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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
15 November 2001 (15.11.2001)

PCT

(10) International Publication Number
WO 01/086434 A3

(51) International Patent Classification[7]: G06F 9/44, 9/46

(21) International Application Number: PCT/US01/14930

(22) International Filing Date: 8 May 2001 (08.05.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/202,734 8 May 2000 (08.05.2000) US

(71) Applicant: **TRANSILICA, INC.** [US/US]; 6440 Lusk Boulevard, Suite D205, San Diego, CA 92121 (US).

(72) Inventor: **KWAN, Dennis**; 13212 Jacarte Court, San Diego, CA 92130 (US).

(74) Agents: **MALLIE, Michael, J.** et al.; Blakely, Sokoloff, Taylor & Zafman LLP, 12400 Wilshire Boulevard, 7th Floor, Los Angeles, CA 90025 (US).

(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, 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, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

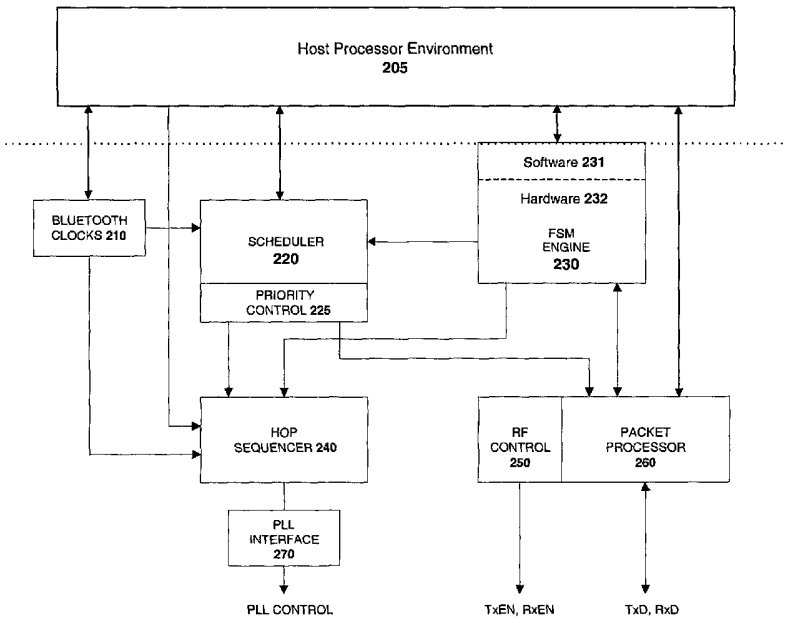
(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

(88) Date of publication of the international search report:
30 January 2003

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: SOFTWARE MODEM ARCHITECTURE



(57) Abstract: A system is described comprising: a finite state machine having a plurality of states interconnected through a plurality of events, wherein certains states and events in said plurality are implemented in software and other states and events in said plurality are implemented in hardware; and a scheduler communicatively coupled to the finite state machine and being programmable with one or more parameters defining scheduled operations to be performed by the scheduler, wherein the finite state machine is configured toselect one or more of said parameters to be used by said scheduler upon transition by said finite state machine from a first state to a second state.

WO 01/086434 A3

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 01/14930

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G06F9/44 G06F9/46

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)
IPC 7 G06F

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 practical, search terms used)

EPO-Internal, INSPEC, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	HARDT W: "AN AUTOMATED APPROACH TO HW/SW-CODESIGN" IEE COLLOQUIUM ON PARTITIONING IN HARDWARE-SOFTWARE CODESIGNS (DIGEST NO.1995/032), LONDON, UK, 'Online! 13 February 1995 (1995-02-13), pages 4/1-4/11, XP002197757 Retrieved from the Internet: <URL:http://ieeexplore.ieee.org/iel3/3369/10035/00478126.pdf?isNumber=10035&prod=CNF&arnumber=478126&arSt=4%2F1&ared=411&arAuthor=Hardt%2C+W.> 'retrieved on 2002-04-29! abstract page 1, line 16 -page 2, line 8 --- -/--	1,13,20

[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

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

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
25 July 2002	07/08/2002

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Archontopoulos, E

Form PCT/ISA/210 (second sheet) (July 1992)

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 01/14930

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication,where appropriate, of the relevant passages	Relevant to claim No.
A	WO 00 16534 A (CONEXANT SYSTEMS INC) 23 March 2000 (2000-03-23) abstract page 4, line 15 -page 5, line 19 page 6, line 11 - line 22	1,13,20

Form PCT/ISA/210 (continuation of second sheet) (July 1992)

INTERNATIONAL SEARCH REPORT

nation on patent family members

Internal Application No
PCT/US 01/14930

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 0016534 A	23-03-2000	US 2001039596 A1	08-11-2001
		AU 2891799 A	20-09-1999
		AU 2984899 A	20-09-1999
		EP 1060614 A1	20-12-2000
		EP 1060615 A1	20-12-2000
		EP 1114548 A1	11-07-2001
		WO 9945694 A1	10-09-1999
		WO 9945695 A1	10-09-1999
		WO 0016534 A1	23-03-2000
		US 6314475 B1	06-11-2001
		US 2001039573 A1	08-11-2001