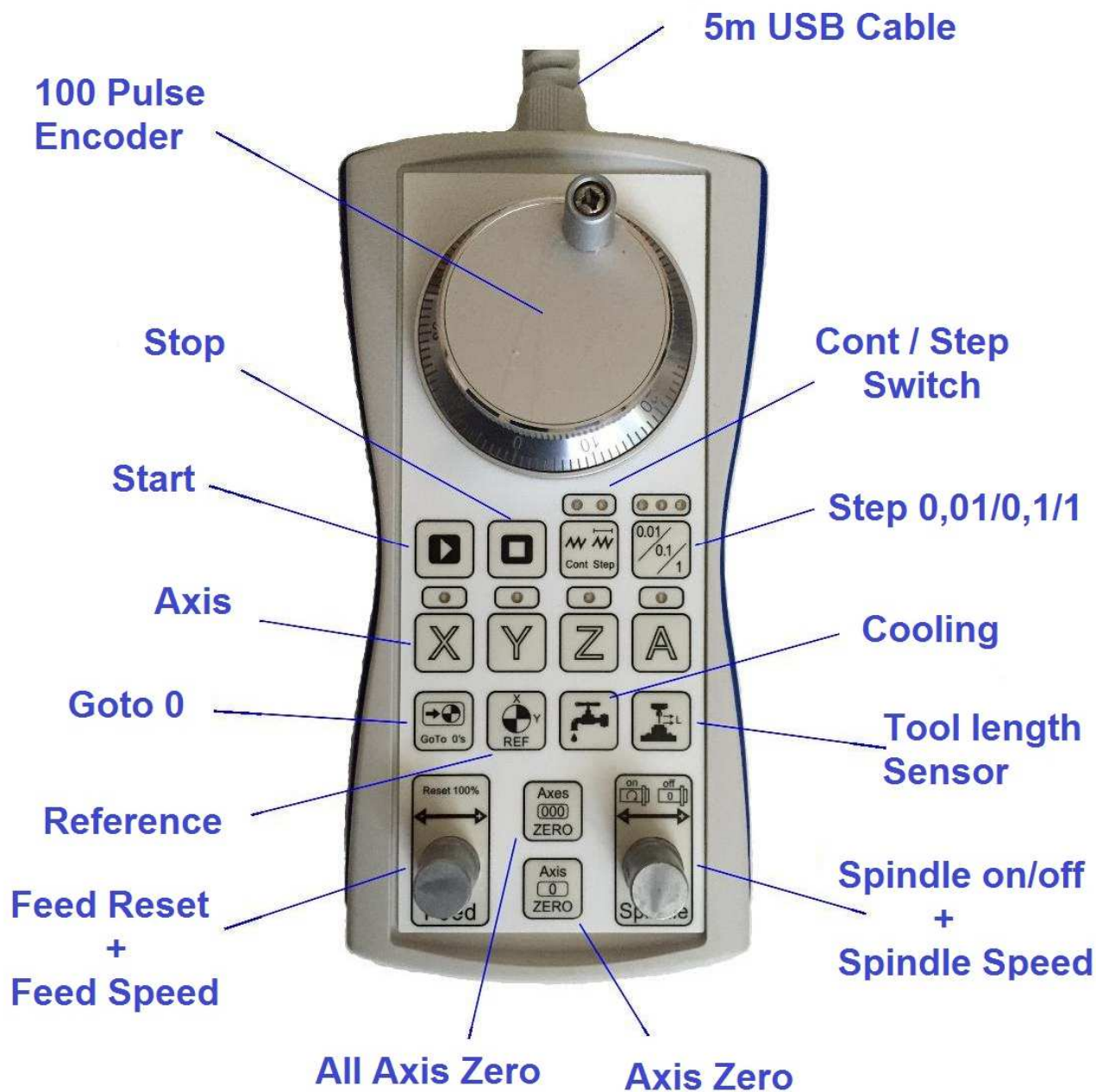
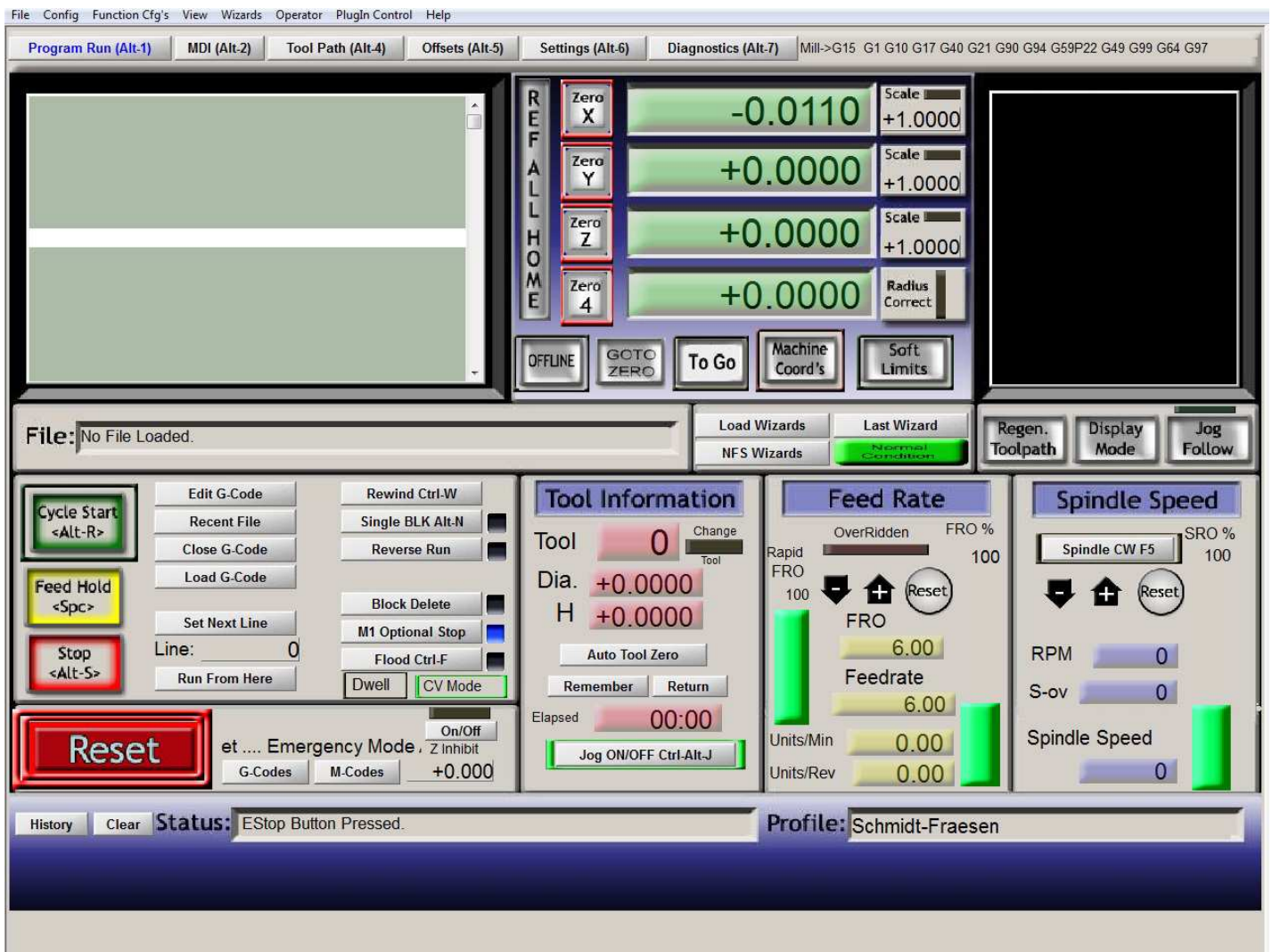


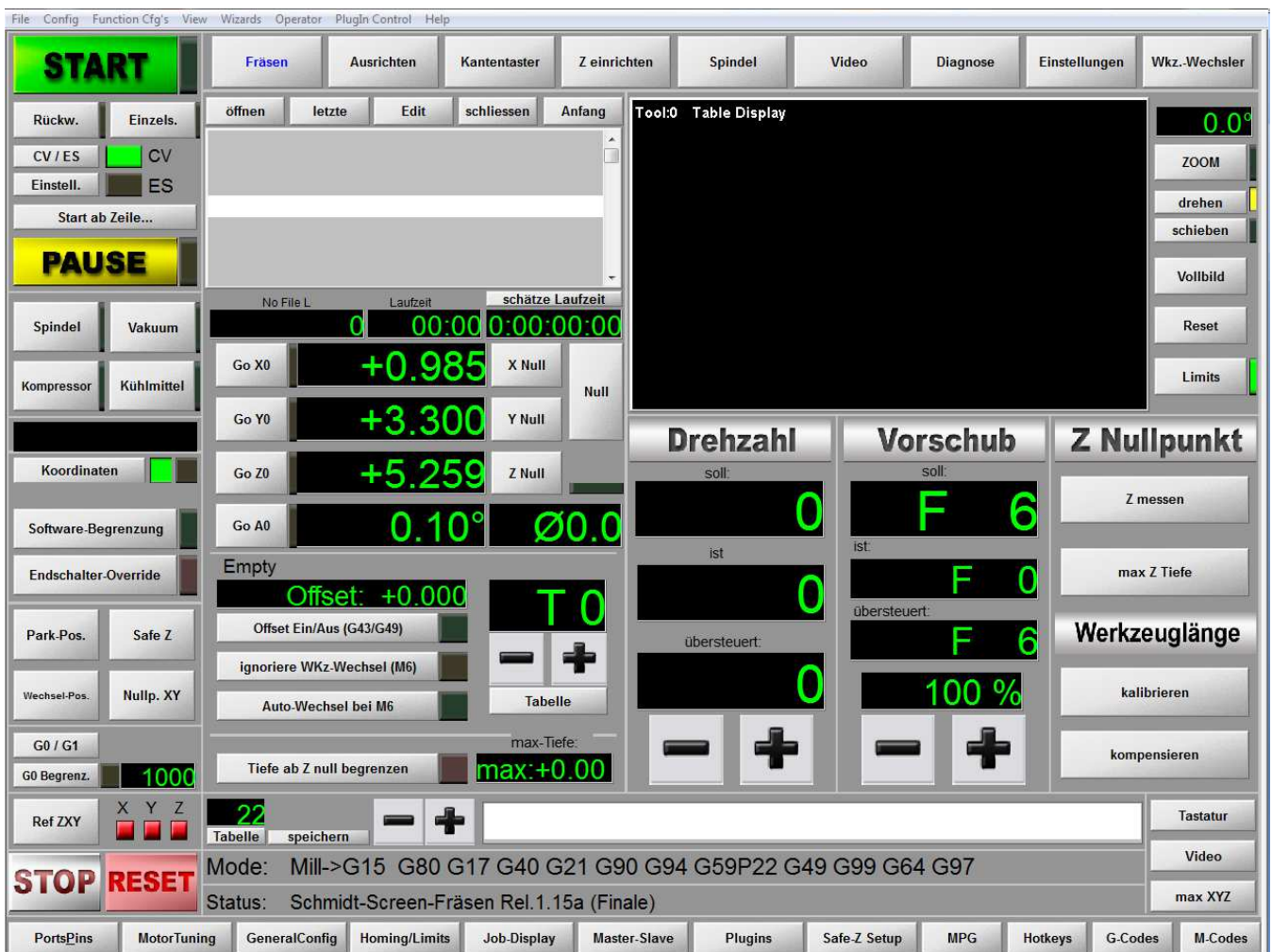
Manual for Implementation PlugIn USB-Jogwheel V10



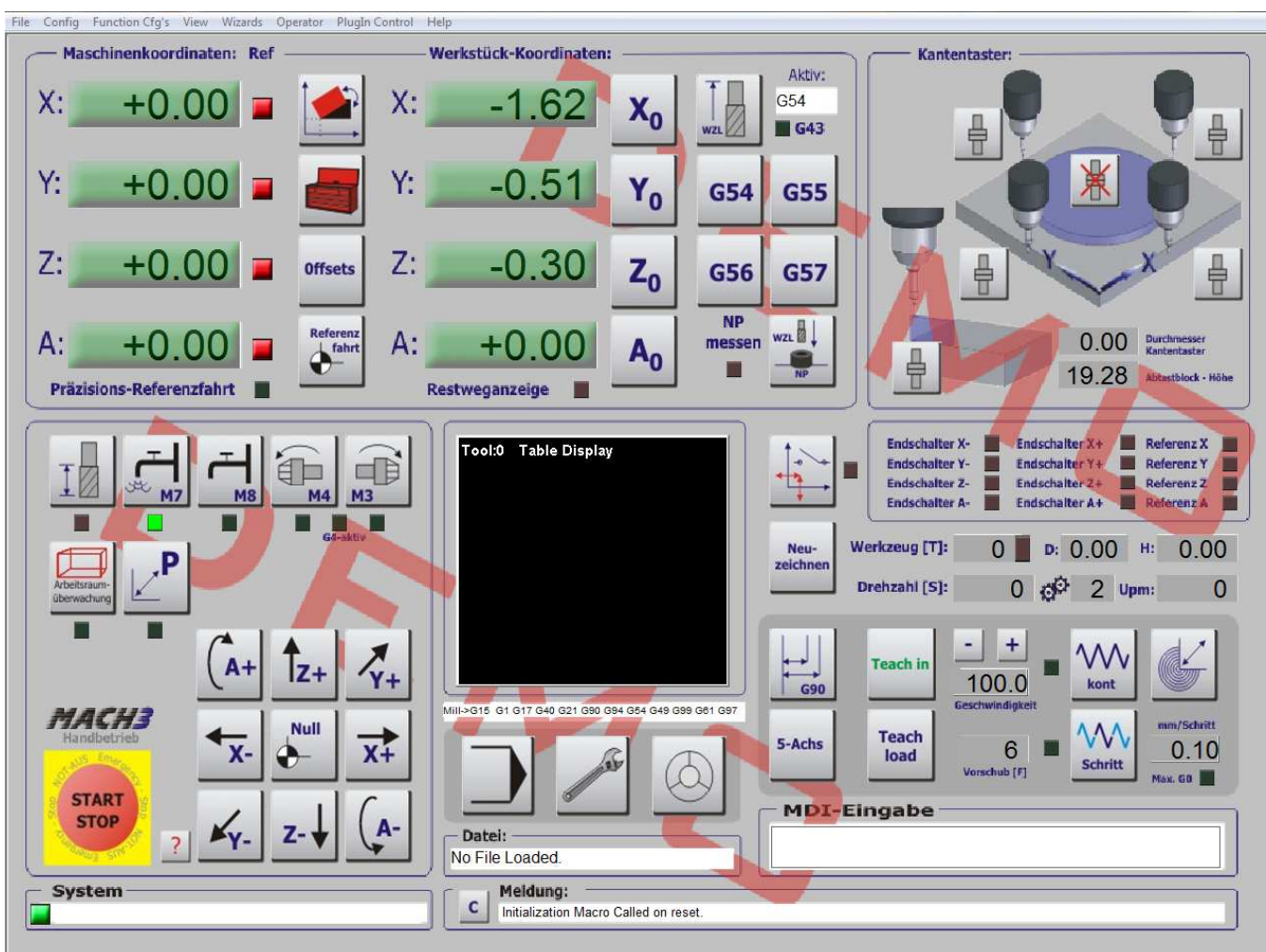
Original Screen Mach3



MachSchmidtScreen



Bocholt Screen



Selig Screen

C:\Mach3\GCode\roadrunner.tap

Rel. 3.46 Bildschirmdesign Copyright Christoph Selig 2006 - 2012

Programm		Öffnen	Ändern	Schließen										
Start		G1 X5.212820 Y6.176950 Z-0.100000												
Rücklauf		G1 X5.257890 Y6.238040 Z-0.100000												
Einzelstart		G1 X5.280420 Y6.254270 Z-0.100000												
Pause		G1 X5.296220 Y6.254270 Z-0.100000												
Start ab hier		G1 X5.318790 Y6.271210 Z-0.100000												
Simulation		G1 X5.346700 Y6.293940 Z-0.100000												
Verweilen		G1 X4.958040 Y6.313760 Z-0.100000												
		G1 X4.715180 Y6.196600 Z-0.100000												
		G1 X4.567080 Y6.028670 Z-0.100000												
		G1 X4.424540 Y5.863370 Z-0.100000												
		G1 X4.078550 Y5.577510 Z-0.100000												
		G1 X3.759110 Y5.390630 Z-0.100000												
		G1 X3.759110 Y5.390630 Z-0.100000												
Koordinaten		Laufzeit: 0:00:00:00		Zeile: 317	Regenerieren		Tischbewegung		Vollbild					
Ref. Fahrt	Ref X	+4.045	Skal. +1.00	Null	Werkzeug		Vorschub		Spindel					
Parkposition	Ref Y	+6.481	Skal. +1.00	Null	Nummer 0		100% +		Ein/Aus +					
Ursprung	Ref Z	-0.041	Skal. +1.00	Null	Durchmesser +0.00		mm/min. 100		100% 100					
Masch.Koord.	Ref 4	+0.020	Rad. Korrektur	Null	Wechseln		Zoll/min.		Rückmeldung					
SW-Limits	Koordinaten-Grenzen des Programms				Pos. merken		soll: 60		soll: 60					
Verschieben	X von +0.000 bis +100.000				Z hochfahren		ist: 60		ist: 60					
Urspr. Pos.	Y von -25.000 bis +25.000				Z setzen									
Neue Pos.	Z von -1.000 bis +0.200				Zurück									
					Aut.messen									
					G-Codes M-Codes Modus: Mill->G15 G1 G17 G40 G21 G90 G94 G54 G43 G99 G61 G97									
					Override Protokoll Löschen Status: Initialization Macro Called on reset.									
					Automatik		Manuell		Einrichten		Diagnose		Fernbedienung	

- Put the Jogwheel in a free USB-Slot
- Driver for the Jogwheel installed automatically
- the **V5.dll** copy in the Folder Mach3 „c:\mach3\plugins“
- **all M*.m1s** Files copy in the Folder „c:\mach3\macros\...(Profil Folder)“
- Start Mach3 and in the Configuration → Config Plugins “set Enabled of ON”



- Mach3 close and new Start, so that start the Plugin

- Values set with the Config Button →

Configuration			
☐ Input 1	OEM Button #10	☐ Input 33	NONE
☐ Input 2	Mist on/off	☐ Input 34	NONE
☐ Input 3	Custom Macro #1	☐ Input 35	NONE
☐ Input 4	Stop File	☐ Input 36	NONE
☐ Input 5	Run File	☐ Input 37	NONE
☐ Input 6	Ref All	☐ Input 38	NONE
☐ Input 7	Goto Z's	☐ Input 39	NONE
☐ Input 8	Flood on/off	☐ Input 40	NONE
☐ Input 9	Touch Tool	☐ Input 41	NONE
☐ Input 10	Run File	☐ Input 42	NONE
☒ Input 11	OEM Button #1	☐ Input 43	NONE
☐ Input 12	OEM Button #7	☐ Input 44	NONE
☐ Input 13	OEM Button #8	☐ Input 45	NONE
☒ Input 14	OEM Button #9	☐ Input 46	NONE
☐ Input 15	OEM Button #2	☐ Input 47	NONE
☐ Input 16	NONE	☐ Input 48	NONE
☐ Input 17	Spin on/off	☐ Input 49	NONE
☐ Input 18	FeedOvrd Reset	☐ Input 50	NONE
☐ Input 19	OEM Button #6	☐ Input 51	NONE
☐ Input 20	OEM Button #4	☐ Input 52	NONE
☒ Input 21	OEM Button #3	☐ Input 53	NONE
☐ Input 22	OEM Button #5	☐ Input 54	NONE
☐ Input 23	ZeroAll	☐ Input 55	NONE
☐ Input 24	NONE	☐ Input 56	NONE
☐ Input 25	NONE	☐ Input 57	NONE
☐ Input 26	NONE	☐ Input 58	NONE
☐ Input 27	NONE	☐ Input 59	NONE
☐ Input 28	NONE	☐ Input 60	NONE
☐ Input 29	NONE	☐ Input 61	NONE
☐ Input 30	NONE	☐ Input 62	NONE
☐ Input 31	NONE	☐ Input 63	NONE
☐ Input 32	NONE	☐ Input 64	NONE

Analog 1	NONE	127
Analog 2	NONE	127
Analog 3	NONE	127
Analog 4	NONE	127

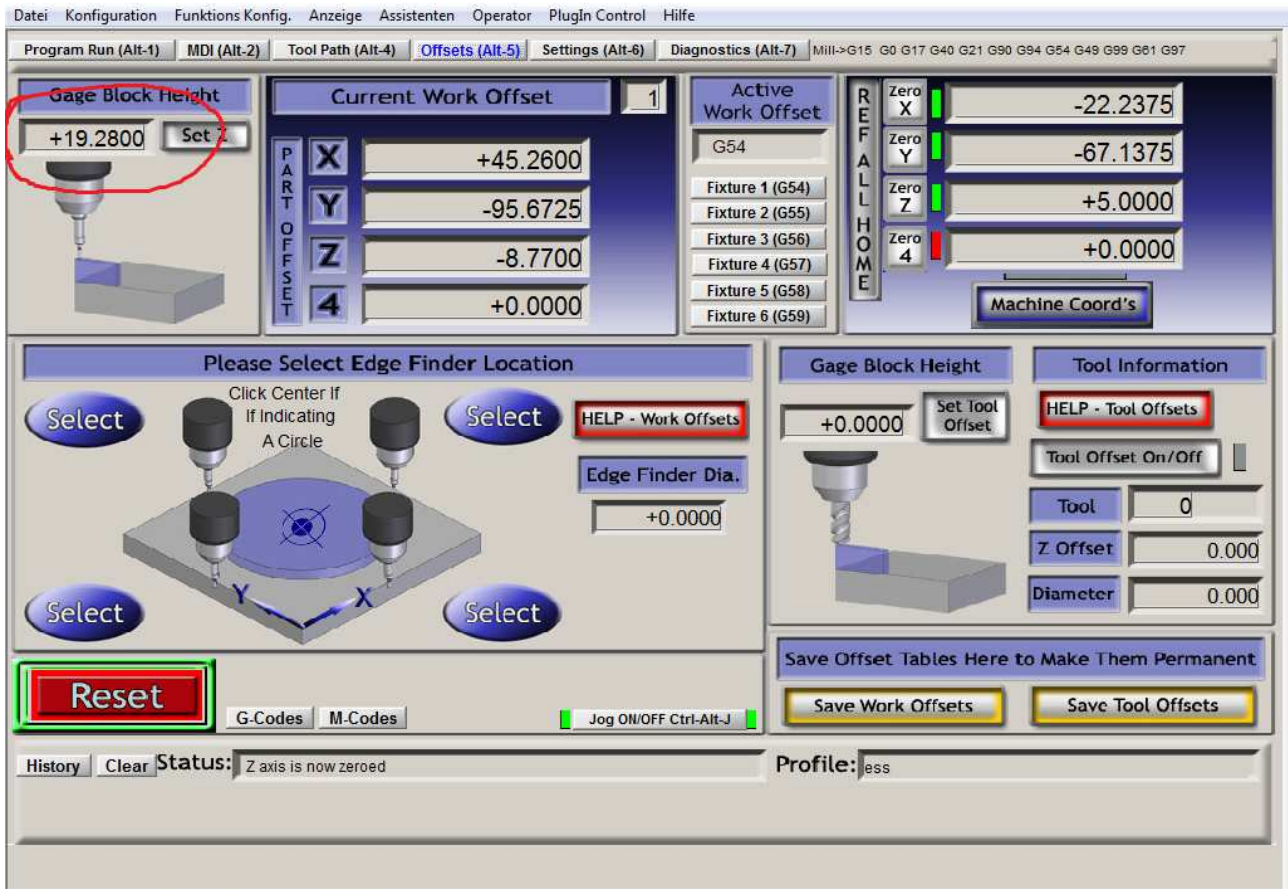
Encoder 1	MPG 1	0
Encoder 2	Feed Override	0
Encoder 3	Spindle Override	0
Encoder 4	NONE	0

OEM 1	303	Macro 1	301
OEM 2	306	Macro 2	0
OEM 3	259		0
OEM 4	260		0
OEM 5	261		0
OEM 6	262		0
OEM 7	267		0
OEM 8	266		0
OEM 9	265		0
OEM 10	284		0

- If you press one Button from Jogwheel you can see the HOOK from Value or Encoders
- **Rev ALL:** if the function not work you can the Value from INPUT 6 change in „OEM MACRO #4“ and right rechte Page in Value MACRO 4 the Value “303“ for Macro 303

Touch Tool Sensor

- **WZL:** Input 9 (Touch Tool is a integration from Mach3)
- **WZL-Button** (any User can setup himself, this is only the Button for the Jogwheel)



- In Config → General Config → Steps

General Logic Configuration

G20,G21 Control

☐ Lock DRO's to setup units

Tool Change

☒ Ignore Tool Change

☐ Stop Spindle, Wait for Cycle Start.

☐ AutoTool Changer

Angular Properties

Unchecked for Linear

☒ A-Axis is Angular

☒ B-Axis is Angular

☒ C-Axis is Angular

Pgm End or M30 or Rewind

☐ Turn off all outputs

☐ E-Stop the system

☒ Perform G92.1

☐ Remove Tool Offset

☒ Radius Comp Off

☒ Turn Off Spindle

M01 Control

☒ Stop on M1 Command

Serial Output

ComPort # BaudRate

☒ 8-Bit 1 Stop ☐ 7 Bit 2-Stop

Program Safety

☐ Program Safety Lockout

This disables program translation while the External Activation #1 input is activated.

Editor

GCode Editor

Startup Models

☒ Use Init String on ALL "Resets"

Initialization String

Motion Mode

☒ Constant Velocity ☐ Exact Stop

Distance Mode

☒ Absolute ☐ Inc

IJ Mode

☐ Absolute ☒ Inc

Active Plane of Movement

☒ X-Y ☐ Y-Z ☐ X-Z

Jog Increments in Cycle Mode

Position 1	0.01
	0.1
	1
Use 999 to indicate a	0.001
Continuous Jog	0.0001
selection.	1
	0.1
	0.01
	0.001
Position 10	0.0001

Shuttle Wheel Setting

Shuttle Accel. Seconds

General Configuration

☐ Z is 2.5D on Output #6

☒ Home Sw. Safety

LookAhead Lines

☐ Ignore M calls while loading

☐ M9- Execute after Block

☐ UDP Pendant Control

☐ Run Macro Pump

☐ ChargePump On in EStop

☒ Persistent Jog Mode.

☐ FeedOverride Persist

☐ No System Menu in Mach3

☐ Use Key Clicks

☐ Home Slave with Master Axis

☐ Include TLO in Z from G31

☐ Lock Rapid FRD to Feed FRD

Rotational

☐ Rot 360 rollover

☐ Ang Short Rot on G0

☒ Rotational Soft Limits

Screen Control

☒ Hi-Res Screens

☒ Boxed DRO's and Graphics

☒ Auto Screen Enlarge

☒ Flash Errors and comments.

Inputs Signal Debouncing/Noise rejection

Debounce Interval x 40us

Index Debounce

CV Control

☐ Plasma Mode

CV Dist Tolerance Units..

☐ G100 Adaptive NurbsCV

☐ Stop CV on angles > Degrees

Axis DRO Properties

☐ Tool Selections Persistent.

☒ Optional Offset Save

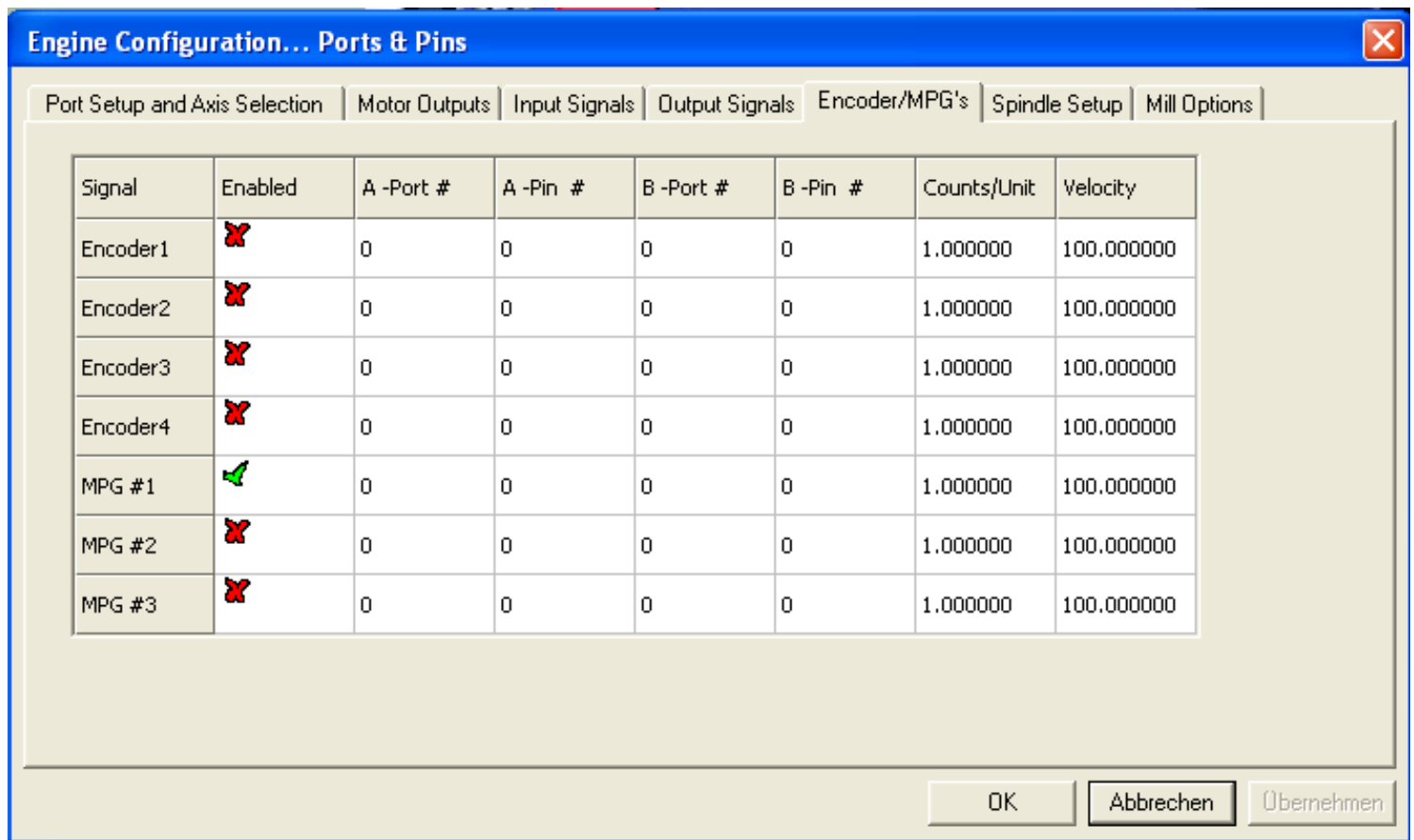
☒ Persistent Offsets

☒ Persistent DROs

☐ Copy G54 from G59.253 on startup

- in „Turn Manual Spindle Incr. und Spindle OV increment“ you can the Steps for the Spindle Speed change. Standart is 10 Steps.
- die Feed Speed is only by 1% and can not change

- in Config → Ports&Pins → Encoder/MPGs set MPG#1 Enable ON

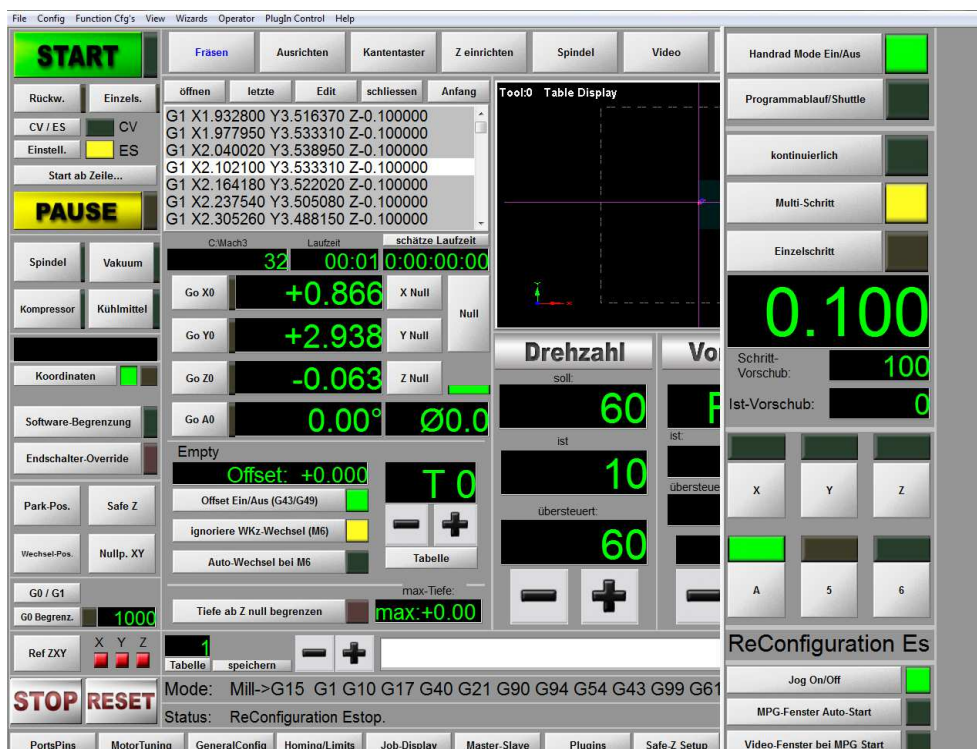
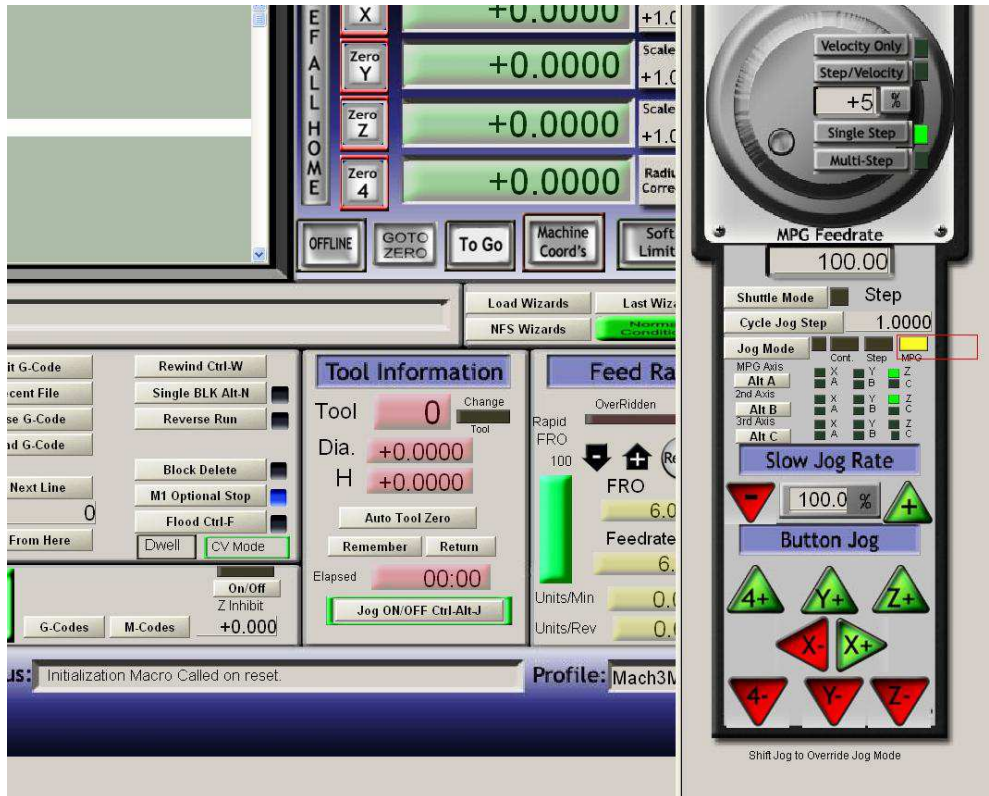


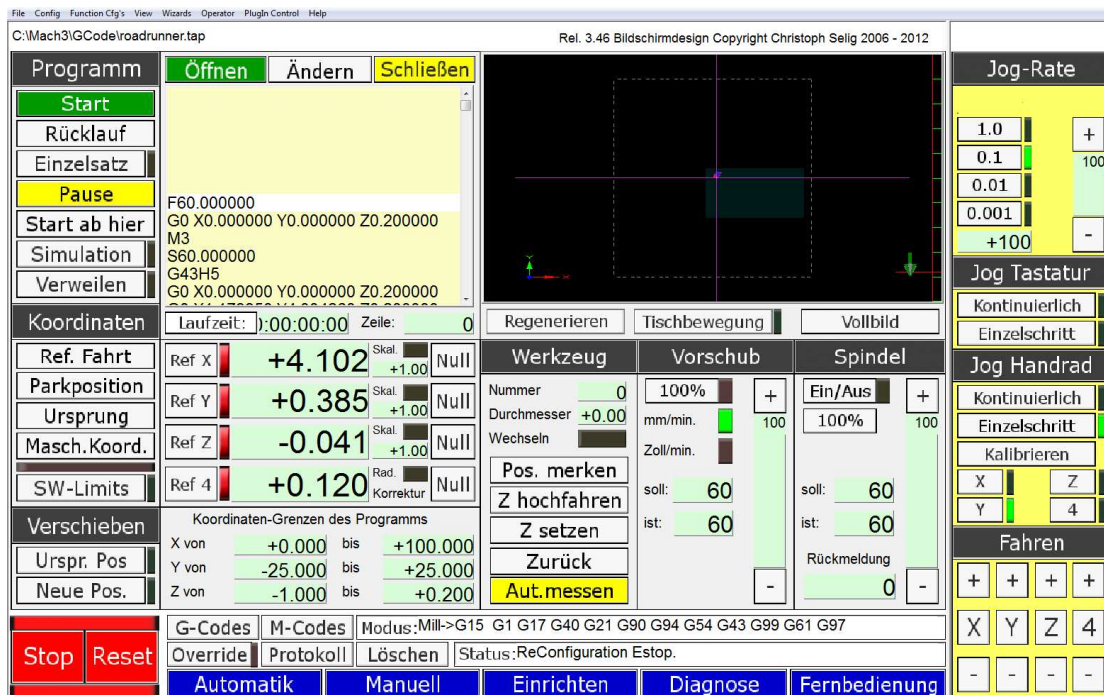
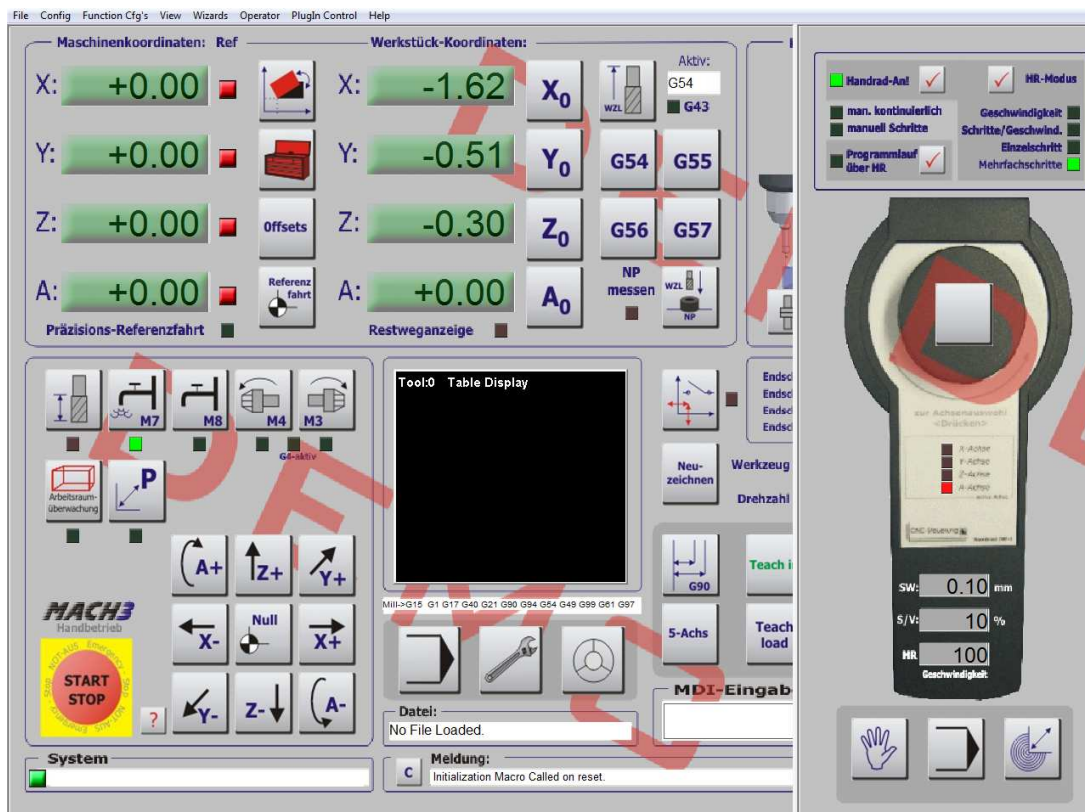
Normal: Counts/unit 1 und Velocity 100

- Test the Configuration without Stepper Driver.
- Starting Position if plugged the Jogwheel:
X-Axis
Cont – Modus
Step 0.01
You can the Jogwheel plugged in USB without Problem
The Joghweehl has a Charge Pump IC for use with Laptop

Jogwheel Switch ON:

- Press TAB –Button → with Jog-Mode Button change to „MPG”
- On the Jogwheel press the CONT/STEP to see the Change by (Velocity Only/Multi-Step)
- Now you can test the Step Button 0.01/0.1/1mm and the Axis
- When the Cont Modus is active you can only drive with Keyboard, you must in MPG Modus to use the Jogwheel





For User from Windows Vista/7/8/10

- For correct Functions the Encoder
- In the Install Folder from Mach3
- Right Mouse Button to Mach3.exe and Character → Compatibility →
Active the Hook „Start as Administrator“ and Compatibility Modus WinXP SP3 change