EVOLVE

A 3D conceptual design environment which empowers designers to swiftly capture and evolve forms using powerful NURBS modeling tools, an advanced construction history and photorealistic visualization all supported on both Windows and Mac.

Intuitive GUI Created Specifically for Designers with Integrated Rendering Capabilities

Benefits

Create winning designs faster

- Model in complete freedom using a hybrid modeling approach that combines organic surfacing with solid modeling all controlled through an automated construction history.
- Invent, explore, and perfect designs without limitations of traditional software.
- Visualize product concepts in stunning realism with the fully integrated rendering environment.
- Share designs and complex ideas with photo realistic animations.
- Eliminate design reinterpretations between designers and engineers by passing 3D data to and from CAD/CAM/CAE systems.
- Supports both Windows and Mac.

Reduce Time and Cost

- Compress the product-development cycle by creating and exploring more ideas in less time. Speed and improve the quality of decision-making.
- Reduce product-development costs by decreasing prototype development expenses. Eliminate flaws early in the product-development process by creating realistic, accurate 3D models and using design evaluation and visualization tools.

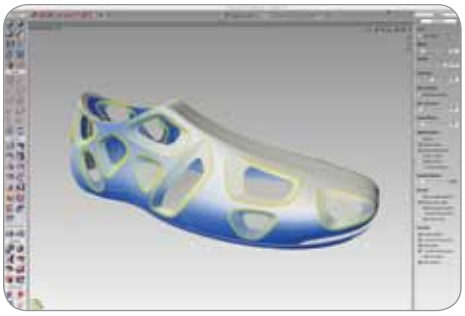
Capabilities

Best-in-class Construction History

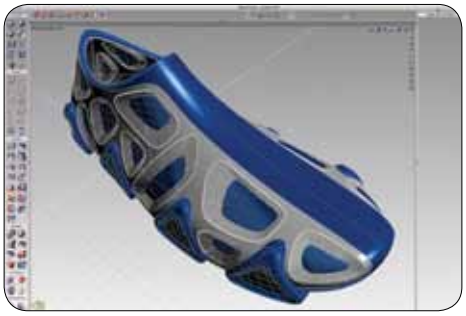
- Unlimited construction history provides real-time updates when modifications are made to parameters or surfaces.
- Browse the graphic representation of the construction history to identify and select source objects within the history tree with immediate reconstruction.
- Manipulate both the parameters and points of all objects freely. Never forget the steps involved in construction - the entire tree is saved inside the file and is accessible at any time.
- Thanks to the possibility to freely manipulate your models, you can easily experiment with new shapes and improve your creativity.
- Once you have experienced how the exclusive construction history improves your productivity, you will never want to live without it.

Advanced NURBS Modeling

Evolve uses NURBS (Non Uniform Rational B-Splines) as its geometry type. This curve and surface definition method offers the greatest flexibility and precision. NURBS are capable of representing any desired shape, both analytic and free form, and their algorithms are extremely fast and stable. Full NURBS-based modeling,



Rapid Sketch Modeling



Flexible Parametric Editing

Fast and Efficient Visualization

construction history and the most advanced modeling tools make Evolve a matchless tool for designers.

Polygonal Modeling and Subdivision Surfaces

Evolve also features an advanced polygonal modeler with support of n-side polygons. It is possible to create and extrude polygons, split faces and edges, refine, decimate, and perform many other operations.
The unique implementation of interactive subdivision surfaces with construction history gives the user maximum power for refinement and smoothing of polygonal meshes.

Reverse Engineering

- Fit points - Create a surface from a point cloud data set.
- PointCloud from object - Create a PointCloud given a surface.
- Planar Clouds from PointCloud - Creates a specified number of points clouds lying on parallel planes from a given points cloud. This command can be useful to simplify a points cloud derived from 3D scanning. Beside a section planes direction, the user can specify either the number of planes, or the distance between planes.
- Curve from PointCloud - Creates a curve from a point cloud. This tool creates a curve starting from a selected point and approximating the points ordered by minimal distance.

Real-Time Photo Realistic Rendering

Take advantage of a truly comprehensive rendering system integrating all industry-leading rendering techniques. The most efficient memory management functions, unlimited output resolution, as well as multi-threaded and multi-processor renderings makes Evolve the perfect tool for generating photo realistic images. Real-time rendering further improves interactivity during the review and visualization phases of design.

Animation

Take your design presentations to the next level by creating photo realistic animations. Create videos or Quicktime VR movies to communicate complex ideas, or import H3D files to produce stunning simulations.

Data Exchange

Effortlessly exchange digital data throughout the design process using fast and high-quality translators.

Direct Import

- V4
- Catia V5
- DXF
- DWG
- IGES
- Lightwave
- Maya
- Parasolid (x_t and x_b)
- Pro/ENGINEER
- Rhinoceros
- RIB
- SAT (ACIS)
- SolidWorks
- STEP
- STL
- UGS NX
- VDA/FS
- VET
- VRML
- 3DS
- OBJ
- Adobe Illustrator (.ai and .ps)
- Point Cloud (.cld and .txt)

Export

- DXF
- DWG
- IGES
- Lightwave
- Maya
- Parasolid (x_t and x_b)
- Rhinoceros
- RIB
- STEP
- STL
- VDA/FS
- VET
- VRML
- 3DS
- OBJ
- Keyshot (.bip)
- SAT (Acis)

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