

Edition Feature Summary

	FRED [®]	FRED [®] Optimum	FRED [®] MPC
Non-sequential and sequential ray tracing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CAD-like user interface with 3D model rendering and interaction	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Native optical source and geometry representations	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Imaging and non-imaging analysis via analysis surfaces and detector entities	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Coherent field propagation and fiber coupling	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Surface level raytrace controls and optical properties	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Surface and volume scattering	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Straylight analysis and reporting	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CAD Import / Export (IGES, STEP, OBJ)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Lens import from Code V [®] , Zemax OpticStudio [®] and Oslo [®]	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Material and lens catalogs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Visual Basic Scripting for customized models, analysis and automation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Multi-threaded CPU calculations (Max threads)	17	127	127
Multi-variate optimization capability	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Parameter sensitivity analysis	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Multiple configurations capability	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Parameter pickups	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Distributed computing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
GPU-enabled ray tracing	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

License Pricing



Standalone	Perpetual License	\$9,890	\$15,535	\$23,550
	Annual Support	\$1,420	\$1,860	\$2,860
	3-month Lease	\$3,050	\$4,250	\$6,055
Network	Perpetual License	\$12,040	\$17,685	\$25,700
	Annual Support	\$1,640	\$2,090	\$3,125
	3-month Lease	\$3,450	\$4,750	\$6,560

Note: The above prices are shown in US Dollars and subject to change, they are provided for illustration only. Pricing outside the US may be different. Discounted academic research licenses and free student/teaching licenses are available. Contact us for details or a formal quotation.

Perpetual Licenses include the first year of annual support (software updates and technical support). Annual support purchases are available to extend the support period of perpetual licenses. Expired licenses are not eligible for software updates or technical support. It is strongly recommended to keep your licenses supported.

Upgrading from a lower edition to a higher one is possible and the cost is based on the price difference between the editions.

Lease prices include software updates and technical support for the duration of the lease. Payment for each lease period is due and payable at the beginning of each 3-month period.

No licenses will be delivered until a completed End User Registration Form has been received. For assistance understanding our licensing terminology please see the article here:

<https://support.photonengr.com/article/323-licensing-terms-explained>

Lease to Perpetual License Transition Options

Option 1 - Continuous 12-month lease:

When FRED is leased for four (4) continuous 3-month periods and a year of updates and technical support is purchased within 30 days of the last 3-month expiration date, Photon Engineering will convert the lease to a perpetual license.

Option 2 - Lease Buyout:

50% of the most recent 3-month lease cost will be applied towards the purchase price of FRED if the software purchase is completed within 30 days following the lease expiration date. Upon this lease buyout, the leased license will be converted to a perpetual license.