



Ease of Use

While many packages claim ease of use, few actually deliver. Shark FX not only delivers unprecedented usability, but provides an uncompromised, extensive set of 2D/3D design tools. Shark FX has been designed, from the ground up, to be intuitive for the casual user as well as the professional engineer. Keys to the innovative user interface include smart prompting and tips, intelligent snapping through LogiCursor, and over 80 minutes of training videos. Install Shark FX and design your first precision part within minutes!

Complete Design Solution

Shark FX is the industry's first modeling application totally focused on conceptual and preliminary design for those requiring precision content for 2D/3D digital models. Shark is a full featured package uniquely positioned to provide solutions that address versatile modeling practices, photorealistic rendering, animation, and precision drafting capabilities all within one seamlessly integrated package.

State of the Art Technology

Shark supports an integrated collection of 2D, 3D, surface, and solid modeling tools. You choose the tools or combination of tools you need for the task at hand. Notable tools include numerous spline creation and modification commands, seventeen surface construction methods, blending, chamfering, shelling, stretching, twisting, bending, and foreign part editing tools. All surface and solid modeling operations transparently support associativity and a history tree for rapid design modifications.

Special Effects

FX provides photorealistic rendering to add visual realism to your designs. Drag and drop materials, textures, and decals onto parts. Use the material editor to tweak reflectance, color, displacement, transparency, and texture space attributes. Add lights, backgrounds, foregrounds or environment maps to further enhance the scene. For output, generate poster size, ray traced anti-aliased images or add life to your presentations with object based animation or QuickTime VR.

Share Data With AutoCAD®, CATIA®, and PRO/E®

Unlike faceted based conceptual design packages, Shark FX uses a precise kernel that facilitates the sharing of data using IGES, STEP, and AutoCAD® DXF/DWG file formats. Shark FX also supports reading native CATIA® v4 and PRO/E Wildfire® parts and assemblies as well as SAT for sharing with SolidWorks®.

Cost Effective Solution

Shark FX provides a complete design solution with access to over 680 commands for curve, surface, solid modeling, drafting, and photorendering at a fraction of the price of competitors. Now you can have all the power without all of the cost.

Bring your idea to market faster with Shark, the new standard in Conceptual Computer Aided Design (CCAD). Explore new product concepts with unprecedented ease and precisely share data with traditional MCAD and Enterprise solutions.



punch!
SOFTWARE®

www.punchcad.com

©2008 Punch! Software Inc. All Rights Reserved

Ease of Use

- Snaps for intelligently locating x y z coordinates, tangents, and perpendiculars
- Concept Explorer to examine and modify associative relationships and construction history
- Customizable key short cuts
- Prompt Window for prompting designer through commands
- Data Entry Window for explicit creation and modification of geometry
- Object show/hide tools
- Layers and Sub Layers
- Tool Tips, Help, and Hints
- User defined views, work planes, and pen styles
- Dual Monitor Support

Precision Kernel

- Precise kernel serves as foundation for NURB and analytic based geometry definitions

2D & 3D Wireframe

- Points, Lines, Arcs, Circles, Ellipses, Splines, and Conics
- Double Line Tool
- Splines construction methods of Through point, Control Point, Bezier, On Surface, and Sketch
- Add, remove, elevate, smooth spline control points
- Dynamic modification of position and tangencies
- Smart Polygons
- Dynamic curvature plots
- Project curve to plane
- Best in class offset, trim and relimit curve tools
- 2D Fillet, Chamfer, and Corner
- 3D Curve Fill

Utilities

- Group, Lock
- Transformations
 - Translate, Rotate, Mirror
 - Scale (and Non Uniform)
 - Linear & Polar Duplicate
 - Align, Stretch, Twist
- Verify
 - 2 Point Distance & Angles
 - Lengths & Minimum Distance
 - Interference Detection
 - 3D Mass Properties (Volume, Centroid, Principle Moments, Weight)
 - 2D Planar Properties (Area, Centroid, Principle Moments)
 - Dynamic Curvature Plots

Surfacing

- 1 & 2 Rail Sweep
- Extrude by Vector
- Cover (Coon's and N-Sided)
- Cover with Guide Curves
- Skin, Skin with Guides, and Skin with Draft
- Nets (MxN curve networks)
- Offset
- Blend with user defined takeoff magnitudes
- Fillet
- Rebuild, Elevate, & Join
- Capping and Filling
- Match G1 or G2
- Trim and Untrim
- Associativity for all creation and modifications
- Gaussian, Zebra, Draft Analysis

Solid Modeling

- Constant and Variable Edge Filleting and Chamfering Tools
- Shelling, Holes, Bosses
- Extrude, Sweep, Lathe
- 1 & 2 Rail Sweeps
- Protrusions and Cutouts
- Booleans (Add, Subtract, Union)
- Trim and Split
- Thicken To Solid
- Stitching and Healing with user defined tolerances
- Primitives
- Lofting between Faces
- Feature Patterns
- Pipes
- Branched Solids

Solid Editing

- Parametric Features
- Associative History Tree
- Deform Face
- Remove, Offset, Move, Replace Face
- Bend and Bend Along Curve
- Draft & Match Faces
- Stretch, Twist, Bend, Bend Along Curve
- Mate, Align, Insert Faces
- Annotation/Detailing
 - Generate side, front, top, and isometric views automatically from 3D models and templates
 - Easily Create Section, Detail, and Auxiliary Views
 - Pen Weights, Patterns, Styles
 - Horizontal, Vertical, Radial, Diametric, Center Marks, Leaders, Callouts, Angular Dimensions
 - Tolerances and User Settings for Dimension Attributes
 - Stacked, Dual, Fractions
 - Hatching and Fill Patterns
 - Bill of Materials
 - Text (Normal, Angle, Path)

Photo Rendering

- Raytracing with Anti-Aliasing
- Unlimited Point, Spot, and distant lights
- Adjustable soft and hard shadows
- Drag and Drop from Material Library
- Backgrounds & Foregrounds
- Environment Maps
- Rapid Render Presets for Glass, Metal, Mirror, & Plastic Materials
- Material Editor for controlling reflectance, color, displacement, transparency, and texture space

Animation

- Walk Through, Fly By
- QuickTime Object VR
- QuickTime Panoramic VR
- QuickTime Event Recording
- Object Based Animation

Data Exchange

- DXF/DWG
- SAT, IGES, STEP
- CATIA® v4
- Pro/E® (Import Only)
- Adobe Illustrator® (up to v9)
- 3DS, COB, Rhino (Import Only)
- STL (ASCII & Binary)

Part Library

- 26,000+ Part Library
 - Electrical, HVAC, Mechanical
 - Construction, Bathroom, Kitchen
 - LAN, CMOS, Fasteners
 - Doors, Windows, Counters

2D Constraints

- Drag and Drop
- Coincident, Tangent
- Perpendicular, Parallel
- Offset, Collinear
- Auto Constrain
- Variables & Equations
- Dimension Driving
- Animate Dimensions

Other Features

- MicroScribe® Support
- 3DConnexion® Support

System Requirements

- PC
 - Microsoft Windows XP Professional, Vista, or Windows 2000
 - Intel Pentium or AMD Athlon class processor
 - 512 MG RAM or greater
 - Mouse Point Device
 - DVD Drive
- Mac OS X 10.4
 - OpenGL
 - G4 or G5
 - 512 MB RAM
 - DVD Drive
 - Mouse (recommend 2 button mouse)



Product Comparison

Features	Shark	Shark FX	AutoCAD 2008
MSRP	\$1295	\$1795	\$3995
Adaptive 2D/3D User Interface	X	X	
Cross-platform--Mac & PC versions	X	X	
80+ Minutes of Video Tutorials	X	X	
LogiCursor™	X	X	
2D and General Tools			
Precision database	X	X	X
Undo/Redo	X	X	X
Layer Manager	X	X	X
Short Cut Keys	X	X	X
Group/Ungroup	X	X	X
Points, Lines, Arcs, Circles, Ellipses	X	X	X
Through Point Splines	X	X	X
Text and Box Text	X	X	X
Symbols	26,000+	26,000+	<1000
Dimension Types	13+	13+	13+
2D Section Properties	X	X	X
Text Along Curve	X	X	
Bezier Splines	X	X	
Reference Spline Slopes	X	X	
Dynamic Curvature Plots	X	X	
Spiral	X	X	X
Helix Along Curve	X	X	
Region Trims	X	X	
Spline to Arc	X	X	
Auto 3D to 2D Drawings	X	X	
Section, Detail, Auxiliary Views	X	X	
NURB Surface Modeling			
Extrude, Sweep, Revolve, Loft	X	X	X
Section Planes	X	X	X
Thicken Any Surface to Solid	X	X	X
Net Surfaces	X	X	
N-Sided Cover Surfaces	X	X	
Two Rail Sweep Surface	X	X	
History & Associative Surfaces	X	X	
Stitch & Heal to Solids	X	X	
Trim, Split, Join Surface	X	X	
G1 & G2 Surface Matching	X	X	
Tangent Cover and Fills	X	X	
Skinning with Guide Curves	X	X	
Solid Modeling			
Solid Primitives	X	X	X
Extrude, Sweep, Revolve, Loft	X	X	X
Shelling	X	X	X
3D Mass Properties	X	X	X
Match, Remove, Offset & Draft Face	X	X	X
History Based Solids	X	X	
Feature Tree	X	X	
Variable Radius Blending	X	X	
Variable Length Chamfers	X	X	
Boss & Hole Features	X	X	
Protrude and Cutout Features	X	X	
Stretch, Twist Surface/Solids	X	X	
3D Zebra and Curvature Plots	X	X	
Face Deformations	X	X	
Bend & Bend Along Curve	X	X	
Parametric Dimensions and Constraints	X	X	
PhotoRendering & Animation			
RayTracing, Shadows, Transparency		X	X
Texture Library	X	X	X
QuickTime OBJ VR Movies		X	
Camera Path Animation		X	X
Object Path Animation		X	
Rapid Render Presets		X	
Drag/Drop Decal Library		X	

punch!
SOFTWARE®
www.punchcad.com

©2008 Punch! Software LLC. All Rights Reserved.
“The Ride” image courtesy Mark LeBeau and Ellsworth Bikes.
Car image courtesy Ed Kocialski. Airplane image courtesy Alban Geissler.