

CODE V: What's New

CODE V 10.6 delivers an innovative new optimization feature to speed the design of advanced optical systems. In addition, the release provides new charting capabilities and analysis improvements that enable faster, more flexible optical design validation.

Step Optimization

The new Step Optimization (STP) feature uses an algorithm developed by Synopsys' Optical Solutions Group to improve CODE V's industry-leading optimization capabilities in two ways. Step Optimization can substantially accelerate optimization convergence, reducing the time needed to find the best solution. It can also navigate complicated solution spaces more effectively to find optical system solutions with smaller error functions compared to traditional damped-least-squares optimization. This gives designers a powerful new tool for helping ensure that optical quality meets or exceeds performance specifications.

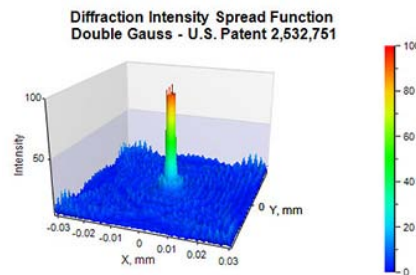


Step Optimization is particularly useful for optimizing complex lens systems. It can also speed up the optimization when used with the Reduce Tolerance Sensitivity (SAB) feature to reduce the impact of tolerances on system performance and minimize production costs. Step Optimization can be used in CODE V's local optimization feature as well as its Global Synthesis® global optimization feature.

"CODE V's Step Optimization (STP) feature yielded significant reductions in error function for my microlithography lenses, particularly in the early stages of the design process," said David Williamson, NRCA Fellow, Nikon Research Corporation of America. "I am very impressed with STP's convergence speed and effectiveness, and think it is possibly the greatest improvement to CODE V optimization in all the years that I have used the software."

New 2D and 3D Charting

CODE V line and surface charts have been significantly improved in several key analysis features, with a new look and many additional capabilities that enhance users' ability to visualize and present system performance results. The new 2D and 3D charting features provide extensive customization capabilities, including the ability to rotate and zoom 3D charts, select Cartesian 2D or 3D surface charts, choose from multiple scaling, rendering and color scheme options and interactively explore data points of interest.



Ease of Use Enhancements

The CODE V Automatic Design, Beam Synthesis Propagation, Point Spread Function and MTF features now have completely redesigned graphical user interfaces. The new interfaces feature intuitive, simplified windows to help guide you through parameter setup and streamline analysis, especially for optimization setup and beam propagation analysis. In addition, new navigation and selection features are available in the Navigation Window to facilitate 2D and 3D charting usage.

About the Software

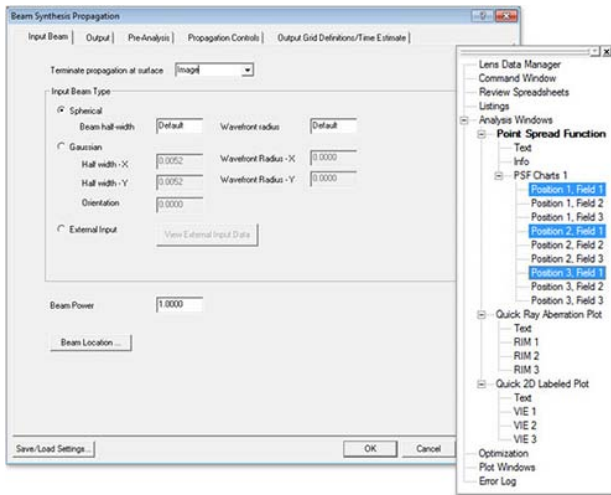
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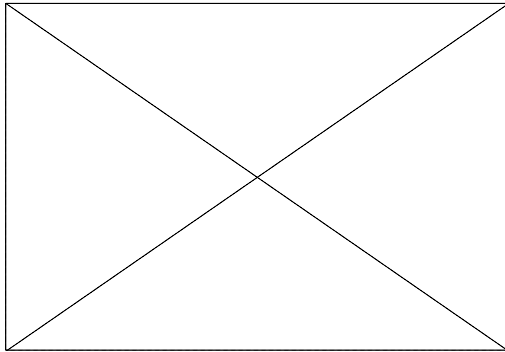
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Learn More about CODE V 10.6

Watch this video to learn about some of the key new features in CODE V 10.6 (02:31).



For more information about these and other features included in CODE V 10.6, send an email to optics@synopsys.com or call us at 626-795-9101.

About Synopsys OSG

Synopsys' Optical Solutions Group is one of the world's leading developers of optical design and analysis tools, with CODE V imaging design software, LightTools illumination design software, LucidShape products for automotive lighting design, and RSoft products for photonic and optical network design. The group is also an independent supplier of optical systems design services, with more than 4,800 completed projects in imaging, illumination and optical systems engineering.

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