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Photon Engineering, LLC Announces FRED™ Turbo and FRED™ 6.100

TUCSON, AZ., September 30, 2007 -- Photon Engineering, LLC announces Release 6.100 of its optical engineering software FRED 6.x series. FRED is an advanced 3D CAD optical engineering software program capable of simulating the propagation of light through virtually any optical/illumination system.

The 6.100 release features major enhancements to FRED's raytracing and beam propagation speed and modeling capabilities. This version is a tremendous value to optical/illumination engineers who need to trace unlimited number of beams or rays on today's multiple core PCs for the fastest non-sequential raytracing available. Coupled with FRED's new CAD import capabilities to reduce NURB complexity with user definable accuracy makes FRED the product of choice for realistic optical and illumination modeling. Finally, with the addition of two new scatter models, Tabulated PSD which reads Power Spectral Density measurements and a K-correlation model, FRED is clearly the market leader in terms of the number of scatter models and the capability to model both spectral data and scatter degradation over time.

FRED's new virtual ray buffer now stores rays automatically to disk after reaching a user definable threshold as needed. The maximum number of rays in FRED is now limited only by available computer disk space.

The new beam propagation enhancements include new source creation capabilities and improved propagation features that are well-suited for the biomedical, solid state, and high power laser diode markets. FRED's flexibility in defining well formed beams is many-fold including direct import of measured data from beam profiler, custom field creation using

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FRED's Field Synthesis spreadsheet, and by using the FRED's detailed complex source dialogs to define higher order Hermite and Laguerre TEM Gaussian beam modes.

Photon Engineering, LLC is a privately held company based in Tucson, AZ, and was founded in 1997. Photon Engineering is committed to providing the highest quality optical engineering services and software to its customers. Photon Engineering has worked with over 150 customers world-wide on a very wide range of optics-related projects including light pipes, illumination systems, LCD projectors, backlights, space satellite systems, laser scanners, tactical optics, zoom lenses and more. For more information contact sales@photonengr.com or visit the company's Web site at www.photonengr.com.

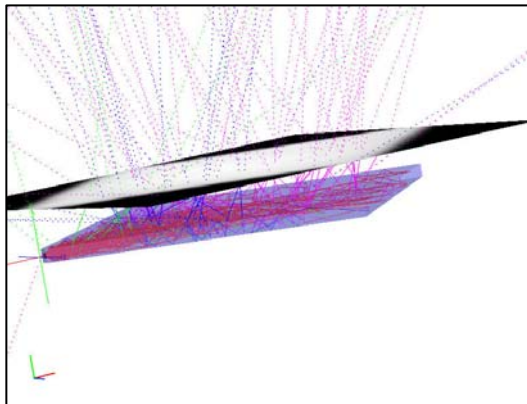


Figure 1 – Picture detailing FRED's capability to trace millions of rays for illumination systems where uniformity checks are needed with high fidelity modeling.

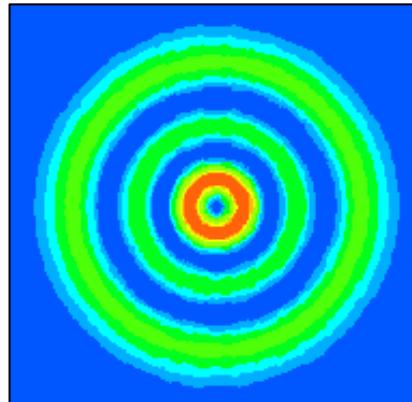


Figure 2 – TEM 21 Source as modeled and plotted in FRED using the new Hermite mode definition dialog

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