



Photronics Industries Software API For Easier System Integration

Photronics Industries offers customers an in-house developed, software **Application Programming Interface**, or API, with dynamic-link library (DLL), for easier programmatic integration of the laser into a system.

Customer control and software systems engineering is greatly simplified compared to previous integration methodologies, where time, energy, and investment are consumed on learning and implementing complex HEXASC commands/RS232 communication details. Previous raw RS232 communication methods lacked simplicity in COM initialization and command structuring, and was inflexible in error response and interpretation.

With the new API, communication is simplified with an informative, plain language command structure, provides clarity in error interpretation, and expands the breadth of user development possibilities with a full, up-to-date, web index of commands, and even provides for the availability of a laser simulator allowing in-advance user learning of the laser software integration before the customer has the laser itself.

Software API and documentation can be accessed on <https://www.photonix.com/software-download/>.



Ease of software implementation, simplified command structure, plain language laser command structure.



Laser simulator available so customers can learn the API and test their software interface before they have an actual laser to test on.



Optimized command-response handling greatly improving command turnaround time, outputting informative feedback on command success and errors.

	BUILDING SOFTWARE WITHOUT API	USING PHOTONICS INDUSTRIES API
RS232 COM port interface	Create from scratch	Built-in
Sending commands	Manually build command strings using codes, lookups, byte size calculations, checksums. E.g. "0003002107A12000EC" to set PRF 100kHz.	Only need to call a method. E.g. "myLaser.SetPRF(100000)"
Command response wait-time	Continuously scan for response	Method calls return results immediately
Reading command responses	Complicated parsing process. E.g. response from Get PRF command is "0303002107A12000EF".	No parsing required. Returns exact value in appropriate data type. E.g. Get PRF command returns 100000 [type integer].
Interpreting error responses	Responds with an opaque error code. E.g. "02" (invalid command)	Gives informative feedback. E.g., "Cannot set PRF when source set to External"
Laser Simulator	Not available	Included
User available auto-calibration	Not available	Included
Data logging	Not available	Included
Memory file saving/loading	Not available	Included