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(21) International Application Number: PCT/US98/20746 (22) International Filing Date: 30 September 1998 (30.09.98) (30) Priority Data: 08/940,834 30 September 1997 (30.09.97) US (71) Applicant (for all designated States except US): IDEA CORPORATION [US/US]; 19447 Pruneridge Avenue, Cupertino, CA 95014 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): ROSS, Jonathan, K. [US/US]; 974 Lorne Way, Sunnyvale, CA 94087 (US). COUTANT, Cary, A. [US/US]; 13478 Briar Court, Saratoga, CA 95070 (US). THOMPSON, Carol, L. [US/US]; 6937 Calabazas Creek Circle, San Jose, CA 95129 (US). ZAHIR, Achmed, R. [GB/US]; 428 Glenwood Avenue, Menlo Park, CA 94025 (US). (74) Agents: MALLIE, Michael, J. et al.; Blakely, Sokoloff, Taylor & Zafman LLP, 7th floor, 12400 Wilshire Boulevard, Los Angeles, CA 90025 (US).		(81) Designated States: AL, AM, AT, AT (Utility model), AU (Petty patent), AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ (Utility model), DE, DE (Utility model), DK, DK (Utility model), EE, EE (Utility model), ES, FI, FI (Utility model), GB, GD, GE, GH, GM, HR, HU, ID, 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, SK (Utility model), SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: METHOD AND APPARATUS FOR TRANSFERRING DATA BETWEEN A REGISTER STACK AND A MEMORY RESOURCE

(57) Abstract

A computer-implemented method and apparatus for transferring the contents of a general register (80), in a register stack (86), to a location in a backing store (94) in a main memory (82). When transferring the contents of a general register to a location in the backing store, the invention proposes collecting attribute bits included in each general register of a predetermined group of registers in a temporary collection register (108 or 110). Once the temporary collection register has been filled, the contents of this register are written to the next available location in the backing store. Similarly, on the restoration of registers from the backing store, a collection of attribute bits saved in the backing register is transferred to a temporary collection register. Thereafter, each attribute bit is saved together with associated data into a general register, thereby to restore the former contents of each general register.

