

Export of Fabrication Data

Abstract



After designing an optical interface, it is essential for the users to export proper fabrication data, which is readily used by the manufacturers. VirtualLab Fusion can export smooth and quantized interfaces, as well as mirror/prism/grating cells arrays into various file formats, e.g., STL file format, which is widely used for rapid prototyping, 3D printing, and computer-aided manufacturing, and GDSII file format, which is commonly used in lithographic exposure techniques.

Task Illustration

Flexible export of

- smooth interfaces
- quantized interfaces
- mirror/prism/grating cells arrays



smooth interface







Supported File Formats of Fabrication Data

supported file formats

- plain text
- ASCII
- point cloud
- CAD formats (e.g., STL, IGES
- -CIF
- GDSII

	Interface Exp	ort	×			
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Calculate Binary Masks						
Number of Discrete Height Levels 2	-		Export			
Height Profile Storage						
Text File (*.csv)	Data (*.gds)		Close Help			
OK Cancel	Help					

STL Export

STL Export of Smooth Interfaces (e.g. Asphere)



STL export of an aspherical interface (illustrated by MeshLab)

manufacturing.

STL Export of Quantized Interfaces and Prism/Mirror Cells Array





prism/mirror cells array

STL of a binary interface and prism/mirror cells array (illustrated by MeshLab)



GDSII Export

GDSII Export for Quantized Interfaces



GDSII Export for Quantized Interfaces

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Use *Discrete Height Levels* and, if needed, adjust the height scaling factor. Keep in mind that GDSII export is supported for 2^n discrete height levels.

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GDSII Export for Quantized Interfaces

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	CIF (*.cif)	GDSII (*.gds)	
Summa	ary Files		
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	HTML file (*.html)	Rich 1	Text Format (*.rtf)
			Export

GDSII Export for Quantized Interfaces and Grating Cells Array



Document Information

title	Export of Fabrication Data
document code	MISC.0065
document version	1.1
required packages	-
software version	2024.1 (Build 2.47)
category	Tutorial
further reading	