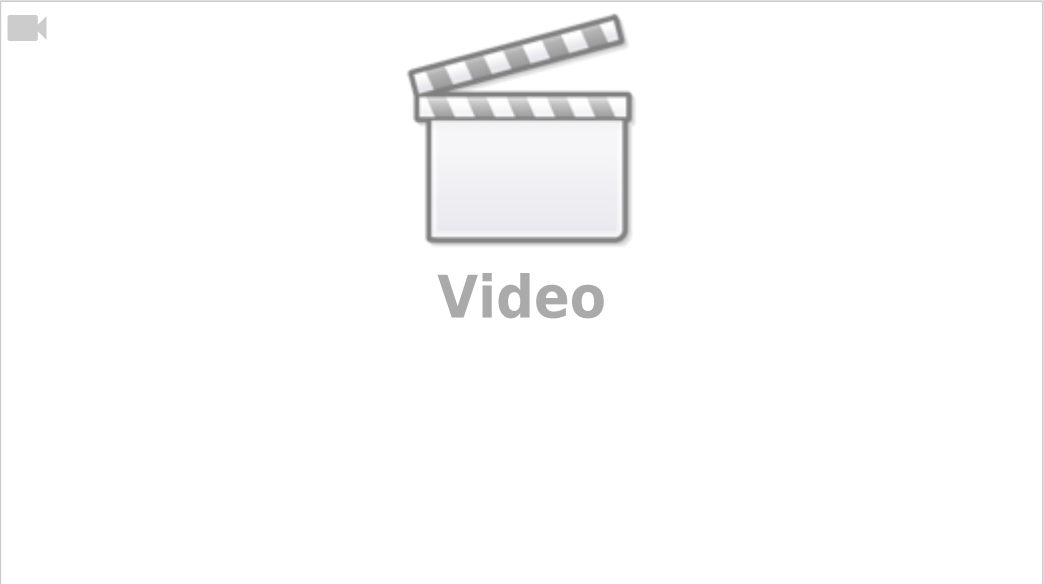
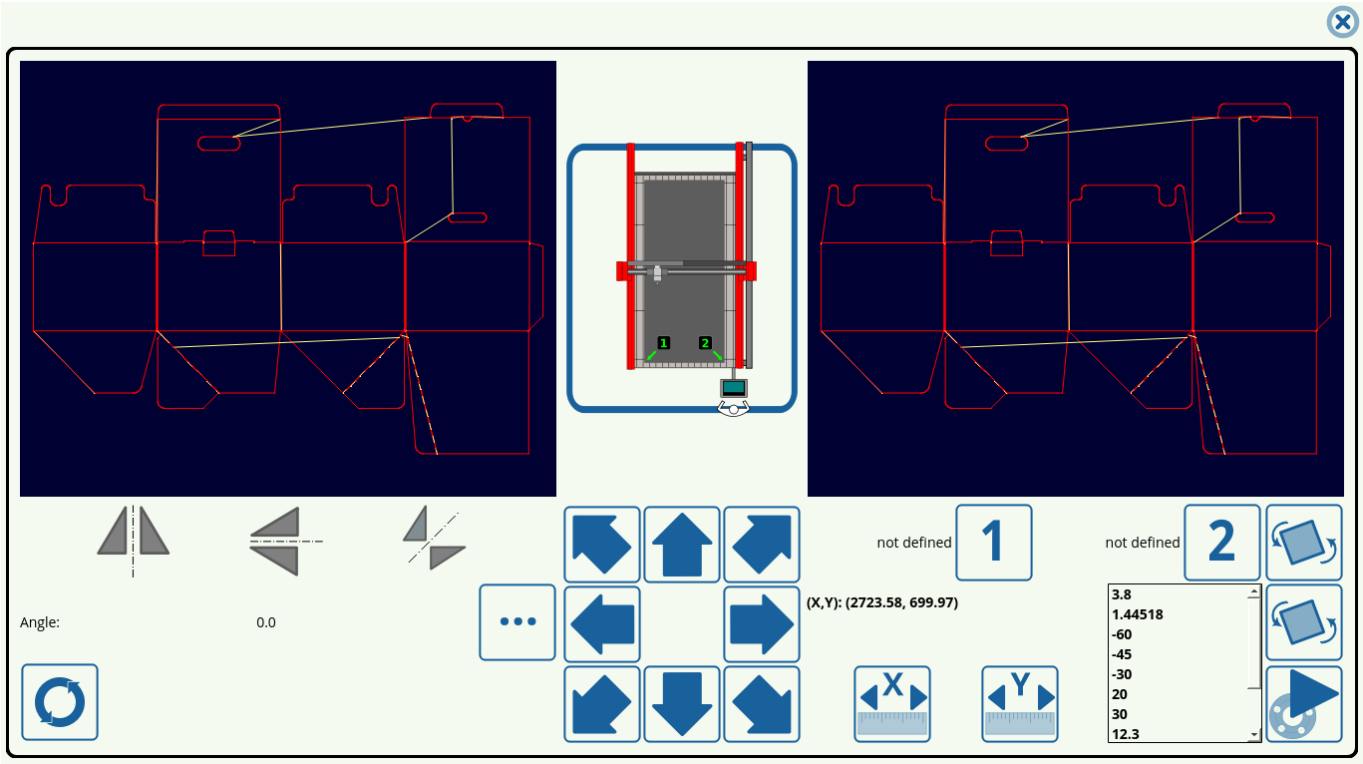
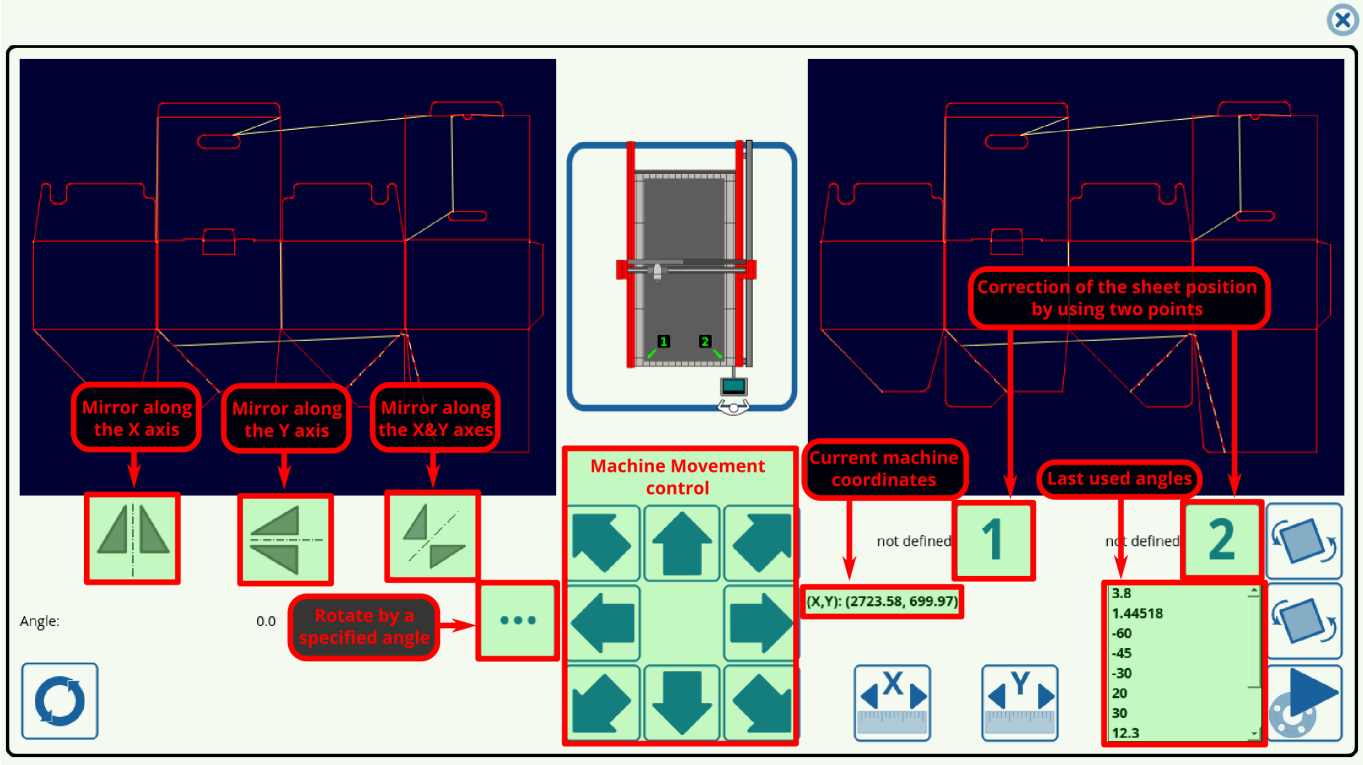
MyCNC Rotation Widget



Below is the main screen of the rotation widget:

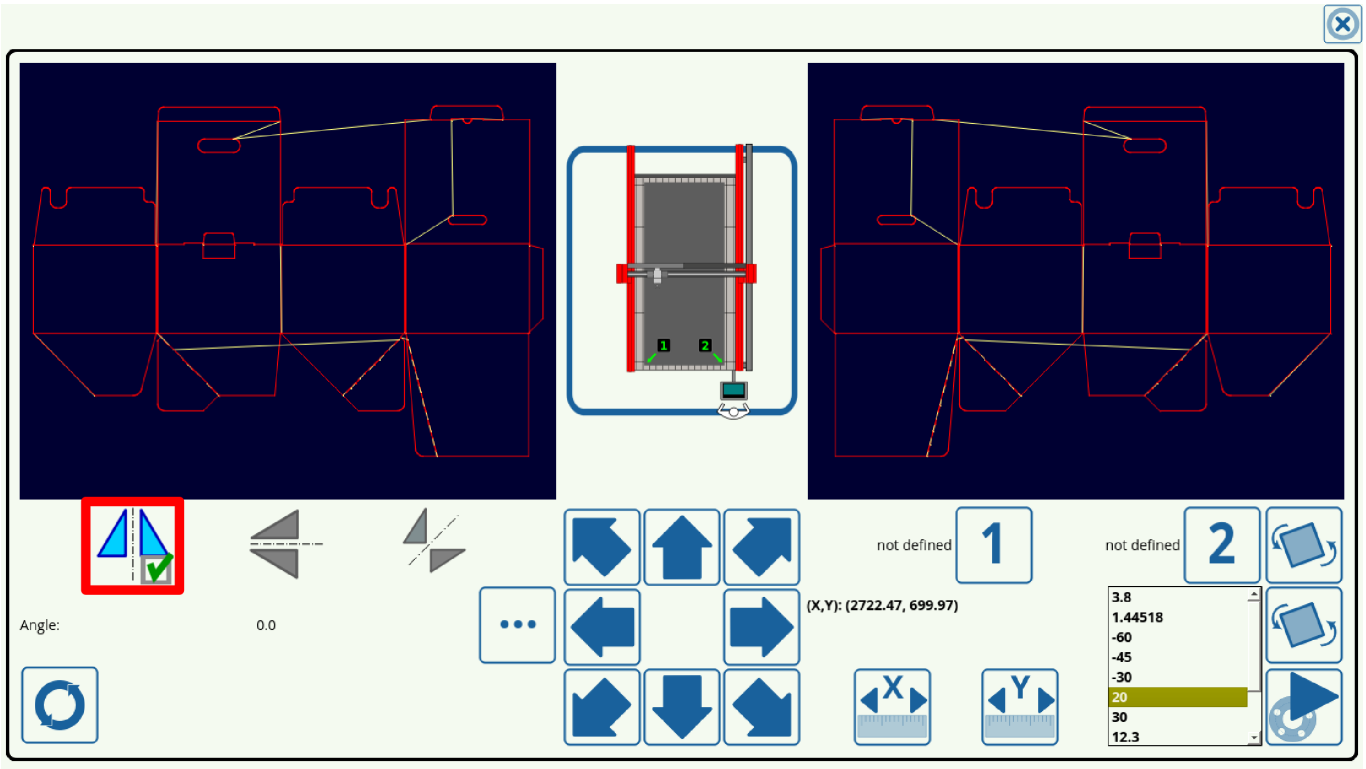


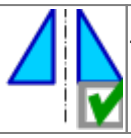
Basic rotation widget functions:



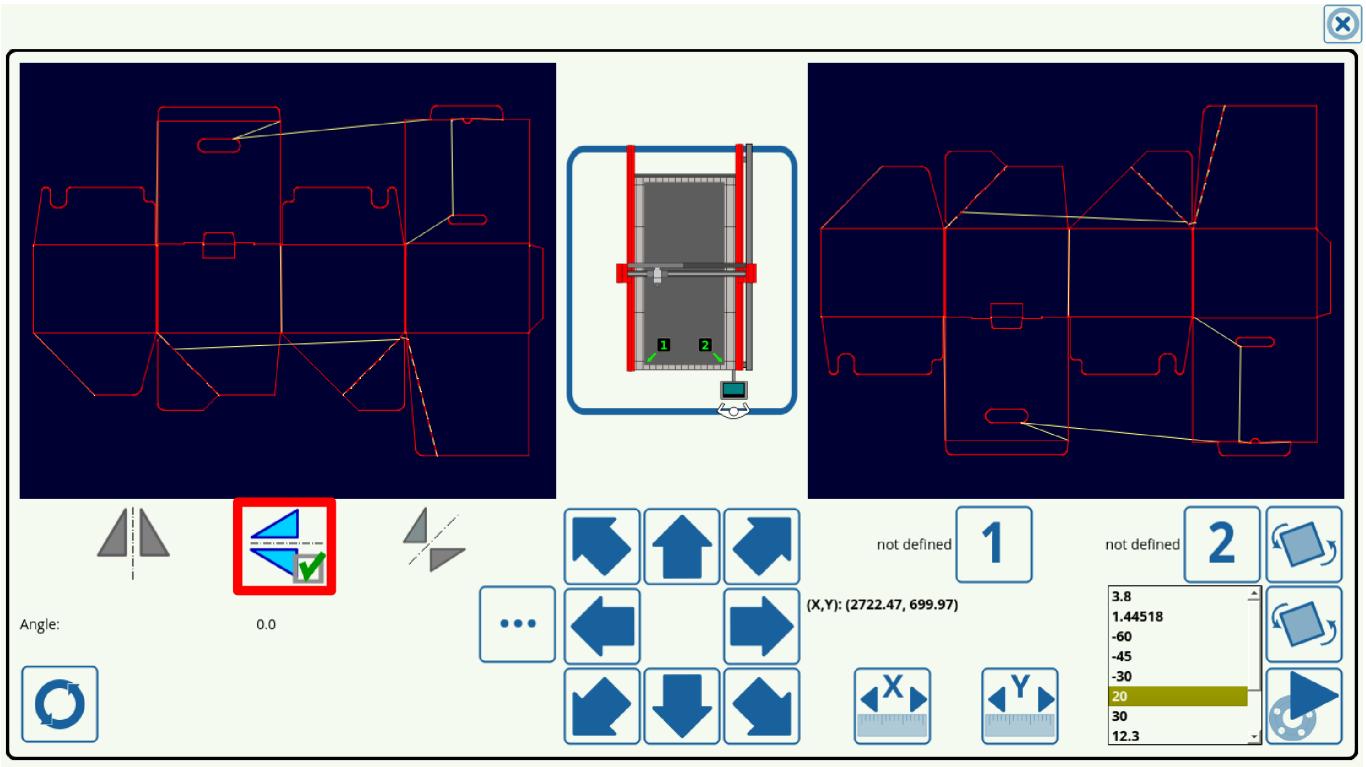
	Refresh the nesting chart (visual display)		Apply the rotation / file transformation
	Move along the X axis to the specified value		Load the converted cutting map into the main program window
	Move along the Y axis to the specified value		Enter the rotation angle value

Transformation of the control program relative to the vertical axis.



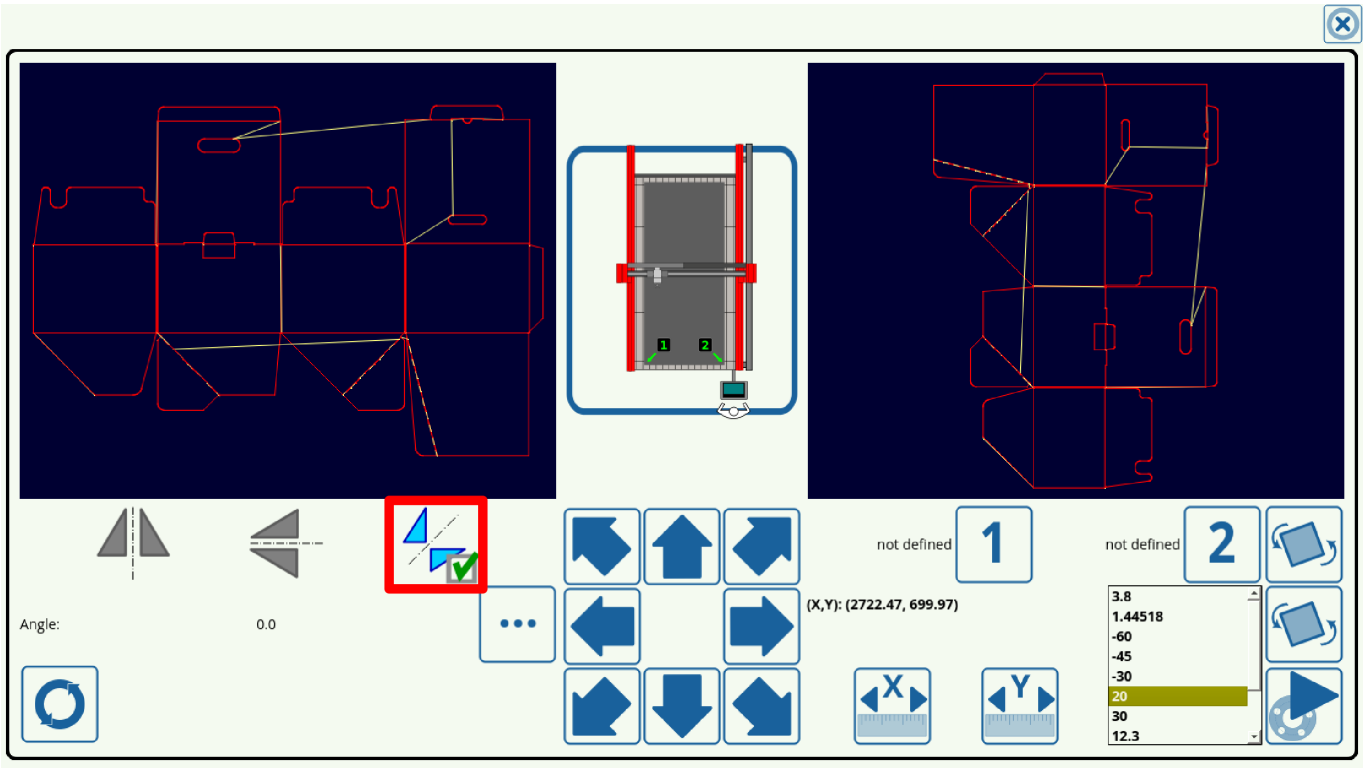
	Signifies that transformation about the vertical axis is OFF.		Transformation about the vertical axis is ON

Transformation of the control program relative to the horizontal axis.



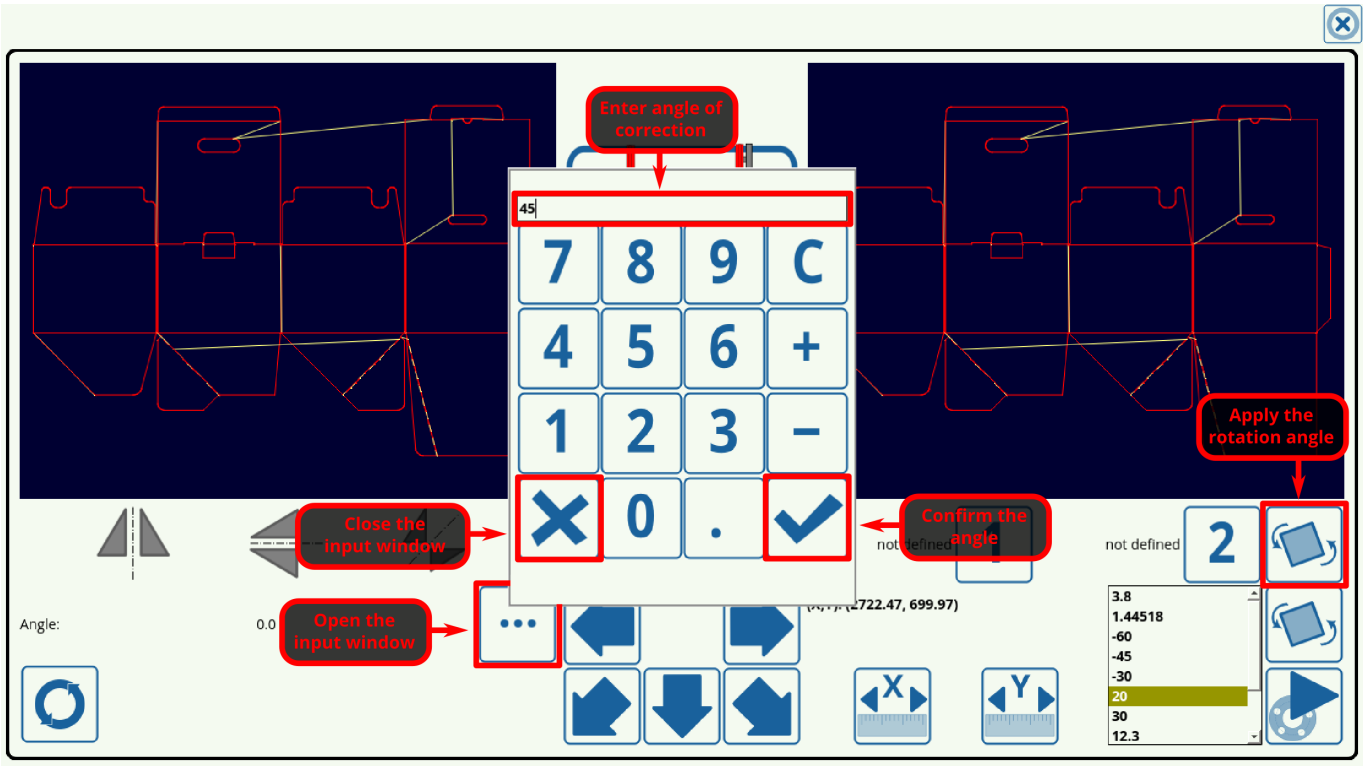
	Transformation about the horizontal axis is OFF.		Transformation about the horizontal axis is ON

Transformation of the control program relative to the vertical and horizontal axes simultaneously.

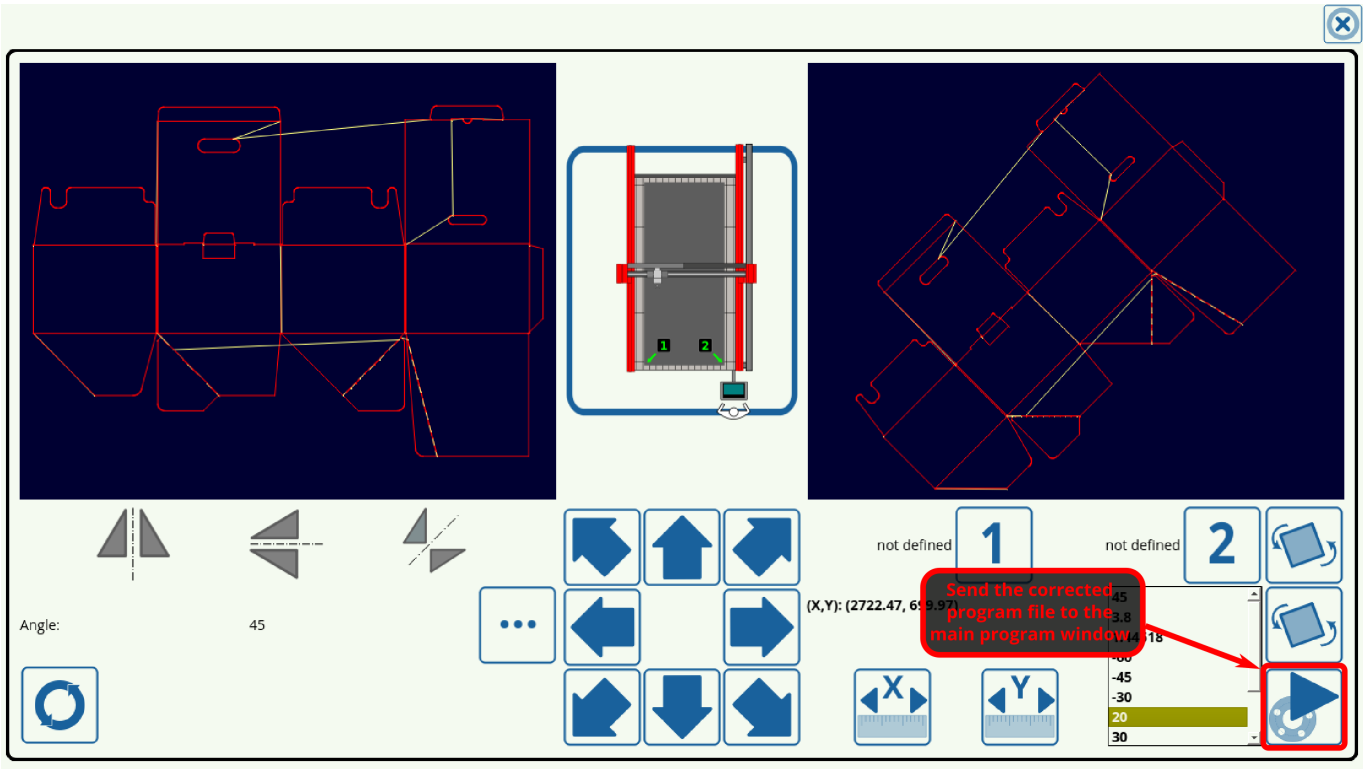


	Transformation about both the horizontal and the vertical axis is OFF		Transformation about both the horizontal and the vertical axis is ON.

Rotation of the nesting map to some specified angle

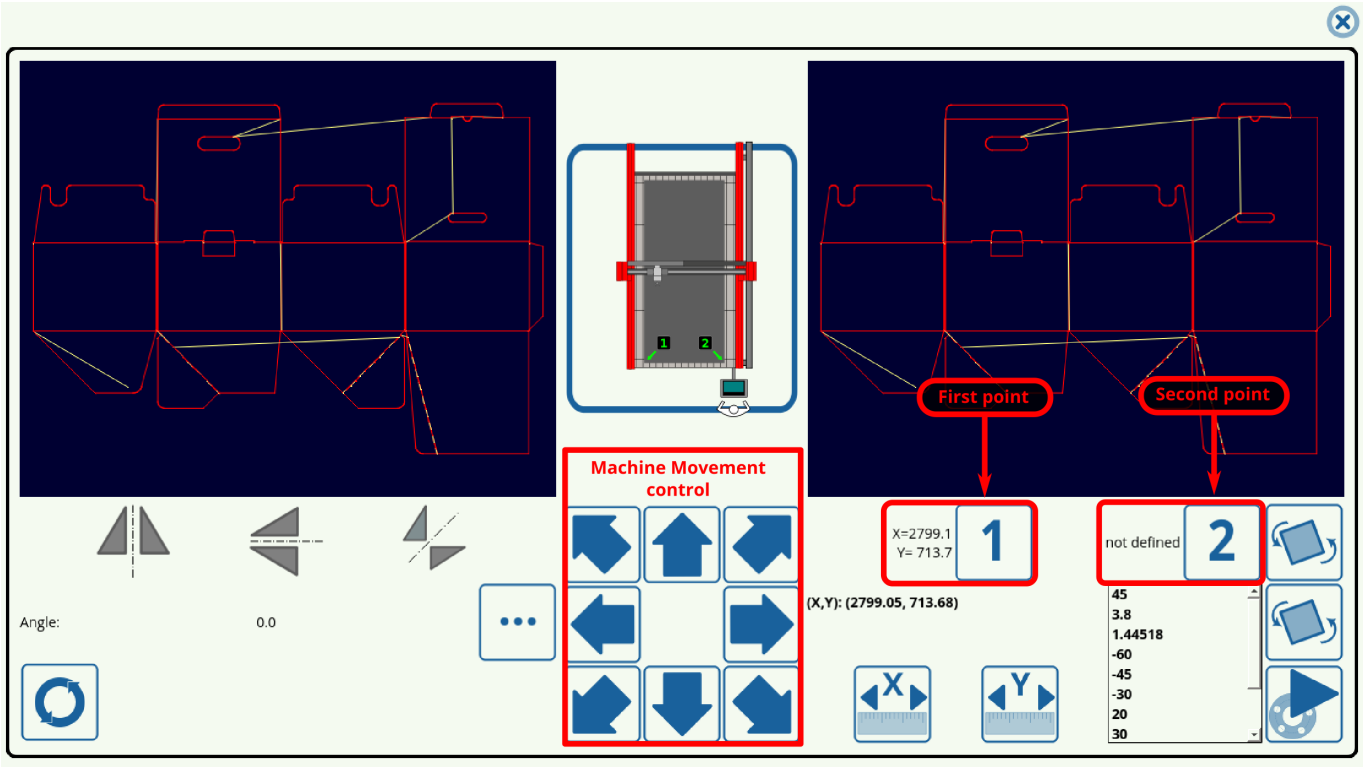


To be able to use the corrected nesting chart, it is necessary to press the Send button in order to display the rotated file in the main program window.

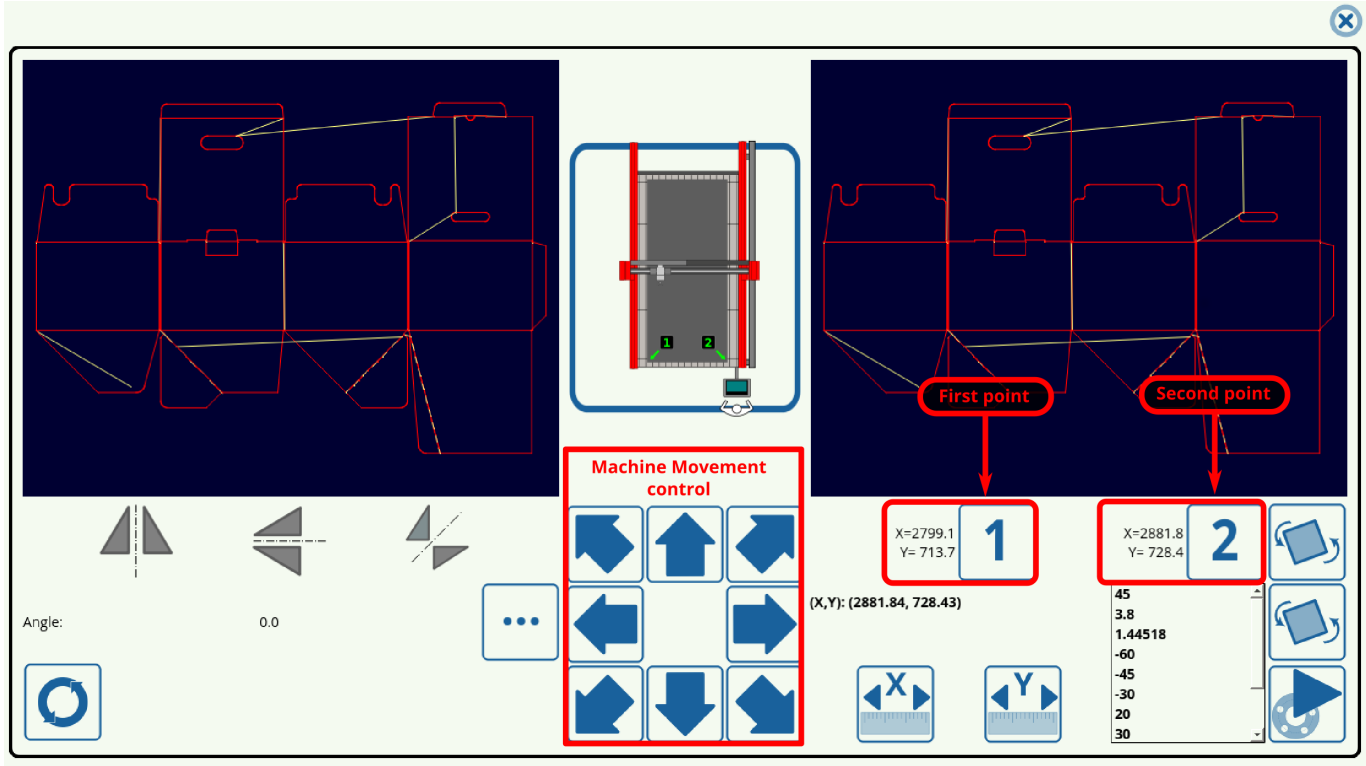


Sheet position correction by using two points

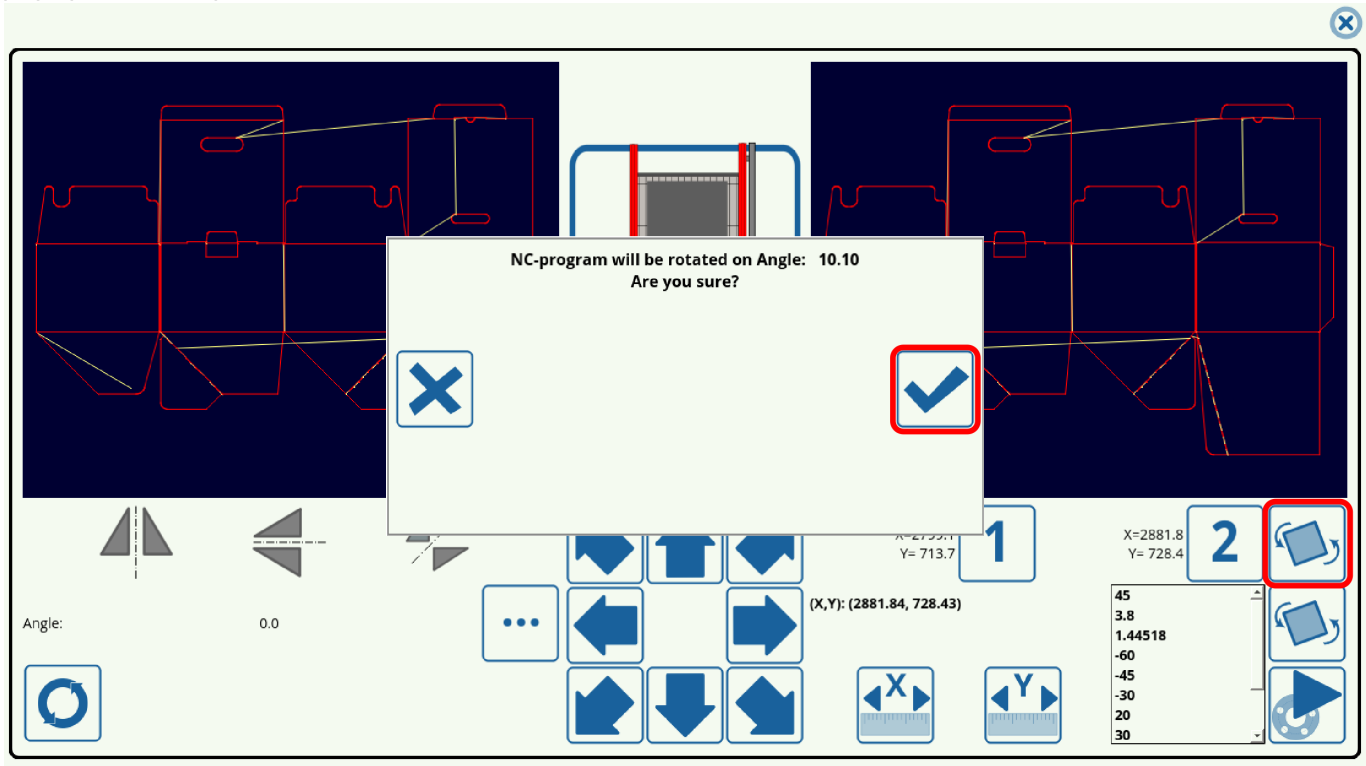
Set the first point. Position the plasma torch at the lower left corner of the sheet. The point is recorded by pressing the “1” button. Movement is done with the arrows at the center of the screen.



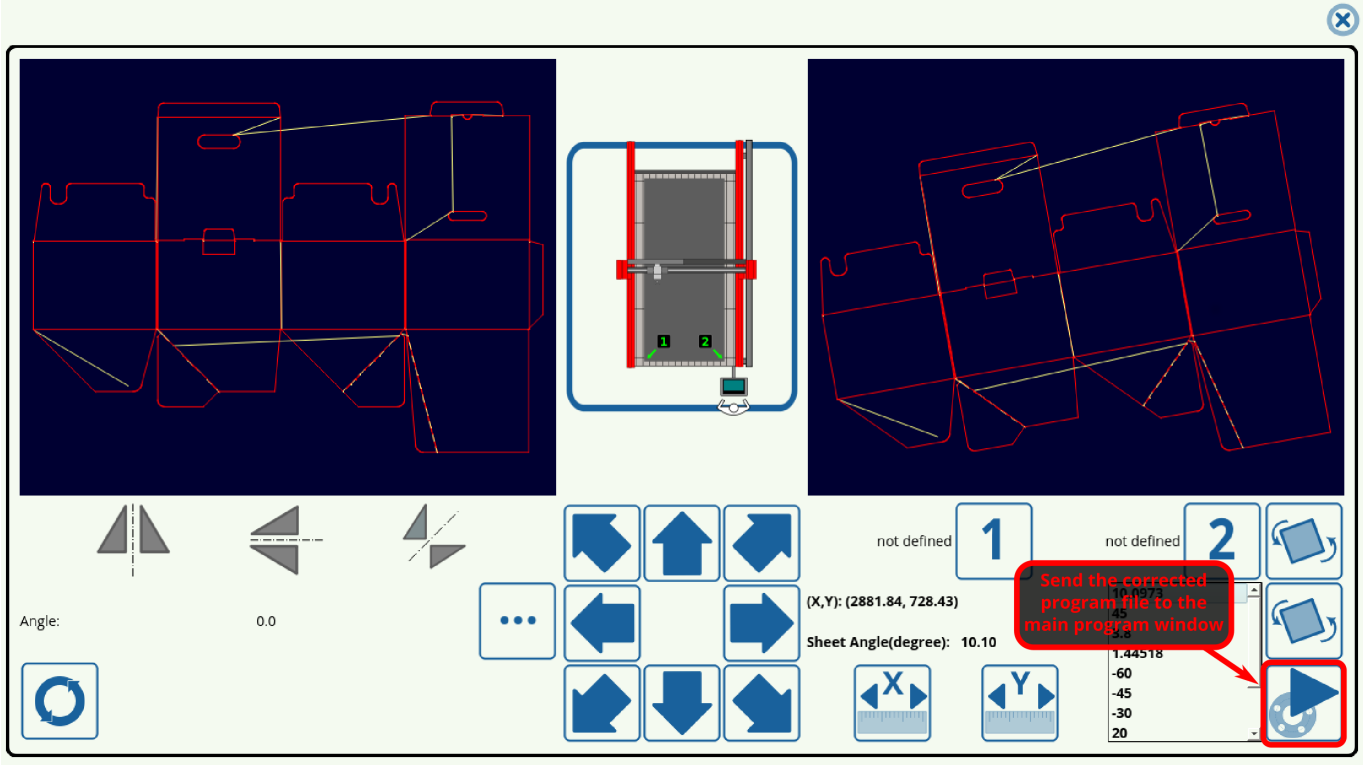
Next, move the plasma torch along the sheet (the longer the distance of this movement, the more accurate the correction will be). We bring the plasma torch to the edge of the sheet after moving along it. We assign this second point by pressing the “2” button. Movement is done with the arrows at the center of the screen.



After clicking on the “Apply Correction” button, you must confirm the program conversion in the popup window (press the check mark icon).

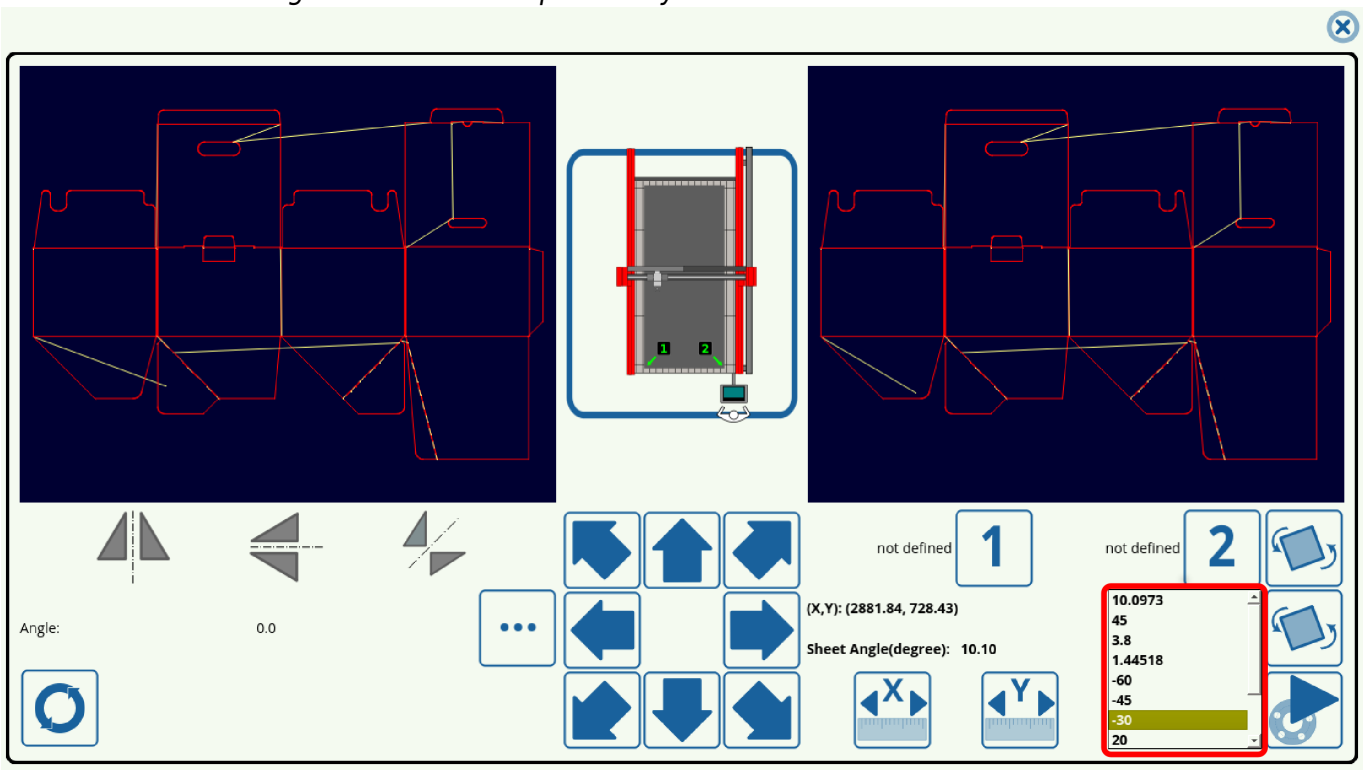


After the confirmation button has been pressed, the correction will be displayed on the screen. To use this corrected program file, it is now necessary to press the Send button to display the altered nesting map in the main program window.

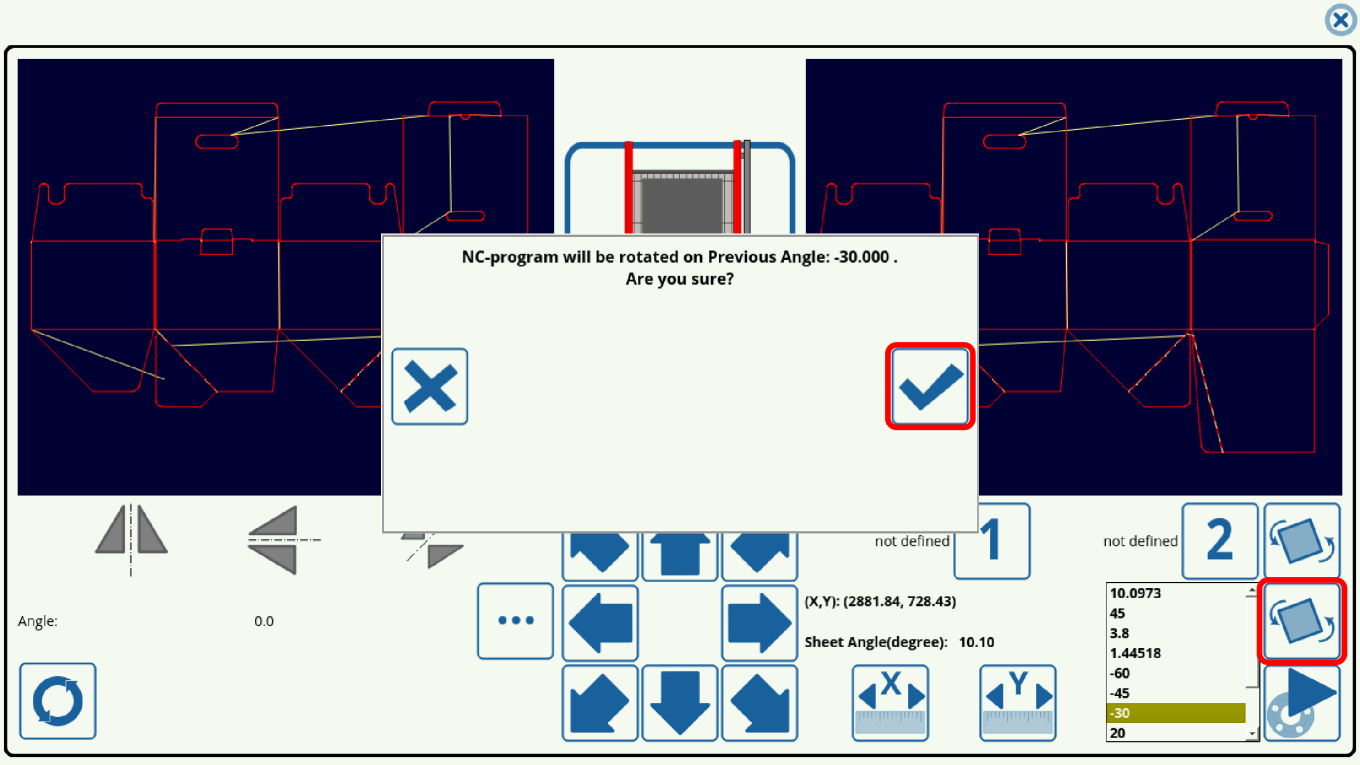


Rotation of the nesting map to a previously used angle

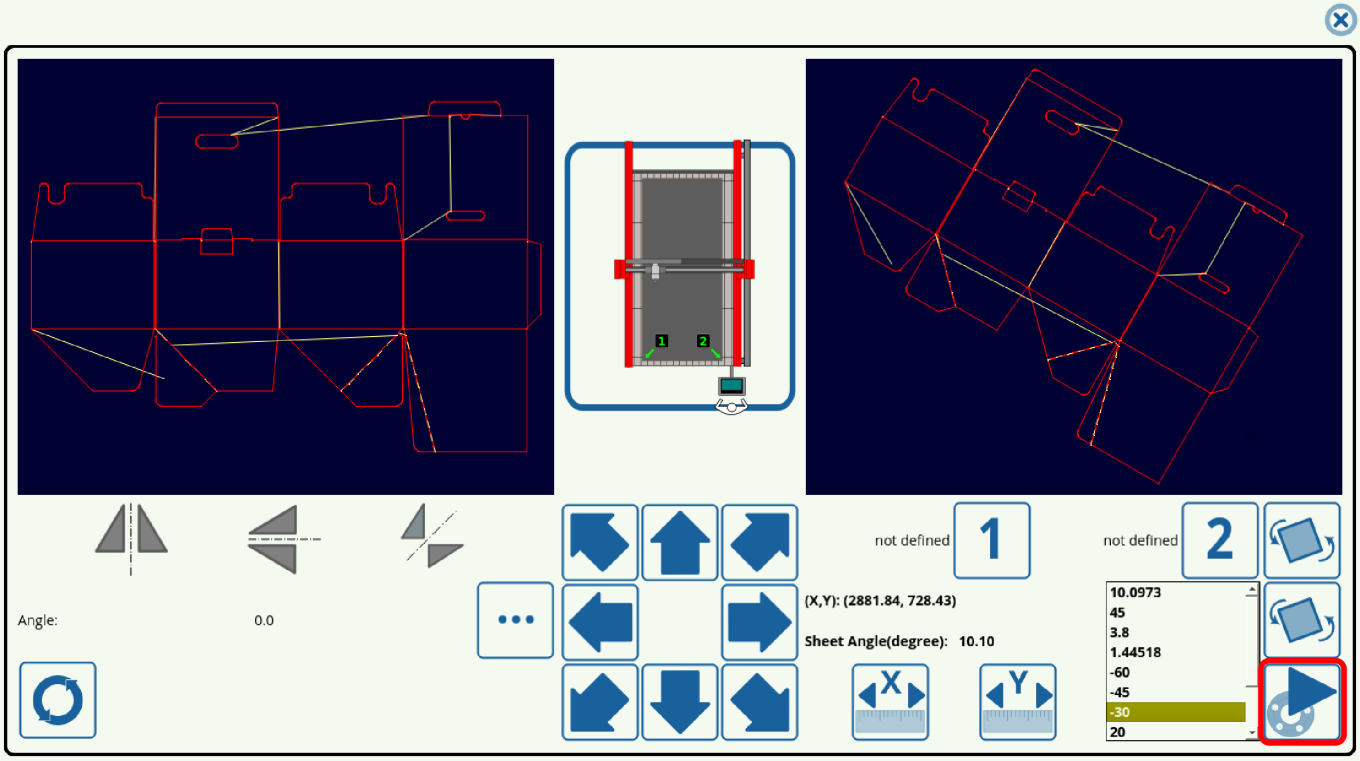
Select the rotation angle from the list of previously used values



Confirm or cancel the rotation

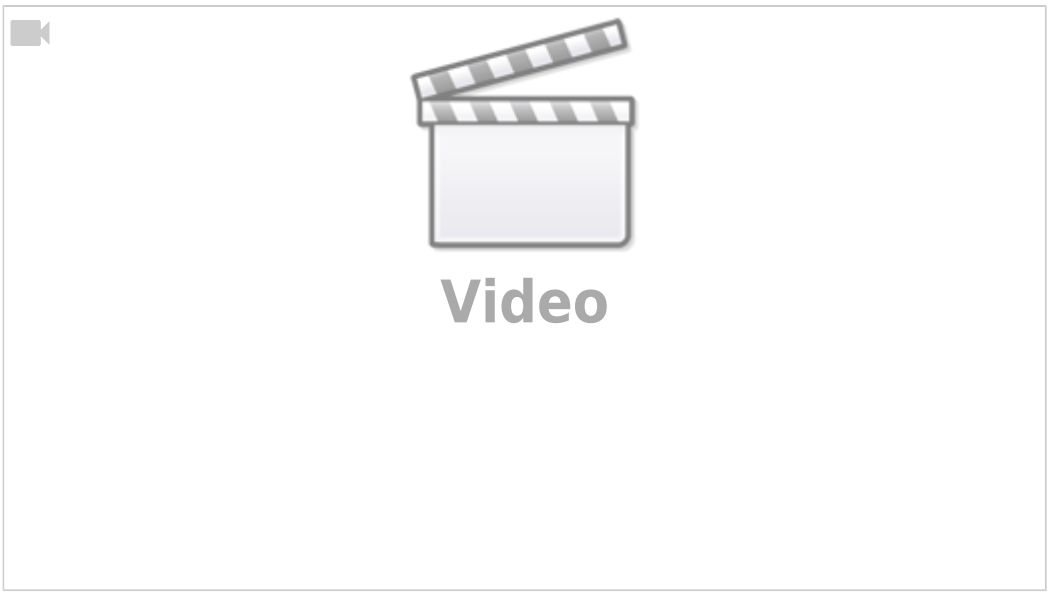


After the changes have been applied, it is necessary to press the Send button to display the rotated nesting map in the main program window so that .



Rotation via global variables

A video on program rotation via global variables #8195 and #8199 is available here:



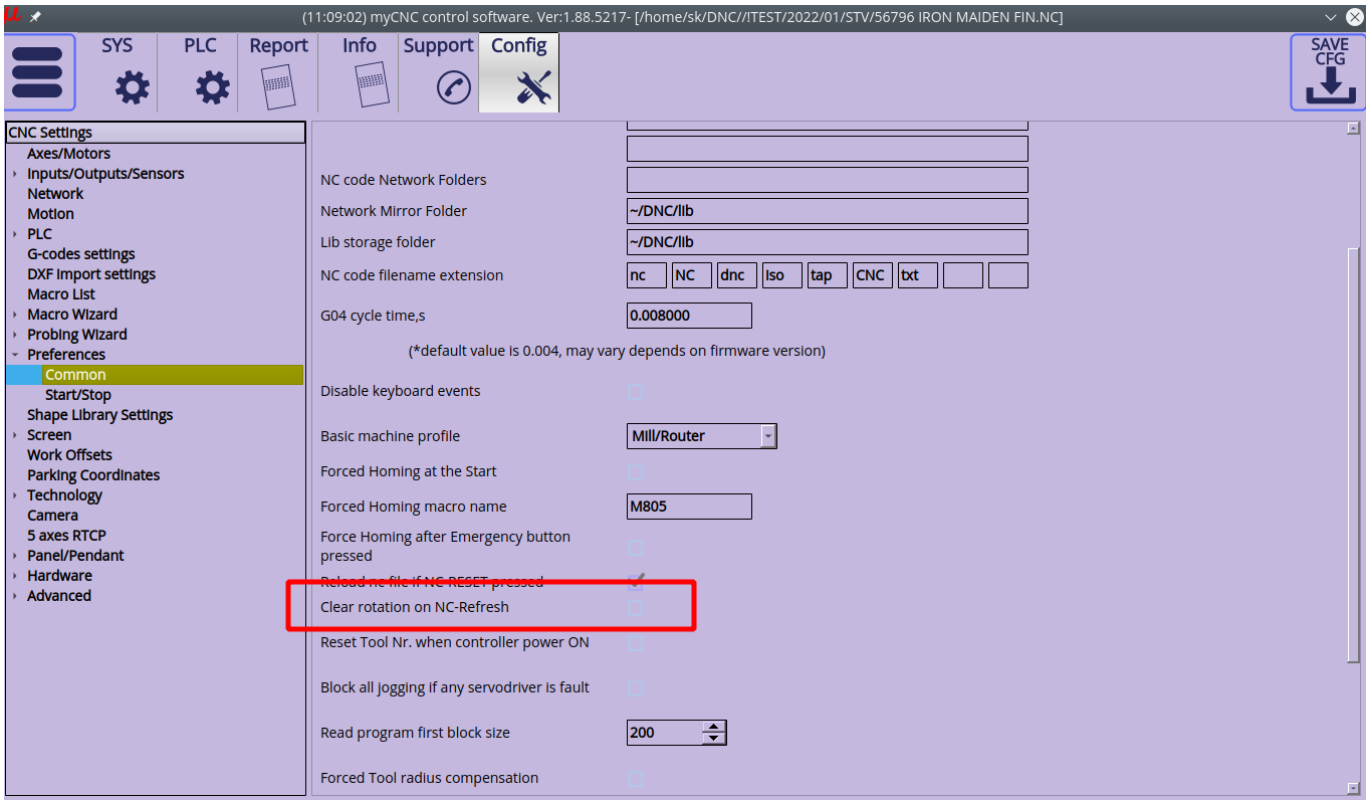
The code in the video is the following:

```
<gitem where="xp"
 position="880;0"  width="40" height="40" action="cnc-gvariable-vset-8199/1"
type="button"
 image="alphabet/alphabet-1" image-hovered="alphabet/alphabet-1"
hotkey="Ctrl+Y"
 />

<gitem where="xp"
 position="880;40"  width="40" height="40" action="cnc-gvariable-
vset-8199/2" type="button"
 image="alphabet/alphabet-2" image-hovered="alphabet/alphabet-2"
hotkey="Alt+U"
 />

<gitem where="xp"
 position="960;0"  width="40" height="40" action="cnc-gvariable-vset-8195/0"
type="button"
 image="alphabet/alphabet-0" image-hovered="alphabet/alphabet-0"
 />

<gitem where="xp" position="920;40" width="85" displayWidth="50" height="40"
labelWidth="35"
 name="display-cnc-gvariable-8195"
 bgColor="##b-display" fgColor="##f-display"
 labelFgColor="##f-label" labelFontSize="12" labelFontStyle="normal"
 fontSize="12" fontStyle="bold" format="%6.3f" type="display" >
            <message>Angle</message>
</gitem>
```

Preserving and resetting rotation on program reload

myCNC allows to either keep the rotation angle/state when reloading the G-code program (this is the default behaviour), or to reset the rotation angle back to 0 once the reload button is pressed:

To enable this reset, head into Settings > Config > Preferences > Common, and enable the “Clear rotation on NC-Refresh” option:



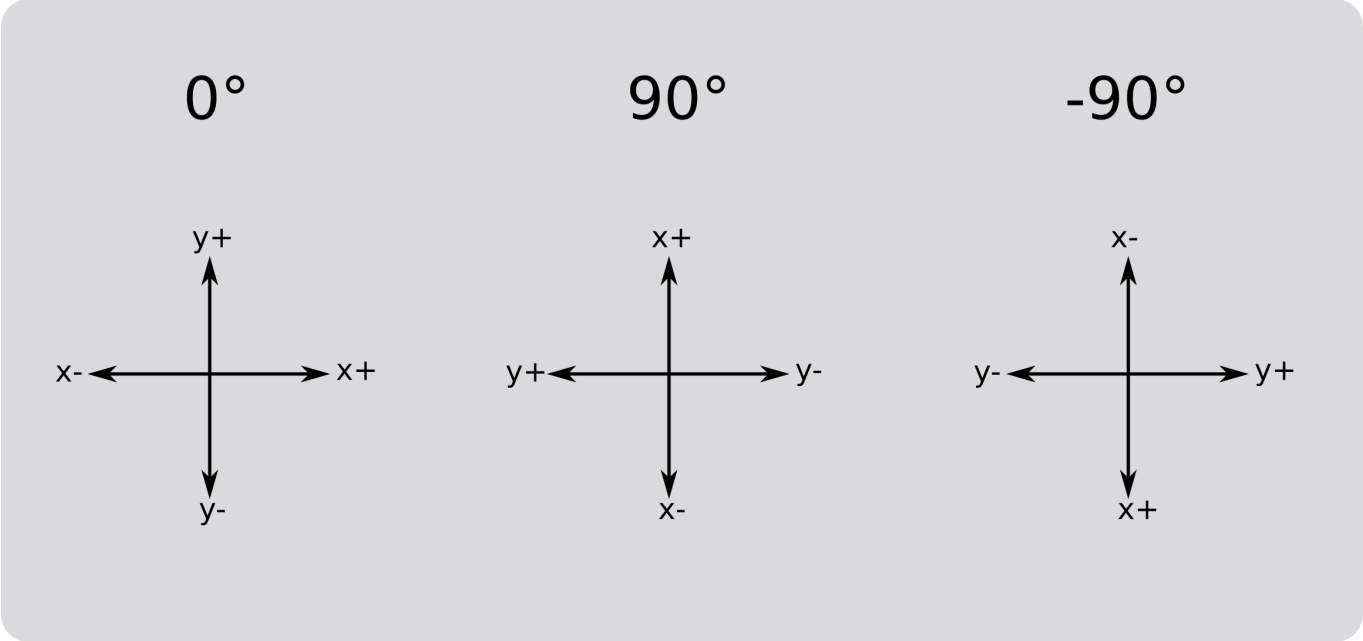
With this option enabled, the reload will now reset the rotation angle back to zero. This is useful on systems which measure the current cutting material rotation every time after loading in a new G-code file.

Changing the rotate widget

It is possible to change the orientation of the rotate widget. To do so, first change the orientation of the navigation arrows (in the bottom centre of the screen) by heading into your profile folder's `x-rotate.xml` file, and changing the table-rotation value from `0` to `90` or `-90` (-90 is shown in the example below):

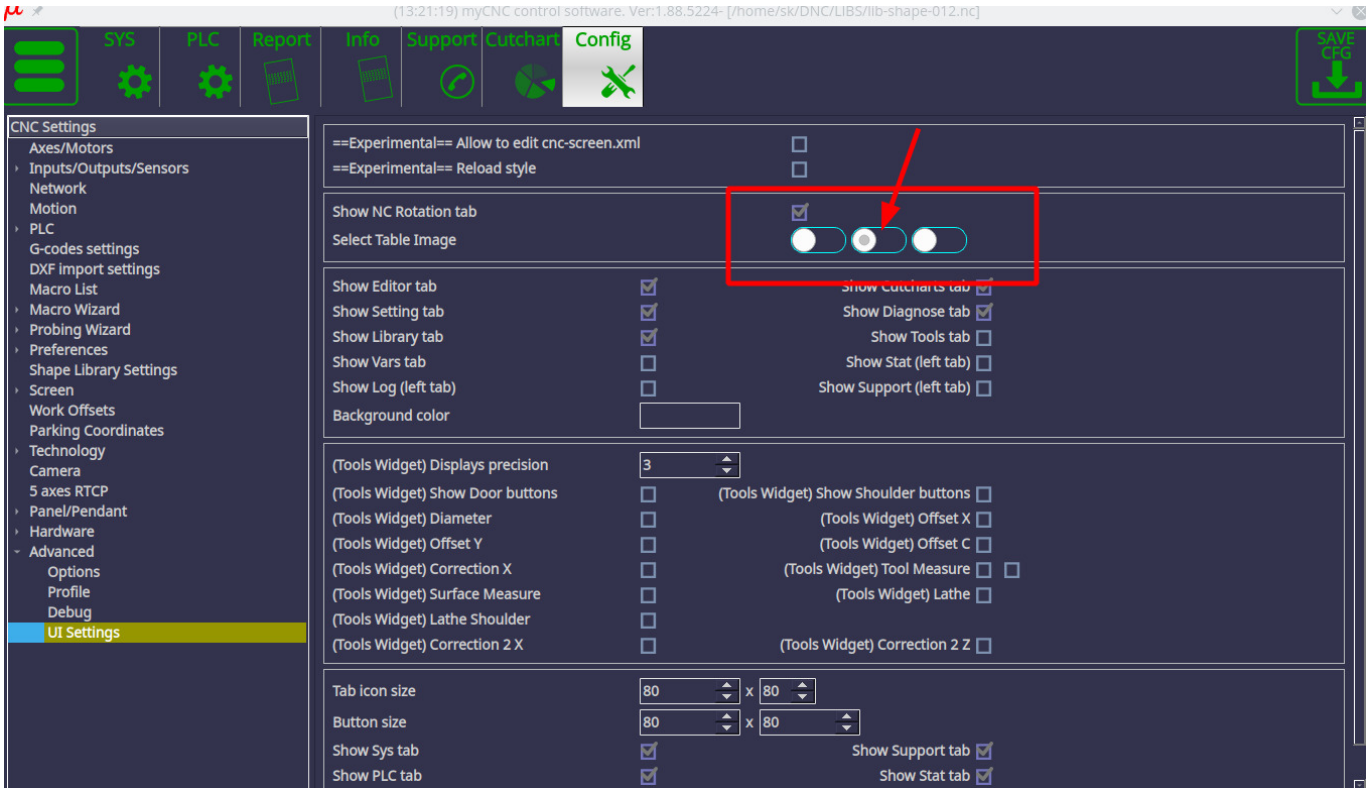
```
/home/sk/dot-config/X1366P/x-rotate.xml   [----] 55 L:[  1+26  27/ 34] *(1102/1211b) 0010 0x00A       [*][X]
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE CNC>
<mycnc-screen-custom version="1.0">
<screen>


<gitem where="xp" position="0;0"
 width="1366" height="768" basewidth="1366" baseheight="768"
 bgColor="##b-main" hidden="1" type="myitems" name="x-rotate" />

<gitem where="x-rotate" position="5;45"
 width="1356" height="713"
 basewidth="1356" baseheight="713"
 bgColor="##b-main" type="frame" name="rotateborder" border-color="##b-border" border-width="4" border-radiu

<gitem where="x-rotate" position="1326;0" skinbase="flat"
 width="40" height="40" type="button" tooltip="Hide the rotation widget" tooltip_ru="Закрыть виджет вращения


<gitem where="x-nclist" position="70;125" height="60" width="60"
 image="tabs/rotate-r" action="mywidget-toggle:x-rotate" tooltip="Show the rotation widget"
 tooltip_ru="Показать виджет вращения" type="button"></gitem>

<gitem where="rotateborder"
 position="5;5"
 width="1346" height="703"
 basewidth="1346" baseheight="703" table-rotation="-90"
 type="rotation2view" name="rotation2view" bgColor="##b-main" ></gitem>



</screen>
</mycnc-screen-custom>
1Help  2Save  3Mark  4Replac  5Copy  6Move  7Search  8Delete  9PullDn  10Quit
```

The coordinate system orientation will look the following way depending on your choice:



Please note that the above table-rotation modification only applies to the arrow buttons.

Next, you can alter the orientation of the table image itself, by heading into myCNC Settings > Advanced > UI Settings, and selecting the necessary Table Image:



The result in this example should look like this: