Keyence LK-Navigator 2

Technical Note for the KLIPPEL R&D and QC SYSTEM (Document Revision 1.1)

The Keyence LK-Navigator 2 software is dedicated to all Laser Sensors from the Keyence LK-G5000 Laser Series.

The LK-Navigator 2 is not included with LK-G5000 Lasers Sets bought from Klippel. It has to be ordered separately. Following note giving just a short introduction to the customer why own it.

From Klippel bought LK-G5000 Lasers Sets came with a small Klippel Keyence Tool to load Klippel provide setups to the Laser Controller. This tool requires a serial connection. A special serial adapter cable and USB to serial converter are included.

Keyence	Laser Settings 1.3		×
Template La:	ser Settings		
Read curre	nt settings		~
Parameters		Serial Port	COM6 ~
Parameter	Value		Help
Frequency	50kHz		Debug
			Llose

1 How to load a Klippel provided Setup file into the software

1.1 Start LK-Navigator 2



1.2 Load from file

After program start:

Select startup configuration setting.		
Setting contents		
O Read Controller Settings.(A)		
Read from file.(F)		
O Start up with the default values.(I)		
	OK	6

Or from menu during program operation:

🗭 LK-Navigator2						_	
File(F) View(D) Communication(J)	Commu	inication Settings(O)	Help(H)				
Save Setting File(S) Ctrl+S	settinas	View	View	-	View		
Open Setting File(O) Ctrl+O	ntroller	Value	Waveform	2	Received Light Waveform	\sim	Data Storage
Exit(X)	Settings (Common Settings Settin	gs List				

1.3 Select Setup file

🇭 Öffnen				×
← → × ↑ 📙 « Lase	er Sensors \rightarrow Keyence \rightarrow LK-G5000 series \rightarrow LK-Navigator 2 setup files \rightarrow	· · · · · · · · · · · · · · · · · · ·	・ Ö "LK-Navigat	tor 2 setup files" d 🔎
Organisieren 🔻 Neuer O	Drdner			==
scan ^	Name	Änderungsdatum	Тур	Größe
TN10 - Stability	old	01.02.2018 16:53	Dateiordner	
ConeDrive	Testfiles	02.02.2018 18:24	Dateiordner	
	1a_LK-H022@Head1&2_+-3mm@50kHz_rev.2.0.ldtx	01.02.2018 16:50	LDTX-Datei	24 KB
💻 Dieser PC	1b_LK-H022@Head1&2_+-2.5mm@100kHz_rev.2.0.ldtx	01.02.2018 17:49	LDTX-Datei	24 KB
🧊 3D-Objekte	1c_LK-H022@Head1&2_+-1.2mm@200kHz_rev.2.0.ldtx	01.02.2018 17:52	LDTX-Datei	24 KB
📰 Bilder	2a_LK-H052@Head1&2_+-10mm@50kHz_rev.2.0.ldtx	01.02.2018 16:10	LDTX-Datei	24 KB
E Desktop	2b_LK-H052@Head1&2_+4mm@100kHz_rev.2.0.ldtx	01.02.2018 17:28	LDTX-Datei	24 KB
Dokumente	2c_LK-H052@Head1&2_+2mm@200kHz_rev.2.0.ldtx	01.02.2018 17:37	LDTX-Datei	24 KB
Downloads	2d_LK-H052@Head1&2_+1mm@50kHz_rev.2.0.ldtx	02.02.2018 15:33	LDTX-Datei	24 KB
Mueik	3a_LK-H082@Head1&2_+18mm@50kHz_rev.2.0.ldtx	01.02.2018 16:41	LDTX-Datei	24 KB
	4a_LK-H152@Head1&2_+40mm@50kHz_rev.2.0.ldtx	01.02.2018 16:46	LDTX-Datei	24 KB
Videos	5a_LK-H052@Head1_LK-H022@Head2_@50kHz_rev.2.0.ldtx	01.02.2018 16:54	LDTX-Datei	24 KB
🏪 Lokaler Datenträ	5b_LK-H052@Head1_LK-H082@Head2_@50kHz_rev.2.0.ldtx	01.02.2018 16:56	LDTX-Datei	24 KB
🔜 Volume (D:)	5c_LK-H052@Head1_LK-H152@Head2_@50kHz_rev.2.0.ldtx	01.02.2018 16:58	LDTX-Datei	24 KB
🛖 User-Share (U:)				
🛖 Video2Brain_neu				
🛖 Exchange_neu (\				
* · · · · · · · · · · · · · · · · · · ·				
Detaine	2. 17. 1052.01			- 2 Deserve standatsi() (
Dateina				
			Öffnen	Abbrechen

Load from file

2 How to connect the LK-Navigator to the Laser Controller

2.1 Connection Settings

TN11

🗭 LK-Navigator2		-	
File(F) View(D) Communication(J) Con	munication Settings(O) Help(H)		
Receive settings from controller	View View Measurement Meceived Light Value Waveform	View Received Light Waveform	Data Storage

2.2 Connection via RS-232

PC Communication	settings	×
PC Communication sett	ings	
Communication	via USB(<u>U</u>)	
Communicate with the second	th Ethemet(<u>E</u>)	
Specify conn	ection	
 Specif 	y controller IP address	
IP a	ddress 192 . 168 . 10 . 10	
◯ Auto s	earch for controller	
Con	nected controller 🗸 🗸	
	Search connected controller(\underline{C})	
Communication	via RS-232C(<u>R</u>)	
Port(C)	COM1 ~	
Baud rate(B)	9600 ~	
Parity(P)	NONE ~	
	OK Can	cel

2.3 Connection via USB

P	PC Communication settings	×
	PC Communication settings	
	Communication via USB(U)	

3 How to load a Setup File to the Laser Controller

LK-Navigator2					_		\times
File(F) View(D) Communication(J) Comm	nunication Settings(O)	Help(H)					
Receive settings from controller	View Measurement Makes Nakes	View Received Light Waveform	2	View Received Light Waveform	~~~	Data St	orage

Wait until:



4 How to use the Measurement Value Display

4.1 Open the Measurement Value Display

🗭 LK-Navigator2				_	
File(F) View(D) Communication(J) Comm	nunication Settings(O)	Help(H)			
Receive settings from controller Send settings to controller	View Measurement Value	View Received Light Waveform	View Received Light Waveform	~~~	Data Storage
Head Settings OUT Settings	Common Settings Sta	art up the Measurement	Value screen.		

4.2 Start the Measurement Value Display

Mesurement Value Display					– 🗆 X
Measurement value			Simultaneo Zero(7)	ous Simultaneo Reset(8	ous Simultaneous) Timing(9)
Head status	Select D)isplay(O)	1		
HEAD01 HEAD07 STABILITY STABILITY BRIGHT BRIGHT DARK DARK HEAD02 HEAD08 STABILITY STABILITY	OUT01 = F	II EGOELO	TIM ZERO		***
BRIGHT BRIGHT	Zero	Reset	Timing		
HEAD03 HEAD09 STABILITY STABILITY BRIGHT BRIGHT DARK DARK	OUT02	11 GO LO	TIM ZERO		
HEAD04 HEAD10 STABILITY STABILITY BRIGHT BRIGHT DARK DARK	7010	Dead	Timing		***
HEAD05 HEAD11 STABILITY STABILITY BRIGHT BRIGHT DARK DARK	2810	Reset	i iming		
HEAD06 HEAD12 STABILITY STABILITY BRIGHT BRIGHT DARK DARK					
				Exit	Help(H)

TN11

Mesurement Value Display			– 🗆 X
Measurement value acquisition stop		Simultaneous Simultaneou Zero(7) Reset(8)	us Simultaneous Timing(9)
📕 Head status	Select Display(O)		
HEAD01HEAD07STABILITYSTABILITYBRIGHTBRIGHTDARKDARKHEAD02HEAD08STABILITYSTABILITYBRIGHTBRIGHTDARKDARKHEAD03HEAD09STABILITYSTABILITYBRIGHTBRIGHTDARKDARKHEAD03HEAD09STABILITYSTABILITYBRIGHTBRIGHTDARKDARKHEAD04HEAD10	OUT01 CO LO Zero Reset	Timing	75mm
STABILITY STABILITY BRIGHT BRIGHT		Timina	
HEAD05 HEAD11 STABILITY STABILITY BRIGHT BRIGHT DARK DARK HEAD06 HEAD12 STABILITY STABILITY BRIGHT BRIGHT DARK DARK	Zero Keset	Timing	
		Exit	Help(H)

5 How to change setting

Klippel provides approved and dedicated settings for loudspeaker measurements. It is strongly recommend to keep the Klippel settings. Klippel does not support own settings.

For more information read the Keyence provide LK-Navigator 2 manual.

6 References

6.1.1	Manual	Manual Hardware
6.1.2	Specification	A2 Laser Displacement Sensors

All screenshots are taken from the German software version. Related English screenshots can be found in the included Keyence Manual.



Find explanations for symbols at:

http://www.klippel.de/know-how/literature.html

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