GenISys
Advancing the Standard

Sep. 30, 2020

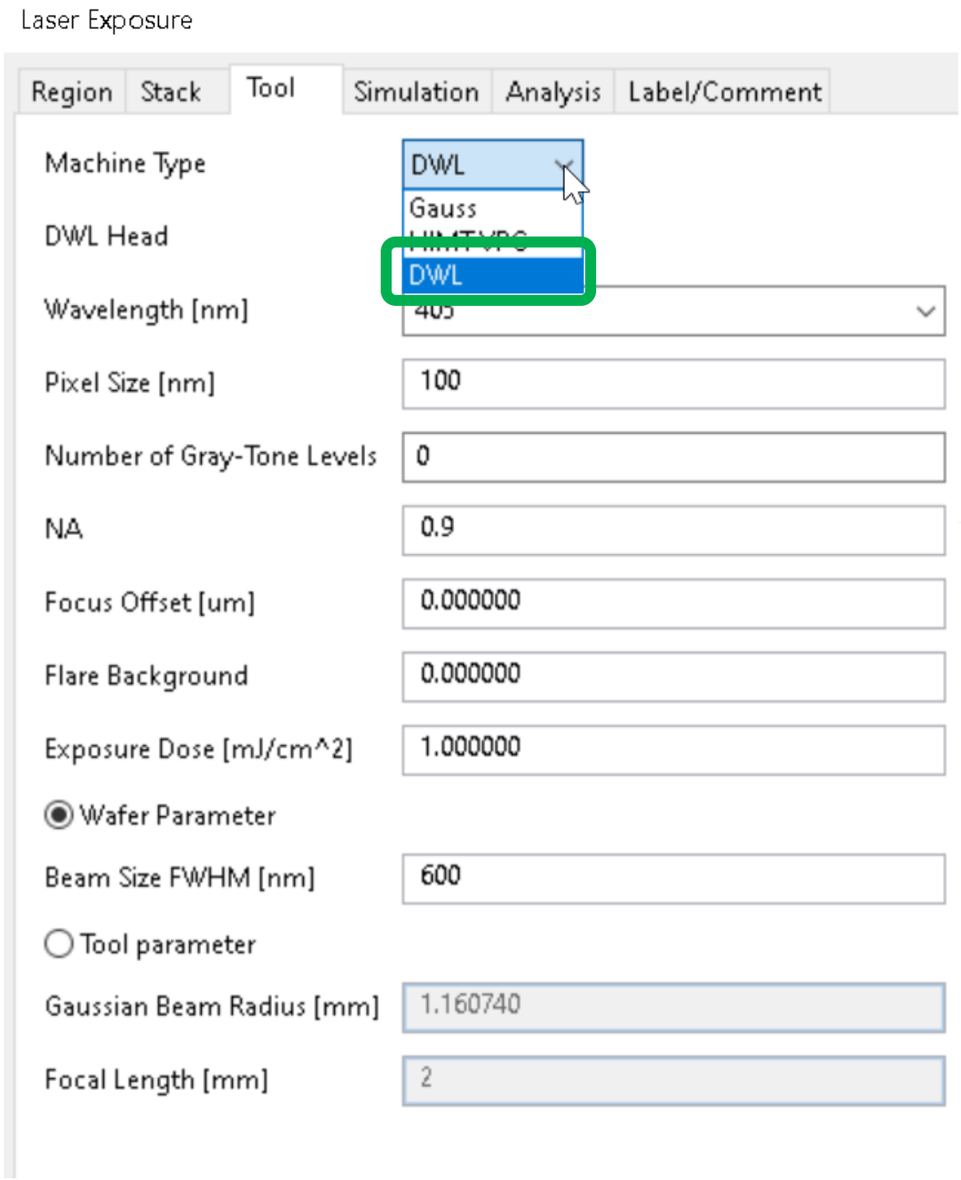
LAB

What’s New LAB 5.4.0

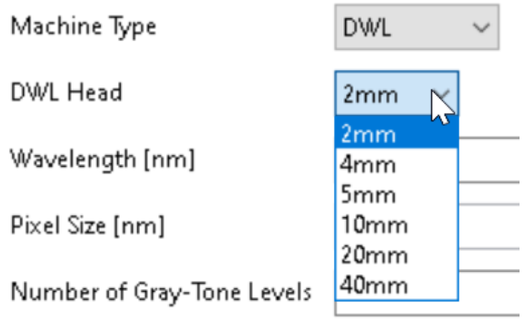
GenISys
Advancing the Standard

Modules

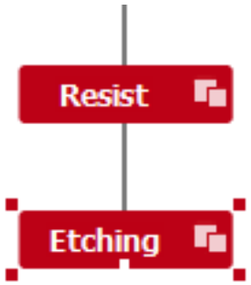
Laser Simulation DWL

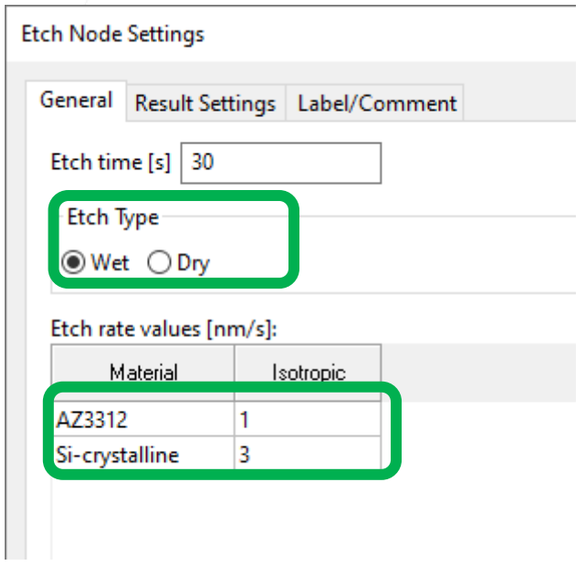


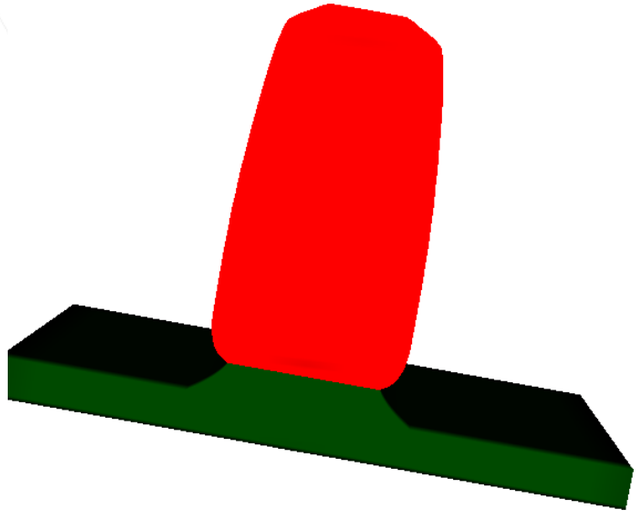
- Enhanced support of the HIMT DWL tool
  - Selecting the DWL Tool will preset the simulation parameters



Etching

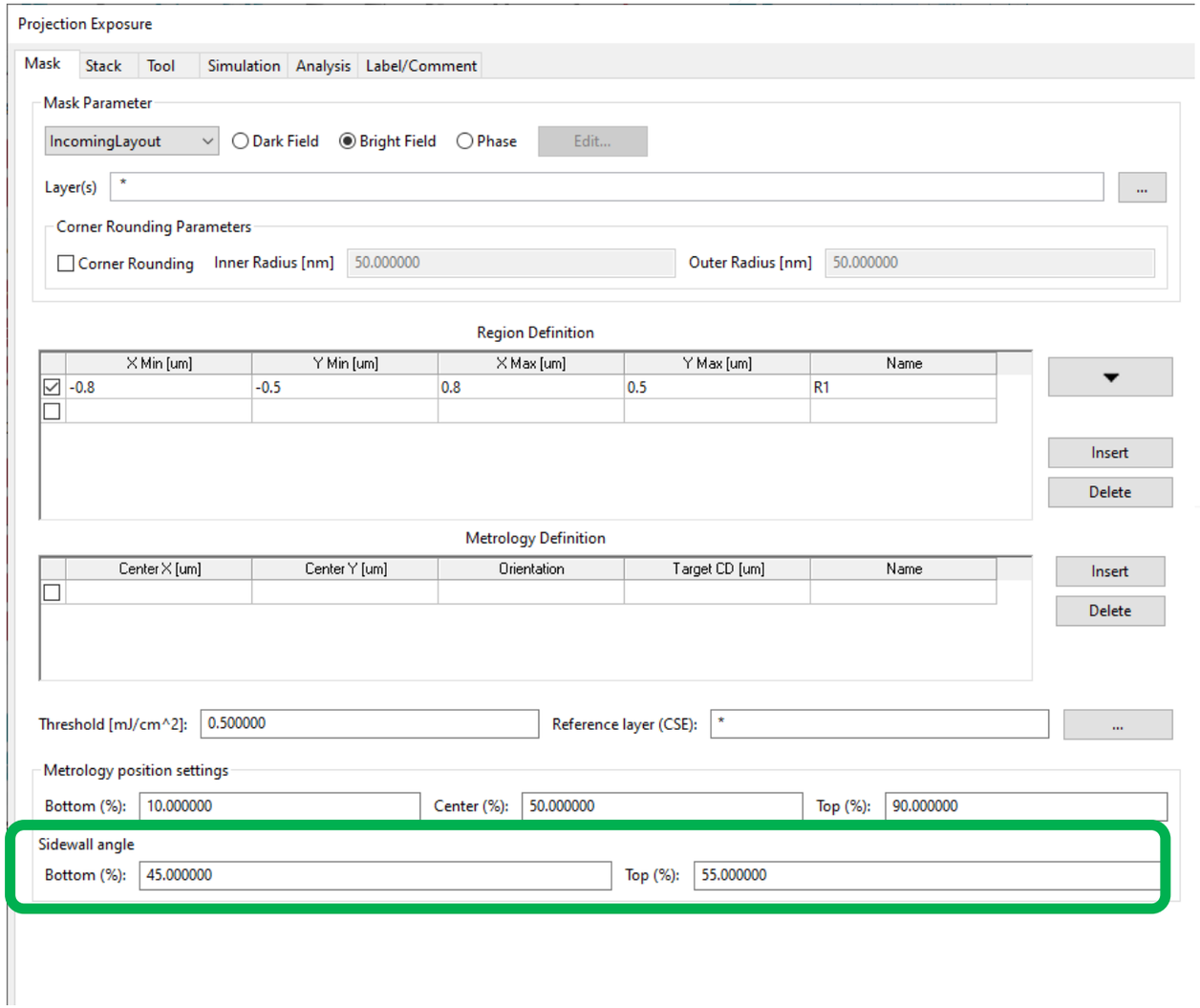




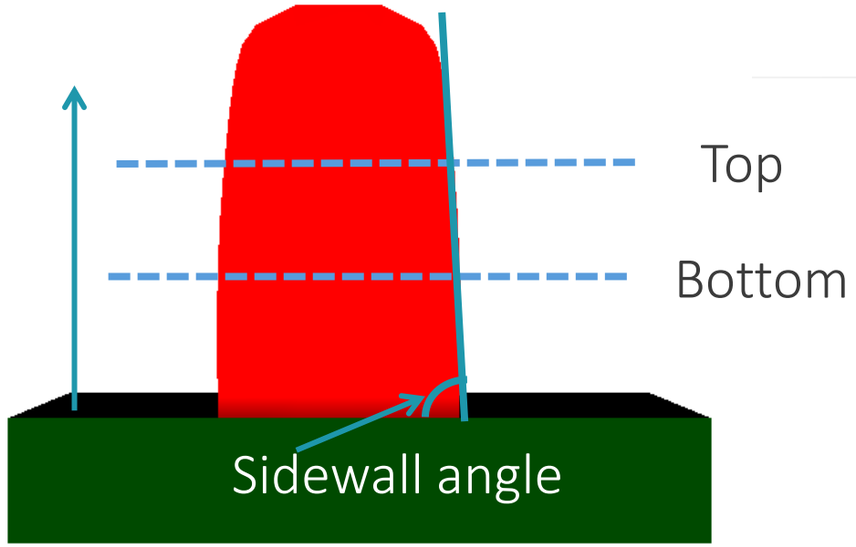


- The Etching module allows simulating of resist and substrate etching with known etch rates.
- The module has been improved where the substrate is now etched without requiring an intermediate layer.

Separate Sidewall Angle Definition



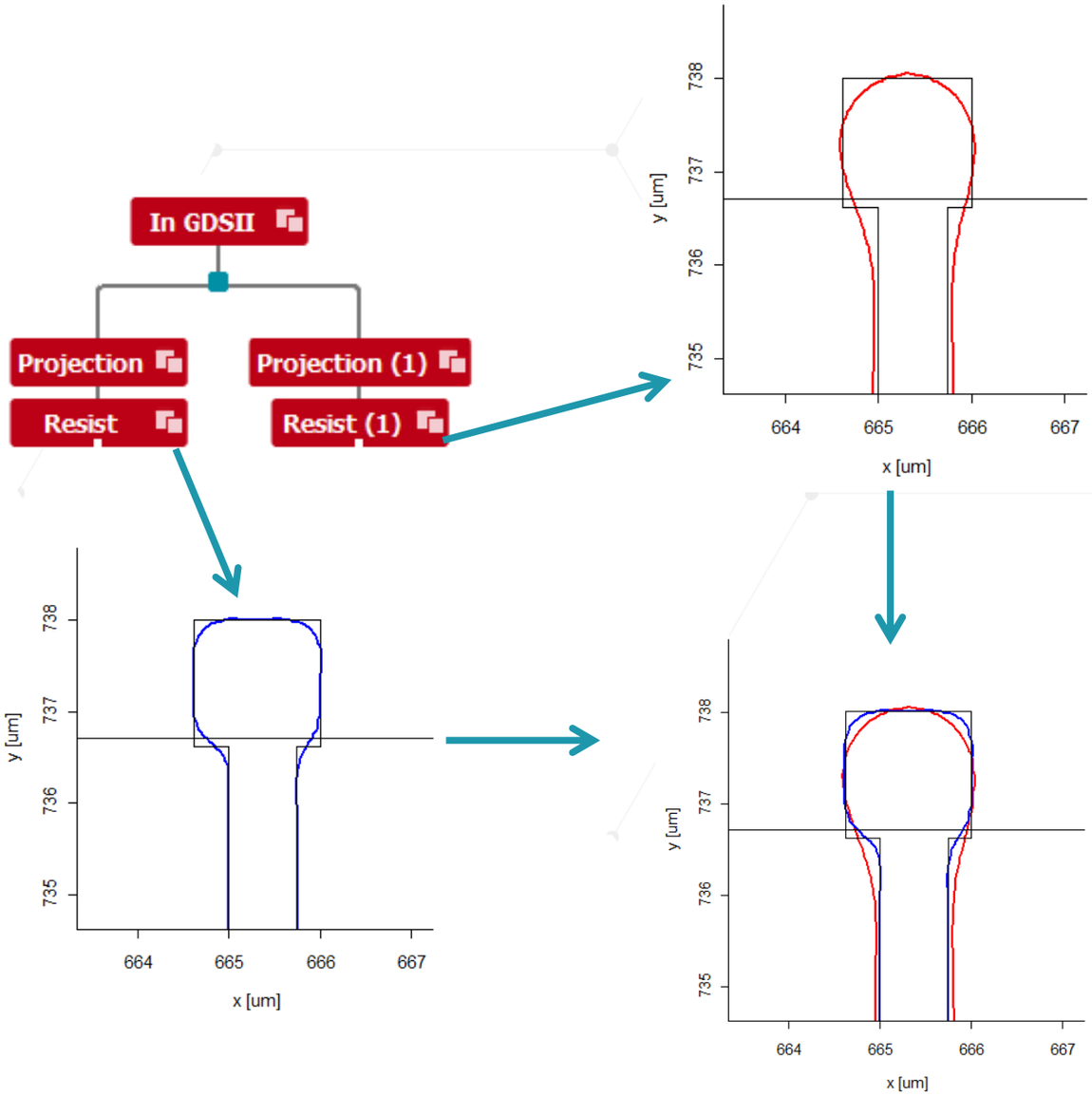
- Sidewall Angle calculation now allows seperate relative height value definition.
  - Enhanced sidewall angle calculation accuracy



GenISys
Advancing the Standard

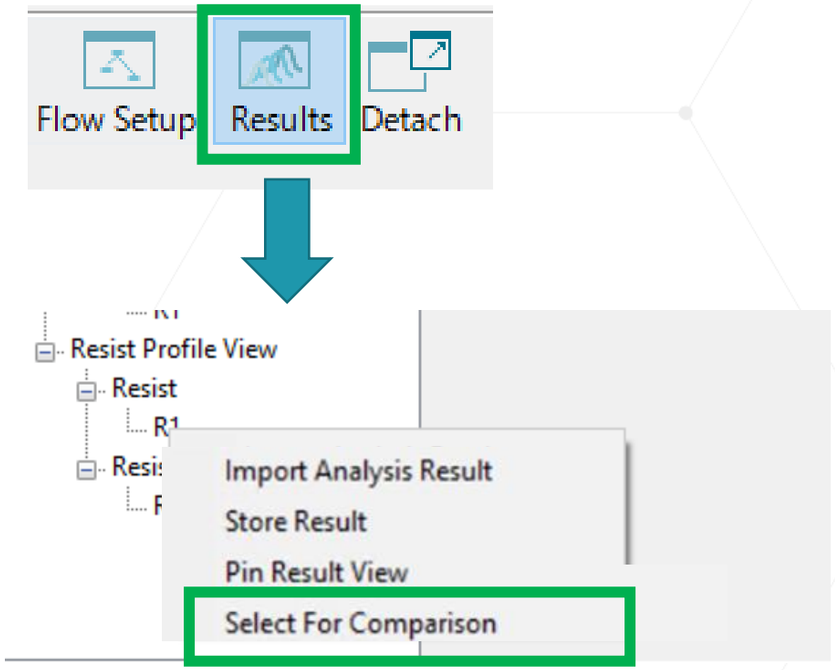
Analysis & Viewing

Contour Comparison

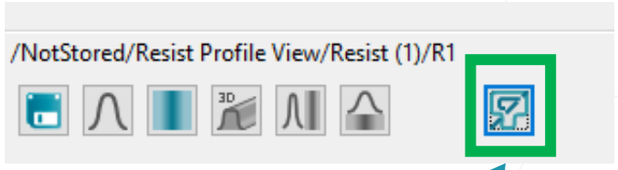


- LAB 5.4 allows the user to compare contour lines from different simulations in one 2D plot.
- Contour comparison is available in „Results“ panel.

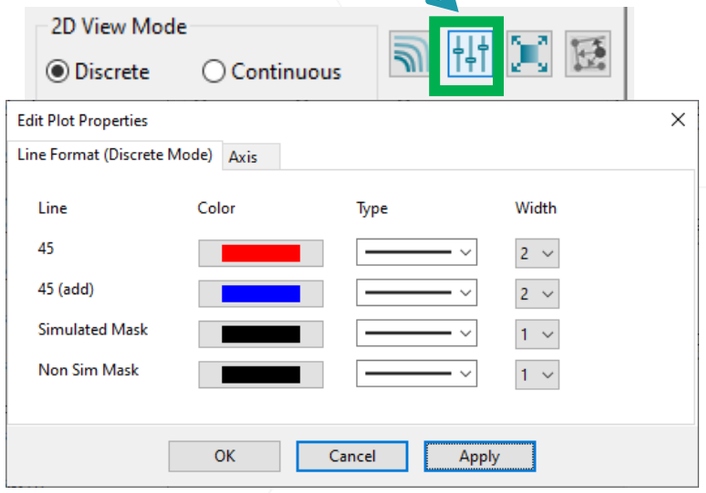
Contour Comparison Procedure

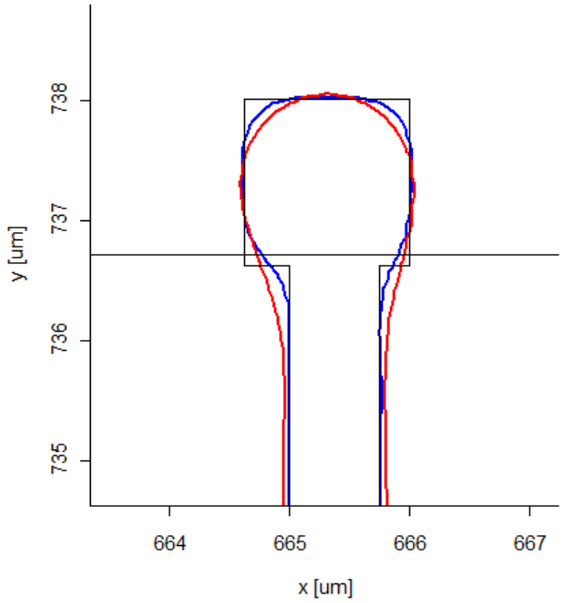


1. Select the view for comparison
2. Click on another image of the same type and contour image is selected.

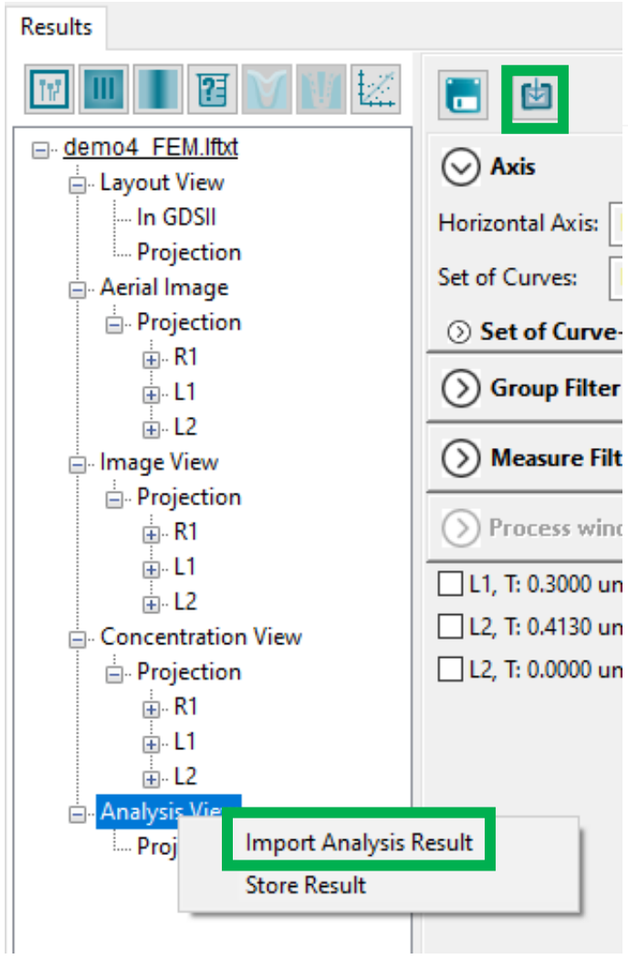


3. Activate the comparison by “Show Comparison Contours” button
4. The contour properties is available via the “2D format dialog”.





Import Metrology Data

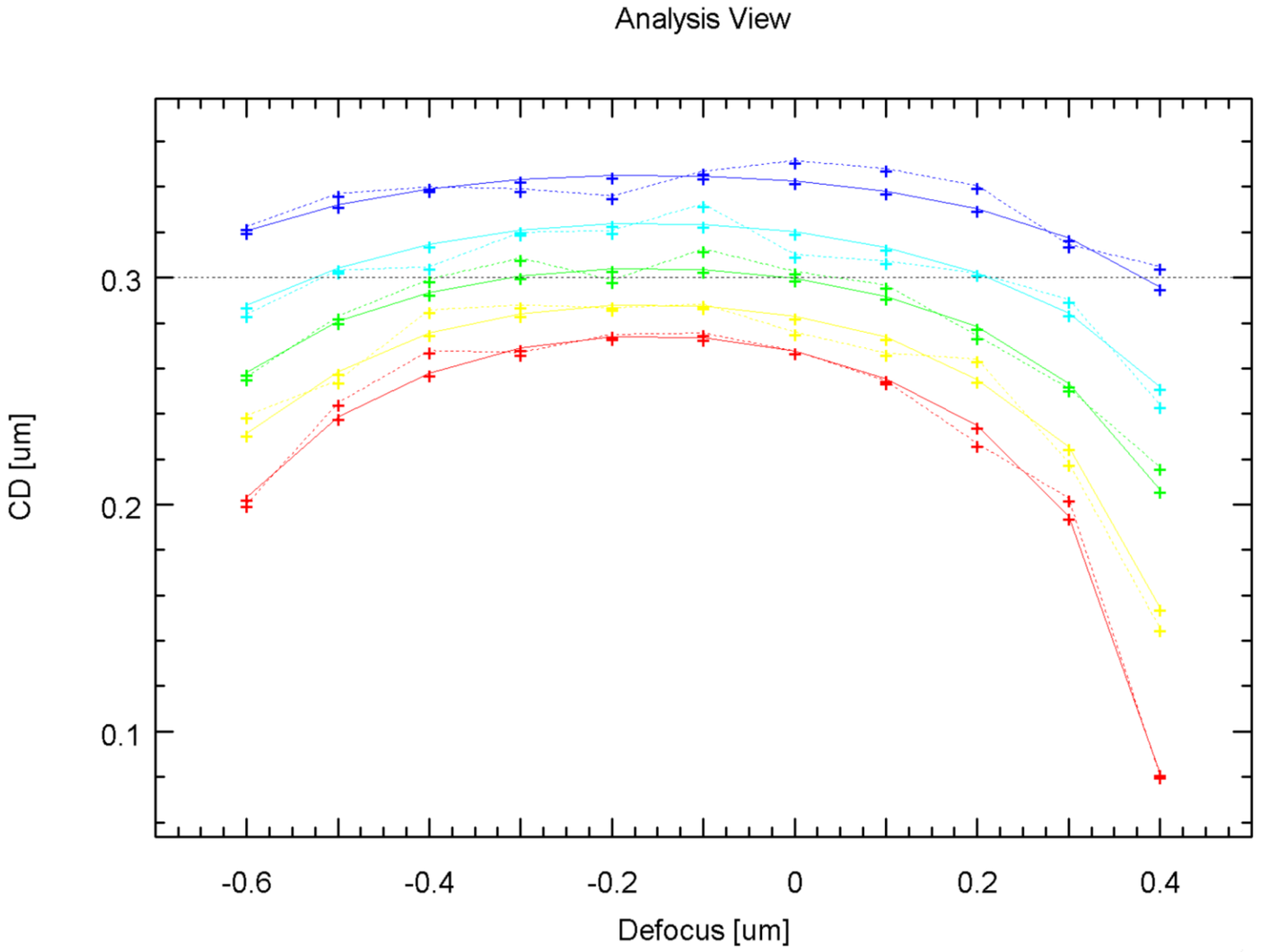


2. Click ”Import Data…” button on another analysis view

1. Right click on the result tree to import

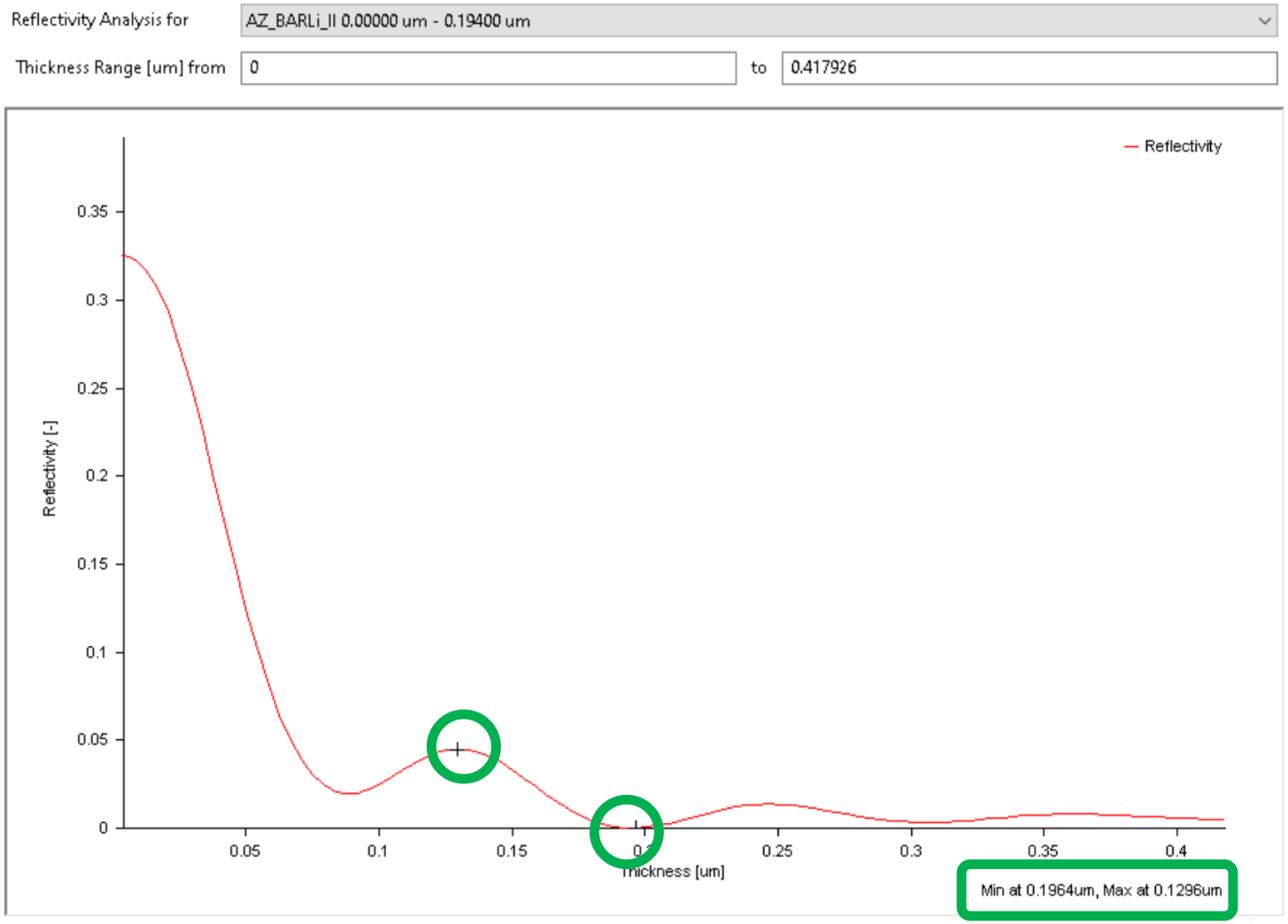
- In the result tree, the user has now the possibility to import external metrology data to create his own analysis.
- The format of the data file is in table style.
- Two ways to import the metrology data

Metrology Data Comparison



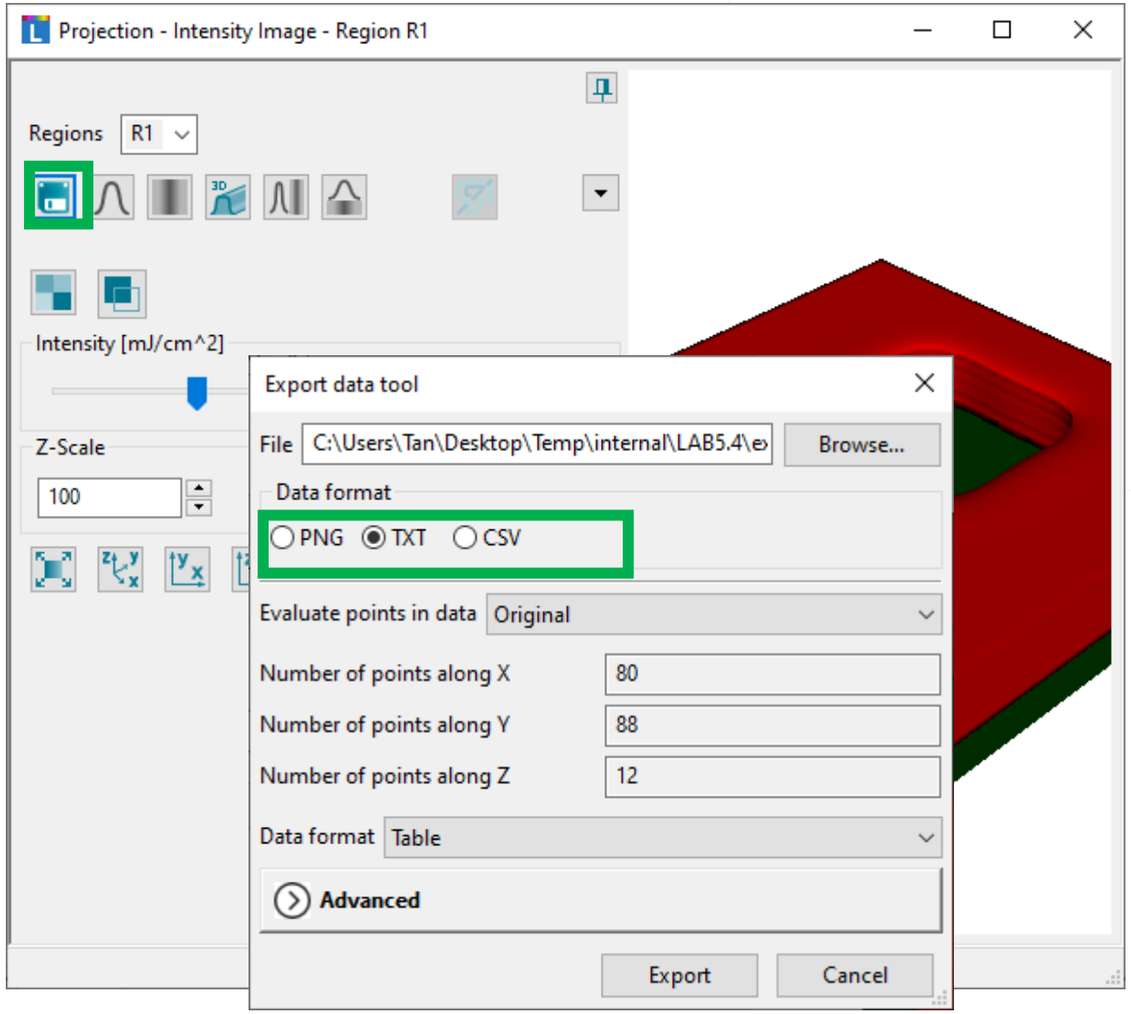
- The imported metrology data can be compared with the simulation result.
  - Imported data from the result tree is compared via „Select for Comparison“.
  - Direct imported data by „Import Data…“ button is compared in the same plot.

Reflectivity Analysis – Min/Max



- The Reflectivity Analysis now automatically calculates the min and max reflectivity values, and higlights the positions and displays the results.

3D View Export

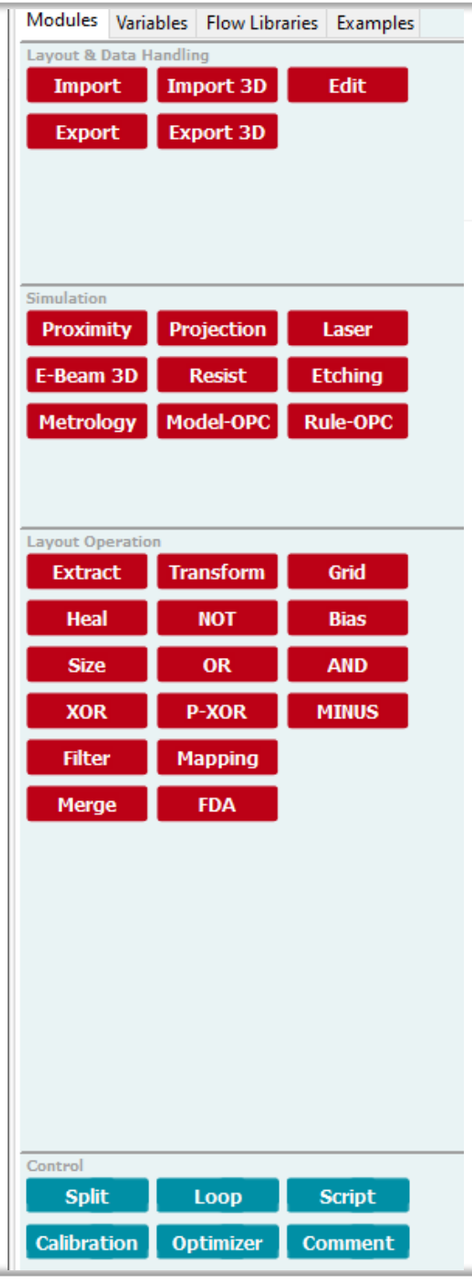


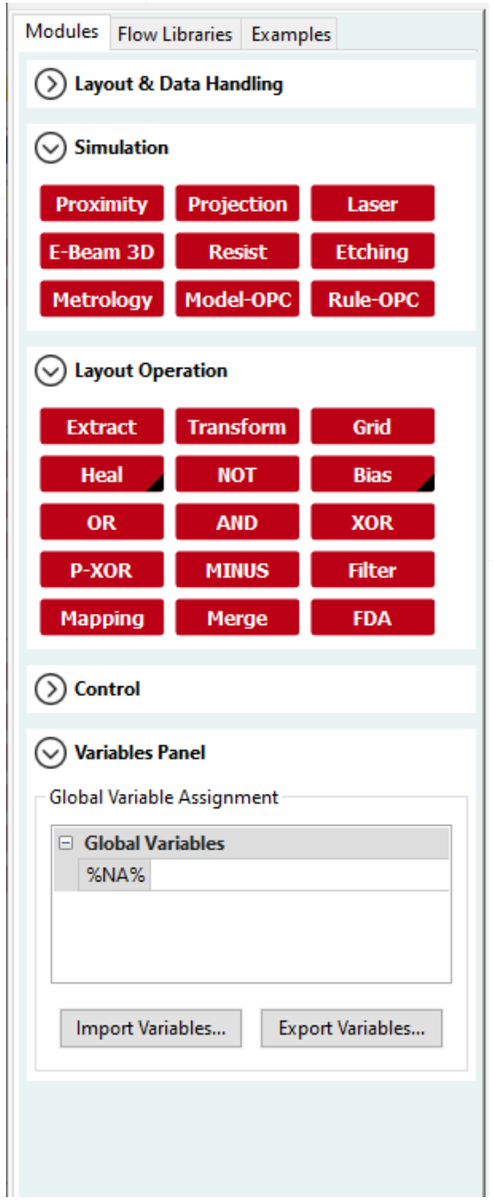
- 3D results view now allow exporting the full data set for analysis outside of LAB
- Newly available formats are .txt file and .csv
- Adjustable output parameters and header information

GenISys
Advancing the Standard

Usability

Update Modules Tab

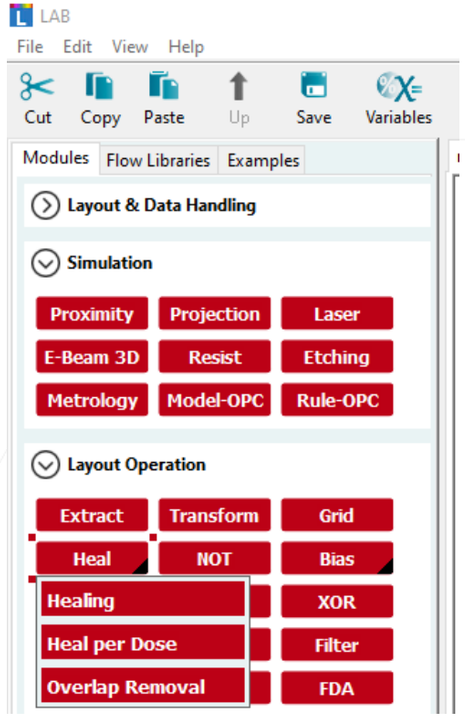


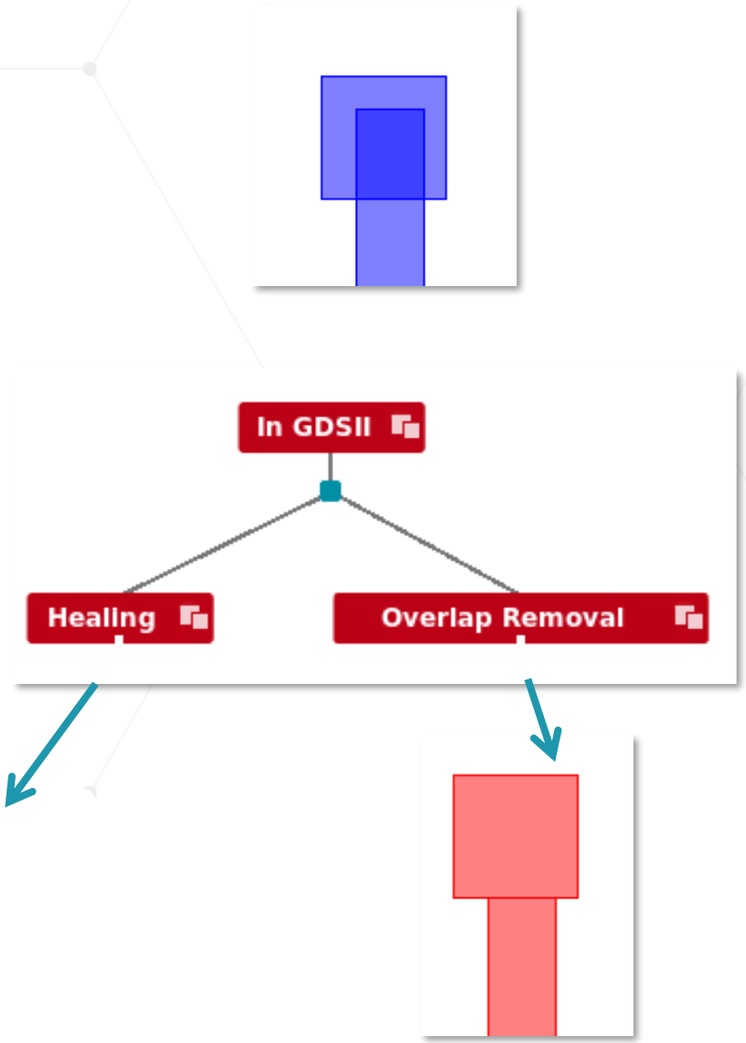


The Modules tab has been reworked offering now:

- Collapsible groups by introducing accordion panels
- Quick access to Global Variables
  - Global Variables with Import & Export functions.

Submodules

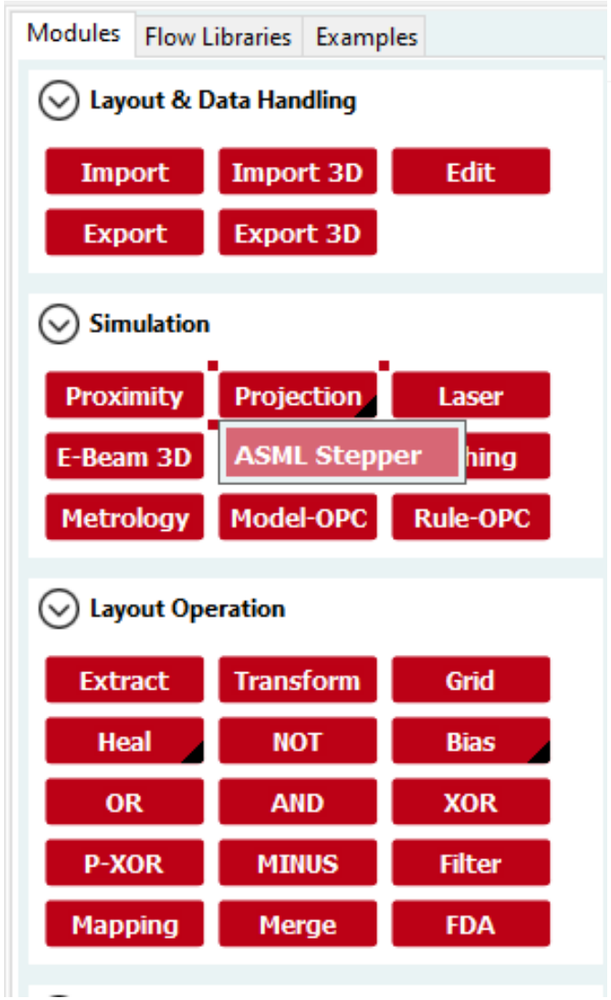


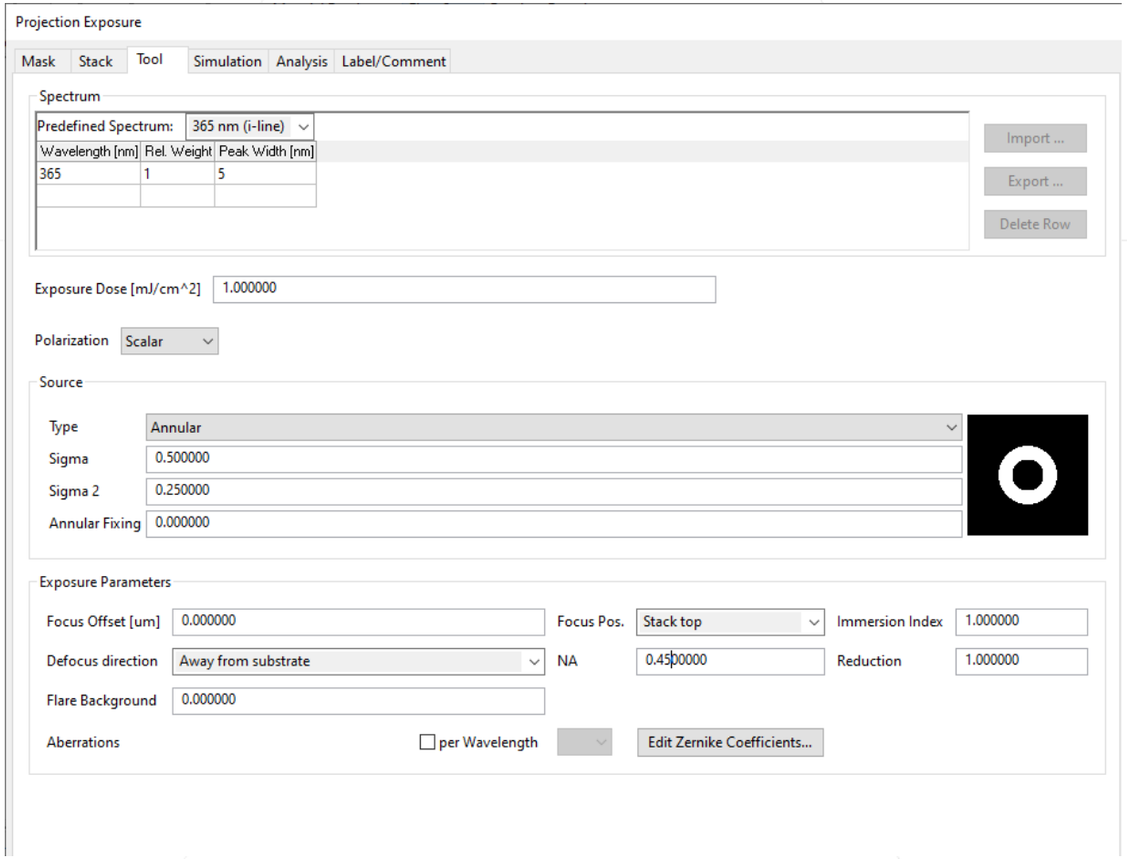


- Modules can now have multiple custom configurations, or “submodules”
- New defaults provided for: Heal, Bias
- New custom modules can be created by right-clicking on a module and clicking “Create Custom Module…”

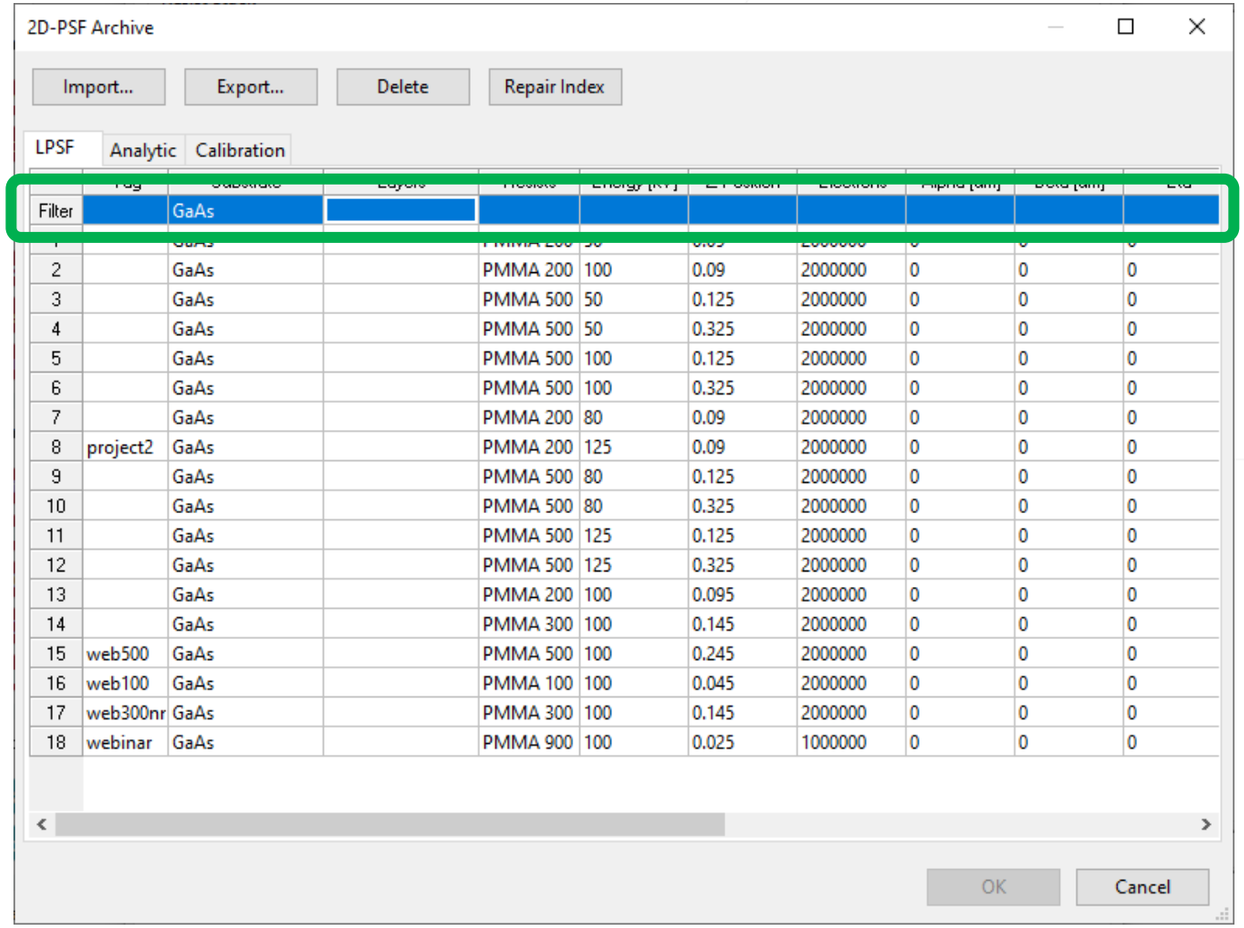
Submodule Example

- Example : Submodules can be configured for user facilities, allowing default tool configuration for user.





PSF Filter Sorting



	Tag	Substrate	Layers	Resists	Energy [kV]	ET Position	Electrons	Alpha [um]	Beta [um]	Eta
Filter		GaAs								
2		GaAs		PMMA 200	100	0.09	2000000	0	0	0
3		GaAs		PMMA 500	50	0.125	2000000	0	0	0
4		GaAs		PMMA 500	50	0.325	2000000	0	0	0
5		GaAs		PMMA 500	100	0.125	2000000	0	0	0
6		GaAs		PMMA 500	100	0.325	2000000	0	0	0
7		GaAs		PMMA 200	80	0.09	2000000	0	0	0
8	project2	GaAs		PMMA 200	125	0.09	2000000	0	0	0
9		GaAs		PMMA 500	80	0.125	2000000	0	0	0
10		GaAs		PMMA 500	80	0.325	2000000	0	0	0
11		GaAs		PMMA 500	125	0.125	2000000	0	0	0
12		GaAs		PMMA 500	125	0.325	2000000	0	0	0
13		GaAs		PMMA 200	100	0.095	2000000	0	0	0
14		GaAs		PMMA 300	100	0.145	2000000	0	0	0
15	web500	GaAs		PMMA 500	100	0.245	2000000	0	0	0
16	web100	GaAs		PMMA 100	100	0.045	2000000	0	0	0
17	web300nr	GaAs		PMMA 300	100	0.145	2000000	0	0	0
18	webinar	GaAs		PMMA 900	100	0.025	1000000	0	0	0

- For E-Beam 3D module, the PSF can be selected from 2D/3D Archive.
- New PSF filter option to allow multiple filters.
- First row of table is now the filter-per-column. Clicking on the column label results in ascending sorting, a second click in descending sorting.

GenISys

Thank You!

support@genisys-gmbh.com

Headquarters

GenISys GmbH
Eschenstr. 66
D-82024 Taufkirchen (Munich)
GERMANY

+49-(0)89-3309197-60

+49-(0)89-3309197-61

info@genisys-gmbh.com

USA Office

GenISys Inc.
P.O. Box 410956
San Francisco, CA
94141-0956
USA

+1 (408) 353-3951

usa@genisys-gmbh.com

Japan / Asia Pacific Office

GenISys K.K.
German Industry Park
1-18-2 Hakusan Midori-ku
Yokohama 226-0006
JAPAN

+81 (0)45-530-3306

apsales@genisys-gmbh.com

BEAMER LAB TRACER Pro SEM VIEWER