IntegrityWare

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Power Surfacing | Industrial Design for SolidWorks!

- Do you struggle to create freeform/organic shapes with SolidWorks?
- Do you avoid making changes to surface features because the resulting solid body will not rebuild correctly without a lot of time consuming rework?
- Do you have difficulty creating aesthetically pleasing “Class A" surfaces with tangent and curvature continuity?
- Are you forced to utilize software other than SolidWorks for Industrial Design part of your product design?
- Do you need to import polygonal objects created outside of SolidWorks?

We have an answer for you!

Power Surfacing makes it easy and fun to design complex free form, aesthetically pleasing **"Class A"** surfaces in SolidWorks. No longer will you have to fight with patching a set of trimmed surfaces together to form complex curved shapes; manipulating **Power Surfacing** parts is as simple as modeling with clay. **Power Surfacing** allows great flexibility and productivity in designing those difficult surfaces by pushing and pulling on the faces, edges or vertices of the part. You will have so much fun designing with **Power Surfacing** that you won't want to stop.

Power Surfacing creates single unified objects which can easily be modified in both subtle and significant ways without pulling apart the resulting NURBS surfaces. With **Power Surfacing**, design changes are a breeze.

Power Surfacing can convert virtually any Sub-D model (even Sub-D models that have some triangles) into a precise NURBS representation that is understood by the SolidWorks system.

When converting Sub-D models into SolidWorks geometry, **Power Surfacing** creates high quality surfaces, which accurately interpolate the vertices of the original Sub-D mesh. Once **Power Surfacing** converts the Sub-D geometry into SolidWorks native geometry, you can easily Boolean operations, filleting, shelling, perform analysis, etc. Even after converting the geometry to a native SolidWorks format, you can then go back to the original Sub-D model and perform additional Sub-D operations.

Combined with our Power SubD-NURBS plugin for modo, **Power Surfacing** allows designers who use the powerful and popular modo product to import modo models into SolidWorks with the ability to edit those modo models as if they were native SolidWorks parts.

Power Surfacing provides SolidWorks users with two primary workflows:

Import Workflow:

1. Import Sub-D models from Modo, 3DS Max, Maya, etc.
2. Adjust shape, surface grouping, and edge creasing of the imported geometry
3. Convert to SolidWorks NURBS bodies & apply standard SolidWorks features such as holes, bosses, fillets, shell, etc
4. Optionally export modified Sub-D models to Sub-D compatible format (*.obj and *.fbx)

Design Workflow

1. Create initial **Power Surfacing** objects inside of SolidWorks using a sketch as a reference
2. Design the shape using the **Power Surfacing** tools inside of SolidWorks
3. Convert the shape to a SolidWorks NURBS body
4. Apply standard SolidWorks features such as holes, bosses, fillets, shell, etc. to the converted body
5. Edit the **Power Surface** shape and the subsequent SolidWorks Features get reapplied in most cases automatically without user intervention

Benefits

Neither Sub-D modeling nor NURBS modeling can effectively solve all 3-D design problems. Each has strengths and weaknesses. Sub-D modeling is great at producing and modifying complex freeform / organic shapes with smooth surfaces. NURBS modeling is good at combining shapes via. Boolean and Feature operations as well as refining shapes with operations like filleting, blending and face editing. **Power Surfacing** is a novel, powerful unification piece between these two technologies. Being able to use both modeling paradigms together provides huge productivity advantages in both the design and revision process. **Power Surfacing** freeform design combined with SolidWorks parametric design provides Solidworks users with a ground breaking Industrial Design toolkit.

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