Extend Rhino with Free-Form CAD Surfacing

T-Splines 2.1 introduces techniques for free-form surfacing said to trim hours from design processes.

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T-Splines, Inc. (Provo, UT), a developer 3D surface modeling tools for industrial designers and CAD/ CAM/CAE professionals, has announced the release of T-Splines 2.1 for Rhino. Version 2.1 extends the software's toolset for creating organic, free-form shapes for manufacturing with new techniques that could save time dedicated to design processes.

T-Splines for Rhino introduces time-saving commands to generate free-form surfaces and, according to the company, offers a full suite of polygonal modeling tools into industrial design software for the first time. A fully integrated Rhino plug-in, T-Splines 2.1 for Rhino, says the company, gives designers the ability to create smooth organic shapes, edit them quickly, and export them for manufacturing directly without any remodeling.

"With 2.1, we continue to advance our most comprehensive and feature-rich release in T-Splines' history," said Matt Sederberg, CEO of T-Splines, in a press statement announcing the new

release. "Designers can now directly create and edit surfaces faster





and easier than ever before, with full confidence that the end result will be a smooth, gap-free manufacturable model. The features of T-Splines allow designers to trim hours or even days from the design process."

T-Splines for Rhino provides such tools as Polygonal modeling in which designers can pull, extrude, and scale basic shapes to rough out a desired shape quickly. As the model becomes more refined, sections of the shape can be subdivided to add more detail and control. Users can also generate editable, non-rectangular surfaces from curves and loft surfaces from any input curves.



T-Splines' shape-control features include local creasing; the ability to insert single control points instead of a whole row as required in NURBS; and the ability to remove control points where they are not required. Interoperability features include importing and merging NURBS patch models into a single T-Splines surface, bi-directional compatibility with NURBS for converting T-Splines models into NURBS models for downstream analysis or manufacturing applications, and the ability to import polygonal models or .obj files. T-Spline models can also be exported as a mesh.

T-Splines users can export T-Splines-generated designs for manufacturing without remodeling. Nonrectangular areas in T-Spline surfaces are the smoothest of any software in its class, says the company. T-Spline surfaces are easy to offset and convert to NURBS patches without sliver surfaces.