Method of converting a hybrid hard disk drive to a normal HDD

A method of converting a hybrid hard disk drive (HDD) to a normal HDD when a system is powered on depending on whether the total number of defective blocks in a non-volatile cache (NVC) exceeds a predetermined threshold. The method of converting a hard disk drive (HDD) from a hybrid HDD to a normal HDD where the HDD has a normal hard disk and a non-volatile cache includes the steps of determining whether a mode conversion flag is enabled during a power-on period. When the mode conversion flag is enabled, operating the HDD as a normal HDD. When the mode conversion flag is disabled, determining whether an operating mode of the HDD is a normal mode or a hybrid mode. When the operating mode of the HDD is the normal mode, the HDD operates as a normal HDD. A determination is made when the HDD is in the hybrid mode as to whether the total number of defective blocks in the non-volatile cache is greater than a predetermined threshold. The HDD is operated as a hybrid HDD when the total number of defective blocks is not greater than the threshold. The mode conversion flag is enabled and the HDD is operated as a hybrid HDD when the total number of defective blocks is greater than the threshold.

FIG. 3
## DOCUMENTS CONSIDERED TO BE RELEVANT

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<td>Y</td>
<td>US 6 249 838 B1 (KON RONNIE B [US]) 19 June 2001 (2001-06-19) * abstract * * column 7, line 22 - column 8, line 20; figure 3 * * column 10, lines 1-10 *</td>
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**TECHNICAL FIELDS SEARCHED (IPC)**

- G06F
- G11C

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The present search report has been drawn up for all claims

**Place of search:** The Hague

**Date of completion of the search:** 21 February 2013

**Examiner:** Moens, Rudy

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**CATEGORY OF CITED DOCUMENTS**

- X: particularly relevant if taken alone
- Y: particularly relevant if combined with another document of the same category
- A: technological background
- O: non-written disclosure
- P: intermediate document

- T: theory or principle underlying the invention
- E: earlier patent document, but published on, or after the filing date
- D: document cited in the application
- L: document cited for other reasons

- S: member of the same patent family, corresponding document
This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The annex is the European Patent Office EDP file on 21-02-2013.

For more details about this annex: see Official Journal of the European Patent Office, No. 12/82.