

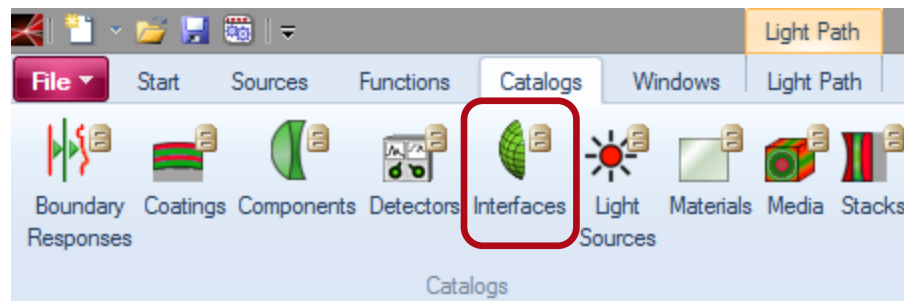
UseCase.0019 (1.0)

## Interfaces Catalog

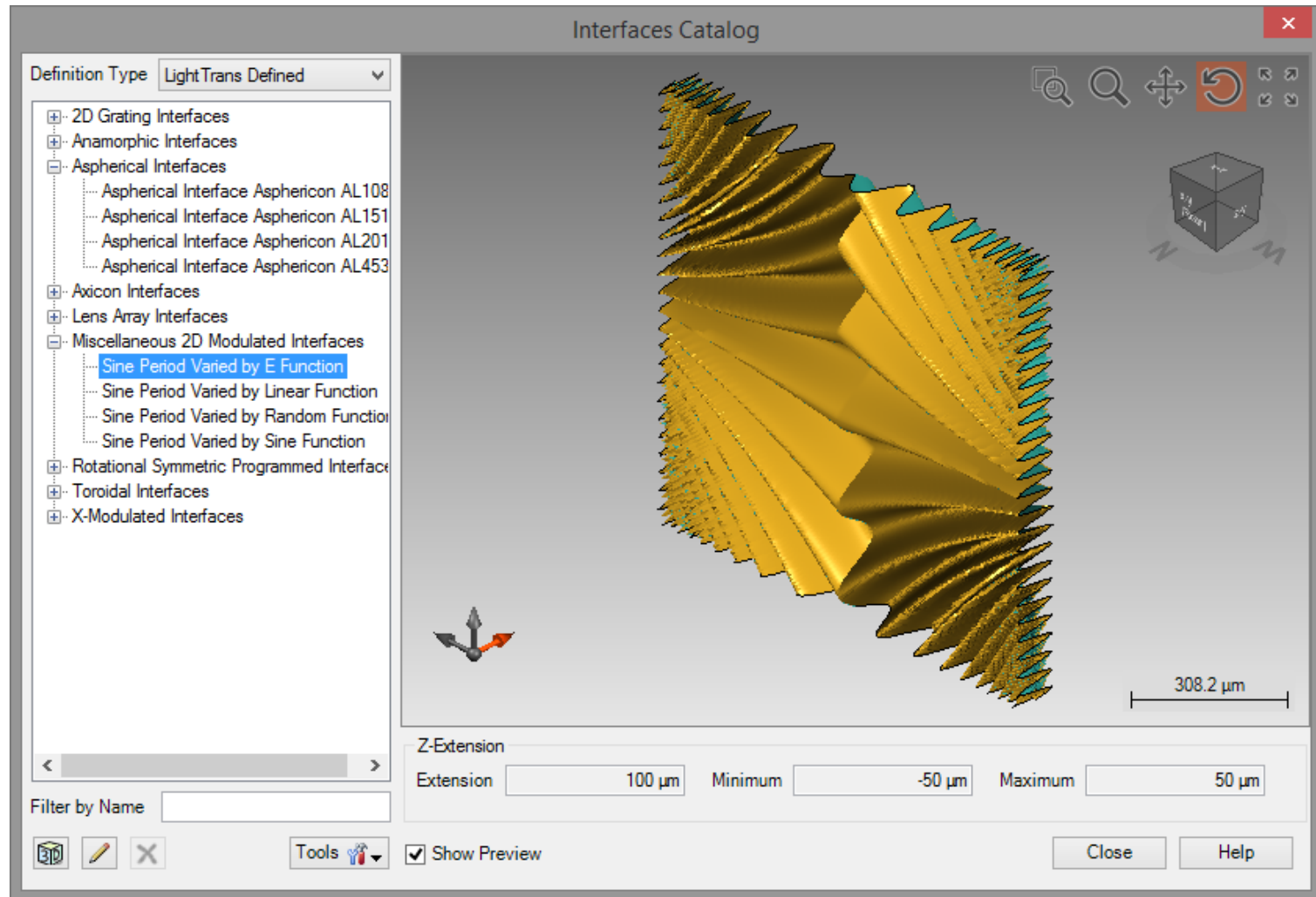
**Keywords:** optical surface, height profile, medium change, transition, export, CAD

# Description

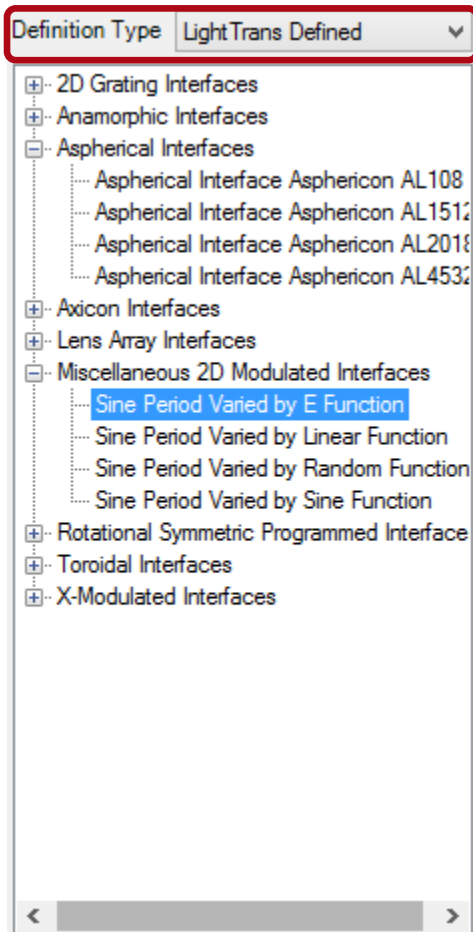
- This use case demonstrates the usage of the interface catalog of VirtualLab.
- Interfaces are used to define inhomogeneous regions within a system.
- The interface catalog allows to benefit from the usage of pre-defined catalog entries.
- It is also shown how user-defined interfaces can be stored into the interface catalog.
- The interface catalog can be accessed by the corresponding item in the catalog ribbon of the VirtualLab main form



# Interface Catalog

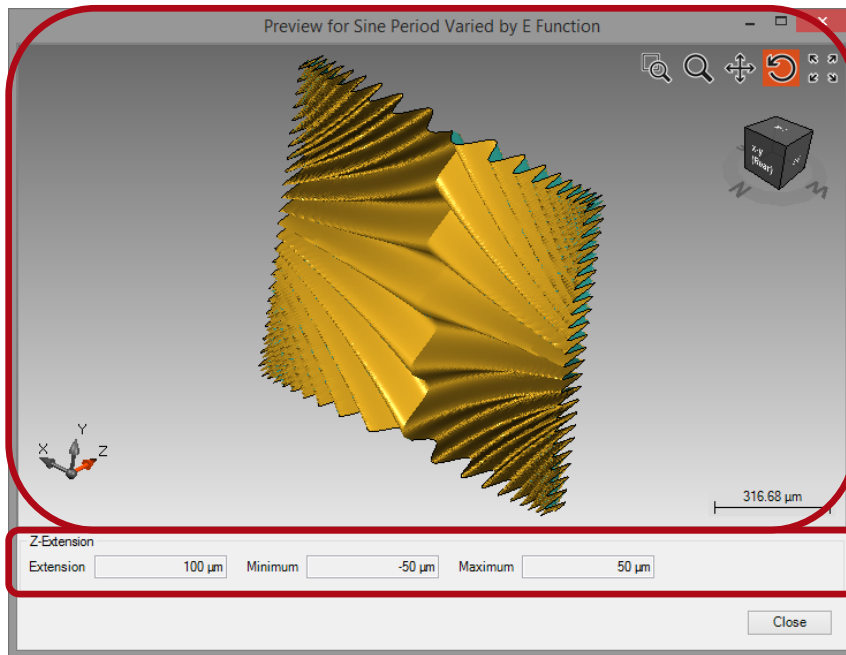


# Interface Catalog



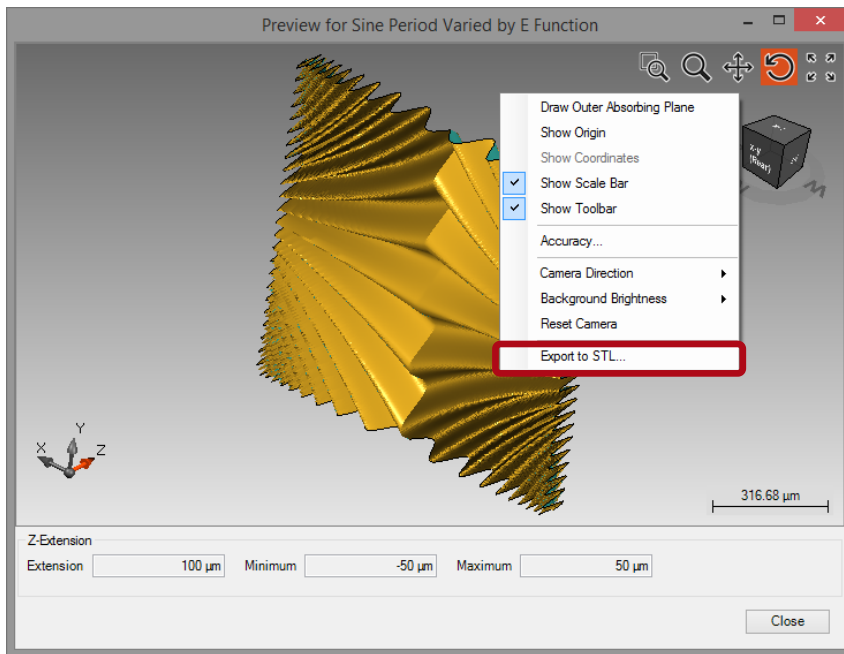
- In the template section of the interface catalog several types of optical interfaces are available which can be configured and stored within the user-defined section.
- The LightTrans defined catalog contains a variety of different interfaces, including for example aspherical, toroidal or axicon interfaces.

# Preview of the Interface



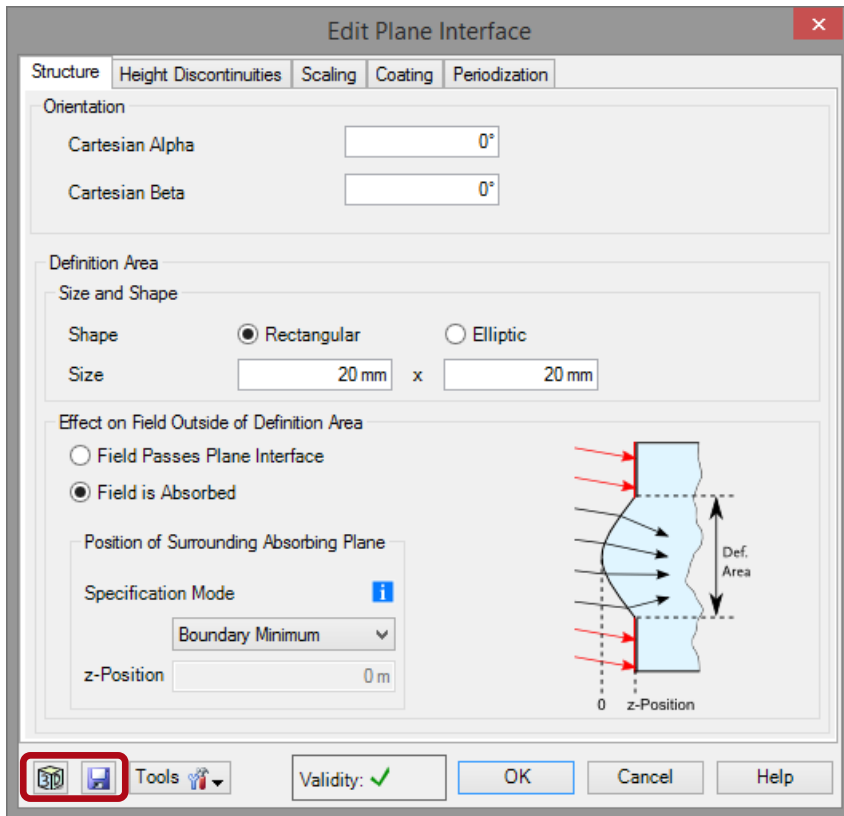
- On the bottom of the preview of the interface the user can find the z-extension information of the selected interface.
- The top part contains the visualization of the height profile in 3D.
- The 3D view can be used to get an impression of the interface to use.

# Preview of the Interface



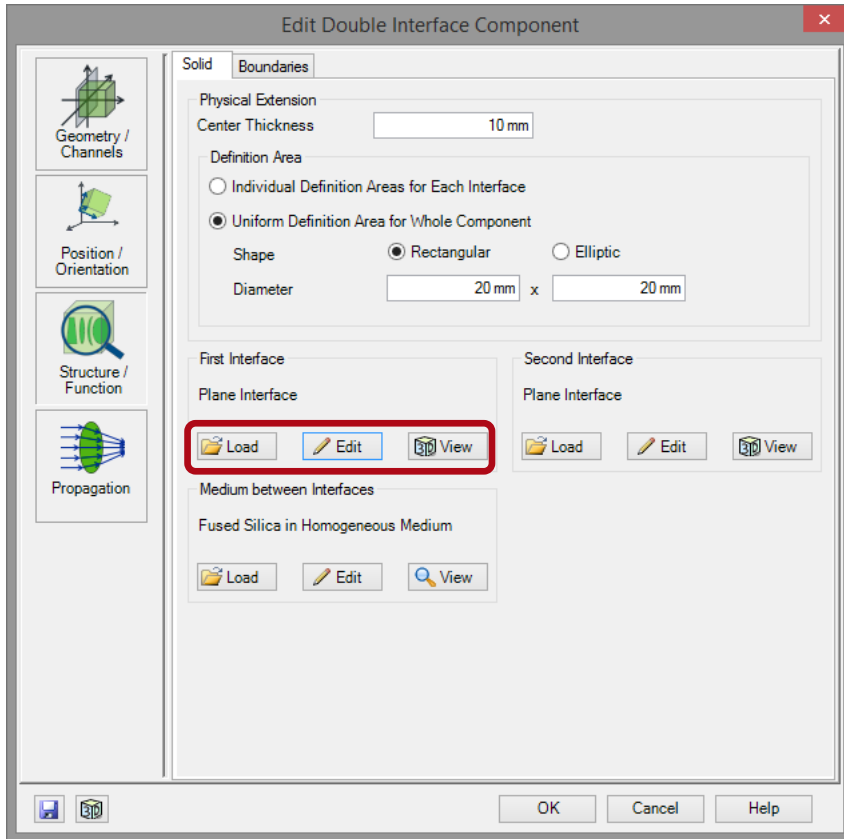
- The 3D view can be customized by the usage of the context menu items of the control.
- The context menu is shown by performing a right mouse click on the control.
- In addition the user has the option to export the shown interface into STL (CAD) format. This option is only meant for rough STL exports as the sampling is defined by the 3D view. For more specific export parameters the default export should be used.

# Saving User-Defined Interfaces To Catalog



- In the lower left corner of the edit dialog of each optical interface the user finds the button to store or show the specified surface.
- Saving the optical interface into the catalog allows to select commonly used interfaces from a customer build database.

# Load Interfaces From Catalog



- Wherever interfaces are used within VirtualLab the user has the following options:
  - Load (from catalog)
  - Edit (and store to catalog)
  - View
- This enables the user to a standardized way to access the interface catalog and to edit and view the desired optical interfaces.



# Summary

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- The interface catalog of VirtualLab enables the user to load and save well-defined optical surfaces from/in a database.
- The standardized way to access the catalog eases up the daily life of optical engineers.
- The preview of the optical interface shows the 3D information storable in STL (CAD) format.