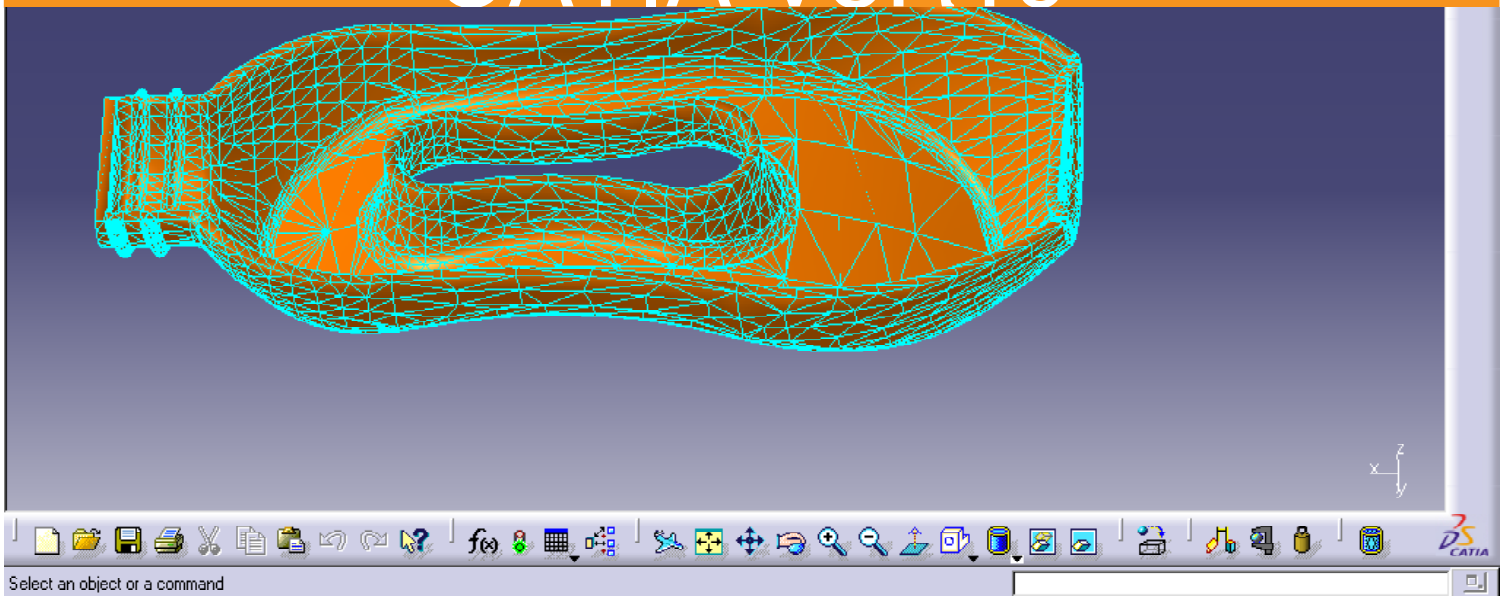


Machining

# CATIA - STL Rapid Prototyping 1 (TL1)

## CATIA V5R19





## Machining

# CATIA - STL Rapid Prototyping

Help to generate and repair meshes to obtain machinable mock-ups. It is designed for the rapid prototyping of machines working with STL files as input.

### Product overview

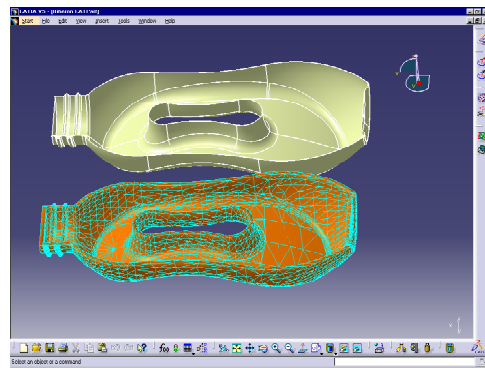
CATIA - STL Rapid Prototyping 1 (TL1) creates STL files in a fast and accurate way by tessellation of CAD data. It allows the import of existing STL files, the display of meshes and the analysis of their quality. The product offers basic tools to improve the quality of meshes by removing and reorganizing triangles. In addition, it allows the creation of thin offsets to obtain a watertight solid. The meshes can be exported as a standard binary STL file for rapid prototyping machines.

### Product Highlights

- Creation of STL files from CAD data or V5 parts
- Accurate tessellation with control of the sag value and maximum length of edges
- Import of existing STL files in binary or ASCII and IGES format
- Checking the quality of existing meshes
- Basic tools to repair and modify meshes
- Export of standard binary STL file

### Product Key Customers Benefits

**Accurate Tessellation...** CATIA V5 - STL Rapid Prototyping 1 (TL1) allows to tessellate CAD data with control of the sag value and the maximum length of edges. Obtaining best quality meshes reduces drastically the process duration.



**STL Import...** Existing STL files in binary or ASCII and IGES format restricted to 10000 points can be imported. The user can view, check, repair and modify the imported meshes.

**Checking Mesh Quality...** Various display options allow the user to apply flat or smooth shading of meshes or to visualize their free edges and/or their non-manifold edges.

**Modification of Meshes...** STL enables the user to improve meshes by removing or reorganizing triangles in order to redesign sharp edges or fillets in order to respect the geometrical shape.

**Thin Offset Creation...** STL supports a fast and easy creation of a thin offset of a mesh with the availability to obtain a watertight solid. This functionality allows to generate machinable mock-ups from surface geometry.

**STL Export...** STL output can be exported in standard binary format in order to feed rapid

prototyping machine.

## ABOUT CATIA V5R19

CATIA is Dassault Systemes' PLM solution for digital product definition and simulation.

**[www.3ds.com/products/catia](http://www.3ds.com/products/catia)**

