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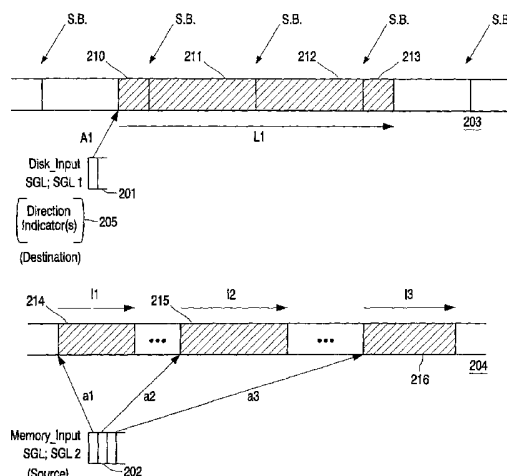
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[Continued on next page]

(54) Title: METHOD AND DEVICE FOR TRANSFERRING DATA BETWEEN A MAIN MEMORY AND A STORAGE DEVICE



(57) Abstract: This invention relates to a device and a method of representing a transfer of data between a main memory and a storage device in a storage system. The invention uses scatter gather lists to describe the data area of both the main memory and of the storage device that are relevant for the data transfer. Further is a direction indicator used to specify whether the disk location is source and the part of the main memory is destination or the other way around. Preferably a surplus previously un-used bit is used as the direction indicator. In this way, an efficient way of handling read, write and/or modify processes is enabled. Further, no actual data is moved during CPU processing, since only references to the data, i.e. tuples, are copied between SGLs which greatly reduces storage and bandwidth requirements. Further, the invention also relates to an efficient way of performing sector alignment using scatter gather lists where, whereby dependency of the CPU is decoupled from the much slower disk/storage input/output.

WO 2004/104846 A3



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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6 021 462 A (BRISBIN JOHN W ET AL) 1 February 2000 (2000-02-01) column 2, line 43 - column 3, line 37 column 5, line 45 - column 16, line 10 -----	1-3, 10-13, 20,21
Y	US 2003/033477 A1 (JOHNSON STEPHEN B ET AL) 13 February 2003 (2003-02-13) figures 3a,3b paragraph '0007! paragraph '0030! -----	1-3, 10-13, 20,21
A	WO 99/34273 A (LSI LOGIC CORP) 8 July 1999 (1999-07-08) abstract; figures 1,2 column 10, line 20 - column 12, line 7 column 12, line 23 - column 13, line 25 ----- -/--	1-21



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Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 802 546 A (CHISHOLM DOUGLAS RODERICK ET AL) 1 September 1998 (1998-09-01) column 5, line 58 - column 8, line 50 -----	1-21

INTERNATIONAL SEARCH REPORT

Information on patent family members

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US 2003033477	A1	13-02-2003	NONE	
WO 9934273	A	08-07-1999	WO 9934273 A2	08-07-1999
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