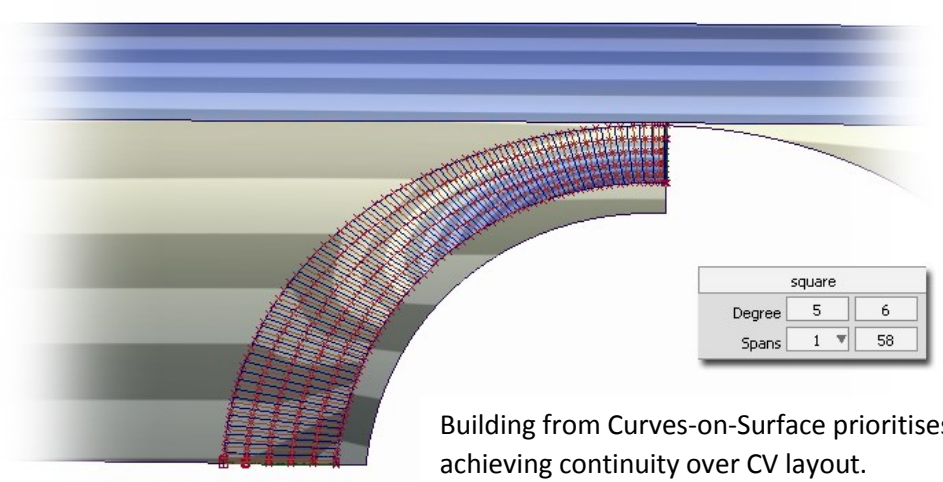
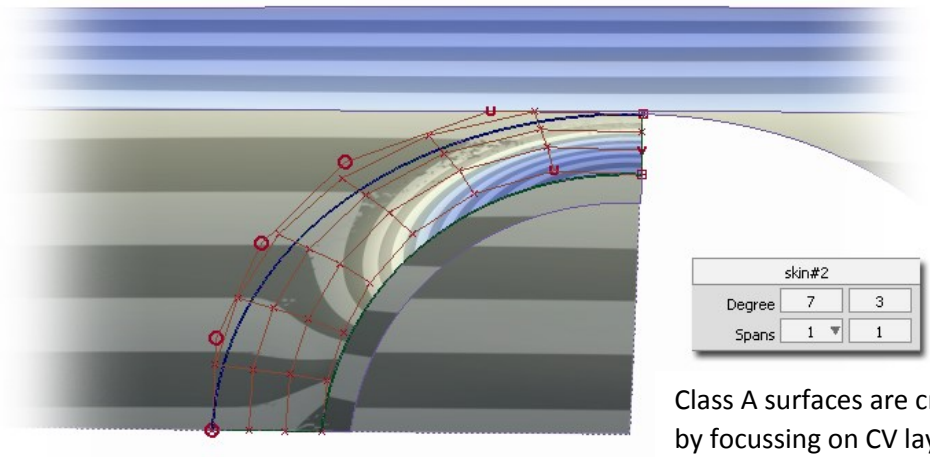
A2.12 Wheel Opening

This tutorial highlights the problems with modelling from Curves-on-Surface and shows how the Fit Curve tool can be used to gain more control over the surface CV layout.



Building from Curves-on-Surface prioritises achieving continuity over CV layout.



Class A surfaces are created by focussing on CV layout first, and then working to achieve continuity

Key Philosophy :

The key message in this tutorial is to focus on achieving a good CV layout to start with, and not to worry about tolerances and continuity at the beginning. These will be much easier to achieve if you have solved the fundamental problem of where the Control Vertices need to be positioned.

Moving CVs within the Fit Curve tool

The Fit Curve tool does a mathematical calculation to fit a clean curve to a complex CoS or trimmed edge. However, there are many possible arrangements that can achieve a good fit, and the software has no way of optimising the CV layout.

Therefore the user can pick and move CVs while maintaing the Fit Curve history, to optimise the CV layout (as illustrated in Golden Rule 3 in the Alias Fundamentals tutorials).

Align with the Project Option

To avoid working on a CoS, the Align tool can be used to fit the edge of a surface to the interior of the surface. Because it has no curve to fit to, the shape of the fitted edge is determined by the original shape of the edge, and the projection vector direction.

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