

Invitation to tender for a license / purchase of rights to solution from Poznań University of Technology entitled:

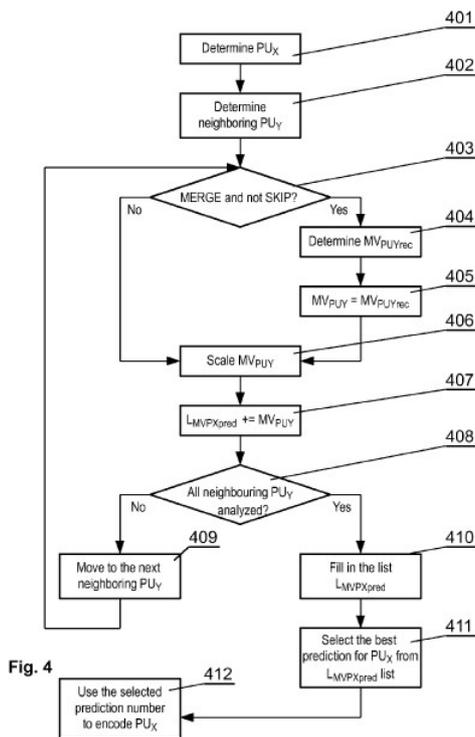
A method and a system for video signal encoding and decoding with motion estimation

Type of solution

Invention

Idea of solution

A computer-implemented method for video signal encoding with motion estimation, the video signal comprising frames divided into prediction units, the method comprising the steps of: determining (401) the current prediction unit (PU_x) to be encoded, creating (407) a list (LMVX_{pred}) comprising motion vector predictions (MVP_{UV}) from neighboring units (PU_y), selecting (411) from the list (LMVX_{pred}) the motion vector prediction which is the best according to a predetermined cost function for encoding the current prediction unit (PU_x), using (412) the selected prediction number to encode the current prediction unit (PU_x) characterized by further comprising the steps of: for each neighboring unit (PU_y), checking (403) whether the neighboring unit (PU_y) has been encoded in the MERGE and not SKIP mode and if so, determining (404) the reconstruction motion vector (MVP_{UYrec}) for that unit (PU_y) as a motion vector which minimizes difference between reconstructed prediction block (PU_y) and a block in a reference frame pointed by this motion vector, and assigning (405) the reconstruction motion vector (MVP_{UYrec}) as a motion vector (MV_{PUY}) to that unit (PU_y) to be used in creating (407) the list (LMVX_{pred}).



Solution advantages / Market advantage

The invention relates to a method and a system for video signal encoding and decoding with motion estimation. It relates to the technical field of video compression. The High Efficiency Video Coding (HEVC) utilizes intra-pictures prediction with motion compensation and advanced methods of motion vectors prediction. The aim of the invention is to improve the methods for deriving a motion vector in order to decrease the bandwidth necessary to transmit the stream coded with motion estimation.

Clients
Companies dealing with video signal compression and multimedia.
Technology Readiness Level (TRL)
TRL 4 - technology validated in lab
Status of legal protection
Patent no. EP 2699001, validated: PL, DE, GB, FR, IT, ES https://patents.google.com/patent/EP2699001A1/en?q=EP+2699001
Preferred form of commercialization
Non-exclusive license Sale of patent rights R&D and implementation projects
Form of transfer of rights
Patent documentation.
Additional information
<ol style="list-style-type: none"> 1. This Invitation to submit offers does not constitute an offer within the meaning of the provisions of the Civil Code. 2. Poznan University of Technology will reject the offer if it contains an abnormally low price in relation to the value of the solution. 3. Poznan University of Technology, in order to determine whether the offer contains an abnormally low price in relation to the value of the solution, will ask the Tenderer to provide explanations within a specified time limit regarding the elements of the offer affecting the price. 4. If in the competition procedure it is not possible to select the best offer due to the fact that offers of the same price have been submitted, the Poznan University of Technology will call the Tenderers who submitted these offers to submit additional offers within the time limit specified by the Poznan University of Technology. 5. Poznan University of Technology reserves the right to cancel the competition procedure if the submitted offers contain prices whose value will not exceed the value of the solution. 6. Poznan University of Technology reserves the right to negotiate with selected Bidders. 7. Poznan University of Technology has the right to withdraw from the procedure without giving any reason, without choosing an offer. 8. The conclusion of the contract is conditional on the fulfillment of procedures provided for by legal regulations applicable to universities.
Method of submitting offers
Offers should be submitted in Polish, in writing to the address of the Technology Transfer Center of the Poznan University of Technology or electronically to the unit's e-mail address.
Contact details
Technology Transfer Centre of the Poznan University of Technology pl. Marii Skłodowskiej-Curie 5 Office 409 60-965 Poznan ctt@put.poznan.pl