Title (en)

AUTOMATED PROCESSOR GENERATION SYSTEM & METHOD FOR DESIGNING A CONFIGURABLE PROCESSOR

Title (de)

AUTOMATISCHES PROZESSORERZEUGUNGSSYSTEM UND -VERFAHREN ZUR ENTWURF EINES KONFIGURIERBAREN PROZESSORS

Title (fr)

SYSTEME DE GENERATION D'UN PROCESSEUR AUTOMATISE DESTINE A LA CONCEPTION D'UN PROCESSEUR CONFIGURABLE ET PROCEDE CONNEXE

Publication

EP 1159693 A2 20011205 (EN)

Application

EP 00913380 A 20000204

Priority

- US 0003091 W 20000204
- US 24604799 A 19990205
- US 32316199 A 19990527
- US 32273599 A 19990528

Abstract (en)

[origin: WO0046704A2] A configurable RISC processor implements a user-definable instruction set with high performance fixed and variable length encoding. The process of defining new instruction sets is supported by tools that allow the user to add new instructions and rapidly evaluate them, to maintain multiple instruction sets & to easily switch between them. A standardized language is used to develop configurable definitions of target instructions sets, HDL descriptions of hardware needed to implement the instruction set, and development tools for verification and application development, thus enabling a high degree of automation in the design process.

IPC 1-7

G06F 17/50

IPC 8 full level

G06F 11/28 (2006.01); **G06F 9/45** (2006.01); **G06F 17/50** (2006.01)

CPC (source: EP KR US)

G06F 8/20 (2013.01 - KR); **G06F 8/37** (2013.01 - KR); **G06F 8/40** (2013.01 - KR); **G06F 9/455** (2013.01 - KR); **G06F 11/28** (2013.01 - KR US); **G06F 11/3006** (2013.01 - KR); **G06F 11/362** (2013.01 - KR); **G06F 13/12** (2013.01 - KR); **G06F 30/00** (2020.01 - KR); **G06F 30/30** (2020.01 - EP KR); **G06F 30/33** (2020.01 - EP KR); **G06F 30/3308** (2020.01 - US)

Citation (search report)

See references of WO 0046704A2

Citation (examination)

- US 5896521 A 19990420 - SHACKLEFORD J BARRY [JP], et al
- HADJIYIANNIS ET AL: "ISDL: An Instruction Set Description Language for Retargetability", 6 June 1997 (1997-06-06), DAC'97, pages 299 - 302, XP000731853
- HARTOOG ET AL: "Generation of Software Tools from Processor Descriptions for Hardware/Software Codesign", 1997, DAC'97, pages 303 - 306, XP010227598
- SHACKLEFORD B ET AL: "SATSUKI: AN INTEGRATED PROCESSOR SYNTHESIS AND COMPILER GENERATION SYSTEM", IEICE TRANSACTIONS ON INFORMATION AND SYSTEMS, INFORMATION & SYSTEMS SOCIETY, TOKYO, JP, vol. E79-D, no. 10, 1 October 1996 (1996-10-01), pages 1373 - 1381, XP000635525, ISSN: 0916-8532
- SATO J ET AL: "PEAS-I: A HARDWARE/SOFTWARE CODESIGN SYSTEM FOR ASIP DEVELOPMENT", IEICE TRANSACTIONS ON FUNDAMENTALS OF ELECTRONICS,COMMUNICATIONS AND COMPUTER SCIENCES, ENGINEERING SCIENCES SOCIETY, TOKYO, JP, vol. E77-A, no. 3, 1 March 1994 (1994-03-01), pages 483 - 491, XP000450885, ISSN: 0916-8508
- JIN-HYUK YANG ET AL: "MetaCore: an application specific DSP development system", DESIGN AUTOMATION CONFERENCE, 1998. PROCEEDINGS SAN FRANCISCO, CA, USA 15-19 JUNE 1998, NEW YORK, NY, USA,IEEE, US, 15 June 1998 (1998-06-15), pages 800 - 803, XP010309324, ISBN: 978-0-89791-964-7, DOI: DOI:10.1109/DAC.1998.724580
- NURPRASETYO E F ET AL: "SOFT-CORE PROCESSOR ARCHITECTURE FOR EMBEDDED SYSTEM DESIGN", IEICE TRANSACTIONS ON ELECTRONICS, ELECTRONICS SOCIETY, TOKYO, JP, vol. E81-C, no. 9, 1 September 1998 (1998-09-01), pages 1416 - 1423, XP000851263, ISSN: 0916-8524
- NURMI J ET AL: "A new generation of parameterized and extensible DSP cores", SIGNAL PROCESSING SYSTEMS, 1997. SIPS 97 - DESIGN AND IMPLEMENTATION., 1997 IEEE WORKSHOP ON LEICESTER, UK 3-5 NOV. 1997, NEW YORK, NY, USA,IEEE, US, 3 November 1997 (1997-11-03), pages 320 - 329, XP010249792, ISBN: 978-0-7803-3806-7, DOI: 10.1109/SIPS.1997.626254

Cited by

US10558437B1; US8775125B1; US10084456B2; US10365986B2; US11036609B2

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

WO 0046704 A2 20000810; WO 0046704 A3 20001214; AU 3484100 A 20000825; CN 1382280 A 20021127; EP 1159693 A2 20011205; JP 2003518280 A 20030603; JP 2007250010 A 20070927; KR 100775547 B1 20071109; KR 100874738 B1 20081222; KR 20020021081 A 20020318; KR 20070088818 A 20070829; TW 539965 B 20030701

DOCDB simple family (application)

US 0003091 W 20000204; AU 3484100 A 20000204; CN 00812731 A 20000204; EP 00913380 A 20000204; JP 2000597714 A 20000204; JP 2007161932 A 20070619; KR 20017009857 A 20010803; KR 20077017999 A 20070803; TW 89102150 A 20000310