



ASAP[®] Edition Comparison

Compare the Editions of ASAP

Modeling		ASAP	ASAP PRO
Optical and Mechanical Components	Model optical and mechanical system components.		
Imaging and Non-Imaging Systems	Model imaging systems, illuminaton systems, and light-concentrating devices.		
Visible, Ultraviolet, and Infrared Radiation	Model visible, ultraviolet, and infrared radiation.		
Radiometry	Model radiometry of complex systems, including radiance.		
Lightpipes	Model lightpipes and light-delivery structures.		
Lit Appearance	Model lit appearance of optical systems.		
Inhomogeneous Volumes	Model propagation in inhomogeneous volumes.		
Voxels Method for Fluorescence Modeling	Model fluorescence with the ASAP voxels method.		
Enhanced Array Modeling	Model randomized and nonlinear arrays from system objects.		
Surface and Volume Scatter	Model surface (BSDF) and volume scatter (pre-defined or custom).		
NEW ABg and K-Correlation Models	Model scatter with ABg (linear-shift invariant) and K-Correlation scatter models.		
NEW TIR and Scatter Together	Model both TIR and scatter at rough surface interfaces.		
Diffuser Sheet Models	Model diffuser-sheet scatter phenomena.		
Display Backlight Units	Model and analyze display backlight units with polarization recycling.		
Coherent Systems	Model coherent systems.		
Gaussian Beam Decomposition	Model wavefront propagation in ASAP with Gaussian-beam decomposition.		
Polarization Modeling	Model polarizers (RPM), retarders (RRM) and cascaded polarization elements (CPE).		
Polarized Sources	Model polarized sources using the reference ray approach.		
Liquid Crystal Cells	Model liquid crystal materials using the ASAP Liquid Crystal Cell (LCC).		
Uniaxial Materials	Model uniaxial materials with the ASAP General Uniaxial Medium (GUM).		
Biaxial Birefringence	Model materials with biaxial birefringent properties using the (BIC) command.		
Stokes-vector Mode	Model devices and track polarization information in Stokes-vector mode.		
Mueller Elements	Model components that alter degree and state of polarization as MUELLER devices.		
Optically-active Media	Model optically-active media.		
Fibers and Fiber Coupling	Model propagation in optical fibers and fiber coupling.		
Beam Propagation Method	Model propagation in microstructures with the ASAP "BPM" method.		



ASAP[®] Edition Comparison

Compare the Editions of ASAP

Analysis		ASAP	ASAP PRO
Render Geometry, Sources, and Traces	Render system geometry, raytraces, and light sources.	✓	✓
Extended Source Calculations	Calculate and visualize extended-source illumination patterns.	✓	✓
Visualize ASAP Analysis Results	Visualize results in 2D, 3D, Cartesian, polar, bird's eye views, 360° polar, and more.	✓	✓
Conformal Radiometry	Visualize, analyze, and monitor light distributions using conformal radiometry.	✓	✓
Optimize Optical Systems	Use three methods to optimize optical systems with the ASAP Optimization interface.	✓	✓
Optimize with Penalty Functions	Use penalty functions to help optimize optical systems.	✓	✓
Tolerance Optical Systems	Tolerance optical systems in the ASAP Builder interface.	✓	✓
CIE/Chromaticity Analyses	Perform numerical and graphical CIE/chromaticity analyses.	✓	✓
Double Precision Ray Tracing	Use double-precision ray tracing for analysis of individual ray histories.	✓	✓
Visualize Polarization Data	Visualize polarization data using the Poincaré Sphere Visualization Tool.	✓	✓
Interoperability		ASAP	ASAP PRO
Alternate Scripting Languages	Integrate Python, VBScript, JScript, and others with the ASAP Script language.	✓	✓
Import Measured Source Data	Import measured source data such as Radiant Sources™.	✓	✓
ASAP / SolidWorks Interoperability	Use the SolidWorks® Parts Only 3D Modeling Engine with ASAP (license included).	✓	✓
Apply Layers and Names in SolidWorks	Assign object and layer names in the SolidWorks Parts Only 3D Modeling Engine.	✓	✓
ASAP SmartIGES Translator	Use the SmartIGES translator to assign optical properties and object names.	✓	✓
Import and Export IGES Files	Import and export IGES files in ASAP.	✓	✓
Manage Duplicate Geometry	Manage Duplicate Geometry During IGES Import.	✓	✓
Geometry Conditioning	Condition geometry during the CAD import process to optimize tracing.	✓	✓
Geometry Shrinking	Shrink geometry during the CAD import process to optimize tracing.	✓	✓
Ray Export	Export raysets for visualization in CAD environments.	✓	✓
Photometric Data Transfer	Import/export files in the EULUMDAT and IES LM-63-02 Photometric Data formats.	✓	✓
Enhanced ASAP / CATIA Interoperability	Open native CATIA files from CATIA V5 r13 through r21 releases (optional add-on).	✓	✓
Lens Import Capability in ASAP	Import lens systems from CODE V®, OSLO®, SYNOPSIS™, and ZEMAX®.	✓	✓
Enhanced ZEMAX-to-ASAP Translator	Use the enhanced ZEMAX-to-ASAP translator to create INR files from ZMX files.	✓	✓
ASAP / FDTD Solutions Interoperability	Exchange complex vector fields between ASAP and FDTD Solutions™.	✓	✓



ASAP[®] Edition Comparison

Compare the Editions of ASAP

Getting Started		ASAP	ASAP PRO
Enhanced Operating System Support	Run ASAP on select 32- and 64-bit versions of Windows XP, Vista, and 7 editions.		
BRO Knowledge Base	Technical documentation, journal articles, and peer-reviewed white papers.		
ASAP Primer	A comprehensive self-study guide.		
ASAP Example Files	600+ example files to begin your ASAP simulation.		
Enhanced BRO Light Source Library	A library of sources including LED, CCFL, incandescent and arc sources.		
Scatter Model Library	A library of scatter models including Alanod, MoldTech, Tenibac, and other materials.		
ASAP Reference Manual	ASAP Commands listed and explained.		
ASAP HTML Help System	Access help topics and example scripts in ASAP.		

Interface		ASAP	ASAP PRO
ASAP Builder Interface	Build and analyze systems with the ASAP Builder interface.		
ASAP Script Language	Build and analyze systems with the ASAP Script language.		
ASAP Command Tips	Call "Command Tips" from the ASAP Script and Builder interfaces.		
ASAP Quick Start Menu	Quickly access libraries of sources, lenses, glasses, scatter models, and coatings.		
ASAP Light Source Wizard	Place sources in your system using a step-by-step wizard.		
ASAP Glass Catalogs	Insert glass properties from predefined catalogs into ASAP Builder and Script files.		
ASAP BSDF Fit Utility	An interactive BSDF fit utility for making scatter models.		
ASAP Harvey Model Fit Utility	An interactive Harvey Model fit utility for making scatter models.		
ASAP Workspace Customization	Create your own custom workspace in ASAP with flexible, drag-and-drop elements.		
ASAP Optimization State Files	Save, review, and resume optimizations in progress with ASAP .osf files.		
MEDIA Enhancements	Define MEDIA with Sellmeier, Herzberger, Conrady, and Schott coefficients.		
ASAP Scatter and Roughness Models	Insert Alanod, MoldTech, Tenibac and other models into ASAP simulations.		
ASAP REMOTE™	Perform distributed processing on available machines (expanded REMOTE optional).		
BRO Digitizer™	Fit and import data from bmp, gif, jpg, png, and wmf images with the BRO Digitizer.		