



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification⁶:

G11C

A1

(11) International Publication Number:

WO 98/43248

(43) International Publication Date:

1 October 1998 (01.10.98)

(21) International Application Number: PCT/EP97/02112

(22) International Filing Date: 25 April 1997 (25.04.97)

(30) Priority Data:

97400650.4 21 March 1997 (21.03.97) EP

(34) Countries for which the regional or international application was filed: FR et al.

(71) Applicant (for all designated States except US): CANAL+ SOCIETE ANONYME [FR/FR]; 85/89, quai André Citroën, F-75711 Paris Cedex 15 (FR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): SARFATI, Jean-Claude [FR/FR]; 2-4, place d'Oberursel, F-93800 Epinay sur Seine (FR). DECLERCK, Christophe [FR/FR]; 3, rue des Ormes Dancourt, F-28210 Senantes (FR).

(74) Agent: COZENS, Paul, Dennis; Mathys & Squire, 100 Grays Inn Road, London WC1X 8AL (GB).

(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).

Published

With international search report.

(54) Title: COMPUTER MEMORY ORGANIZATION

(57) Abstract

In a memory in a computer system, buffers are defined by a buffer management system. A set Buffers command defines a number (NP) of pools of buffers, and for each pool, a pool size (PS) of the number of buffers in the pool and the size (BS) of the buffers in that pool. The buffer management system is initialized to store the buffer sizes and to cumulate and store the pool sizes. To address a buffer, the buffer management system determines the address of the start of the buffer from the desired pool and buffer numbers, using the stored information. Also, for updating a paged flash memory, a page P_n of the flash memory (4024) is copied as an image page into RAM memory (4022), and the image page is updated and written back into a different page in the flash memory. A main record table (22) is held in a separate non-volatile memory (EEPROM 4026), identifying valid page pages in the flash memory, and is updated when a page in the flash memory has been updated. The main record table includes a CRC error detection section (25), and is copied into a back-up record table (23) immediately after it has been updated.

