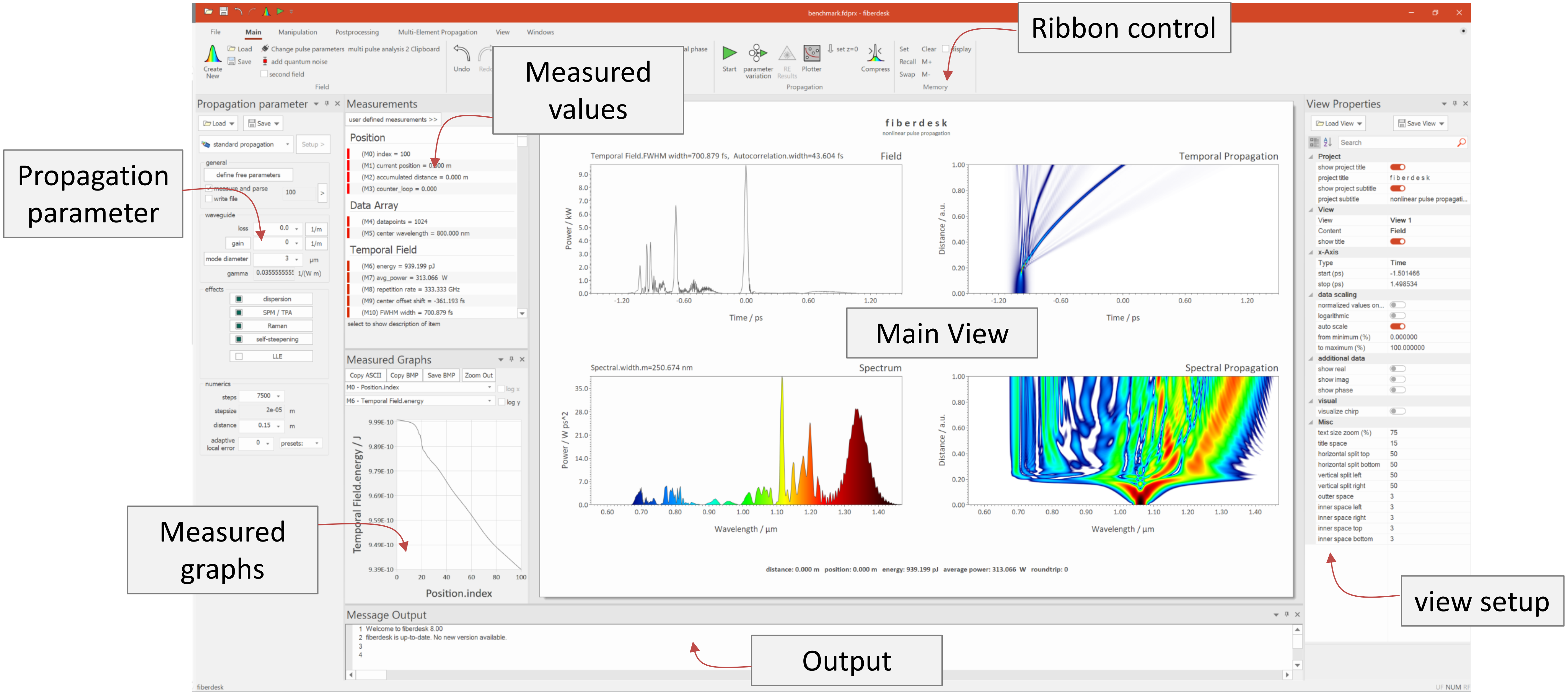
fiberdesk

nonlinear pulse propagation

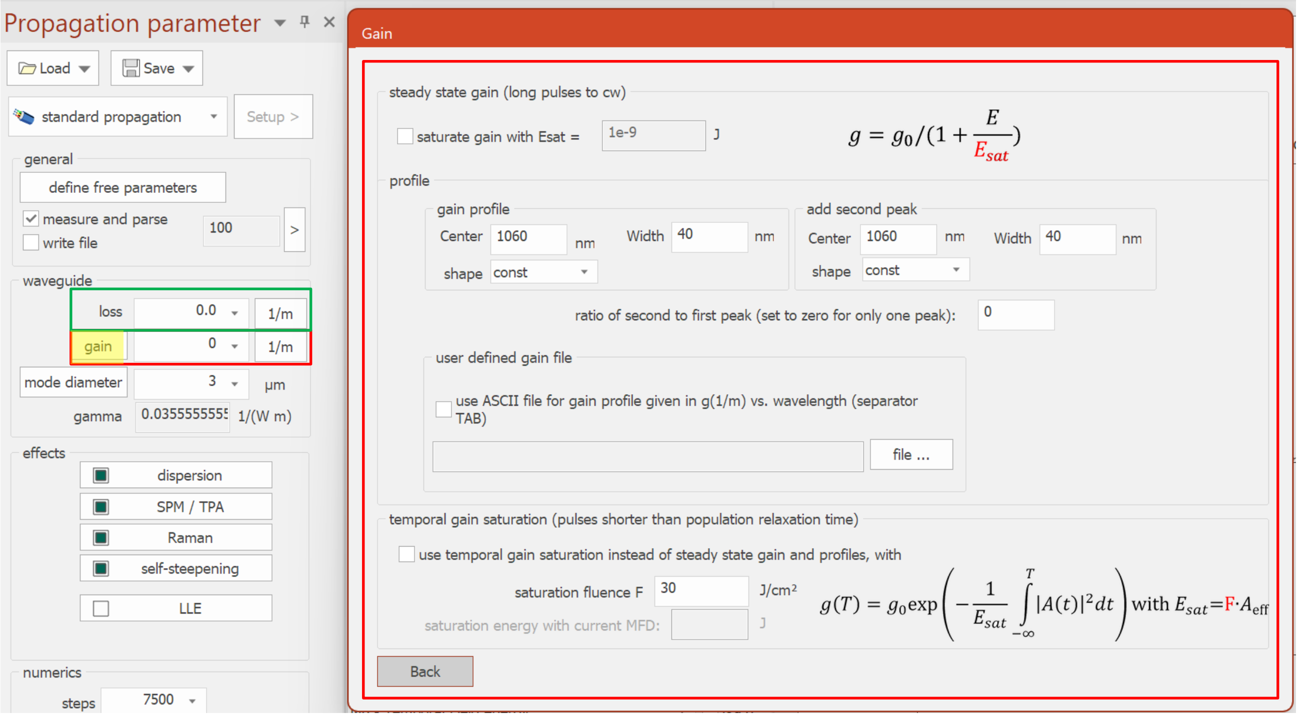
fiberdesk – graphical user interface (GUI)



fiberdesk – NLSE parameter setup

Parameter access in detail:

$$\frac{\partial A}{\partial z} = \boxed{-\frac{\alpha}{2}A} + \boxed{\int_{-\infty}^{\infty}\frac{g(\omega)}{2}\tilde{A}(\omega)e^{-i\omega T}d\omega} + \sum_{n\geq1}\beta_n\frac{i^{n+1}}{n!}\frac{\partial^n}{\partial T^n}A + i\gamma\cdot\left(1+i\tau_{shock}\frac{\partial}{\partial T}\right)\left(A(T)\int_{-\infty}^{\infty}R(\tau)\left|A(T-\tau)\right|^2 d\tau\right)$$



fiberdesk – NLSE parameter setup

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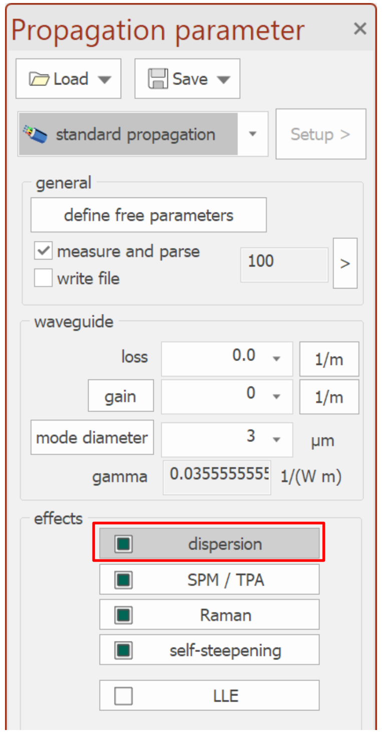
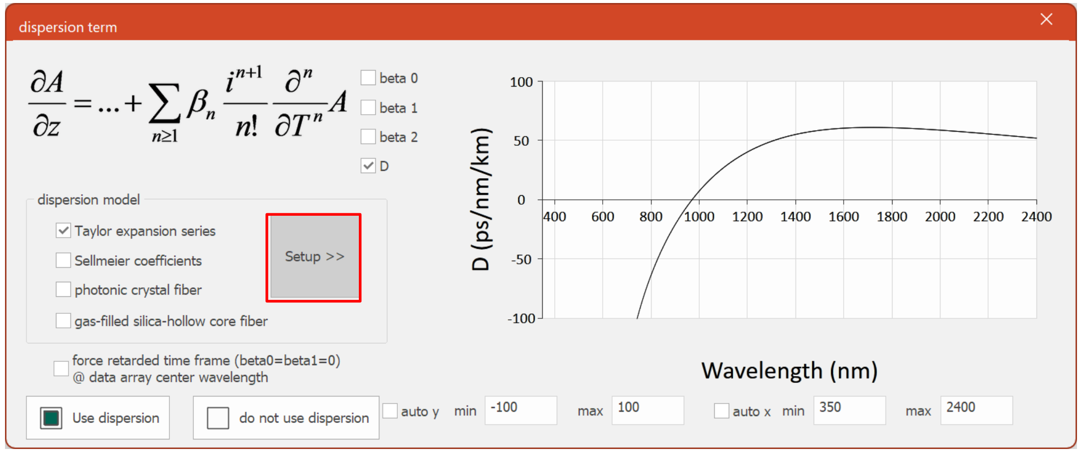
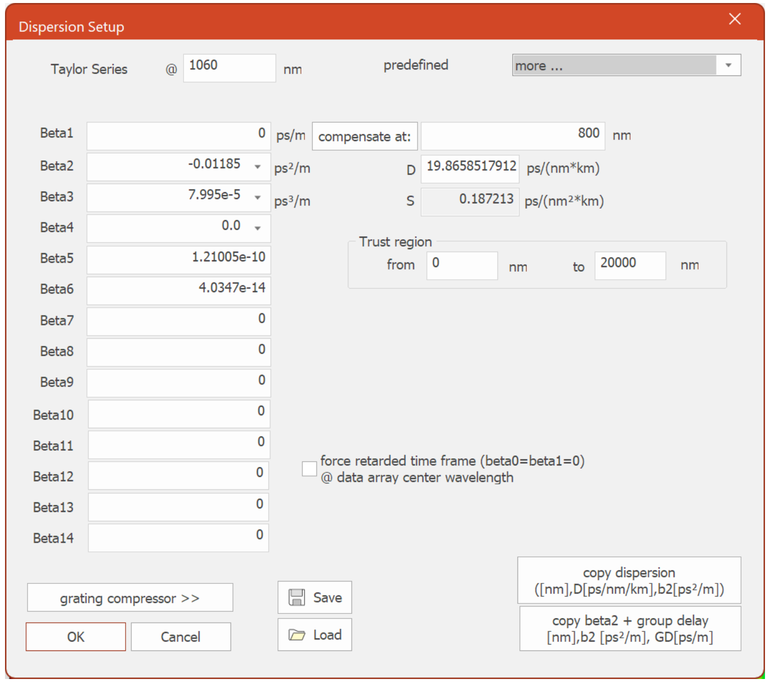
$$\frac{\partial A}{\partial z} = -\frac{\alpha}{2}A + \int_{-\infty}^{\infty} \frac{g(\omega)}{2}\tilde{A}(\omega)e^{-i\omega T}d\omega + \boxed{\sum_{n\geq 1}\beta_n \frac{i^{n+1}}{n!}\frac{\partial^n}{\partial T^n}A} + i\gamma\cdot\left(1 + i\tau_{shock}\frac{\partial}{\partial T}\right)\left(A(T)\int_{-\infty}^{\infty}R(\tau)\left|A(T-\tau)\right|^2 d\tau\right)$$

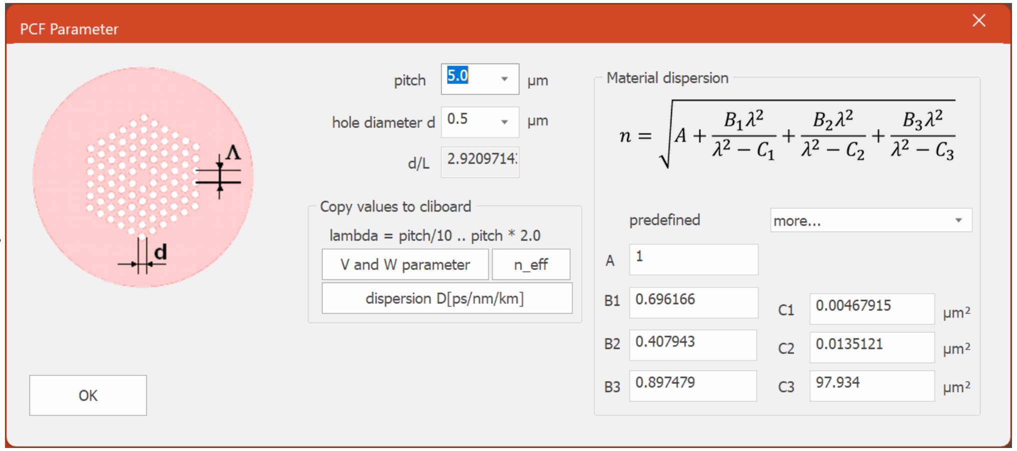




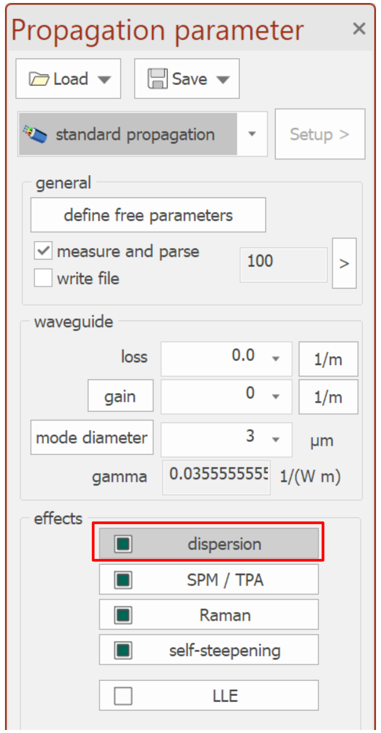


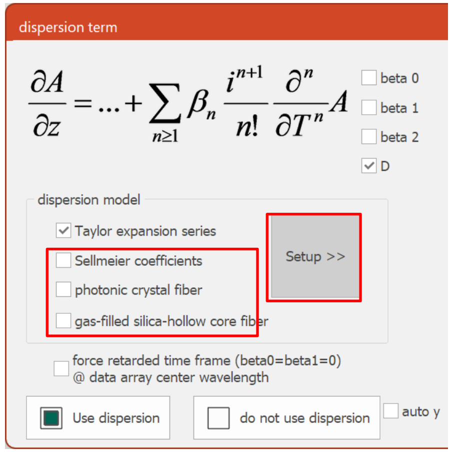
fiberdesk – NLSE parameter setup

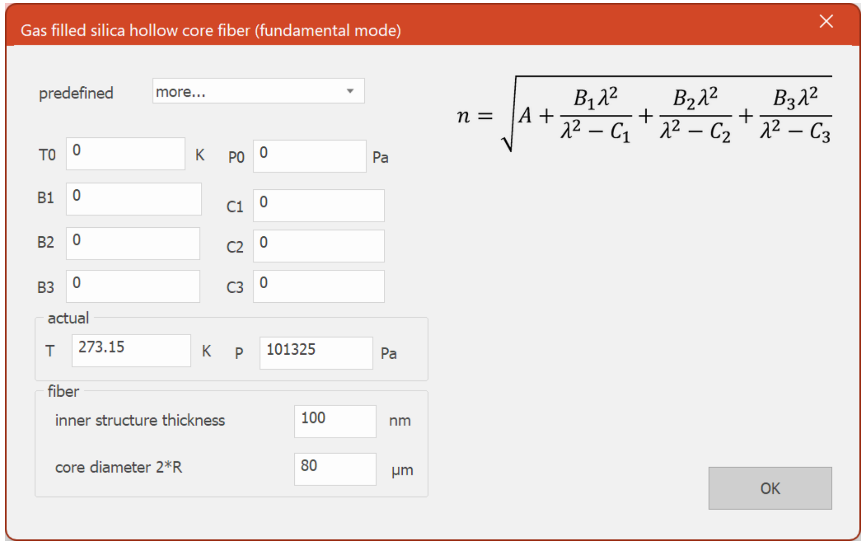
Parameter access in detail:

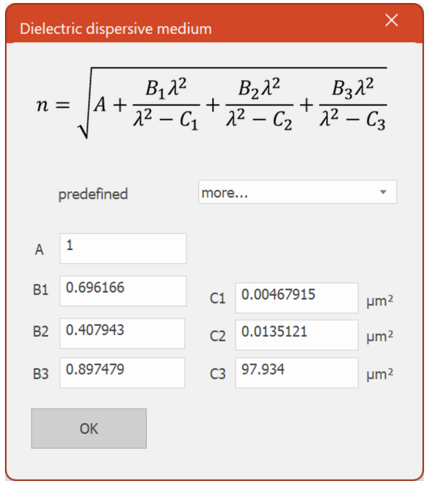


$$\frac{\partial A}{\partial z} = -\frac{\alpha}{2}A + \int_{-\infty}^{\infty} \frac{g(\omega)}{2}\tilde{A}(\omega)e^{-i\omega T}d\omega + \boxed{\sum_{n\geq 1}\beta_n \frac{i^{n+1}}{n!}\frac{\partial^n}{\partial T^n}A} + $$









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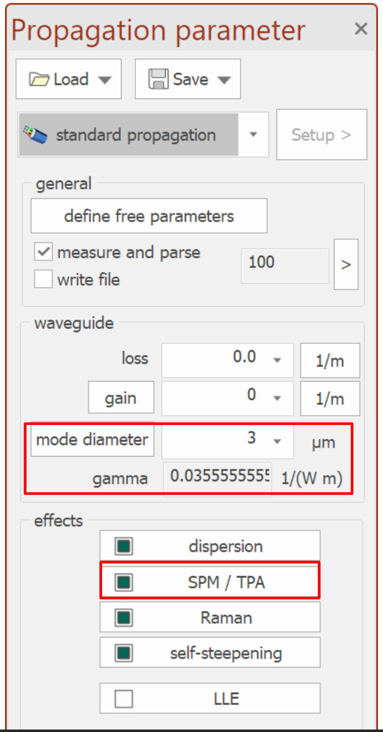

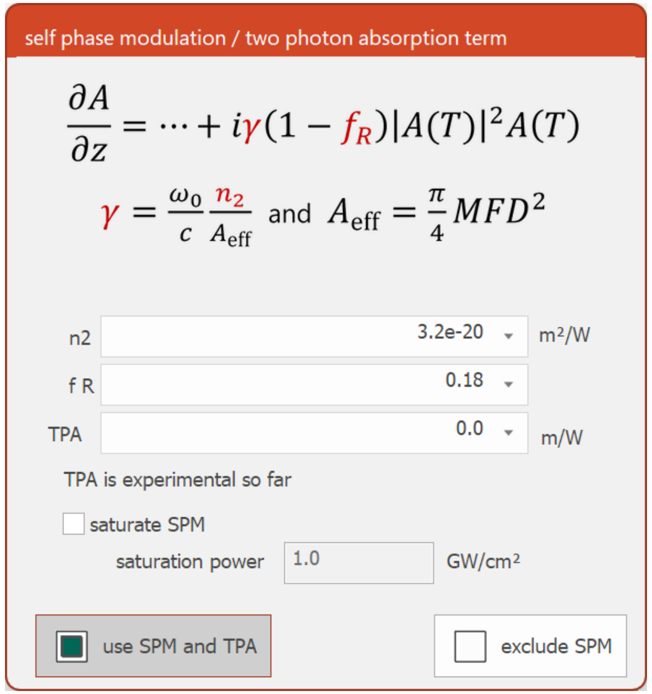

fiberdesk – NLSE parameter setup

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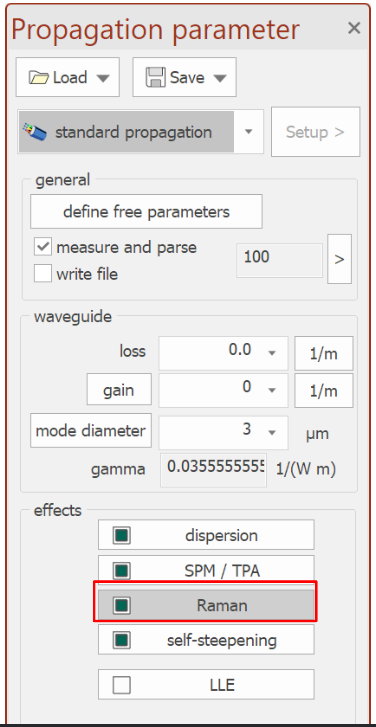

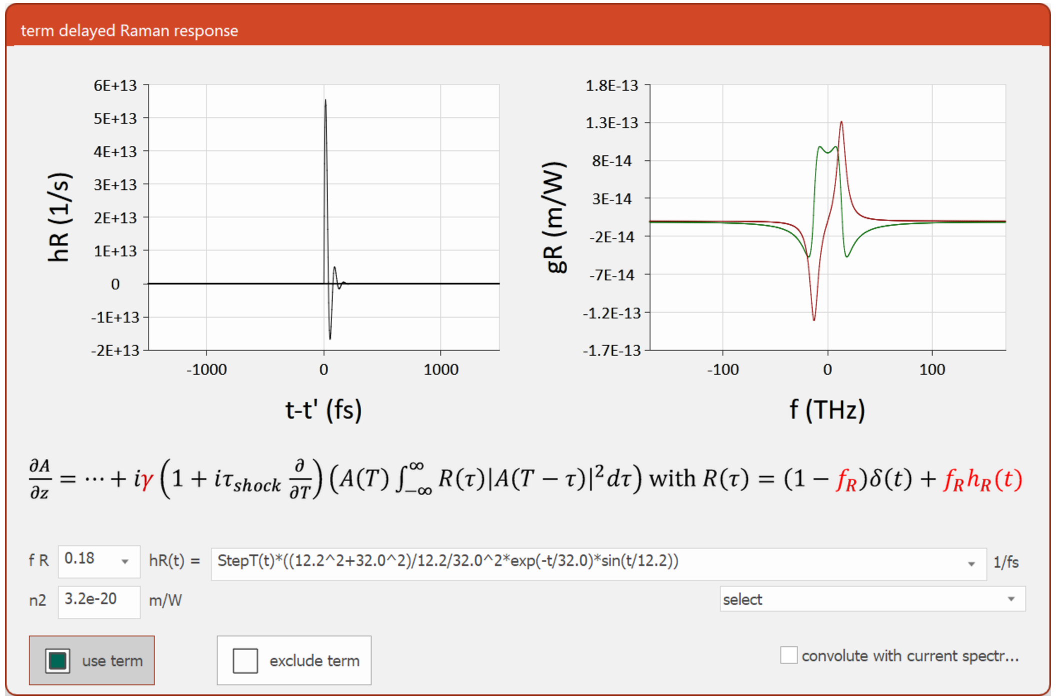

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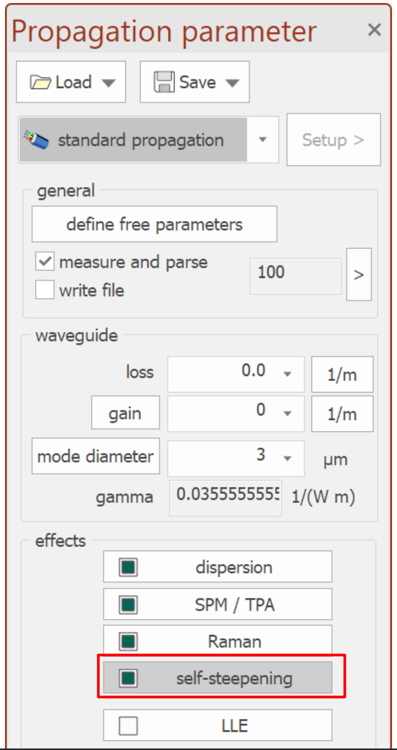
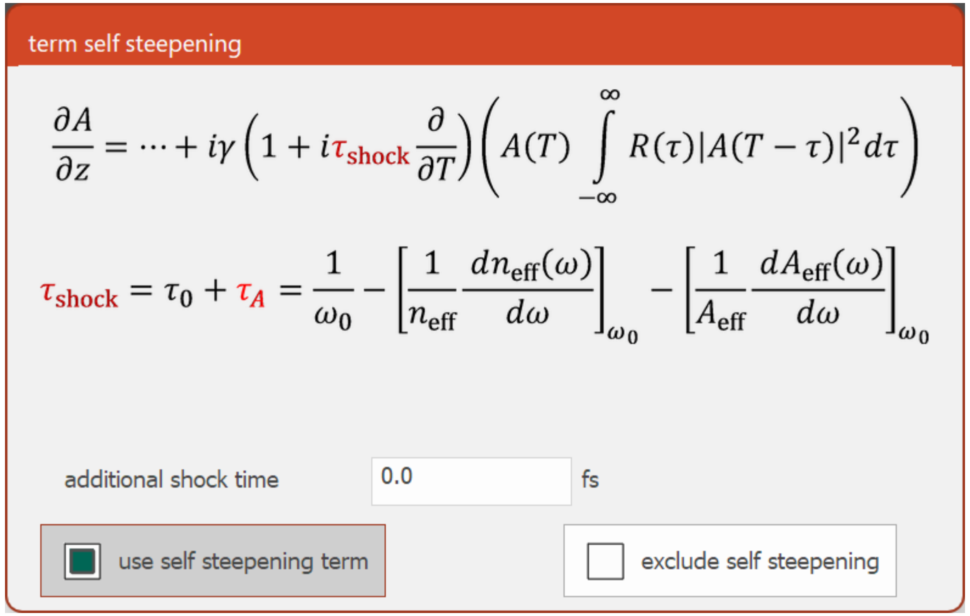
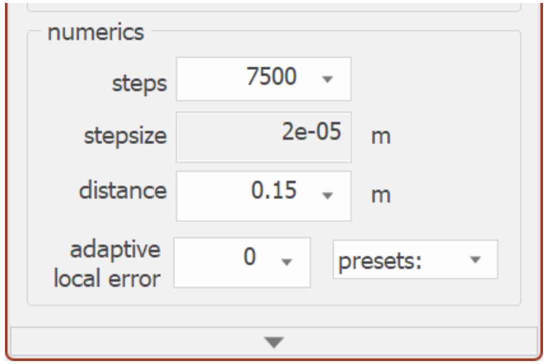




fiberdesk – NLSE parameter setup

Propagation setup:distance, stepsize, numercial accuracy etc.



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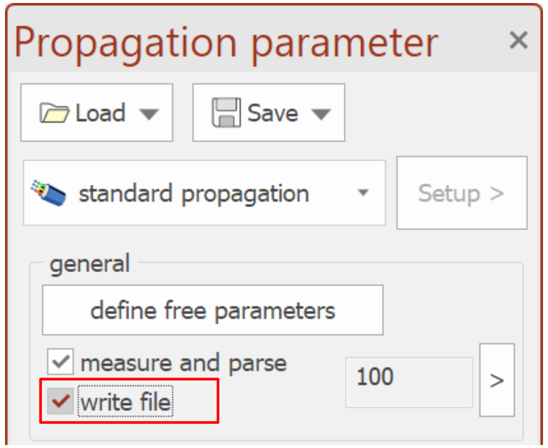

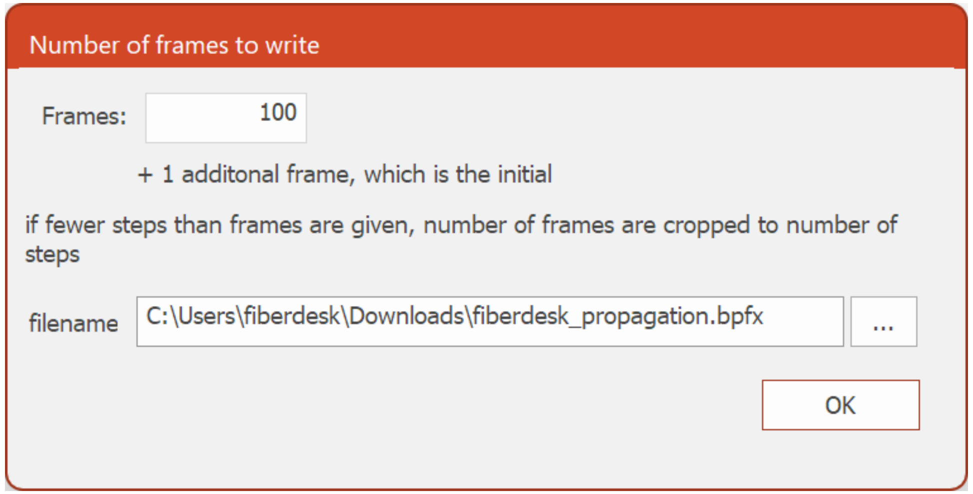

file contains the initial field plus 100 fields from the calculated propagation for later analysis

file extension: ***.bpfx**