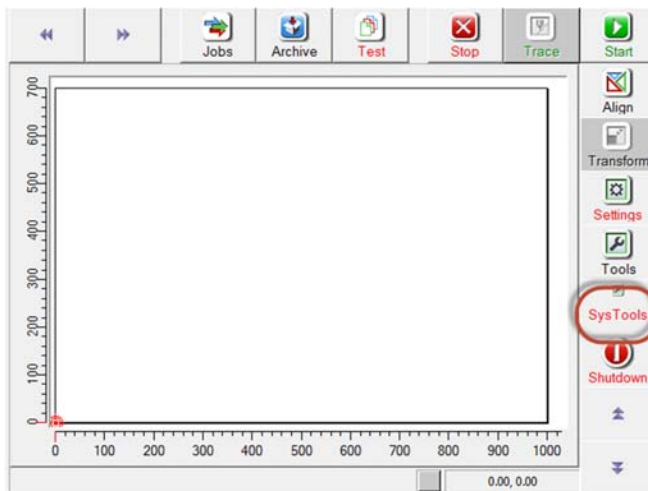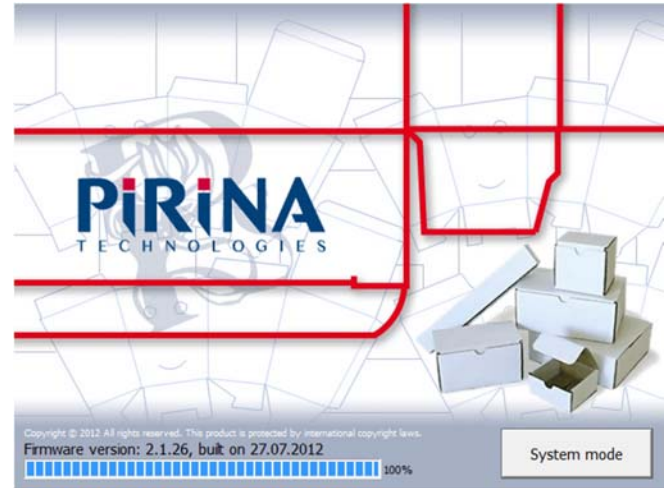# System Tools Menu

When **Pirina plotter** starts *Initialize* button appears on the initial window. Connect keyboard to the machine and press F6. This enables *System mode* environment. Press the tab to enter the mode.
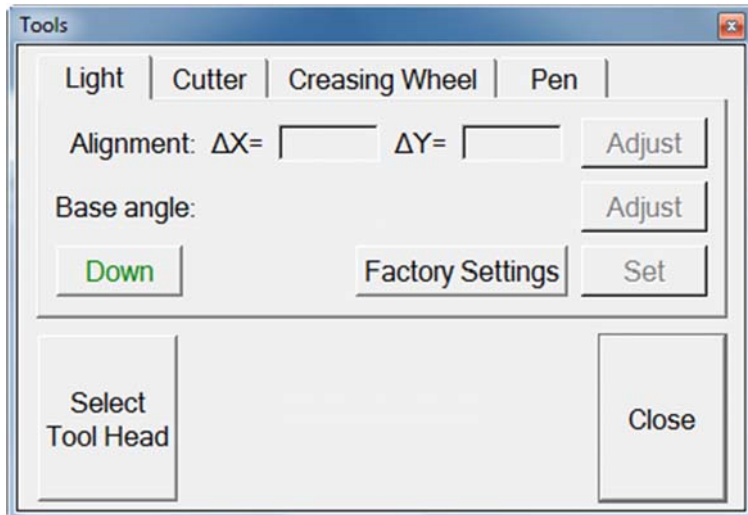

System tools tab is accessible only in System mode.

Contents of *System tools tab*

System Tools Tab contains 4 sub-menus - one for each instrument of the tool-head:
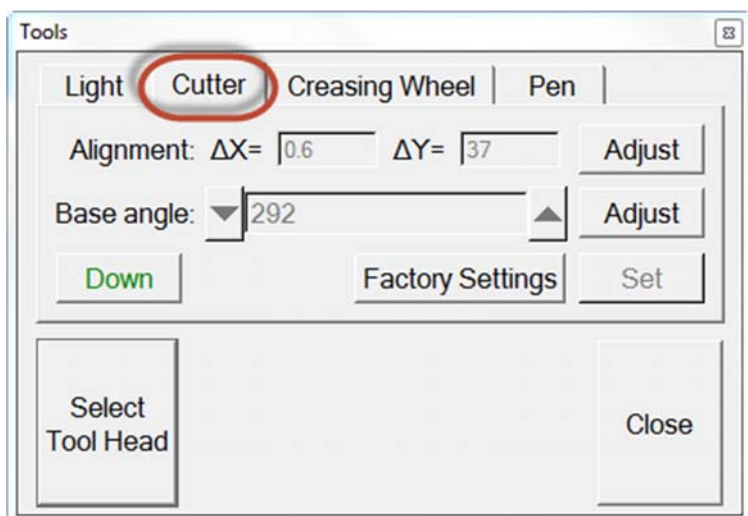
1. **Light marker sub-menu**

The light marker is designated as a reper instrument to the system
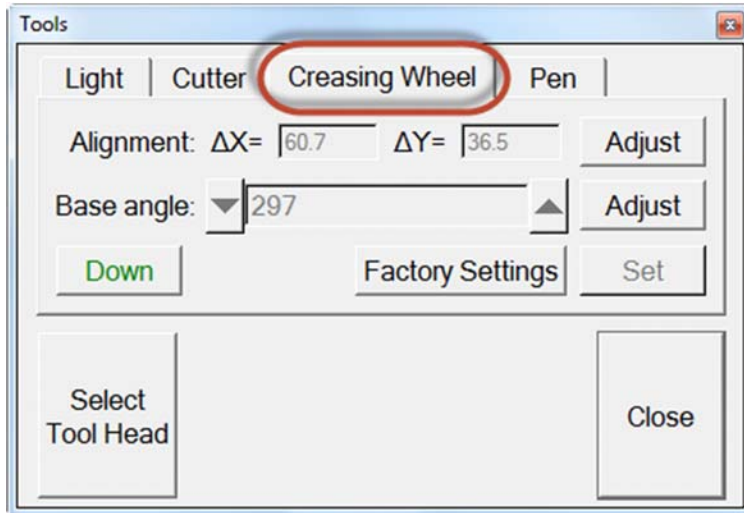
That is why its properties are not editable.
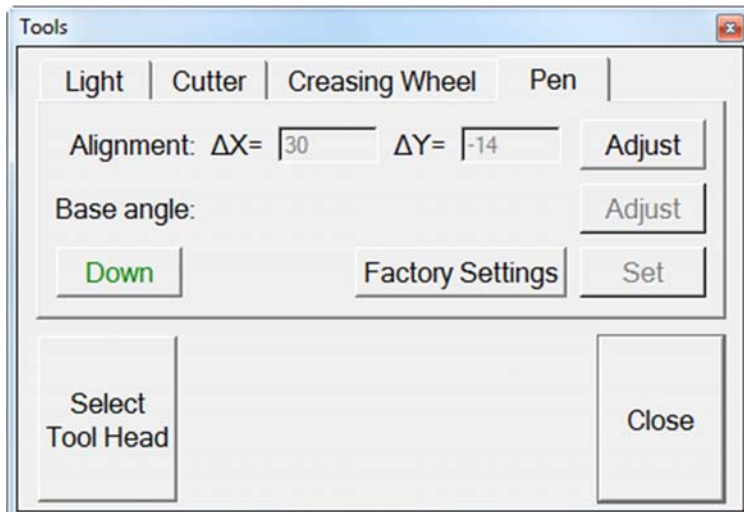
2. **Cutting tool sub-menu**

This menu defines two of the basic system features of the cutting instrument – *Alignment* and *Base angle.*

3. Creasing wheel tool sub-menu

This menu defines two of the basic system features of the creasing wheel instrument – *Alignment* and *Base angle.*

4. Pen tool sub-menu

Alignment feature is the only property of the pen instrument.

TOOL ALIGNMENT PROCEDURE:
**OFFSETTING AGAINST THE LIHGT MARKER**

(System tool feature)

The purpose of alignment procedure is to provide perfect match between the three toolhead instruments – cutting knife, creasing wheel and pen. This is achieved by consequent and separate adjustment of each instrument against the light marker. **'Align'** means to find the correct position of each instrument against the light. Numbers typed in the respective fields define the physical offset position of each instrument (cutting knife, creasing wheel, pen) in regard to the light marker.
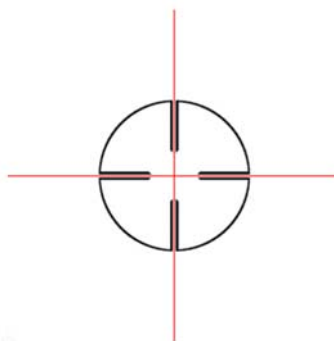
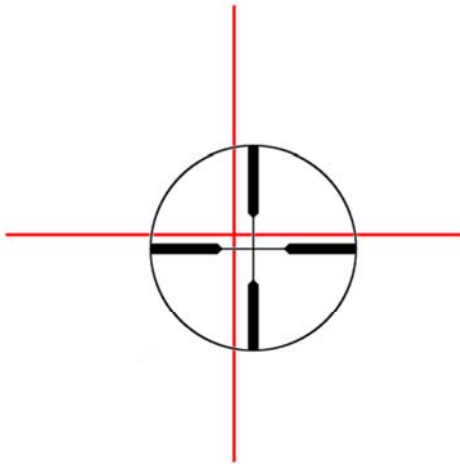Open the tab of the instrument you want to adjust - i.e. cutting knife.
Put a sheet of paper on the vacuum table and start the vacuum.
Press the *Ajust* button on the right-Pend of 'Alignment ΔX, ΔY' row.
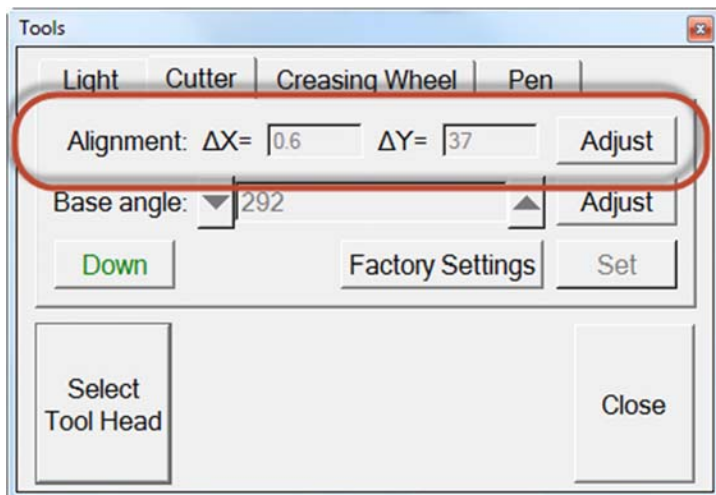
The cutting knife will cut a cross over the paper sheet and then the light marker will move to the center of the figure. In perfect case the figure will look like this:

If the result of the test looks more like this, you need to make some corrections.

Start moving the light marker with the arrow keys. Find the position where the two figures coincide perfectly over each other.

REMEMBER always to press the SET button after reaching the desired position of the light marker.

Result after repositioning light marker with arrow

Adjust test
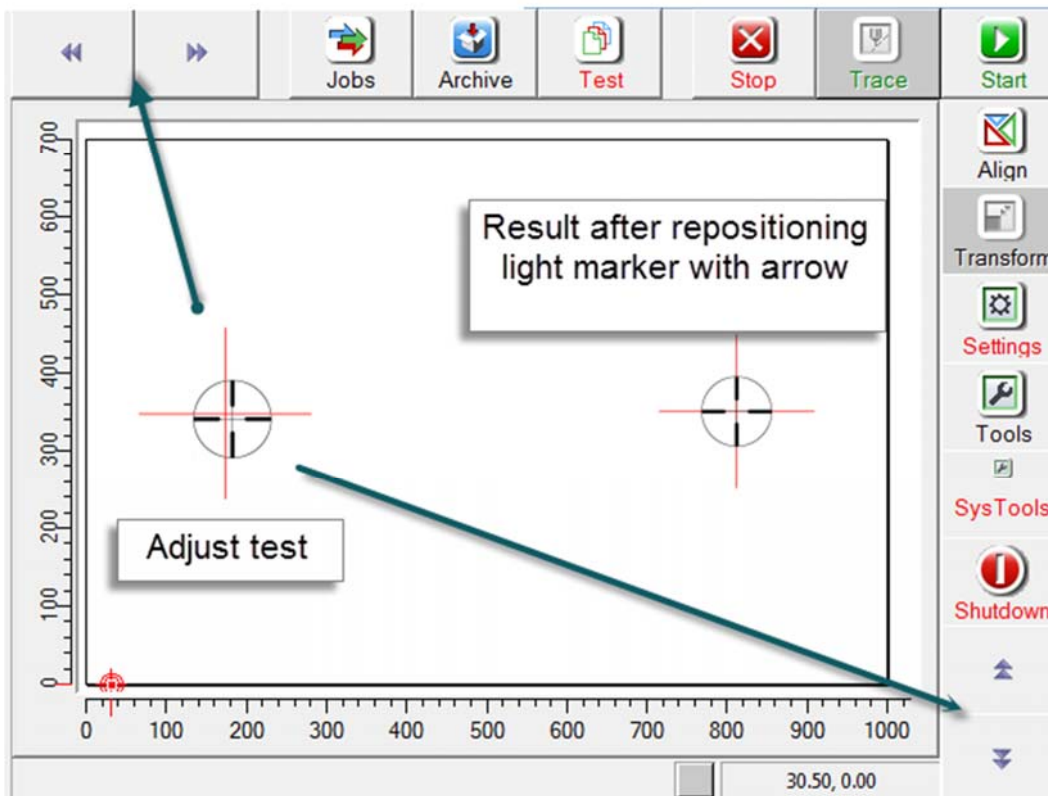
Note: Arrow keys are the easiest way for repositioning the light marker. But if you need more precise steps of movement, you can use the keyboard and type your own numbers in the provided fields:

Alignment: ΔX= 0.6   ΔY= 37   Adjust
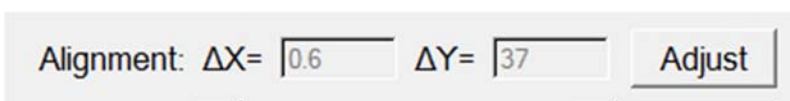
Apply the same procedure for the two other instruments – creasing wheel and pen.

BASE ANGLE ADJUSTMENT
(System tool feature)

Base angle is the second important feature of the two main working instruments – cutting knife and creasing wheel. This feature is managed by **Base Angle sub-menu** in *SysTools* tab.
Correct base angle ensures best tangential movement of each instrument.
This is achieved by rotation about the axis.
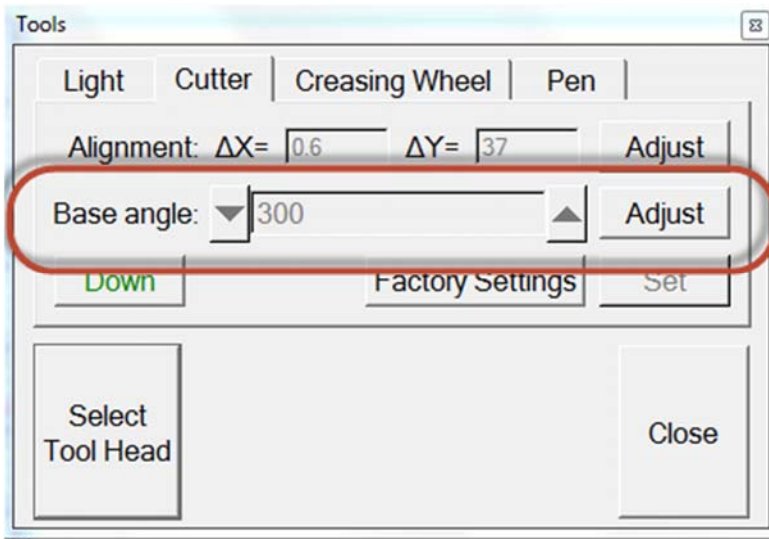
Note:
Pressing the **Adjust** button doesn't trigger any preset system test (as Alignment adjustment).

The **Adjust** button only enables the mode for changing the values in the provided fields.
Pressing the **Set** tab is obligatory to make the changes permanent.

Each piece of instrument may have its own base angle value. For example each of three different creasing wheel instruments may work perfect at different base angle values.
Due to the physical nature of this instrument creasing wheel is very sensitive to even slightest rotation. Even one unit up or down my affect visibly the performance of the tool.
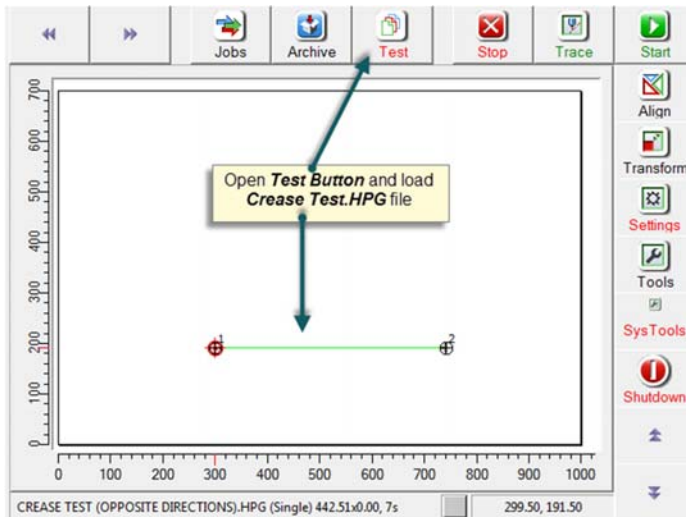
The machine default number is 300 (in step units), which means exactly 90 degrees rotation of the working instrument compared to its initial (start) position.
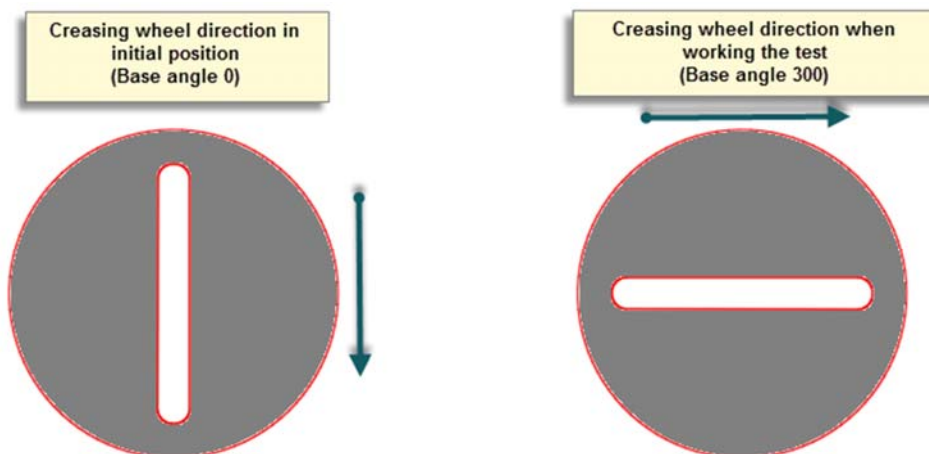
Setting the correct base angle value for each instrument requires the following steps:
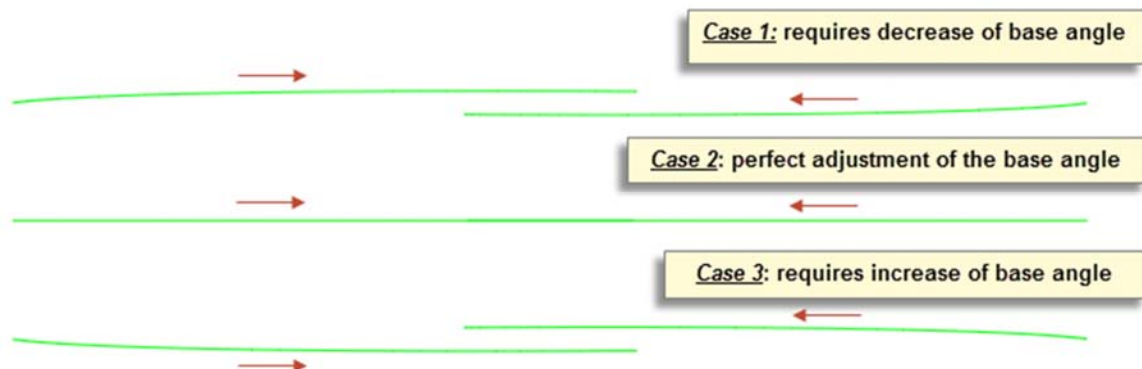
1.Step one:
From **Test** folder open the ***Crease test.HPG*** file.

Put a sheet of paper on the vacuum table and start the vacuum. Align the drawing at a proper place on the work area. Press **Start** button and run the test file.

The result will present one of the three cases illustrated with the pictures below:

2.Step two:

Case 1 and *Case 2* require correction of the base angle value.
Open again the *SysTools* tab and the relevant sub-menu.
Press the **Adjust** button and type the new base angle value. The new value is based on the result of the previous test. Example: In Case1 we must type a lower value than the current one (298 inst. 301).
Press **Set** button and repeat the test with the new value.
If needed repeat the above steps until the *Case 2* result is achieved.
Apply the same procedure to the other creasing instruments.

> **Important note:**
> When the creasing wheel tool is a subject to adjustment procedures, the **Base angle adjustment** should precede the **Alignment adjustment**.