TN022

AKKON CNC SYSTEM

AKKON CNC quick start



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Table of versions

Version	Date	Remarks
1.0	19.11.2016	first version

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1 Introduction

This document describes the configuration of turret, tool management configuration of reference point R0 as well as some additional features about AKKONDesk.

Configuration of AkkonDesk is done by ini files. The files are located on C:\ProgramData\Akkon (Win 7) and either be modified manually in the text editor as well as in different Dialogs in the AkkonDesk software. However, modification of not all parameters is supported in dialogs.

2 Install AkkonDesk CNC software

2.1 Execute AKKONDesk Installer





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2.2 Lauch AkkonDesk first time



3 Install USB-Driver

Note: The installation of a USB-Driver is only necessary if you want to run the AKKON CNC controller over USB-option.

3.1 Locate USB-Driver installer application Zadig.exe and run the application

3.2 Select Options – list all devices

Select AKKON LPC USB

Select Libusb-Driver

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rganize 🔻 📑 Open Burn	New folder				
Favorites	Name	Date modified	Туре	Size	
	Akkon_LPC.inf	17.03.2012 11:04	Setup Information	2 KB	
Desktop	🚳 libusb0.dll	08.04.2011 15:29	Application extens	66 KB	
🥽 Libraries	🗟 libusb0.sys	08.04.2011 15:29	System file	35 KB	
🍓 Homegroup	🗟 libusb0_x86.dll	08.04.2011 15:29	Application extens	66 KB	
🥦 Geri	💷 testlibusb-win.exe	08.04.2011 16:28	Application	15 KB	
🌉 Computer	🔝 zadig.exe	19.09.2012 23:48	Application	6.878 KB	
dig					
dıg Ievice Options Help					
dig Device Options Help AKKON LPC USB		- Edit			
AKKON LPC USB AKKON LPC USB Driver WinUSB (v6.1.7600.16385) USB ID FFFF 0004 WCID ²	Ibusb-win32 (v1.2.6.0)	Edit More Information WinUSB (Ibusbx) Ibusbx Ibusbx WinUSB (Microsoft)			

3.3 Press Replace dirver resp. install driver

KKON Desk 2.0.0.782						
File View View position Settings Werkzeuge Info						
🖸 😑 😂 🖬 📲 📾 📣 🛔 🖝 💐 🎜 🦵 🧧 🗐 🍁 🔱 🗗	00000000	i 🔍 🕂 🔍 🛞				
			Machine control		_	×
			x 00	00.000	mm	eed Speed %] [%]
			Y 100			
@	- 🗽 « Windows7_OS (C:) 🕨	Program Files (x86) 🕨 AKKON_V2_0_0	782 Controller LPCUS8	Driver	🗸 👍 Sea	irch Driver 🔎
Organize	▼ ☐ Open Burn	New folder	_			
😤 Favo	rites	Name	Date modified	Туре	Size	
Zadig Device Options Help MixCon LPC USB Driver WinUSB (v6.1.7600.16385) USB ID FFFF 0004 X 7 devices found.	top top top top top top top top	Akkon_LPC.inf bibusb0.dl bibusb0.dl bibusb0.xys bibusb0.x86.dll bitusb-winexe zadig.exe zadig.exe More Information WinUSB (Ibudbx) bibusb-win22 bibusbx WinUSB (Ibudbx) bibusb-win22 bibusbx Jadig v2.0.1159 9.09.2012 23:48 Date created 7,11 MB	17.03.2012 11:04 08.04.2011 15:29 08.04.2011 15:29 08.04.2011 15:29 19.09.2012 23:48 19.09.2012 23:48	Stup Information Application extens System file Application extens Application Application	2 KB 66 KB 35 KB 66 KB 15 KB 6.878 KB	
			<		higher	*
Mx: XXXXX My: XXXXX Mz: XXXXX Ma: XXXXX Program loading progress:		Execution time: 0.0s	s: U mm Buffer state		AKKON	CNC contro

4 Update AKKON CNC controller firmware



4.1 Launch AkkonDesk and open firmware update dialog

4.2 Connect AKKON USB controller over USB to PC

4.3 Change RS232-settings to right COM port



4.4 Select firmware

You can choos USB-RS232-driver oder USB driver. It depends on your hardware version. Some boards only have USB-RS232 some have both.

4.5 Switch AKKON CNC controller board in firmware mode

This can be done by setting the dip switches on the controller board. Please see also the TN014

4.6 Run controller detection

LPC firmware update LPC firmware update
Exit Settings
ARM LPC firmware update pc2lisp version 1.97
Synchronizing (ESC to abort). OK Read bootcode version: 13
2 Read part TD: LPC2148, 512 kit FLASH (40 kit SPAM (0v0402FE25)
Controller hardware detection finished
×
Detect controller Update firmware Open COM TRTS DTR Detect firmware Close COM

If the USB-RS232 firmware has been installed, a firmware detection can be performed. Open Com port, reset the controller using DTR/RTS or do it manually and then press "Detect firmware".

If the USB firmware has been installed, firmware informaton can be read out using AkkonDesk->Menu- > Info-About-Dialog

4.7 Close AkkonDesk

5 First launch AKKON Desk

5.1 Start AKKON Desk

5.2 Set hardware settings

Check if the hardware parameters fit to your CNC-Machine. If necessary change the values

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Technical note

File View View position Settings Werkzeuge Info				
Machine control	×			
	[%] [%]			
Manual mode movement mode settings				
atx: 5.0 [mm/s2] a2x: -30.0 [mm/s2] v:2: 10.0 [mm/min] v:Max: 500.0 [mm/min] at: 100 [mm/s2]				
aiy: 5.0 [mm/s2] a2y: -30.0 [mm/s2] vy2: 10.0 [mm/min] vyMax: 500.0 [mm/min] a2: -100 [mm/s2] mm				
aiz: 5.0 [mm/s2] a2z: -30.0 [mm/s2] vz2: 10.0 [mm/min] vzMax: 500.0 [mm/min] G00-feed: 2000 [mm/min]				
a1a: 5.0 [mm/s2] a2a: -30.0 [mm/s2] va2: 10.0 [mm/min] vaMax: 500.0 [mm/min] Feed rate parameters on pause / run				
Feed parameters for manual feed dv/dt: Up: 100 [mm/s2] in Mode				
Speed v resolution X-Axis: 0.0050 [mm/step] dv/dt Dn: 100 [mm/s2] //min State	off			
vMax Resolution Y-Axis: 0.0050 [mm/step] T-Sample: 50 [ms] d=2.00mm, F500	1.00mm/min			
a2x Resolution Z-Axis: 0.0050 [mm/step]				
a1x v2/Min Resolution A-Axis: 0.0050 [mm/step]	Unfoct			
v1 Min Maximum feed: 2000 [mm/min]	FB Reset			
Image: speed: 10000 [1/min] (1/min) (1/min) (1/min)	€59.2 €59.3			
Hardware IO Timeout settings 100 ms Application timeout settings Set default values	×			
300 ms Update Controller				
Cursor timeout:				
You can keep the hardware configuration window open during real time test.				
Mix: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX				
	- 7/4			

5.3 Connect to AKKON CNC controller





5.4 Check if the firmware is up-to-date

5.5 Increase feed and move with cursor- and F1/F2-keys

Further keys, please see Menu->Info->Hotkeys

5.6 Set work piece zero point of all axes

Move spindle to appropriate position and set work piece zero point of all axes.



5.7 Open Example CNC-file

Select firs example Ex00_G01_Rect.txt



5.8 Press Start-, Stop- or Pause button for controlling execution

After pressing start, increase the feed scrollbar and









5.10 Let the application finish

Please see TN020_Configuration_Procedures_And_Additional_Features_of_AKKONDesk.pdf.

6 Disclaimer

6.1 Limited Warranty and Disclaimer of Warranty

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