

Feature	legacy products				current version	future version
	demo version	fiberdesk 4 (5 lite)	fiberdesk 5	fiberdesk 6	fiberdesk 7	
General						
scriptable parameters with access to math functions, measurements and other parameters	○	○	●	●	●	
parameter variation	○	●	●	●	●	
scripting of parameter input and results in parameter variation	○	○	●	●	●	
parameter variation in multi-element propagation	○	○	●	●	●	
multi-selection elements for variation	○	○	○	●	●	
advanced functions for scripting (derivation, ratio between propagation steps etc)	○	○	○		●	
python scripts for dispersion and cross section fitting	○	○	○	○	●	
advanced plotting	○	○	○	○	●	
advanced field manipulation	○	○	○	○	●	
multicore fiber (SDM, shared cores, core coupling etc)	○	○	○	○	○	in development
File format						
binary files for field and propagation parameter	○	●	●	●	○	
XML based file for whole project and individual for propagation, view, dialogs etc	○	●	●	●	●	
python examples to load and process propagation files	○	●	●	●	●	
Numerical features						
scalar nonlinear Schrödinger Equation with SPM and second order dispersion	●	●	●	●	●	
higher order nonlinear effects (Raman, TPA, self-Steepening, schock-term)	○	●	●	●	●	
Dispersion: Taylor series up to 14th order, Sellmeier, PCF	○	●	●		●	
Dispersion: Hollow-Core Fiber	○	○	○	●	●	
multi-element propagation	○	●	●	●	●	
20 elements instead of 10	○	○	○	●	●	
Raman response scriptable	○	○	●	●	●	
selectable unit of losses (dB vs 1/m)	○	○	○	●	●	
rate equation simulation (combinable with NLSE), predefined Yb, Tm, Er cross sections	○	●	●	●	●	
nonlinear optical/amplifying loop mirror (with freely adjustable components)	○	○	○	●	●	
Raman power propagation equation	○	○	○	●	●	
polarization resolved NLSE	○	○	○	○	○	in development
Lugiato Lefever Equations (LLE)	○	○	○	○	●	
scalar Beam Propagation (scalar multi-pass cell)	○	○	○	○	●	
unscrambled light in rate equation simulations	○	○	○	○	○	in development
multi-core processor support, multi-threaded acceleration, newest processor instruction set	○	○	○	●	●	
spectrally resolved gain saturation (CPA systems)	○	○	○	○	○	in development
Field definition						
scramble of spectral phase during pulse creation	○	○	○	●	●	
automatic fit of pulse repetition rate to periodic boundary conditions (cw)	○	○	●	●	●	
pulse creation and injection from file	○	○		●	●	
telecommunication modulation formats	○	○	○	○	○	in development
Measurements						
advanced and user-defined measurements	○	○	●	●	●	
graph for measured parameters with fixed x (position)	○	●	●	●	●	
graph for measured parameters with freely selectable x/y	○	○	●	●	●	
Visualisation						
2D propagation plots	●	○	○	○	●	
save and load of dialog, graph and view settings	●	○	○	○	●	
advanced measurements along propagation and visualization	●	○	○	○	●	
advanced plotter including experimental results	●	○	○	○	●	
single loop of multi-element propagation	○	○	○	○	○	in development

free updates correcting bugs

rarely

no

no

no

regularly

○ - not available

● - implemented