

ABSTRACT

In order to accurately specify a recommended picking position for a picking target, distance information from a viewpoint from which an opening of a storage container is included in a photographing range is acquired based on distance information acquisition means, mapping data in which the distance information including a point cloud is three-dimensionally mapped based on position information of each point is generated, distance information missing portions at which the distance information is continuously missing in a direction of dividing a contour line of an outer contour portion are formed at a plurality of positions corresponding to the outer contour portion of the storage container on the mapping data at predetermined intervals in the outer contour portion, point cloud group classification is performed by executing processing of determining whether or not to group a plurality of adjacent points as the same group based on the degree of approximation of pieces of the distance information of the plurality of adjacent points for all points on the mapping data on which the distance information missing portions are formed, and the recommended picking position is specified based on a predetermined rule for each group of the mapping data.