HEEPTSER is a high performance API for processing large 3D point clouds and surface meshes, in split-seconds. HEEPTSER can process single objects, 3D data collections or live 3D stream.

Award winning high-speed geometry simplification with color and feature preservation (a 3D scan with 1.5M triangles is simplified to 120K triangles in 34 ms).

With fast meshing algorithm, the API enables the reconstruction of surfaces with boundaries and colors.

Fast geometric smoothing, removes noise or stylizes surfaces and preserve features.

HEEPTSER handles:
- millions of 3D samples in milliseconds,
- points clouds, polygon soups or indexed meshes,
- attributes: normal, colors, etc.,
- easy-to-use client side I/O buffers.

HEEPTSER enables real time 3D data processing through an API written in C++ (CPU) and CUDA (GPU), running 1000x faster than state-of-the art.

A new method for high-speed adaptive simplification of 3D geometry

Achieves split second simplification/filtering/reconstruction over millions of polygons, on a single low-end computer.

Works with meshes, polygons soups, point clouds and animated data.

HEEPTSER can be integrated in a large spectrum of systems:
- Future mobile 3D capture devices and streaming
- 3D Broadcast
- Robotics perception system
- Smart augmented reality system
- Data-driven virtual reality systems

TRL 4

Code based on industry standard (versioning, documentation, build, modularity)