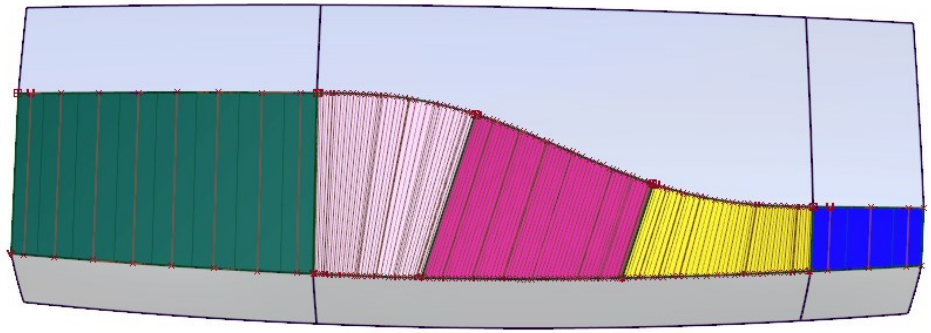
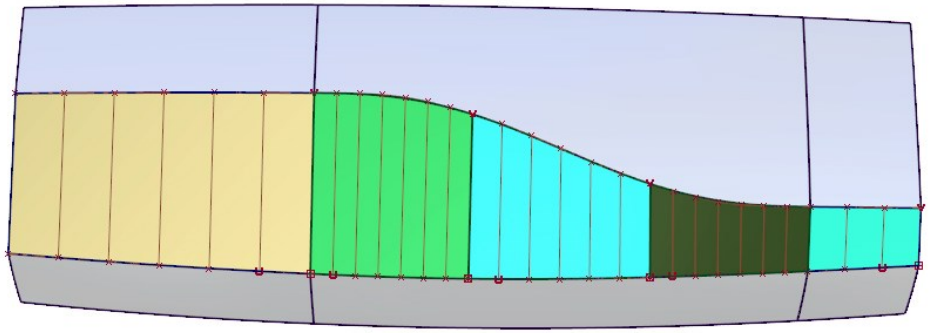
A2.10 Negative Extend – Avoiding Building to Curves-on-Surface

This tutorial has aims to improve the parameterisation of a blend surface by working from Curves rather than Curves-on-Surface:



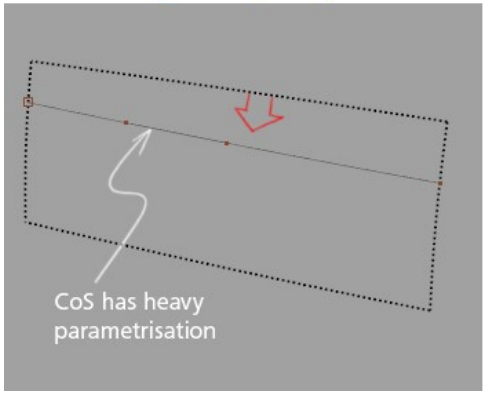
Skin surfaces built from Curves-on-Surface



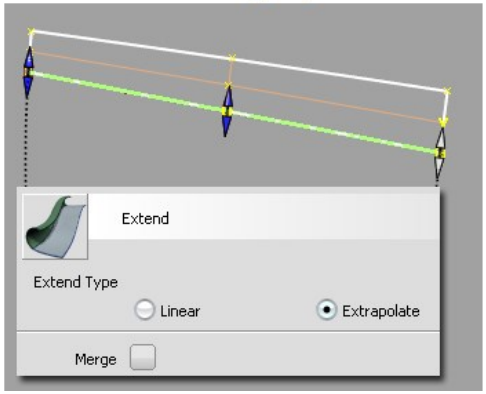
Skin surfaces built from Curves

The typical way to create a Curve from a Curve on Surface is to use Curve Edit > Fit Curve. This creates a 3D curve which can then be manipulated further, either to improve the fit to the surface, or to modify the shape of the line for design purposes. However, as a 3D curve, it is free to move in all directions, and so can quickly change it's relationship to the surface. In this tutorial, Uwe proposes an alternative method and uses a surface edge to create a more disciplined profile for a future blend:

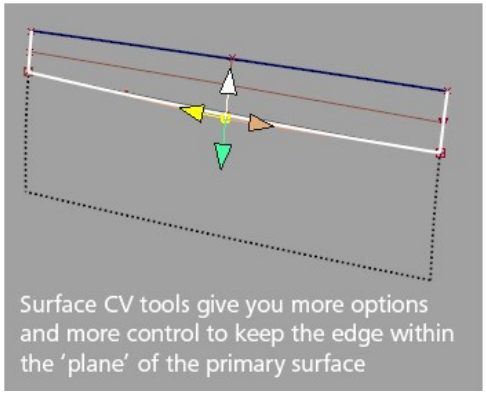
The plan is to create a new surface from the theoretical edge of the primary surfaces...



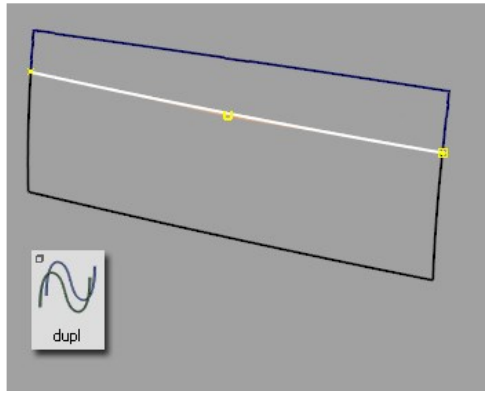
...using Extend with merge off, trying to match the CoS as closely as possible



Further adjustments if necessary with XformCV > Move tools



Use Duplicate Curve to create a new curve and delete the Cos and Extend surface



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0.42	Case 1 : Tangent lines are in-line with the surface Isoparms			
1.04	Extend both surfaces in a negative direction, until they meet the CoS	Object Edit	**Extend**	*Merge Off*
1.32	Delete the original CoS			
1.40	Duplicate a Curve from the edges of the Extended surfaces	Curve Edit > Create	**Duplicate Curve**	
1.53	Build a Skin surface between the new curves	Surfaces > Skin	**Skin**	
2.18	Case 2 : Linear Tangent lines, but not in line with the isoparms			
2.33	Extend with Curve Snap	Object Edit	**Extend**	*Merge Off*
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