

Insta3D RevLib

Point Cloud
Processing

Meshing
(Triangulation)

Mesh
Processing

Parallel Processed Algorithms
Leverage Multiple Cores

Core 1

Core 2

Core 3

...

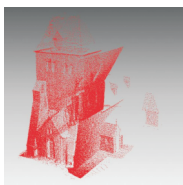
Core n

Insta3D RevLib Benefits

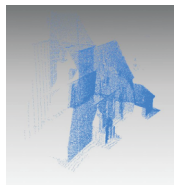
- ✎ Comprehensive tools for point cloud processing
- ✎ Very Fast and best in class triangulation algorithm
- ✎ Excellent set of tools for mesh processing
- ✎ Works well with noisy and unstructured data
- ✎ Handles extremely large sized data
- ✎ Generates mesh with uniform triangles
- ✎ No dependency on any third party library

Point Cloud Processing

Point Cloud Registration



Input 1

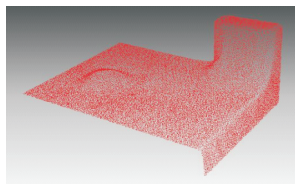


Input 2

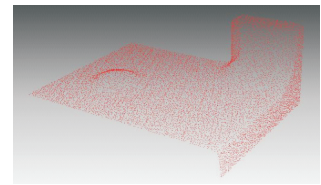


Registered Output

Decimation

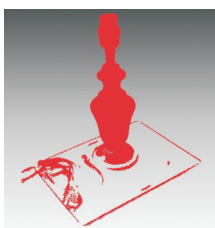


Input Point Cloud



With 70% decimation

Outlier Removal

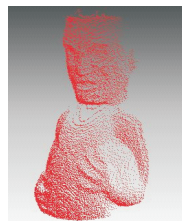


Input Point Cloud

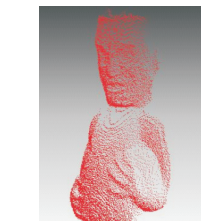
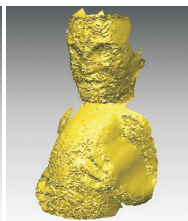


Output Point Cloud

Noise Removal



Input Point Cloud and Mesh



Output Point Cloud and Mesh

Meshing (Triangulation)



Input: Point Cloud



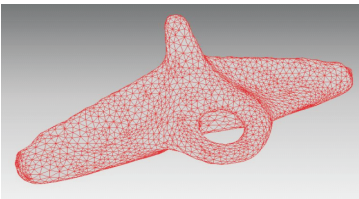
Output: Triangular Mesh

Technical Features

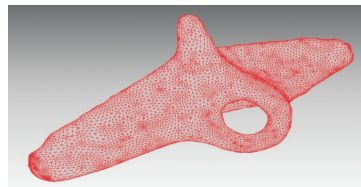
- ✎ Parallel Processed Algorithms
- ✎ Developed in C++
- ✎ Available as a Lib and DLL
- ✎ Compatible with Windows 32 and 64 bit machines
- ✎ Small memory footprint

Mesh Processing

Mesh Refinement

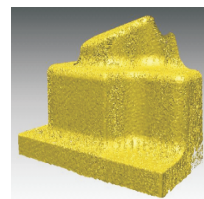


Input Mesh

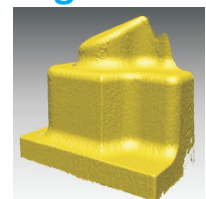


Output Mesh (4X)

Mesh Smoothing

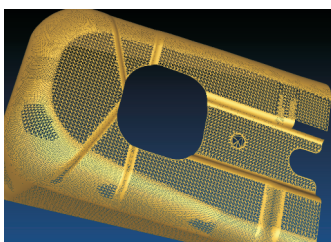


Before Smoothing

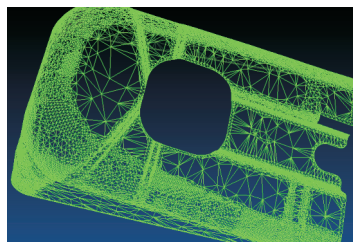


After Smoothing

Mesh Decimation

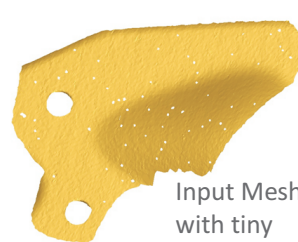


Input Mesh

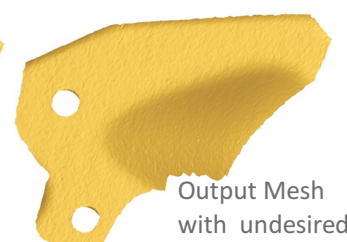


Output Mesh (50%)

Hole Filling



Input Mesh
with tiny
undesired holes



Output Mesh
with undesired
holes filled

Orientation Correction



Before Correction



After Correction

Evaluation Version

For evaluation version or more information please write to contact@pre-scient.com.