

EXHIBIT 4



US007945544B2

(12) **United States Patent**
Farber et al.

(10) **Patent No.:** US 7,945,544 B2
(45) **Date of Patent:** May 17, 2011

(54) **SIMILARITY-BASED ACCESS CONTROL OF DATA IN A DATA PROCESSING SYSTEM**

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(*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 624 days.

(21) **Appl. No.:** 11/980,688

(22) **Filed:** Oct. 31, 2007

(65) **Prior Publication Data**
US 2008/0065635 A1 Mar. 13, 2008

Related U.S. Application Data

(60) Continuation of application No. 11/724,232, filed on Mar. 15, 2007, which is a continuation of application No. 11/017,650, filed on Dec. 22, 2004, which is a continuation of application No. 09/987,723, filed on Nov. 15, 2001, now Pat. No. 6,928,442, which is a continuation of application No. 09/283,160, filed on Apr. 1, 1999, now Pat. No. 6,415,280, which is a division of application No. 08/960,079, filed on Oct. 24, 1997, now Pat. No. 5,978,791, which is a continuation of application No. 08/425,160, filed on Apr. 11, 1995, now abandoned, application No. 11/980,688, which is a continuation of application No. 10/742,972, filed on Dec. 23, 2003, which is a division of application No. 09/987,723, which is a continuation of application No. 09/283,160, which is a division of application No. 08/960,079, which is a continuation of application No. 08/425,160.

(51) **Int. Cl.**
G06F 17/00 (2006.01)
(52) **U.S. Cl.** 707/698; 707/821; 707/822
(58) **Field of Classification Search** 707/609,
707/821-828, 697-698
See application file for complete search history.

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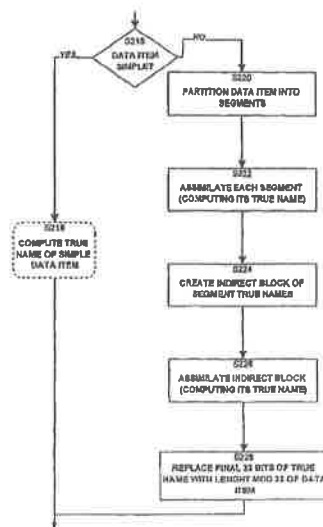
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(57) **ABSTRACT**

Similarity of data items is determined by analyzing corresponding segments of the data items. A function is applied to each segment of a data item and the output of that function is compared to the output of the same function applied to a corresponding segment of another data item. A function may be applied to the output of the functions. The functions may be hash or message digest functions.

56 Claims, 31 Drawing Sheets



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