1 Introduction

1.1 Compile purpose

This document is prepared for the convenience of users to use the JCZ 3D marking system. We will describe system installation, commissioning, use and deal with common problems in detail.

1.2 Background

3D marking system will change the Z value, to ensure that the focal length will be always in the work piece surface.   Marking 3D files (STL file), to achieve 3D marking.

2 Overview of software

2.1 Objective

To make users learn processing 3D file quickly.

2.2 Function

Function Description:

1. File
   1) New: Open a blank Ezcad3
   2) Open: Open a file of format ez3
   3) Save: Save the current file ez3
   4) Save As: Save to another name ez3 file.
   5) System parameter: Includes General, Color, Workspace, AutoSave, Move rotate, Plug manager, User manager, Language and so on.
2. Edit
   1) Undo: Graphics during operation, if you are not satisfied with the current operation, you can click the "Undo" to cancel the current operation and return to the state of the last operation.
   2) Redo: After the Undo the current operation, you can use the "Redo" function to restore the canceled operation.

3) Cut: "Cut" will delete the selected graphic object, and copy to the clipboard.

4) Copy: "Copy" will copy the selected graphic object to the clipboard while preserving the original graphic objects.

5) Paste: Paste the contents of the system clipboard.

6) Combine: "Combined" to remove all the selected object properties of the original object and combine them together as a new curve object. This combination of graphics can be selected, copied, pasted like other graphic objects, and you can set object properties.

7) Uncombined: "Uncombined" will restore the composite object into several separate curve objects.

8) Group: "Group" retains the selected graphic objects property and grouped them together as a new graphical object. This combination can be selected, copied, pasted like other graphic objects, and you can set object properties.

9) Ungroup: ungroup the objects that have grouped to the former state.

10) Add Layer: Add a layer to edit the contents of the new layer.

11) Delete Layer: Remove additional layer.

12) Hatch: "Hatch" to fill the specified graphic. The filled graphics must be closed curve. If you select multiple objects to fill, then these objects can be nested within each other or independent of each other, but any two objects cannot have intersecting portion.

13) 13. Select: Select all objects, inverse the selection, delete the selected object, placed to the origin, put the x center to the y axis, put the y center to the x axis, mirror x, mirror y, rotate.

14) Node: A variety of ways to edit nodes.

3. Draw

Draw various lines, graphics, text, bar codes, bitmaps, vector graphics, input and output ports, expansion axis, hierarchical file.

4. Modify

Arrays, dynamic text arrays and offset.

5. View

For changing the software interface display

6. Help

About---System version information

7. Parameters F3

Area, laser control, port, stop machining the input port, red light indicates, flying marking, 3D, hardware information. 3D function switch can change 2D mode and 3D mode.

Marking surface bounding box

Projection marking with 3D file.

3 Operating Environment

3.1Hardware

1. Dual-core CPU, clocked at no less than 1.5GHZ, memory is not less than 2G, and hard disk space is not less than 10G.
2. Two or more native USB interface.

3.2Software

WIN7_64bit, WIN8_64bit, WIN10_64bit

C ++ 2015 redistributable package

4 user manual

4.1 installation and initialization

The software is free installation for the green version, directly open software directory and click "Ezcad3.exe".

名称 ^	修改日期	类型	大小
LANG	2016/1/25 19:23	文件夹	
PARAM	2016/1/25 19:23	文件夹	
RES	2016/1/25 19:23	文件夹	
RTC5	2016/1/25 19:23	文件夹	
Cor3D3G.cor	2016/1/7 14:24	COR 文件	67 KB
Cor3D3G_New.cor	2016/1/25 13:27	COR 文件	67 KB
CorFile_VS2015	2015/12/30 13:37	应用程序	4,848 KB
Ezcad3	2016/1/21 17:40	应用程序	2,129 KB
Ezcad3Kernel.dll	2016/1/21 17:40	应用程序扩展	3,030 KB
LicenceManager	2014/11/26 16:59	应用程序	2,052 KB
NinePointCor.cor	2015/12/30 14:39	COR 文件	67 KB
RTC5DLLx64.dll	2015/11/18 17:43	应用程序扩展	913 KB

Install driver for board

名称	修改日期	类型	大小
JCZDriverAllInOne	2015/6/14 0:58	文件夹	
LMCV2U_20120331	2015/6/14 0:58	文件夹	
X64AMD_LmcV2u	2015/6/14 0:58	文件夹	

This file for driver, we used this guide to install right installation.

After the installation of hardware drivers, you may execute software activation. Be careful, the license will bind with your computer after you input license through **LicenceManager.exe**.

You can choose online activation or delivery the request file to BJJCZ Office activation when you get the corresponding upgrade files.

4.2 Error and Recovery

When the system has an error, you can catch the screen shot and send the error message to BJJCZ for support.

5 Operation instruction

5.1 Specific instructions for example 3D file

Load the 3D file:click on the 3D icon and switch to the 3D view


1. Click on the 3D icon for STL and DXF loading.

2. Click on the translation surface icon, and adjust the model to the focal length according to the focal length of the equipment.

It can realize the movement of X, Y, Z.
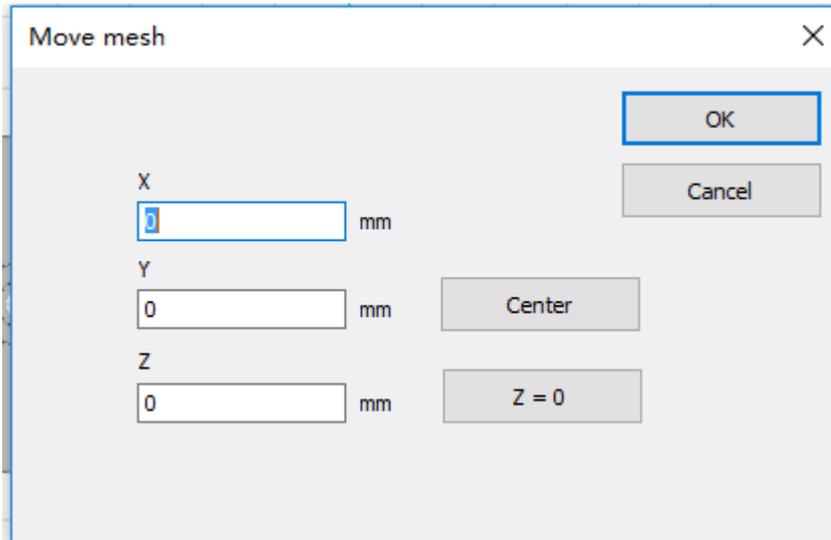
Load the 3D model, for the direction of translation of Z axis (Value can be positive or negative, to realize the translation in all directions)

X: -30.5 , 30.5
Y: -15 , 15
Z: 10 , 40
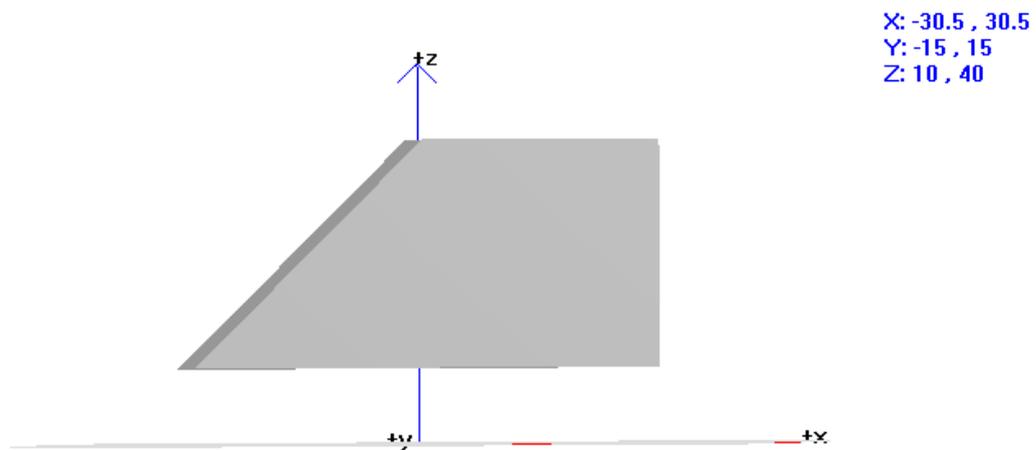
For the direction of translation on the Z axis, and the number fills in "-10"

X: -30.5 , 30.5
Y: -15 , 15
Z: 0 , 30
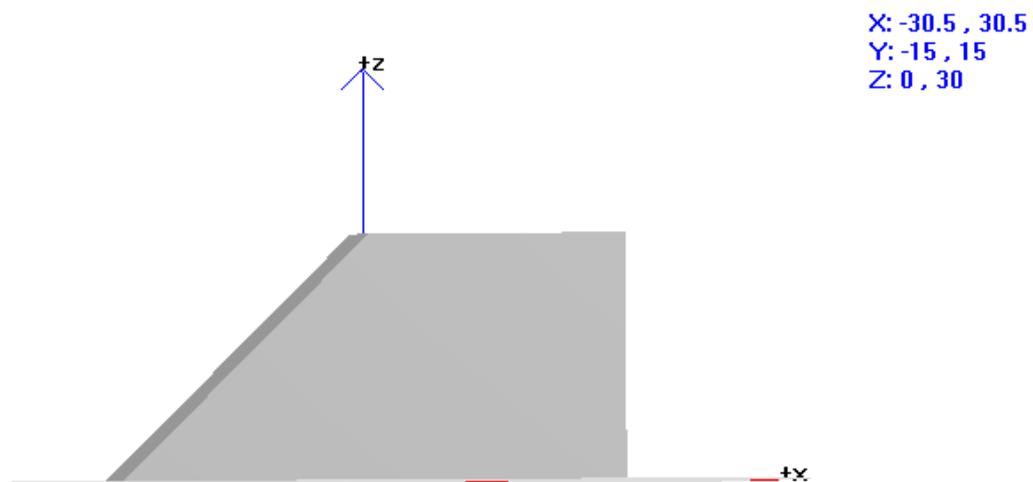
You can see, the rang of Z axis change to "0, 30" after moving

3. Click on the surface of layered icon to layer tangent for the load the file

Set the moving space of Z axis and through setting the thickness to change the layer number (through the layer number to adjust the implementation on the depth of processing), set the moving direction of Z axis (the 2 d object can also be layered marking).
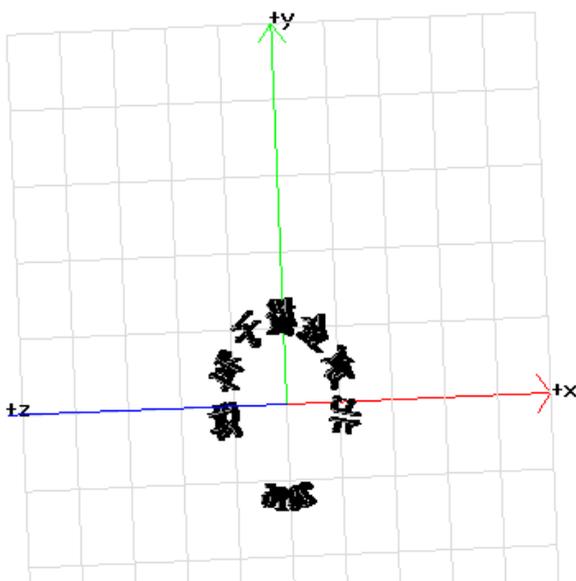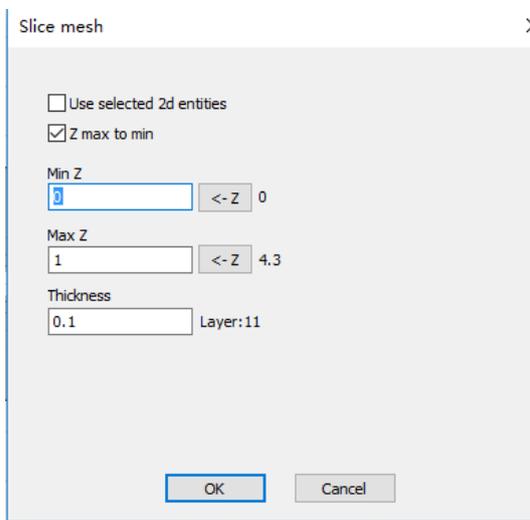
4. Click on the 3D view switch icon, and switch to normal view, and it can be set to conventional stratified tangent and marking operation switch to normal view

5.2 The instruction of other incons

Rotating surface switch，and rotate the surface for X,Y,Z

Load the 3D model
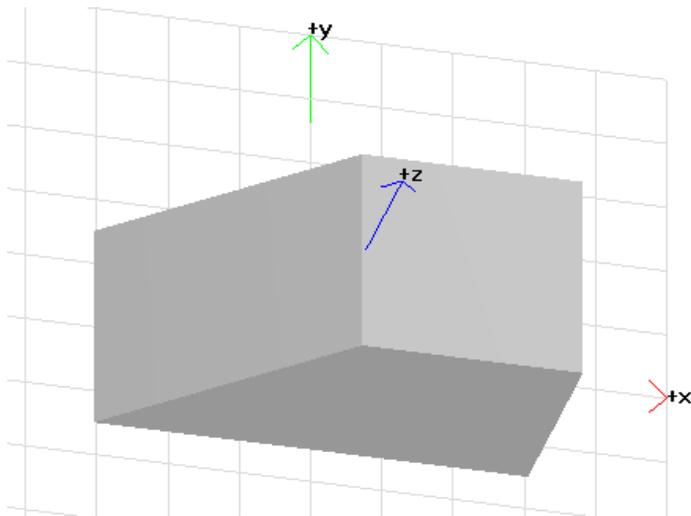
Mark operation of rotation.
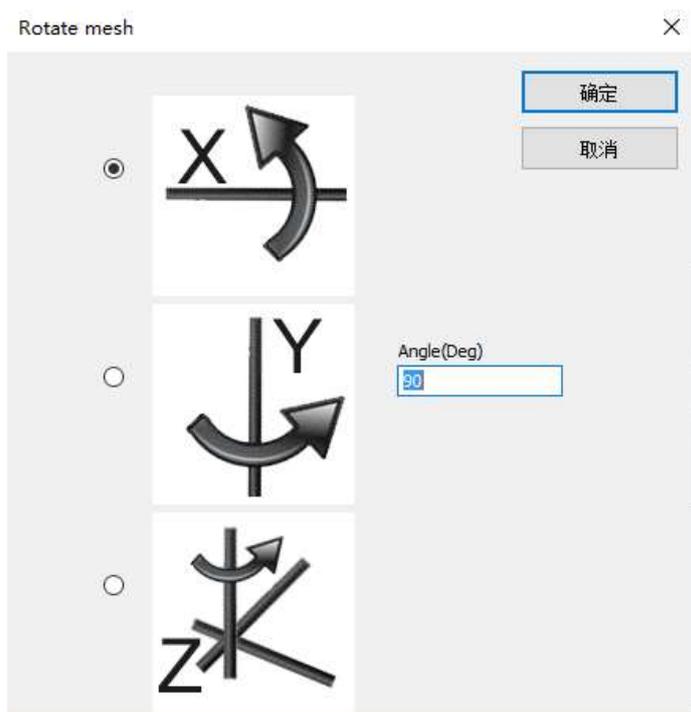
Rotate it for 90 degree counter-clockwise direction along the z axis(angle can be negative ,that is clock-wise direction)
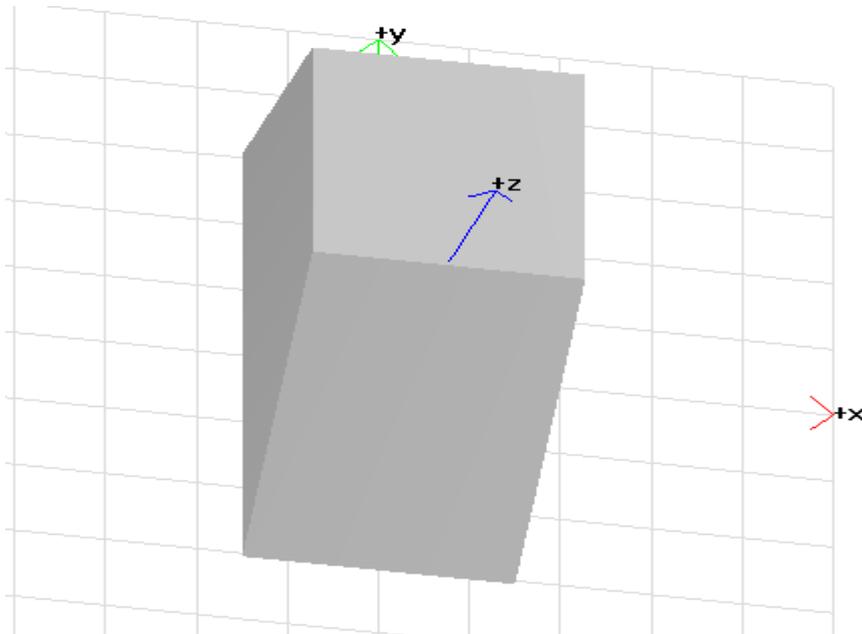

Surface projection switch, and project the text onto the surface.

The following, load the 3D model and project the text onto the surface of the 3D

First, load the 3D model.
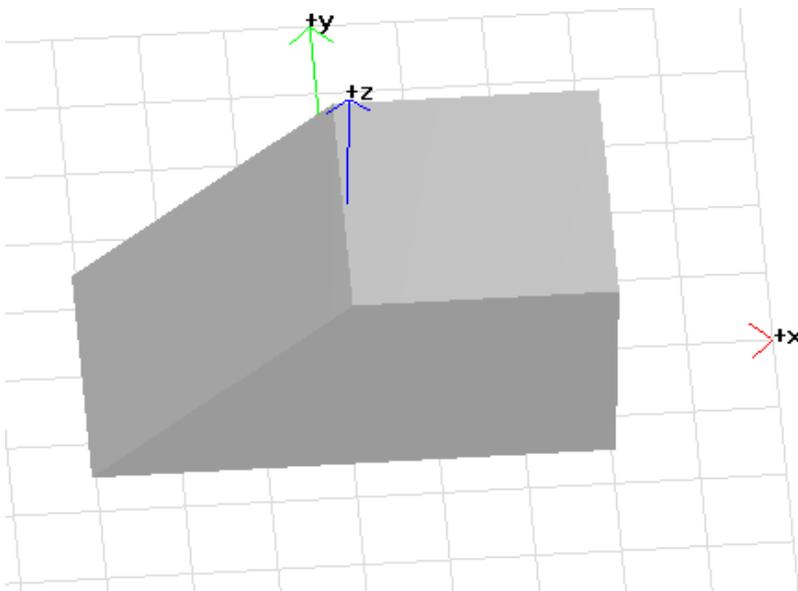
Draw a text, and let it center
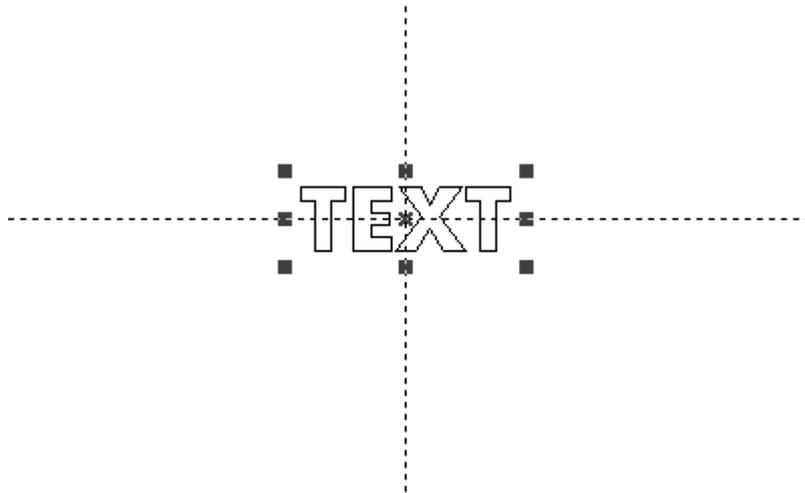
Switch to the 3D view
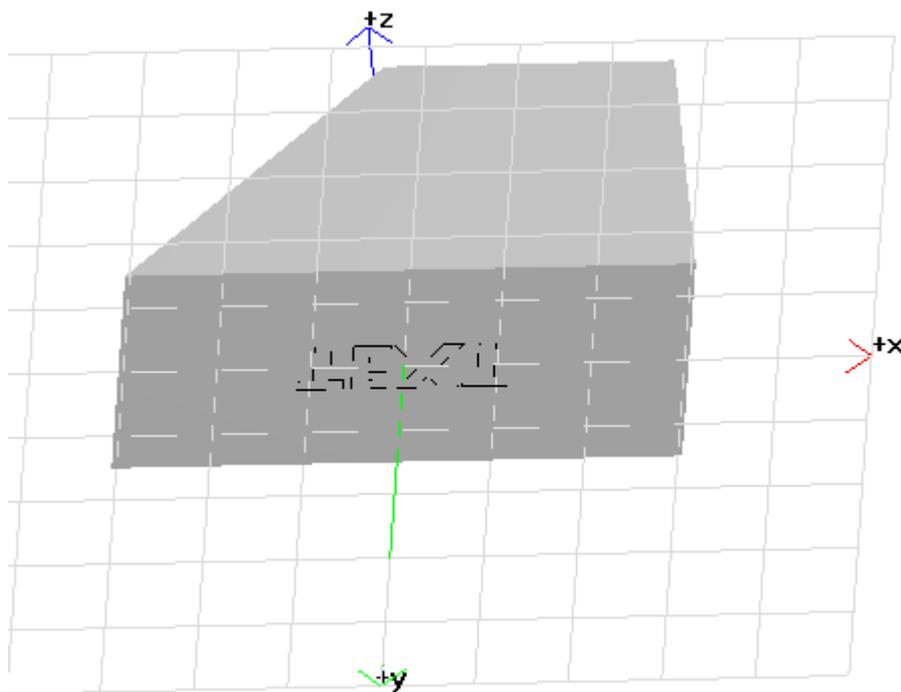
Here we can see the TEXT, and we can open the projection, and you can move the 3D model and TEXT to change the position of projection.
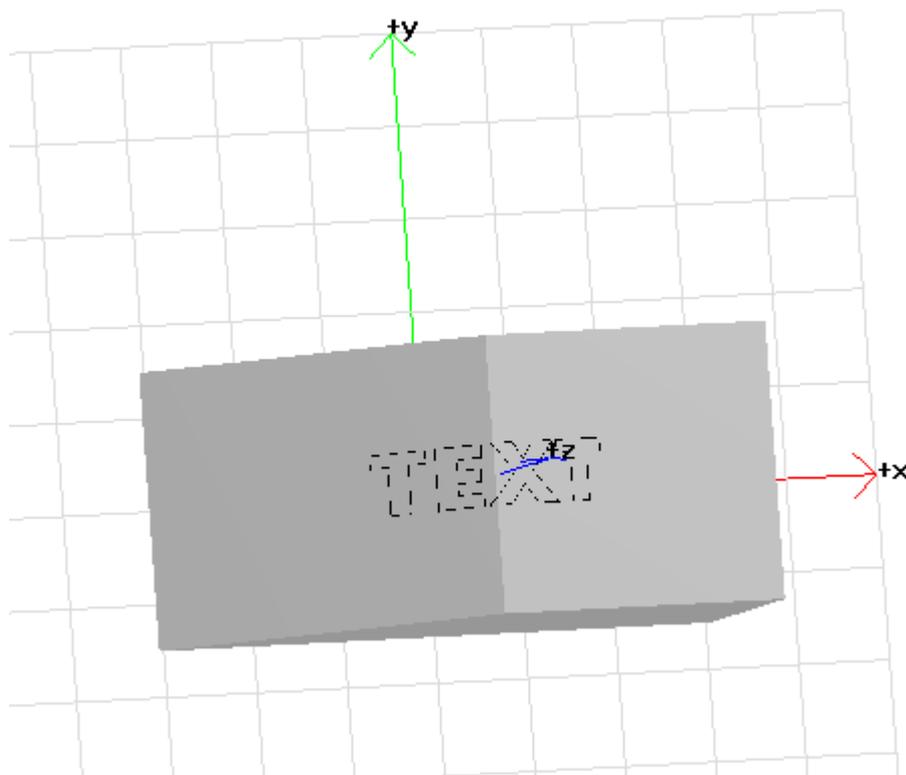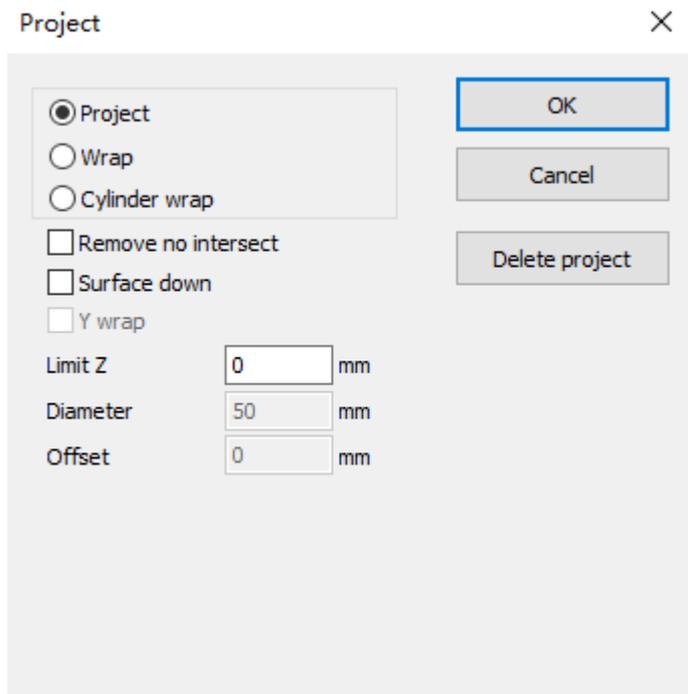
'Remove no intersects': For the projection of the object and the surface of the disjoint parts to be removed, so as not to remain on the plane.

Surface Down: Project the projected object on the lower surface (the default projection on the upper surface).

Limit Z: For the case where the projection is not on the surface, the corresponding value is set so that it is projected on the surface of the corresponding value of the Z axis.

Wrap: The projection object is projected on the projection surface.

## 5.3 Zoom 3D column introduction

Load the 3D file and line frame mode, rendering mode, implicit surface switching.

Line frame mode
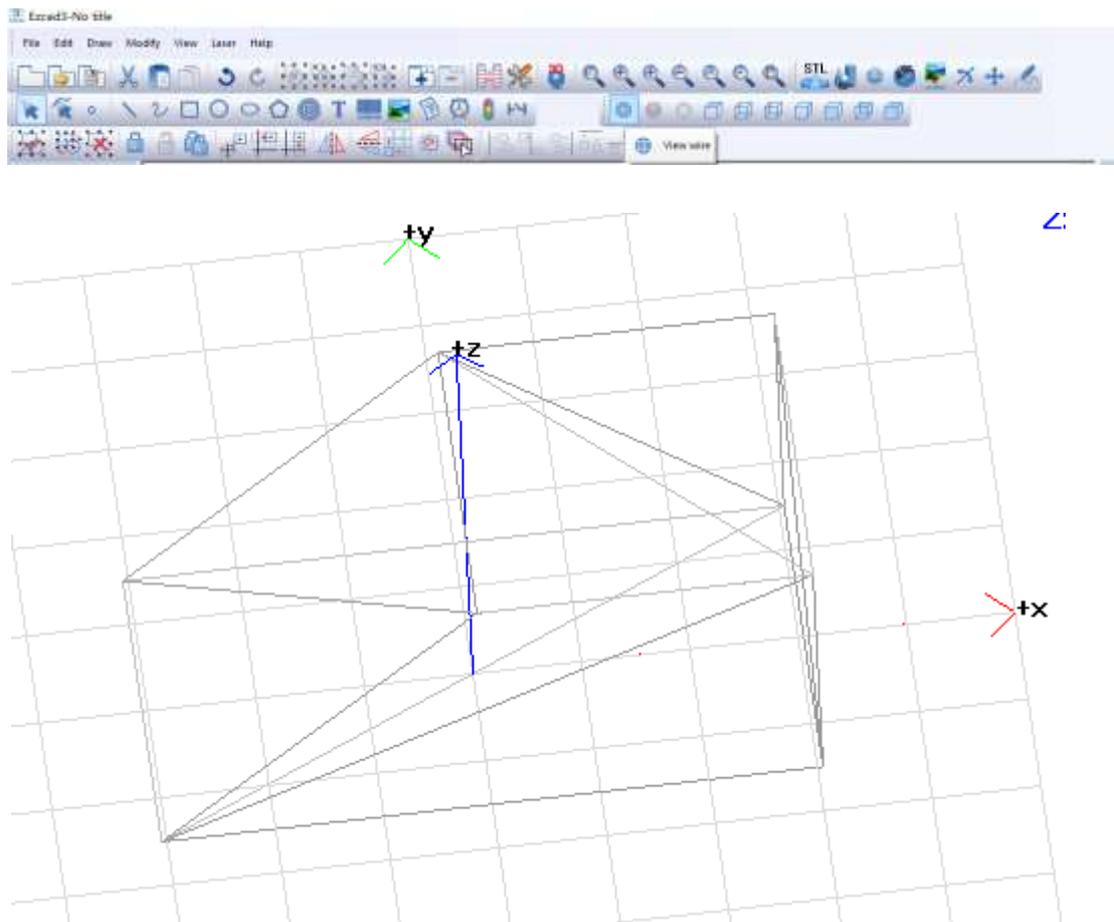
Rendering mode
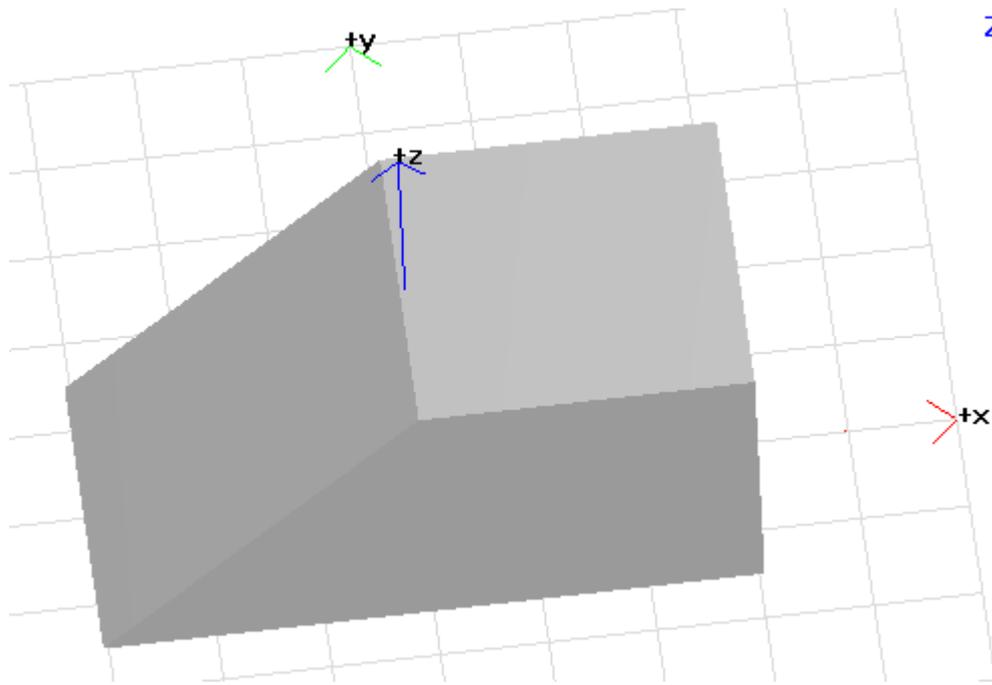
Implicit surface switching
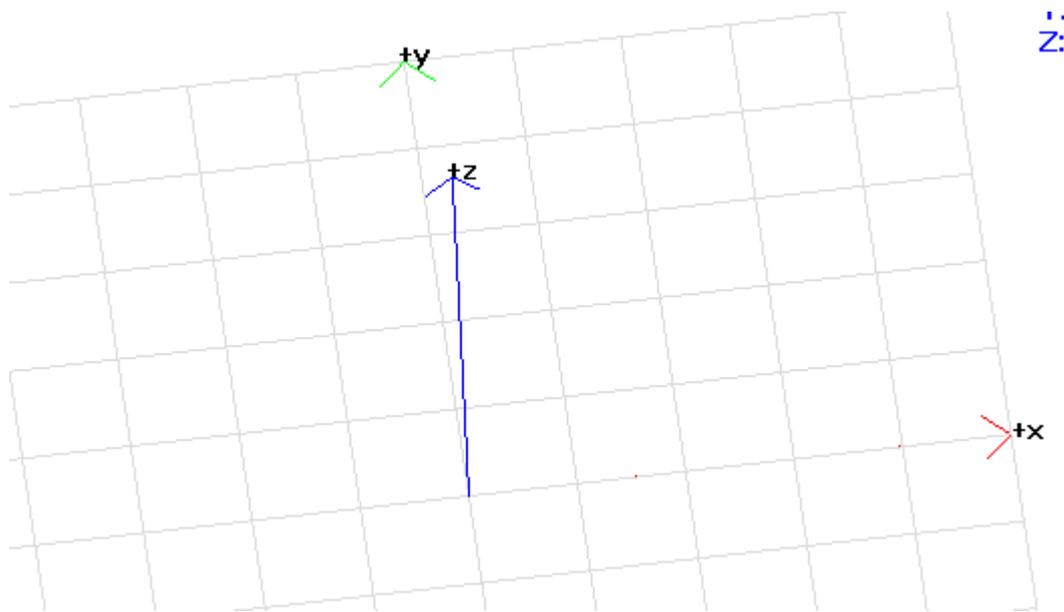
Other for each view switch, convenient observation and operation.