

# Product Name

## Intersect 2 3DFACE and contour lines AutoLisp source

Copyright © 2023 RCAD SOFTWARE SRL, <https://rcad.eu/>

### Description

It is an AutoLisp function for the intersection of 2 triangular 3DFACE entities.

Function call (setq ls (sitt p1 p2 p3 p4 p5 p6))

- p1 p2 p3 are the 3D points of the first triangle,
- p4 p5 p6 are the points of triangle 2.
- ls is (list pint1 pint2), i.e. the list of 2 points that define the intersection segment inside the triangles.

Loading in AutoCAD is done with the APPLOAD command and then selecting the "sitt.lsp" file.

Call (setq **ls** (sitt p1 p2 p3 p4 p5 p6))

- p1 p2 p3 are the 3D points of the first triangle

- p4 p5 p6 are the points of triangle 2

**ls** is (list pint1 pint2), i.e. the list of 2 points that define the intersection segment inside the triangles

ls is nil if there is no intersection segment.

You also have a small SECT3DF test program and a test DWG.

You can test the function by loading the DWG "Intersect 2 3DFACE.dwg", compiling sitt.LSP and typing SECT3DF.

You will then select the first one 3DFACE and then the second. The intersection segment will be drawn.

You also have a CLINE test program, with which you can generate contour lines on 3DFACE entities from a DWG (for example load "contour lines.dwg"). After typing CLINE, you must enter the step on the Z axis of the contour lines.

You thus have the simplest and cheapest method of generating contour lines, on any number of computers, with this license.

## Limitations

3DFACE entities are considered triangular.

## Design Details

Settings in Visual Lisp (Tools, Window Attributes, Configure Current):

- Tab width 3
- Left margin 0

## Logical View

It's not necessary.

## Process View

Is not the case.

## External Sources

Can be used in AutoCAD or programs based on IntelliCAD (such as BricsCAD, ProgeCAD, ActCAD, ZWCAD, etc.).

## Deployment

Loading in AutoCAD is done with the APPLOAD command and then selecting the "sitt.lsp" file.

## Server installation

Is not the case.