

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
6 December 2007 (06.12.2007)

PCT

(10) International Publication Number
WO 2007/138600 A3

- (51) International Patent Classification: G06F 13/00 (2006.01)
 - (21) International Application Number: PCT/IL2007/000666
 - (22) International Filing Date: 31 May 2007 (31.05.2007)
 - (25) Filing Language: English
 - (26) Publication Language: English
 - (30) Priority Data:

| | | |
|------------|---------------------------|----|
| 60/809,382 | 31 May 2006 (31.05.2006) | US |
| 60/819,369 | 10 July 2006 (10.07.2006) | US |
| 60/834,165 | 31 July 2006 (31.07.2006) | US |
| 60/904,782 | 5 March 2007 (05.03.2007) | US |
 - (71) Applicant (for all designated States except US): STOREWIZ INC. [US/US]; 21 Firstfield Road, Suite 260, Gaithersburg, MD 20878 (US).
 - (72) Inventors; and
 - (75) Inventors/Applicants (for US only): KOIFMAN, Haim [IL/IL]; 6/6 Azmoram Street, 75497 Rishon Lezion (IL). KEDEM, Nadav [IL/IL]; 19 Sasha Argov Street, 69620 Tel Aviv (IL). ZOCHAR, Avi [IL/IL]; 6 Daliot Street, 48580 Rosh Haain (IL).
 - (74) Agent: REINHOLD COHN AND PARTNERS; P.O.B. 4060, 61040 Tel-Aviv (IL).
 - (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
 - (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Declaration under Rule 4.17:**
— of inventorship (Rule 4.17(iv))
- Published:**
— with international search report
- (88) Date of publication of the international search report:**
13 November 2008

(54) Title: METHOD AND SYSTEM FOR TRANSFORMATION OF LOGICAL DATA OBJECTS FOR STORAGE

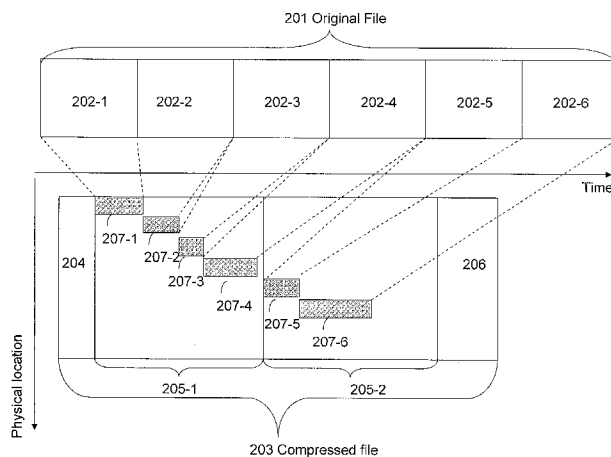


Figure 2a

(57) Abstract: A method and system for compressing a raw logical data object (201) for storage in a storage device operable with at least one storage protocol, creating, reading, writing, optimizing in and restoring thereof. Compressing the raw logical data object (201) comprises creating in the storage device a compressed logical data object (203) comprising header (204) and one or more allocated compressed sections with predefined size (205-1 - 205-2); compressing one or more sequentially obtained chunks of raw data (202-1 - 202-6) corresponding to the raw logical data object (201) thus giving rise to the compressed data chunks (207-1 - 207-6); and sequentially accommodating the processed data chunks into said compressed sections (205-1 - 205-2) in accordance with an order said chunks received, wherein said compressed sections serve as atomic elements of compression/decompression operations during input/output transactions on the logical data object.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/IL07/00666

A. CLASSIFICATION OF SUBJECT MATTER

IPC: G06F 13/00(2006.01)

USPC: 711/154

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. : 711/154, 707/101

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)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------------------|
| Y | US 6,092,071 (BOLAN et al) 18 July 2000 (18.07.2000), descriptions to Fig. 2, 8, 10 | 1-35 |
| X | US 5,813,011 (YOSHIDA et al) 22 September 1998 (22.09.1998), column 5, lines 33-67, column 6, lines 1-30. Fig. 3, 4, 10, 11 and related descriptions | 1-3, 5, 8-12, 14-23, 25-26, 29-35 |
| Y | | 4, 6, 7, 13, 19, 24, 27, 28 |
| A | US 5,956,504 (JAGADISH et al) 21 September 1999 (21.09.1999), column 3, lines 46-60 | 5-6 |
| Y | US 6,532,121 B1 (RUST et al) 11 March 2003 (11.03.2003) column 11-12, lines 42-3 | 5-6 |
| Y | US 5,561,421 (SMITH et al) 1 October 1996 (1.10.1996), column 4, lines 47-60 | 5-6 |

Further documents are listed in the continuation of Box C.

See patent family annex.

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Date of the actual completion of the international search

07 June 2008 (07.06.2008)

Date of mailing of the international search report

08 JUL 2008

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (571) 273-3201

Authorized officer

Reginald Bragdon

Telephone No. (571) 272-9771



INTERNATIONAL SEARCH REPORT

International application No.
PCT/IL07/00666

| C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT | | |
|---|--|-----------------------|
| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| Y | US 5,293,379 (Carr) 8 March 1994 (08.03.1994), column 5-6, lines 53-3 | 19 |
| Y | US 5,586,280 (SIMMS) 17 December 1996 (17.12.1996), column 10, lines 51-61 | 7 |
| Y | US 5,765,157 (LINDHOLM et al) 9 June 1998 (09.06.1998), Column 7-8, lines 51-5 | 27 |
| Y | US 5,960,401 (RAO et al) 28 September 1999 (28.09.1999), column 12, lines 1-15 | 13 |

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IL07/00666

Continuation of B. FIELDS SEARCHED Item 3:
EAST, IEEE Xplore
search terms: compress, library, sequential, linear