XENON™ v7

3D Power and finesse without constraints.™

- Unified Associative, Parametric Drawing & Modeling Tools for Wireframe, Surfaces and Solids
- Vellum Drafting Assistant™ for Intelligent Snaps and Alignments in X,Y, and Z
- Unique Hybrid Mac/Windows, Office/Home Licensing
- Complete Set of Precision Translators to Import/Export Data Including ACIS SAT, Parasolid, IGES, STEP, DXF, DWG, EPS, AI, and more
- Class-A NURBS Surface Modeling

- True Solid Modeling
- Surface Analysis
- Full Photo-realistic Rendering & Camera-based Animation
- Design Explorer History Tree
- Associative 2D View Generation with Auxiliary, Section, and Detail Views
- True Associative Dimensioning
- Bill of Materials
- License Includes Graphite™ v7
- Direct-input Associative Parametrics
- Object and Group Properties (CG, Volume, Weight, etc.)
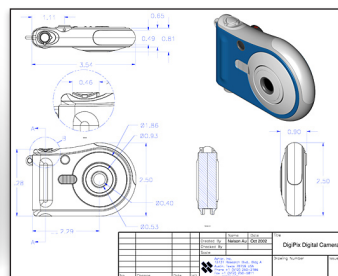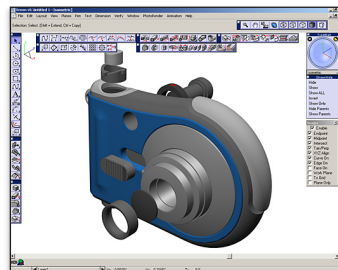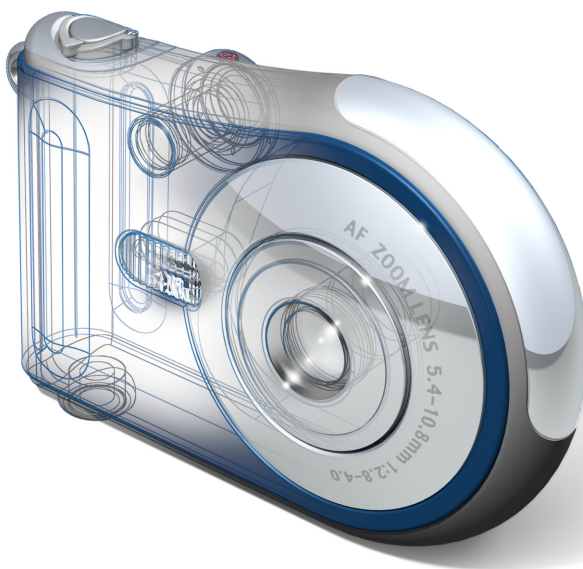
General Features

- Direct or Associative 3D Modeling
- ACIS Modeling Kernel from Spatial
- 16 Place Floating Point Accuracy
- Hybrid Mac/Windows, Office/Home License
- 65,000 Hierarchical Layers
- Unlimited Colors
- Unlimited Number of Objects and Drawing Size
- Single File Holds Drawings, Models, Assemblies, etc.

User Interface

- Intuitive Vellum Interface
- Drafting Assistant™ for Automatic Snaps and Alignments
- Smart Cursor Changes Shape Indicating Active Tool and Operations
- Strokes and Short Cuts Provide Instant Access to Commands
- Tear-off and Auto-hide Palettes
- Palettes can be Flipped Vertically or Horizontally
- Status Line to Specify Object Parameters
- Message Line Provides Tool Instructions and Options
- World and User-defined Coordinate Systems
- All Data Entry Fields can Perform Numeric Calculations
- TrackBall for View Selection and Dynamic or Step Rotation
- Show/Hide Palette
- Selection Mask for Easier Selection of Specific Entity Types, Layers, Colors
- Grid (User Definable)
- Layer Manager
- History Manager
- Support for SpaceMouse Device (Windows only)

Display and Visualization

- Object Display Options: Flat Shaded, Gouraud, Gouraud w/Edges, Phong, Phong w/Edges, Hidden Line, Dimmed Hidden Line, Anti-alias, Z-Buffer Curves, Clip at Eye Point, Display Iso Lines and Silhouettes
- Show Direction of Curves and Surfaces
- Curvature Display for Curves and Surfaces
- Surface Analysis (Gaussian, Mean, Min/Max, Zebra, Draft, Normals)
- Adjustable Object Display Resolution: Coarse, Medium, Fine, Very Fine, and Super Fine
- Adjustable Perspective
- User Definable Object Colors
- Infinite Pan and Zoom

Designer Nelson Au won the Design-Engine International Photoreal Electronics Competition's Grand Prize for his Digi-Pix camera design and rendering done in Ashlar-Vellum software. Read more about Nelson's success at www.Ashlar-Vellum.com/success.

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Object and Group Properties
- Material, Center of Gravity, Volume, Weight, Density, and Moments of Inertia, Principal Axis

Associative Parametrics
- Direct Input Parametrics
- Modify Wireframe Creation, Surface Creation, Solids Creation, Surface Edits, Solid Edits, and Solid Features

General Transform Tools
- Move
- Copy Along Path
- Rectangular Array Duplicate
- Rotate
- Polar Array Duplicate
- Scale (Uniform or Differential)
- Mirror
- Align

Text Tools
- Normal
- Along a Path
- Keep Screen Horizontal
- At an Angle
- Set Font, Size, Style, Color
- Thicken, Extrude, Revolve, Sweep

Wireframe Creation Tools
- Point, Line, Connected Line, Arc, Circle, Ellipse, Conic, Rectangle, Polygon, Arbitrary Polygon, Sketch Spline, Through-point Spline, Vector Spline, Bezier Spline, Helix, Spiral

Wireframe Editing Tools
- Fillet, Chamfer, Trim, Relimit, Break, Offset, Join, Extrude, Revolve
- Project to Plane
- Extract Edge of Surface or Solid
- Increase Order
- Fair Spline
- Add/Remove Spline Points
- Modify Spline Slope
- Curve by Intersection of Plane and a Curve, Surface, or Solid
- Project Curve onto Surface/Solid
- Intersect Two Curves
- Create Points by Intersecting Surfaces or Solids

Surface Creation Tools
- Surface Primitives (Sphere, Block, Cylinder, Pyramid)
- Infinite Plane
- Lathe
- Extrude Surface
- Sweep (In Place, Perpendicular, or Ridged) Along One Rail (Full Rail, to Entity, or Between Rail Points)
- Sweep (w/ Maintain Height) Along Two Rails
- Skin, Skin w/ Guide Curves,
- Tangent Loft
- Cover Surface, Tangent Cover
- Net Surface
- Revolved Surface
- Tube Surface
- Offset Surface
- Drafted/Extended Surface
- Fillet Surface

Surface Editing Tools
- Freeform Deformation (Push/Pull Surface Points)
- Deform to a Point, Factor, or Curves
- Add/Subtract/Intersect Planar Surfaces
- Join Surfaces
- Trim/Untrim Surfaces
- Match G1 and G2 Tangency
- Insert Control Points
- Elevate Degree
- Rebuild Surfaces
- Add, Remove, and Replace Curves of Associative Surfaces

Solid Creation Tools
- Solid Primitives (Sphere, Slab, Block, Cylinder, Cone, Torus, Prism, Pyramid, Ellipsoid)
- Lathe Profile
- Extrude Profile
- Sweep Profile (In Place, Perpendicular, or Ridged) Along One Rail (Full Rail, to Entity, or Between Rail Points)
- Sweep Profile (w/ Maintain Height) Along Two Rails
- Pipe Solid
- Loft, Loft w/ Guide Curves
- Tangent Loft
- Thicken Surface into Solid
- Stitch Surfaces into Solid

Solid Editing Tools
- Boolean Add/Subtract/Intersect Solids
- Constant Blends (Radial, Elliptical, Vertex)
- Variable Blends (Linear, by Position, to Curve, to Fixed Width, to a Hold Line)
- Constant Chamfers (by Length, Two Lengths, Length and Angle, Vertex)
- Variable Chamfers (by Lengths, Four Lengths, Lengths and Angles, by Position, to Fixed Width)
- Holes (w/ Bore, w/ Sink, to Depth, Through, First Blind, to Face, w/ Draft)
- Bosses (w/ Specified Fillet, w/ Draft)
- Profile Cutout (w/ Draft)
- Profile Protrude (by Vector, to Face, w/ Draft)
- Split (w/Surfaces or Solids)
- Trim (w/Curves or Surfaces)
- Shell (w/ Independent Face Offsets)
- Parting Line (w/ Draft)
- Local Face Operations (Taper, Move, Offset, Remove, Replace, Match)
- Deform Face (by Factor, to Point, or to Curves)
- Bend Solids
- Blend

Independent 2D/3D Drawing Creation
- Predefined and Customizable Layouts
- Complete Professional Drafting Available
- Create 2D/3D Drawings w/o Building Models
- Stored in Same File as Model

2D/3D Drawing Creation from Models
- Associative 2D or 3D Views from 3D Wireframe, Surfaces, and Solids
- Associative Detail Views
- Associative Section Views (w/ Auto Hatching)
- Automatic Hidden Line
- Predefined and Customizable Layouts

2D/3D Drafting & Detailing
- Available for Independent and Model-driven Drawings
- Smart Dimension Tool Automatically Creates the Appropriate Dimensions
- Linear, Angular, Diametric, Radial, and Spline Length Dimensions
- Standard and User-definable Tolerances and Settings (ANSI, DIN, ISO, JIS, Dual, Architecture, and Stacked Fraction)
- Geometric Dimensioning and Tolerancing (GD&T)
- Balloon and Callout Dimensions
- Predefined and User Created Hatch and Fill Patterns
- Predefined and User Created Line Weights, Colors, and Styles
- Associative Bill of Materials
- All Dimensions can be Associative, Dynamic, or Static

Photo-realistic Rendering
- Drag and Drop Materials
- Realistic Texture Maps and Procedural Textures (Wood, Marble, Granite, Leather, Plastic, Glass, Metal, Brushed Metal, Automotive Paint, and more)
- Advanced Material Editor (Color, Reflectance, Specular, Diffuse, Ambient, Roughness, Bump, Transparency, Refraction, Texture Orientation, and more)
- Editable Light Sources (Spot, Bulb, Distant)
- Adjustable Hard and Soft Shadows
- Visible Volumetric Light Effects
- Fog Effects
- Backgrounds
- Raytracing with Anti-aliasing
- Production Quality Resolution and Output (bmp, tga, tif, lwi, eps)

Camera-based Animation
- Fly-by
- Walk-through
- QuickTime Object VR
- QuickTime Panoramic VR
- Direct Event Journal Recording and Playback
- QuickTime Event Recording and Playback

Import/Export
- ACIS SAT
- DWG/DXF
- IGES
- STEP
- Pro/E (via SAT)
- Parasolid X_T (Windows Only)
- SolidWorks (via SAT)
- Catia v4
- 3D Studio (Import Only)
- Rhino 3DM (Import Only)
- Facet
- STL
- Adobe Illustrator
- EPS (Export Only)
- CGM
- VRML
- ShockWave 3D (Export Only)
- PICT (Mac Only)
- Spline (Import Only)
- RAW Triangle (Export Only)
- ASCII Text
- Grid Surface (Import Only)
- Other Ashlar-Vellum Products

Available Accessories
- Cobalt Share™ for Viewing, Printing and Exporting at Client or Manufacturing Site (Free)
- Vellum:environments™
- Vellum:tracks™
- Vellum:materials™
- Vellum:decals™
- Tutorials (Free)

Recommended System
Windows / Macintosh
- Windows 2000/XP
- Mac OS X 10.2, 10.3 or 10.4
- Pentium 4, Xeon or Athlon / G4 or G5
- 32 MB Accelerated Video Card w/ Open GL
- 512 MB RAM
- 250 MB Free Hard Drive Space / 1 GB Allocated Virtual Memory
- CD-ROM Drive