

## Quick Guide – ZLP-Suite Basics

Compact description of all necessary steps for operating the ZLP-Suite basic functions.

### Requirements:

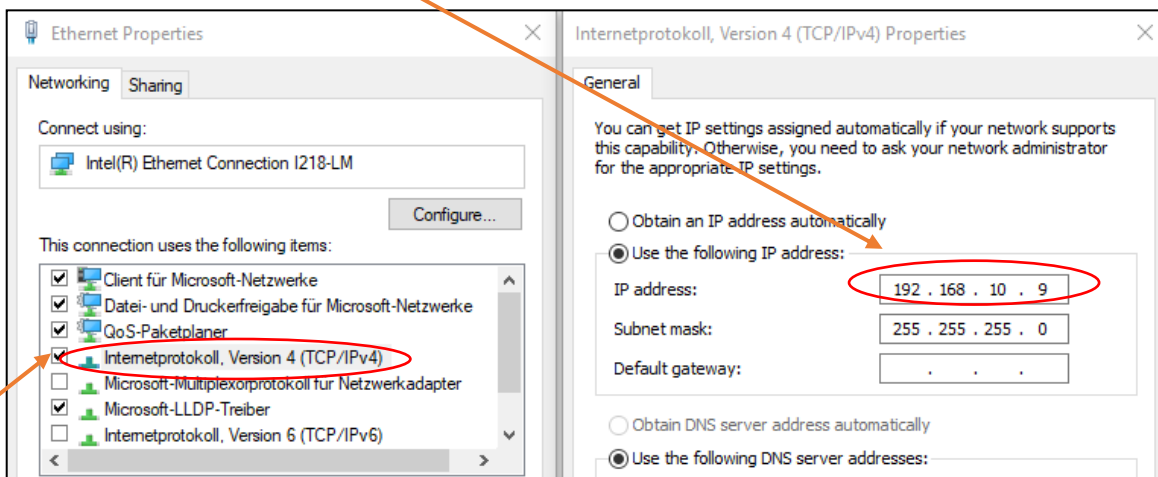
- ZLP-Suite installed
- Projector connected to the PC via Ethernet
- Licence activated (button “License” is green)
- Service is connected (button “Service” is green)



### 1<sup>st</sup> Step: Network Properties

If the PC is directly connected to Projector = assign fixed IP address for PC between:

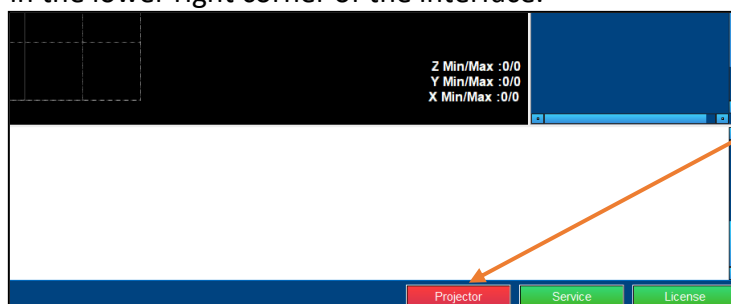
192.168.10.1 - 192.168.10.9



If PC and Projector are connected to a DHCP server = Obtain IP address automatically!

### 2<sup>nd</sup> Step: Connect Projector

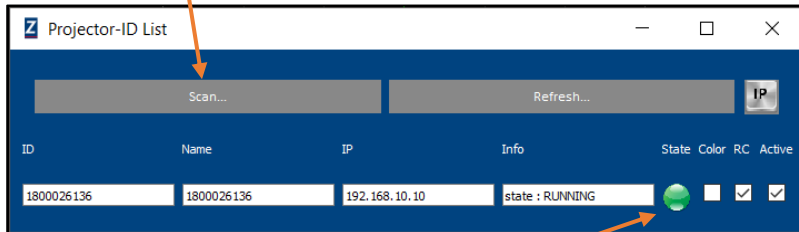
Open the ZLP Suite and connect the projector by pressing the red or grey “Projector” button in the lower right corner of the interface.



Press the “Scan” button. The Projector should appear now. Activate the checkbox “Active”.

(RC = Remote Control

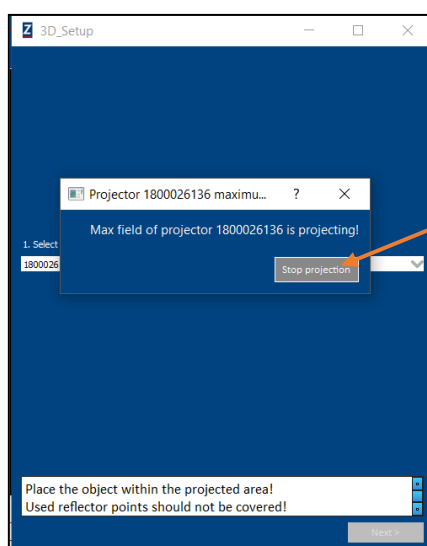
Color = only for types that project multicolored)



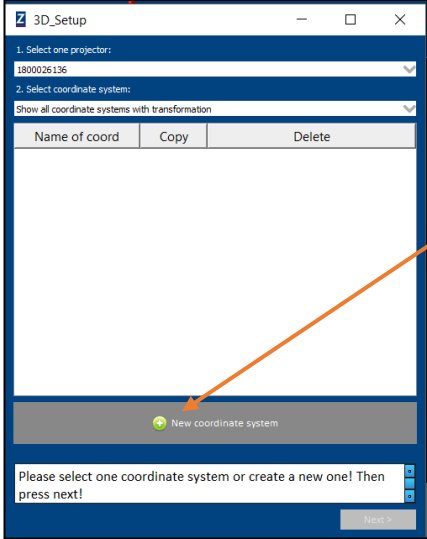
Thereafter the “State” indicator must turn green, now you have to close the window.

### 3<sup>rd</sup> Step: 3D Setup

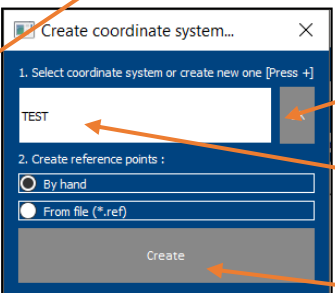
Start the 3D Setup by clicking on the “3D Setup” button in the upper toolbar.



Then the max. field is projecting, the area to be projected must be within the max. field. If that is guaranteed stop projection by pressing the button: “Stop projection”

**Method 1, add a coordinate system by hand:**


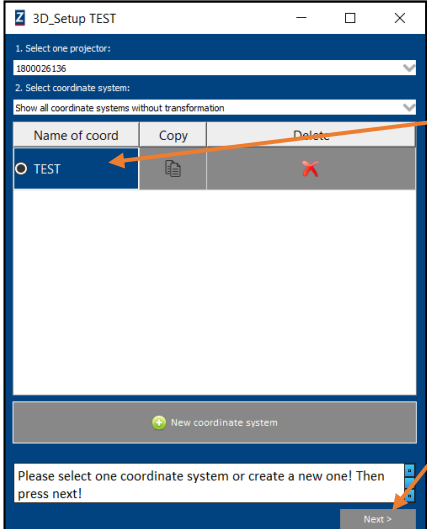
1.) Press "New coordinate system".



2.) Press the small plus

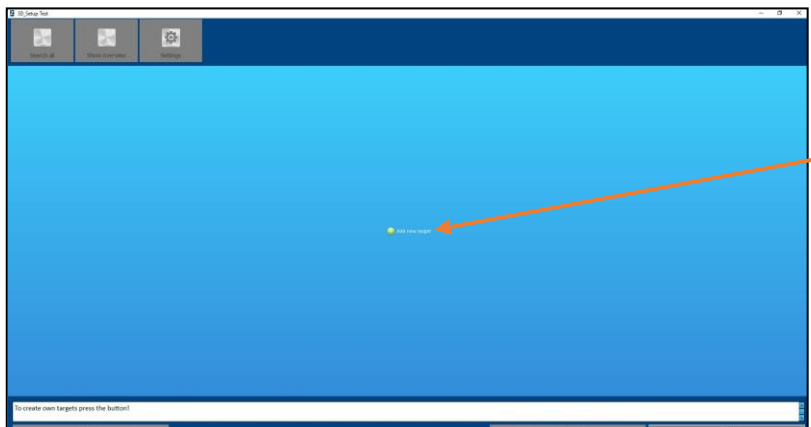
3.) Name the new coordinate system

4.) Press "Create".

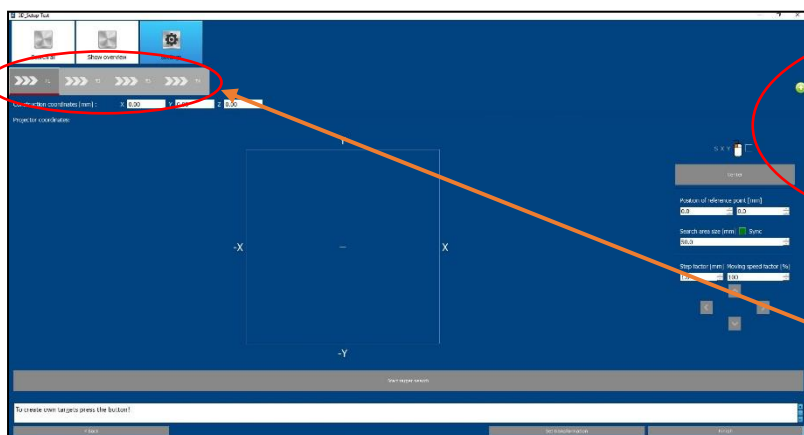


1.) Choose the created coordinate system

2.) Press "Next"



Click on the "+ add new target" in the middle of the screen to add targets to a coordinate system.

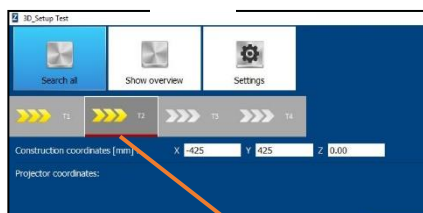


Then add minimum **3** more targets by pressing on the “plus” in the upper right corner.

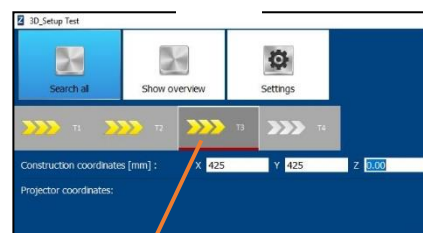
In the upper left corner 4 targets have to appear.

**Each target (T1, T2, T3, T4) must be selected individually and the coordinates for x, y, z be entered:**

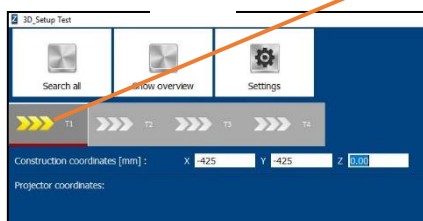
T2



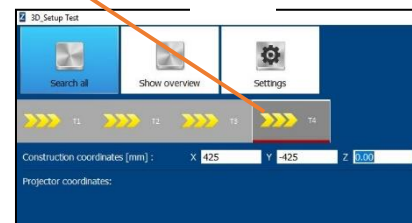
T3

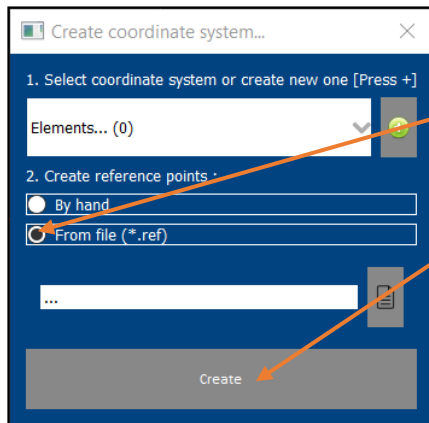


T1



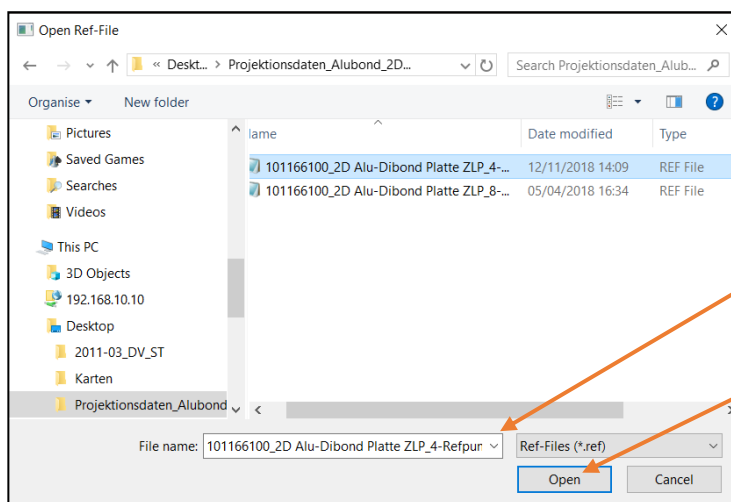
T4



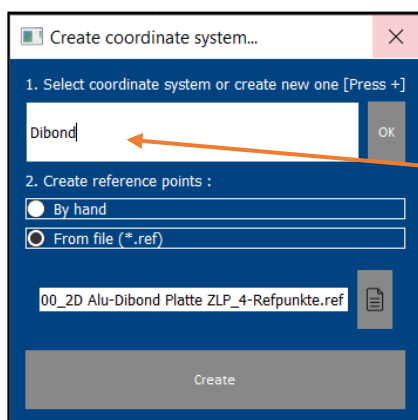
**Method 2, add a coordinate field from file (\*.ref)**

1.) Mark the checkbox "From file (\*.ref)"

2.) and press "Create"



2.) Select the file and press "Open"

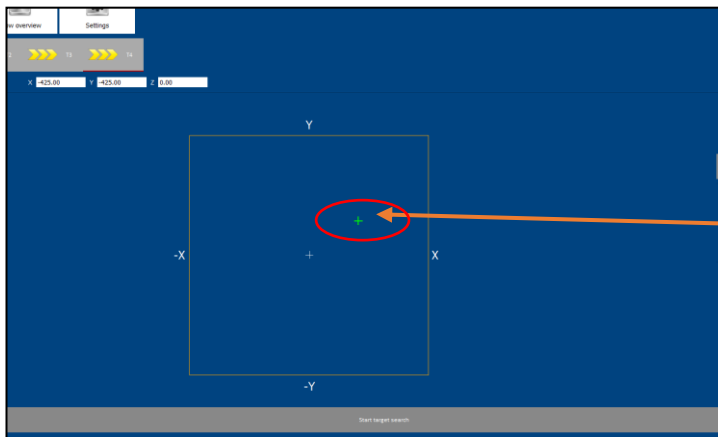


3.) Name the coordinate system (like in method 1).

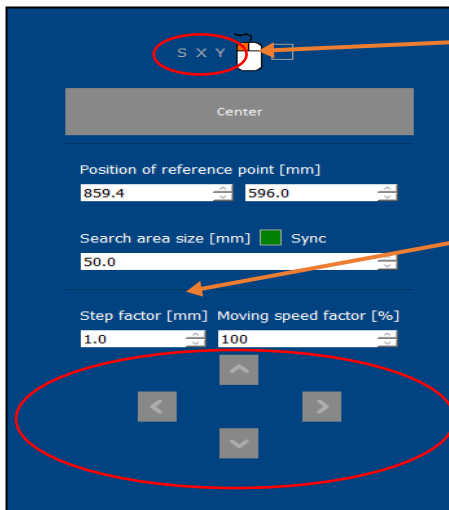
**If coordinates (\*.ref file) have been uploaded, they are automatically assigned to the targets.**

If no file exists coordinates for each target must be entered manually.

Once the coordinates have been assigned, the cursor must be moved to respective targets:



Move the cursor into the coordinate area, press left mouse button, hold and move the cross one after the other to the targets **T1, T2, T3, T4**.



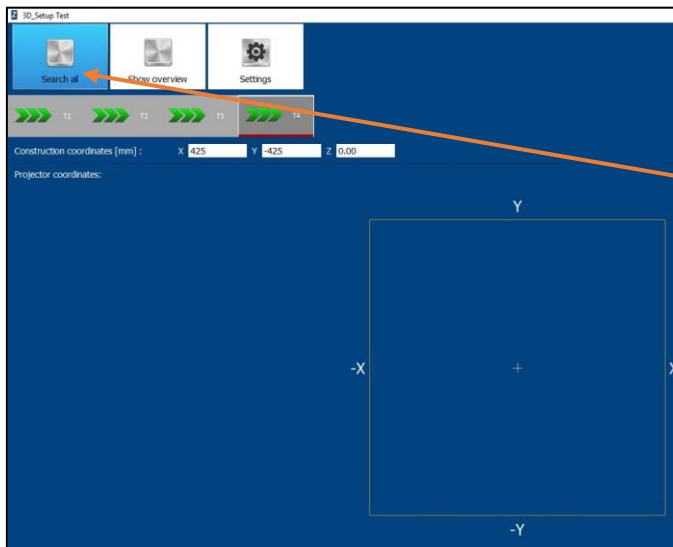
The direction of cursor movement could be changed by pressing **X, Y, and S**

The size, step factor and movement speed of the cursor can also be changed.

The cursor also can be controlled with the 4 arrow keys.

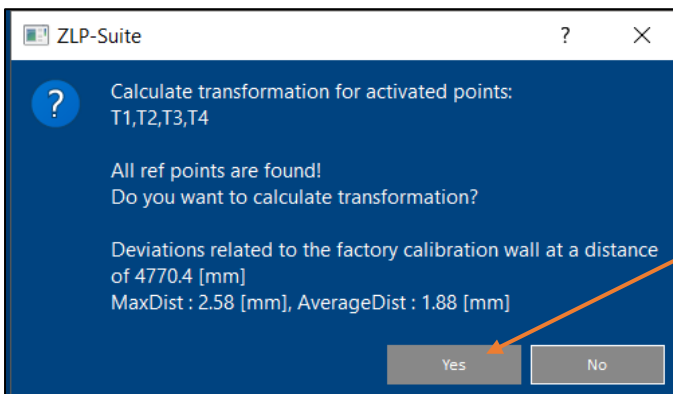
**Please note that by increasing the search area the point search can be extended considerably. A large search field = point search take longer time (optimal value 50)**

The point search causes the reflector points / targets to be found and places a cross on the exact center of the detected reflection.

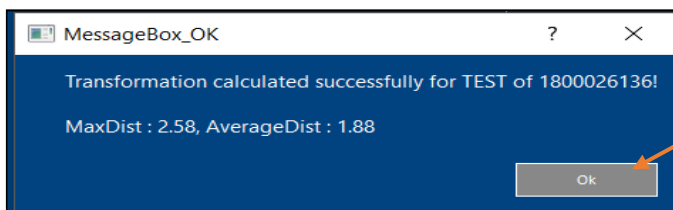


After the coordinates have been entered a point search have to be performed by pressing on “search all” button.

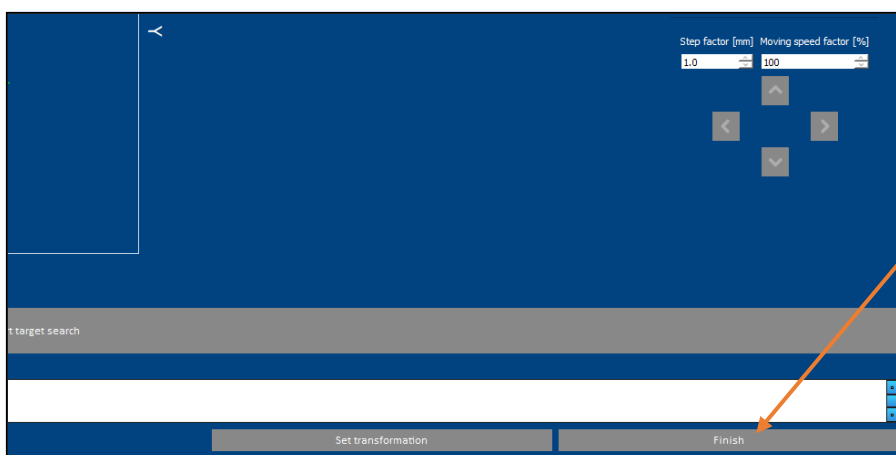
Now the transformation starts.



After that the transformation will be calculated and the accuracy is displayed. You can set the transformation if you are pleased.



Press “OK”.

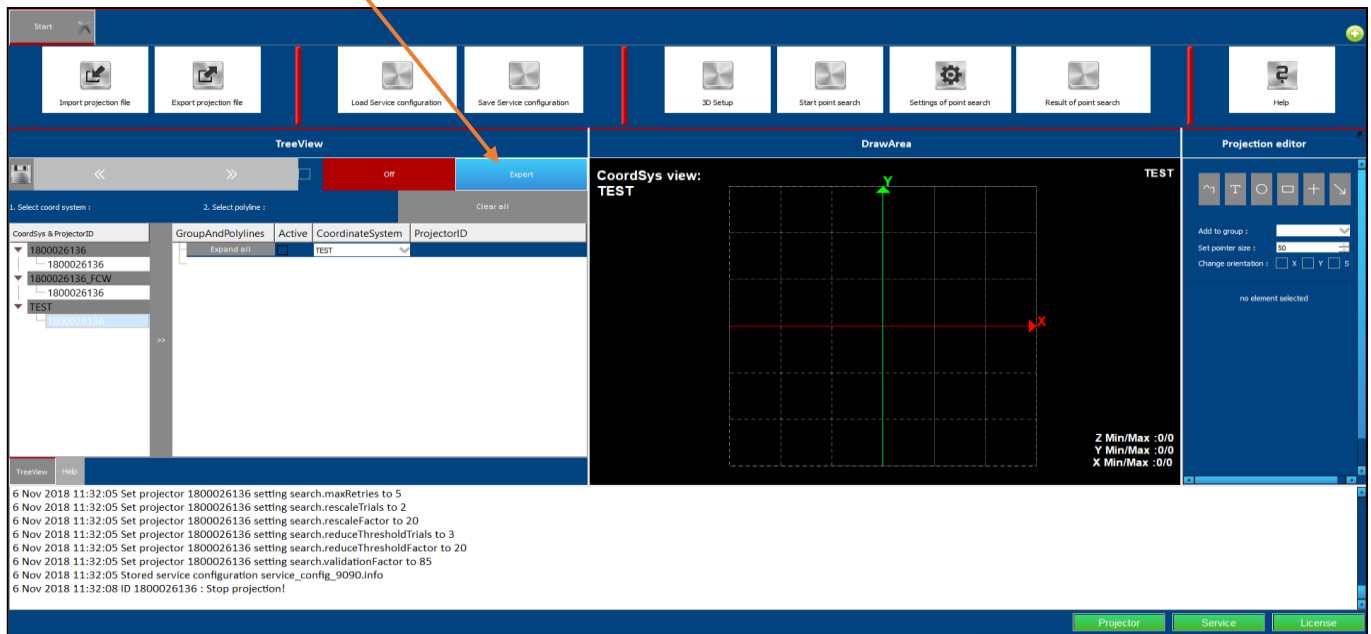


Press “Finish” to close window.

## 4<sup>th</sup> Step: Tree explanation

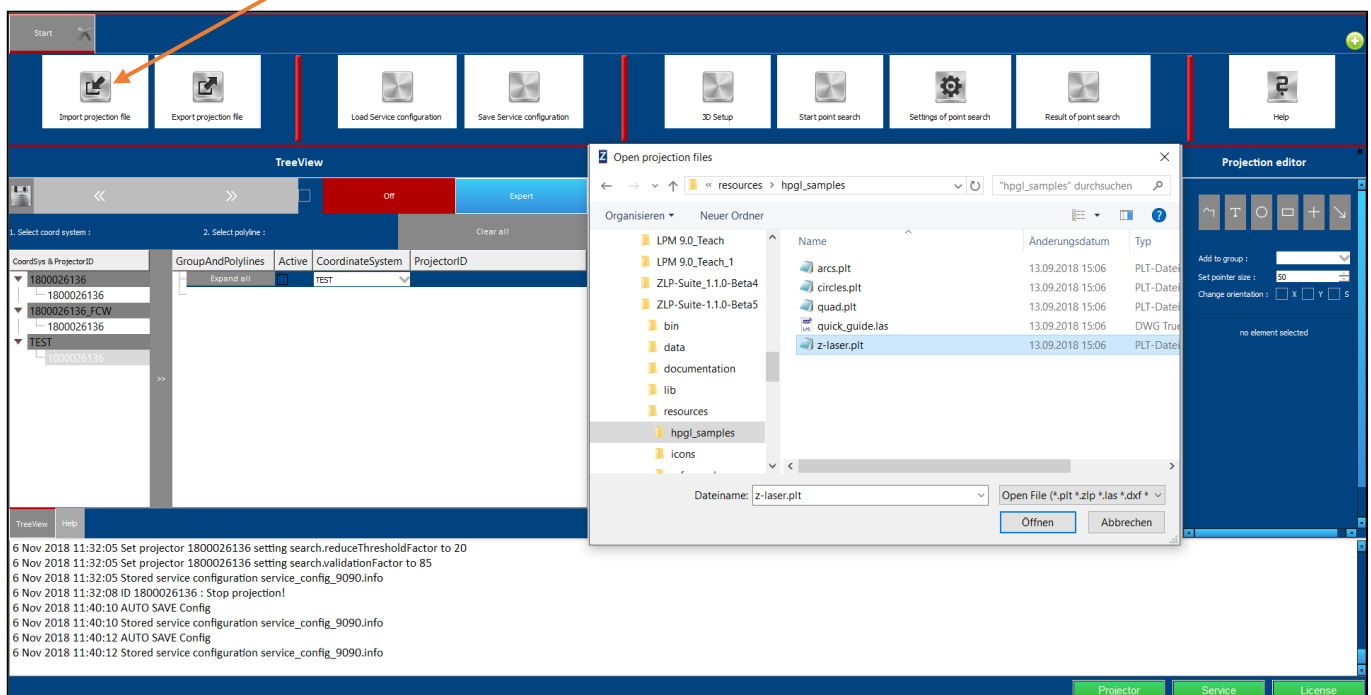
The tree is the tool for file projection and coordinate fields.

Press the button “Expert”, an overview appears that displays the available projectors, coordinate systems and files.

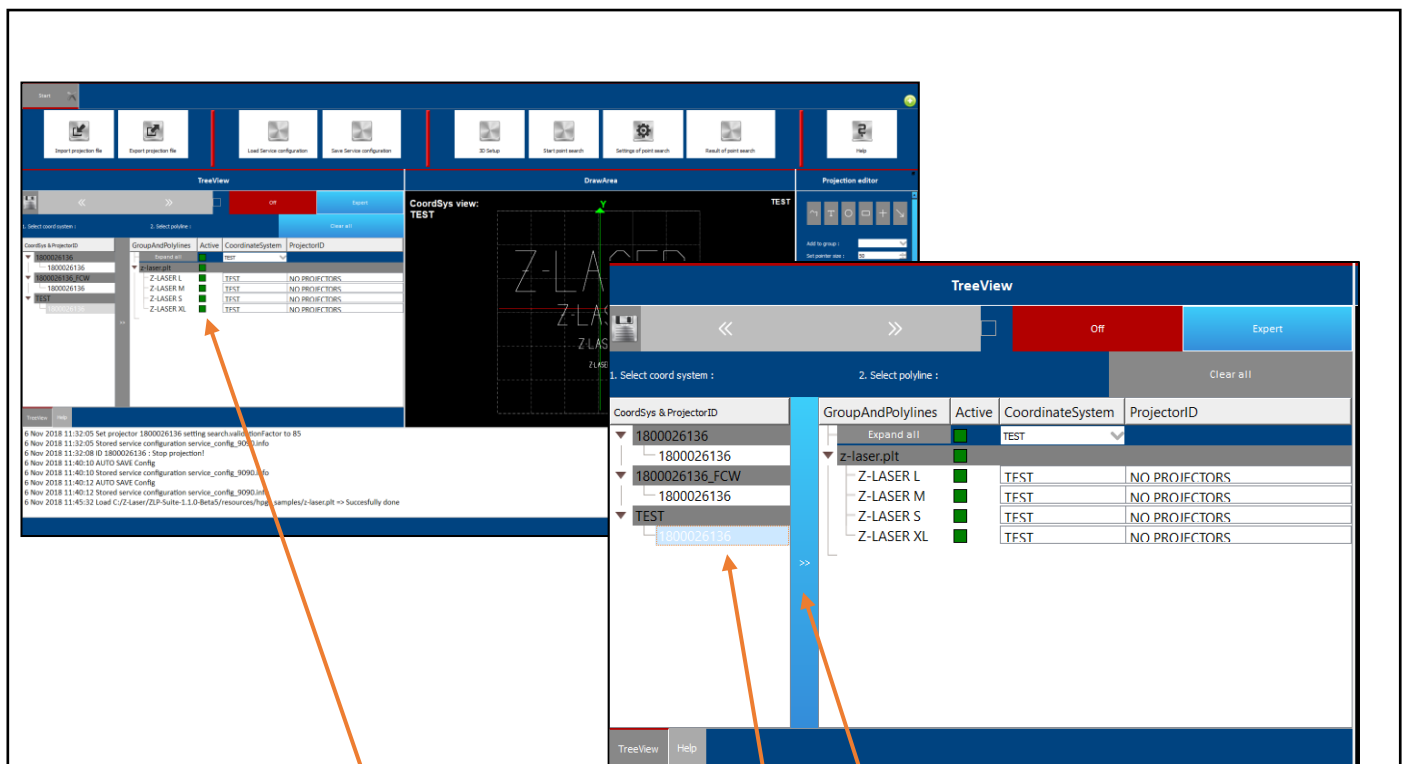


## 5<sup>th</sup> Step: File Import

Press “Import projection file” and select the desired file in the window e.g. z-laser.plt.

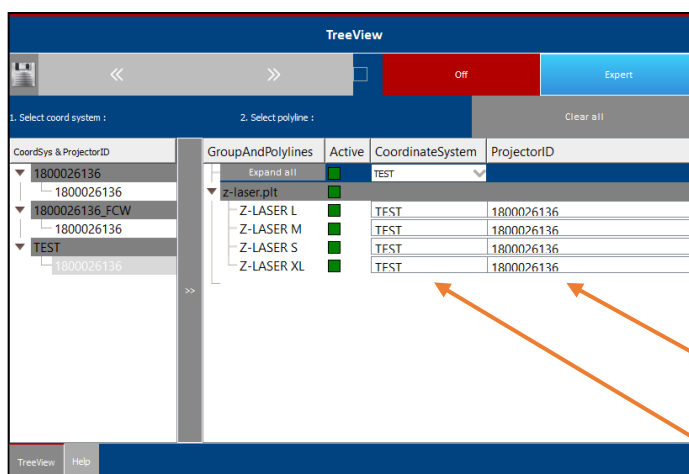






Assign a coordinate field / projector to the file(s):

1.) Activate the file(s) by clicking on the box “active” = it turns green



2.) Mark the coordinate field / projector.

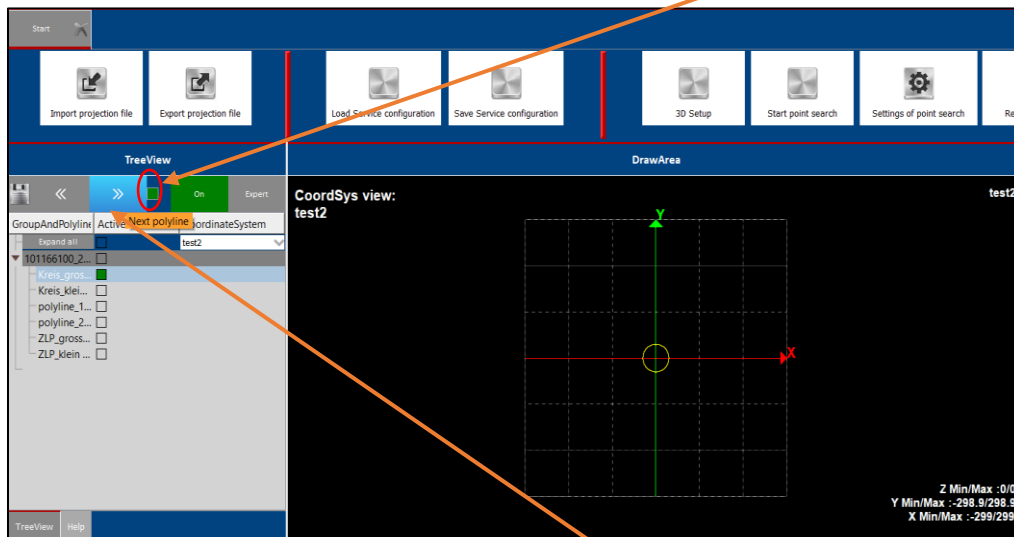
3.) Assign it by clicking on the two arrows.

Now the coordinate field / projector appears next to the file.

Close the expert mode by pressing on “Expert”.

Then press the red status button “off” to start the projection.

## 6<sup>th</sup> Step: Toggle the projection



1.) Activate the checkbox to turn on toggle mode.

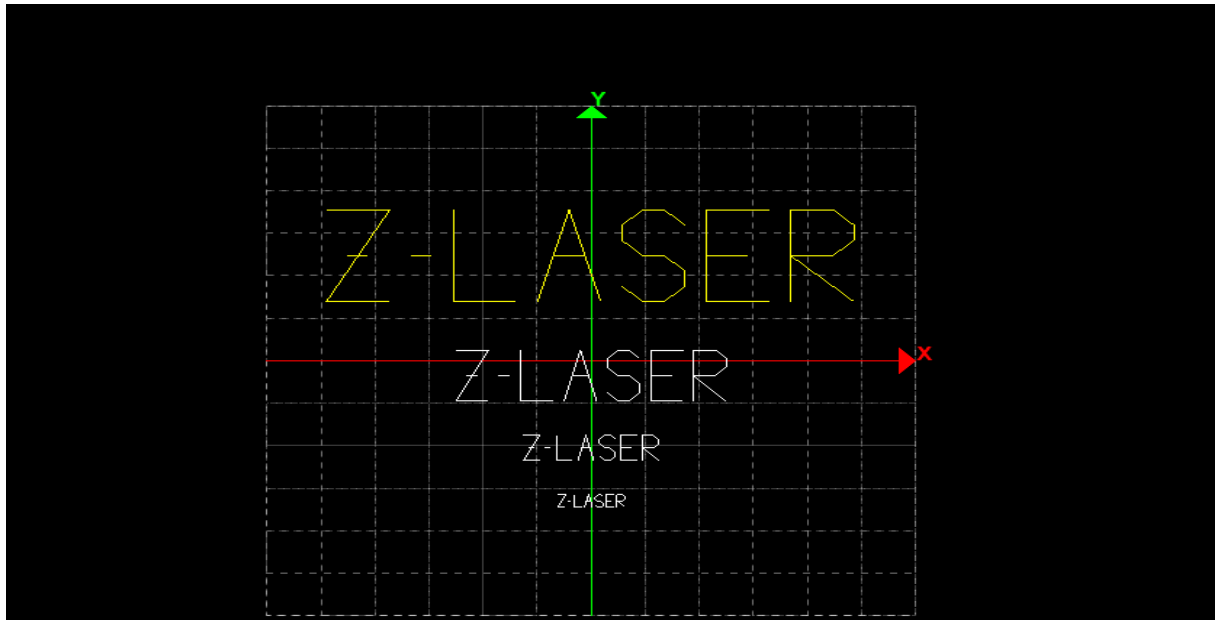
2.) To toggle the projection, press the arrow key(s) in left or right direction. Switching via the arrow keys on the keyboard is also possible.

**If the toggle mode is activated, the files can no longer be activated directly in the tree view!**

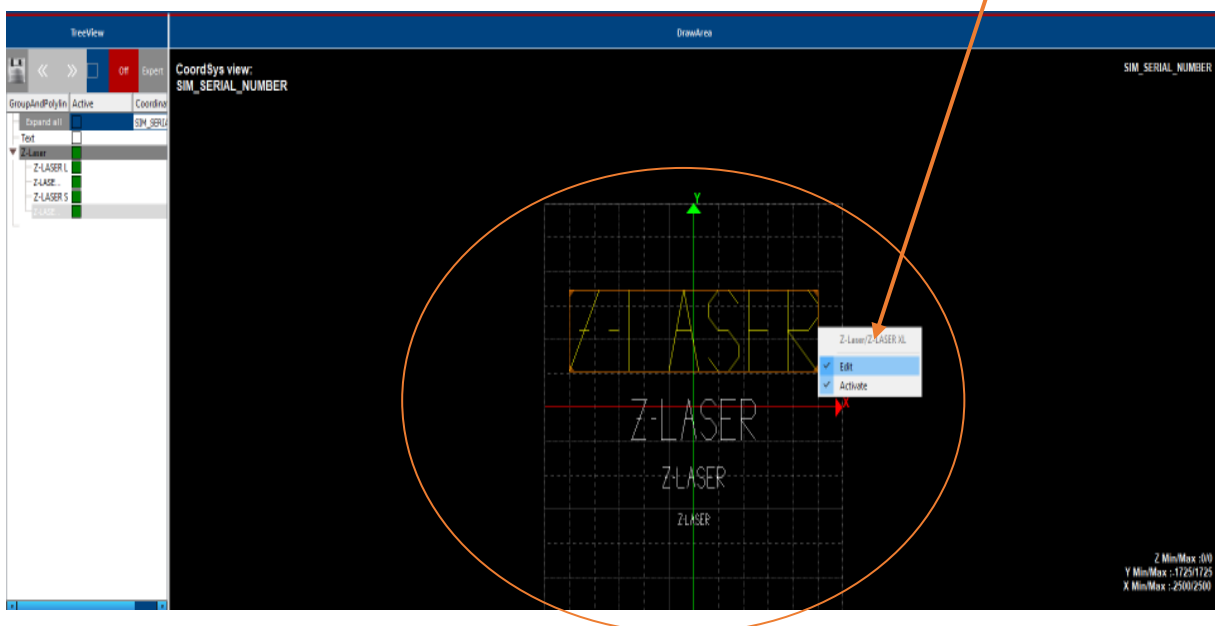
**Deactivate the checkbox to turn off toggle-mode.**

## 7<sup>th</sup> Step: Coordinate system

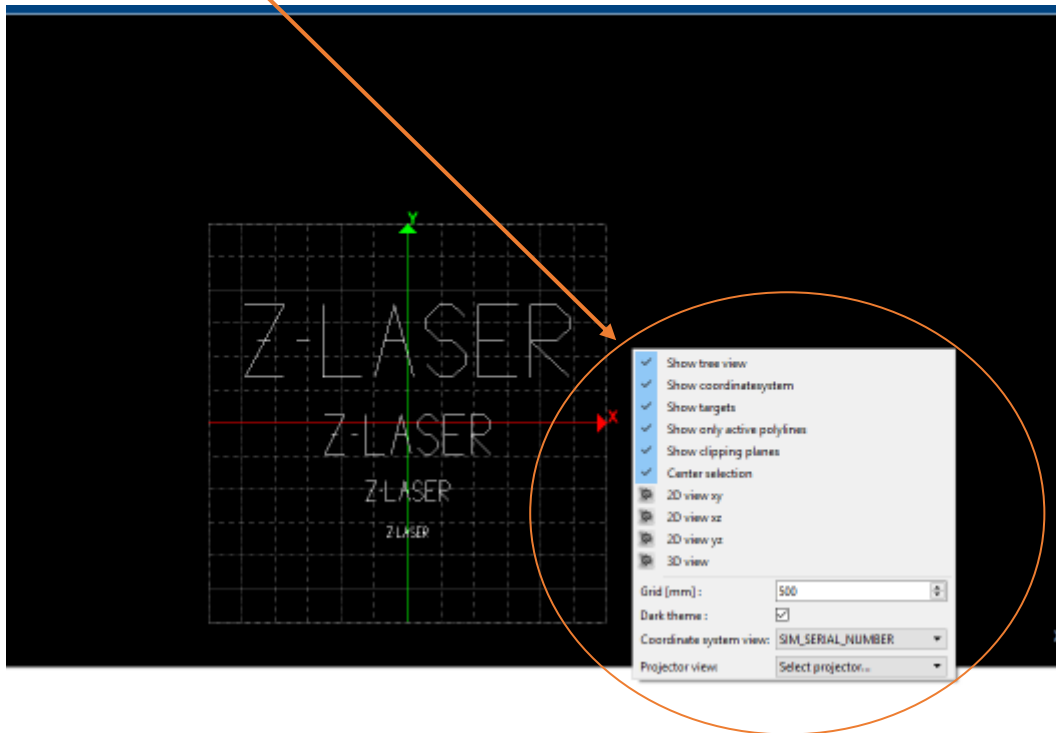
Projections can be selected and edited in the coordinate system view. Select the contour with the left mouse button, the contour will be highlighted in yellow.



After marking press with right mouse button on the contour, a window opens - choose edit. Now an orange frame appears around the contour. After that, by pressing and holding the left mouse button on the frame, the contour can be moved. With mouse wheel it can be enlarged and reduced.



If no contour is selected, pressing the right mouse button within coordinate system opens a menu to select different views and settings:



If **3D view** is selected, the viewing angle can be changed by using the arrow keys on the keyboard:

