

Method for reconstructing complex-shaped objects involves building a computer model of the object in a three-dimensional system using point clouds obtained by scanning the object from at least two angles. Measurements of the reference and base surfaces are performed with deviations within the range of 0.01-0.001 mm, and based on these measurements, a computer diagram of the arrangement of the base and reference surfaces in the software space is constructed; From the point cloud obtained by scanning the object, the reference and landing surfaces are identified, and reference points are established on these surfaces; these points lie in the plane of the surfaces and have zero deviation from the planes formed by the point clouds. Afterward, the point cloud with the marked reference points is aligned with the computer model of the base and landing surfaces so that the reference points in the point cloud coincide with the corresponding surfaces in the computer model of the base and landing surfaces.