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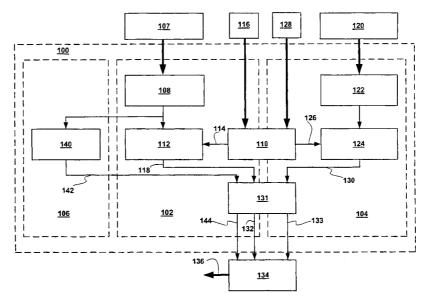
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(54) Title: METHOD AND APPARATUS FOR ADAPTIVE CO-VERIFICATION OF SOFTWARE AND HARDWARE DESIGNS



(57) Abstract: A simulation system (100) is provided for simulating behavior of a device for implementing an algorithm using a software model (107) and a hardware model (120) which are converted to a common programming language and mathematical notation. The simulation system (100) uses the same input user interface (110) for the software model (107) and the hardware model (120). Further, the simulation system (100) uses the same output user interface for generating the simulation results for both the software model (107) and the hardware model (120) in the common programming language and mathematical notation, thereby allowing a user to easily verify and analyze the software and hardware simulation results (133) for optimization of the device.



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## INTERNATIONAL SEARCH REPORT

International application No. PCT/US01/07154

A. CLASSIFICATION OF SUBJECT MATTER				
IPC(7) :G06F 9/455, 17/50, 19/00 US CL :703/2, 14, 22; 709/102; 716/5				
	to International Patent Classification (IPC) or to both	national classification and IPC		
B. FIEL	DS SEARCHED			
Minimum d	ocumentation searched (classification system follower	ed by classification symbols)		
U.S.: 703/2, 13, 14, 22; 709/102, 104; 712/28; 716/1, 5				
Documentat	ion searched other than minimum documentation to the	e extent that such documents are included i	n the fields searched	
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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  IEL/IEEE, STN: USPATFULL, INSPEC, EUROPATFULL				
ILL/ILLL	L, STN. USFATI OLL, INSPEC, EUROPATPULL			
C. DOC	UMENTS CONSIDERED TO BE RELEVANT			
Category*	Citation of document, with indication, where a	ppropriate, of the relevant passages	Relevant to claim No.	
A, P	US 6,086,628 A (DAVE et al) 11Ju	ly 2000, Background of the	1-10	
	Invention, Summary of the Invention.			
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A, P	US 6,097,886 A (DAVE et al) 01 August 2000, Background of the Invention, Summary of the Invention.			
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X	ELES et al., P. VHDL System-Level Specification and Partitioning in a Hardware/Software Co-Synthesis Environment, Proceedings of			
	the Third International Symposium on I	Hardware/Software Codesign,		
	1994, pages 49-55.			
X Further documents are listed in the continuation of Box C. See patent family annex.				
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mea	ans	being obvious to a person skilled in the	ne art	
	P* document published prior to the international filing date but later than "&" document member of the same patent family the priority date claimed		family	
Date of the	actual completion of the international search	Date of mailing of the international sea	rch report	
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## INTERNATIONAL SEARCH REPORT

Int...ational application No.
PCT/US01/07154

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
Category	Charlot of document, while induction, where appropriate, of the relevant passages	Relevant to claim 140
ζ	ALLARA et al., A. A Flexible Model for Evaluating the Behavior of Hardware/Software Systems, Proceedings of the International Workshop on Hardware/Software Codesign, 1997, CODES/CASHE '97, pages 109-114.	1-10
ζ	EGOLF et al., T.W. Fixed-Point Co-Design in DSP, VLSI SIgnal Processing, VII, 1994, pages 113-126.	1-10
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