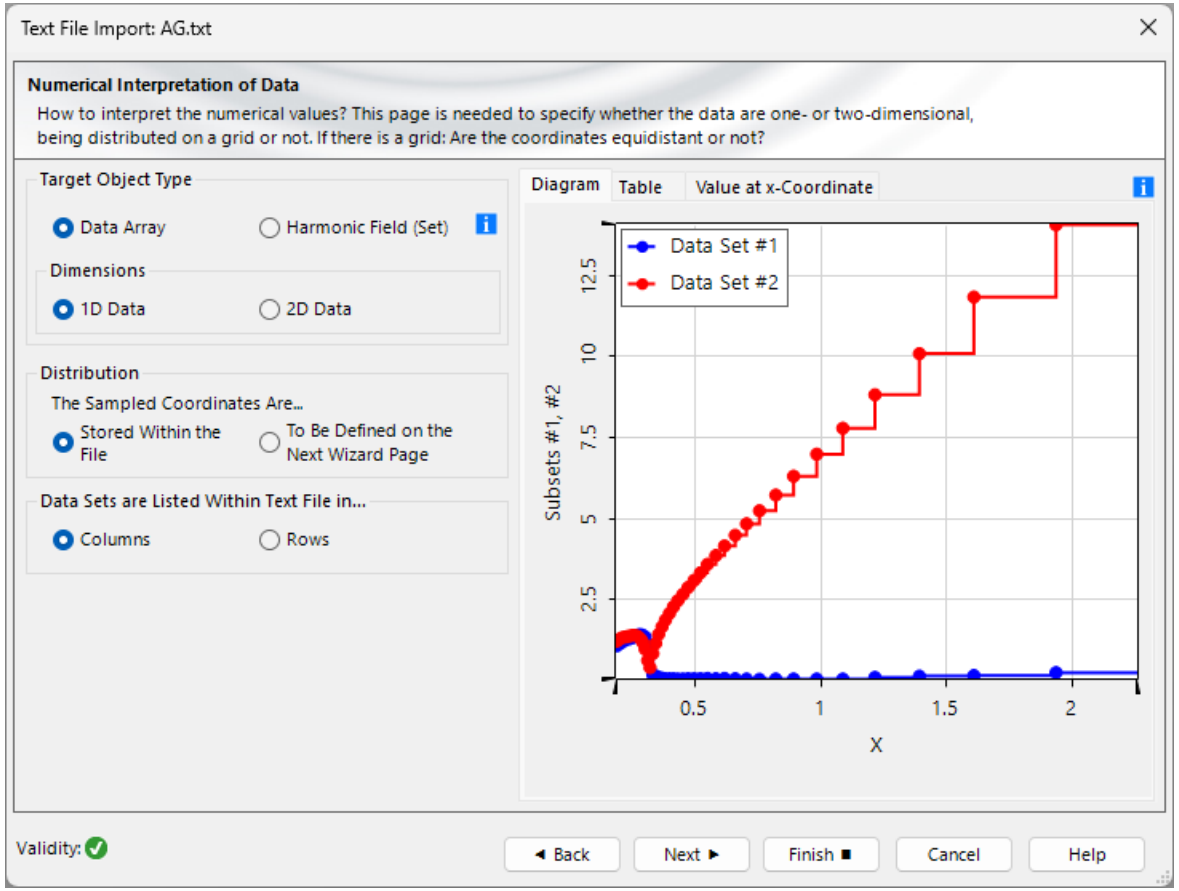
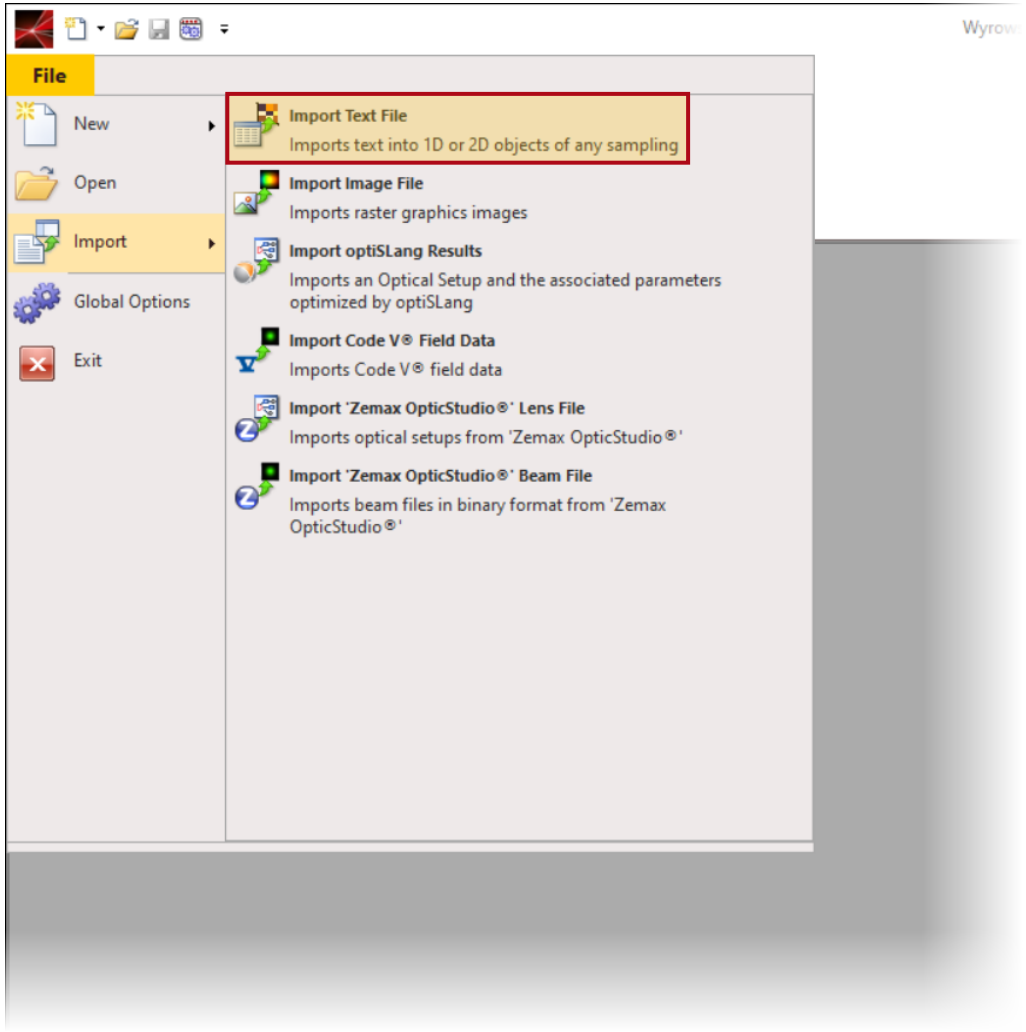
Import Text Files into VirtualLab Fusion

Abstract



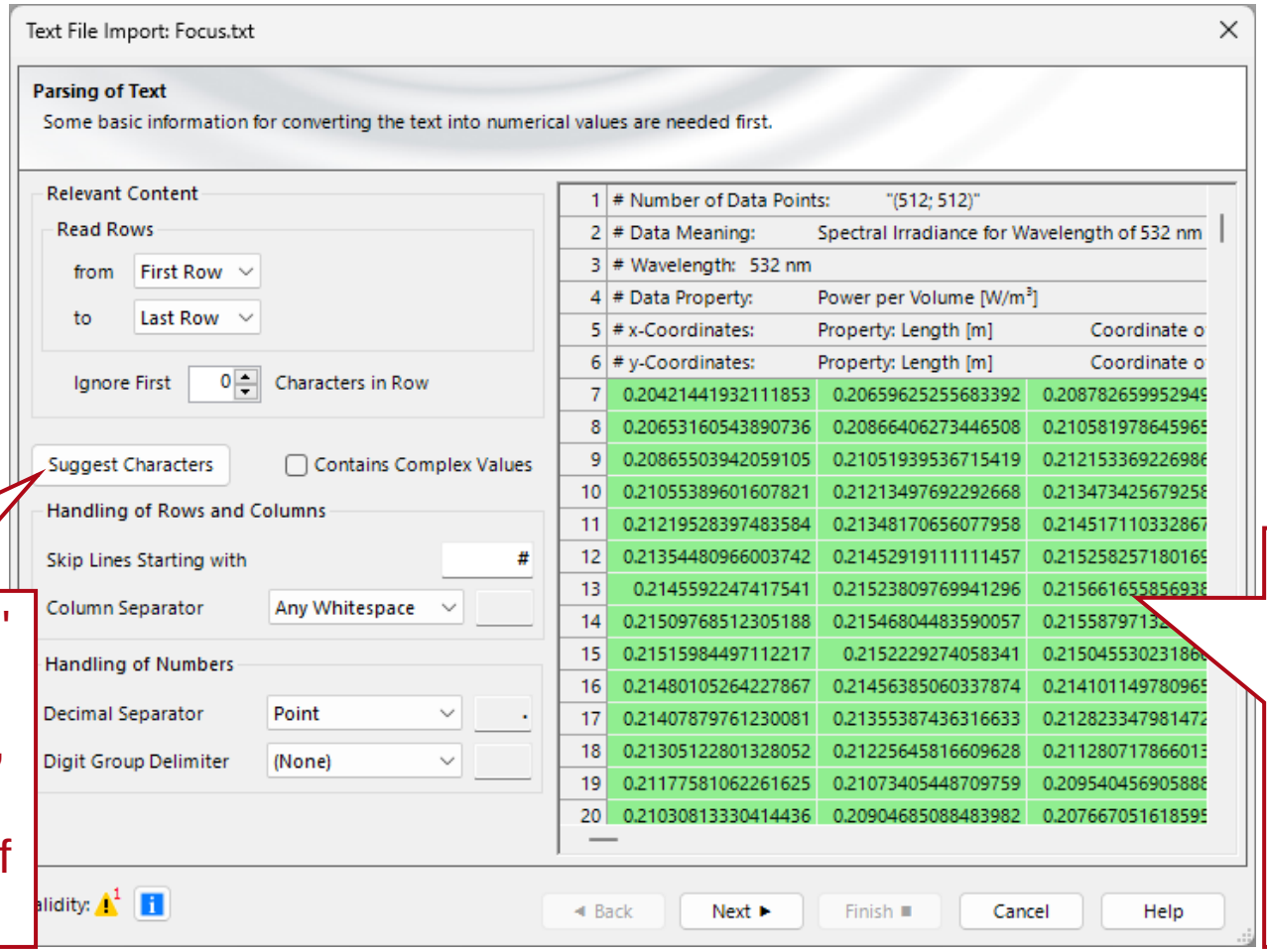
VirtualLab Fusion provides an intuitive workflow for data importation, supporting various data formats. Users can import 2D data arrays, (such as field data) or both equidistant and non-equidistant 1D arrays, e.g., dispersion curves for specific materials. This Use Case introduces a tool that enables users to import data from any type of text file.

Import of Text Files



You can access the import tool by navigating to File > Import > Import Text File. It supports various custom text data formats like txt or csv files.

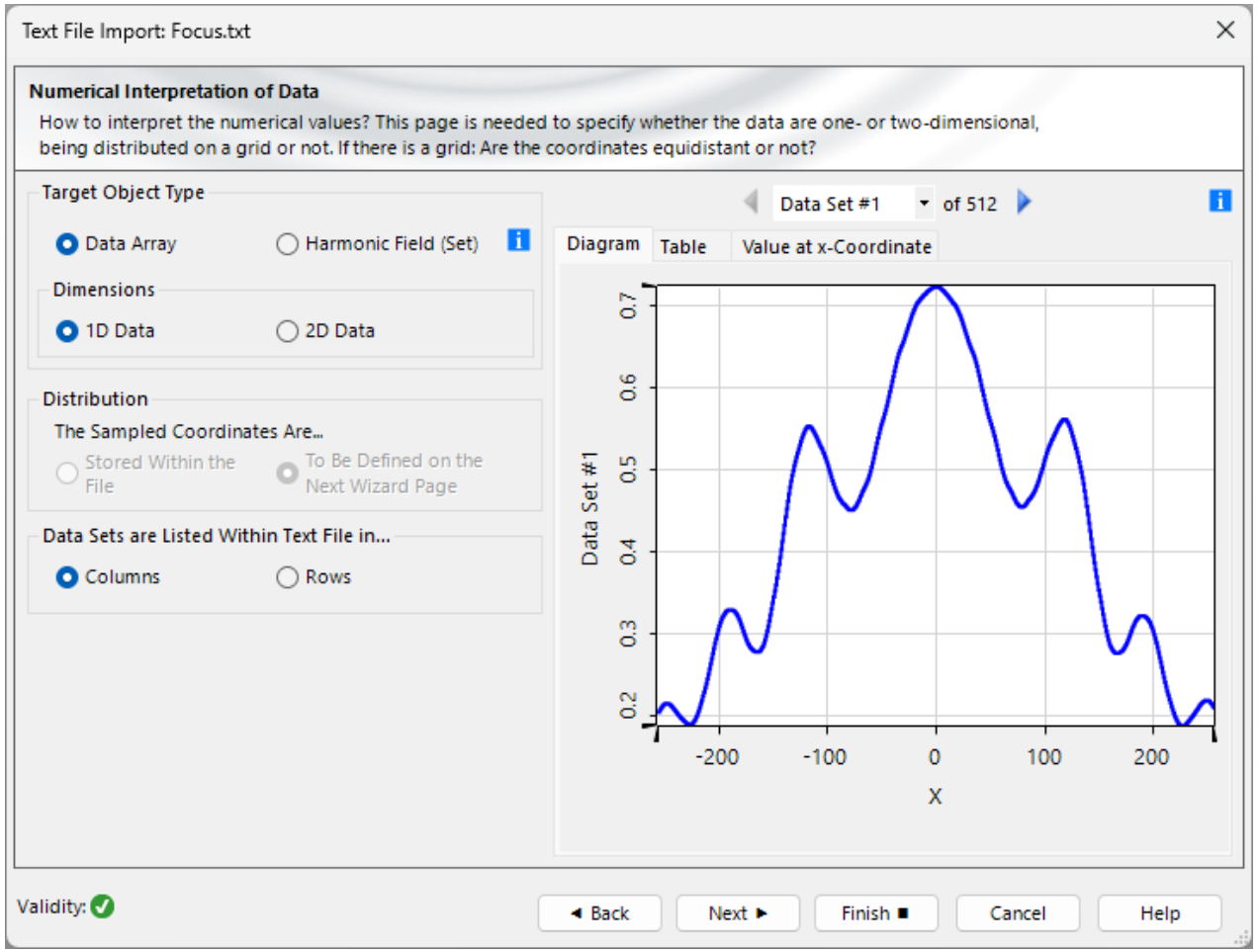
Import Text Files



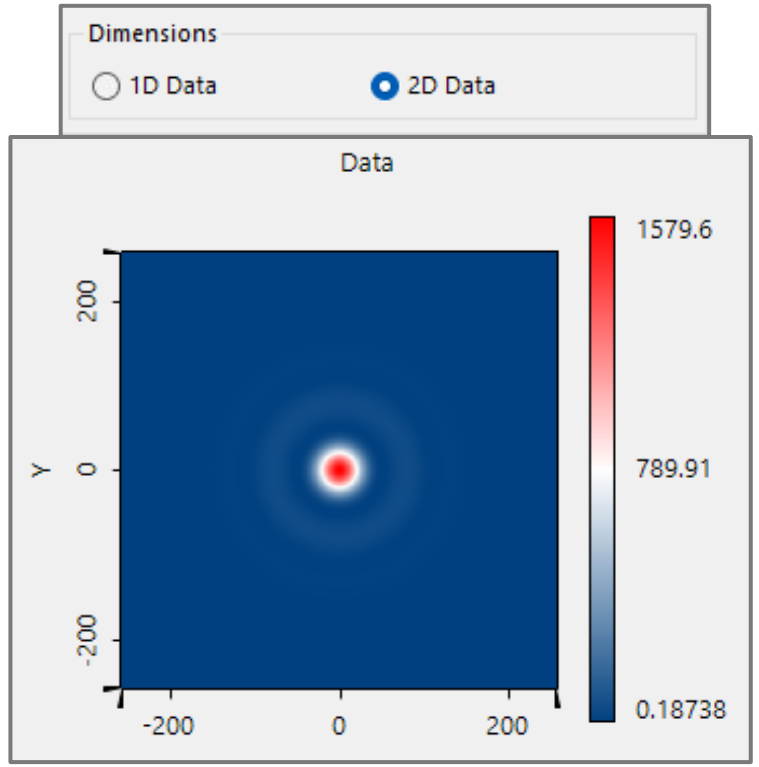
The "*Suggest Characters*" button automatically adjusts fitting parameters, although users can also specify them individually if desired.

A preview will be displayed on the right side, highlighting any unreadable entries in red.

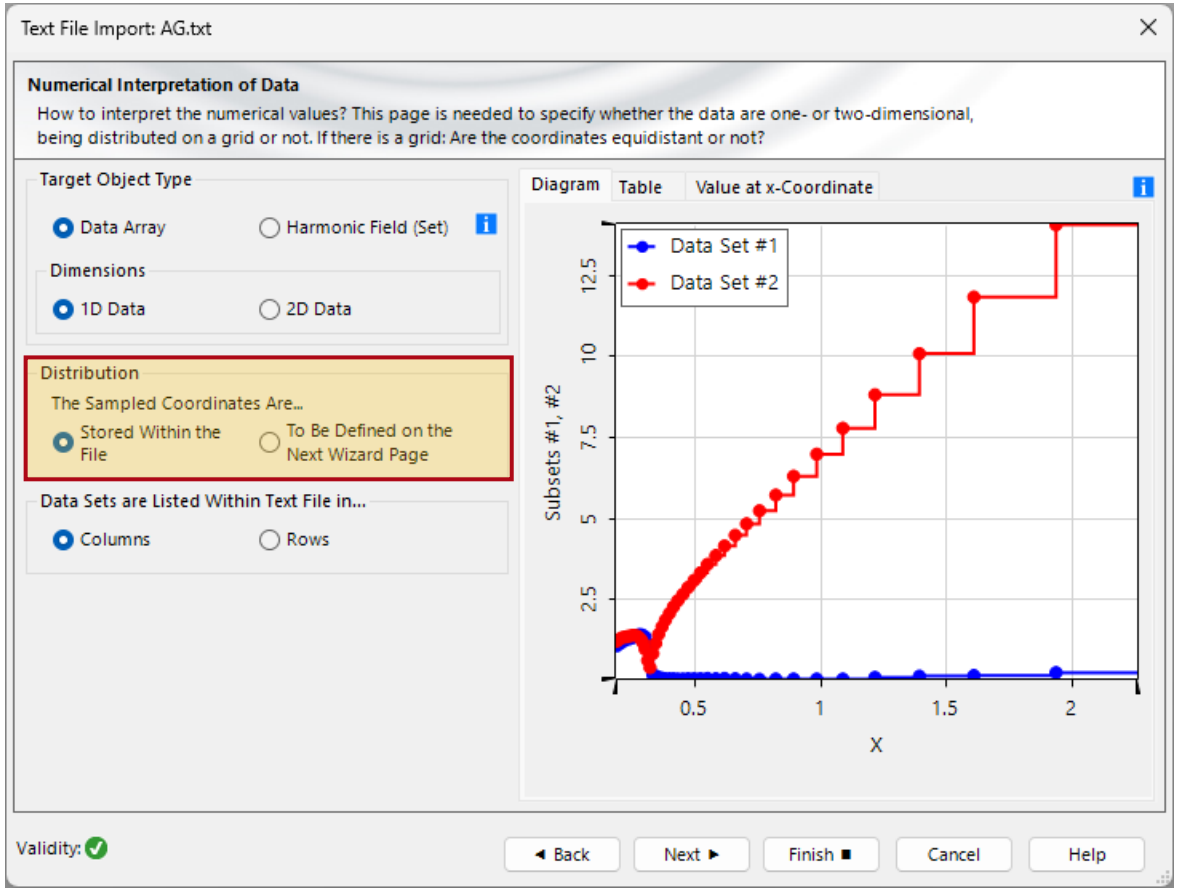
Type of Data Array



1D and 2D data arrays can be imported. For 1D data with multiple subsets, the user can specify if the individual sets are represented by the columns or rows of the text file.



Type of Data Array– Non-equidistant Data Arrays



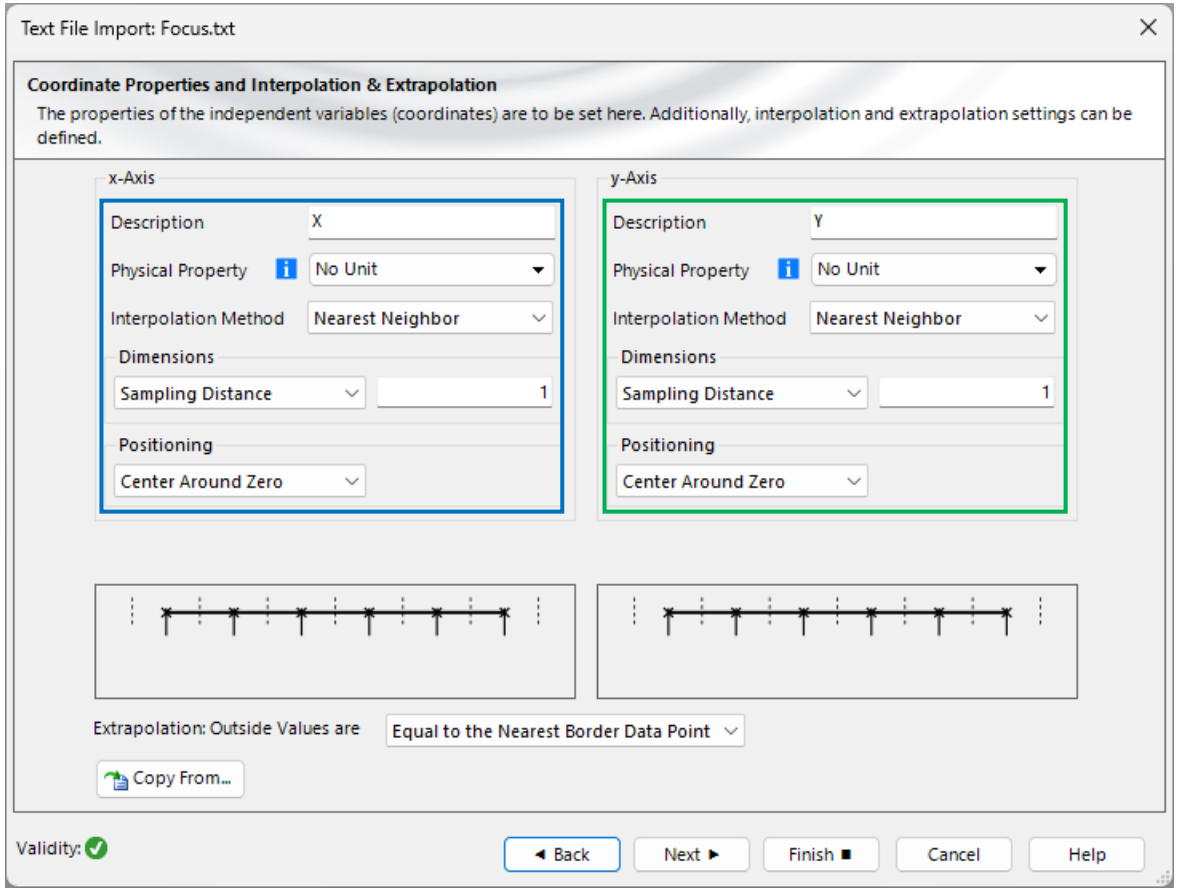
For non-equidistant data arrays, users can specify whether the coordinates are already provided in the file or need to be defined in the wizard. If the former option is chosen, the software extracts coordinates from the first column (or row). If the latter option is selected, the same workflow as for equidistant data follows.

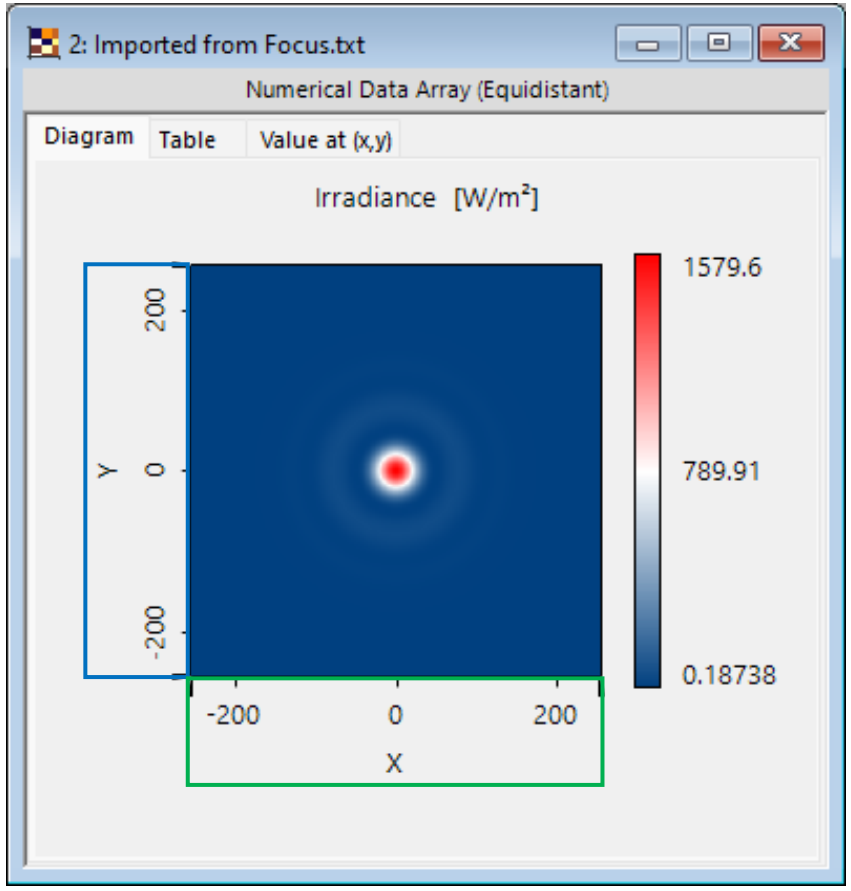
coordinates

0,1879	1,07	1,212
0,1916	1,1	1,232
0,1953	1,12	1,255
0,1993	1,14	1,277
0,2033	1,15	1,296
0,2073	1,18	1,312
0,2119	1,2	1,325
0,2164	1,22	1,336
0,2214	1,25	1,342
0,2262	1,26	1,344
0,2313	1,28	1,357
0,2371	1,28	1,367
0,2426	1,3	1,378
0,249	1,31	1,389

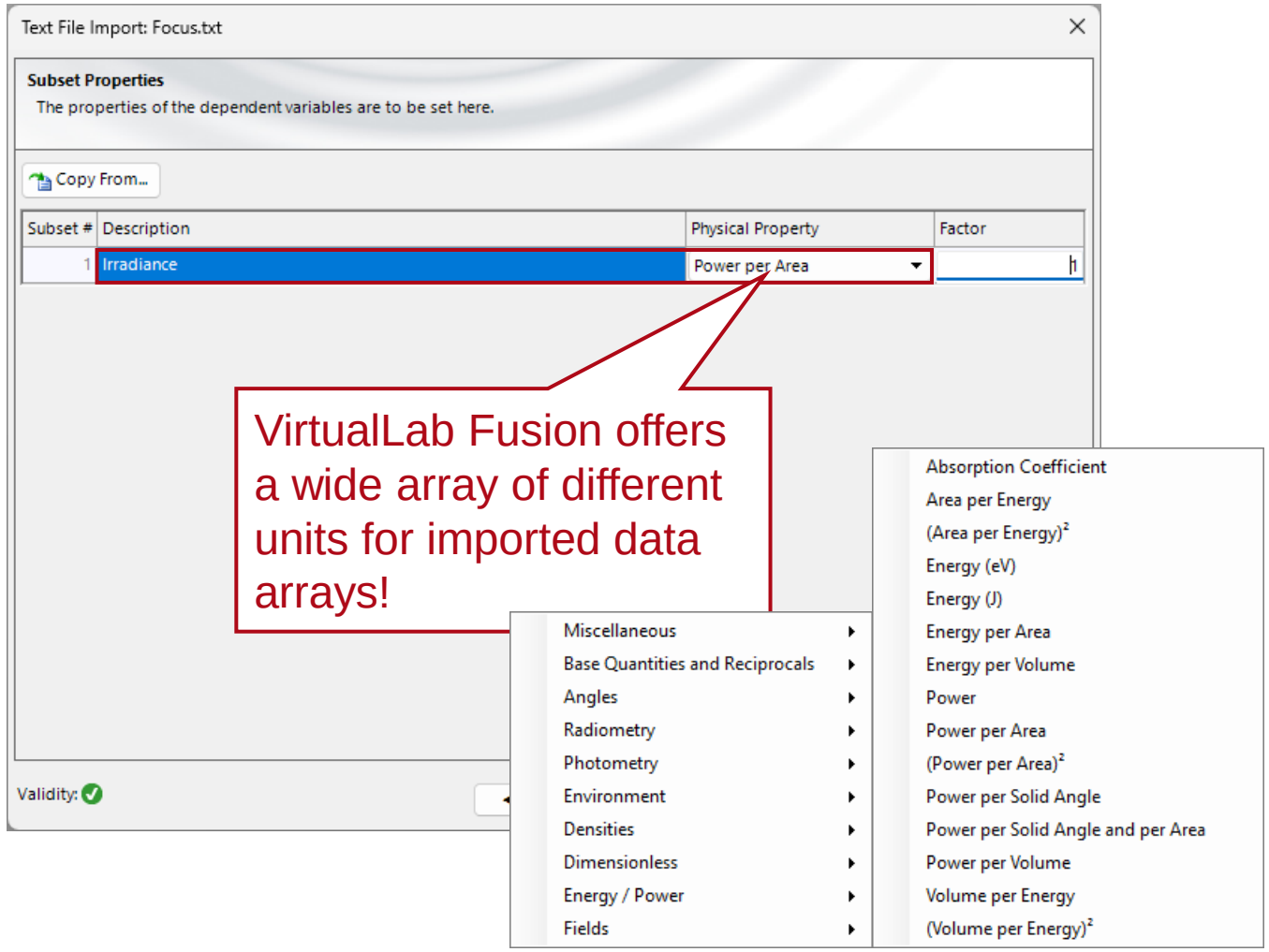
data

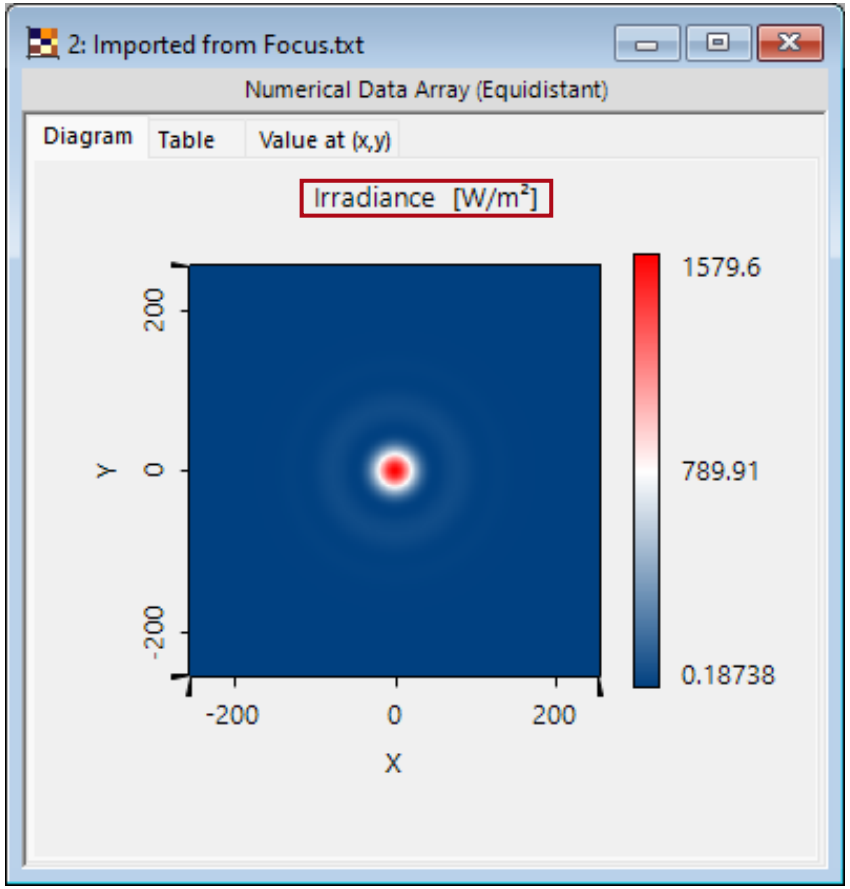
Definition of Coordinates





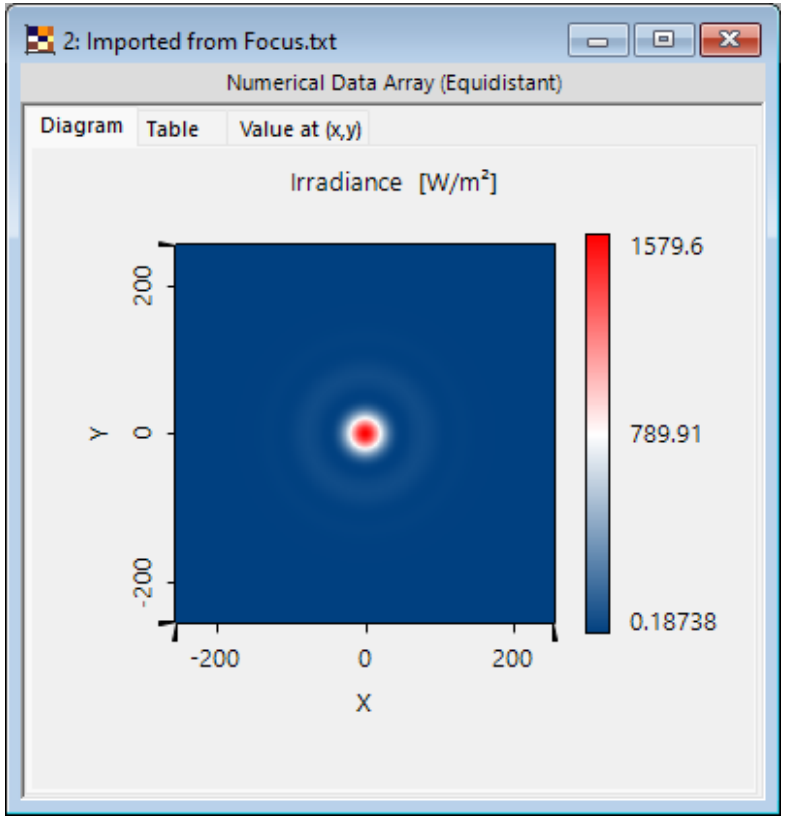
Physical Properties - Unit





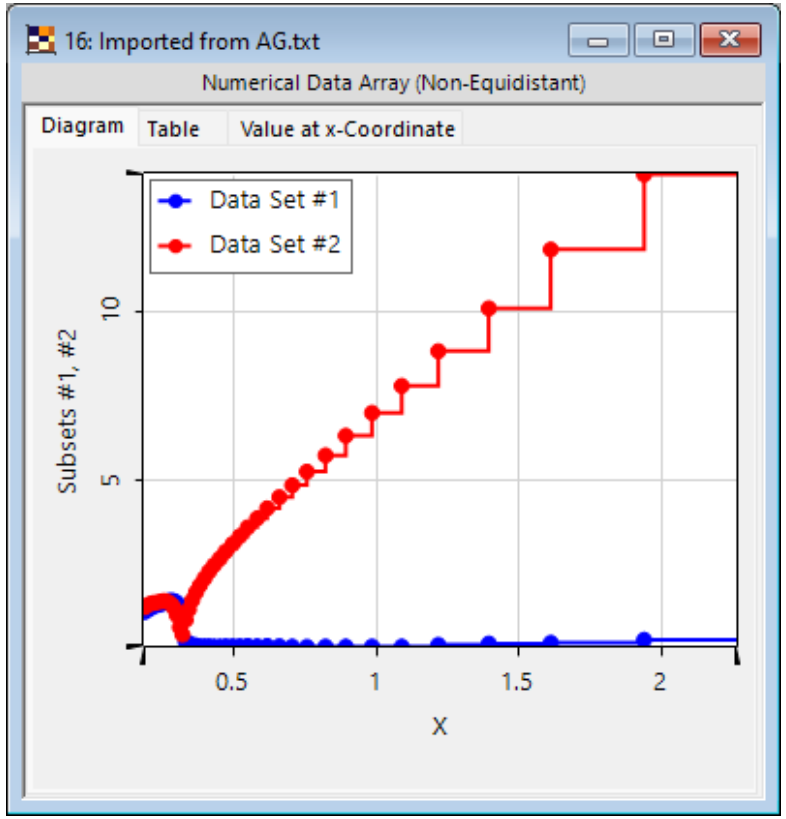
Examples

focus of an aspheric lens



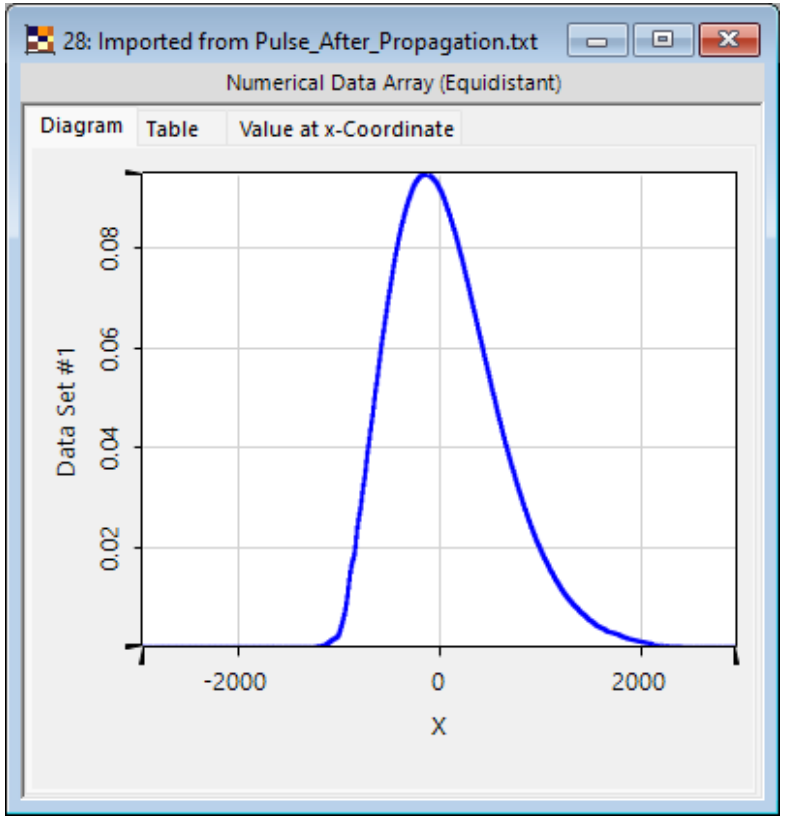
2D, equidistant grid

material data of silver



1D, non-equidistant, multiple subsets

propagated pulse through sea-water



1D, equidistant

Document Information

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software version	2024.1 (Build 1.132)
category	Feature Use Case
further reading	- Import of Images - Import Lens into VirtualLab Fusion - Import Material Data into VirtualLab Fusion - Programmable Dispersion Formula