEXAMINATION COMMUNICATION TRANSMITTAL FORM

REEXAMINATION CONTROL NO. 90/009,129.

PATENT NO. 7174352.

ART UNIT 3992.

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above identified *ex parte* reexamination proceeding (37 CFR 1.550(f)).

Where this copy is supplied after the reply by requester, 37 CFR 1.535, or the time for filing a reply has passed, no submission on behalf of the *ex parte* reexamination requester will be acknowledged or considered (37 CFR 1.550(g)).

Office Action in Ex Parte Reexamination	Control No. 90/009,129	Patent Under Reexamination 7174352	
	Examiner Woo H. Choi	Art Unit 3992	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

- a Responsive to the communication(s) filed on 29 April 2008. b This action is made FINAL.
c A statement under 37 CFR 1.530 has not been received from the patent owner.

A shortened statutory period for response to this action is set to expire 2 month(s) from the mailing date of this letter. Failure to respond within the period for response will result in termination of the proceeding and issuance of an *ex parte* reexamination certificate in accordance with this action. 37 CFR 1.550(d). **EXTENSIONS OF TIME ARE GOVERNED BY 37 CFR 1.550(c)**. If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. Notice of References Cited by Examiner, PTO-892. 3. Interview Summary, PTO-474.
2. Information Disclosure Statement, PTO/SB/08. 4. _____.

Part II SUMMARY OF ACTION

- 1a. Claims 1-8, 18, 22, 25, 33-36 and 38 are subject to reexamination. 9-17, 19-21, 23, 24, 26-32, 37, 38-62
1b. Claims are not subject to reexamination.
2. Claims _____ have been canceled in the present reexamination proceeding.
3. Claims _____ are patentable and/or confirmed.
4. Claims 1-8, 18, 22, 25, 33-36 and 38 are rejected.
5. Claims _____ are objected to.
6. The drawings, filed on _____ are acceptable.
7. The proposed drawing correction, filed on _____ has been (7a) approved (7b) disapproved.
8. Acknowledgment is made of the priority claim under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some* c) None of the certified copies have
1 been received.
2 not been received.
3 been filed in Application No. _____.
4 been filed in reexamination Control No. _____.
5 been received by the International Bureau in PCT application No. _____.
* See the attached detailed Office action for a list of the certified copies not received.
9. Since the proceeding appears to be in condition for issuance of an *ex parte* reexamination certificate except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte* Quayle, 1935 C.D. 11, 453 O.G. 213.
10. Other: _____

cc: Requester (if third party requester)

Art Unit: 3992

DETAILED ACTION

Reexamination

1. This is an *ex parte* reexamination of U.S. Patent No. 7,174,352 ('352 patent) requested by a third party requester. Claims 1-8, 18, 22, 25, 33-36, and 38 are subject to reexamination. The references discussed herein are as follows:

Hitz et al., *File System Design for an NFS File Server Appliance*, Technical Report 3002, 1994 ("Hitz" or "TR 3002");

Gait, Phoenix: *A Safe In-Memory File System*, Comm. of the ACM, Vol. 33, No. 1, Jan. 1990 ("Gait II")

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-8, 18, 22, 25, 33-36, and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Gait II.

4. With respect to claim 1, Gait II discloses **a file system that stores and retrieves information in a plurality of storage blocks, said file system including:**

Art Unit: 3992

mass storage (p. 81, Phoenix is for use in small diskless computing systems that use battery supported memory chip for storage; see also p. 83, Gait II also discloses a hard disk: “A lock is provided so garbage collection can be delayed while a consistent version of the file system is recorded on a hard disk, ...”) **having said plurality of storage blocks** (see p. 82, Figure 1); **and**

a controller that controls storage and retrieval of information (any computer system with a file system requires a controller that controls storage and retrieval of information), **said information including data and a plurality of snapshots** (see p. 84, Figure 3 shows two snapshots or checkpoints taken at two different points in time) **each including a plurality of bits** (timestamps and/or pointers to root blocks) **associated with each one of said plurality of storage blocks** (see p. 83, a timestamp is associated with each consistent version of the file system), **said controller using at least one of said plurality of bits** (timestamp for the new version) **in a first snapshot to identify whether said one storage block was part of said file system at a time earlier than a current consistent version of said file system** (p. 83, “If there is a system failure, the current time stamp identifies a consistent version of the Phoenix file system during recovery.”), **and said controller using at least a second one of said plurality of bits** (timestamp for the old version) **in a second snapshot to identify whether said one storage block was part of said file system at a second time earlier than a current consistent version of said file system** (p. 83, “As soon as a checkpoint has been completed there are two consistent versions of the file system in memory. The old version is then subject to being garbage collected.”).

Art Unit: 3992

5. With respect to claim 2, the file system includes **an element disposed for selecting storage blocks in response to said one bit and said second one bit associated with said selected storage blocks** (see p. 83, the system selects blocks belonging to the current version of the system for recovery and selects blocks belonging to the old version for garbage collection in response to the time stamp bits).

6. With respect to claim 3, the file system includes **an element disposed for copying said selected storage blocks to a destination** (p. 83, "A lock is provided so garbage collection can be delayed while a consistent version of the file system is recorded on a hard disk, ..." - Gait II disclose copying a consistent version on a hard disk).

7. With respect to claim 4, **said destination includes: a tape, a disk** (see rejection of claim 3 above), **a data structure in a second file system, a set of network messages, or a destination distributed over a plurality of file systems.**

8. With respect to claim 5, the file system includes **an element disposed for selecting storage blocks in response to said one bit associated with said selected storage blocks** (see rejection of claim 2 above).

9. With respect to claim 6, the file system includes **an element disposed for copying said selected storage blocks to a destination** (see claim 3 above).

Art Unit: 3992

10. With respect to claim 7, **said destination includes: a tape, a disk (see claim 3 above), a data structure in a second file system, a set of network messages, or a destination distributed over a plurality of file systems.**

11. With respect to claims 8, see rejection of claims 1 and 2 above.

12. With respect to claim 18, Gait II discloses **a file system having a plurality of storage blocks, said file system including:**

a plurality of snapshots, each snapshot including a plurality of bits associated with a set of member storage blocks selected from said plurality of storage blocks, said member storage blocks forming a consistent file system other than an active file system, each said snapshot being disposed as an object in said file system (see claim 1 above); and

a storage image (a collection of blocks associated with the version of the file system at a checkpoint as pointed to by the root pointer associated with a timestamp; see specification c5:49-51, "As used herein a "storage image" includes indicator of a set of storage blocks in response to one or more snapshots."; see Gait II, Figure 3, timestamp is an indicator of a set of storage blocks belonging to a consistent file system at the time the snapshot is taken at a checkpoint) determined based on said plurality of snapshots, said storage image defining another set of member storage blocks selected from said plurality of storage blocks;

wherein said file system is responsive to at least one file system request with regard to said snapshots (see claim 2).

Art Unit: 3992

12. With respect to claim 22, **said storage image is a result of a set management operation on said set of member storage blocks for any of said snapshots** (a file system version is a result of a set management operation, i.e., operation that manages blocks belonging to different sets or collections; for example, new blocks are only added to the new version of the file system while old block not within the set of blocks belonging to the new version are subject to garbage collection and blocks that are common to both versions are accessible through both).

13. With respect to claim 25, **each of said snapshots includes a data structure identifying which storage blocks in said plurality are member storage blocks of that snapshot** (see Figure 3, timestamps include pointers to root nodes, of file system trees, each of which identifies which storage blocks are members of a version of the file system).

14. With respect to claim 33, see rejection of claims 1 and 2 above.

15. With respect to claim 34, apparatus includes **a storage image defining at least some storage blocks in said file system, said storage image based on an operation on at least two of said snapshots** (see p. 83, image of the collection of blocks to be garbage collected is based on an operation on both versions of the file system, each version being a snapshot of a file system at a specific point in time).

16. With respect to claim 35, see claims 1 and 3 above.

Art Unit: 3992

17. With respect to claim 35, the data structure includes a **second snapshot of a set of member storage blocks selected from said plurality, said member storage blocks forming a consistent file system other than an active file system** (older version of the file system); **said second snapshot being represented as an object in said file system and having a set of storage blocks for recording said second snapshot** (each snapshot of the file system is a version of the file system at a certain point in time and is represented as a tree, i.e., an object, having a set of storage blocks);

whereby copying said member storage blocks in said second snapshot has the property of preserving at least one snapshot recorded in said file system at a time of said second snapshot (This is not a structural or functional limitation. Unlike the functional limitations claimed with “wherein” clauses found in other patented claims, this “whereby” clause describes a property that seems to be inherent in the claimed structure. Gait II’s structure has this property as well).

18. With respect to claim 38, see claim 35 above.

Other References

19. The requester alleged that Hitz (TR 302) discloses, by itself or in combination with other references, features claimed in claims 1-7 and 18. However, TR 302 does not seem to qualify as a prior art reference for most of the claims. The '352 patent claims priority to the application No. 08/071,641 with the filing date of June 3, 1993. TR 302 is written by co-inventors of the '352 patent and it appears to have been published in 1994. U.S. Patent No. 5,819,292, issued from the

Art Unit: 3992

application (No. 08/454,921) which is a continuation of 09/071,641, discloses the same snapshot data structure the requester relies on to allege anticipation. Other references submitted by the requestor may be relevant and material but are not needed to reject the claims at this time, because they do not appear to anticipate or render obvious any claim that is not rejected in this action.

Amendment in Reexamination Proceedings

20. Patent Owner is notified that any proposed amendment to the specification and/or claims in this reexamination proceeding must comply with 37 CFR 1.530(d)-(j), must be formally presented pursuant to 37 CFR 1.52(a) and (b), and must contain any fees required by 37 CFR 1.20(c).

In order to ensure full consideration of any amendments, affidavits or declarations, or other documents as evidence of patentability, such documents must be submitted in response to this Office action. Submissions after the next Office action, which is intended to be a final action, will be governed by the requirements of 37 CFR 1.116, after final rejection and 37 CFR 41.33 after appeal, which will be strictly enforced. See MPEP § 2250(IV) for examples to assist in the preparation of proper proposed amendments in reexamination proceedings.

Service of Papers

21. After filing of a request for ex parte reexamination by a third party requester, any document filed by either the patent owner or the third party requester must be served on the other party (or parties where two or more third party requester proceedings are merged) in the

Art Unit: 3992

reexamination proceeding in the manner provided in 37 CFR 1.248. The document must reflect service or the document may be refused consideration by the Office. See 37 CFR 1.550(f).

Extensions of Time

22. Extensions of time under 37 CFR 1.136(a) will not be permitted in these proceedings because the provisions of 37 CFR 1.136 apply only to "an applicant" and not to parties in a reexamination proceeding. Additionally, 35 U.S.C. 305 requires that *ex parte* reexamination proceedings "will be conducted with special dispatch" (37 CFR 1.550(a)). Extensions of time in *ex parte* reexamination proceedings are provided for in 37 CFR 1.550(c).

Litigation Reminder

23. The patent owner is reminded of the continuing responsibility under 37 CFR 1.565(a) to apprise the Office of any litigation activity, or other prior or concurrent proceeding, involving the '352 patent throughout the course of this reexamination proceeding. The third party requester is also reminded of the ability to similarly apprise the Office of any such activity or proceeding throughout the course of this reexamination proceeding. See MPEP §§ 2207, 2282 and 2286.

Art Unit: 3992

All correspondence relating to this *ex parte* reexamination proceeding should be directed as follows:


By U.S. Postal Service Mail to:

Mail Stop *Ex Parte* Reexam
ATTN: Central Reexamination Unit
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

By FAX to: (571) 273-9900
Central Reexamination Unit

By hand to: Customer Service Window
Randolph Building
401 Dulany St.
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the Reexamination Legal Advisor or Examiner, or as to the status of this proceeding, should be directed to the Central Reexamination Unit at telephone number (571) 272-7705.


Woo H. Choi
Primary Examiner
Central Reexamination Unit 3992

ASK
ESK