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(54) Title: APPROXIMATE INTRINSIC VOXEL STRUCTURE FOR POINT CLOUD PROCESSING

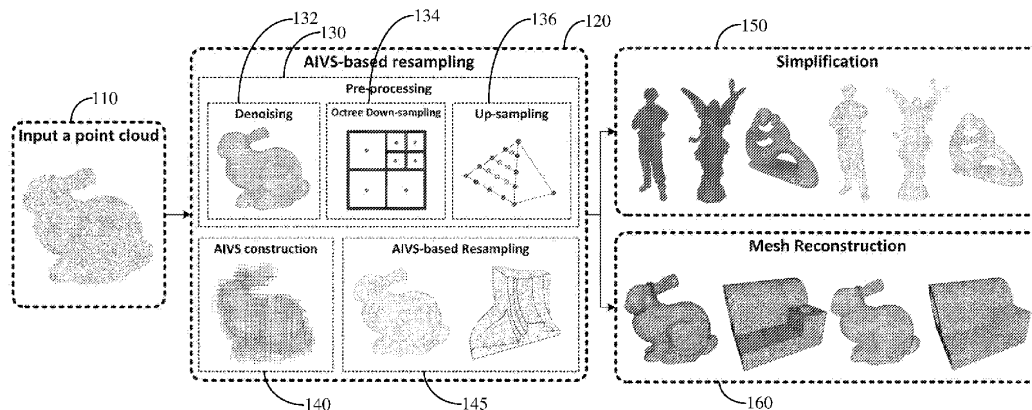


FIG. 1 100

(57) Abstract: A method for voxel-structure-based point cloud resampling, a method for point cloud simplification, and a method for voxel-structure-based mesh reconstruction are provided. The method for voxel-structure-based point cloud resampling includes dividing a point cloud into a plurality of voxel boxes with adjacency, each of the plurality of voxel boxes defining a local region in a three-dimensional space. The method for voxel-structure-based point cloud resampling also includes point cloud resampling the plurality of points based on an approximate intrinsic voxel structure to generate a resampled point cloud, wherein the point cloud resampling is implemented differently in at least two of the plurality of voxel boxes.

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