PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 7:

G06F 15/163

(11) International Publication Number: WO 99/35548

(43) International Publication Date: 15 July 1999 (15.07.99)

(21) International Application Number: PCT/US99/00307

(22) International Filing Date: 7 January 1999 (07.01.99)

(30) Priority Data: 09/003,684 7 January 1998

 09/003,684
 7 January 1998 (07.01.98)
 US

 09/004,174
 7 January 1998 (07.01.98)
 US

 09/003,993
 7 January 1998 (07.01.98)
 US

(71) Applicant: I. Q. SYSTEMS, INC. [US/US]; 75 Glen Road, Sandy Hook, CT 06482 (US).

(72) Inventor: ROBINSON, Jeffrey, I.; 37 Eastview Drive, New Fairfield, CT 06812 (US).

(74) Agent: GORDON, David, P.; 65 Woods End Road, Stamford, CT 06905 (US). (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, GM, 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, SL, TJ, TM, TR, TT, UA, UG, 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).

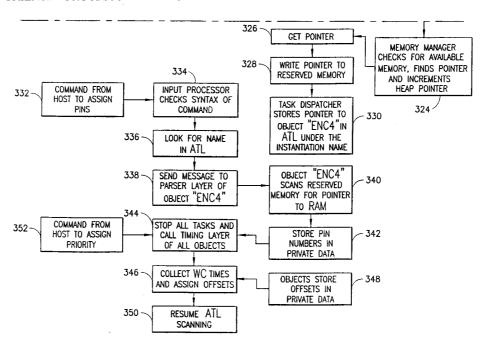
Published

With international search report.

(88) Date of publication of the international search report:

26 October 2000 (26.10.00)

(54) Title: OBJECT ORIENTED PROCESSOR ARRAYS



(57) Abstract

An object oriented processor array includes a library (20) of functional objects which are instantiated by commands through a system object and which communicate via a high level language. The object oriented processor array may be embodied in hardware, software, or a combination of hardware and software. Each functional object may include a discrete hardware processor or may be embodied as a virtual processor within the operations of a single processor. In one embodiment, the object oriented processor array is formed on a single chip or on a single processor chip and an associated memory chip, pins may be assigned to each object via a high level command language. Methods and apparatus for allocating memory (38) to instantiated objects are disclosed with instantiated objects communicating directly with a script server which is programmed to react to data events generated by instantiated objects.

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
ΑZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav	TM	Turkmenistan
BF	Burkina Faso	GR	Greece		Republic of Macedonia	TR	Turkey
BG	Bulgaria	HU	Hungary	ML	Mali	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MN	Mongolia	UA	Ukraine
BR	Brazil	IL	Israel	MR	Mauritania	UG	Uganda
BY	Belarus	IS	Iceland	MW	Malawi	US	United States of America
CA	Canada	IT	Italy	MX	Mexico	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NE	Niger	VN	Viet Nam
CG	Congo	KE	Kenya	NL	Netherlands	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NO	Norway	zw	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's	NZ	New Zealand		
CM	Cameroon		Republic of Korea	PL	Poland		
CN	China	KR	Republic of Korea	PT	Portugal		
CU	Cuba	KZ	Kazakstan	RO	Romania		
CZ	Czech Republic	LC	Saint Lucia	RU	Russian Federation		
DE	Germany	LI	Liechtenstein	SD	Sudan		
DK	Denmark	LK	Sri Lanka	SE	Sweden		
EE	Estonia	LR	Liberia	SG	Singapore		

INTERNATIONAL SEARCH REPORT

International application No. PCT/US99/00307

A. CLASSIFICATION OF SUBJECT MATTER IPC(7): G06F 15/163 US CL: 709/303, 300,223,400 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. : 709/303, 300,223,400								
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)								
WEST, IEEE, ACM,		•	•					
object, virtual, processor								
	ONSIDERED TO BE RELEVANT							
Category* Citation								
Charles Charles	or document, with indication, where ap	propriate, of the relevant pass	ages Relevant to claim No.					
	2,193 A (JAGANNATHAN enes 65 - col 29, lines 67	al.) 25 NOVEMBER	1997, 1-45					
	US 5,634,070 A (ROBINSON) 27 MAY 1997, col 3, lines 62 - col 21, lines 58							
	US 5,165,018 A (SIMOR) 17 NOVEMBER 1992, col 4, lines 45 - col 20, lines 2							
	US 5,307,495 A (SEINO et al.) 26 APRIL 1994, col 3, lines 6 - col 11, lines 27							
			·					
Further documents are listed in the continuation of Box C. See patent family annex.								
Special categories of	Rer the international filing date or priority							
"A" document defining to be of particular r	the general state of the art which is not considered	date and not in conflict wi the principle or theory und	th the application but cited to understand lerlying the invention					
•	iblished on or after the international filing date		evance; the claimed invention cannot be be considered to involve an inventive step					
	ay throw doubts on priority claim(s) or which is the publication date of another citation or other	when the document is take						
apecial reason (as s		"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						
P document published the priority date cla	prior to the international filing date but later than	*&* document member of the same patent family						
Date of the actual completion of the international search Date of mailing of the international search report								
18 JUNE 2000		10 Jl	JL 20 00					
Name and mailing addre Commissioner of Patents Box PCT		Authorized officer Alvin Oberley Alvin Oberley						
Washington, D.C. 20231 Facsimile No. (703) 3	05-3230	Alvin Oberley Telephone No. (703) 305.6	0716					
1400 (103) 3	vu-u∠u∪	Telephone No. (703) 305-9	7/10					