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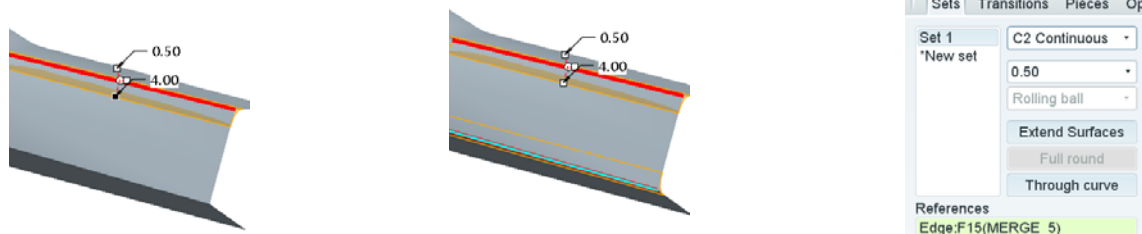
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PTC Product Focus

What's New in Pro/Engineer Wildfire 5.0 Industrial Design

C2 Continuous Rounds are new in Pro/ENGINEER Wildfire 5.0. This means that the transition between the edges of the round and the rest of the geometry is smoother.



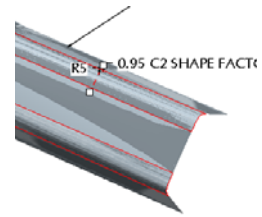
Select **Sets** tab and you can see the **C2 Continuous** round type.

The new Dynamic Regeneration feature allows the user to see the effects of dimensional changes without having to manually edit dimensions.

This kind of reflection is commonly referred to as 'Zebra Striping'. This shows how smooth the round is compared to a tradition round.

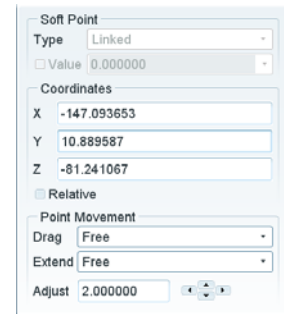
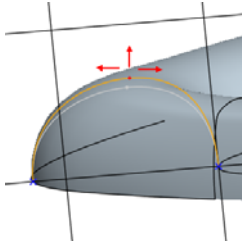
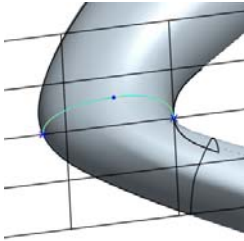


Notice that you can now drag this C2 Round Dynamically. This gives the user much better insight into how the design will look.



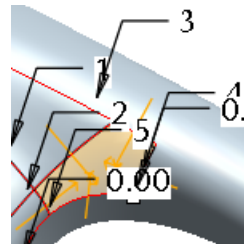
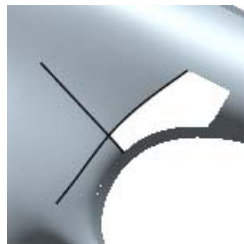
Hold down the right mouse button and select 'Show/Hide All Dims'. This shows the values as you dynamically edit the feature.

Also new in Pro/ENGINEER Wildfire 5.0 is the ability to 'Nudge' points in four directions. This is extremely useful in fine tuning your design.



Typically, we have been limited to three and four sided surface patches in Pro/Engineer. In many cases this means that we have to use additional surfaces to build patches as shown here. New in Pro/ENGINEER Wildfire 5.0 is the ability to create patches with more than 4 sides – known as an N-Sided Patch.

Notice that the yellow arrows show that we automatically have tangent connection across all boundaries.



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PTC Product Focus

Using Web Services with Windchill

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Tips of the Month

Automatic Surface Creation Using Reverse Engineering Extension

Recapture the design value in your physical parts. Pro/Engineer Reverse Engineering software enables engineers to transform existing physical products into accurate designs from 3D scan data, without losing any of the original design intent or critical geometric data.

Utilizing tools such as “wrap” you can affect dramatic geometric changes. Then build tooling and NC sequences referencing the reverse engineering data. And as an integral part of Pro/Engineer, with its full associativity, changes made anywhere are automatically made everywhere.

Capabilities:

- Obtain point cloud management and refinement, facet modeling and refinement, robust curve creation, robust surface modeling and shape recognition tools.
- Transform existing physical products in to 3D digital models.
- Make modifications to these designs.
- Create surfaces connections for curvature (G2) within a Restyle module.
- Automatically generate curve-path structures as well as surfaces directly on a facet model.

Step 1. Importing point cloud data

First we have to import the cloud data. This will involve importing the scanned file into your Pro/Engineer part, specifying the coordinate system as a placement reference for the imported data.

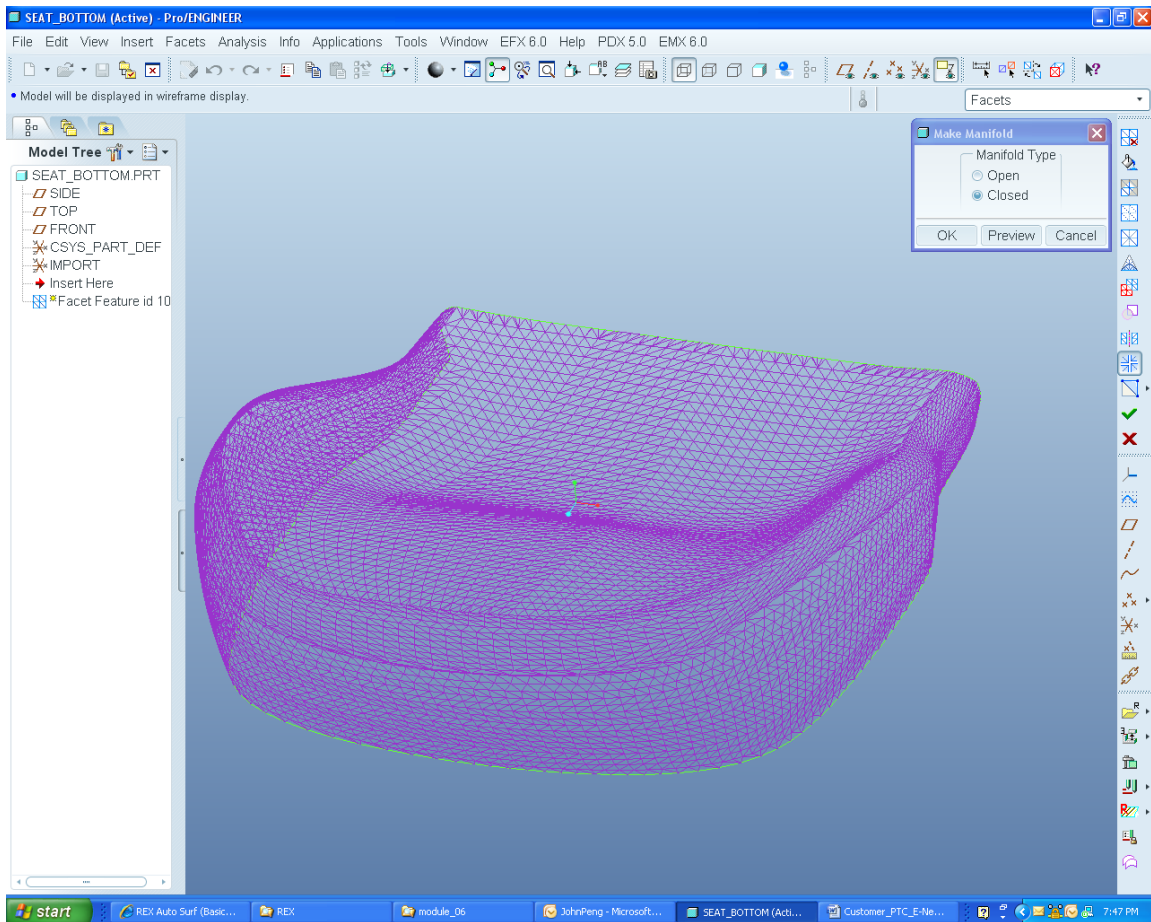
Step 2. Converting from points phase to wrap phase

In order for us to generate usable surfaces, we have to convert this point cloud data into Facet Feature.

After you have modified, if necessary, the point set using the Points menu, you can wrap the point set to create a triangulated model, also called a wrap, and edit the wrap to remove unwanted triangles and reveal underlying geometry.


A wrap can consist of both closed and open surfaces that, in turn, consist of triangles, edges, and vertices.

Select Wrap  from the Points Phase:



Step 3. Converting from wrap phase to facet feature


After you have modified, if necessary, the wrap set, you are ready to convert it to facet geometry.

Select Facet  from the Wrap Phase commands.

Pick Make Manifold 

Select Open to create manifold if the model does not bound volume

Select Closed to create manifold only if model bounds volume

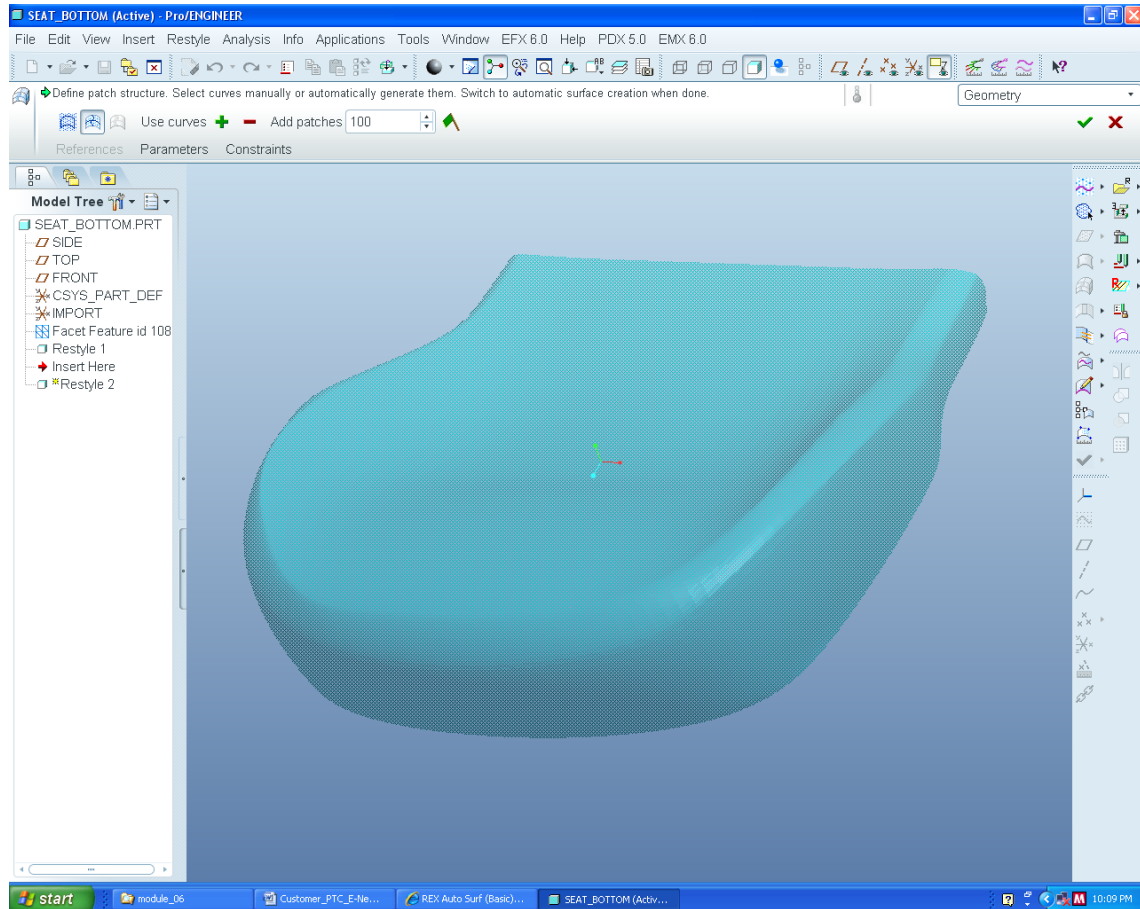
Pick  to complete the facet feature creation

Step 4. Automatic creation of spline surfaces


Automatic creation of spline surfaces involves three phases:


- 1- Defining a loop to determine the region for creating surface
- 2- Defining the path structure
- 3- Creating or modifying the surface

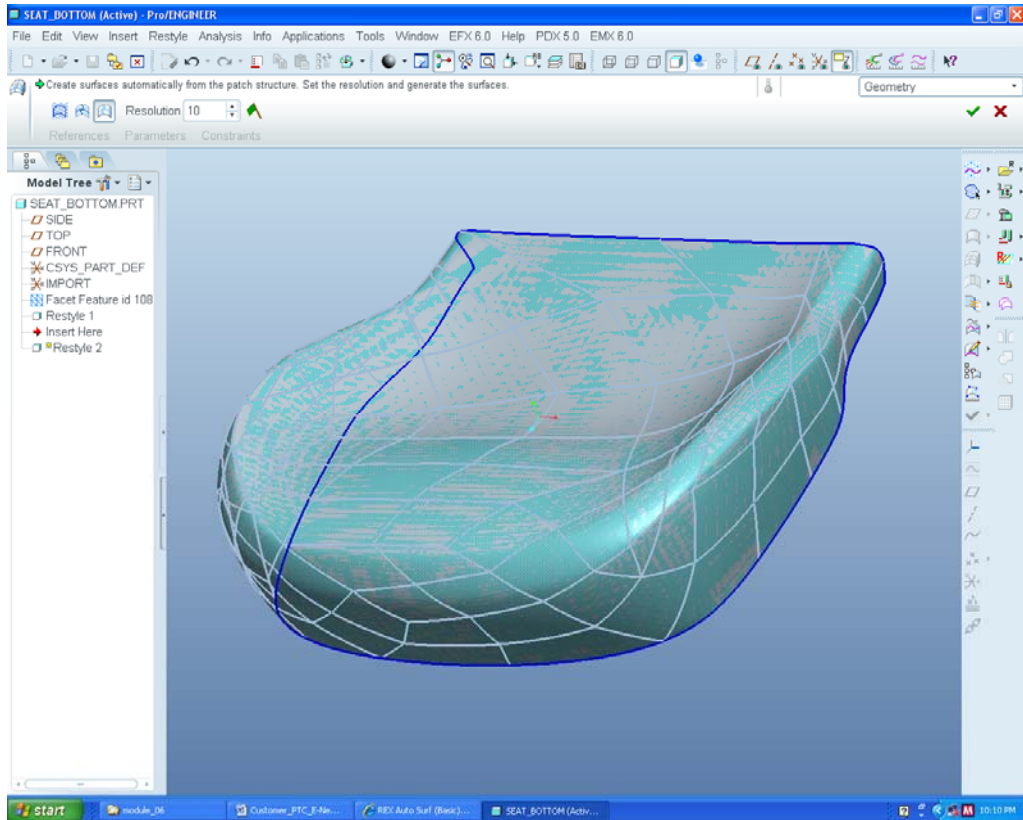
From the pull-down menu, choose Insert, Restyle




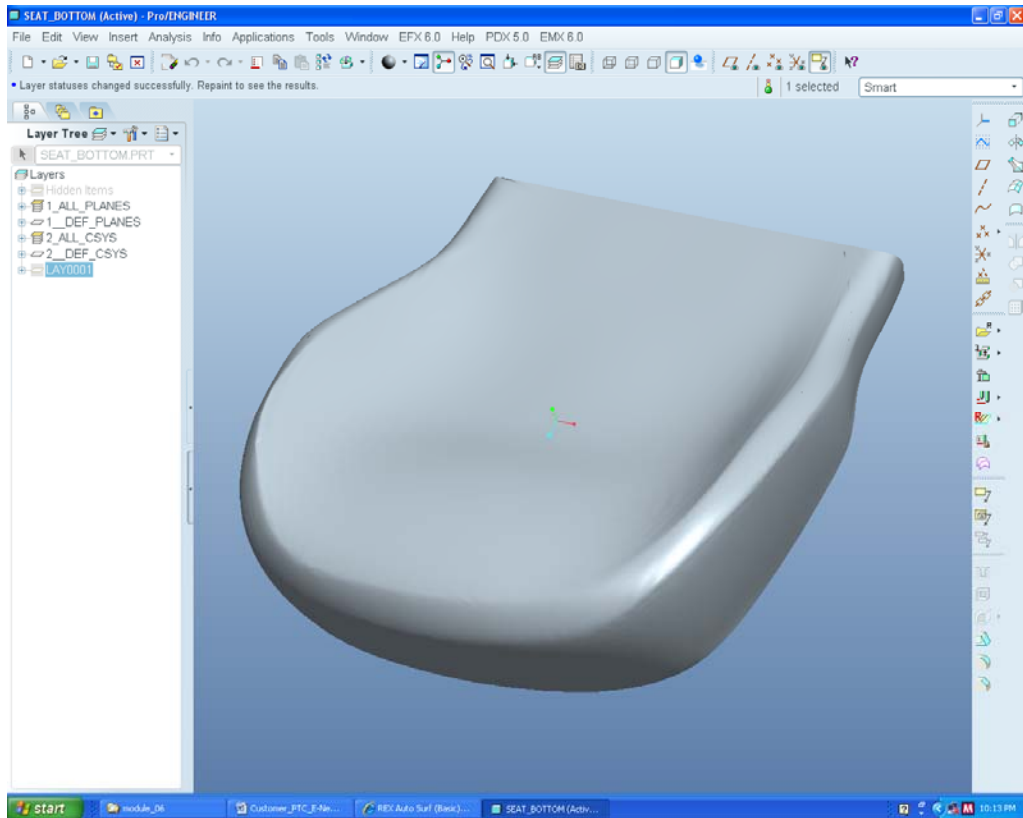
Click Auto Surface  tool to activate the dashboard

Select Entire Facet  on the dashboard to generate surface over the entire faceted model

Select Path Structure  to enter the path structure creation phase



Click . The path structure is generated automatically



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Tips of the Month

Exploring Available Web Services

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Announcements

PTC Tips & Techniques Newsletter Archives

Did you miss an issue? Can't find that awesome technique you read about? Fear not, you can click on the link below and go through our Customer PTC E-Newsletter archives.

[Customer Care Zone](#)

PTC Tips & Techniques Webcasts: Work Smarter. Not Harder.

Click below to see regularly scheduled Tips & Techniques technical Webcasts that are designed to provide you with the most popular time-saving tricks that Pro/ENGINEER users of all skill levels will find useful. Get more out of your maintenance dollars!

[Tips & Techniques: Work Smarter Not Harder!](#)

Special Hardware offers for PTC Customers

- <http://www.hp.com/go/ptc>
- <http://www.hp.com/go/ptcworkstation>

PTC Sponsored Events

- <http://www.ptc.com/company/news/events/index.htm>

Explore what is new with the Pro/ENGINEER Wildfire family!

<http://www.ptc.com/go/showcase>

Connect with PTC using the latest Social Networking resources:

facebook



LinkedIn

YouTube

Also visit <http://social-product-development.blogspot.com/>

E-PROFILES IS HERE!!

We have been eagerly anticipating the debut of the new electronic version of Profiles Magazine and now it is here! This new web site will supplement the print edition of the magazine and will provide new useful features not feasible with paper media. e-Profiles will provide you with 24x7, worldwide access to key information previously available exclusively in the print version. "Tips & Tricks," a popular feature pioneered by Pro/USER, has also moved to the web and will be expanded as the site matures.

Please take a few minutes to check out this new web site. We don't think you will be disappointed.

<http://profilesmagazine.com/>



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Upcoming Events & Training Class Schedules

Upcoming, 2010 Your local Pro/Engineer User Groups
<http://www.ptcuser.org/rugs/>

June 6 – 9, 2010 Orlando, FL USA
PTC/USER World Event
<http://www.ptcuser.org/>

Events

Our seminars and conferences seek to provide you with relevant information regarding product development trends in your industry as well as innovative software learning experiences. Think of them as a constructive day off where you can share experiences and swap ideas with your peers.

If you can't manage to get away, we'll bring it to you. Check back often for regularly scheduled live webcast events.

[You're Invited to Attend...](#)

Please visit the [PTC Education Services](#) website for the latest training information including course descriptions, schedules, locations, and pricing.

- Attend a course at any PTC Center and receive a **free** copy of Pro/ENGINEER Wildfire Student Edition!

<http://www.ptc.com/services/edserv/index.htm>

Live Instructor-Lead Virtual PTC Training Courses

Virtual Classrooms provide interactive learning with a trained PTC instructor in convenient and manageable sessions that last approximately 4 hours over a series of days. It's easy to join a class right from your desk using a phone or voice-over IP technology.

Sessions are performed just like a traditional ILT (including interactive exercises where you and the instructor can work on lab exercises together) and feature some of our most popular ILT courses. These sessions cover the exact same material as the traditional ILT in-center courses. Also look for some of our most frequently requested mini-topics delivered in the same format that are only an hour - two hours in duration.

If you have any questions about these sessions or would like to see getting other courses, not on this list, on the schedule please feel free to contact me for more details. They are a great way to bring training to you without you having to worry about location or being out from work for long stretches.

You can register for these sessions just as you would for any normal ILT class either by:

1. calling order admin at <http://www.ptc.com/services/edserv/training/registra.htm> or
2. you can go to PTC University directly at <http://www.ptc.com/learning> and submit a registration request directly. All you have to do is search the catalog by typing in “virtual” in the search field and you will see a listing.

PTC

Note: This PTC E-Newsletter will continue to be used for the following:

- 1) Inform you on events related to PTC products (user groups, conferences, training schedules, etc.)
- 2) Educate you on solutions that are available at PTC
- 3) Tips & Techniques using PTC Products

Note: These messages are compiled in the local PTC office and will be distributed via e-mail.

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