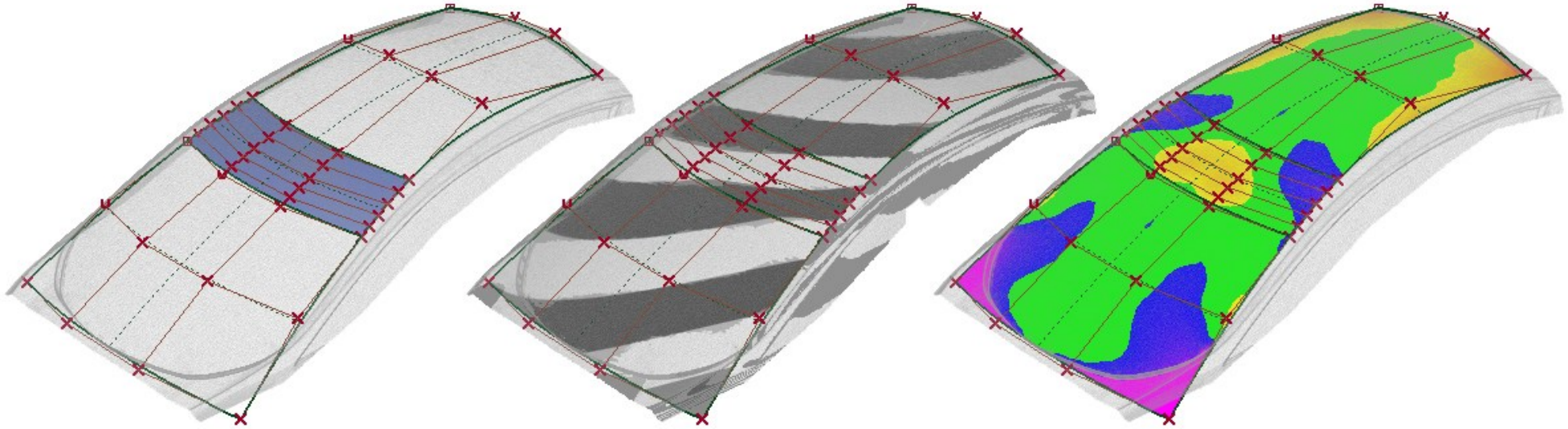
A1.6 Fitting Blend Surfaces to a Mesh

OVERVIEW

A Freeform Blend surface is created betweent the tangent edges of the Primary Surfaces. By analysing the CV flow on the blend, the CVs on the Primary Surfaces are adjusted and improved, so that eventually they can be extended to find the Theoreticals (as shown in the next tutorial).

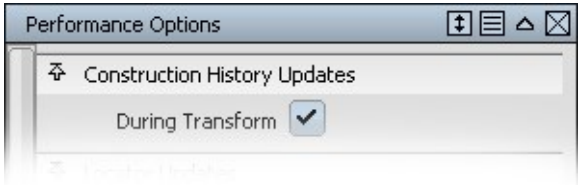
Barry makes extensive use of Orthographic mode, Non-Proportional viewing, and the Azimuth / Elevation view controls. This allows for an accurate and critical view of the CV flow.

Zebra stripe shaders and the Deviation Map are used at the end to assess how accurate the fit to the mesh is.



NOTE

Some of Barry's CV movements appear slow on the screen. This is because he has Construction History Updates > During Transform ON (In the Preferences Performance options), so that each time the CV is moved the Freeform Blend has to update. If this slows down your interaction too much, then turn the option off to have a better interaction speed (the Freeform Blend will update when you finish moving the CV).



INDEX

Time	Topic	Menu/Palette	Tool	Options
0.19	Creating extend surfaces from the Primaries for reference later.			
0.50	Discussing Option 2 (Creating Theoreticals) which is covered in the Next tutorial			
0.57	Discussing Option 1 (Creating Blend from Tangents) and starting by creating a Freeform Blend	Palette > Surfaces	**Freeform Blend**	*G2 Continuity*
1.06	Discussing using both Cross-Sections and Visual assessment of CV flow to evaluate shape			
1.38	Using Non-Proportional Viewing		**Square**	
1.44	Using Azimuth/Elevation Viewing			
1.58	Analyzing uneven CV flow			
3.17	Changing primary Surface boundary shapes to control Blend apex			
3. 52	Refining the boundaries with Xform CV > Slide	Control Panel > Xform CV > Move	**Slide**	
3.52	Developing the shape in the Front View			
5.05	Allowing more space for the blend	Palette > Object Edit	**Extend** (negatively)	*Merge on*
5.35	Modifying the Crown			
6.53	Correcting Hull angles on Primary Surfaces in the Side View			
7.57	Fine Tuning			
8.04	Demonstrating the benefits of Non-Proportional Viewing			
9.23	Increasing the roof surface from Degree 2 to 3			
9.29	Using NUV movement	Control Panel > Xform CV > Move	**NUV**	
11.06	Increasing the windscreen surface from Degree 2 to 3			
11.30	Increasing the surface degree to 3x3 to fine tune acceleration			
12.35	Using Non-Proportional Viewing to evaluate flow			
13.32	Refining the edge of the blend			
16.04	Discussing reasons for not building to Theoreticals yet			

16.36	Continuing to refine CV positions…			
17.34	Discussion of how Theoreticals will be created later			
18.18	Continuing to refine CV positions…			
19.10	Comparing Freeform Blend options : Shape ‘v’ Form Factor			
20.33	Evaluating fit with Zebra Stripes set to 50% transparency	Diagnostic Shading	**Horizontal/Vertical**	
21.05	Evaluating Fit with a Deviation Map	Palette > Evaluate	**Deviation Map**	
21.31	Interpreting the Deviation Map			