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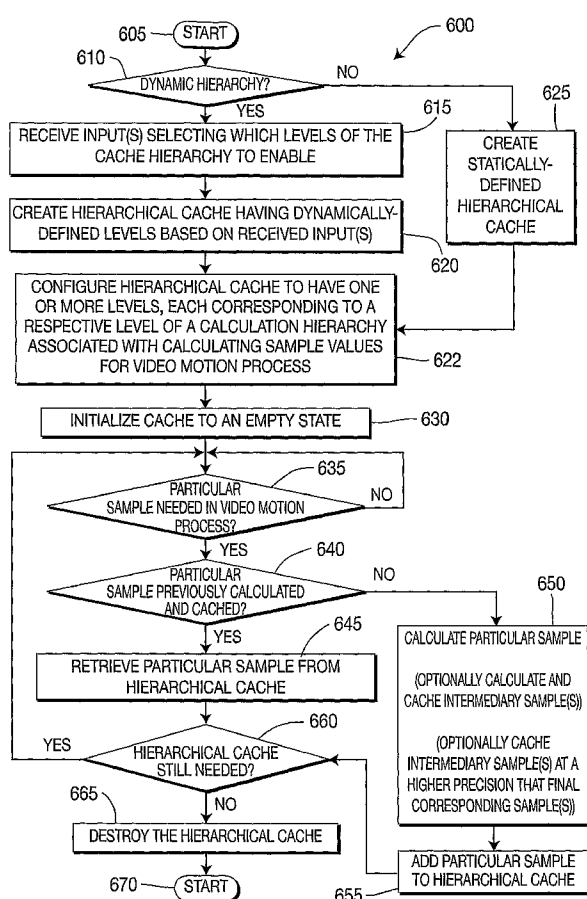
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[Continued on next page]

- (54) Title:** MOTION ESTIMATION AND COMPENSATION USING A HIERARCHICAL CACHE



(57) Abstract: There are provided method and apparatus for video motion process optimization using a hierarchical cache. A storage method for a video motion process includes configuring (622) a hierarchical cache to have one or more levels, each of the levels of the hierarchical cache corresponding to a respective one of a plurality of levels of a calculation hierarchy associated with calculating sample values for the video motion process. The method also includes storing (655) a particular value for a sample relating to the video motion process in a corresponding level of the hierarchical cache based on which of the plurality of levels of the calculation hierarchy the particular value corresponds to, when the particular value is non-existent in the hierarchical cache.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

INV. H04N7/26 H04N7/50 H04N7/36

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)

H04N G06T 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, INSPEC, COMPENDEX, IBM-TDB

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 757 330 B1 (HSU WEI-LIEN [US]) 29 June 2004 (2004-06-29)	1-7, 11-19, 23
Y	column 2, line 57 - column 3, line 43 column 6, line 10 - line 18 column 7, line 4 - line 30; figure 4 -----	8-10, 20-22
Y	WO 94/18796 A (GEORGIA TECH RES INST [US]) 18 August 1994 (1994-08-18) page 19, line 25 - page 20, line 3 ----- -/-	8-10, 20-22

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

☒ See patent family annex.

* Special categories of cited documents:

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O document referring to an oral disclosure, use, exhibition or other means

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* & * document member of the same patent family

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International application No
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A	TAMBANKAR A ET AL: "An overview of H.264 / MPEG-4 part 10" VIDEO/IMAGE PROCESSING AND MULTIMEDIA COMMUNICATIONS, 2003. 4TH EURASIP CONFERENCE FOCUSED ON 2-5 JULY 2003, PISCATAWAY, NJ, USA,IEEE, 2 July 2003 (2003-07-02), pages 1-51, XP010650106 ISBN: 953-184-054-7 Section 4.3, pages 31-33 with figures 37 and 38	1-23
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Y	Section 3.1, pages 1094-1096 with figure 5	8-10, 20-22
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INTERNATIONAL SEARCH REPORT

International application No
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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

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