

TRACER

What's new TRACER 2.10

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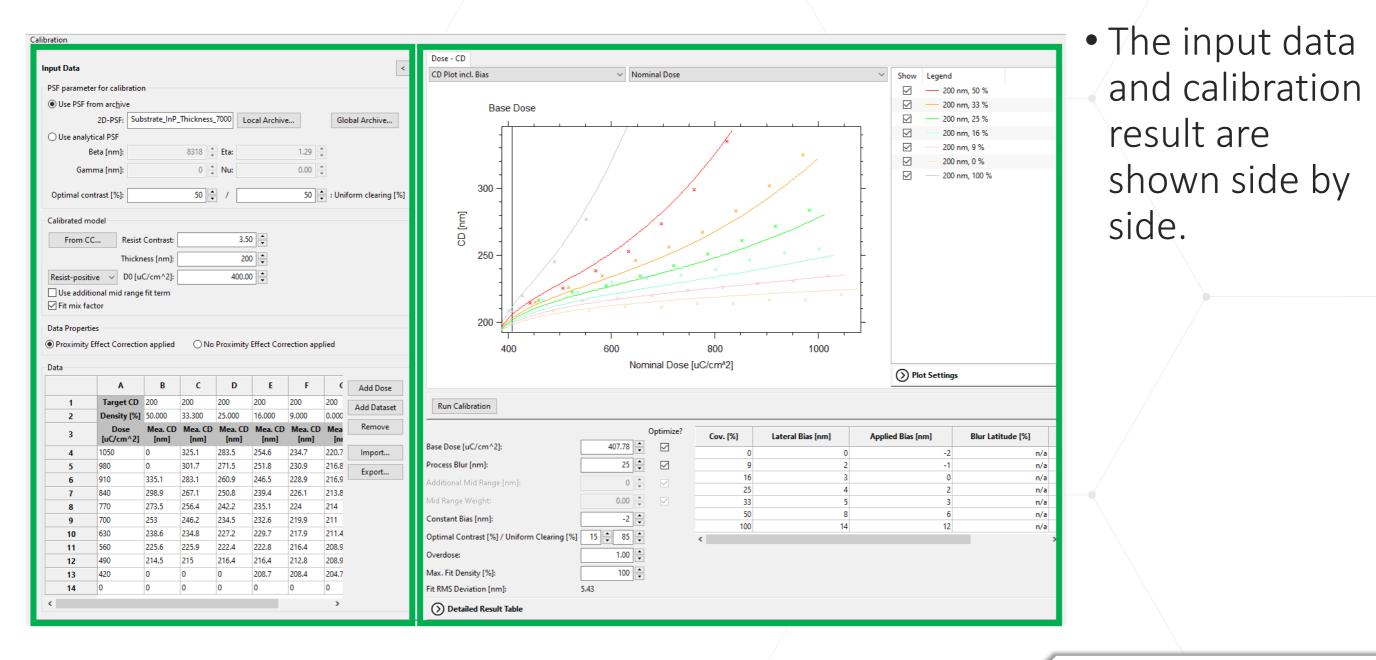
Rework of user interface



- Major rework of the ebeam calibration interface and workflow, to improve the overview of input data and results.
 - easier recalibratio and comparing of results

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Navigator Archive Global 3D-PSF Archive Cocal 3D-PSF Archive Global 2D-PSF Archive Local 3D-PSF Archive Deal 2D-PSF Archive Project - TraceProjecttrpj e MMA450k1minnoOi	Input Data PSF parameter for calibration Use PSF from archive 2D-PSF; Substrate_GaAs_Thickness_700 Use analytical PSF Beta [nm]: 8318 © Eta: 1.23 © Gamma [nm]: 0 © Nu: 0.000 © Optimal contrast [%]: 100 © / 0 © : Uniform clearing [%] Calibrated model From CCResist Contrast: 2.50 © Thickness [nm]: 200 ©						Base Dose	end 100 nm, 50 % 100 nm, 33 % 100 nm, 25 % 100 nm, 7 % 100 nm, 9 % 100 nm, 0 %
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PSF parameters

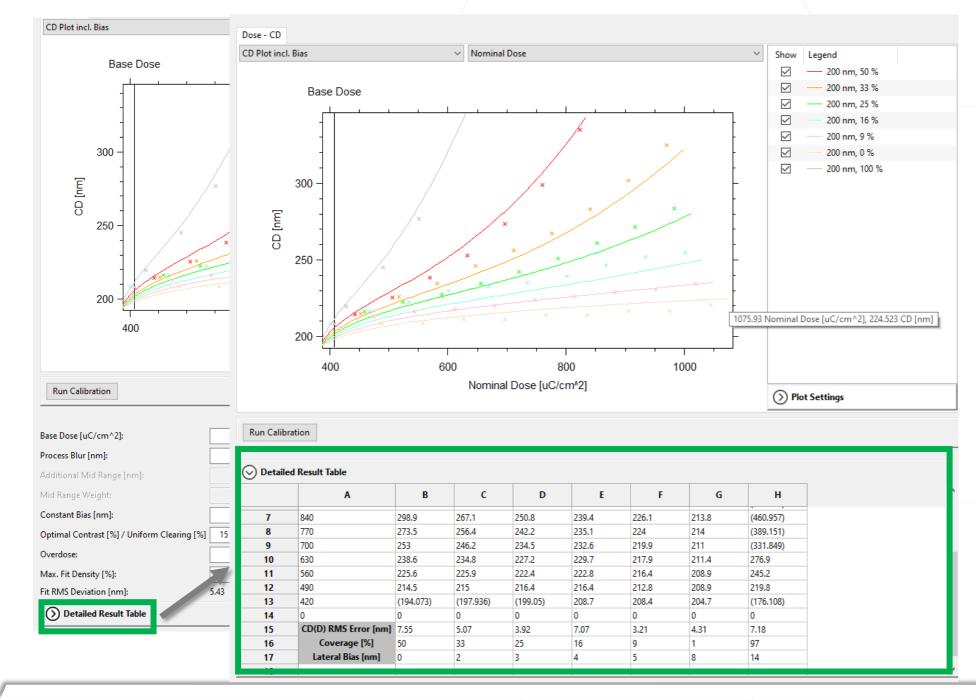
Experimental data: CD measurements for varied doses and pattern densities



ibration							
Input Data							
PSF parameter	r for calibratio	n					
Use PSF from the Use	om arc <u>h</u> ive						
	2D-PSF: Sub	strate_InP_	Thickness_	7000	Local Archive	e	Global Archive
🔿 Use analyti	cal PSF						
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							1
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Fit mix fact Data Propertie Proximity E	tor 25 ffect Correctio	n applied			ity Effect Corr		

- During model definition,
 - both positive and negative resists are supported.
 - the mid-range term can be activated for a better fit when the mid-range effect is non-negligible.
- The selection in data properties allows
 - calibrations on measurements made on exposure data with or without PEC.





 After clicking on the arrow, the detailed result are shown.



Calibration																				
Land Data									Dose - CD Pro	cess Window	Dose Blur L	atitude vs Bias								
Input Data								<	CD Plot incl. Bia	as v	Nominal Dos	e	~							
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Use PSF f	rom archive									Base	Dose									
	2D-PSF: Su	bstrate_InP	_Thickness	5_7000 Lo	cal Archiv	e	Glo	obal Archive					L							
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8	770	273.5	256.4	242.2	235.1	224	21		Max. Fit Density [[%]:		100]							
9	700	253	246.2	234.5	232.6	219.9	21		Fit RMS Deviation	n [nm]:		5.18								
< 1	600	220.5	224.0	222.2	220 7	217.0	>		() Detailed R	esult Table										

Project File : Project_test.trcprj *



New functionalities

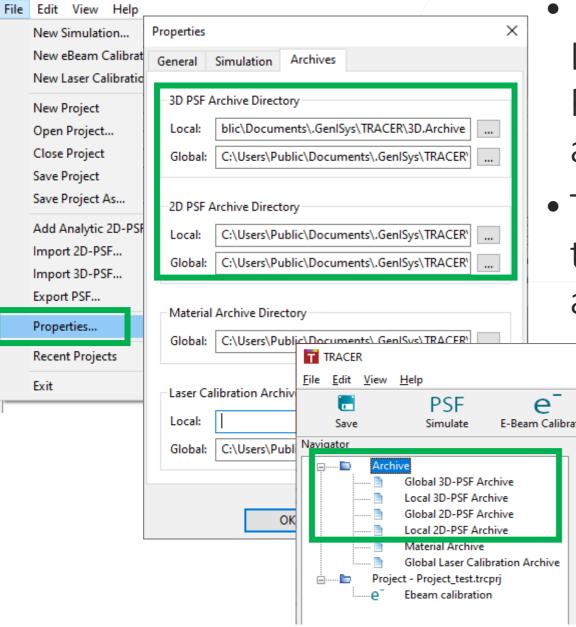




- The maximum correction density for fitting can now be set using an additional input field.
 - This allows an improved calibration for sparse layouts



TRACER



Global and Local PSF Archive

- TRACER now supports storing PSFs to both Local or Global archives, for both 2D and 3D PSFs. When storing to an archive, the user is asked which archive should be used.
- The archive locations must be matched to those used by BEAMER, so that PSFs stored in archives are available in BEAMER's modules.
 - If the archive locations are defined using the program's Properties dialog, the locations for 3D and 2D PSF Local and Global archives must be defined as shown at left.
 - If the archive locations are defined using system Environment Variables, these will need to updated; see the release notes for further details.



BEAMER

Thank You!

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Pro **SEM**

VIEWER

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