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(54) **METHOD OF STORING ITEMS OF DATA**

(57) A computer-implemented method of storing an item of data across a plurality of storage media, the method comprising the steps of: receiving an item of data to be stored; splitting the item of data into N pieces of data; generating M redundancy pieces of data, usable to rebuild the item of data; storing each of the N pieces of data and M redundancy pieces of data on separate stor-

age media of the plurality of storage media at a same offset within a file of the respective storage medium, the files of the storage media containing the N pieces of data and the M redundancy pieces of data being associated as a file set; and storing, separately to the N pieces of data and M redundancy pieces of data, the offset and the file set.

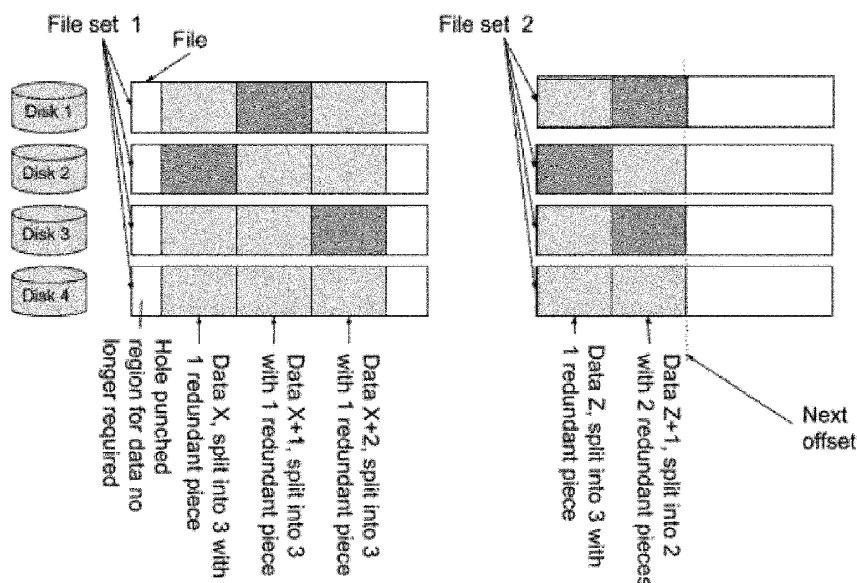


Fig. 1



EUROPEAN SEARCH REPORT

Application Number
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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 2019/050289 A1 (KACHARE RAMDAS P [US] ET AL) 14 February 2019 (2019-02-14) * page 3, paragraph 52 - page 7, paragraph 78; claims 1,4; figures 2A, 2B,3,5,6,8,9,10,11,12,13 *	1-7,10, 12,13,16	INV. G06F11/10
X	US 2018/018231 A1 (OKADA MITSUHIRO [JP] ET AL) 18 January 2018 (2018-01-18) * page 3, paragraph 45 - paragraph 50; figures 1,3,4 *	1-7,10, 12,13,16	

			TECHNICAL FIELDS SEARCHED (IPC)
			G06F
-The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 9 September 2020	Examiner Bauer, Regine
CATEGORY OF CITED DOCUMENTS		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 & : member of the same patent family, corresponding document	
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			

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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

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Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

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No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

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LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

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see sheet B

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All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

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As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

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Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

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None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

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1-7, 10, 12, 13, 16

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The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



**LACK OF UNITY OF INVENTION
SHEET B**

Application Number
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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

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1. claims: 1-7, 10, 12, 13, 16

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Method of storing an item of data in a RAID system:
splitting the item of data into N pieces of data; generating
M redundancy pieces of data, storing each of the N pieces of
data and M redundancy pieces of data on separate storage
media of the plurality of storage media at a same offset
within a file of the respective storage medium, the files of
the storage media containing the N pieces of data and the M
redundancy pieces of data being associated as a file set;
and storing, separately to the N pieces of data and M
redundancy pieces of data, the offset and the file set.
determining a value of M and N based on one or more
properties of the item of data and/or one or more properties
of the plurality of storage after receiving the item of data
to be stored.

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2. claims: 8, 9

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Managing a RAID system:
implementation details of removing an expired item of data.

3. claims: 11, 14, 15

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Managing a RAID system:
implementation details on rebuilding of lost of data.

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

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5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

09-09-2020

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82