

Feature.0022

Import of Zemax Beam Files

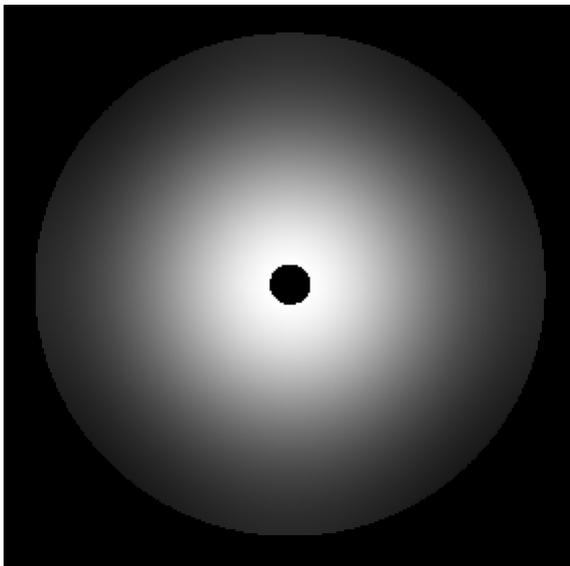
Importing Zemax beam file and further propagation of the imported field in VirtualLab.

About This Use Case

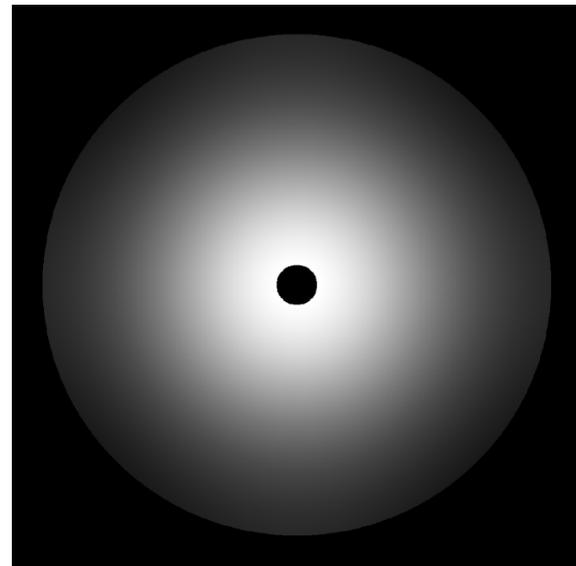
- The following toolbox is required
 - Starter toolbox
- This use case is produced with VirtualLab Fusion (Build 7.0.0.35).
- Get your free Trial Version [here!](#)

This Use Case Shows ...

- how to import Zemax beam file?
- how to propagate the field from the imported Zemax beam file?



Imported Irradiance in VirtualLab

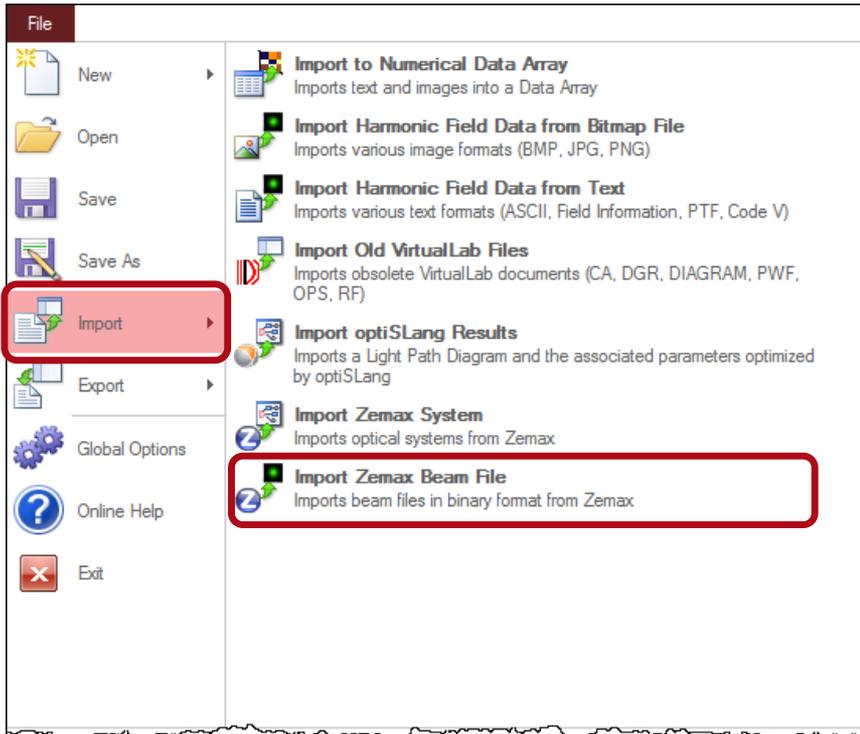


Irradiance view in Zemax

Overview

- Zemax beam file contains the irradiance and the phase information of the field.
- VirtualLab Fusion can import the beam file, and convert it into field with all vectorial components.
- After importing, the field can be set into a stored light source, and further operations of the field can be applied, e.g. propagation.

Import Zemax Beam File

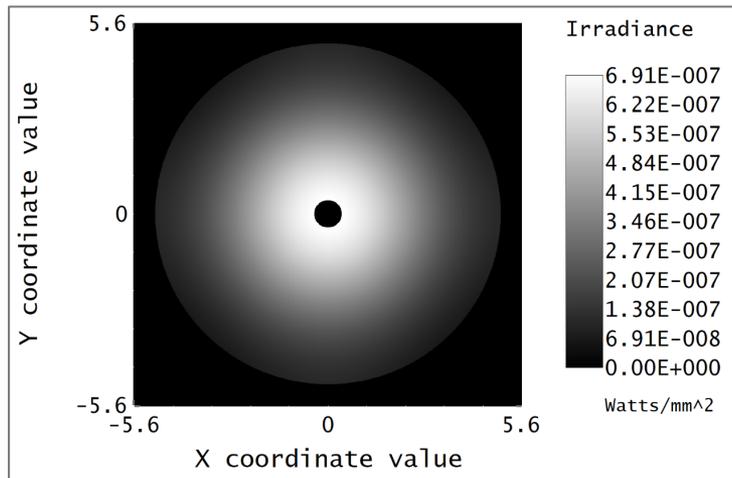


- In VirtualLab Fusion, Zemax beam files can be imported via steps:
 - *File* → *Import* → *Import Zemax Beam File*
 - Then open the Zemax sample file with „.zbf“ extension.

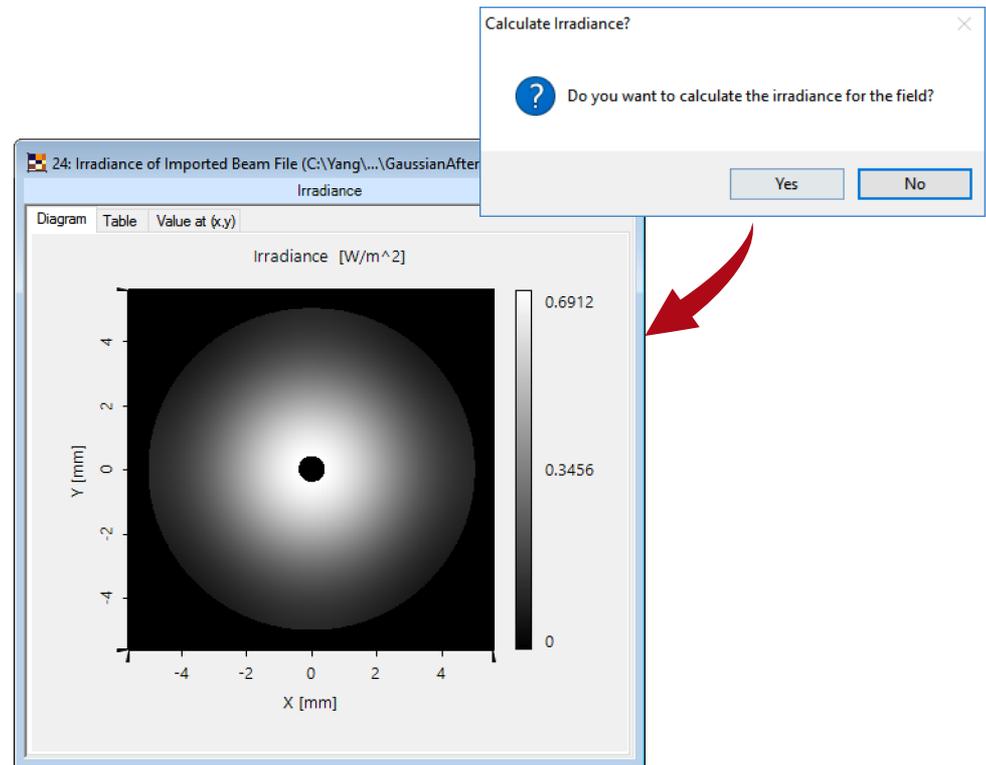
Imported Irradiance

- In this use case, we use a Zemax beam file of a Gaussian field after a stop as an example.

Irradiance distribution of a Gaussian beam in Zemax

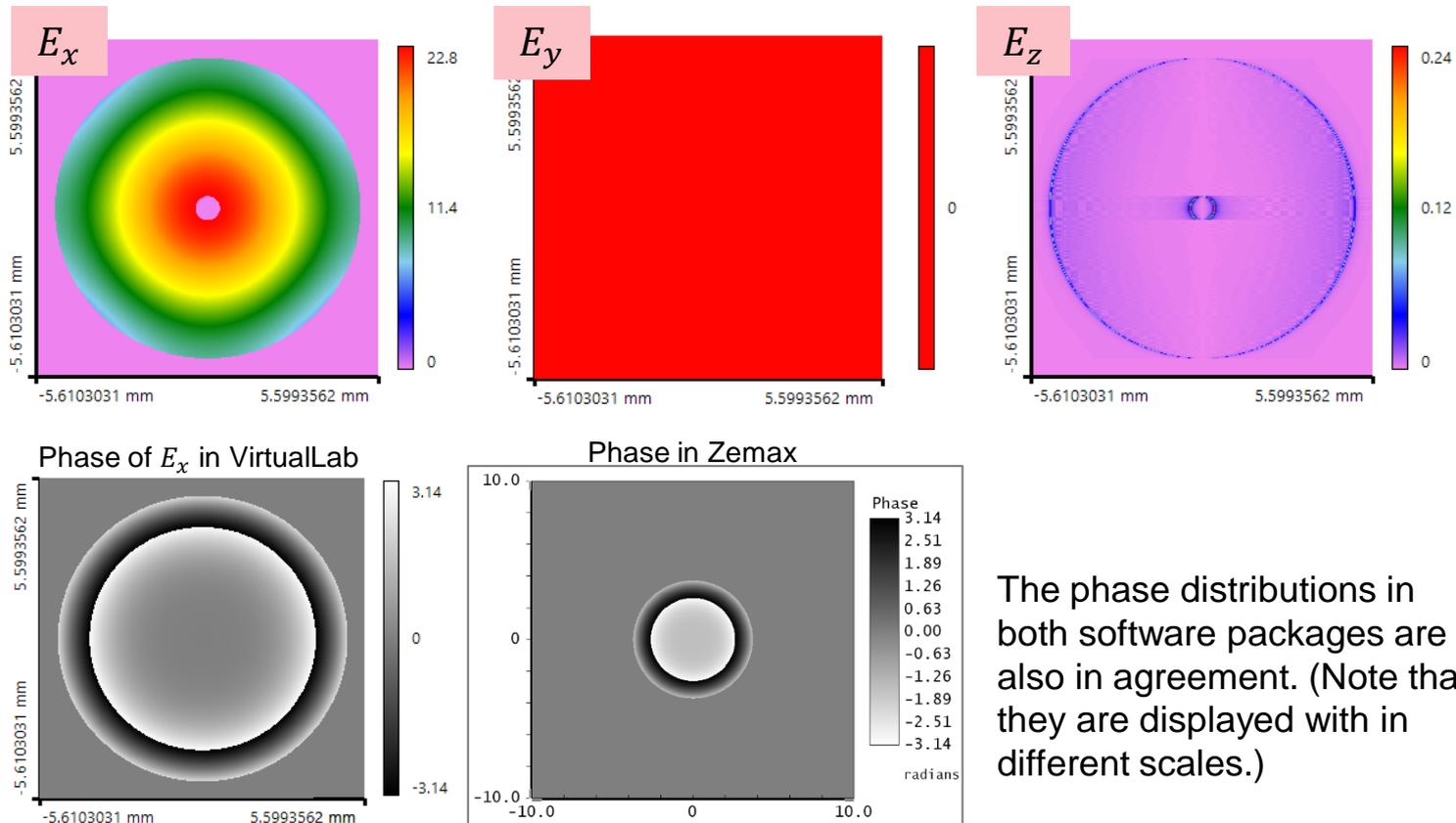


- During importing to VirtualLab, one may choose to calculate the irradiance of the field.



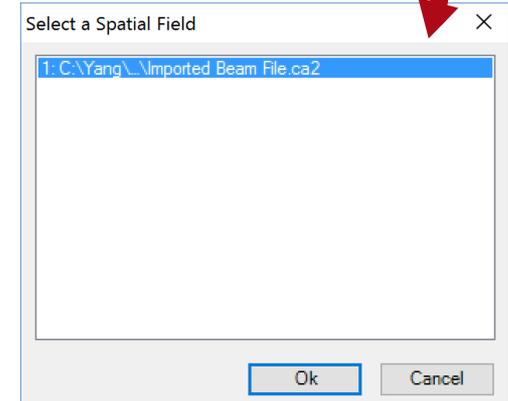
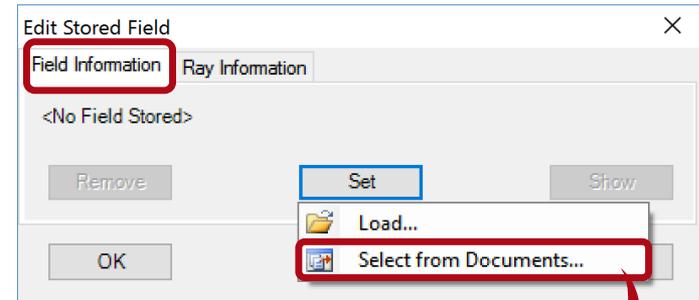
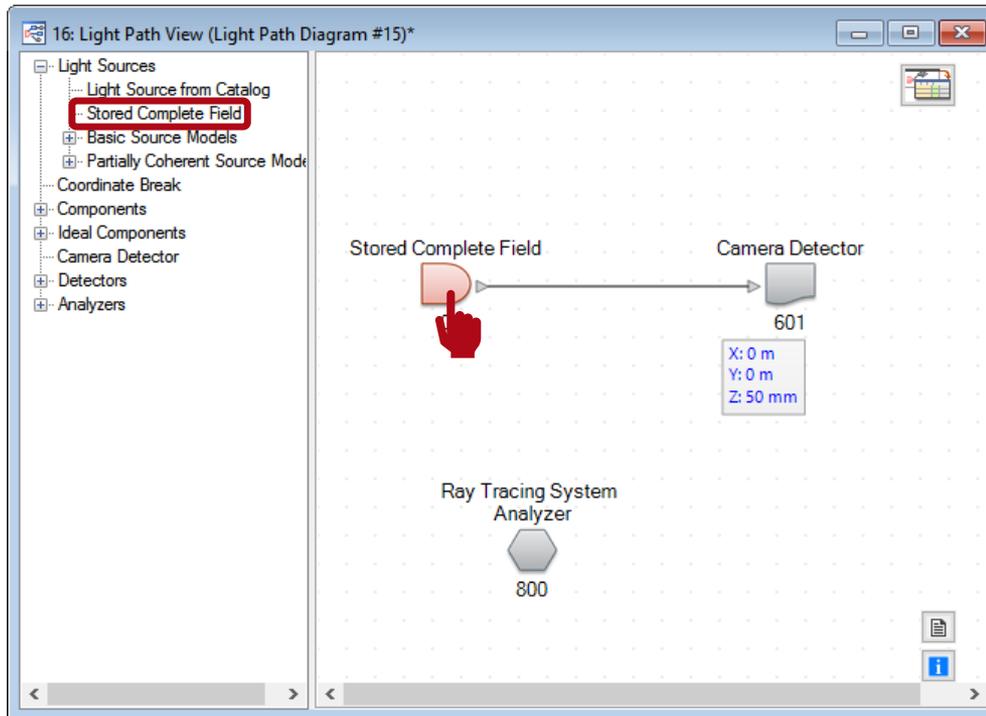
Imported Field

- In addition to irradiance, the fully vectorial field information is completely accessible in VirtualLab.



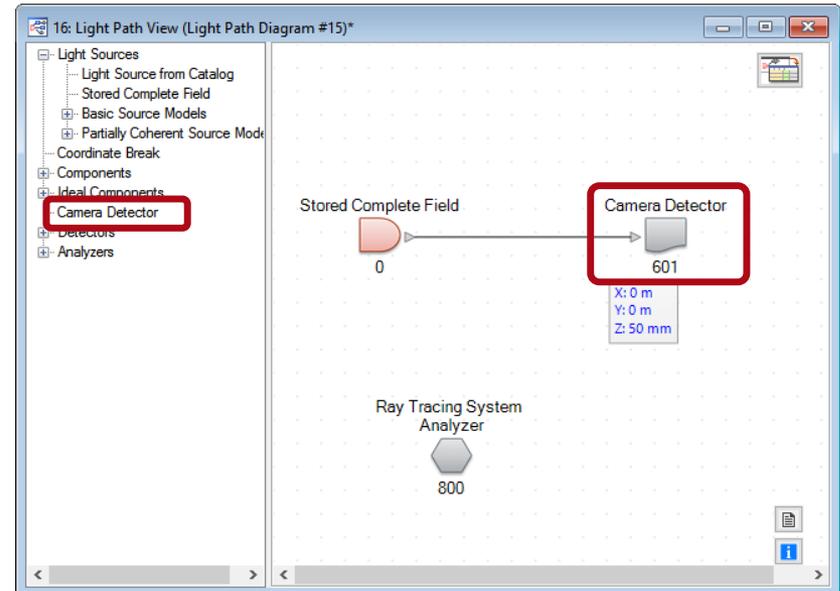
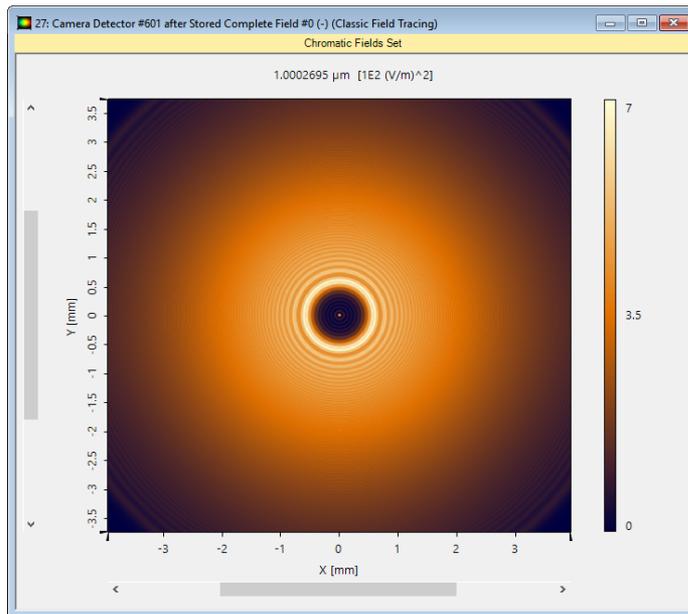
Propagation of Imported Field

- For propagating the field, we store the field to a *Stored Complete Field* source in the *Light Path Diagram*. For setting the *Field Information*, select the imported field from the document.



Propagation of Imported Field

- An *Camera Detector* is applied in the Light Path Diagram. Set the distance in between as 50mm.



With *Field Tracing*, the propagated field shows the diffraction pattern.

Document & Technical Info

code	Feature.0022
version of document	1.0
title	Import of Zemax Beam Files
category	Tools & Handling
author	Liangxin Yang (LightTrans)
used VL version	7.0.0.35
last modified on	September 7, 2017