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

A system and a method for depth-image-based rendering (EU)

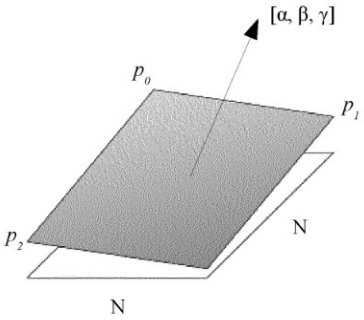
Method for predictive coding of depth maps with plane points (US)

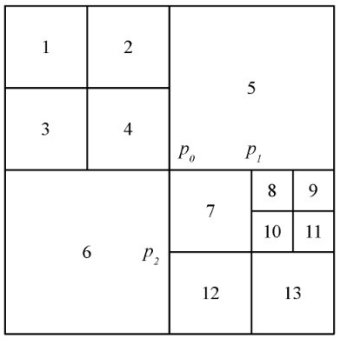
Type of solution

Invention

Idea of solution

A method for predictive encoding of a depth map , includes the steps of receiving a depth map ; dividing the depth map to blocks ; performing quad - tree decomposition of the depth map to sub - blocks ; approximating each of the sub - blocks by a plane , wherein the plane is associated with three plane points ; and determining an order of coding of the sub - blocks ; and providing an encoded depth map in a form of a set of planes defined by parameters . The method includes, while encoding consecutive sub - blocks : calculating predictors for the plane points of the currently - encoded sub - block (C); calculating differences between the actual values of the plane points and the values of the corresponding predictors; and providing the parameters of the plane for the currently encoded sub - block (C) in form of the differences .





Solution advantages / Market advantage

The invention relates to predictive coding of depth maps for three-dimensional imaging systems. The presented invention is related to representation of depth data in a simplified manner, wherein instead of dense, regularly sampled pixels of depth map, rectangular blocks of depth pixels are modelled with flat planes. The presented solution provides improved encoding efficiency of the depth maps.

Clients

Companies dealing with Virtual Reality systems, multi-view sequence compression, Free Viewpoint Television (FTV), three-dimensional systems using the description of the scene in the form of images and depth maps (e.g. 3D scanners, telepresence, lidars, etc.)

Technology Readiness Level (TRL)
TRL 2 - technology concept formulated
Status of legal protection
Patent no. EP 3110155, validated: PL, DE, FR, GB https://patents.google.com/patent/EP3110155B1/en?oq=EP3110155B1 Patent no. US 9848205 https://patents.google.com/patent/US9848205B2/en?oq=US+14753011
Preferred form of commercialization
Non-exclusive license Exclusive license Sale of patent rights Spin-off company R&D and implementation projects
Form of transfer of rights
Patent documentation.
Additional information
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 Sklodowskiej-Curie 5 Office 409 60-965 Poznan ctt@put.poznan.pl