# PicoQuant Laser Driver PQLaserDrv

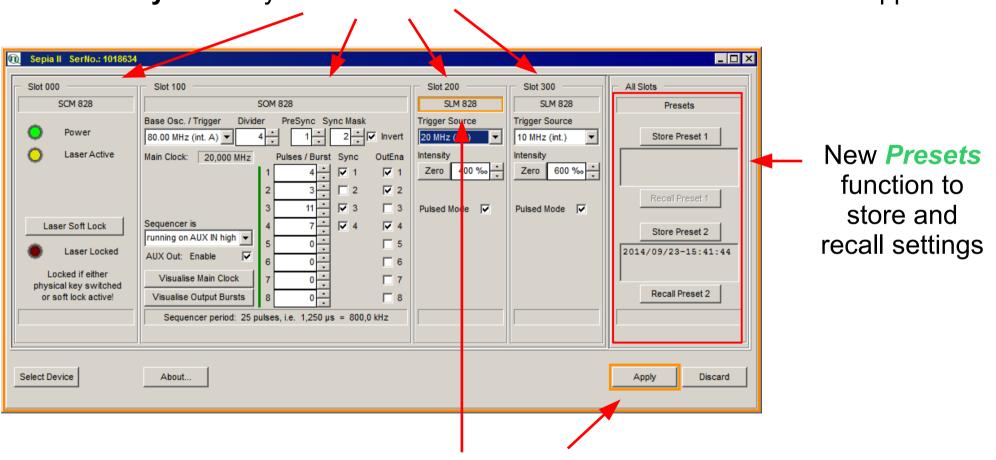
A new Graphic User Interface (GUI) for the *PDL 828 "Sepia II"* with a generic driver for all computer controlled lasers from PicoQuant



### Fixed layout independent from the configuration of the device.

		SerialNo.: 10	18634						3		
Slot 0	000 000				Slot	100			1		
SCM 8	828				SOM	1 828					
Power	er	Base Oscillat 80.00 MHz (		)ivider 4	Main 20.000	Clock Pre Syr	nc Sync Ma I Width	sk 2 •			
O Lase	er Active			Burst O		Length Sync Ei	nable Invert 🔽	1			
Locked if physical key or soft lock	switched			1 K 2 K 3 F		4. ▼ 1 3. ► 2 11. ▼ 3					
Laser Soft	t Lock			4 🕅 5 🗆 6 🗆		7 ↔ ¥ 4					
🕚 Lase	er Locked			6 Г 8 Г			Sequencer period:	[pulses] [μsec] 25 := 1.250			
Slot 200		Slot 400	Slot 5	500	Slot 600	Slot 700 —	Slot 800	Slot 900		a ativa m	
SLM 828	SLM 828								l IU	active n	nodules were
Zero 40 - % Trigger	Intensity Zero 60 🔆 % Trigger 10 MHz (int.) 💌	Intensity Zero C	X Zero	Inten Zerr Trigg		Intensity Zero	Intensity Zero C %	Intensity Zero 🕞 💥 % Trigger	gi	reyed	
Cont. Wave/ Pulse Disable	Cont. Wave/ 🗖 Pulse Disable	Cont. Wave/ Pulse Disable	Cont. Wa Pulse Disa	ve/ 🗖 🛛 Cont able 🗖 Puls	. Wave∕ e Disable	Cont. Wave/ Pulse Disable	Cont. Wave/ Pulse Disable	Cont. Wave/  Pulse Disable			
none	none										
Select Device					Discard	Apply	]	Quit			

# **New Graphic User Interface (GUI)**



Flexible layout. Only active modules are shown. Inactive modules disappear

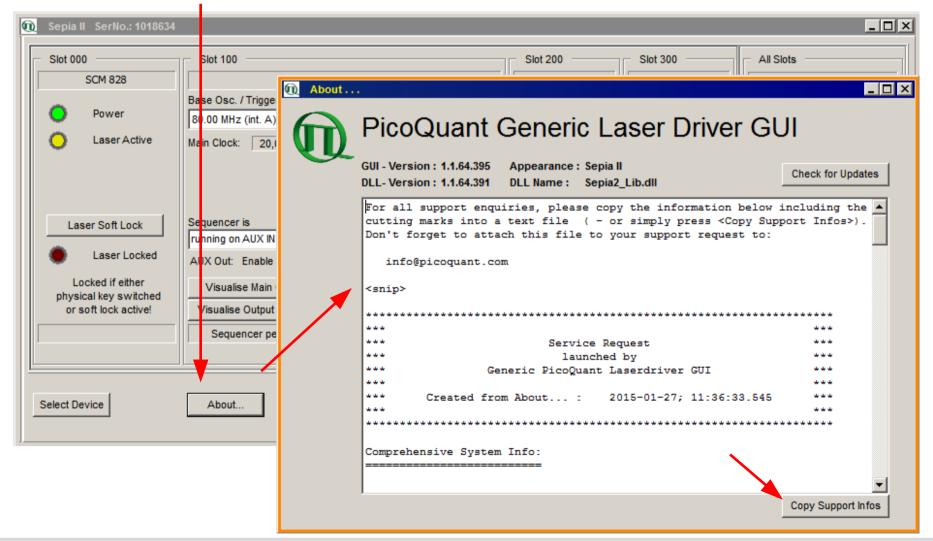
Setting modification are clearly highlighted (orange circled)

No need to restart the software in case another laser device needs to be set-up or in case the USB-connection is lost.

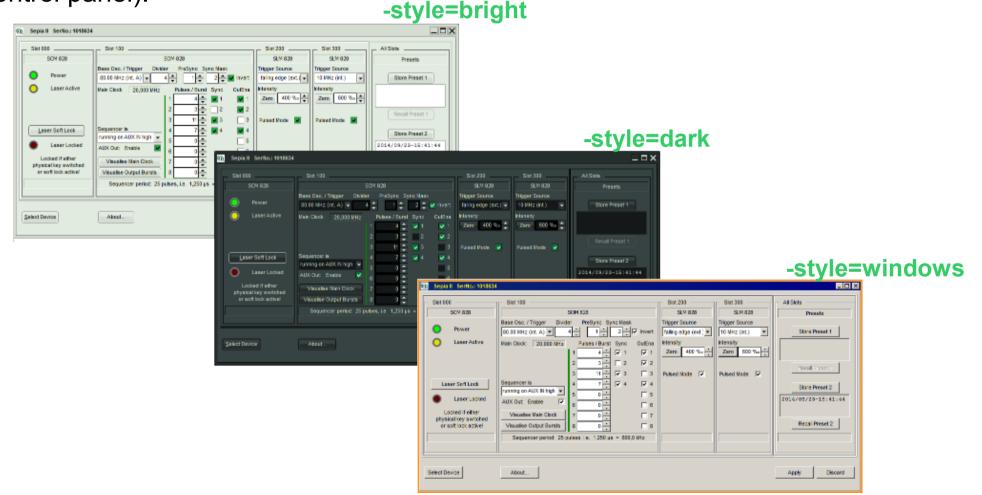
A simple click on Select Device and Reconnect the desired device chosen in the pull-down menu

🔞 Sepia II SerNo.: 10186:	34	
Slot 000	Slot 100	-   [-
Power     Laser Active	Base Osc. / Trigger Divider PreSync Sync Mask 80.00 MHz (int. A) • 4 • 1 • 2 • • Invert	
USB connection lost? Restart software or select another device.	Main Clock: 20,000 MHz Pulses / Burst Sync OutEna 1 4 1 1 1 2 3 1 2 7 2 3 11 7 3 3	r  F
Laser Soft Lock  Laser Locked	Sequencer is     4     7     ✓     4     7       running on AUX IN high     ✓     5     0     ✓     5       AUX Out:     Enable     ✓     6     0     ✓	
Locked if either physical key switched or soft lock active!	PQ Generic Laser Driver Select a Device: 7 8	
	Choose from the following laser driver devices:	
Select Device	1= * 1018634 (Sepia II)	
	Cancel Reconnect	

All relevant support information regarding Software, Firmware & Hardware of the device can be generated in a diagnostic datafile by a simple mouse click on the new *About...* button.

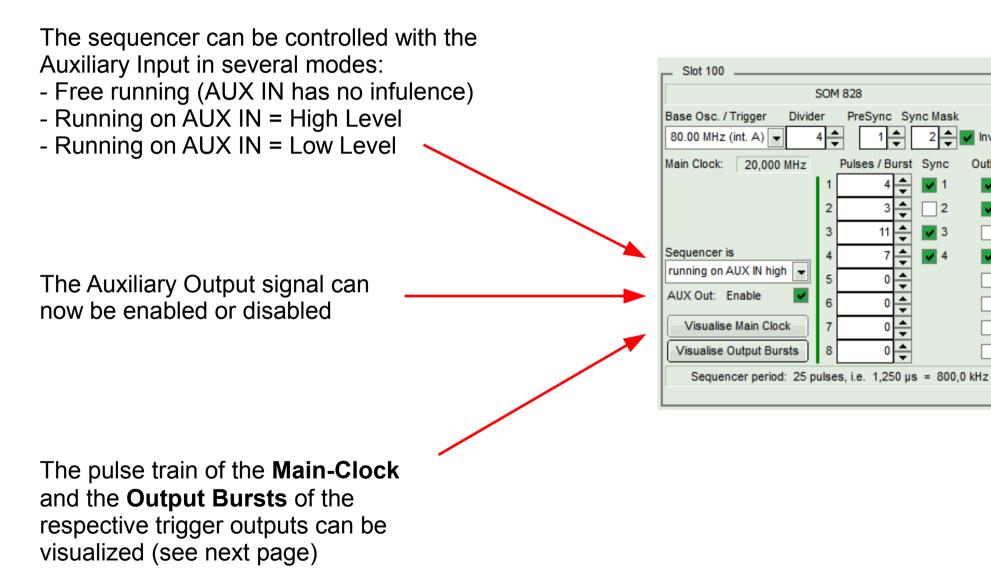


The GUI can be displayed in several colour shemes, PicoQuant Bright PicoQuant Dark or Windows configuration (can be changed in windows control panel).



These colours shemes are similar to the ones used in our software SymPhoTime 64.

## **New GUI – New Oscillator Functions**



Invert

OutEna

🗸 1

V 2

3

4

5

6

7 8

# **New GUI – Visualization of the Bursts**

n Main Clock Pattern			-Clock & Pre	e-Sync	
Base Osc. / Ext.Trig.In			alization		
Active Slope				Burst	-Patterr
Main Clock				Visu	alizatior
		Output Burst Pattern on AUX IN = High			
Sync Out (unmasked)	V V V	Main Clock			
Main Clock Composing:	Active Slope : on rising edge; Base Clock Divide (For more details refer to chapter 4.3.3 of the	Output 1= 4 pulses, burst 1	vvvv <b>*</b>	V///	
Update		Output 2= 3 pulses, Sync disabled, burst 2	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	///	
		Output 3 disabled, burst 3	\	1	
		Output 4= 7 pulses, burst 4	\		ากกกก
	ualization can	Output 5 disabled, Sync disabled, burst 4	\		
	d anytime while	Output 6 disabled, Sync disabled, burst 4	· · · · · ·		
	cillator parameters	Output 7 disabled, Sync disabled, burst 4	\	\	
changing 03		Output 8 disabled, Sync disabled, burst 4	<u>\</u>		
		Sync Out (green, w/o PreSync) Sync Mask (red)		עבור עבור עבוי.	
		Auxiliary Output (prep. f. new sequence)	<u></u>		/
		Output Burst Composing:	Sync Mask : 2; Mask inverted (For more details refer to chap	pters 4.3.3 & 4.3.4 of the Sepia	II Manual.)
	×	· · · · · · · · · · · · · · · · · · ·			<b></b>
		Update			Save

PicoQuant Laser Driver also controls the supercontionuum laser Solea and the PPL 400.

Main Controller       Trigger       Wavelength Selection         Power       Trigger Source       Center Wavelength       Image: Manual Coupling Alignment         Laser Active       Store Preset       Store Preset         Laser Soft Lock       Manual Coupling Alignment       Pump State:         Laser Locked       Anm -       Set to ECO Mode         Locked if ether physical key switched or soft lock activel       Spectrally Filtered Emission at 543 nm ± 2,0 nm       Note:	🔞 Solea SerNo.: 1024126		0 -	
	<ul> <li>Power</li> <li>Laser Active</li> <li>Trigger Source</li> <li>2.5 MHz (int.) </li> <li>Laser Soft Lock</li> <li>Laser Locked</li> <li>Locked if either physical key switched</li> </ul>	Center Wavelength   543 nm   543 nm   Bandwidth   4 nm   4 nm   Coptimize Coupling Alignment   Coptimize Coupling Alignment	Pump Mode: Manual Set to Automatic      Pump State: BOOST Mode Set to ECO Mode Note: Running the laser in BOOST mode will accelerate the	
Select Device About Apply Discard	Select Device About		Apply Discard	

#### GUI Solea