

ing a database, said database comprising a plurality of data cells, and a transaction engine for performing operations upon said database in response to the entry of data and commands into said system by said user using said input means, a computer-implemented process for creating and providing to the user, at the user's option by entering a request therefor, a data audit trail in said system, wherein some or all of the steps in said process are performed by said transaction engine, said process comprising the steps of:

- a) said transaction engine creating a primary linked list of a number N of said data cells, said number N being a positive, non-zero integer which is less than said plurality, said primary linked list linking data in a first of said data cells to data in a second of said data cells, said primary linked list linking data in said second data cell to data in a third of said data cells, and so forth, with data in the (N-1)th data cell being linked to data in the Nth data cell in said N data cells;
- b) said transaction engine reading an original data of an original data cell of said N data cells from said database;
- c) said user modifying the original data read by said transaction engine and thereby forming a modified data;
- d) said transaction engine storing said modified data in a data cell in said database as a modified data cell which is not one of said N data cells;
- e) said transaction engine linking said modified data cell into said primary linked list and unlinking said original data cell from said primary linked list;
- f) said transaction engine creating a secondary linked list, said secondary linked list linking said modified data in said modified data cell to said original data cell;
- g) in response to a request to view modified data entered into said system by said user, said transaction engine using said primary linked list to retrieve and display data stored in at least a portion of said N data cells, including said modified data; and
- h) in response to a request to view original data entered into said system by said user, said transaction engine using said secondary linked list to retrieve and display said original data stored in said original data cell;

whereby, upon request of said user to view said N data cells or a portion thereof, either said modified data or said original data is displayed, depending upon said user's request, thereby permitting said user, at his option, to review either said modified data or an audit trail which includes said original data.

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2. In a computer system having input means for inputting data and commands into said system by a system user, display means for displaying information to said user, a memory for storing data and instructions, including a database, said database comprising a plurality of data cells, and a transaction engine for performing operations upon said database in response to the entry of data and commands into said system by said user using said input means, a computer-implemented process for creating and providing to the user, at the user's option by entering a request therefor, a data audit trail in said system, wherein some or all of the steps in said process are performed by said transaction engine, said process comprising the steps of:

- a) said transaction engine creating a primary linked list of a number N of said data cells, said number N being a positive, non-zero integer which is less than said plurality, said primary linked list linking data in a first of said data cells to data in a second of said data cells, said primary linked list linking data in said second data cell to data in a third of said data cells, and so forth, with data in the (N-1)th data cell being linked to data in the Nth data cell in said N data cells;
- b) said transaction engine reading an original data of an original data cell of said N data cells from said database;
- c) said user modifying the original data read by said transaction engine and thereby forming a modified data;
- d) said transaction engine storing said modified data in a data cell in said database as a modified data cell which is not one of said N data cells;
- e) said transaction engine creating a secondary linked list, said secondary linked list linking said modified data in said modified data cell to said original data cell;
- f) in response to a request to view original data entered into said system by said user, said transaction engine using said primary linked list to retrieve and display data stored in at least a portion of said N data cells, including said original data; and
- g) in response to a request to view modified data entered into said system by said user, said transaction engine using said secondary linked list to retrieve and display said modified data stored in said modified data cell;

whereby, upon request of said user to view said N data cells or a portion thereof, either said original data or said modified data is displayed, depending upon said user's request, thereby permitting said user, at his option, to review either an audit trail which includes said original data or said modified data.

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