

### Insta3D RevLib

Point Cloud Processing

Meshing (Triangulation)

Mesh Processing

Parallel Processed Algorithms  
Leverage Multiple Cores

Core 1

Core 2

Core 3



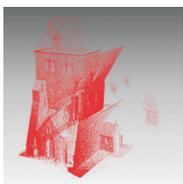
Core n

#### 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

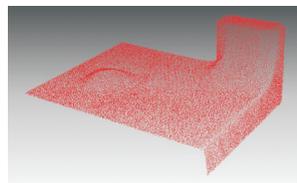


Input 2

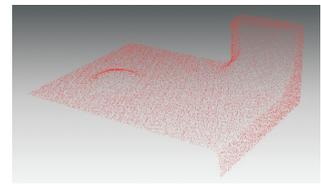


Registered Output

#### Decimation



Input Point Cloud

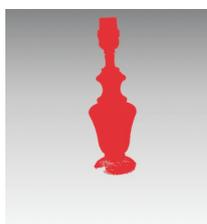


With 70% decimation

#### Outlier Removal



Input Point Cloud

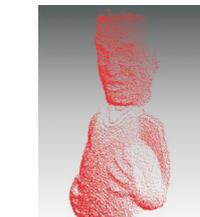


Output Point Cloud

#### Noise Removal



Input Point Cloud and Mesh



Output Point Cloud and Mesh



## Meshing (Triangulation)



Input: Point Cloud



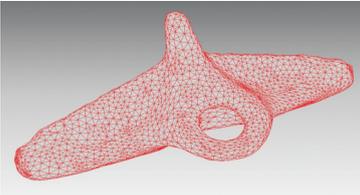
Output: Triangular Mesh

### Technical Features

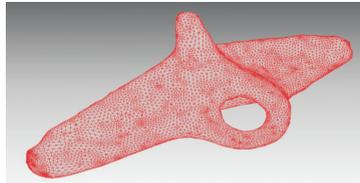
- ✎ Parallel Processed Algorithms
- ✎ Developed in C++
- ✎ Available as a Lib and DLL
- ✎ Compatible with Windows 32 and 64 bit machines
- ✎ Small memory footprint

## Mesh Processing

### Mesh Refinement

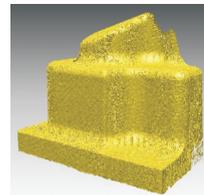


Input Mesh

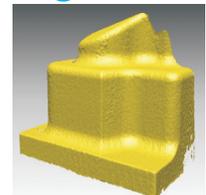


Output Mesh (4X)

### Mesh Smoothing

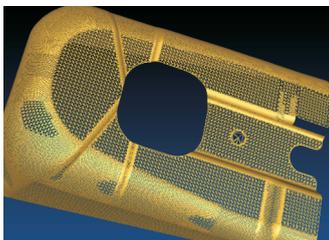


Before Smoothing

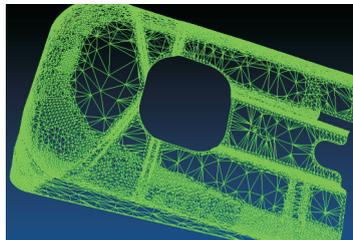


After Smoothing

### Mesh Decimation

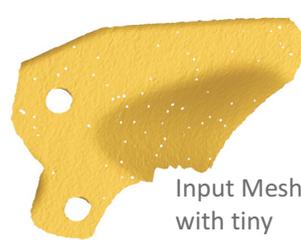


Input Mesh

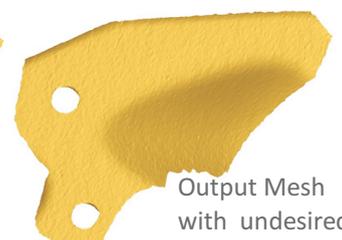


Output Mesh (50%)

### 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](mailto:contact@pre-scient.com).