

Concept Design to Detailed Design Workflows

Rex Sellentine

Technical Marketing Manager – Autodesk Automotive Products

@rexisID AutodeskDesign(youtube)

Technical Marketing

ISM MFG



Name Rex Sellentine

Location Grand Blanc, MI

Mail Rex.Sellentine@Autodesk.com

Position Title Technical Marketing Manager

BIO

Rex rejoined Autodesk in 2014 as a Technical Marketing Manager for Autodesk's Automotive products. As a technical marketer, Rex takes his extensive knowledge in Industrial Design and visualization and creates workflows for his product line, creates most of the content on Autodesk website for Automotive and gathers all the assets needed to equip the sales team.

Rex has over a decade working with Alias products and over two decades working with visualization packages.

Expertise

Industry(s): Automotive

Autodesk Product Expertise: Alias, Speedform, VRED, StudioWall

Class summary

In this class, we will investigate workflows of using Speedform. We'll start investigating Industrial design, then move quickly to the advantage of using Speedform. We'll then spend time on how Speedform data can be used for design reviews, then create 3D prints, then off to engineering and simulation worlds. Finally, we'll look at two workflows of using concept data into Alias to begin the detailed design process.

Simulation Scavenger Hunt



Who can enter?

AU attendees (virtual and live)



How many winners?

20 winners per day (T, W, and R)



When does it start?

December 1st @ 12:01am PST



When does it end?

December 3rd @ 11:59pm PST



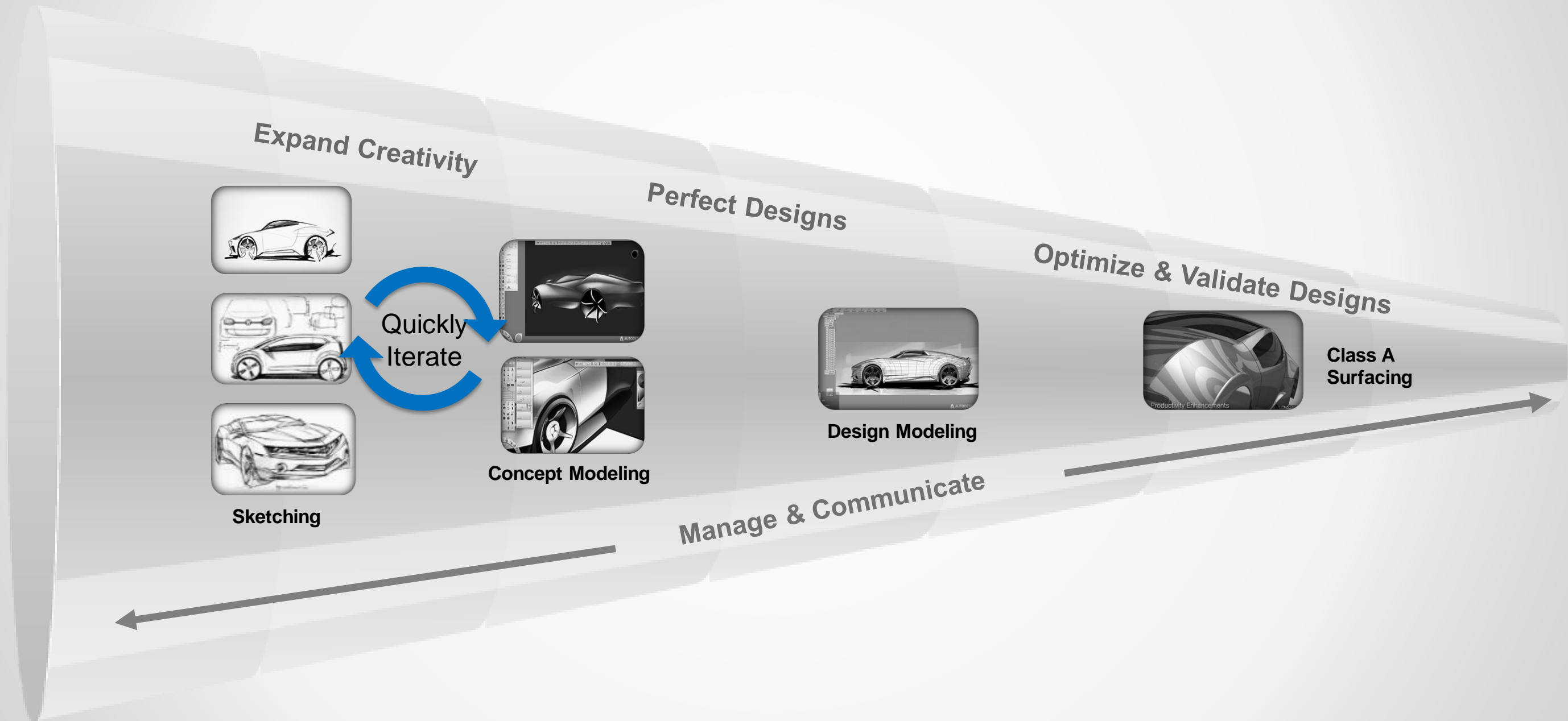
What kind of prizes?

Everything from Darth Vader toasters to custom
\$1,000 Astro Studio watches.

Go to <http://ninjasandbits.com/sim/> to start the hunt!

Concept Modeling

Efficiently define and iterate on early design concepts



Concept modeling milestones



1908

No styling



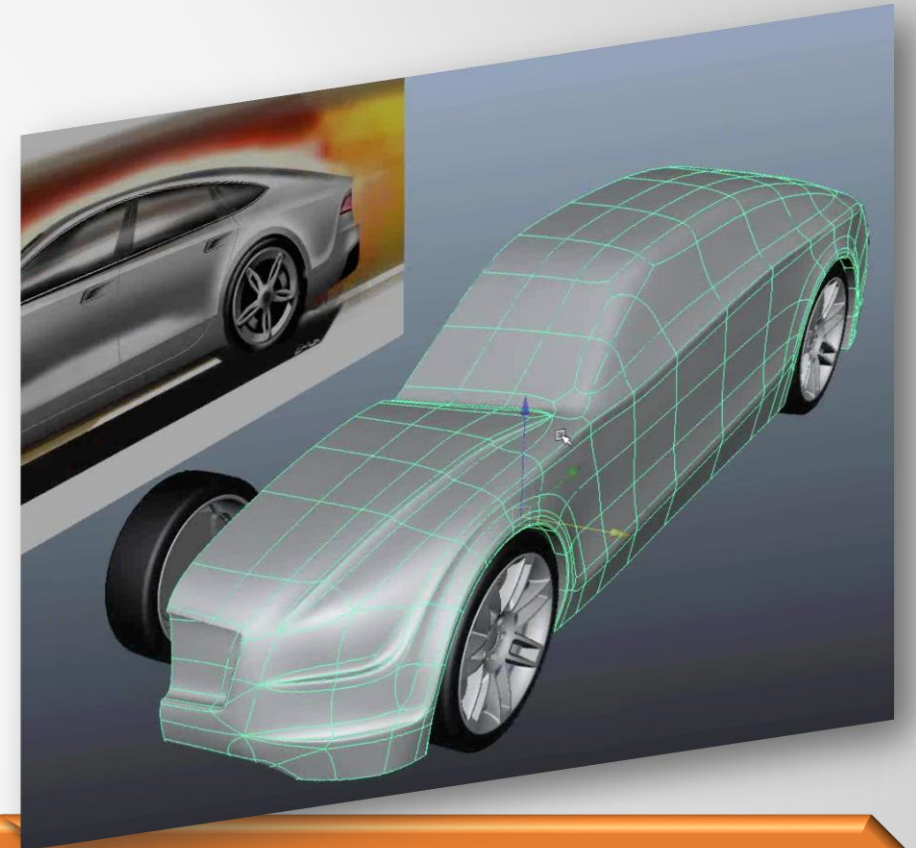
1927

Clay



1960s

NURBS

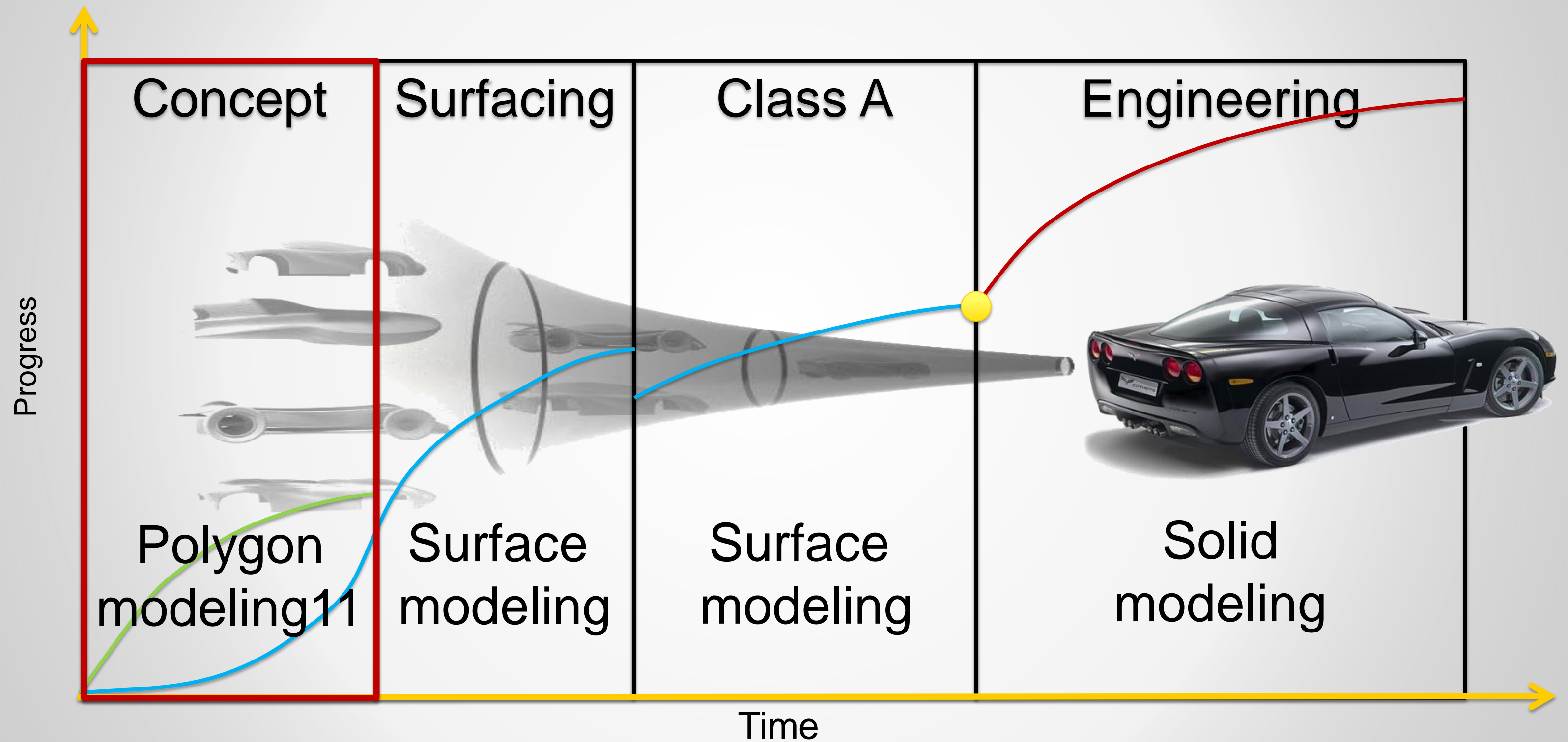


2000s

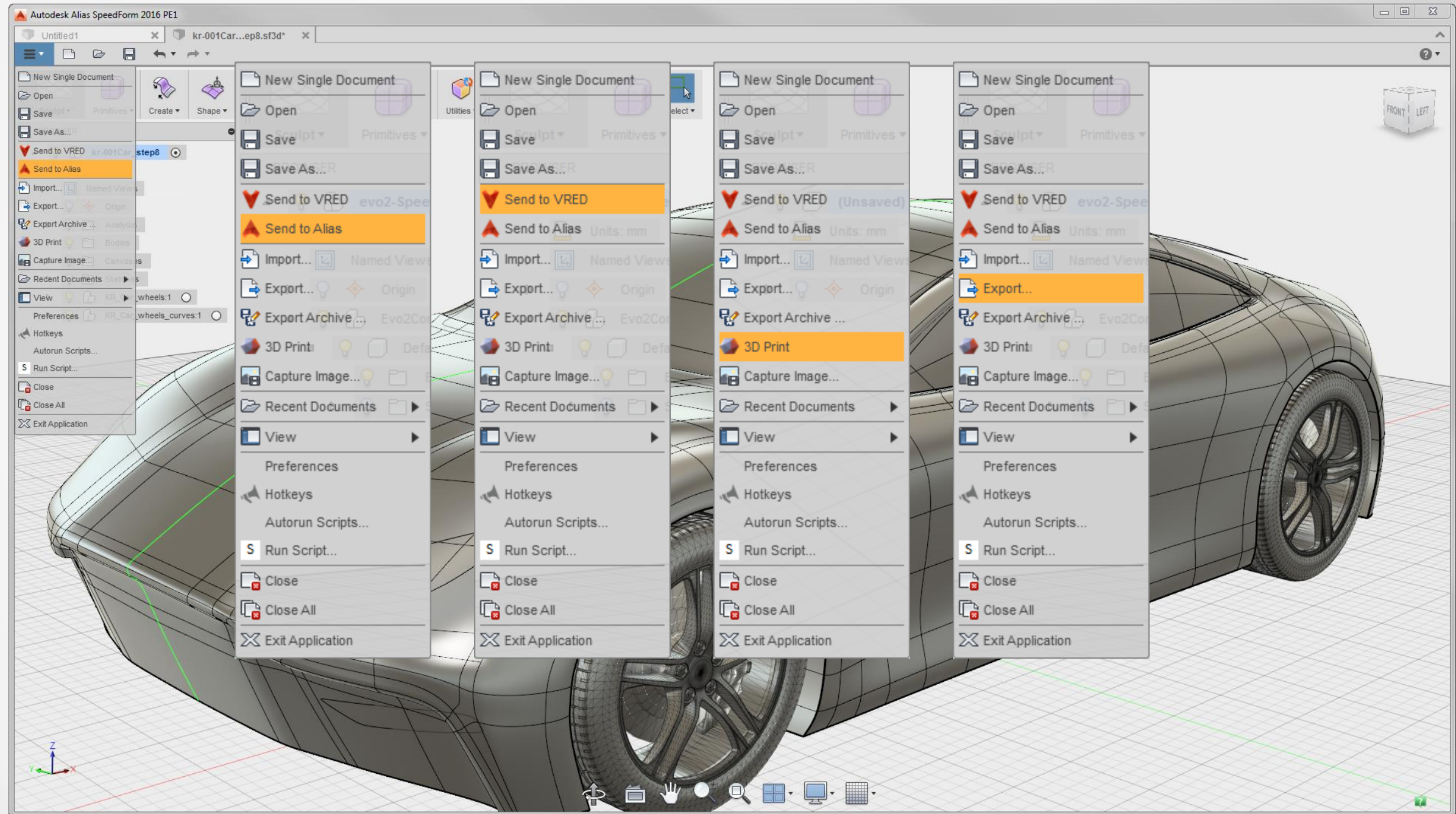
Polygons

Common approaches to concept modeling

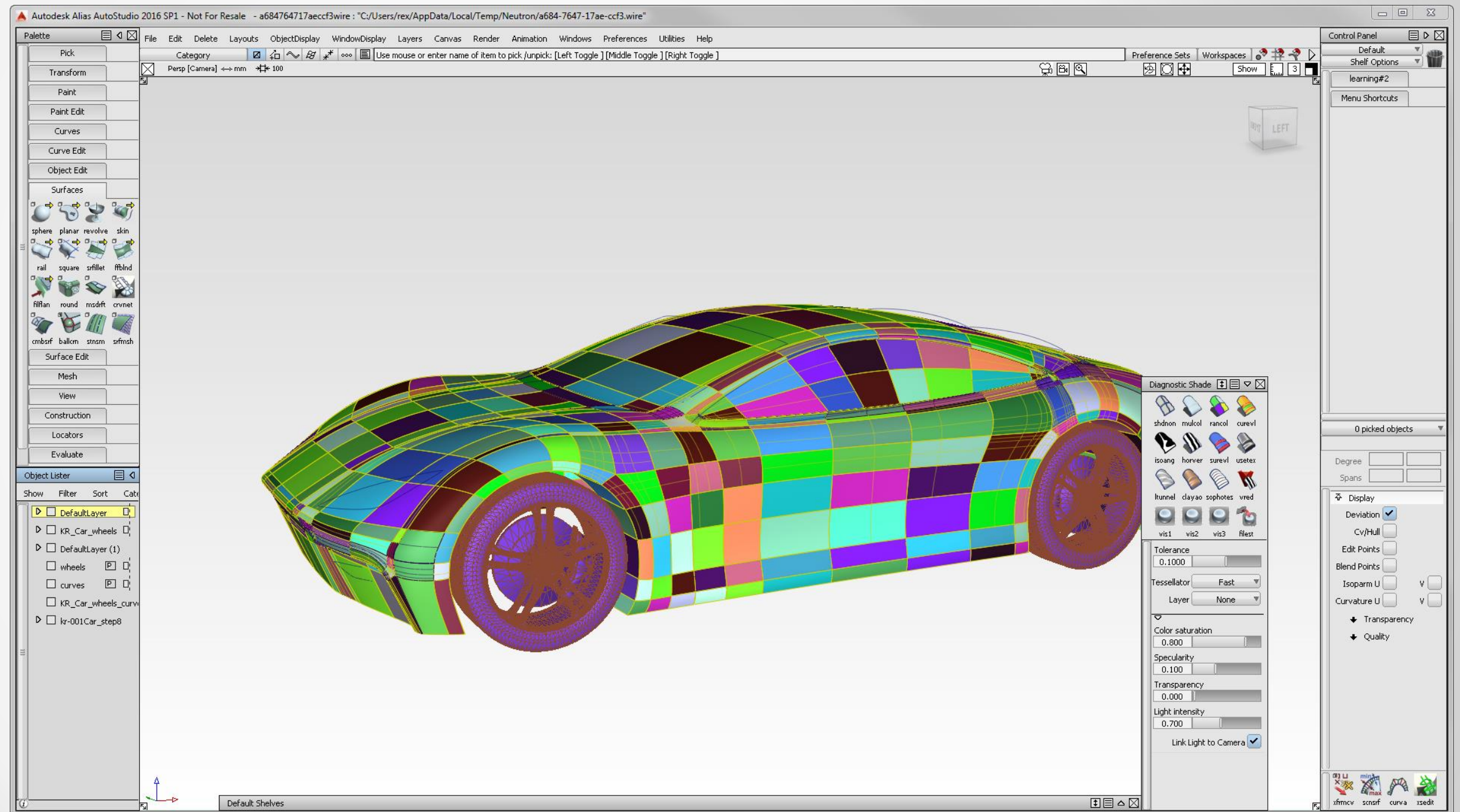
Polygon vs surface modeling



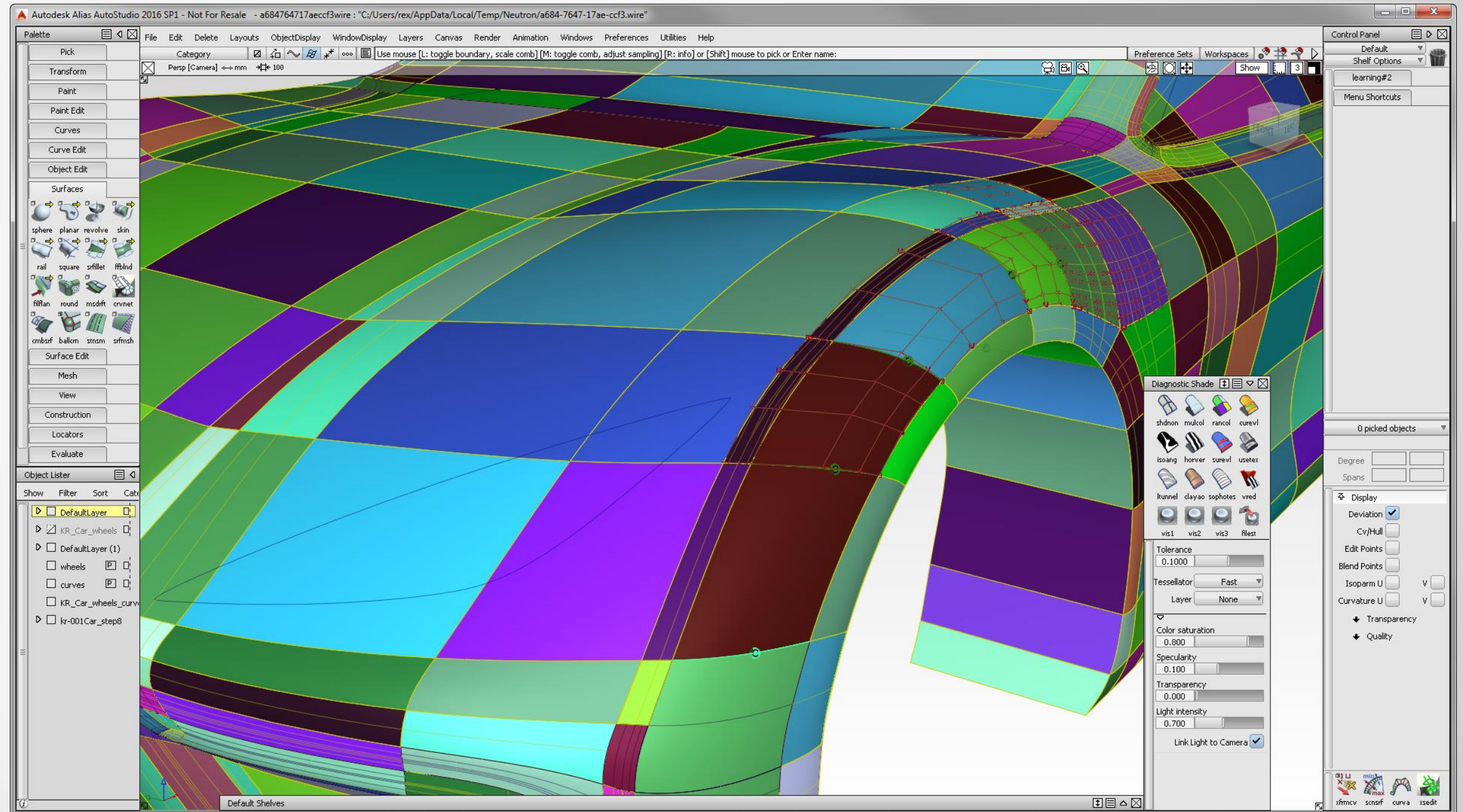
Speedform Interoperability Options



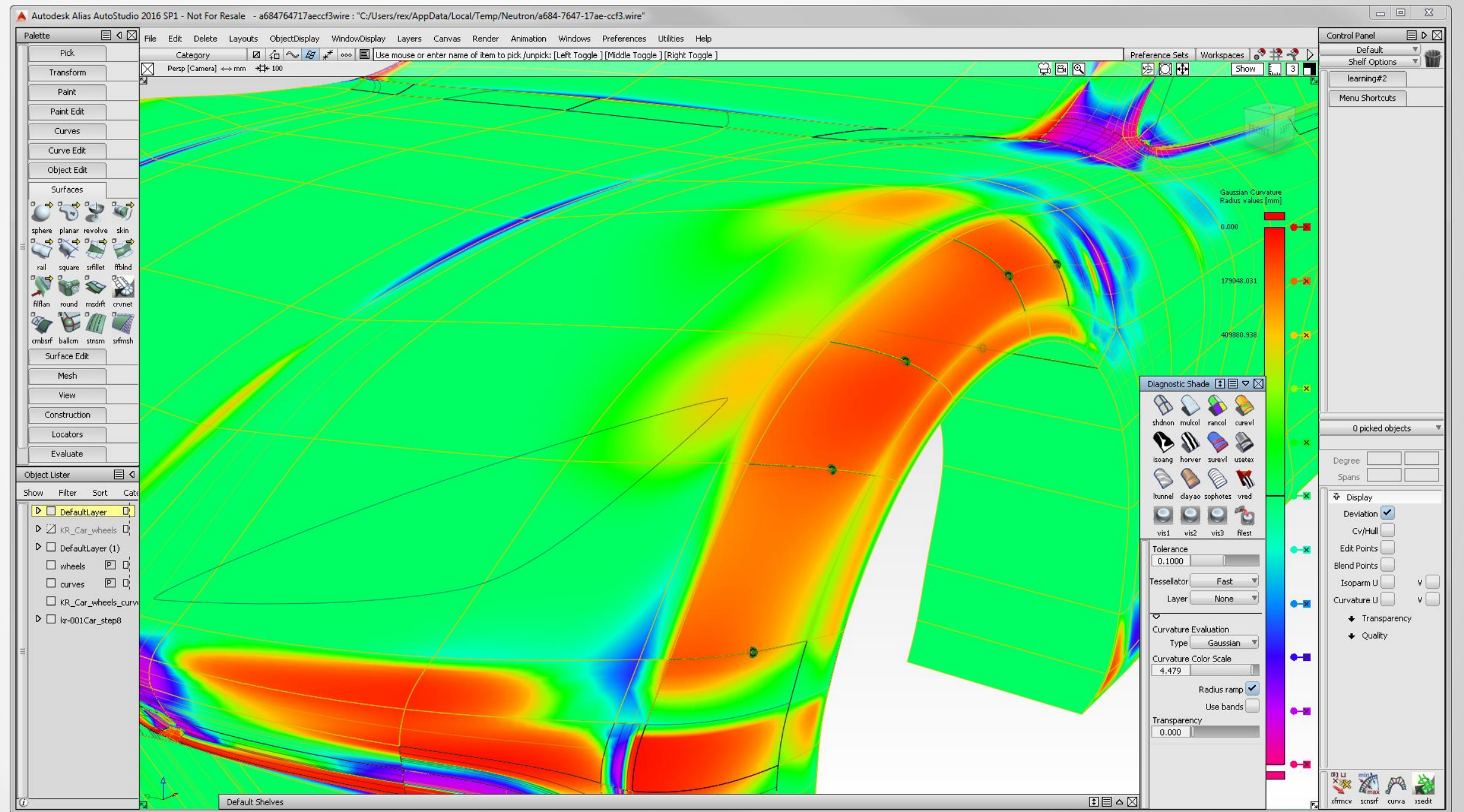
Speedform Data in Alias



Regular Surfaces with Continuity

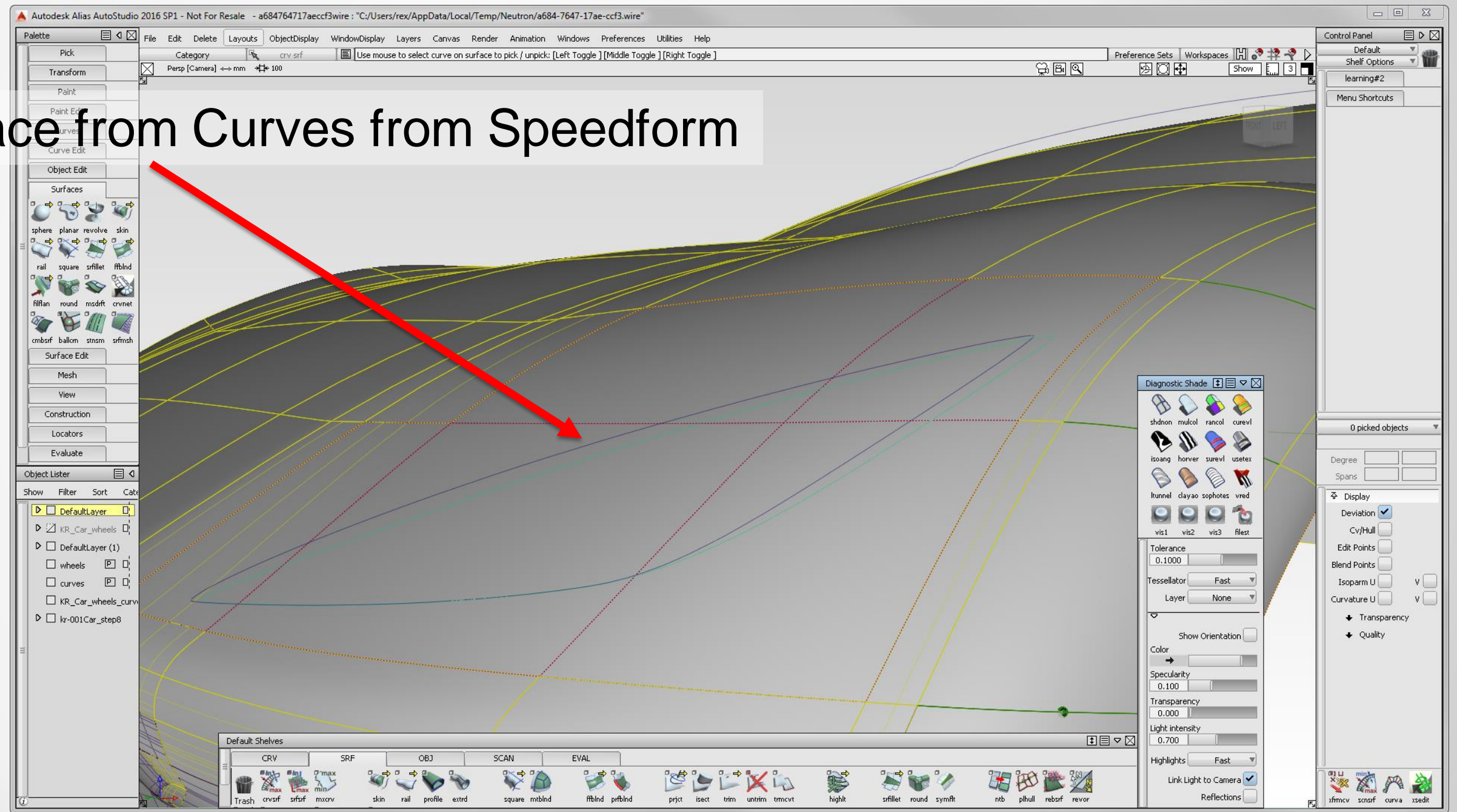


Surfaces Analytics

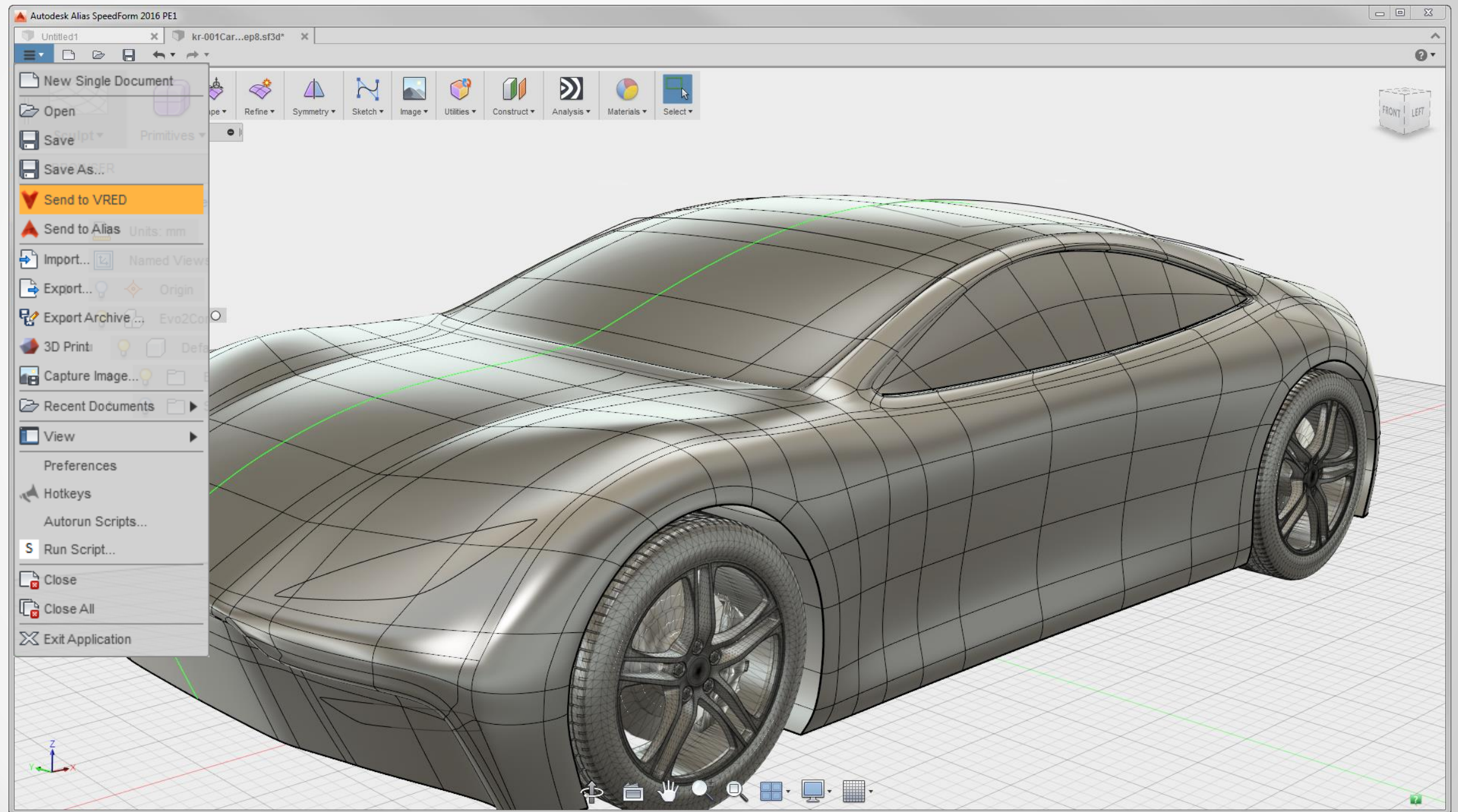


Transfers Both Surfaces and Wires

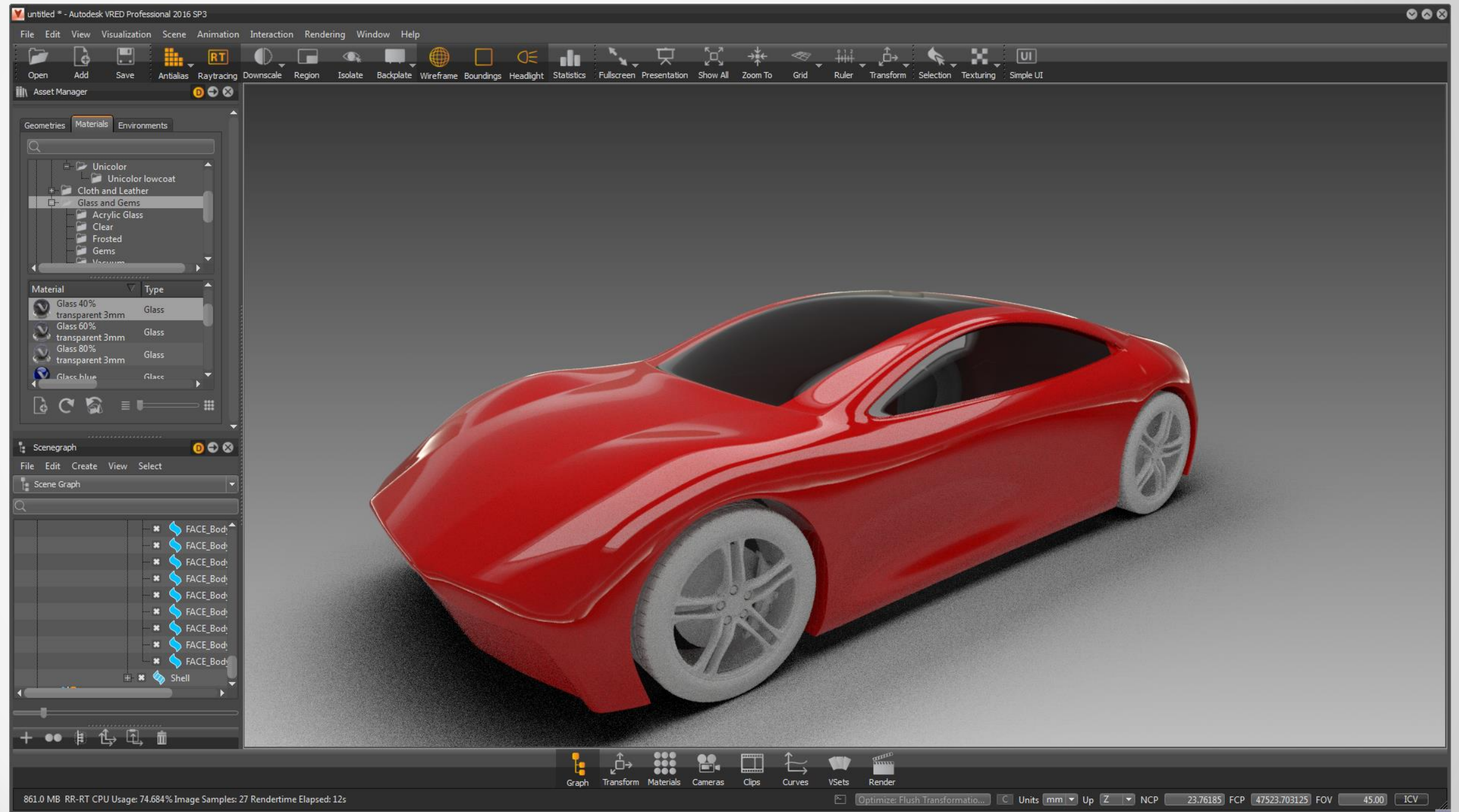
Curve on Surface from Curves from Speedform



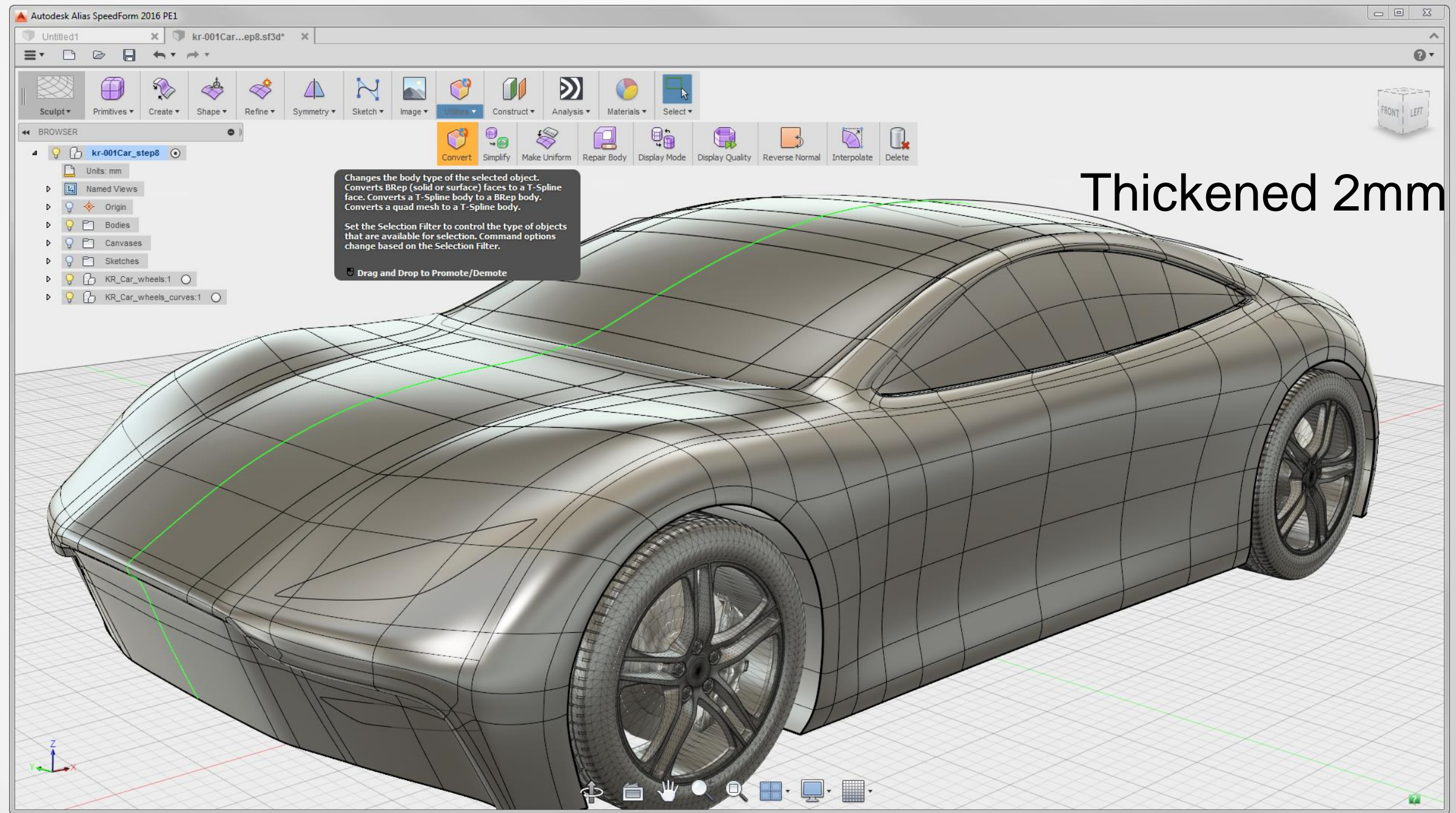
Send to VRED



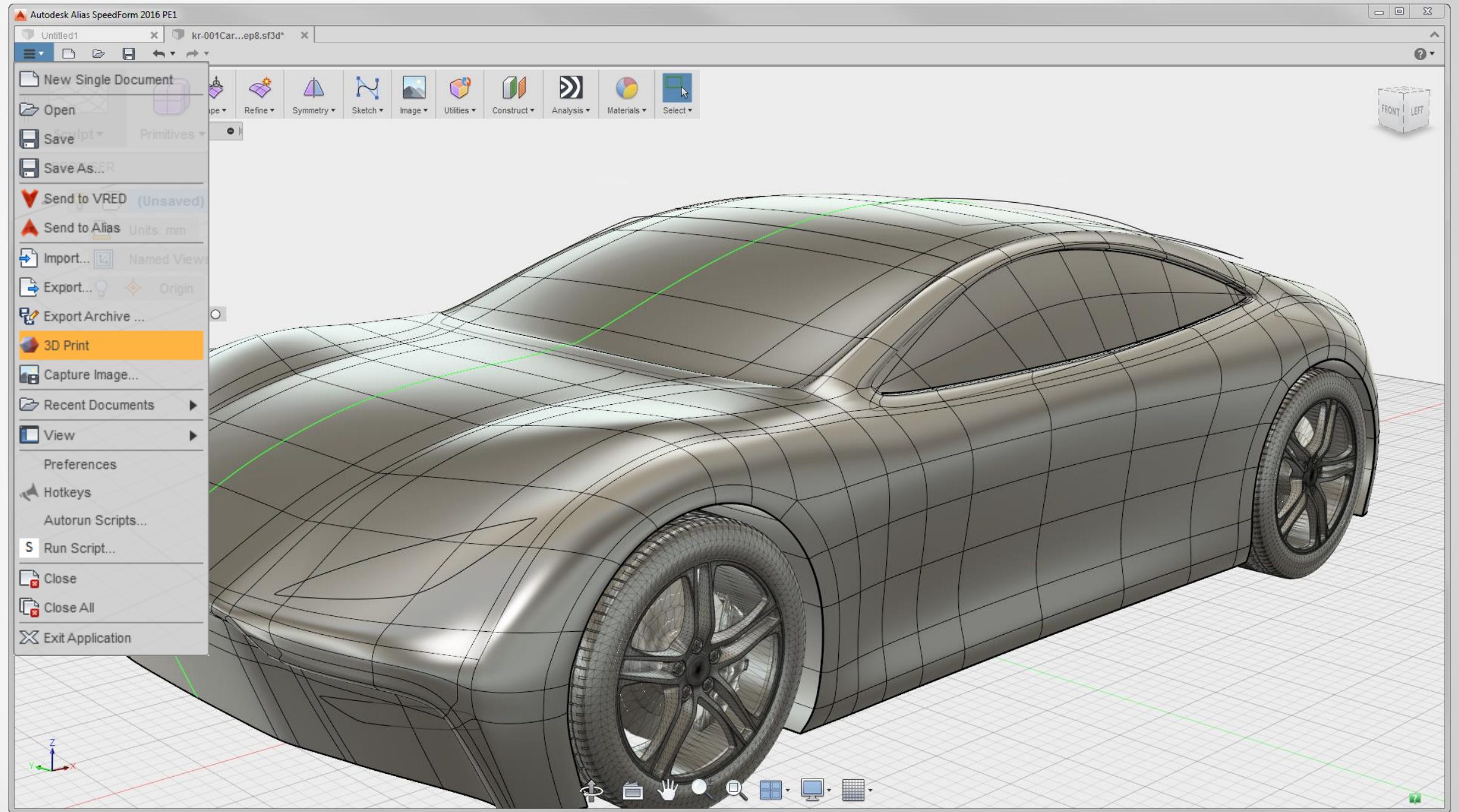
Normal VRED file Materialized



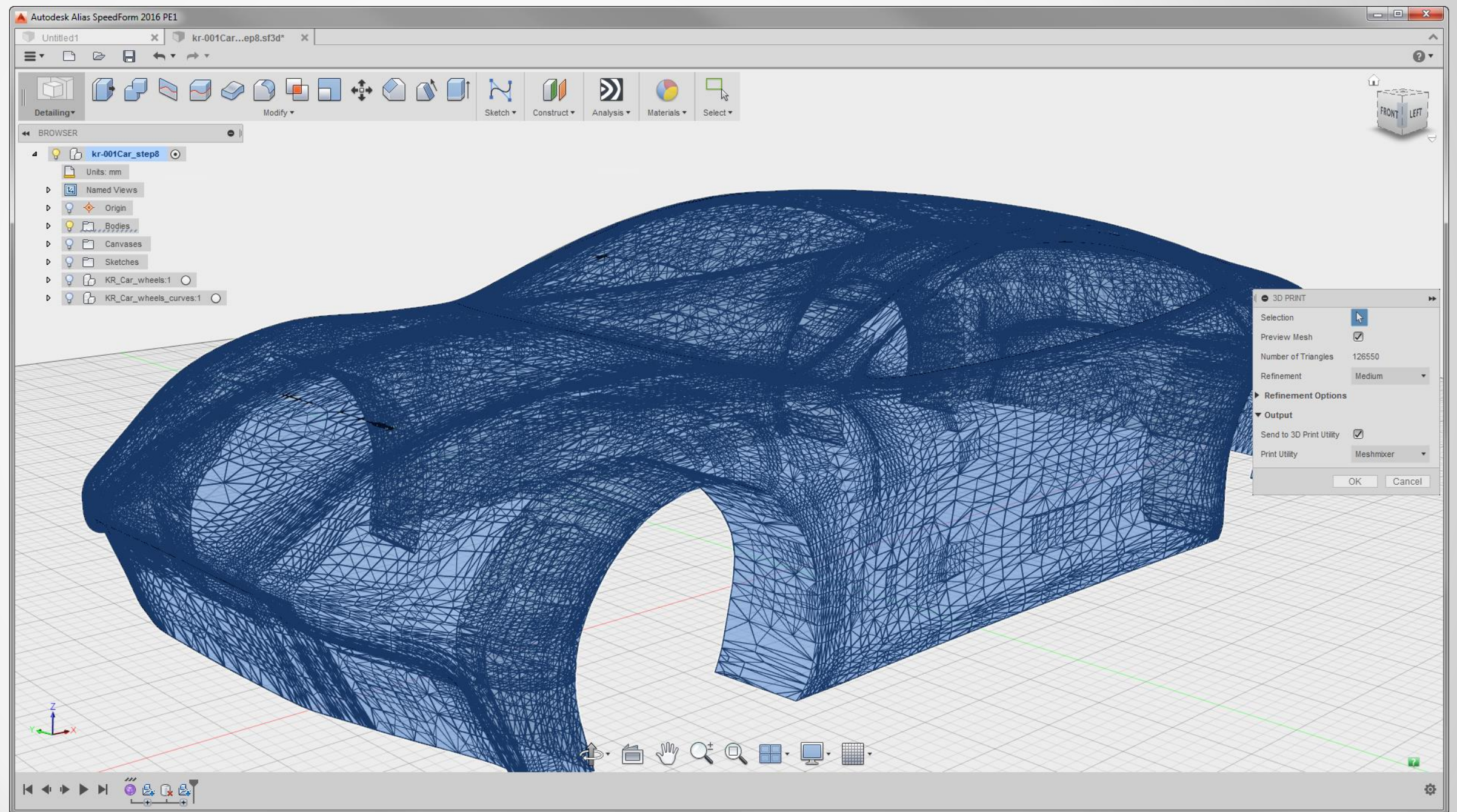
Thickened part Converted for Exporting



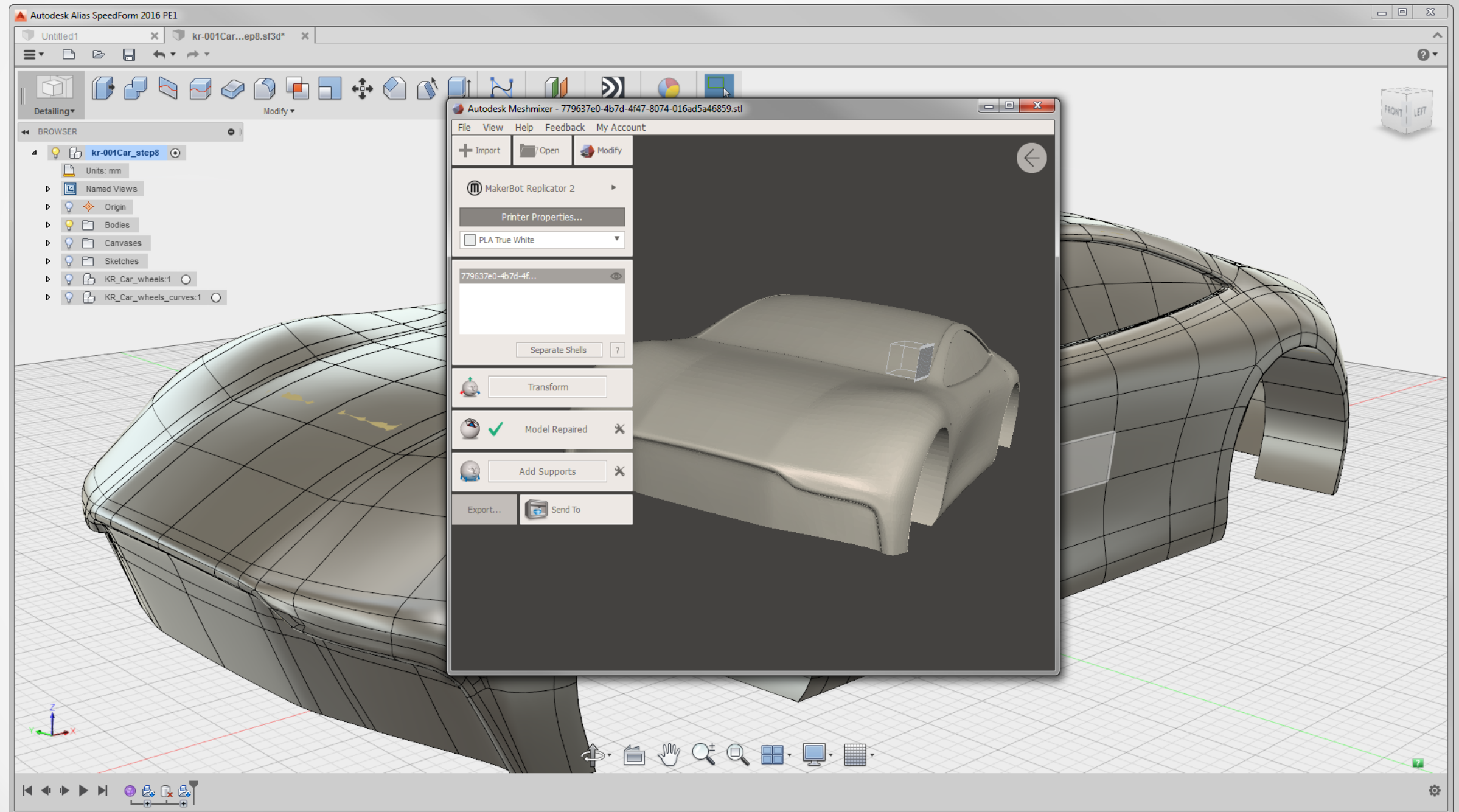
Export a 3D Print



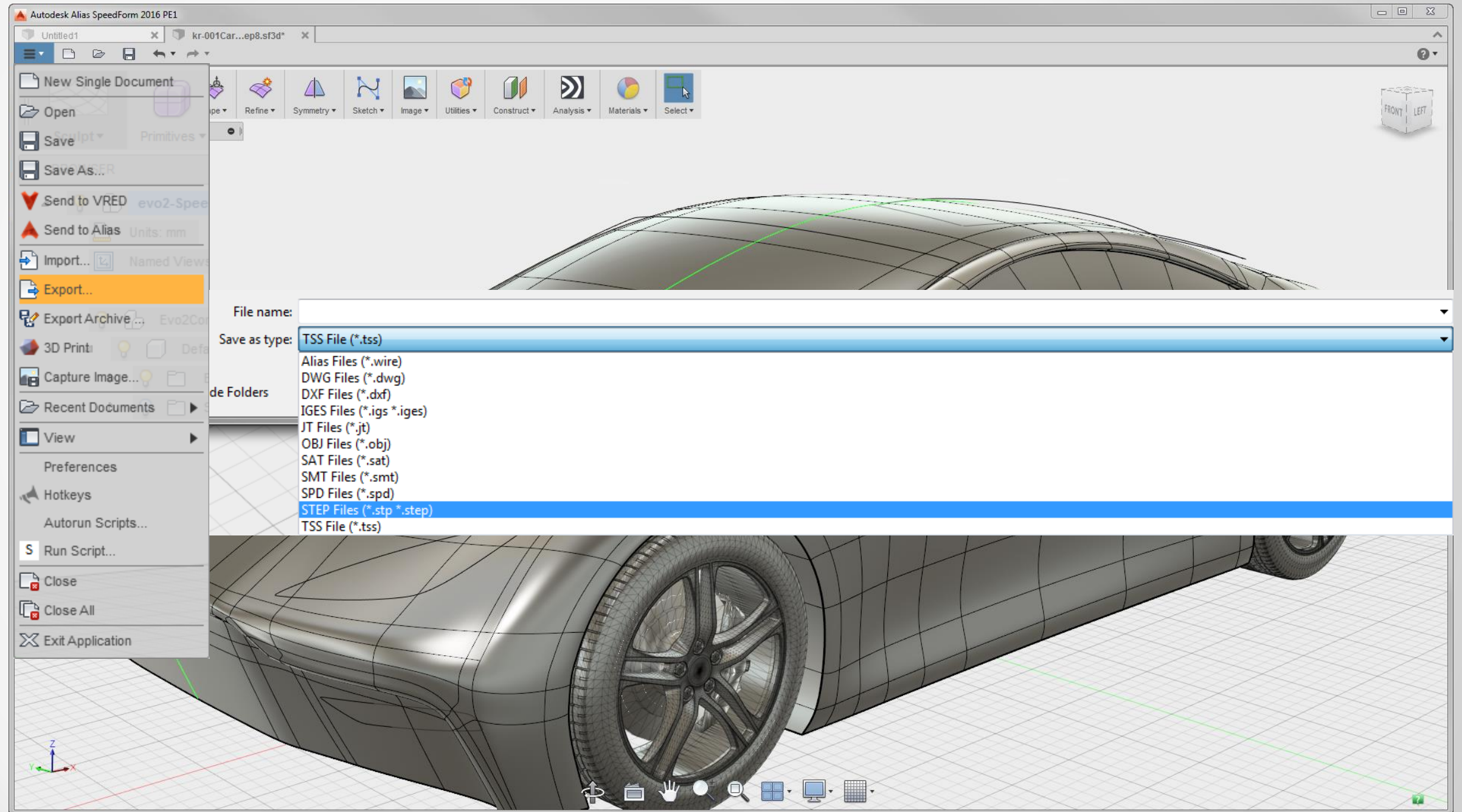
3D Print Mesh preview



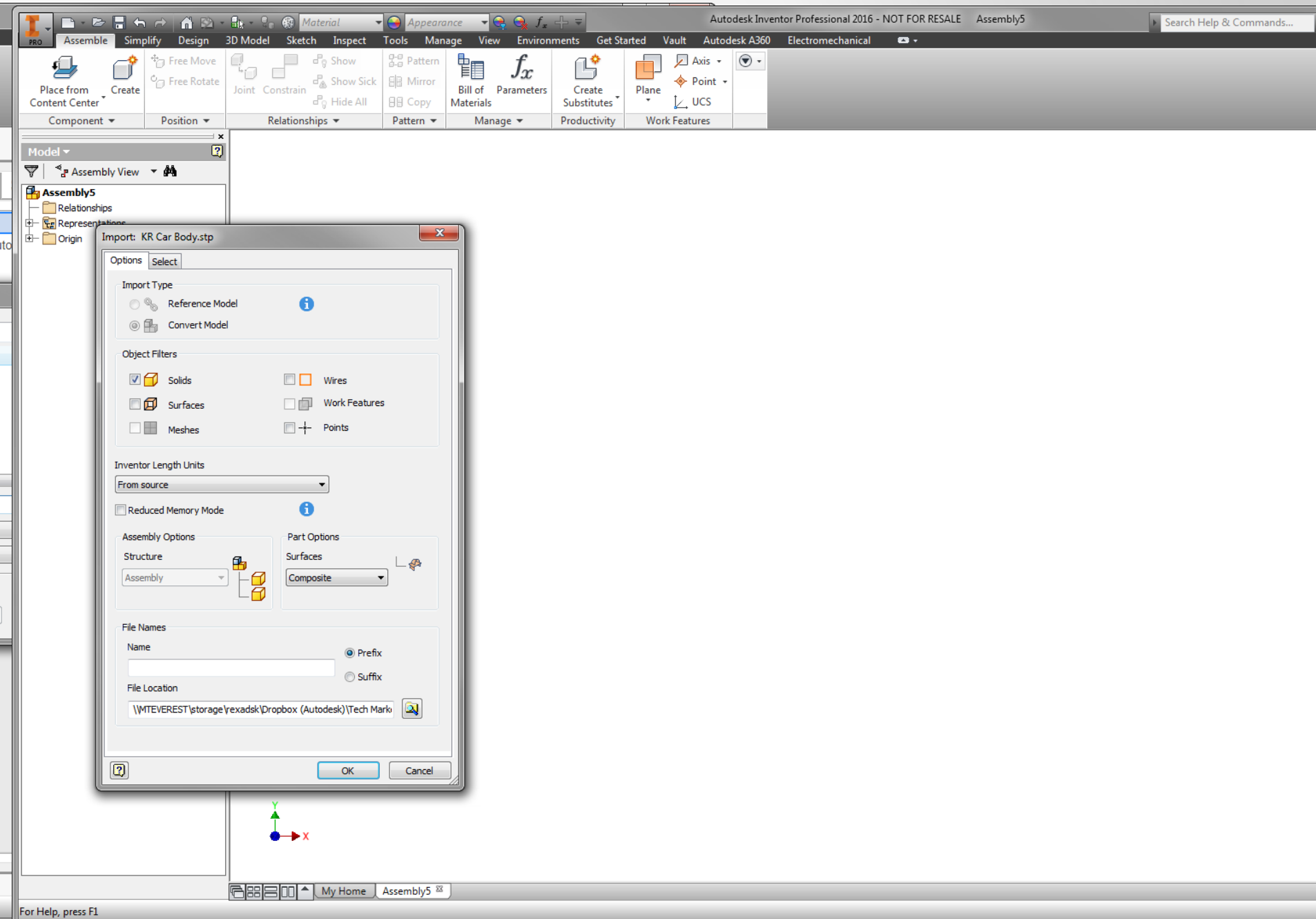
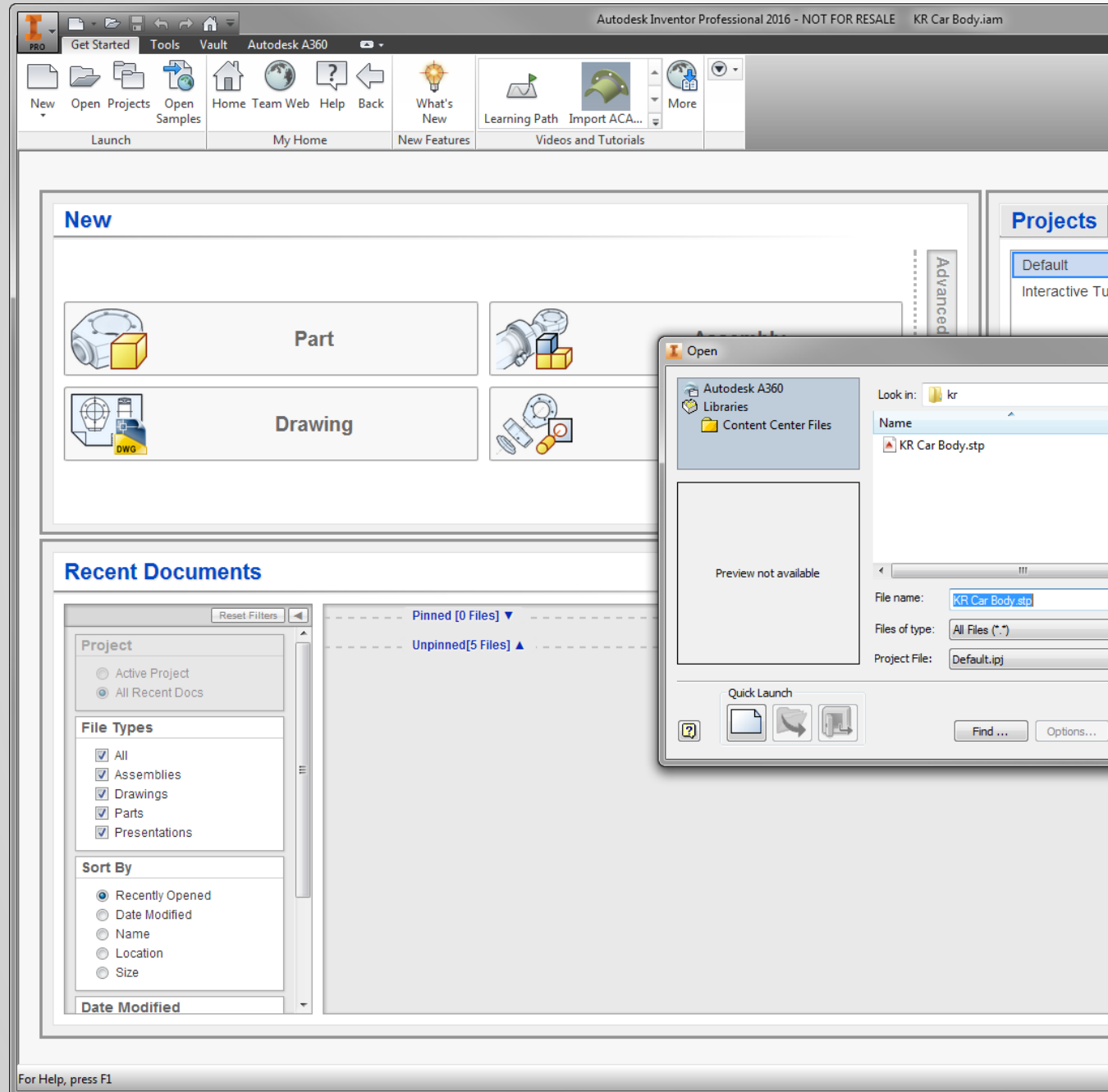
3D Print Mesh cleaned and ready for printing



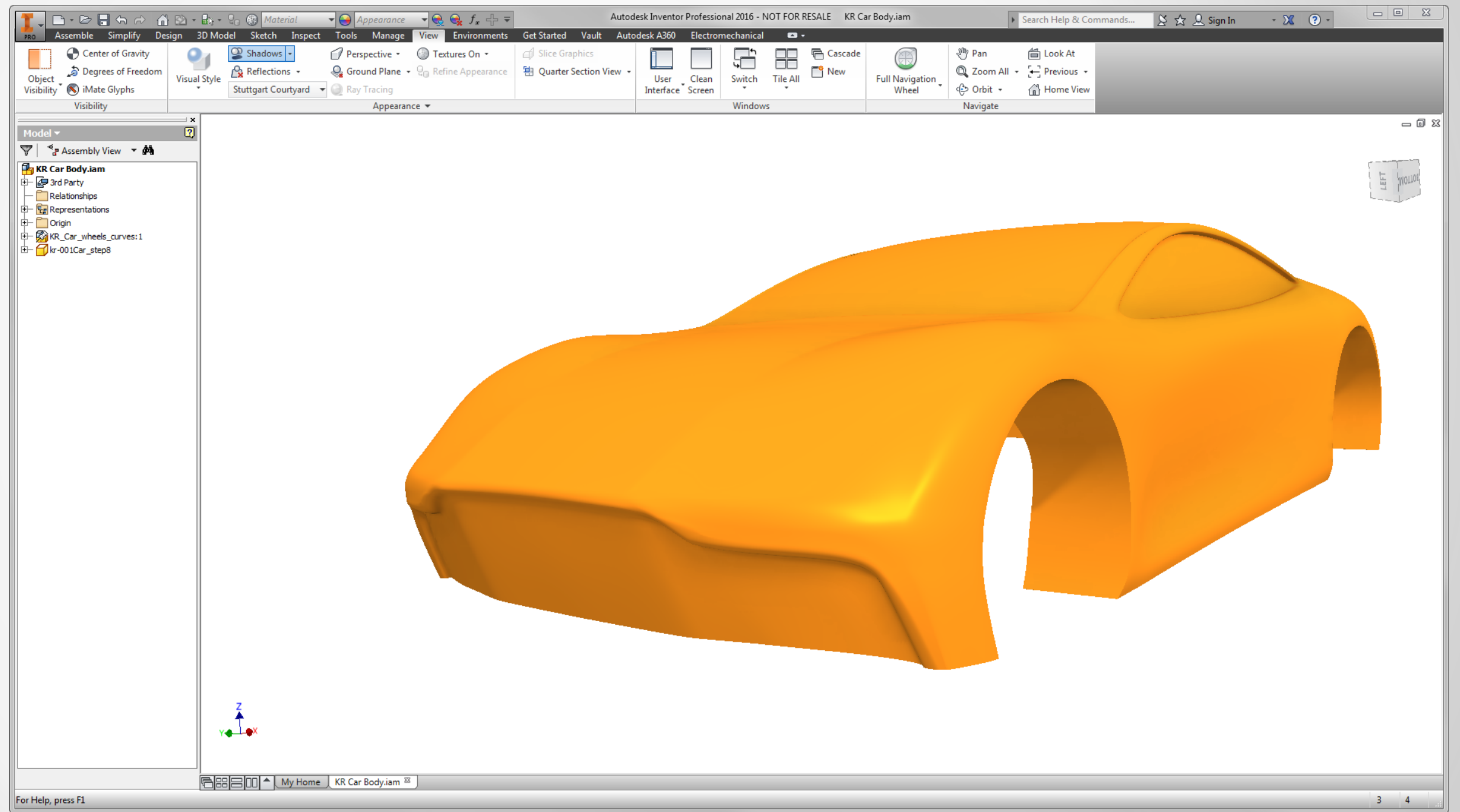
Export To Step



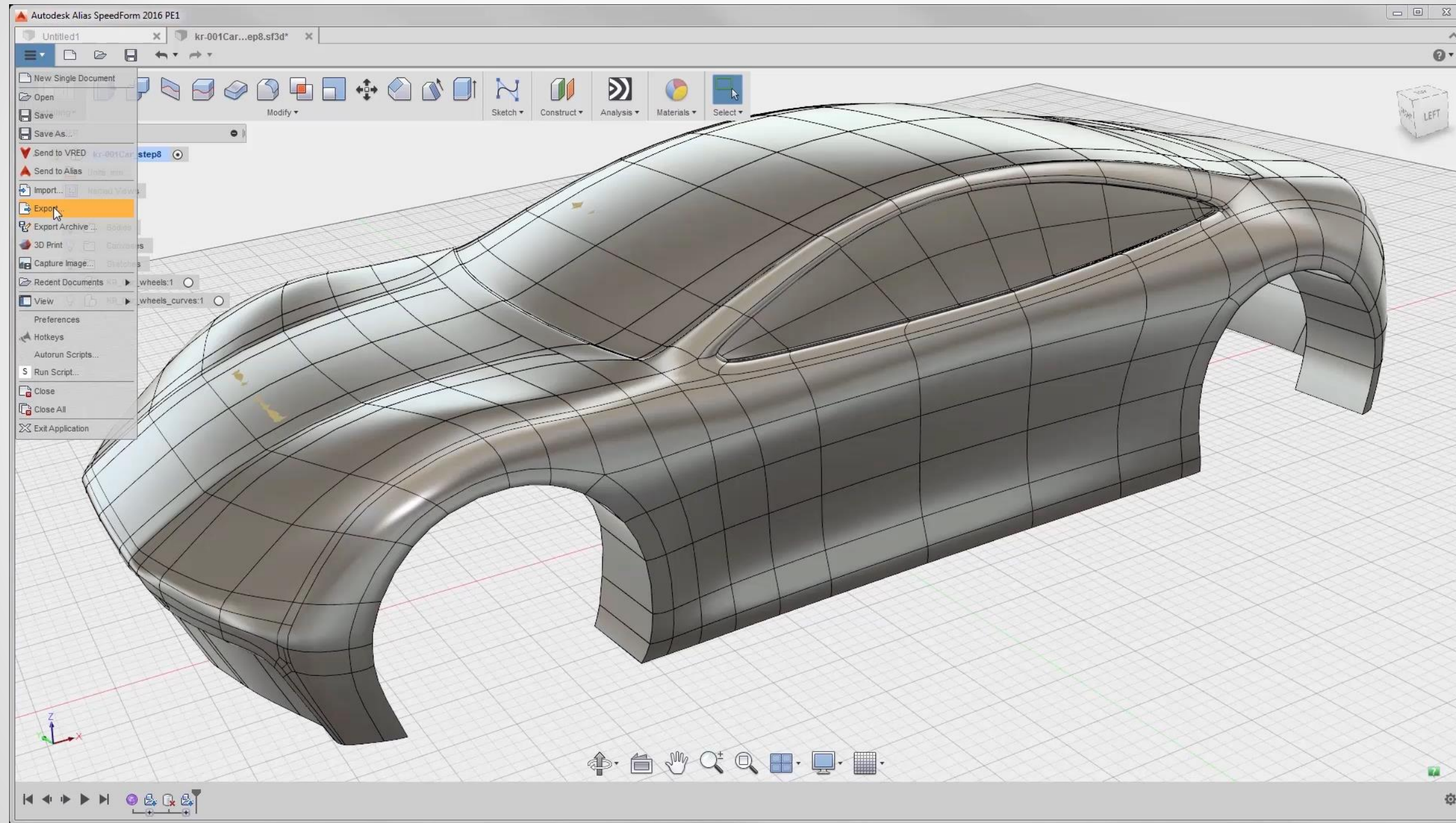
Open file in Inventor



Exported file in Inventor



Exported file in Inventor



Questions



Please Fill Out Your Surveys

Make sure your voice is heard!

Please take the time to complete your survey for this and every class you attend at Autodesk University.

Autodesk uses this information to know what classes to offer in the future.



Join The Discussion!

- Autodesk customers and industry partners ask questions and share information about Autodesk products.
- Regularly monitored by Autodesk employees

Autodesk Nastran Forum

The screenshot shows the Autodesk Nastran Forum homepage. At the top, there is a search bar and navigation links for FORUMS, ARTICLES, and IDEAS. Below this is a banner for NASTRAN. The main content area is divided into several sections: 'Browse' with filters for Nastran (152 Posts), Nastran General Discussion (143 new), and Nastran IdeaStation (9 new); 'Find Answers' with a list of recently solved issues like 'FATAL ERROR G3004: PROFILE LIMIT EXCEEDED'; 'Common Issues' with a list of proven solutions like 'AutoCAD 2015 0xc0000142 Error occurred'; 'Post to the Community' with a 'NEW POST' button; and 'Submit Your Ideas' with a 'NEW IDEA' button.

Autodesk Nastran Idea Station

The screenshot shows the Autodesk Nastran Idea Station page. It features a search bar and navigation links for FORUMS, ARTICLES, and IDEAS. The main content area is titled 'NASTRAN IDEASTATION' and includes a 'NEW IDEA' button. Below this is a post titled 'Contact Enhancement' by gerryjdail on 04-13-2015 09:16 AM. The post content discusses large deformation or deflection analysis and suggests updating contact surface definitions. The page also includes a 'Submit Your Ideas' section with a 'NEW IDEA' button and a 'My Toolbox' dropdown menu.

→ Can be found via the Knowledge Network or the SimHub

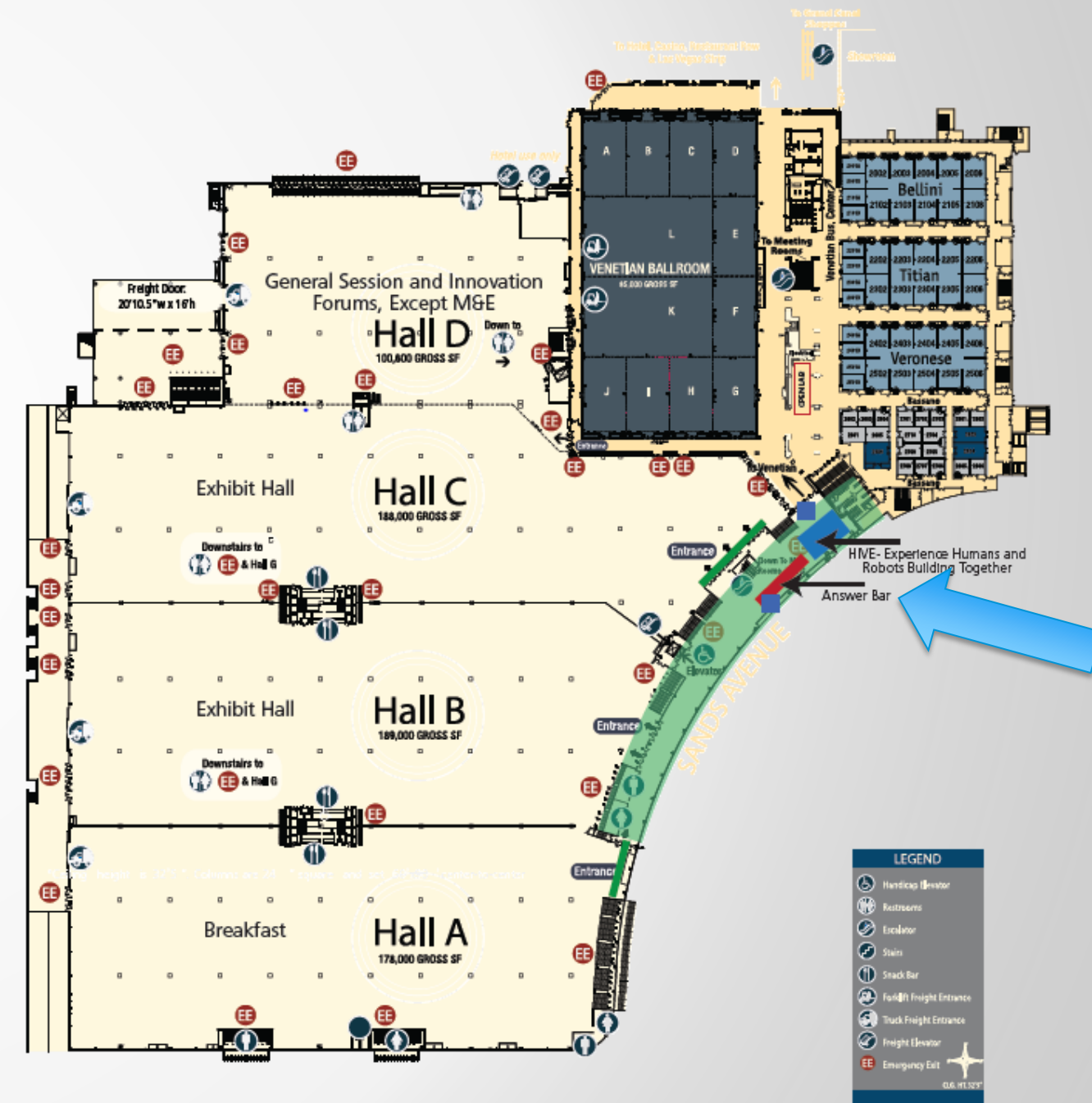
AU Answer Bar



AUTODESK UNIVERSITY 2015

Learn. Connect. Explore.

- Seek answers to all of your technical product questions by visiting the Answer Bar.
- Open daily 8am-6pm Tues-Wed and 8am-4pm Thurs
- Located just outside of Hall C on level 2.
- Staffed by Autodesk developers, QA, & support engineers ready to help you through your most challenging technical questions.



Voice of Customer

Be Heard and Win!

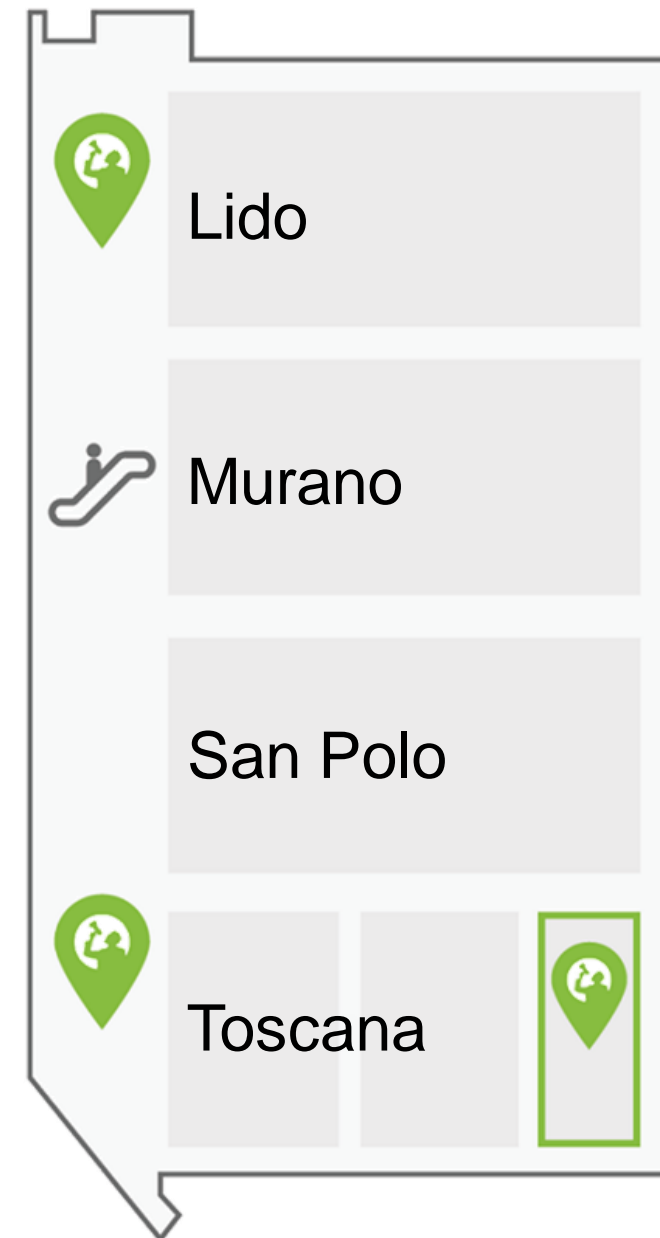
Help shape the future Autodesk experience...

9am – 6pm every day



...and maybe win a
GoPro camera!

Venetian Level 3



For more information visit autode.sk/AU2015VOC

