WYROWSKI PHOTONICS

Feature.0012

Position and Orientation Information Display Control

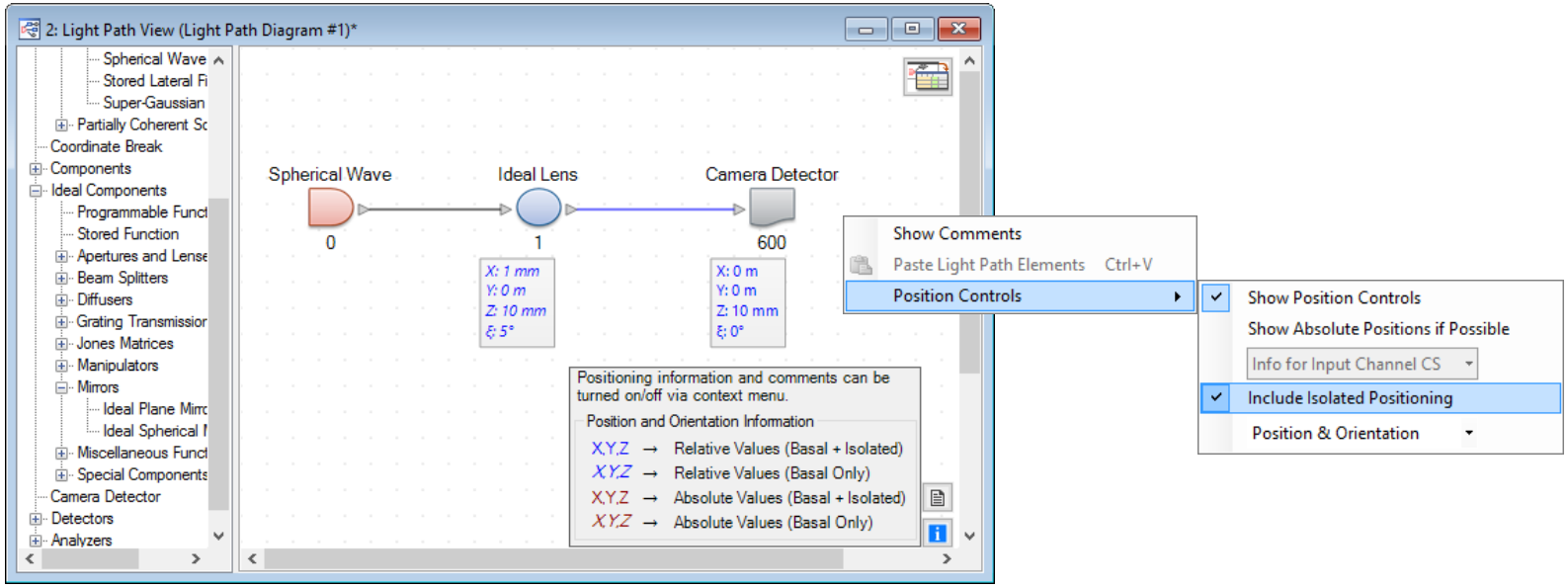
An brief instruction on the control of position and orientation information display in VirtualLab

About This Use Case

- The following toolbox is required
  - Starter toolbox
- This use case is produced with VirtualLab Fusion (Build 7.0.0.35).
- Get your free Trial Version here!

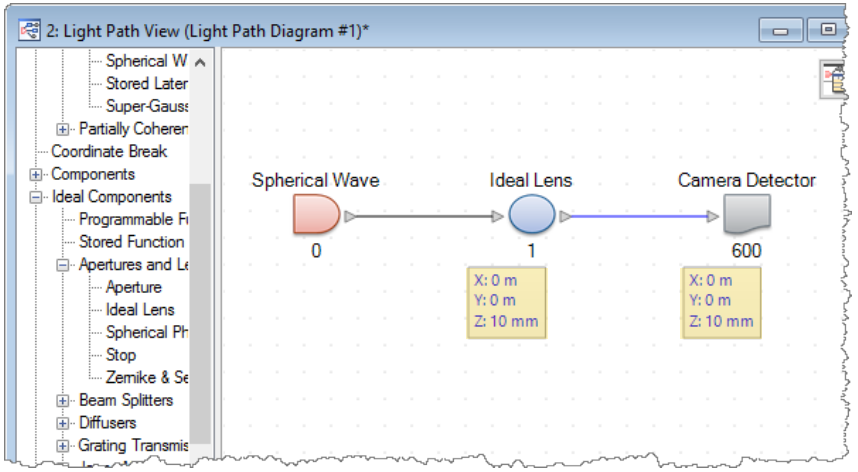
This Use Case Shows ...

- how to set up the position and orientation information display in a Light Path View.



Basal Position Display

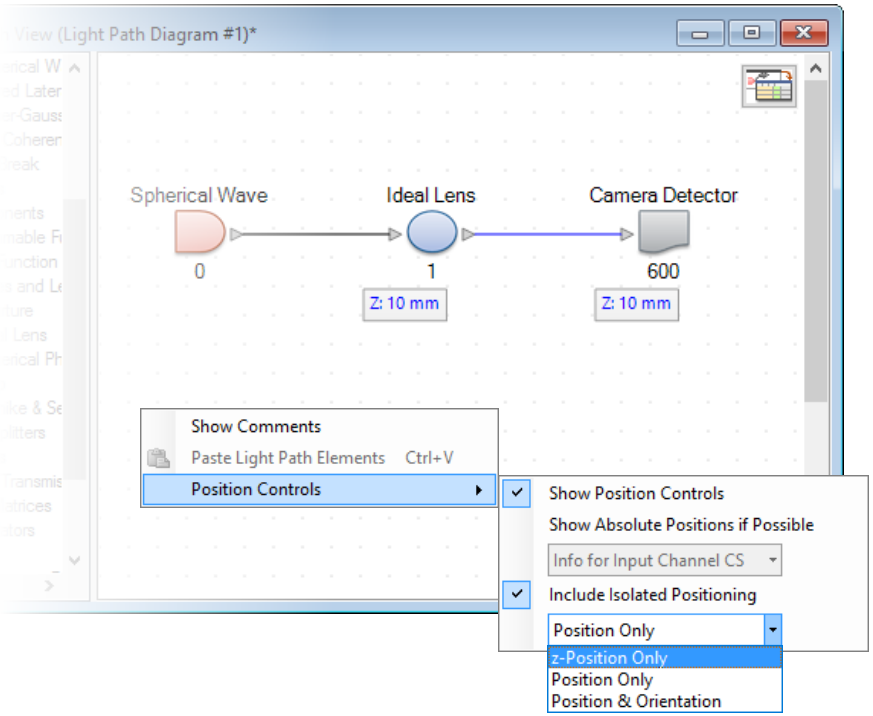
- On-axis situation
  - Build up a simple on-axis optical system, and we use the system on the right as an example.



For such an on-axis situation, it may be superfluous to see the full 3D position information

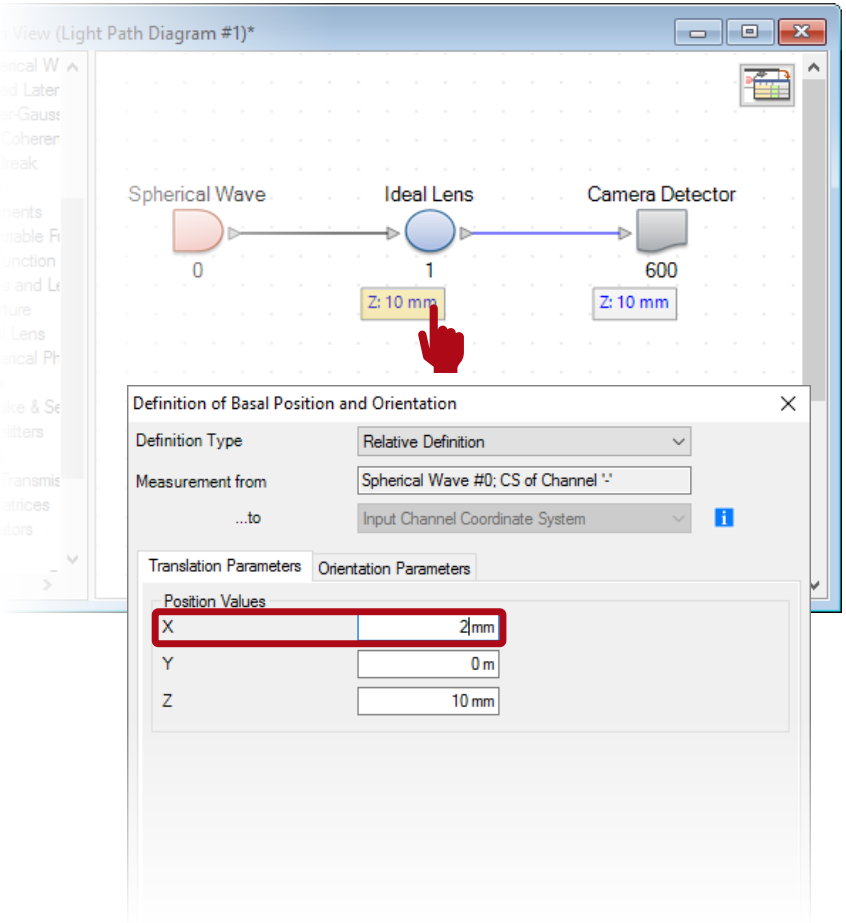
Basal Position Display

- On-axis situation
  - Build up a simple on-axis optical system, and we use the system on the right as an example.
  - To leave only the on-axis position information for display, right click on the empty area in the LPD, go to *Position Controls* and select *z-Position Only.*



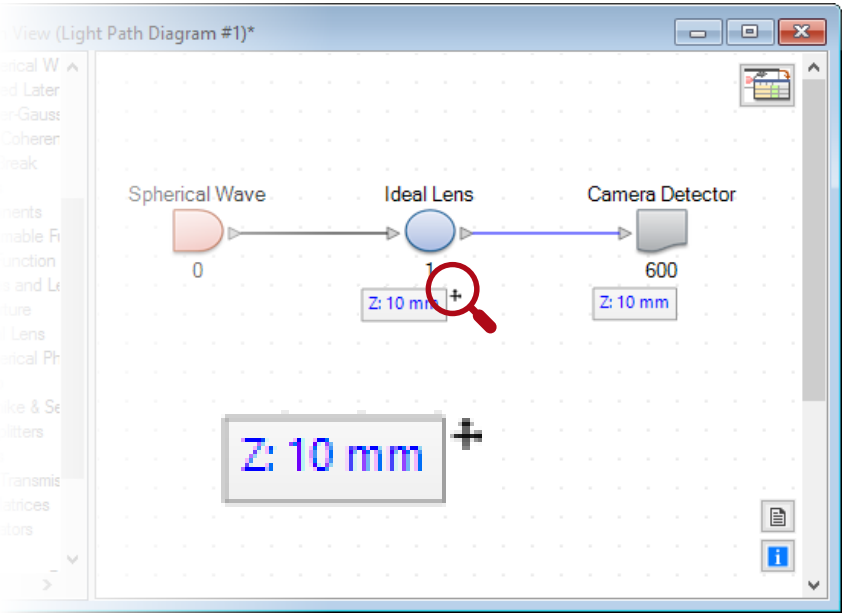
Basal Position Display

- Off-axis situation
  - Click on the position tab below the Ideal Lens, and give a 2mm shift along x-axis.



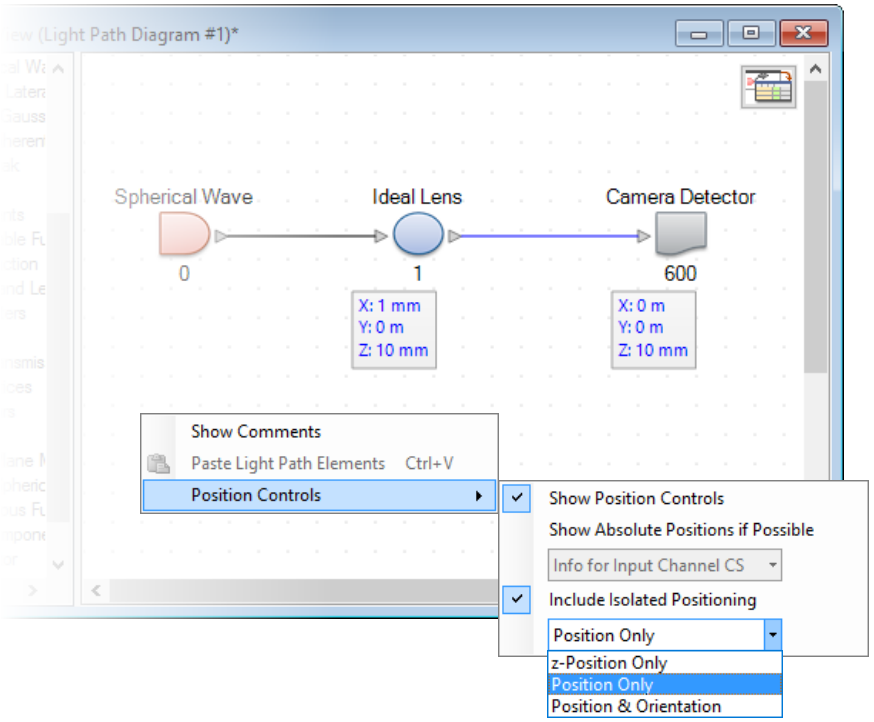
Basal Position Display

- Off-axis situation
  - Click on the position tab below the Ideal Lens, and give a 2mm shift along x-axis.
  - Then, a small axes icon is displayed alongside the z-position value, which indicates extra position information other than that in z-direction.



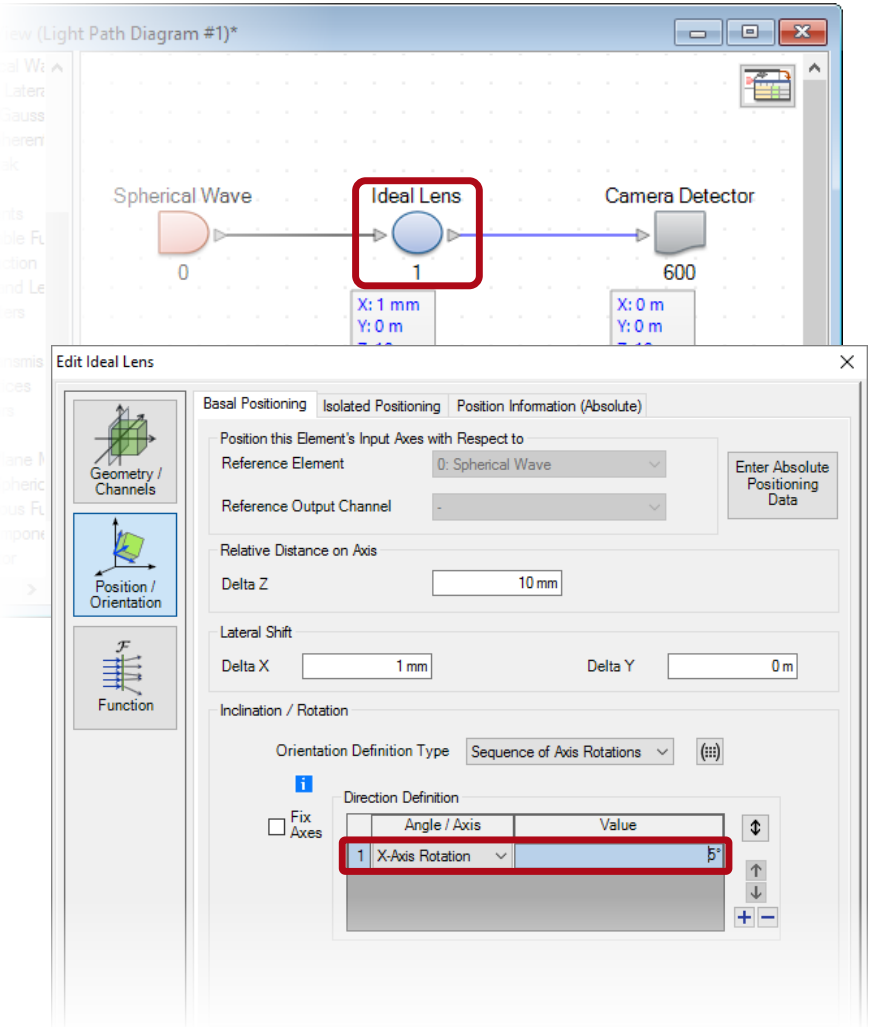
Basal Position Display

- Off-axis situation
  - Click on the position tab below the Ideal Lens, and give a 2mm shift along x-axis.
  - Then, a small axes icon is displayed alongside the z-position value, which indicates extra position information other than that in z-direction.
  - Switch back to full 3D position, the small icon disappears.



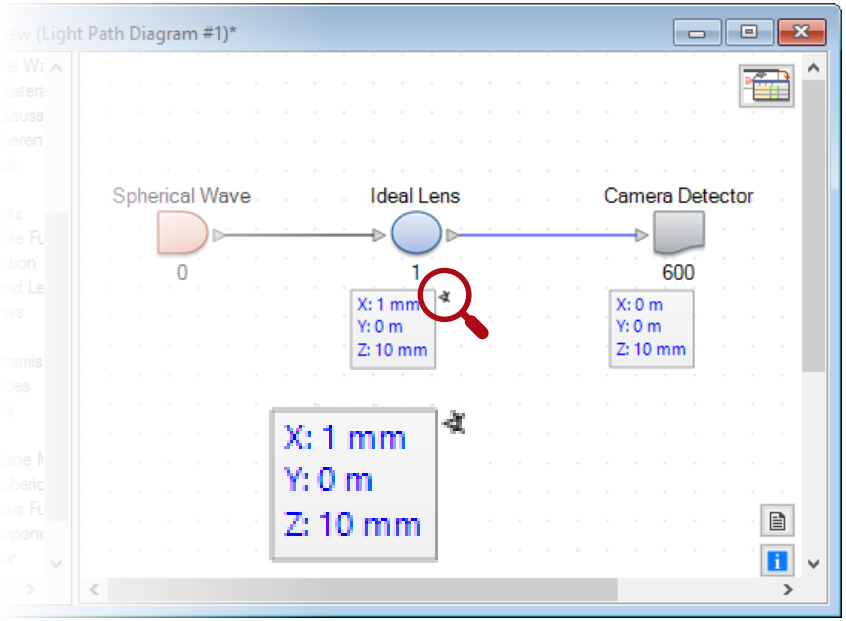
Basal Orientation Display

- Tilted Component
  - Enter the edit window of the Ideal Lens, in the Position/Orientation tab, we set a rotation of 5° around x-axis.



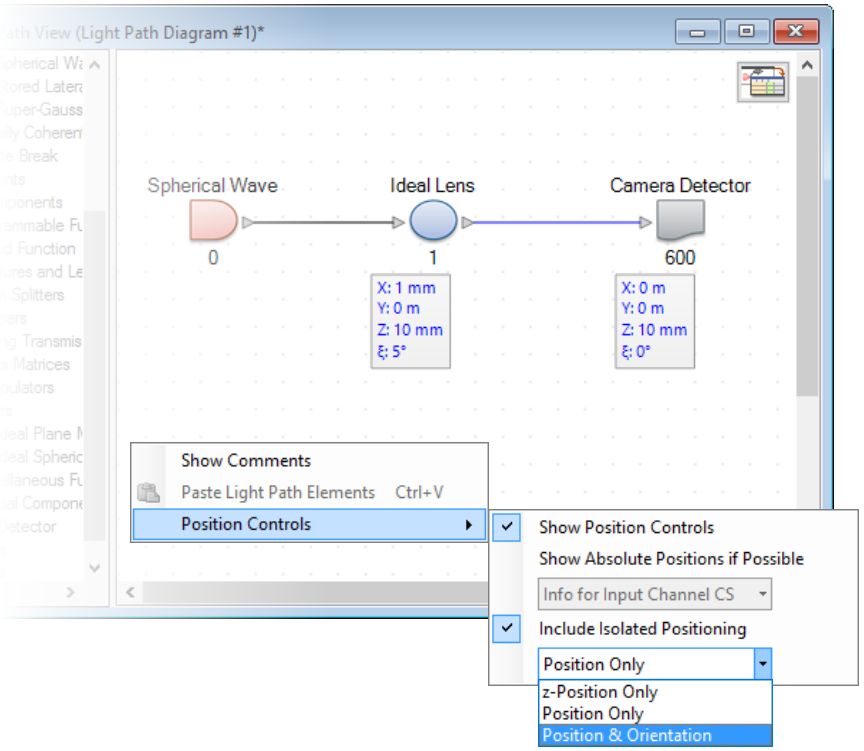
Basal Orientation Display

- Tilted Component
  - Enter the edit window of the Ideal Lens, in the Position/Orientation tab, we set a rotation of 5° around x-axis.
  - Then, a small “rotation” icon appears alongside the position tab of the Ideal Lens.



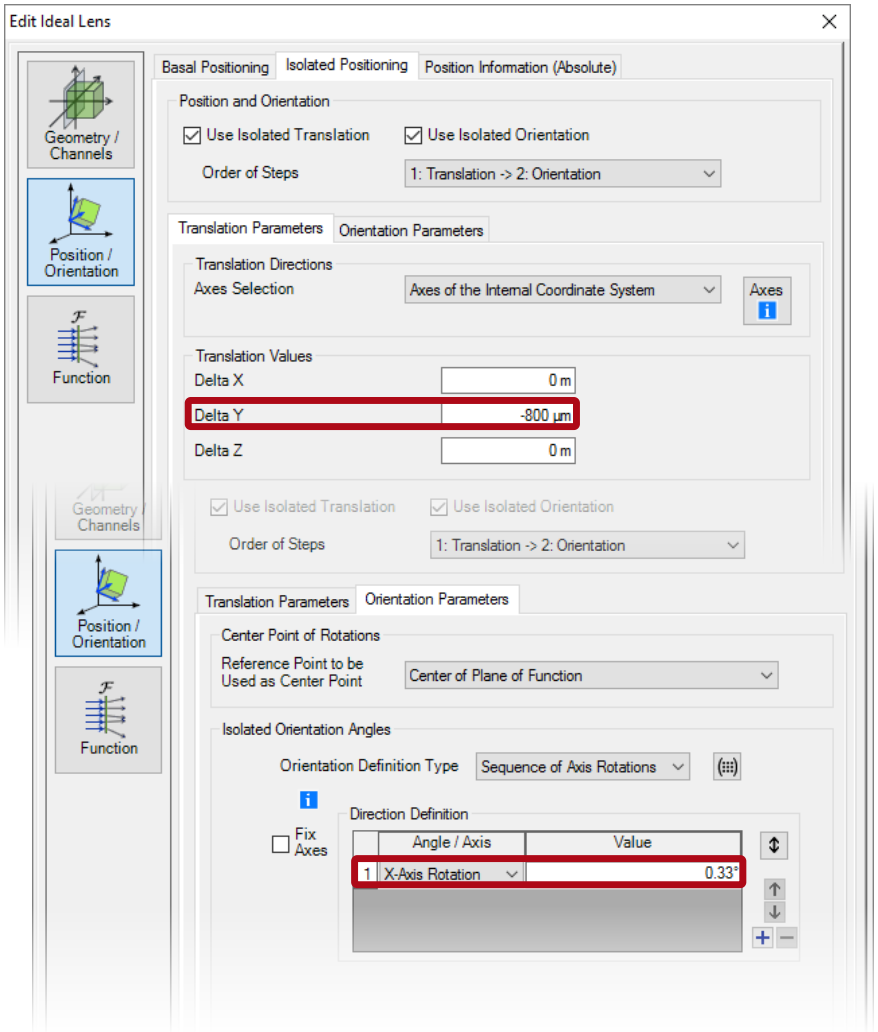
Basal Orientation Display

- Tilted Component
  - Enter the edit window of the Ideal Lens, in the Position/Orientation tab, we set a rotation of 5° around x-axis.
  - Then, a small “rotation” icon appears alongside the position tab of the Ideal Lens.
  - In Position Controls, we switch to Position & Orientation, then the small icon disappears and full information shows up.



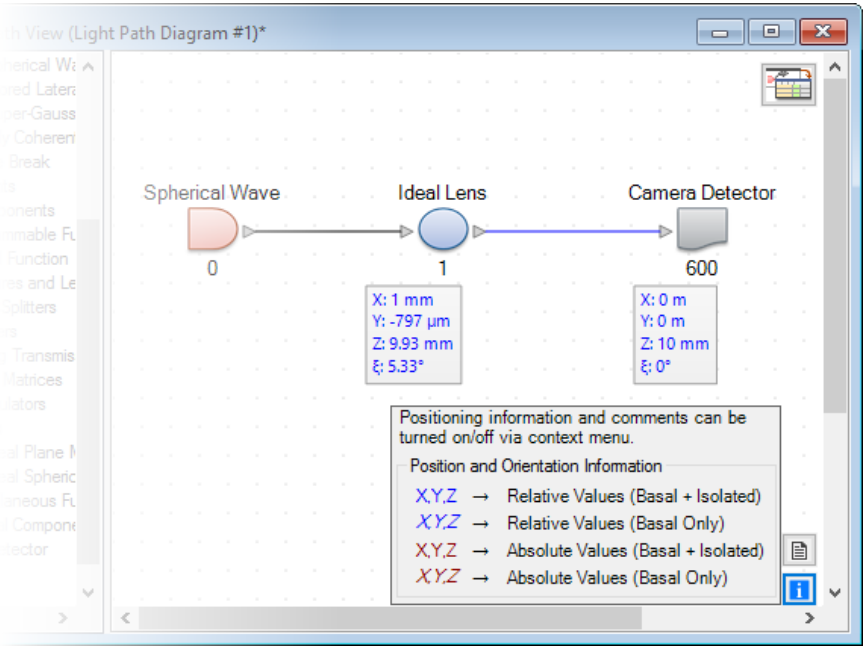
Isolated Position and Orientation

- Basal + Isolated
  - In addition to basal position/orientation, it is often useful to set up additional isolated ones for the purpose of e.g. tolerancing.
  - Under Isolated Positioning tab, we set a translation *Delta Y* equal to -800 µm, and a *X-Axis Rotation* of 0.33°.



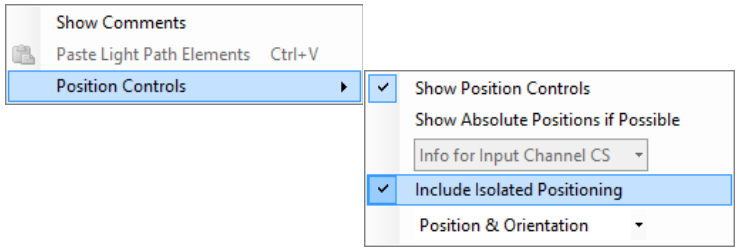
Isolated Position and Orientation

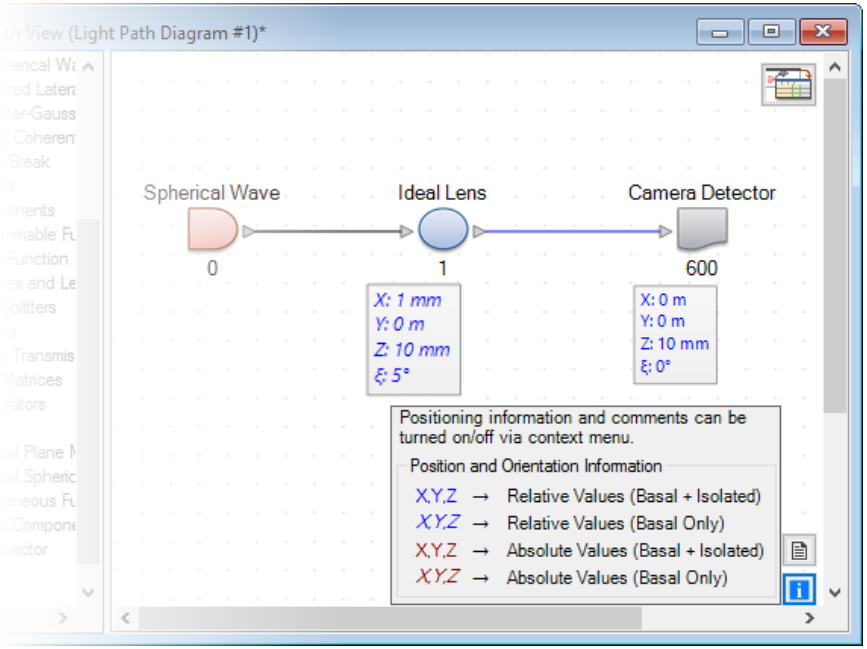
- Basal + Isolated
  - In addition to basal position/orientation, it is often useful to set up additional isolated ones for the purpose of e.g. tolerancing.
  - Under Isolated Positioning tab, we set a translation Delta Y equal to -800 µm, and a rotation of 0.33° along x-axis.
  - Then, the combined effects will be displayed.



Isolated Position and Orientation

- Basal + Isolated
  - For the display, it is possible to switch off the influence from isolated position by uncheck the option *Include Isolated Position*.
  - Then, VirutalLab displays the position information of the ideal lens in italic, to indicate Basal Only.





Document & Technical Info

code	Feature.0012
version of document	1.0
title	Position and Orientation Information Display Control
category	Tools & Handling
author	Site Zhang (LightTrans)
used VL version	7.0.0.35
last modified on	August 22, 2017