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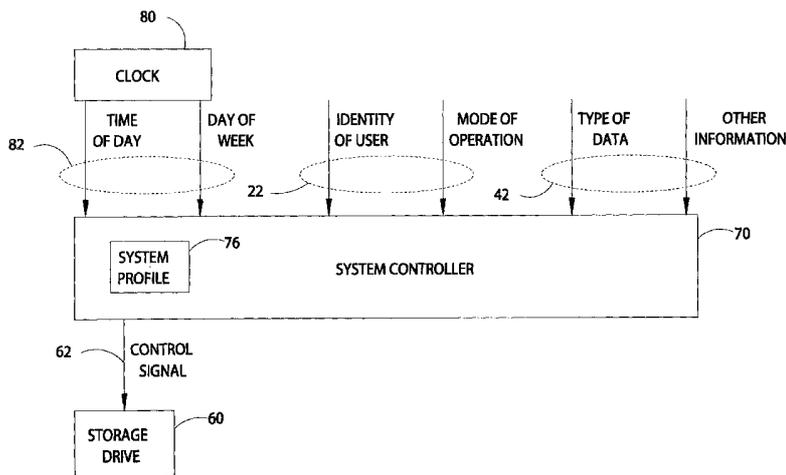
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(54) Title: DATA STORAGE SYSTEM THAT SELECTS PERFORMANCE LEVEL AND ACOUSTIC NOISE LEVEL BASED ON SYSTEM PROFILE



(57) Abstract: A data storage system and a method of controlling the acoustic noise generated by a storage drive of a data storage system. The data storage system includes a system controller (70) and a storage drive (60) adapted to operate in a selected operational state of a plurality of operational states. Each operational state generates a corresponding acoustic noise level and performance level. The system controller (70) includes a system profile (76) and is adapted to: receive a variable parameter; use the variable parameter as an index to the system profile to autonomously select one of the operational states as the selected operational state; and transmit a control signal to the storage drive (60). The control signal corresponds to the selected operational state and causes the storage drive to enter the selected operational state, thereby controlling the acoustic noise and the performance level of the storage drive in response to the at least one variable parameter.



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INTERNATIONAL SEARCH REPORT

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PCT/US01/50399

A. CLASSIFICATION OF SUBJECT MATTER																				
IPC(7) : G11B 5/56; G06F 3/00 US CL : Please See Extra Sheet. According to International Patent Classification (IPC) or to both national classification and IPC																				
B. FIELDS SEARCHED																				
Minimum documentation searched (classification system followed by classification symbols) U.S. : 360/31, 75, 78.04, 78.05, 78.07; 710/1, 5, 15																				
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 practicable, search terms used) WEST Database																				
C. DOCUMENTS CONSIDERED TO BE RELEVANT																				
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.																		
Y	US 5,760,992A (PHAN et al) 02 June 1998, col. 3, lines 7-67; col. 11, lines 21 - col. 12, line 67; col. 21, line 30 - col. 25, line 30.	1-50																		
Y	US 5,657,179A (MCKENZIE) 12 August 1997, col. 3, line 7 - col. 4 line 41; col. 13, line 12 - col. 14, line 46.	1-2, 27-28																		
A, E	US 6,314,473 B1 (SINGER et al) 06 November 2001, see the entire document.	1-50																		
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.																				
<table border="0" style="width:100%;"> <tr> <td style="width:33%;">* Special categories of cited documents:</td> <td style="width:33%;">"T"</td> <td style="width:34%;">later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</td> </tr> <tr> <td>"A" document defining the general state of the art which is not considered to be of particular relevance</td> <td>"X"</td> <td>document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</td> </tr> <tr> <td>"E" earlier document published on or after the international filing date</td> <td>"Y"</td> <td>document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</td> </tr> <tr> <td>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</td> <td>"G"</td> <td>document member of the same patent family</td> </tr> <tr> <td>"O" document referring to an oral disclosure, use, exhibition or other means</td> <td></td> <td></td> </tr> <tr> <td>"P" document published prior to the international filing date but later than the priority date claimed</td> <td></td> <td></td> </tr> </table>			* Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	"E" earlier document published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art	"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"G"	document member of the same patent family	"O" document referring to an oral disclosure, use, exhibition or other means			"P" document published prior to the international filing date but later than the priority date claimed		
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A. CLASSIFICATION OF SUBJECT MATTER:

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