Opti*System*
What's New in
10

Created to address the needs of research scientists, optical telecom engineers, professors and students, OptiSystem satisfies the demand of users who are searching for a powerful yet easy-to-use optical communication system design tool.

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What's New in OptiSystem 10

The most comprehensive optical communication design suite for optical system design engineers is now even better with the release of OptiSystem version 10, available in 32-bit and TRUE 64-bit editions.

The latest version of OptiSystem, features a number of new enhancements to address co-simulation with Mathworks Matlab and Simulink. A new simulation scheduler for multithreading calculation can now be selected.

OptiSystem amplifiers library was extended to include Praseodymium-doped fibers, as Pr-doped fiber has been used for applications at the amplification window around 1300 nm.

New Component Libraries

Regenerators

- Voltage Controlled Oscillator: Design electrical PLLs using the improved VCO.

Optical Amplifiers

- Praseodymium Doped Fiber: The new doped fiber allows for design of amplifiers operating in the 1300 nm window.
- Multimode Doped Fiber: New parallel (multithreading) algorithm for Erbium and Ytterbium multimode fiber models.
- Erbium Doped Fiber: The EDF component now also supports double-clad fibers.

Visualizers

- Dual Port Carrier Analyzer: The new visualizer was added to calculate gain, noise figure, input and output power levels for multiple signal carriers.

Co-Simulation

Simulink: Co-simulate OptiSystem and Simulink using automation – allows Simulink to access projects, layouts, components and signals from OptiSystem.

Simulation Scheduler

Component Iteration Data Flow (CIDF) MT Scheduler: Depending upon the degree or parallelization of a given system, the new simulation scheduler allows for the calculation of multiple components and visualizers simultaneously using multithreading.

GUI and Integrated Design Environment

Component Links: Support for manual drawing of lines that link components is now supported, together with the default automatic connection mode.

Component Properties: New Custom Order tab allows users to enter parameters such as order number, name, type, cost and description.

Report Generator: Report generator and bill of materials has been extended to allow for customization of the reports and access to additional component details from new Custom Order tab.

Access to Signal Buffer Values: VB Script has been extended so users can access and manipulate binary, m-ary, electrical and optical signals directly from a component port. It allows direct access to signals for custom pre- or post-processing (using automation).

New applications and Validation Projects

Online simulation examples: Online access to OptiSystem project samples is now available to all users of OptiSystem, including:

- Electrical PLL.
- Error counting using the BER tester.
- Ultrashort pulse fiber laser.
- BER analysis with Matlab automation.

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