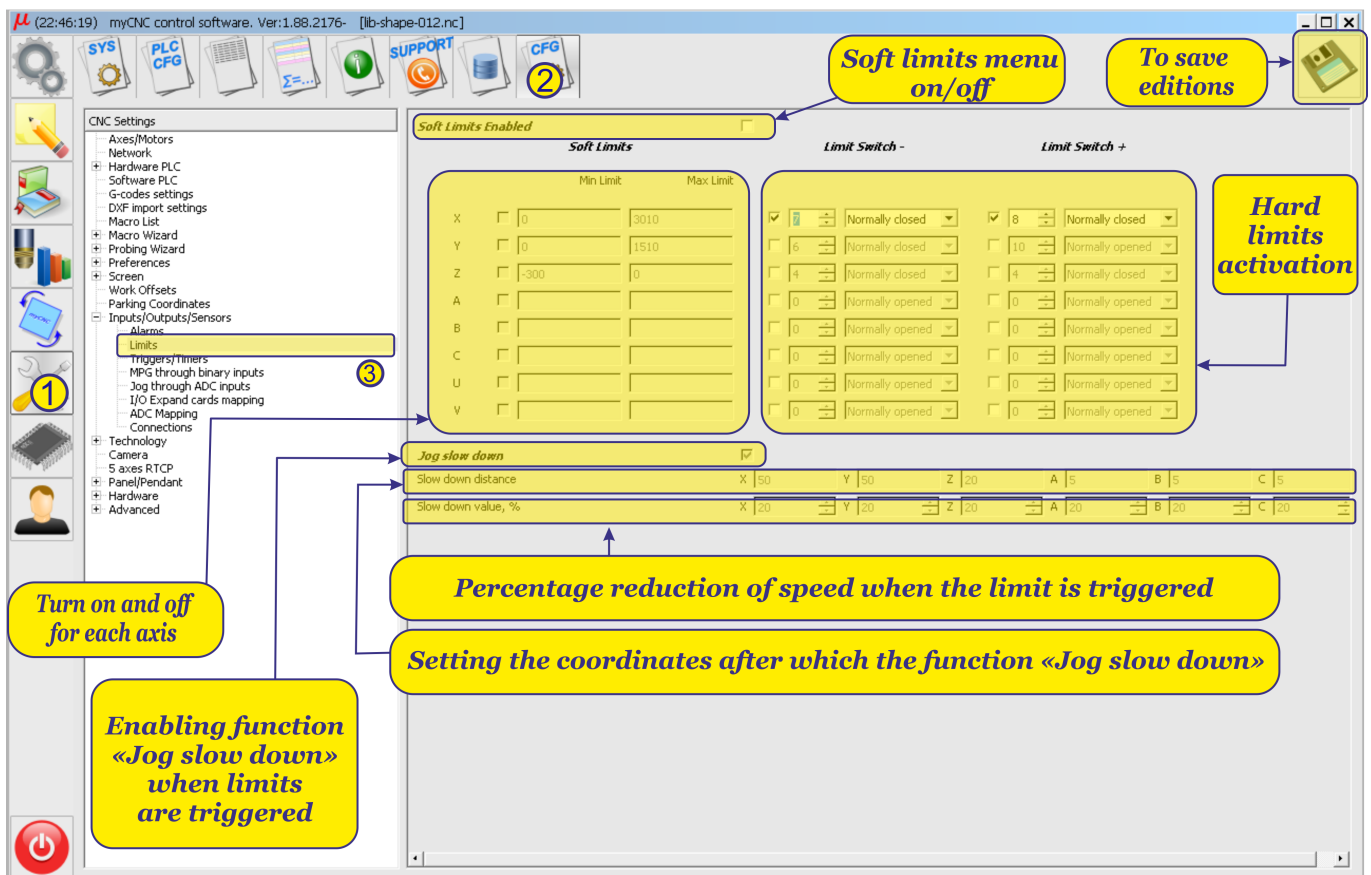
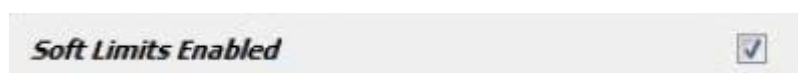


# Limits



## Soft Limits Enabled

- “Soft Limits Enabled” - this function allows you to set a software limit on the movement of the machine, as well as install and configure hard limit switches for each of the axes.
- To activate the function “Soft Limits Enabled” , it is necessary to check the box next to its name:



- To set the limits for each of the axes, you must check the selected axis. The photo shows an example of the choice of this function for the “X”. With the parameters MinLimit = 0 and MaxLimit = 3010, the machine will move along the X axis only within the specified coordinates, i.e. from 0 to 3010.

Soft Limits Enabled

Soft Limits

Min LimitMax Limit

X☒03010

- If there are mechanical limits on the machine, the type of the limit switch and the input number for this switch on the controller is set as shown in the example below.

Soft Limits Enabled

Soft LimitsLimit Switch -Limit Switch +

Min LimitMax Limit

X☒03010☒5Normally closed☒8Normally closed

For example, the minus limit sensor is applied to the controller input 5, and the positive limit sensor is applied to the 8 input of the controller. Both shoots are normally closed.

- The sensor type is selected as shown below.

Soft Limits Enabled

Soft LimitsLimit Switch -Limit Switch +

Min LimitMax Limit

X☒03010☒5Normally closed☒8Normally closed

Y☐01510☐6Normally closed☐10Normally opened

Z☐-3000☐4Normally closed☐4Normally closed

- The setting of several axes (X, Y, Z) is given below

Soft Limits Enabled

Soft LimitsLimit Switch -Limit Switch +

Min LimitMax Limit

X☒03010☒5Normally closed☒8Normally closed

Y☒01510☒6Normally closed☒10Normally opened

Z☒-3000☒4Normally closed☒4Normally closed

## Jog slow down

- Function “Jog slow down” - when this function is activated, the machine during the movement will reduce the speed at the entrance to the above specified software limits. The distance at which the speed decreases and the percentage reduction in speed is set in the corresponding table.
- To activate the function “Jog slow down” , it is necessary to check the box next to its name:

Jog slow down

☒

- The example below shows the setting of the function for several axes (X, Y, Z, A, B)

Jog slow down

Slow down distance

Slow down value, %

X50Y50Z20A5B5C5

X20Y20Z20A20B20C20

- Taking into account the settings of software limits and settings of the function, the machine will move with a speed reduced to 20% in the coordinates from 0 to 50 ( $0 + 50$ ) and from 2960 to 3010 ( $2960 + 50 = 3010$ ). Similarly, when moving along the coordinate Y in coordinates from 0 to 50 ( $0 + 50$ ) and from 1460 to 1510 ( $1460 + 50 = 1510$ ) it will move with a speed reduced to 20%. In the same way, when moving along the coordinate Z, in the coordinates from -300 to -280 ( $-300 + 20 = -280$ ) and from -20 to 0 ( $0 - 20 = -20$ ) it will move with a speed reduced to 20%.

<b>Soft Limits Enabled</b> <input checked="" type="checkbox"/>		<b>Soft Limits</b>		<b>Limit Switch -</b>		<b>Limit Switch +</b>		
		Min Limit	Max Limit					
X	<input checked="" type="checkbox"/>	0	3010	<input checked="" type="checkbox"/>	5 <input type="text"/>	Normally closed	<input checked="" type="checkbox"/>	8 <input type="text"/> Normally closed
Y	<input checked="" type="checkbox"/>	0	1510	<input checked="" type="checkbox"/>	6 <input type="text"/>	Normally closed	<input checked="" type="checkbox"/>	10 <input type="text"/> Normally opened
Z	<input checked="" type="checkbox"/>	-300	0	<input checked="" type="checkbox"/>	4 <input type="text"/>	Normally closed	<input checked="" type="checkbox"/>	4 <input type="text"/> Normally closed

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