QUICK START GUIDE

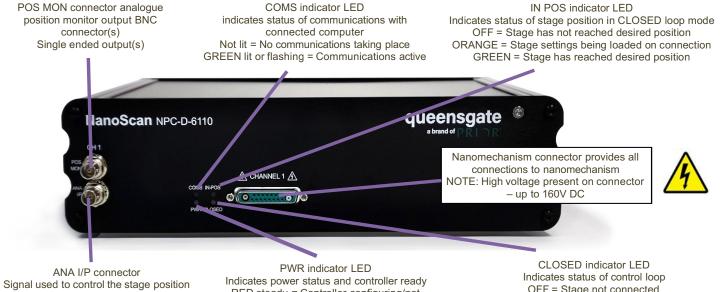
USE OF NIS-ELEMENTS WITH THE NANOSCAN SP RANGE OF SAMPLE SCANNERS AND THE NANOSCAN OP OBJECTIVE POSITIONER

NIS-Elements

The NanoScan SP series sample scanners and the NanoScan OP400 objective positioner have basic control within NIS-Elements using the NanoScan Z functionality.

Imaging Software

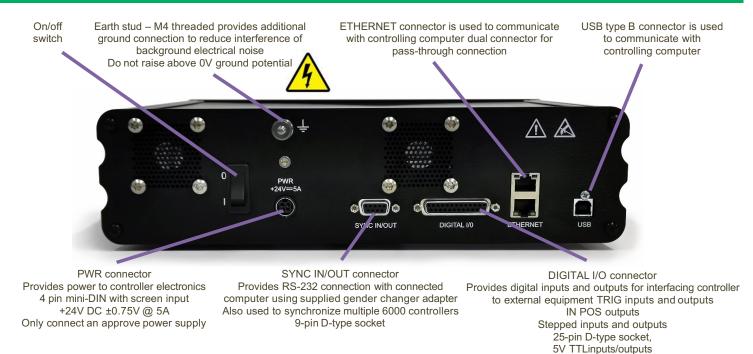
CONNECTING YOUR SYSTEM – FRONT OF UNIT



Signal used to control the stage positi analogue command input BNC connector(s) Single ended output(s) Indicates power status and controller ready RED steady = Controller configuring/not ready (can take up to 30 seconds) GREEN steady = Controller powered and ready for operation CLOSED indicator LED Indicates status of control loop OFF = Stage not connected ORANGE = Stage settings being loaded on connection RED = Controller operating in OPEN loop mode GREEN = Controller operating in CLOSED loop mode YELLOW = Controller servo output frozen

MUST use shielded cable

CONNECTING YOUR SYSTEM – REAR OF UNIT



NIS-ELEMENTS

CONNECTING THE CONTROLLER TO THE COMPUTER

Connect the NPC-D-6110 controller to the computer using an RS232C cable from the serial port on the computer to the SYNC IN/OUT port on the NPC-D-6110. A gender changer adapter is required to connect the RS232C cable to the sync port. The adapter required is a 9-pin male to male adapter as shown.

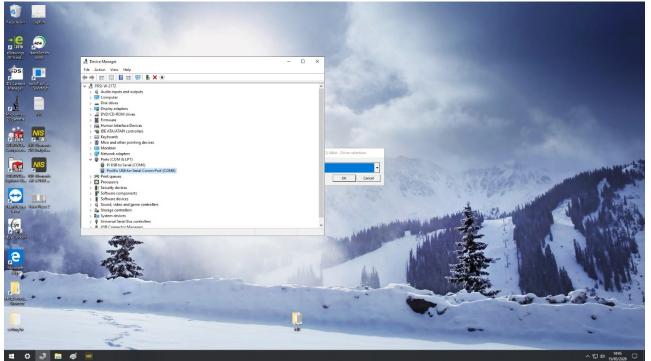
On 'power up', the controller will always move the stage across its range to carry out auto-calibration. It is important to ensure that there is sufficient clearance between the lens, sample and illumination to allow this to take place. If the temperature or load changes significantly the stage can 'clip' at one end of the travel. Should this happen restart your system to allow auto-calibration.



9 pin male to male adaptor

DEVICE MANAGER

Once installed navigate to Device Manager and select the USB to Serial Port COM setting. Make a note of the COM port used.



Open NS-Elements and navigate to the manage device section; install devices as shown below and select Prior ProScan III/OptiScan III.

NS-Elements AR (Current user: ProductAdmin)						- @ ×
Me Edit Acquire Calibration Image BOI Binary Measure Reference Macro Yow Devices Window Applications Addons 105.al H					(Ctri +P3) 🛛 💓 🕶 👀	AAA
😥 🗄 🕫 OK 🗞 🖸 🖸 🔕 🧿 🕰 🕼 🖉 • 🛛 • 📴 🐺 🔤 👘 🖗 🏭 🖓 🖓 🖓 🖓 🔛 🖉 🖬 🕬	ustomize 👻					
▶ H 이 여 양 L O O O O O O O O O O O O O O O O O O		Prior OptiSc Prior PL200 Prior ProSc	m FE K. (PH I, T-S(J, 60) an II. (Nandisan Z + Pholican II, Pholican II, PC I II	Read a Settion Transfer Land Transfer Land Transfer Land Transfer Land Transfer Land Transfer Land Transfer Tr	Ne Hintoyan x a son-instrume * [sone isone * [sone * [sone *] sone * [sone *] sone	3 ≤ 2 5 ≤ 2 7 9 ≤ 4 7 9 = -
Adds Capter Folder * [Open: Security *] Astronol/Neurorent Founds *] Security Folds *] The Heastment *] Open 46 (in) (CP-type Articlet Streamburger) *]	Mysical Devices				N 000 X	
	Correction Parameters Configure Devices Legical Devices Reset Devices Parameters Device Parameters		17.7 Martine Constantine Constanting Martin			54.10
ndtzti.ndz ndtzti.ndz ndtzti.ndz ndtzti.ndz	nd025.nd2	nd024.nd2	ndoz3.ndz	nd922.nd2	nd021.nd2	nd020.nd2
¢						
Ful Screen Docked Controls / Measurement / Inst Flash1.0		1	Yan 10x (1.65 µm/px @ 2048 x 2044)			
🛋 🗘 🧈 🚍 🎻 📨						1447

www.prior.com

DEVICE MANAGER

Set the port to the setting found under device manager.

	NIS-Elements AR [Current user: ProductAdmin]			- a ×					
	Ele Edit Acquire Galibration Image BOI Binary Measure Reference Macro View Devices Window Applications Addong NIS-al ([Search (Ctrl+F3] 🛛 🛃 🕶 😥 🔒 🗛 🗛 🗛 🚥					
	🎓 🗄 ゆう の 🗞 🗋 🖸 🔕 🔽 🖉 🖉 🖉 🖉 👘 👘 🎽 🖄 🏯 🗮 👾 🐉 🛄 🔚 着 🖼 Customice -								
		Manage devices	<	Flash4.0 Settings × Histogram ×					
	Allenn								
		Remove		Auto Exposure 1 frame 💌 🔀					
				ROI ROI Size 👻					
		Close		Simulator Scene: Squares					
				Intensity: 100 [%] of exposure					
	<u>0</u>								
	Ei			Squares Density: Hgh 🔻					
	84			Square Size: Smol					
				☑ Noisy Intensity: 20 %					
	X .			(NGPC)					
				Bleaching Half-life: 2 s Reset					
	* 1	Prior ProScan III / OptiScan III ×		Commands 💌					
	0	Port: COM6							
	·*			AL#IODD B					
		Count of Count		Area Angle					
		Carter							
Automatic Folder + Orenet Jacobie Automatic Measurement Statuly 2nd le vites Predid Devices Image: Predide vites Image: Predide vit				Length 💌 🛞 😧 🚺 🔛 Export 🕶 Options 🕶 💷					
4 King C (Progen Refright Elements)magn) Prod D (Vecs) Constant Parameters Configure Device Rest Logical Docks Index Parameters Rest reflore Resenters Index Parameters reflore Resenters Rest reflore Rest				> Source Length Comment					
4 King C (Progen Refright Elements)magn) Prod D (Vecs) Constant Parameters Configure Device Rest Logical Docks Index Parameters Rest reflore Resenters Index Parameters reflore Resenters Rest reflore Rest									
4 King C (Progen Refright Elements)magn) Prod D (Vecs) Constant Parameters Configure Device Rest Logical Docks Index Parameters Rest reflore Resenters Index Parameters reflore Resenters Rest reflore Rest									
	Auto Capture Folder x Opened Images x Automated Measurement Results x Intensity Profile x Time Measurement x Object			×					
10020 m Sharet m Internet molecular for an end of the share of th	46 files (C: Program Files)/45 @ements/images (M 000 888 0 🗖 🗖					
10023042 n0023.402 n0023.402 n0023.402 n0023.402 n0023.402 n0022.402 n0022.402 <td< td=""><td></td><td></td><td></td><td></td></td<>									
nd029/m2 nd023/m2				-					
nd023 m2 m022 m2 m022 m2 m024 m2 m			ter management and the second second	A THE REPORT OF THE PARTY OF TH					
6 3									
Fail Steen X Decked Contents / Networket X - Steen (0.65 Jun (0.45		nd025.nd2 nd024.nd2	nd023.nd2 nd022.nd2	nd021.nd2 nd020.nd2					
	Full Screen Decked Controls / Messurement / Imm Flash4.0		Plan 10x (0.65 µm/px @ 2048 x 2044)						
				> ♥ ↔ 14:51 15/05/2020					

Under manage devices within element select Prior ProScan III/OptiScan III and then select Z Piezo.

	NIS-Elements AR [Current user: ProductAdmin]						– ø ×		
	Se Edit Accure Çalbraton Image 800 Brany Keaure Referenze Marco View Denkes Window Applications Addong NBS-ai Heb Search (Chi-45) 📝 🕶 🖓 🔒 🗚 🗛 🖽								
0	📙 🗠 Οι 🖏 🛄 🖸 🚱 🖸 🕼 🖉 🗸 Σ • 🖳 🛃	🖡 New 🦄 🐻 🖋 🔛 🖓 🗠 🖓 🖬 🗸	Customize 🔻						
402	Nikon		Manage devices Installed devices: 	Add •		Flash4.0 Settings × Histogram × Ecomat.Eor.Line 16-bit - No Enring ▼ Format.For Capture 16-bit - No Enring ▼)		
● ※ のほ ズ む ひ 影 加 会 第 加 会 知 う 知 ! ●						Auto Exposure 1 frame • X NO1 NO1 NO1 Source • Source • Intervity: IO0 (Ng) of toppoure Chiest 2 Source •			
「「「「」」は「」」						Square Size: [mol] Vitersity: 20 % Prane numbers Biscoling Holf-Me: 21 Reset]		
3 🗐 🌣 🔁						Commands ▼ Annotations and Heasurements ★ Preview Annotatons Image: I	<u>.</u>		
						Aree Angle Area Semantes Count & T Radue Semantes Count & T Length + ₩ ₩ ₩ ₩ ₩ ₩ ₩ ←→→ Source Length Con	Export * Options * 1 *		
	Auto Capture Folder × Opened Images × Automated Measurement R 46 files C: Proy on Their NS-Benetis Yinapes (eaults × Intensity Profile × Time Measurement × Object	Physical Devices	_					
		Ballancess, mix and Ballancess, m	Connect Disconnect Configure Devic Connection Parameters Rece Logical Devices Device Parameters						
	nd029/nd2 nd028.nd2 <	nd027.nd2 nd026.nd2	nd025.nd2	nd024.nd2		d022.nd2 nd021.nd2	nd020.nd2		
_				Plan 10x (0.65 µm/px @ 2048 x 2044)		1453		
	al 🗐 🧮 🛷 🔤						記句) 14:53 い 15/05/2020		

DEVICE MANAGER

Within the Z Piezo configuration set the travel range. This is 400um for the NanoScanOP-400 and NanoScanSP-400 and 600um for the NanoScanSP-600.

INS-Elements AR (Current user: ProductAdmin)				- 0 ×
Ele Edit Acquire Calibration Image BOI Binary Measure Reference Macro View Devices Window Applications Addong NIS.ai E				Search (Ctrl+F3)
🍺 🖌 🕫 🕼 🖏 🖸 🖸 🔕 🔕 🚳 🖉 🛛 🖓 🖉 🖓 🕼 👘 🎽 🎆 👘 🎽 🎆 🎆 👘				×
2007	Manuel whole Parallel dockets: Tande large: Store Tande large: Store Cancel	X Add • Ramme Core		Hold-G Settings * Introgen * Brind-G Settings * Introgen * Brind-G Cabler & Soft-To String * Power for Cabler & Soft-To String * Productive Cabler & Soft-To String * Brind-Some * Standard Some * Standard Some * Office 2 Same Density * Office 7 Band Office 7 Office 7 Office 7 Same Office 7 Same Office 7 Office 7 <
	L			×
Auto Capture Folder × Opened Images × Automated Measurement Results × Intensity Profile × Time Measurement × Object	Physical Devices			
46 files C: Program Files VdS-Bements (mages)	Connect Disconnect Configure Device			M 000 888 0 0 0
	Connection Parameters Repet			
	Logical Devices			apato-ana apatohistorapatos ang andreterangen
nd028.nd2 nd028.nd2 nd027.nd2 nd026.nd2	nd025.nd2	nd024.nd2	nd023.nd2 nd022	.nd2 nd021.nd2 nd020.nd2
Kursen), Decked Controls / Messurement / See Flagh4.0		Plan 10x (0.4	65 umiox @ 2048 x 2044)	Z=0.000um
# J 🚍 🛷 📧				^ 1453 ↓

The conditions for operation are set within the capture Z series page within NS-Elements. Here you can set the step size, direction and number of steps to build a Z stack.

W NIS-Elements AR [Current use: ProductAdmin] - [Memory	1						– ø ×
	asure Reference Macro Yew Devices Window Applications					Search (Ctrl +F3)	NO A A A 🖾
😥 🗟 🕫 🖉 🖓 💭 🖓 🖉 🖉 🖉 🖉	• Σ • 🖳 🕼 New 🍋 🧒 🖗 🔛 🛗 👐 🎉 😃	🔄					
Ele Edit Acquire Calibration Image BOI Binary Me	Alfreize Marge Yee Derive (Moder Apdication					Sauch [Control Index 5 Settings + Helingan + Index 15 Settings + Helingan + Index 15 Settings + Helingan + And Donard I fame + Sauch 5 Settings + Sauch 5 Setings + Sauch 5 Settings + Sauch 5 Settings + Sauch 5 Setting	
	Execute Command before Capture Execute Command after Capture Load Save Remove*	v v				←···> Source Length Cor	
Auto Capture Folder × Opened Images × Autom	ated Measurement Results × Intensity Profile × Time Measure	ement x Object Count x					×
46 files C: Program Files VICS-Elements (mages) -							aaa 888 P D D
	BALLANCE BALLANCE BALLANCE	The local distance in the local distance	New York, No. 1 1 Representation	AND	Contral Based of Contral State	And and Antoneous and an	In Bullet Constant, 19
	28.nd2 nd027.nd2	nd026.nd2	nd025.nd2 nd024.	nd023.nd2	nd022.nd2	nd021.nd2	nd020.nd2
Full Screen Dacked Costrols* Measurement / Imm Flash4.0	(ID Contractor)			Plan 10x (0.65 µm/px @ 2048 x 2044)			> Z=200.000µm
	_ND_CreateZSeriesExp();			yran 10x (0.65 µm/px (# 2048 x 2044)			
📲 🚽 🚍 🚿 💌							14:57 □ (1) 15/05/2020