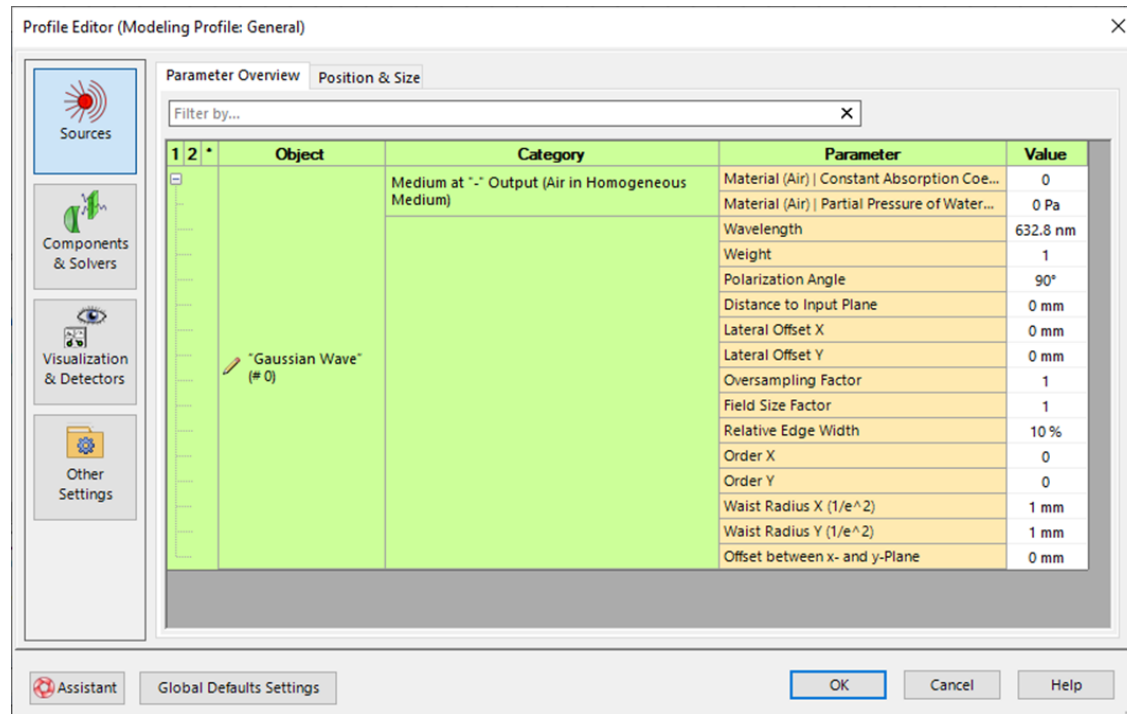


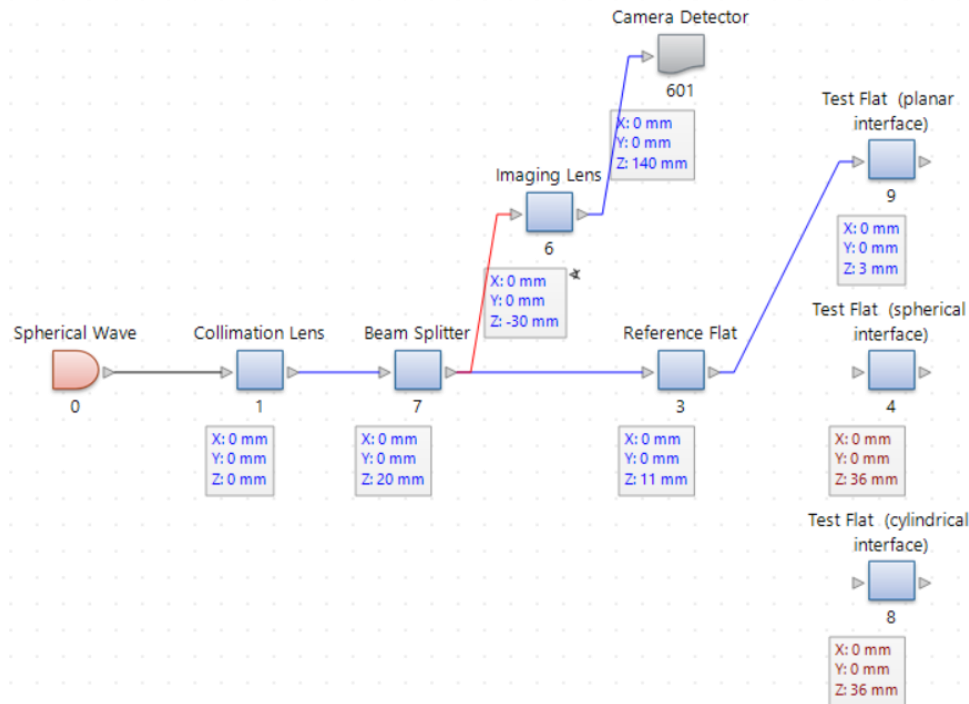
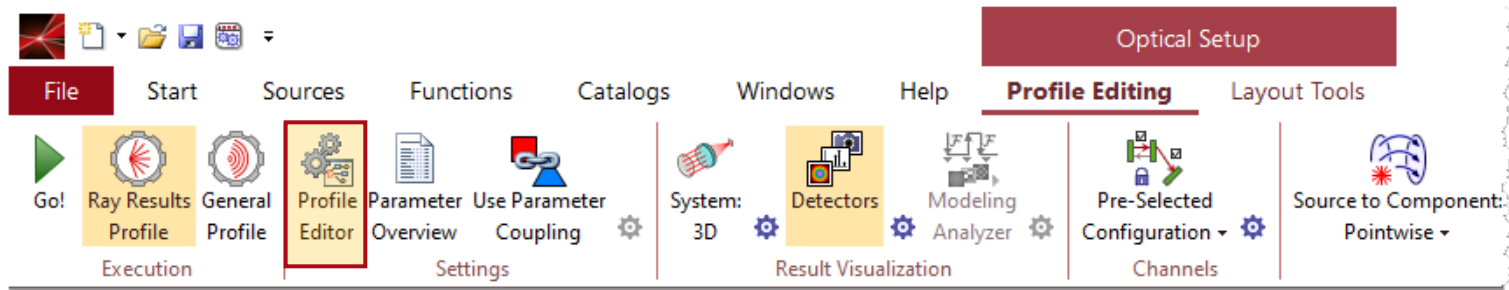
# Profile Editor

# Abstract



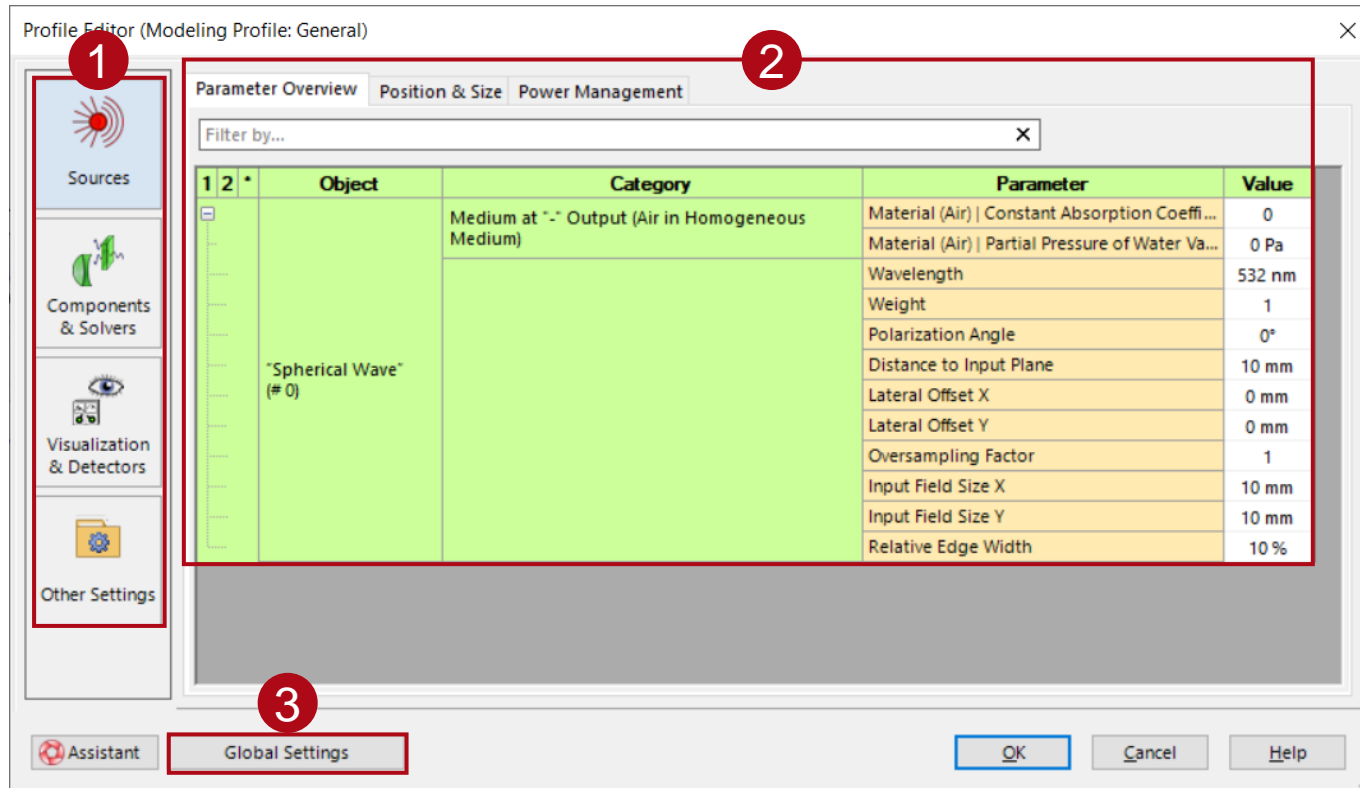
A complete optical simulation system usually contains many component parameters. With the new profile editor, the user can globally view and edit all parameters in the system, including simulation engine, algorithm, and other settings, which greatly improves the efficiency of the simulation. In this document, we introduce how to access the profile editor and instructions of parameter settings.

# Where to Find It



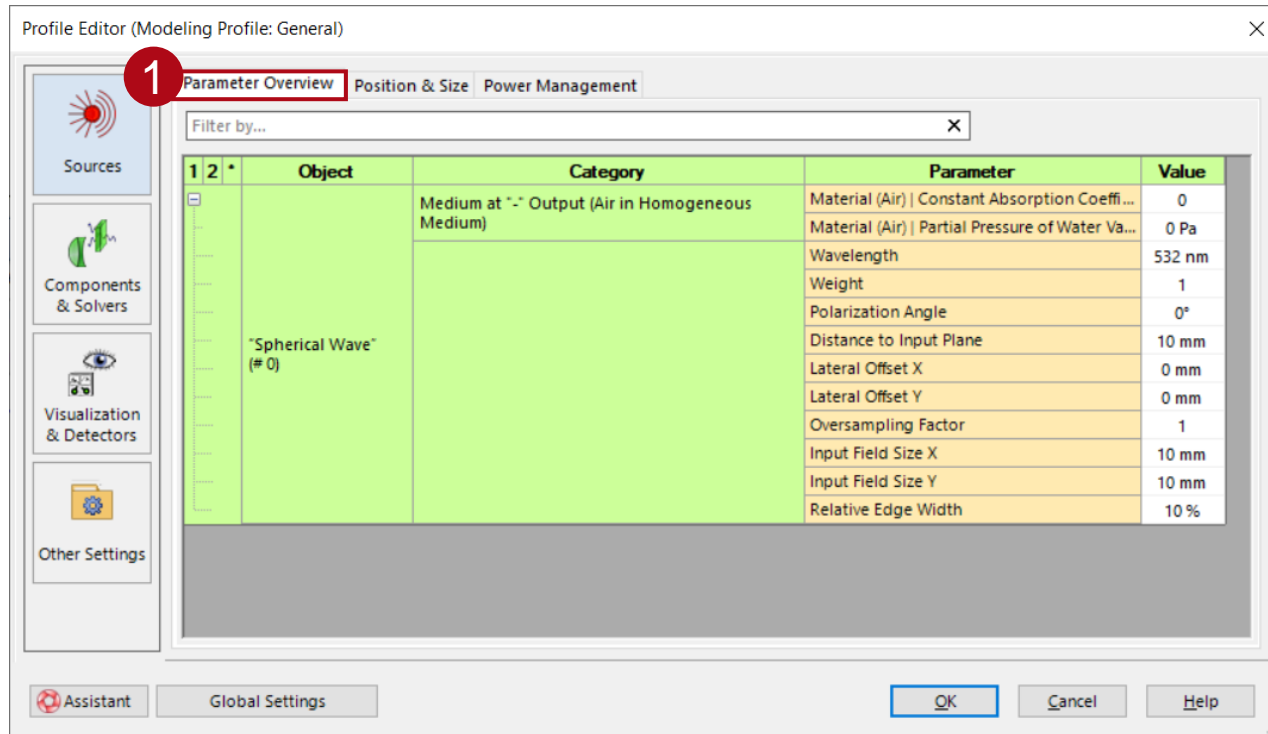
For an optical setup, the *Profile Editor* can be found in the *Profile Editing & Run* tab.

# Overview of the Profile Editor

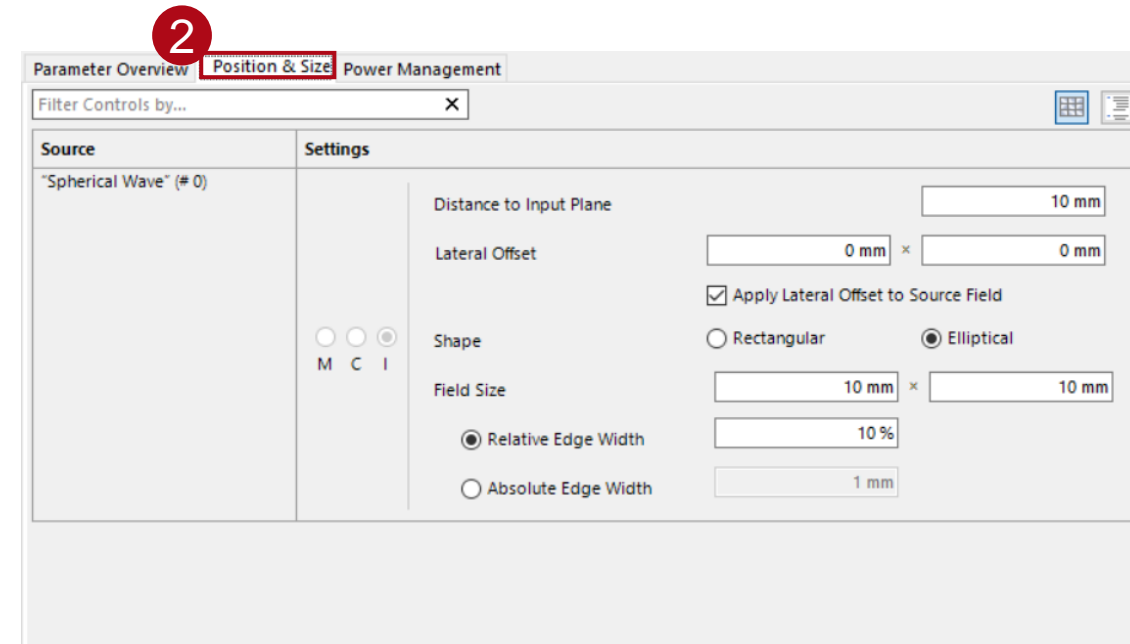


- The *Profile Editor* allows you to control all the parameters of the optical system, grouped by *Sources*, *Components & Solvers*, *Visualization & Detectors* and *Other Settings*, in a single window.
- The content corresponding to each category is shown in the right part of the window.

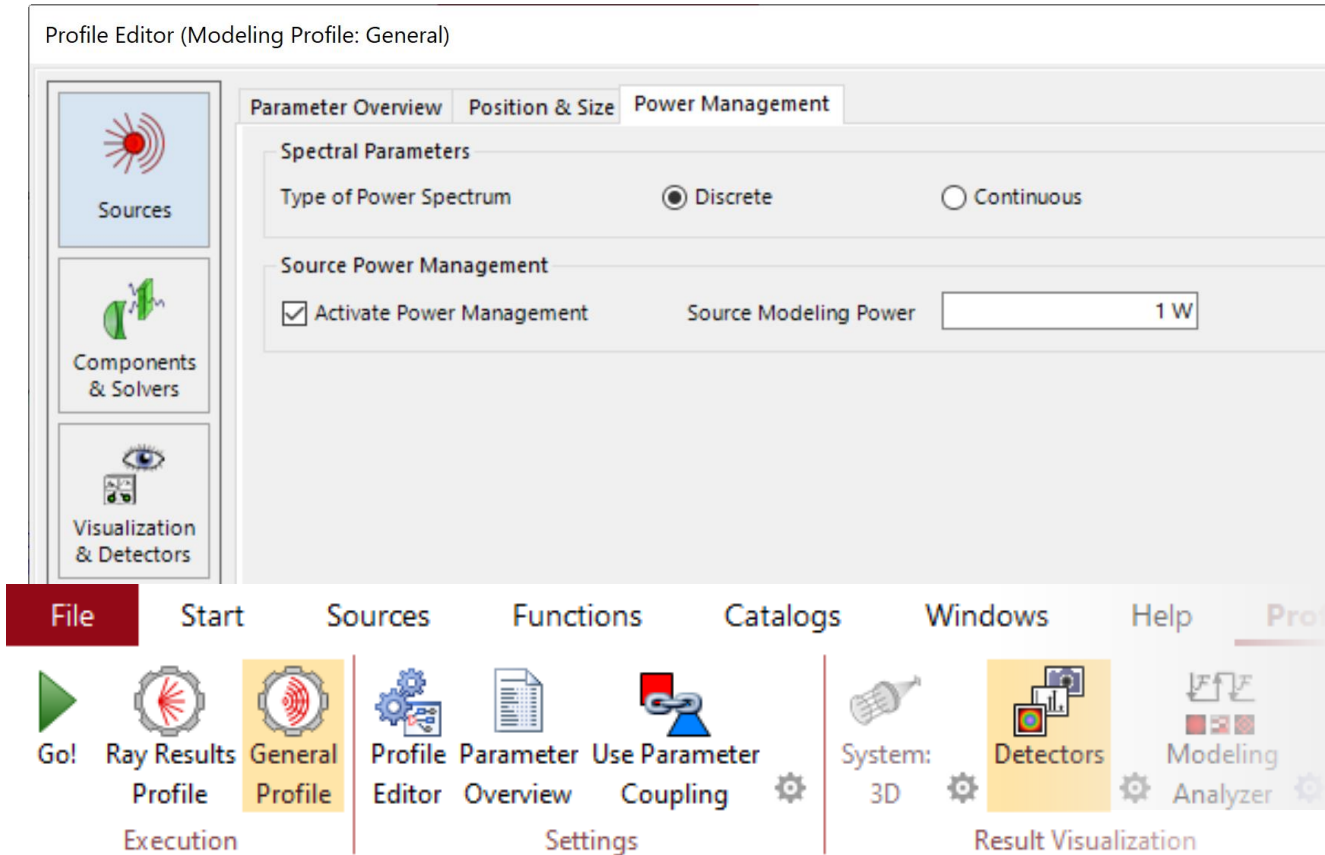
# Sources



- In the *Parameter Overview*, all parameters of the active source in the optical system are listed and can be controlled.
- The position and size of the sources can (alternatively also) be adjusted in the *Position & Size* tab.

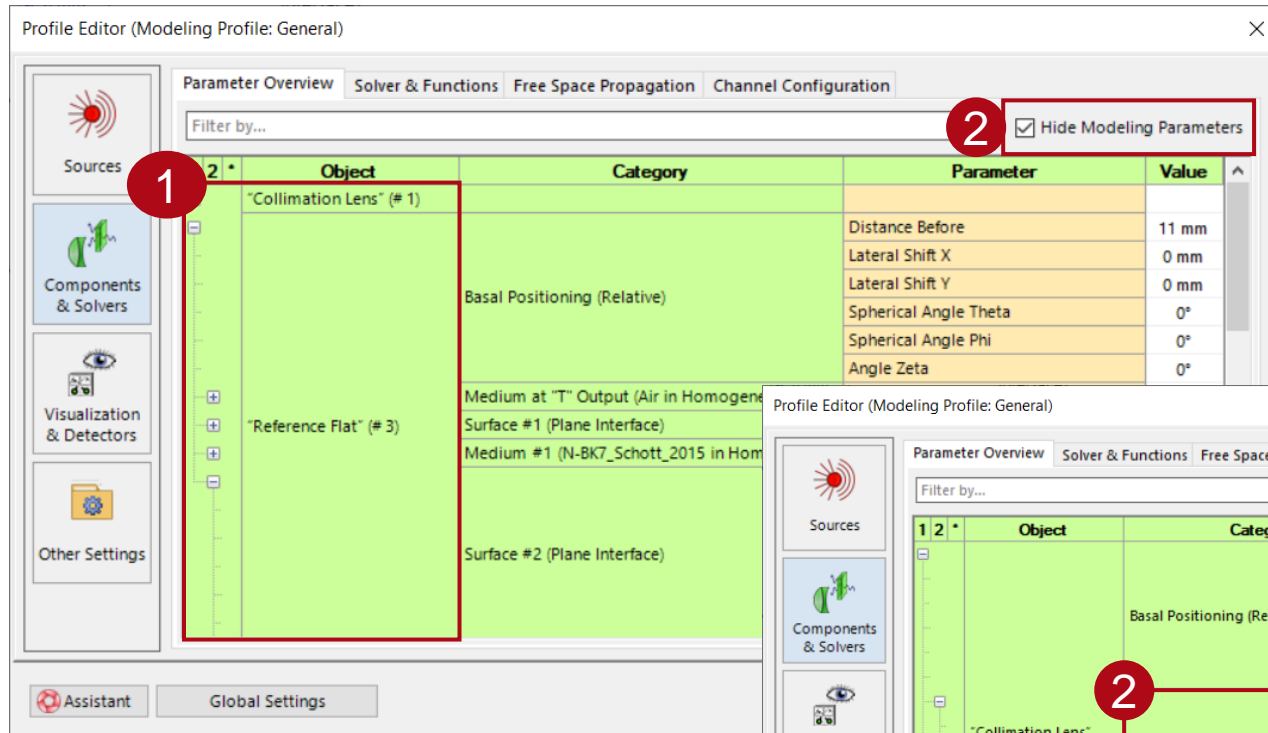


# Power Management

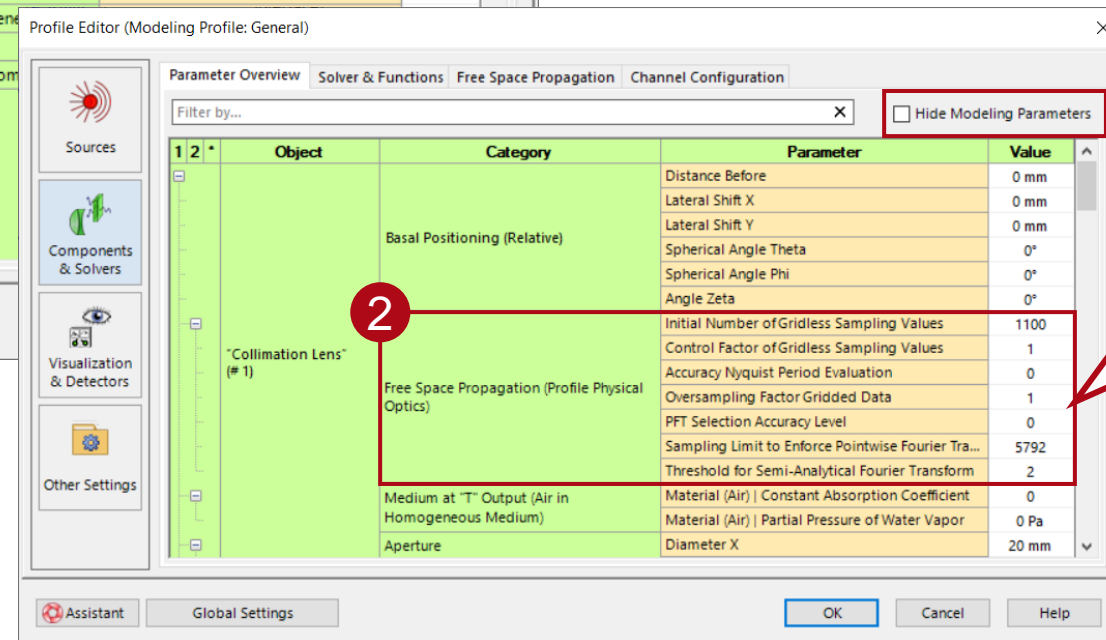


- When the *General Profile* is active for the Optical Setup in question, an additional tab can be accessed in the *Profile Editor*.
- This tab allows further customization of source characteristics regarding energy.
- If the source is polychromatic, it is important to define whether the samples of the wavelength spectrum in the simulation represent a discrete or a continuous spectrum in physical reality, since this affects the integration upon which the power distribution of the source is based.
- Finally, the overall power carried by the source light can be specified. In this case the radiant flux (in k-domain) will be calculated directly after the source. From this information a factor is determined that is then multiplied onto the field for the source to achieve the power configured by the user.

# Components & Solvers – Parameters

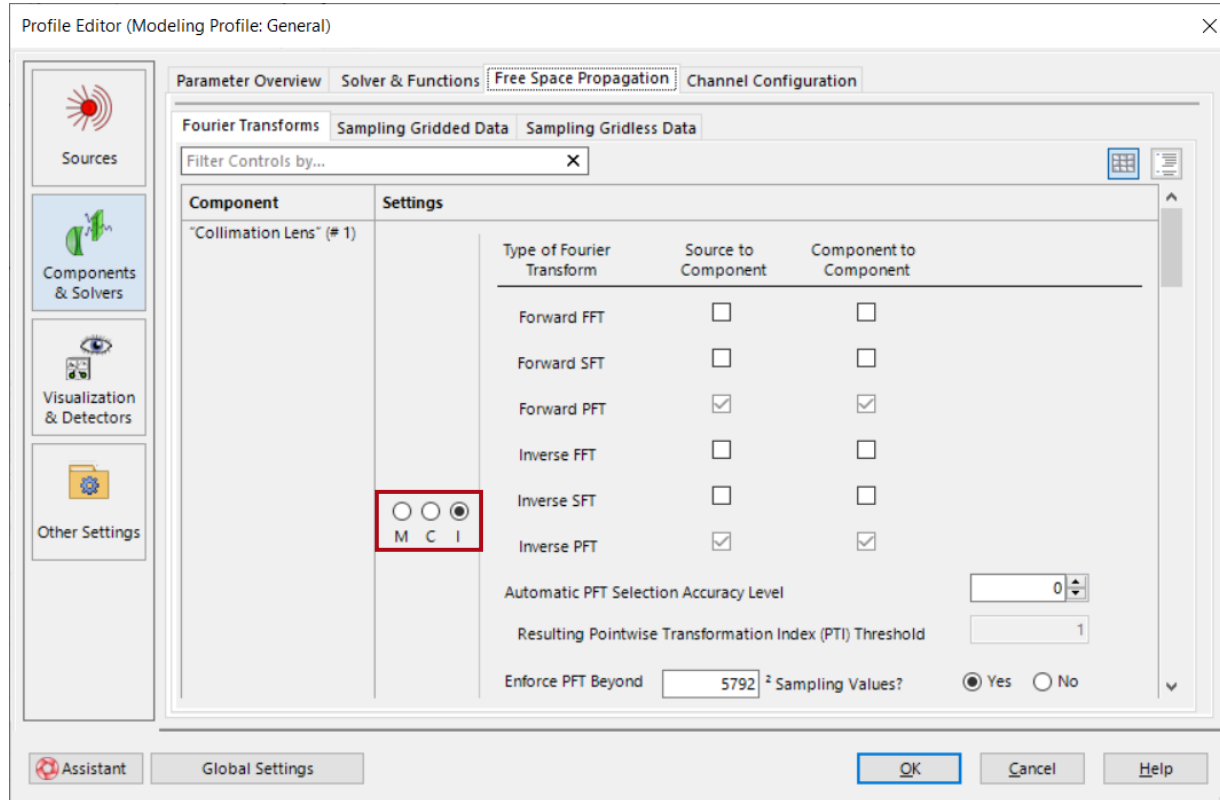


- All components that are linked in the optical setup are listed on this page, by clicking '+' and '-', the corresponding parameters can be shown or hidden for a better view.
- If *Hide Modeling Parameters* is unchecked, the settings of propagation parameters can be seen and edited as well.



The default values of the propagation parameters will often provide a satisfactory result, but it is always possible to adjust them in specific simulations should the need arise.

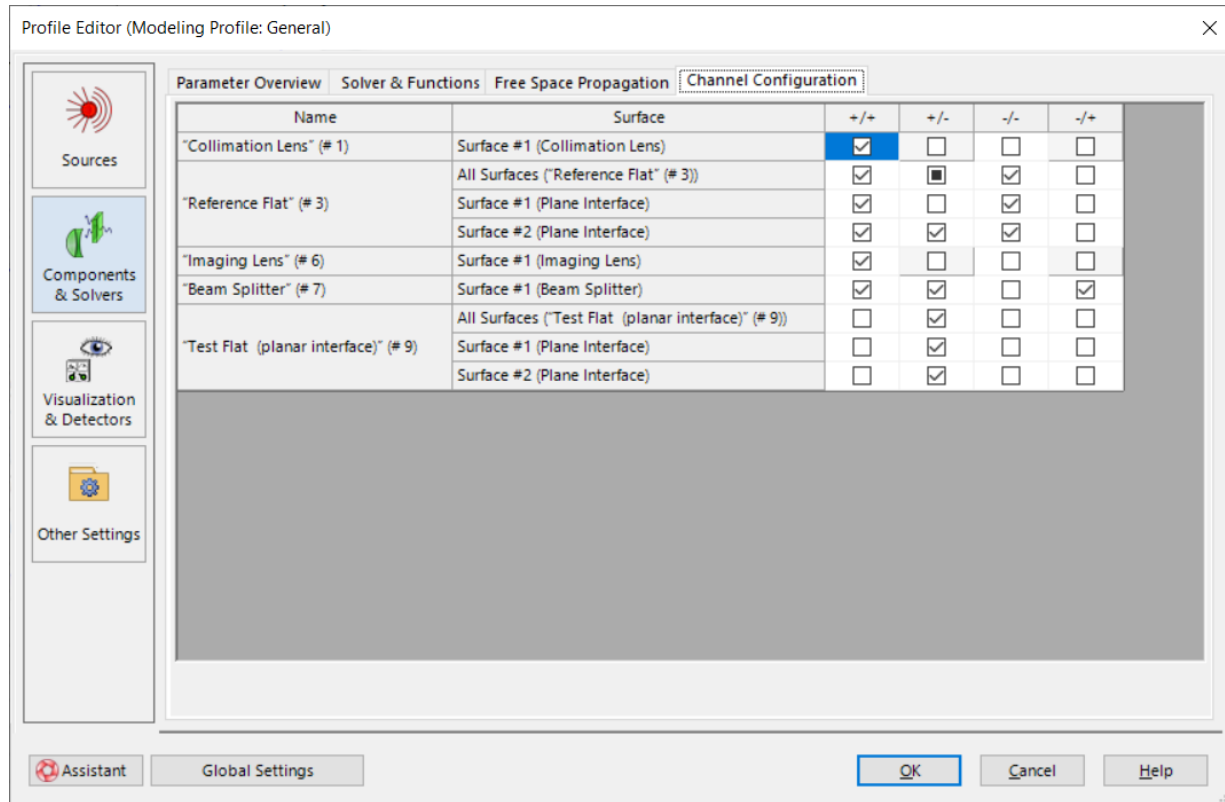
# Components & Solvers – Free Space Propagation



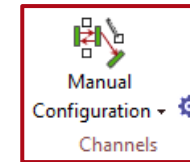
*M*, *C*, and *I* stand for *Master*, *Client*, and *Individual*, respectively. *Master* means that the current settings of the component in question will be taken as the reference for all other components in the system that are set to *C* (*Client*) mode. When the settings of the *Master* are updated by the user, so are automatically those of any *Client*. Naturally, the settings of any components configured as *I* (*Individual*) will be independent from all the others.



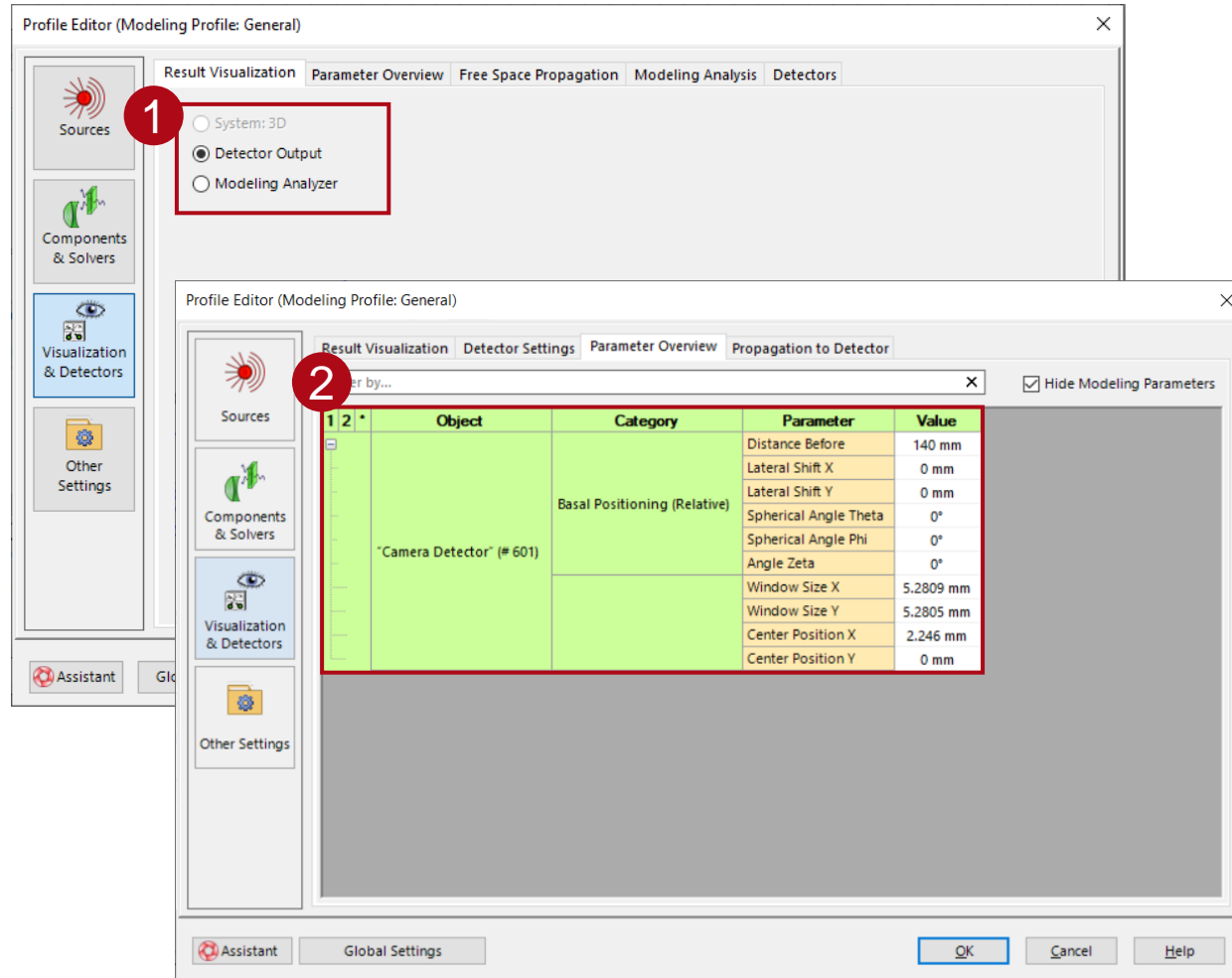
# Components & Solvers – Channel Configuration



Channels are editable when the *Channel Configuration Option* of the Optical Setup is *Manual Configuration*.

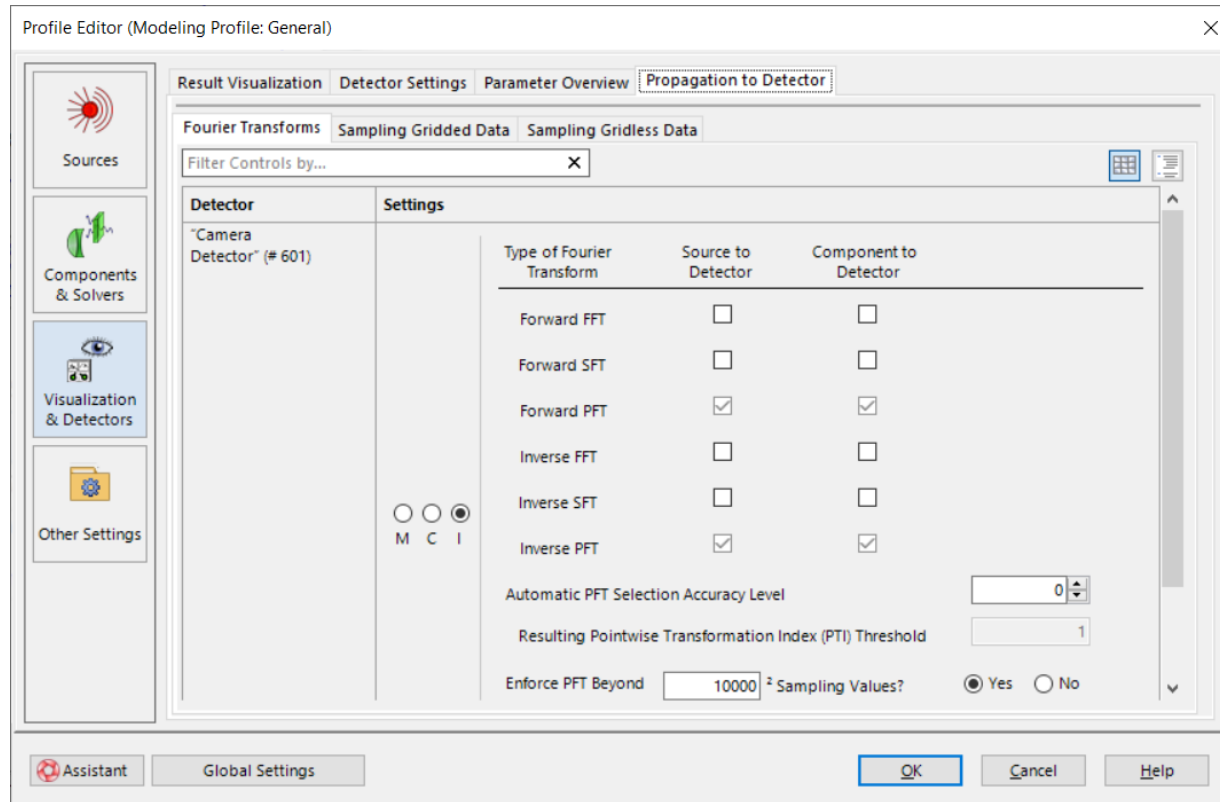


# Visualization & Detectors – Parameters



- In the *Result Visualization* tab, the user can select whether to output the result of the detectors or the result of the *Modeling Analyzer*.
- The parameters of the active detectors are editable in the *Parameter Overview* tab.

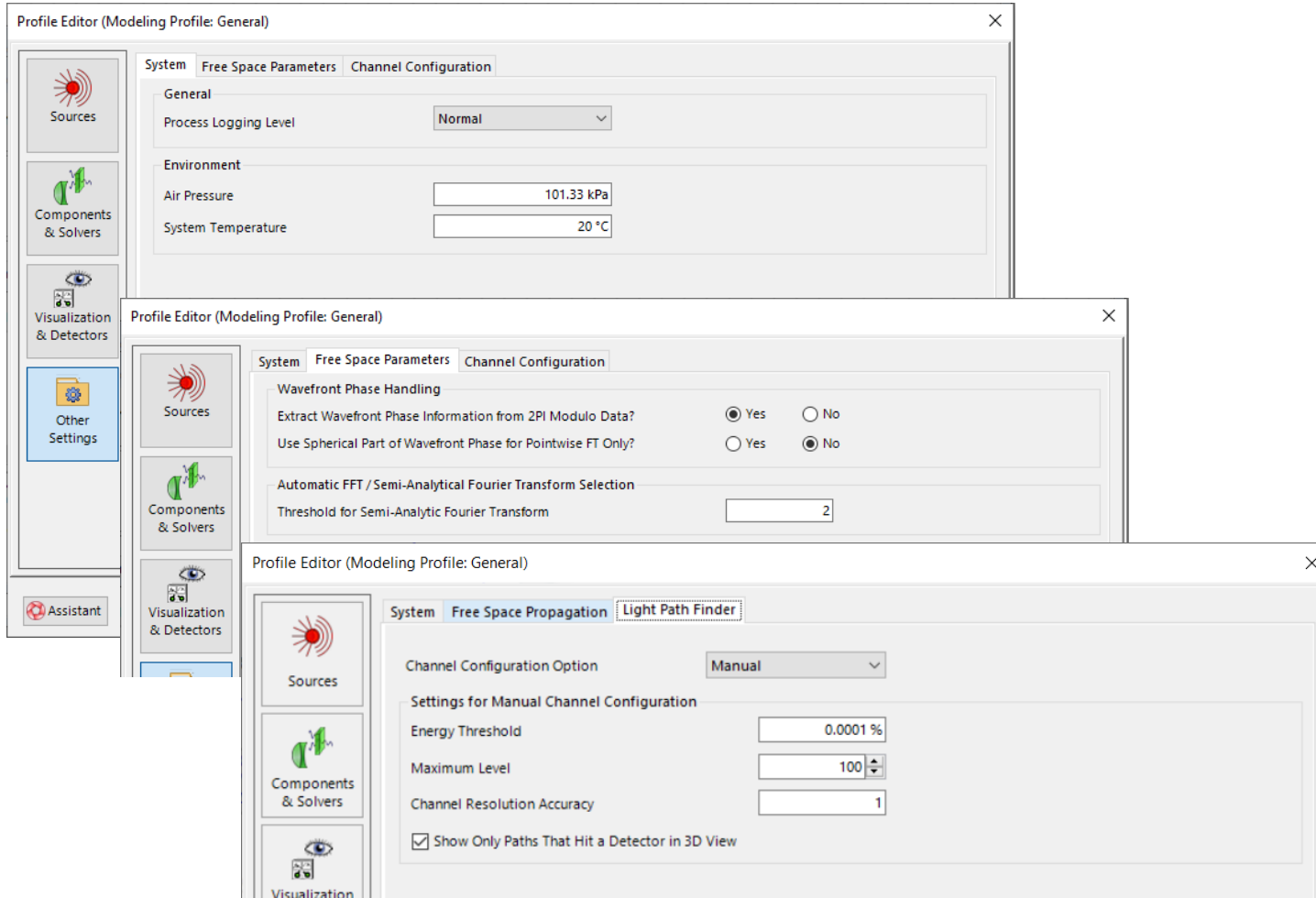
# Visualization & Detectors – Free Space Propagation



The tab *Free Space Propagation* for *Visualization & Detectors* operates identically to its counterpart in the tab *Components & Solvers*.

The possibility to mark detectors as *Master*, *Client*, or *Individual* is also included here, although it will function independently from the components (meaning that there can be one *Master* component, from which all *Client* components will take their configuration, and one *Master* detector, from which all *Client* detectors will take their configuration).

# Other Settings



General system parameters like temperature and pressure can be set under *Other Settings* in the *Profile Editor*. It is also possible to define software-related toggles like the *Process Logging Level*.

In case of using the *Manual Channel Configuration*, the tab *Channel Configuration* allows for the customization of simulation settings that control how accurately the *Light Path Finder* will analyze the system.

[Light Path Finder](#)

# Document Information

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title	Profile Editor
document code	SWF.0010
document version	1.0
software edition	VirtualLab Fusion Basic
software version	2022.1 (Build 1.522)
category	Feature Use Case
further reading	<ul style="list-style-type: none"><li>• <a href="#"><u>Configuring Your Simulation in VirtualLab Fusion</u></a></li></ul>