(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
6 June 2002 (06.06.2002)

PCT

(10) International Publication Number
WO 02/44943 A2

(51) International Patent Classification[7]: G06F 17/30

(21) International Application Number: PCT/IB01/02792

(22) International Filing Date:
29 November 2001 (29.11.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

00403329.6	29 November 2000 (29.11.2000)	EP
00403330.4	29 November 2000 (29.11.2000)	EP
00403331.2	29 November 2000 (29.11.2000)	EP
00403332.0	29 November 2000 (29.11.2000)	EP

(71) Applicant: **LAFAYETTE SOFTWARE INC.** [US/US]; Five Palo Alto Square, 3000 El Camino Real, Palo Alto, CA 94306 2155 (US).

(72) Inventor: **KOSKAS, Elie, Ouzi**; 9, Allée Eridan, F-95350 Saint Brice Sous Foret (FR).

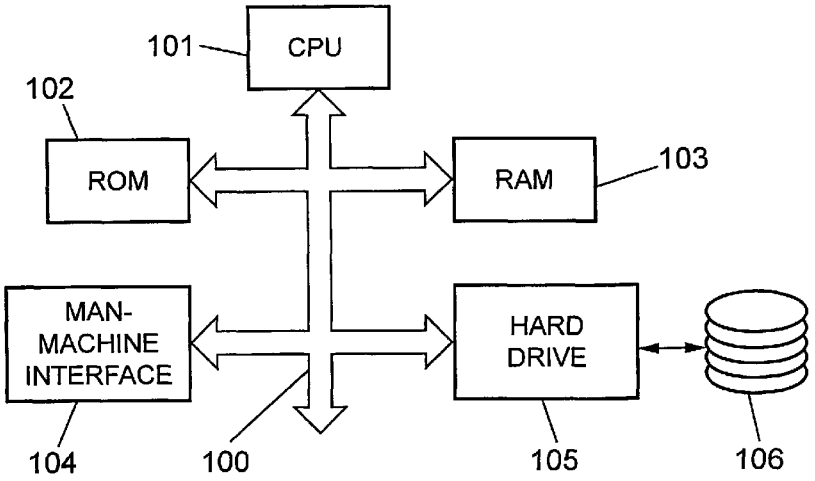
(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, 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, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *without international search report and to be republished upon receipt of that report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHODS OF ORGANIZING DATA AND PROCESSING QUERIES IN A DATABASE SYSTEM, AND DATABASE SYSTEM AND SOFTWARE PRODUCT FOR IMPLEMENTING SUCH METHODS



(57) Abstract: A reference table has columns associated with data attributes and rows containing related words assigned to those attributes in a collection of data, those words coming from different data tables having independent numbers of records. The stored data include word thesauruses associated with the attributes, and reference table row identifier lists respectively associated with thesaurus entries. Each word thesaurus associated with an attribute has a respective entry for each word assigned to this data attribute in the collection of data. The reference table, which may be a virtual table, defines a unified algebraic framework for the entries of all the thesauruses. Query criteria can be examined with reference to the relevant thesauruses to obtain a row-ID list or bitmap vector which represents all the reference table rows matching the query criteria, if any. The results can then be delivered through the original data tables, or preferably, by means of the thesauruses.

WO 02/44943 A2