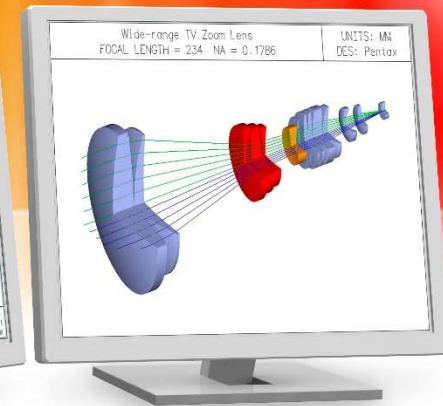
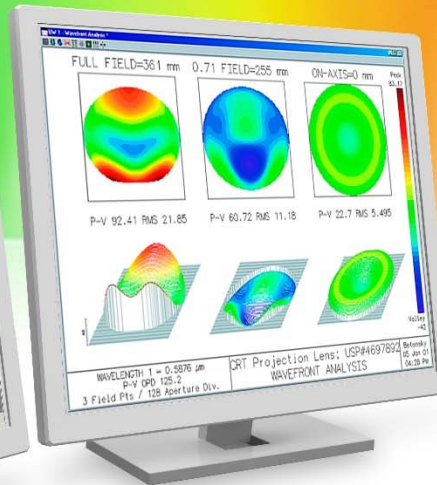
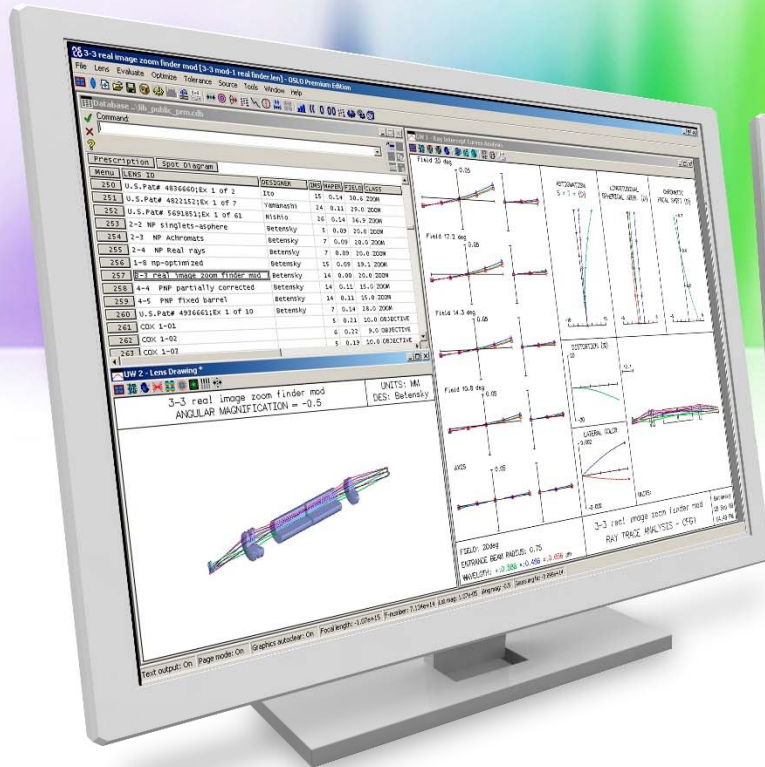


# OSLO




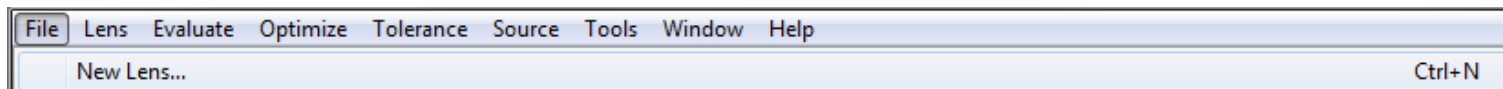
## CATALOG LENS USE IN OSLO

### Catalog Lens Selection

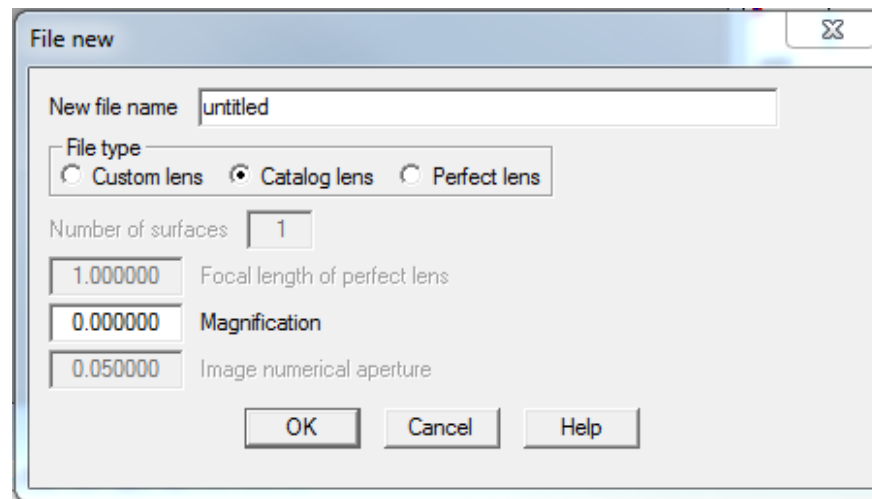
Richard N. Youngworth, Ph.D. - Presenter

# The first way to insert or choose a catalog lens is through the new lens pop-up menu

- New lens menu – select catalog
  - Access with new lens button , Ctrl+N. or File menu

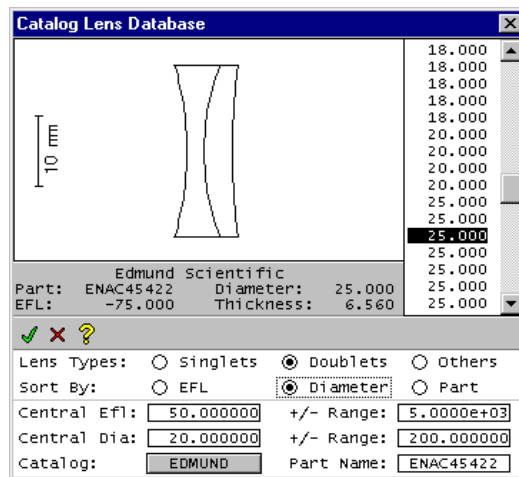
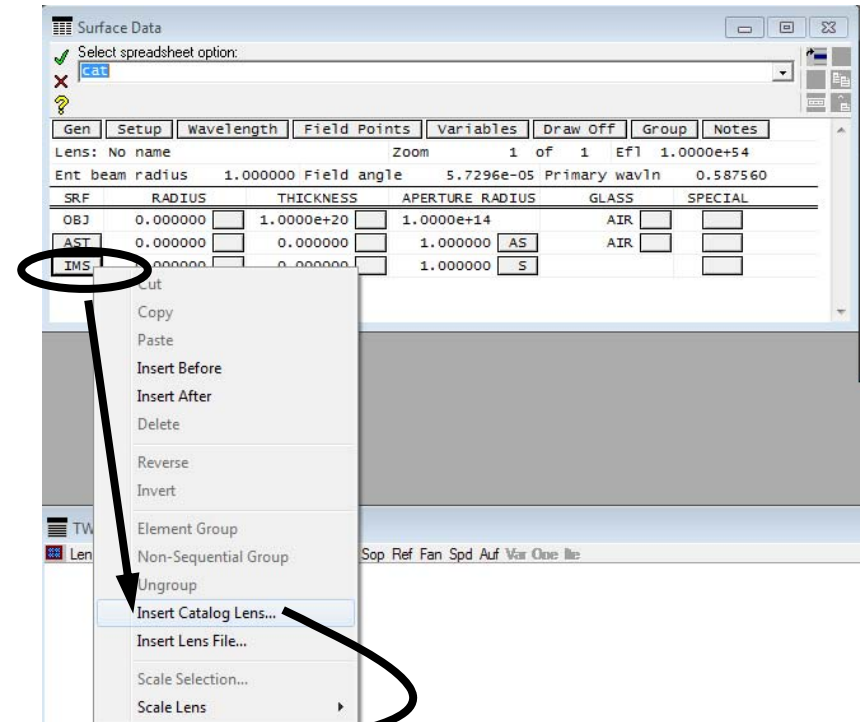


- The OSLO startup new lens does not have this option
- Works really well when you primarily want to model the catalog lens, but you can build onto it too of course
- Must set your final light characteristics as always (lens aperture, field-of-view, wavelengths, etc.)



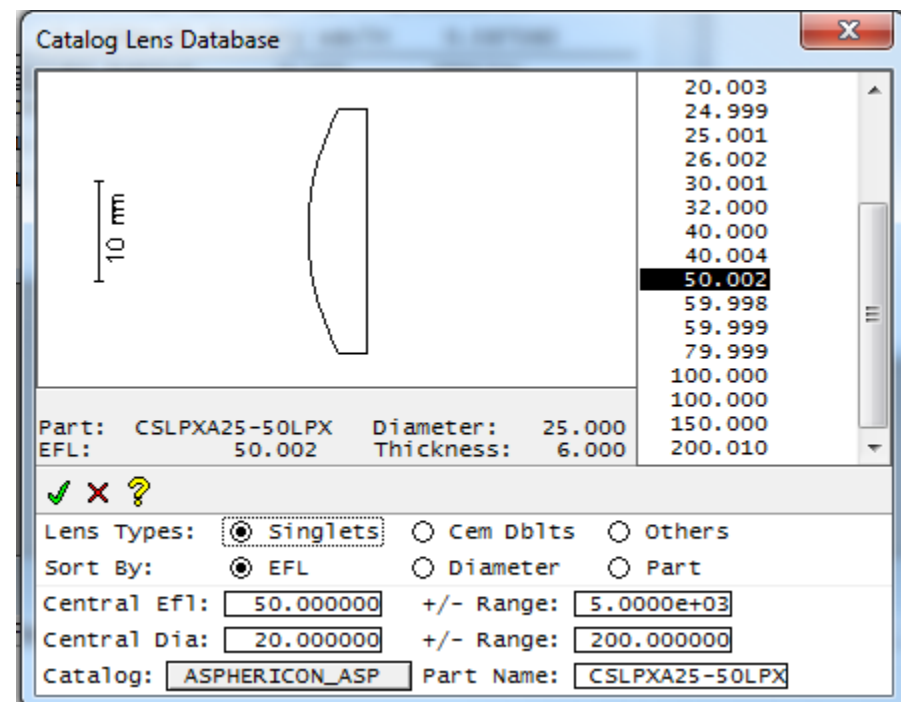
# A second way to insert a catalog lens is through the lens spreadsheet editor

- Right-click on lens spreadsheet row
- Select Insert Catalog Lens
- When choice is accepted the catalog lens goes **before** row that was clicked on



# Selection options for the catalog lens database

- Catalog Lens Database
  - Scrollable lens list Menus
  - Automatic drawing of lenses
  - Database sorting for focal length, diameter & part number
  - Range selection
- The database is continually updated
- A few handy support routines exist:
  - SLC sets a default catalog
  - Mkcat allows for building catalogs via the database functionality



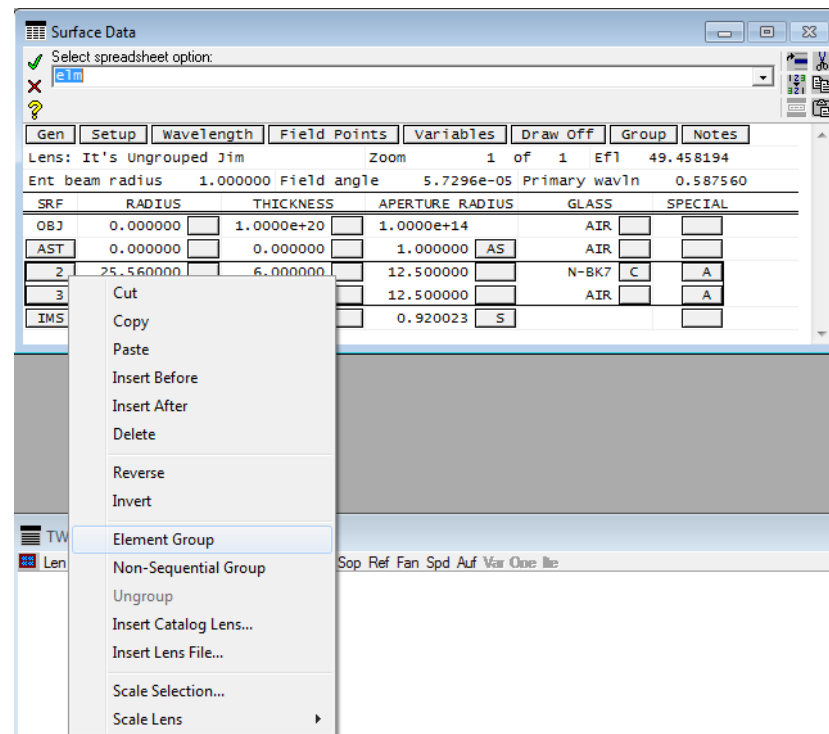
# Grouping and fixed classification – keeping it a catalog lens

- When you select a catalog lens it comes as a grouped block
- The purpose is to keep you from changing any parameters in the block (hence the fixed notation as well)
- You can change parameters in the catalog lens if and only if you break the block by right clicking and choosing ungroup
- At that time of course you are no longer using a catalog lens!

SRF	RADIUS	THICKNESS	APERTURE RADIUS	GLASS	SPECIAL
OBJ	0.000000	1.0000e+20	1.0000e+14	AIR	
AST	0.000000	0.000000	1.000000 AS	AIR	
2	CSLPA25-50	6.000000 F	12.500000 F	FIXED F	A
3		0.000000	12.500000 F	AIR	A
IMS	0.000000	0.000000	0.920023 S		

# Ungrouping – your gateway to moving away from a catalog lens

- If you ungroup a catalog lens you can then make changes
- Note if you have a system and you want to make an element into a catalog lens, the best strategy is to first optimize to make that part of the system close to the catalog lens, then replace it with the catalog lens and fine-tune the system as needed



# Additional comments on catalog lens use

- Some lenses in the database have catalog lenses.
- You must be sure to set the light parameters like NA or f-number, field-of-view, and wavelengths in your system. Catalog lens entry generally sets lens geometry.
- Note that the 'Catalog' choice under GLASS in the lens spreadsheet editor refers to glass catalogs (and is clearly not the same as catalog lens insertion)
- One good place to look for more info is under the online help search for 'lens catalog database'
- There is also documentation in the user guide, program reference, and optics guide for catalog lenses
- We have a corresponding tutorial and video building a catalog lens Galilean Telescope that is included in our video documentation. It supplements this video and presentation.