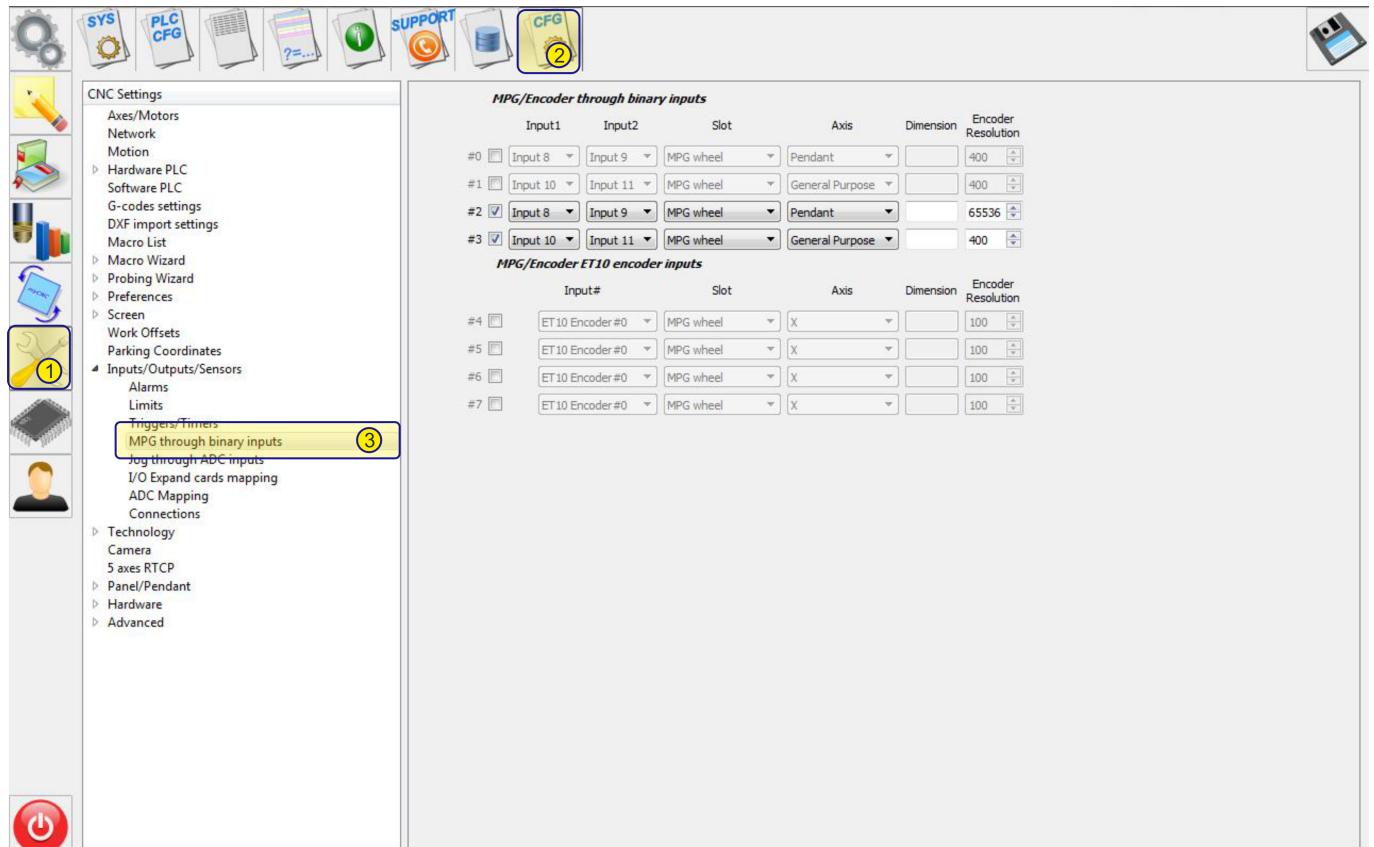
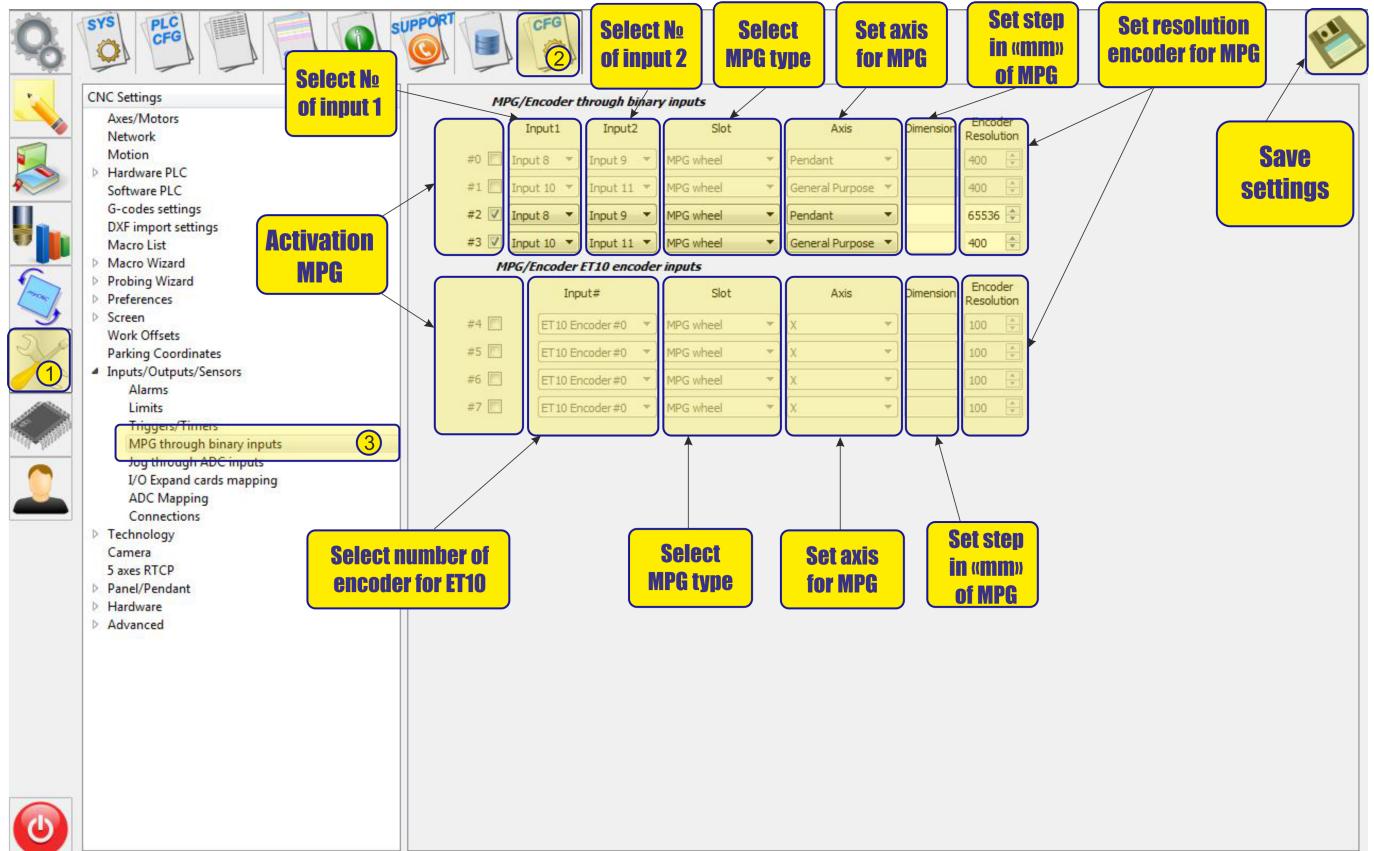


Mpg through binary inputs

Main window:



Basic functions:



Mpg/Encoder throught binary inputs

- To activate the MPG, it is necessary to check the box next to number of MPG:

MPG/Encoder through binary inputs		Input1	Input2	Slot	Axis	Dimension	Encoder Resolution
#0	<input checked="" type="checkbox"/>	Input 8	Input 9	MPG wheel	Pendant		400
#1	<input type="checkbox"/>	Input 10	Input 11	MPG wheel	General Purpose		400
#2	<input type="checkbox"/>	Input 8	Input 9	MPG wheel	Pendant		65536
#3	<input type="checkbox"/>	Input 10	Input 11	MPG wheel	General Purpose		400

- MPG - designed for manual control of the CNC without resorting to control from the operator panel. With the help of the control panel, the operator of the CNC machine can change the position of the axes, change the feedrate, adjust the spindle operation, set "0" and perform other operations while in close proximity to the workpiece.
- examples of MPG are presented below:



- After activation, you can select the operating input numbers for the MPG on the controller - input1 and input2

input1:

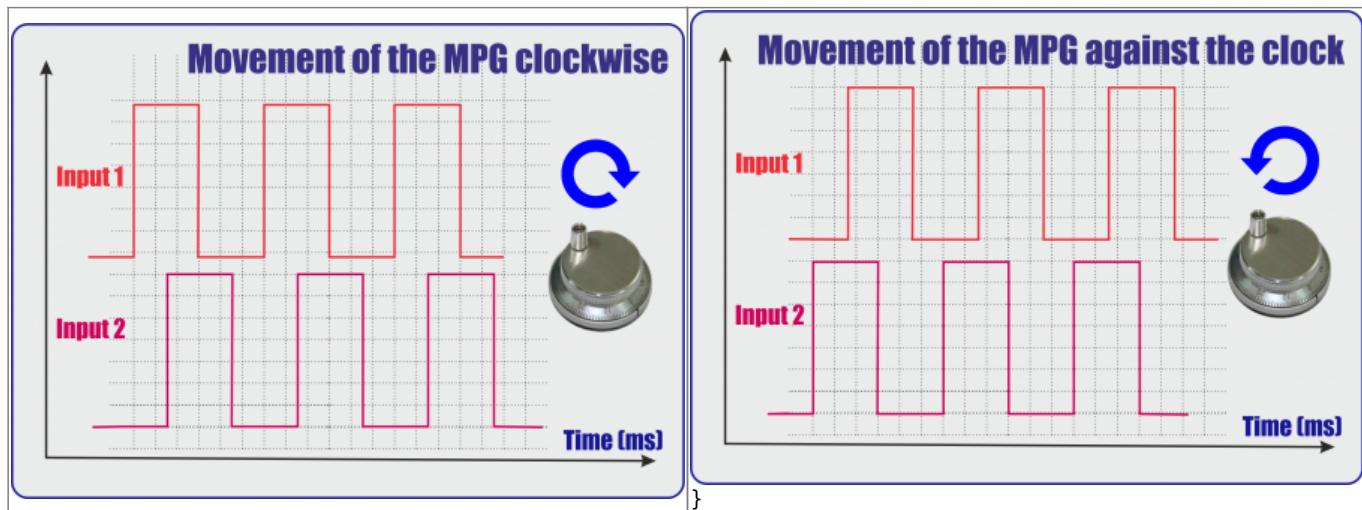
MPG/Encoder through binary inputs							
	Input1	Input2	Slot	Axis	Dimension	Encoder Resolution	
#0	<input checked="" type="checkbox"/>	Input 8	Input 9	MPG wheel	Pendant		400
#1	<input type="checkbox"/>	Input 0	Input 11	MPG wheel	General Purpose		400
#2	<input type="checkbox"/>	Input 1	Input 9	MPG wheel	Pendant		65536
#3	<input type="checkbox"/>	Input 2	Input 11	MPG wheel	General Purpose		400
ET10 encoder inputs							
#4	<input type="checkbox"/>	Input#	Slot	Axis	Dimension	Encoder Resolution	
		ET10 Encoder #0	MPG wheel	X		100	

input2:

MPG/Encoder through binary inputs

Input1	Input2	Slot	Axis	Dimension	Encoder Resolution
#0 <input checked="" type="checkbox"/> Input 8	Input 9	MPG wheel	Pendant		400
#1 <input type="checkbox"/> Input 10	Input 0	MPG wheel	General Purpose		400
#2 <input type="checkbox"/> Input 8	Input 1	MPG wheel	Pendant		65536
#3 <input type="checkbox"/> Input 10	Input 2	MPG wheel	General Purpose		400
MPG/Encoder E					
Input	Slot	Axis	Dimension	Encoder Resolution	
#4 <input type="checkbox"/> ET10 Encoder #0	MPG wheel	X		100	

- Timing diagram of signals of MPG:



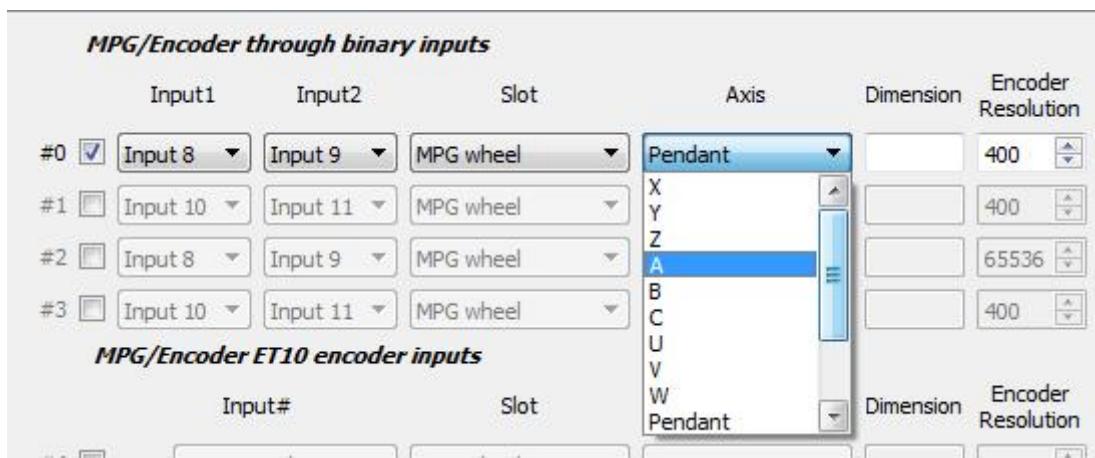
- It is also necessary to select the MPG function:

MPG/Encoder through binary inputs

Input1	Input2	Slot	Axis	Dimension	Encoder Resolution
#0 <input checked="" type="checkbox"/> Input 8	Input 9	MPG wheel	Pendant		400
#1 <input type="checkbox"/> Input 10	Input 11	MPG wheel	General Purpose		400
#2 <input type="checkbox"/> Input 8	Input 9	MPG wheel	Pendant		65536
#3 <input type="checkbox"/> Input 10	Input 11	MPG wheel	General Purpose		400

Functions	Descriptions
MPG wheel	Direct control of MPG
THC/Z axis offset	Controlling the tracking on cutting with the help of MPG
Spindle Sync	Spindle control, via the analog output to control the spindle speed.

- If necessary, select the coordinate axis, which will be controlled by MPG



- Next we select the length of displacements with the help of MPG. Number of movements in mm per pulse MPG:



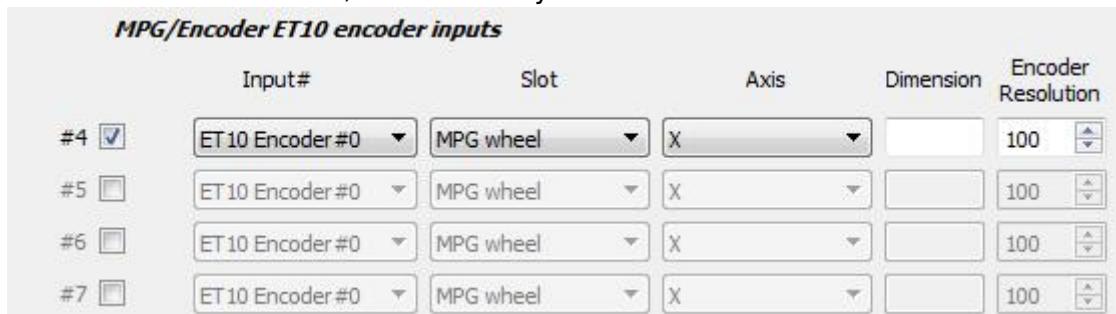
- We set the resolving power of the PGM - the number of pulses per one revolution of PGM



Mpg/Encoder ET10 throught binary inputs

If you use the ET10 controller <https://shop.pv-automation.com/et10/9-mycnc-et10.html>, you can used not only MPG function, but also the encoders, to monitor the position of any of the axes.

- To activate the MPG or Encoder, it is necessary to check the box next to needed number:



- After activation, you can select the encoder number on the controller for operating

Input#	Slot	Axis	Dimension	Encoder Resolution
#4 <input checked="" type="checkbox"/>	ET10 Encoder #0	MPG wheel	X	100
#5 <input type="checkbox"/>	ET10 Encoder #0	MPG wheel	X	100
#6 <input type="checkbox"/>	ET10 Encoder #1	MPG wheel	X	100
#7 <input type="checkbox"/>	ET10 Encoder #2	MPG wheel	X	100
	ET10 Encoder #3	MPG wheel	X	100
	ET10 Encoder #4	MPG wheel	X	100
	ET10 Encoder #5	MPG wheel	X	100
	ET10 Encoder #6	MPG wheel	X	100
	ET10 Encoder #7	MPG wheel	X	100
	ET10 Encoder #8	MPG wheel	X	100
	ET10 Encoder #9	MPG wheel	X	100

- It is also necessary to select the MPG function:

Input#	Slot	Axis	Dimension	Encoder Resolution
#4 <input checked="" type="checkbox"/>	ET10 Encoder #0	MPG wheel	X	100
#5 <input type="checkbox"/>	ET10 Encoder #0	MPG wheel	X	100
#6 <input type="checkbox"/>	ET10 Encoder #0	THC/Z axis offset	X	100
#7 <input type="checkbox"/>	ET10 Encoder #0	Spindle Sync	X	100
		MPG wheel	X	100

Functions	Descriptions
MPG wheel	Direct control of MPG
THC/Z axis offset	Controlling the tracking on cutting with the help of MPG
Spindle Sync	Spindle control, via the analog output to control the spindle speed.

- If necessary, select the coordinate axis, which will be controlled by MPG

Input#	Slot	Axis	Dimension	Encoder Resolution
#4 <input checked="" type="checkbox"/>	ET10 Encoder #0	X	100	100
#5 <input type="checkbox"/>	ET10 Encoder #0	X	100	100
#6 <input type="checkbox"/>	ET10 Encoder #0	Y	100	100
#7 <input type="checkbox"/>	ET10 Encoder #0	Z	100	100
		A	100	100
		B	100	100
		C	100	100
		U	100	100
		V	100	100
		W	100	100
		Pendant		

- Next we select the length of displacements with the help of MPG. Number of movements in mm per pulse MPG:

MPG/Encoder ET10 encoder inputs						
Input#	Slot	Axis	Dimension	Encoder Resolution		
#4 <input checked="" type="checkbox"/>	ET10 Encoder #0	MPG wheel	X	0.1	100	<input type="button" value="▼"/>
#5 <input type="checkbox"/>	ET10 Encoder #0	MPG wheel	X		100	<input type="button" value="▲"/>
#6 <input type="checkbox"/>	ET10 Encoder #0	MPG wheel	X		100	<input type="button" value="▲"/>
#7 <input type="checkbox"/>	ET10 Encoder #0	MPG wheel	X		100	<input type="button" value="▲"/>

- We set the resolving power of the PGM - the number of pulses per one revolution of PGM

MPG/Encoder ET10 encoder inputs						
Input#	Slot	Axis	Dimension	Encoder Resolution		
#4 <input checked="" type="checkbox"/>	ET10 Encoder #0	MPG wheel	X	0.1	100	<input type="button" value="▼"/>
#5 <input type="checkbox"/>	ET10 Encoder #0	MPG wheel	X		100	<input type="button" value="▲"/>
#6 <input type="checkbox"/>	ET10 Encoder #0	MPG wheel	X		100	<input type="button" value="▲"/>
#7 <input type="checkbox"/>	ET10 Encoder #0	MPG wheel	X		100	<input type="button" value="▲"/>

- Simple

MPG/Encoder through binary inputs						
Input1	Input2	Slot	Axis	Dimension	Encoder Resolution	
#0 <input type="checkbox"/>	Input 8	Input 9	MPG wheel	Pendant	400	<input type="button" value="▼"/>
#1 <input type="checkbox"/>	Input 10	Input 11	MPG wheel	General Purpose	400	<input type="button" value="▼"/>
#2 <input checked="" type="checkbox"/>	Input 8	Input 9	MPG wheel	Pendant	65536	<input type="button" value="▼"/>
#3 <input checked="" type="checkbox"/>	Input 10	Input 11	MPG wheel	General Purpose	400	<input type="button" value="▼"/>

MPG/Encoder ET10 encoder inputs

From:

<http://cnc42.com/> - myCNC Online Documentation



Permanent link:

http://cnc42.com/mycnc/mpg_throught_binary_inputs

Last update: **2018/09/30 14:07**