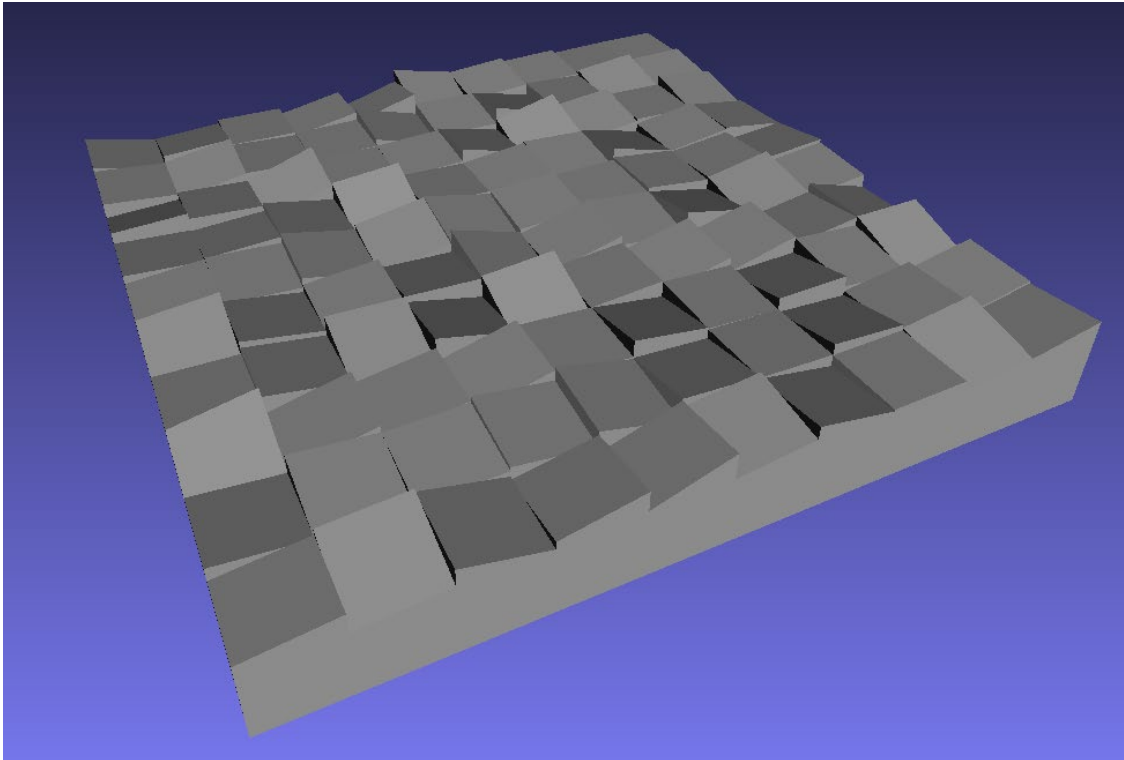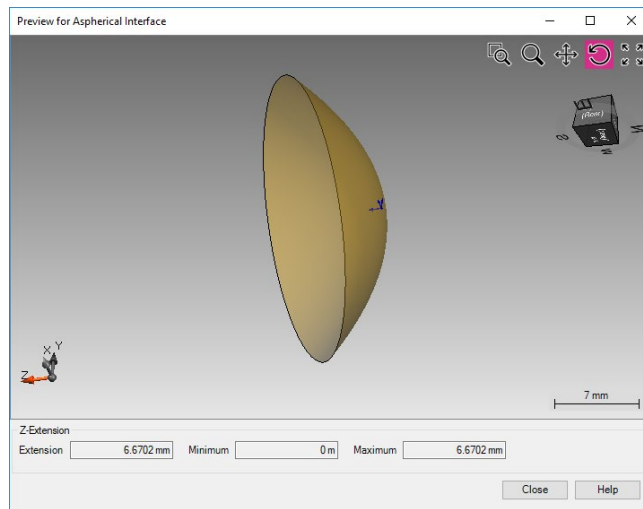# Export of Fabrication Data

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.
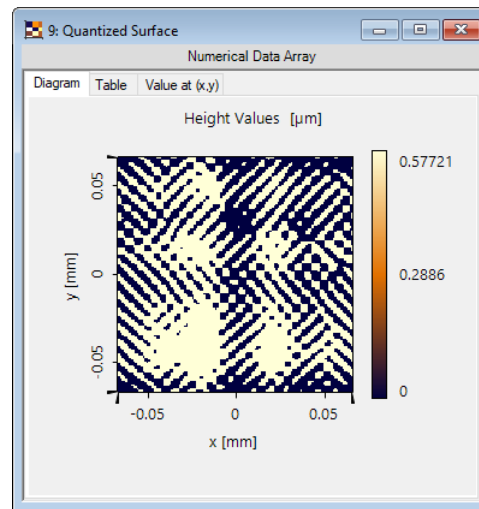
Task Illustration
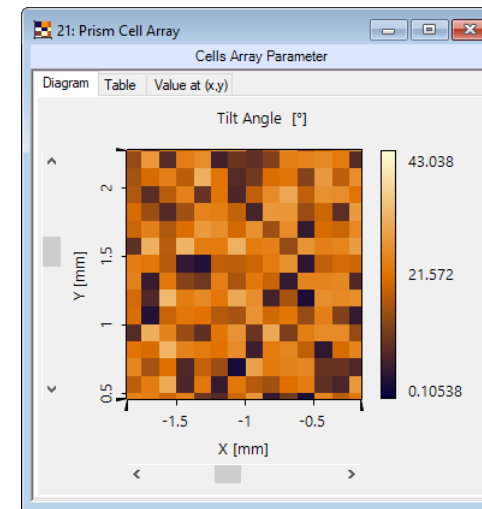
Flexible export of
- smooth interfaces
- quantized interfaces
- mirror/prism/grating cells arrays
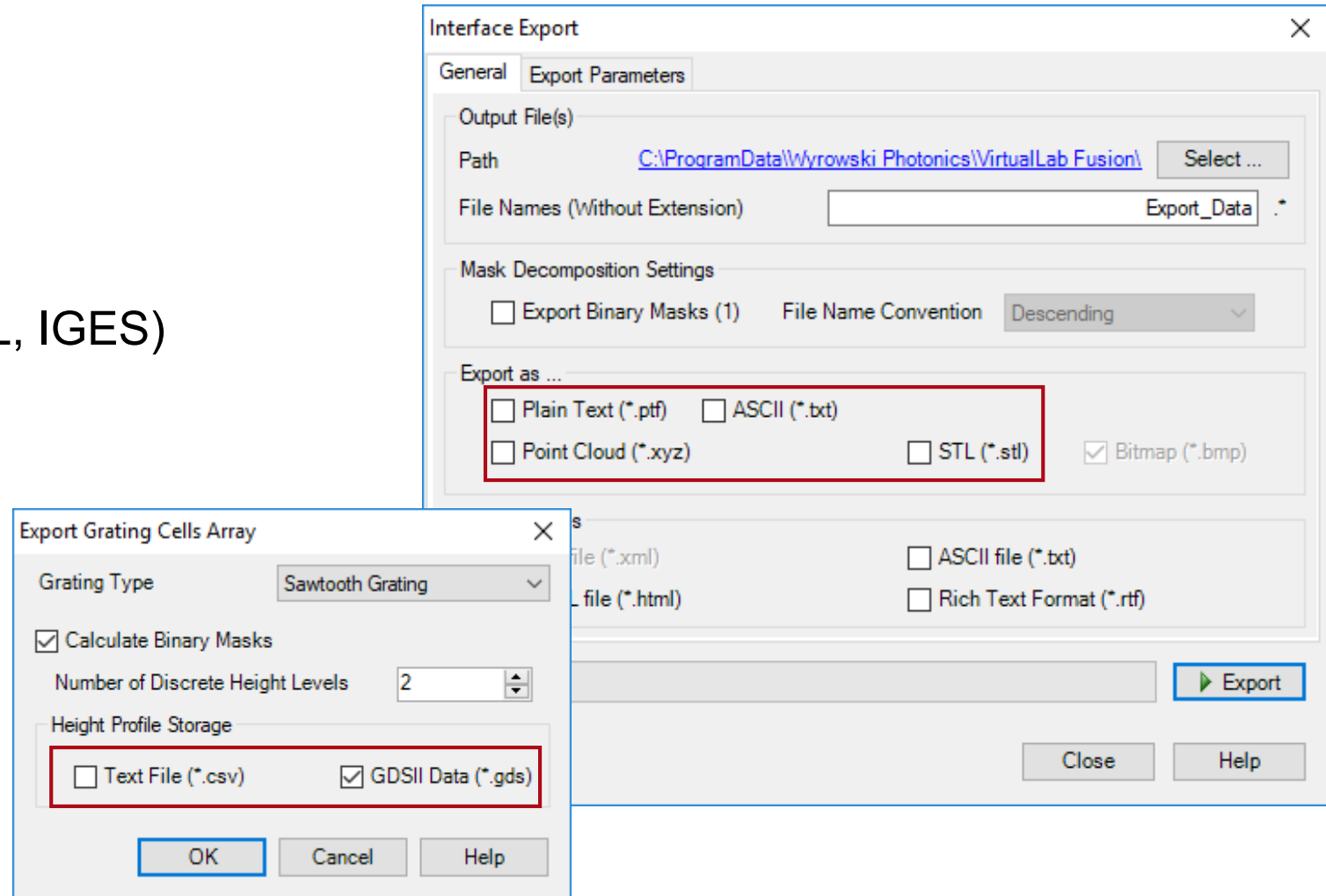

smooth interface

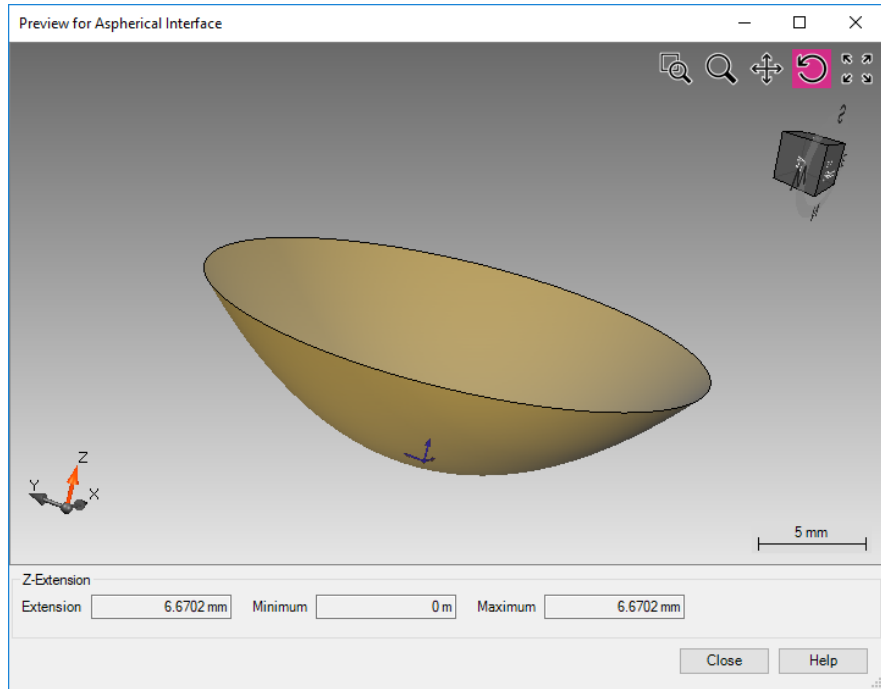
quantized interface

cells array

Supported File Formats of Fabrication Data

supported file formats

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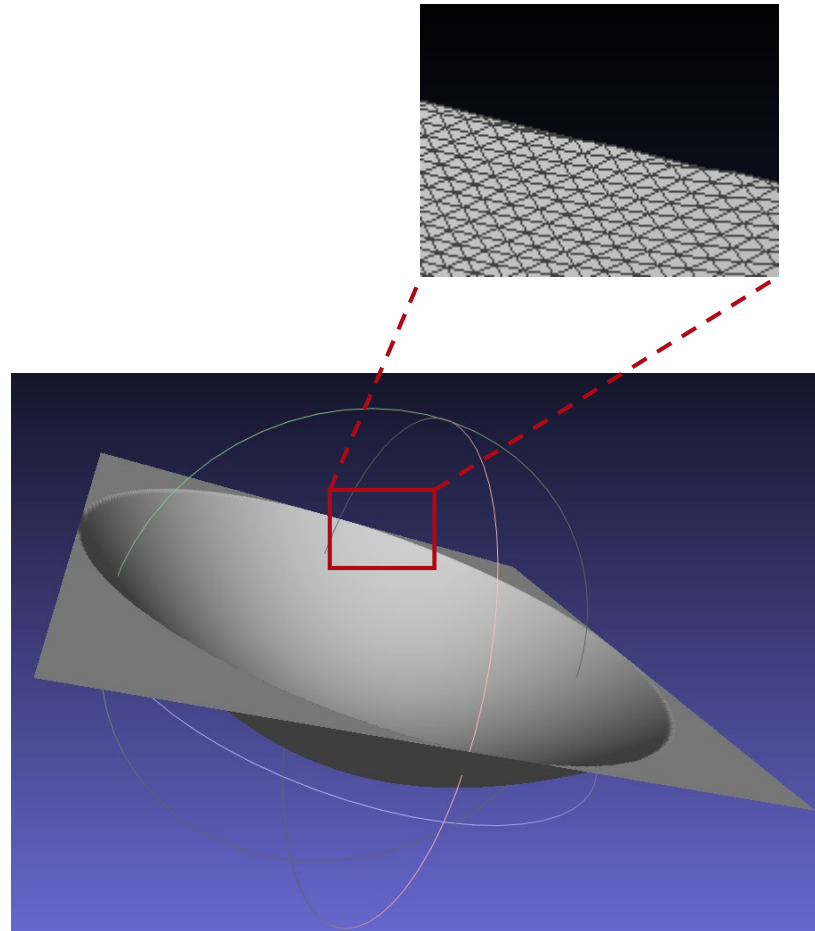- CAD formats (e.g., STL, IGES)
- CIF
- GDSII

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

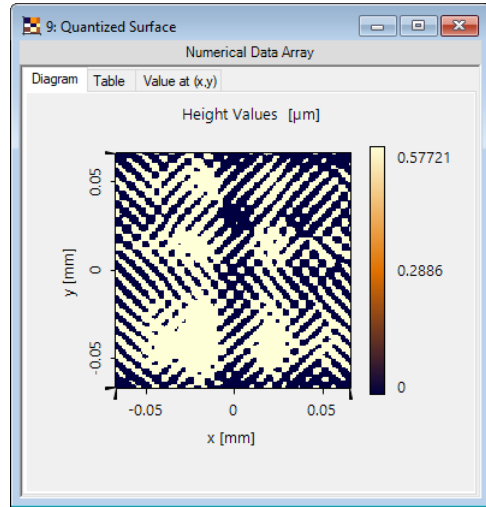
3D view of an aspherical interface in VirtualLab

STL file format is widely used for rapid prototyping, 3D printing, and computer-aided manufacturing.
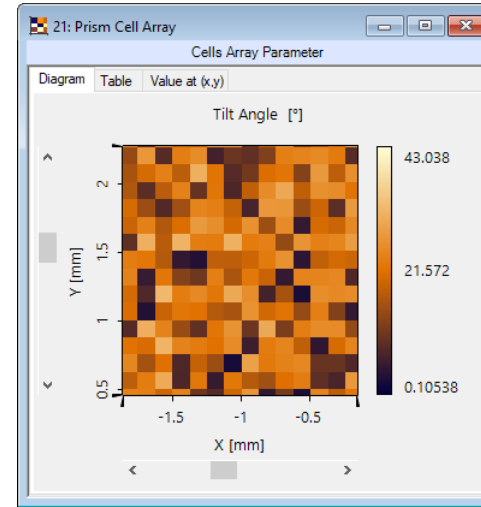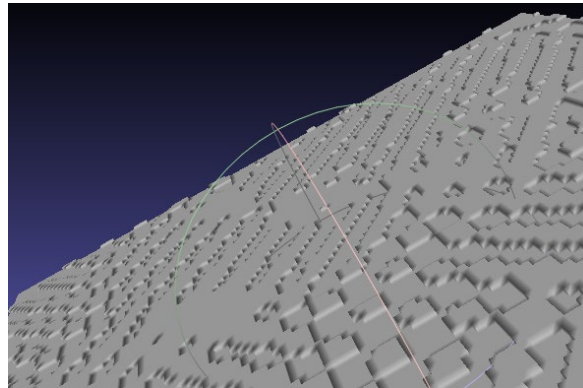

interface is described by triangles

STL export of an aspherical interface (illustrated by MeshLab)

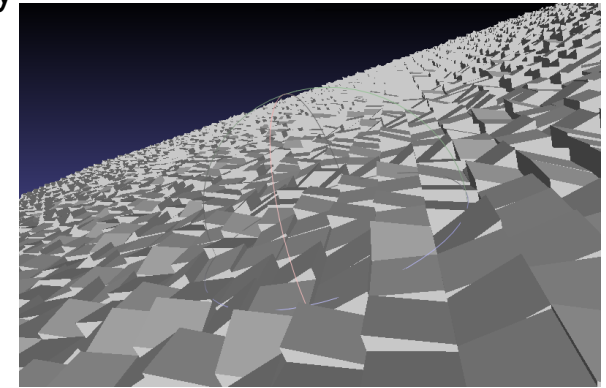# SLT Export of Quantized Interfaces and Prism/Mirror Cells Array
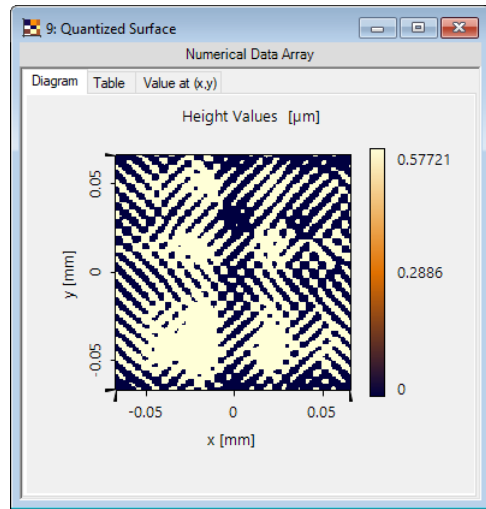

quantized interface
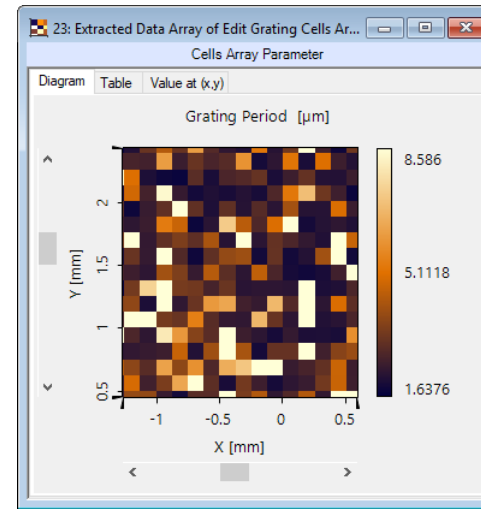(binary)

prism/mirror cells array

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

GDSII Export for Quantized Interfaces and Grating Cells Array
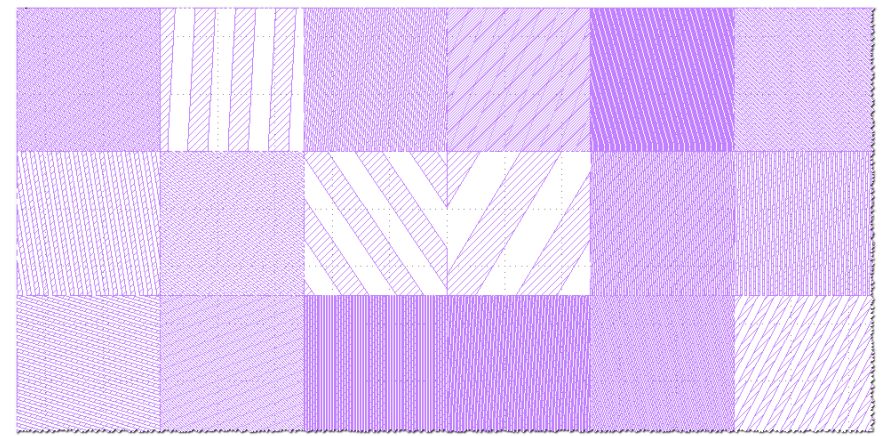

quantized interface
(binary)

grating cells array

GDSII file format is commonly used, e.g., in lithographic exposure techniques.

GDSII of a quantized surface and a grating cells array (illustrated by KLayout)

Document Information

title	Export of Fabrication Data
version	1.0
VL version used for simulations	7.3.1.15
category	Feature Use Case