

Re: optical design software

Source: <http://sci.tech-archive.net/Archive/sci.optics/2005-05/msg00099.html>

- *From:* mpate@xxxxxxxxxxxxx
 - *Date:* 10 May 2005 22:29:56 -0700
-

Jean-Luc Néron wrote:

> Hi,
>
> I'm looking for an optical design software which have capabilities to

> import/export model to CAD (SolidWorks) for integration of optical
> and
> mechanical design analysis. Don't want to pay more than 5000\$.
>
> The products I'm looking at are Zemax EE and FRED.
>
> Any one had a bad (or good) comments about theses softwares?
>
> Any other suggestions?
>
> Thanks,
>
> jean-luc neron

Exporting from the optical engineering programs to CAD seems to be the easy direction in my experience. I have had problems in exporting the rays with the optical elements – anyone know the procedure for this in zemax and fred please post it.

SolidWorks into FRED and Zemax needs some special care in the SolidWorks iges out needs to be type 144 surfaces only in the check box on the file output in SW.

If you have a complicated system with lots of opto-mechanics, electronics, case, fastners, etc make sure you turn off most of these entities before you import or you will be searching through 10 or 100's of thousands of entities to find your optics.

My strong recommendation is to download a trial copy of both and make sure it will do what you want before you invest.

Both codes will do the anamorphic divergence of a laser diode.

Re: optical design software

Another poster has the opinion that these codes dont do optimization. Depending upon the definition of optimization, I know that both of these codes can and will do optimization of illumination systems as I have done optimization with both codes. You will have to write some simple macros or scripts in the programs and these are used as the feedback to the program to perform the optimization of the system or parameters of interest.

Michael
mpate at oscintl dot com

-
- *Follow-Ups:*
 - ◆ *Re: optical design software*
 - ◇ *From:* Nosterill
 - *References:*
 - ◆ *optical design software*
 - ◇ *From:* Jean-Luc Néron
 - Prev by Date: *Re: Seeking source for conceptual understanding of light waves*
 - Next by Date: *Re: optical design software*
 - Previous by thread: *Re: optical design software*
 - Next by thread: *Re: optical design software*
 - Index(es):
 - ◆ *Date*
 - ◆ *Thread*