



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

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<b>(21) International Application Number:</b> PCT/US96/18833 <b>(22) International Filing Date:</b> 7 November 1996 (07.11.96) <b>(30) Priority Data:</b> 60/006,317 7 November 1995 (07.11.95) US <b>(71) Applicant:</b> CADIS, INC. [US/US]; 1909 26th Street, Boulder, CO 80302 (US). <b>(72) Inventors:</b> BEALL, Christopher, W.; 679 Cougar Drive, Boulder, CO 80302 (US). MOTYCKA, John, D.; 30130 Chestnut Drive, Evergreen, CO 80439 (US). PENDLETON, Samuel, S.; 976 West Dahlia Street, Louisville, CO 80027 (US). TERPENING, Brooke; 25221 Westridge Road, Golden, CO 80401 (US). NEAL, Michael; 1622 S. Riverbend Lane, Superior, CO 80027 (US). APPELBAUM, Matthew, A.; 200 Pawnee Drive, Boulder, CO 80303 (US). <b>(74) Agents:</b> LEACH, Sid et al.; Baker & Botts, L.L.P., 910 Louisiana, Houston, TX 77002 (US).		<b>(81) Designated States:</b> AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, 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, UZ, VN, ARIPO patent (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). <b>Published</b> <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> <b>(88) Date of publication of the international search report:</b> 31 July 1997 (31.07.97)
<b>(54) Title:</b> SEARCH ENGINE FOR REMOTE OBJECT ORIENTED DATABASE MANAGEMENT SYSTEM		
<b>(57) Abstract</b>		
<p>A system is disclosed for remotely accessing database management systems (5130) and performing guided iterative queries of knowledge bases (110) over a communication circuit such as the Internet (5124). The system includes a Web browser (5120) having a Java™ runtime environment (4015), and executable content client (5121) that may be downloaded from a remote location (103). A Krakatoa proxy server (5128), socket (5021) and tunnel (5129) establish a mechanism for remote procedure calls through firewalls (5126) via an HTTP server (5127). Guardrail counts (750) are preferably displayed to the remote searcher to facilitate guided iterative queries of the remote knowledge base (110). A configurable graphical action region (700) is preferably provided to the remote searcher via a graphic user interface to provide powerful navigation and linking of diverse useful information which varies based upon contexts selected by the remote searcher.</p> <pre> graph TD     111[111] --- 116[116]     113[113] --- 112[112]     119[119] --- 118[118]     111 --- 117[117]     112 --- 114[114]     118 --- 120[120]     114 --- 115[115]     120 --- 121[121]     115 --- 107[107]     121 --- 109[109]     107 --- 104[104]     109 --- 132[132]     104 --- 102[102]     132 --- 110[110]     109 --- 106[106]     106 --- 108[108]     106 --- 5127[5127]     5127 --- 103[103]     106 --- 5128[5128]     5128 --- 5129[5129]     5129 --- 5126[5126]     5126 --- 110     5124[5124] --- 106     5124 --- 5127     5124 --- 111     5124 --- 113     5124 --- 119   </pre>		

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## INTERNATIONAL SEARCH REPORT

 International application No.  
PCT/US96/18833

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : G06F 17/30, 15/163

US CL : 395/680, 683, 200.03

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. : 395/680, 683, 200.03

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)

APS

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y,P	US 5,560,005 A (HOOVER ET AL) 24 SEPTEMBER 1996 col. 11, lines 1-68, col. 12, lines 1-68, col. 13, lines 1-40	1-7
Y,P	US 5,530,852 A (MESKE, JR. ET AL.) 25 JUNE 1996 col. 5, lines 1-68, col. 6, lines 1-68, col. 10, lines 1-68, col.	1-7
Y	US 5,404,506 A (FUJISAWA ET AL) 04 APRIL 1995 col. 11, lines 1-68, col. 12, lines 1-68	1-7
Y	US 5,218,699 A (BRANDLE ET AL) 08 JUNE 1993 col. 5, lines 1-68, col. 6, lines 1-68, col. 7, lines 1-68	1-7

☒ Further documents are listed in the continuation of Box C.
 ☐ See patent family annex.

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*P* document published prior to the international filing date but later than the priority date claimed	

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# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US96/18833

## 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 5,446,883 A (KIRKBRIDE ET AL) 29 AUGUST 1995 col. 3, lines 1-68, col. 4, lines 1-68, col. 5, lines 1-68	1-7
Y	US 5,398,336 A (TANTRY ET AL) 14 MARCH 1995 col 9, lines 1-68, col. 10, lines 1-68, col. 12, lines 1-68	1-7
Y	US 5,416,917 (ADAIR ET AL) 16 MAY 1995 col. 6, lines 1-68, col. 8, lines 1-68	1-7
Y	US 5,446,880 A (BALGEMAN ET AL) 29 AUGUST 1995 col. 5, lines 1-68, col. 7, lines 1-68	1-7