# T-Splines for Rhino

Subdivision-style modelling comes to Rhino, courtesy of an innovative technology that offers artists the best of NURBS and Sub-D workflows

BY NEIL RENNISON


## DETAILS

PRICE
Single licence
• £256* / $497 / €344*
Floating licence
• £411* / $797 / €551*
*Currency conversion

PLATFORM
PC

RECOMMENDED SYSTEM
PC
• Any system capable of running Rhino 4.0

MAIN FEATURES
• Subdivision-style modelling for Rhino
• T-Splines to NURBS compatibility
• Mesh to T-Splines compatibility
• Curve shell skinning
• Advanced surface merging
• Simpler surface manipulation
• Easy to add local details
• 70% fewer control points needed than for NURBS
• Faster modelling workflow

DEVELOPER
T-Splines

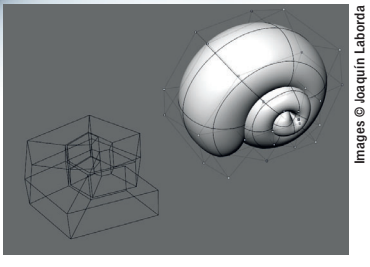
WEBSITE
www.tsplines.com

Rhino has always been one of the most powerful and highly regarded NURBS modellers on the market. This has also been its disadvantage. While it has been an attractive tool for those coming from CAD, it has never inspired those with a background in polygonal modelling. Originally available for Maya, T-Splines is a new plug-in for Rhino 4.0 that aims to rectify this.

But what is a T-Spline? T-Splines are a type of higher-level surface geometry that combine aspects of NURBS and subdivision surfaces. Whereas traditional NURBS modelling relies on complete isoparms traversing the model. T-Splines use partial isoparms, which permit non-rectangular topology. It is possible to add vertices with only one isoparm linking to them. These are called T-points.

Although Rhino doesn't do subdivision modelling, *T-Splines* effectively adds a subdivision-style box modeller to the software.This functionality alone rocks the way *Rhino* users can approach complex modelling challenges to the core. T-Splines also generate fewer CVs than NURBS, meaning they can be adjusted and edited quickly while still retaining a high level of complexity. The fact that the toolset also comes with a *Maya*-style manipulator which can be used to move, rotate, and scale is something that will please many users, and is something that has been long overdue in the *Rhino* interface.

T-Splines combine key features of NURBS and subdivision surfaces. T-Spline objects can be converted to NURBS and exported to other software for shelling



Images © Joaquin Laborda

With the plug-in, simple meshes can be converted to T-Spline objects, then edited quickly and efficiently using the T-Spline tools

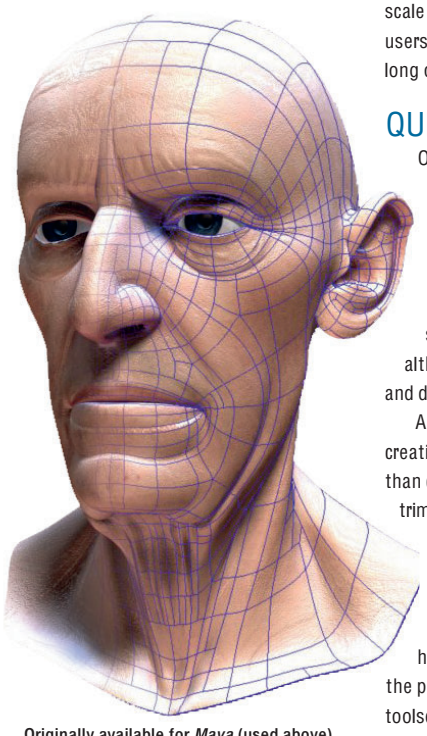


Image © Chris Baker

Originally available for *Maya* (used above), *T-Splines* is particularly useful for organic work, providing tools to edit complex models quickly

## QUICK CONVERSIONS

One of the other useful aspects of the plug-in is the ability to convert meshes to T-Spline objects that can be modified and in turn converted to NURBS objects. We tried converting a few models from other software, and found it quite successful, although it is limited by polygon counts and does not like triangles very much.

Another modelling workflow on offer is creating surfaces from curve shells. Rather than creating patches that need to be trimmed and blended, this skinning method will automatically create a surface with some tweaks from an options panel.

Modelling workflows like these have never existed in *Rhino* before, and the plug-in really exploits *Rhino*'s existing toolset. As a result, it will probably have a greater impact on the design world than the *Maya* version, since *Maya* already includes some of these features as part of its standard toolset. Organic shapes can now be investigated easily without the worry of re-modelling, and formerly incompatible technologies can now be used together.

Given its reasonable price point, *T-Splines for Rhino* suddenly makes *Rhino* an inviting prospect to modellers who have previously shied away from the software. Combined with *Rhino 4.0*'s own recent advances, the plug-in turns *Rhino* into a comprehensive solution to suit many different modelling challenges.

## VERDICT

PROS
• Adds new modelling workflows to Rhino
• Easier editing of organic models
• Converts meshes and NURBS surfaces to T-Splines

CONS
• Cannot convert complex meshes

| | |
|---|---|
| RANGE OF FEATURES | 8 |
| VALUE FOR MONEY | 8 |
| OVERALL | 9 |

## RELATED PRODUCTS

• T-Splines for Maya
Not reviewed: Visit **www.tsplines.com**