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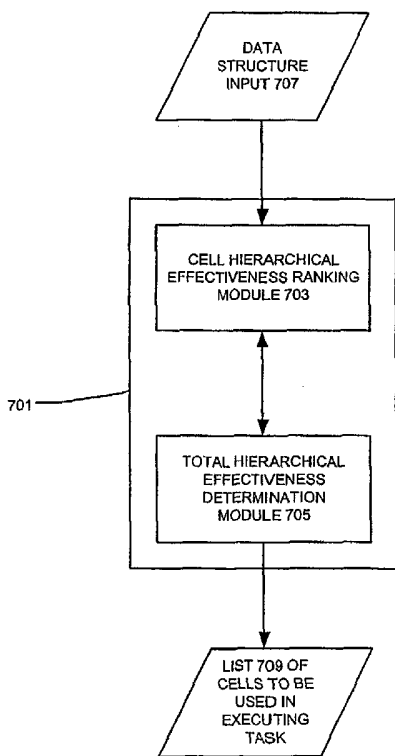
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(54) Title: HIERARCHICAL EVALUATION OF CELLS



(57) Abstract: A technique is provided for determining a hierarchical effectiveness for a cell in a data structure (Figure 7). Data Structure information (707) is input into a tool (701) for deciding which cells in a hierarchical data structure should be employed when executing a task on the data structure. A cell hierarchical effectiveness ranking module (703) determines a hierarchical effectiveness ranking for each cell in the input data structure. A total hierarchical effectiveness determination module (705) determines the total hierarchical effectiveness of using various cells of the input data structure based upon the rankings provided by the cell hierarchical effectiveness ranking module (703). The cell hierarchical effectiveness ranking module (703) and the total hierarchical effectiveness determination module (705) continue to exchange data until the list (709) of selected cells is obtained.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US04/07437

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G06F 17/50
US CL : 716/4

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. : 716/4, 3, 5

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)
East, IEEE search terms: h-cell, h-point, hierarch\$8, resourc\$5, occuranc\$3, value, cost, schematic, flat


C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,790,416 A (Norton et al.) 04 August 1998 (04.08.1998), Figures 2-3, column 2, lines 53-67, and column 4 line 63 - column 5, line 52)	1-29
A	US 5,805,860 A (Parham) 08 September 1998 (08.09.1998), column 7, lines 7-31	1-29
A	L. G. Jones, "Fast batch incremental netlist compilation hierarchical schematics", Computer-Aided Design of Integrated Circuits and Systems, IEEE Transactions on , Volume: 10 , Issue: 7 , July 1991 Pages:922 - 931	1-29
A	Kim et al., "Hierarchical LVS based on hierarchy rebuilding", Design Automation Conference 1998. Proceedings of the ASP-DAC '98. Asia and South Pacific , 10-13 Feb. 1998 Pages:379 - 384	1-29
A	Batra et al, "Hcompare: a hierarchical netlist comparison program", Design Automation Conference, 1992. Proceedings., 29th ACM/IEEE , 8-12 June 1992 Pages:299 - 304	1-29

Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:		"T"
"A"	document defining the general state of the art which is not considered to be of particular relevance	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
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"P"	document published prior to the international filing date but later than the priority date claimed	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 07 October 2004 (07.10.2004)	Date of mailing of the international search report 18 JAN 2005
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