Akademia Techniczno-Humanistyczna w Bielsku-Białej

WYDZIAŁ BUDOWY MASZYN I INFORMATYKI

Inżynier XXI wieku

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UNIVERSITY OF ŽILINA
Faculty of Mechanical Engineering

Department of Industrial Engineering

3D LASER SCANNING AS TOOL OF REVERSE ENGINEERING

Reverse engineering

Reverse engineering is technological process by which it is possible to create a CAD model or drawing documentation from an existing product according to specific customer requirements.

3D laser scanning

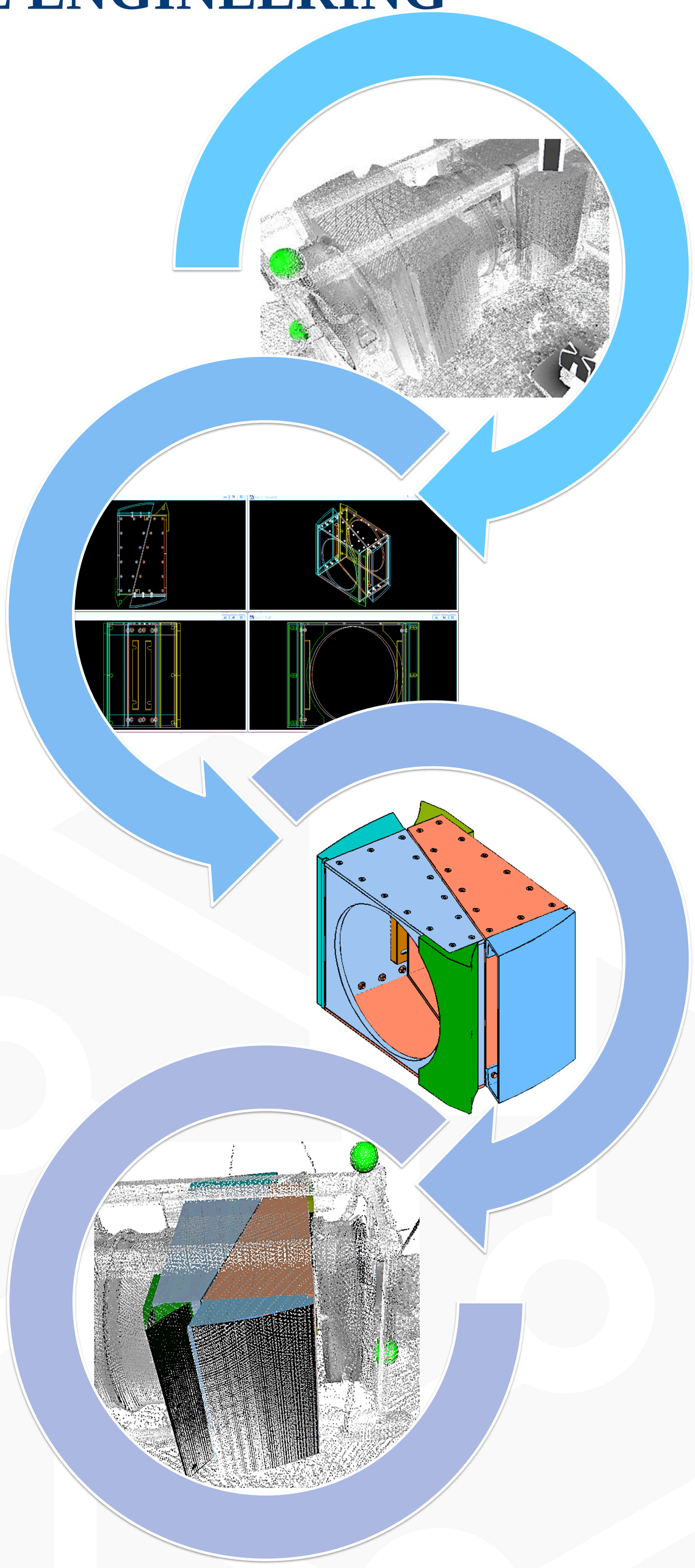
3D laser scanning is one of the reverse engineering technologies representing modern access to digitization spatial information about the subject that can be used for 3D product and manufacturing systems.

Process of 3D laser scanning

1. Preparation of scanning.
2. Creation of a reference grid.
3. Laser scanning.
4. Registration and connection scans.
5. Export data to CAD system.

Process of Reverse engineering

1. Import input data from 3D laser scanning to CAD system.
2. Create 3D model in CAD system.
3. Selecting the appropriate format for the model. (DWG, DGN, 3D PDF)
4. Check back the correctness of the model dimensions by inserting the model into a point cloud.



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