

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
8 February 2007 (08.02.2007)

PCT

(10) International Publication Number
WO 2007/016699 A3

(51) International Patent Classification:
G01R 31/3183 (2006.01)

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(21) International Application Number:
PCT/US2006/030417

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(22) International Filing Date: 2 August 2006 (02.08.2006)

(81) **Designated States** (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
11/195,180 2 August 2005 (02.08.2005) US

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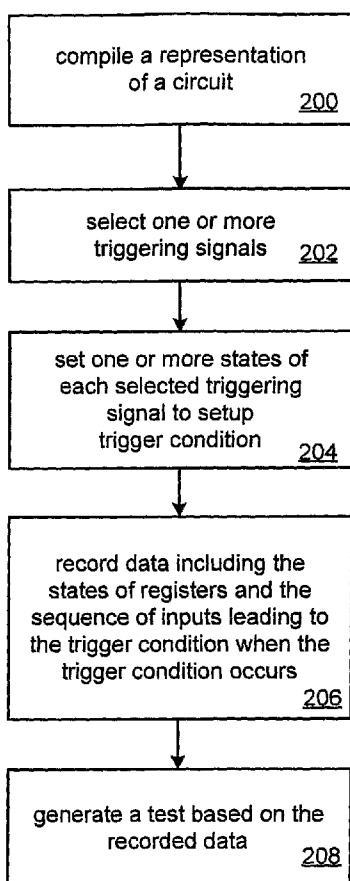
(84) **Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

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[Continued on next page]

(54) Title: METHOD AND SYSTEM FOR DEBUG AND TEST USING REPLICATED LOGIC



(57) **Abstract:** A method and system for debug and test using replicated logic is described. A representation of a circuit is compiled. The circuit includes a replicated portion and delay logic to delay inputs into the replicated portion. The circuit may also include trigger logic and clock control logic to enable execution of the replicated portion of the circuit to be paused when a trigger condition occurs. The compiled representation of the circuit may be programmed into a hardware device. A debugger may then be invoked. One or more triggering signals are selected. For each selected triggering signal, one or more states are selected to setup a trigger condition. The hardware device may then be run. The replicated portion of the circuit will be paused when the trigger condition occurs. The states of registers in the replicated portion of the circuit and the sequence of inputs that led to the trigger condition are recorded. This recorded data may then be used to generate a test to be run on a software simulator when the circuit is modified.



European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

(88) Date of publication of the international search report:
29 March 2007

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.

INTERNATIONAL SEARCH REPORT

 International application No
 PCT/US2006/030417

 A. CLASSIFICATION OF SUBJECT MATTER
 INV. G01R31/3183

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)
 G01R 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, IBM-TDB, 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.
X	US 2003/069724 A1 (SCHUBERT NILS ENDRIC [US] ET AL) 10 April 2003 (2003-04-10) abstract; figures 1-3,5c-d,6,7a-b paragraph [0085] - paragraph [0088] paragraph [0214] paragraph [0018] - paragraph [0023] -----	1-20
X	US 6 904 576 B2 (NG CHUN KIT [US] ET AL) 7 June 2005 (2005-06-07) the whole document -----	1,13
X	US 6 580 299 B2 (HORAN JOHN [IE] ET AL) 17 June 2003 (2003-06-17) abstract; figures 1-6 -----	1,13

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

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Date of the actual completion of the international search

27 December 2006

Date of mailing of the international search report

08/01/2007

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2006/030417

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