Alias Tutorial Knowledge

## Rear Quarter Panel + Bumper

A-class modeling
Step by step, detailed
modeling process

Intro

Get a comprehensive insight into how to perform A Class Surfacing and High Quality Reverse Modeling. Immerse yourself into intricacies of real A class modeling with this step by step, detailed modeling process explanation. Just watch this 3 parts video tutorial on my YouTube channel. Additionally, on my blog, you can get a PDF with major points from the tutorials, and download a finalized 3D model together with the scan data to try your hand at.

Project Workflow

In this tutorial I work on one of the most complex areas of this car's bodywork. Basically, the task is to blend three different surface patches that will be integrated into one elegant solution.
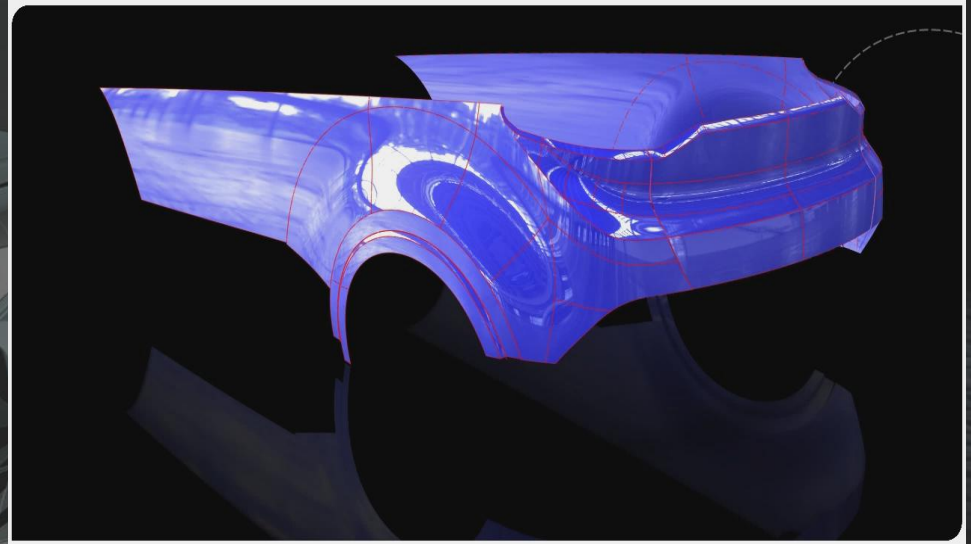
Each particular video tutorial introduces a modeling process of primary surfaces. These are: Bumper slab surfaces, side body surfaces and fenders. They form the foundation for our final portion of surfacing, which is the blend bumper. Produced geometry has A class qualities. By understanding the tribulations behind A class modeling, you will be able to analyze steps taken, and anticipate steps ahead to achieve very good results relatively quickly, and non-destructively manipulate geometry within 1mm of surface to model deviation.
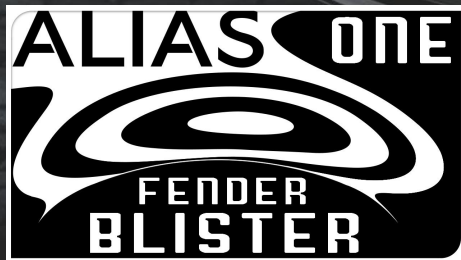
ALIAS ONE
FENDER BLISTER

ALIAS TWO
FENDER BLISTER

ALIAS THREE
FENDER BLISTER

Bumper slab surfaces, side body surfaces and fenders. They form the foundation for our final portion of surfacing, which is the blend bumper.
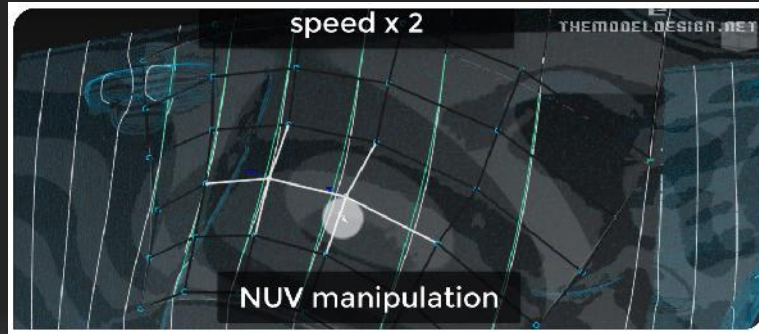
Project Main Content Detailed Explanation

speed x 2

duplicate curve tool
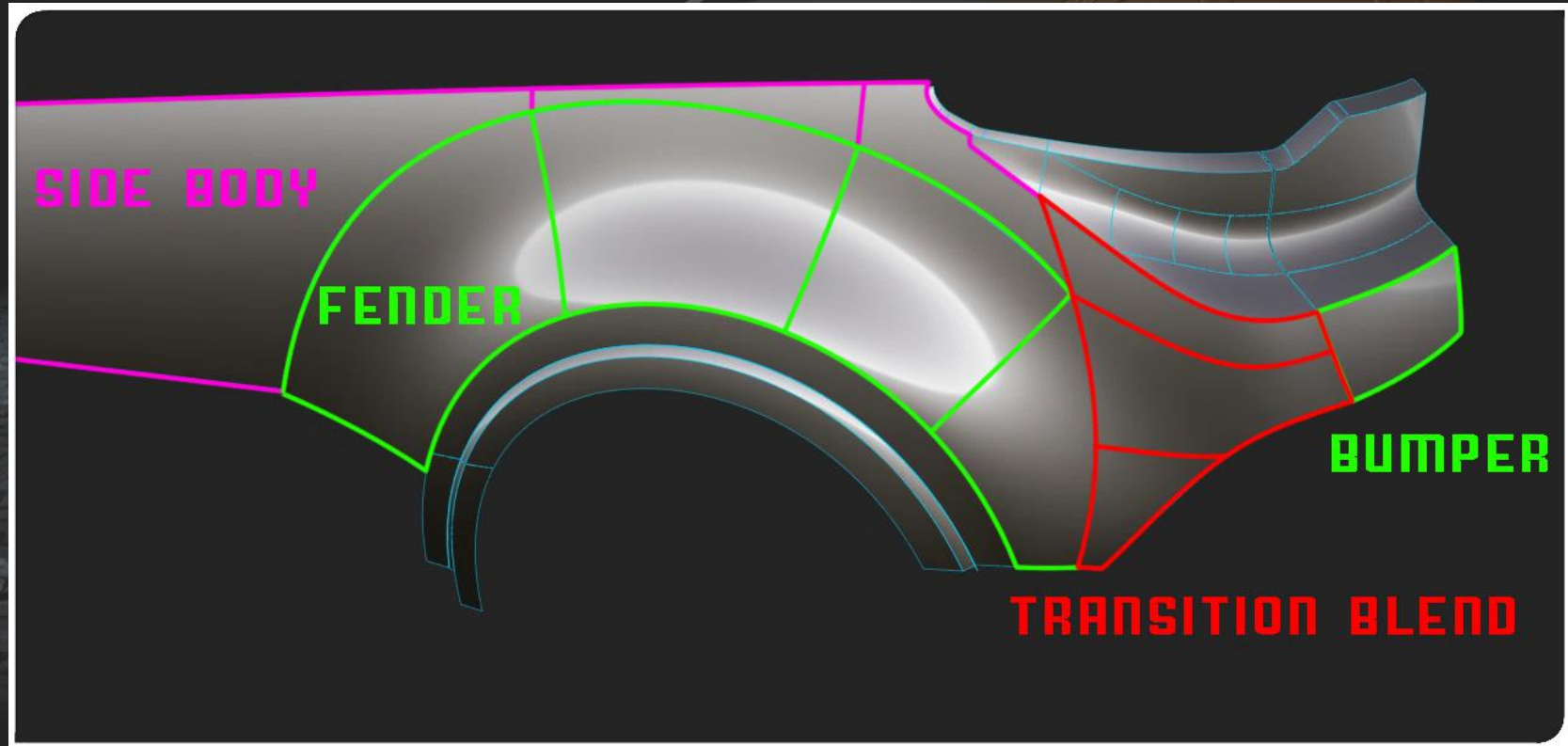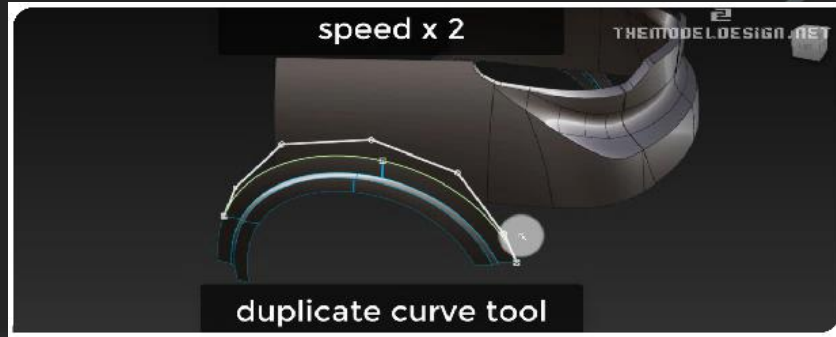
Borrow curves will help us avoid non-uniform surface CV distribution in later stages.

dupl

trim

speed x 2

template curve
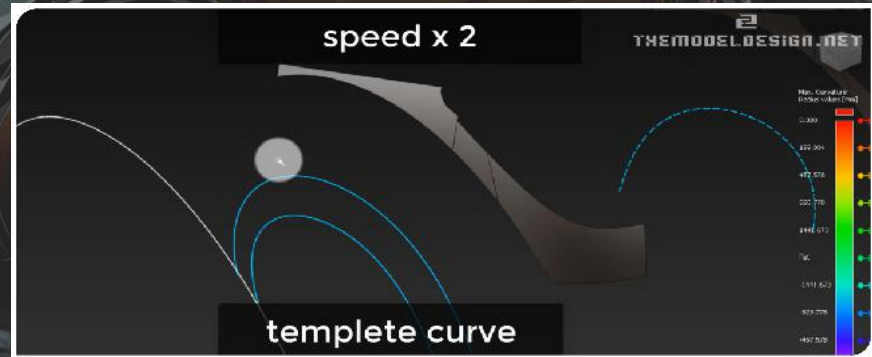
Create anchor trimmed edges for the blend surfaces.

Project Main Content Detailed Explanation

speed x 2

THEMODELDESIGN.NET

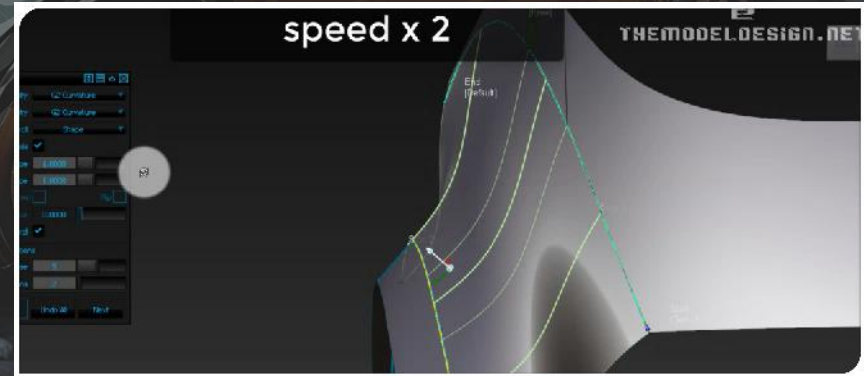NUV manipulation

When highlights look nothing like the scan, manipulate CVs to achieve results that are very close to what we are after. Bubble moves down as soon as I touch the CVs? If you overdo you can move the bubble up again a little bit.

xFrmcv

speed x 2

THEMODELDESIGN.NET

Auxiliary surface - helps us create fender surfaces at initial stages of modeling.
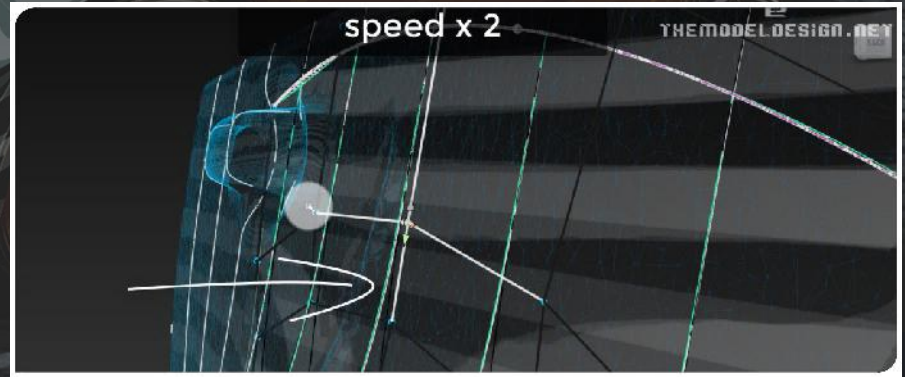
Project Main Content Detailed Explanation
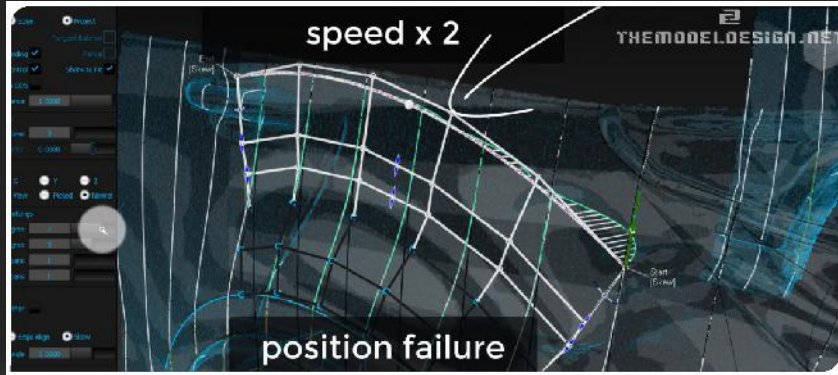
Position failure G0 but I don't worry about this at the moment. I can always add more degrees later on, for now I am happy about the result.

Do you see the gap difference here? It is getting smaller. We have the history active so everything remains connected and alive as we manipulate the CVs.
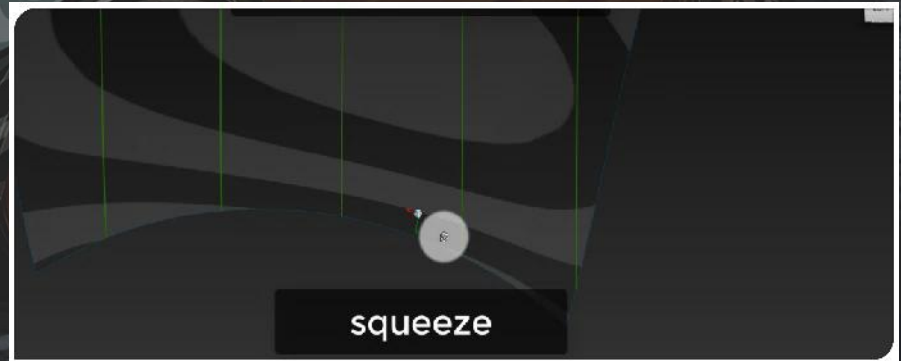
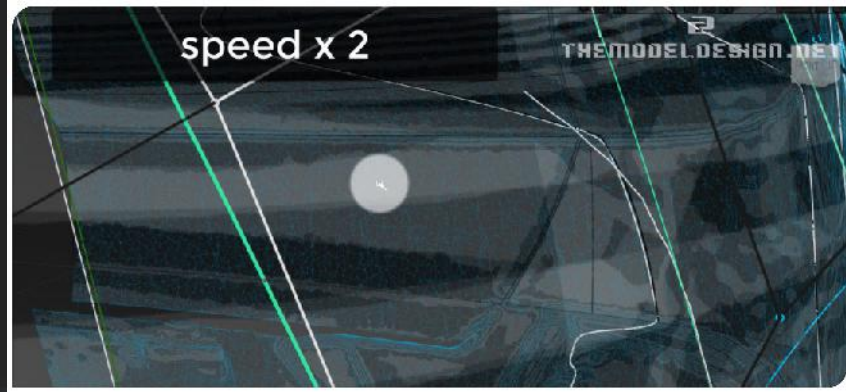# Project Main Content Detailed Explanation
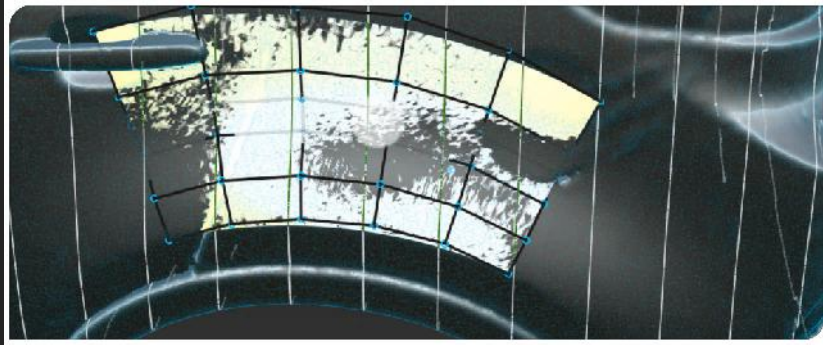
Don't rely on tools alone. Compare overlapping data and their colors.

I squeezed the view to see any highlights imperfection even better, I am first of all looking at the zebra stripe in here. I want to make it nice and round.


squeeze

Project Main Content Detailed Explanation

speed x 2

We are very close. What I am looking at is zebra and at the same time the gap between these two lines which are scan line and our surface line.

speed x 2

hull planarise

You can use a hull planarize with history active, this way you won't destroy the continuity.

Project Main Content Detailed Explanation

speed x 2
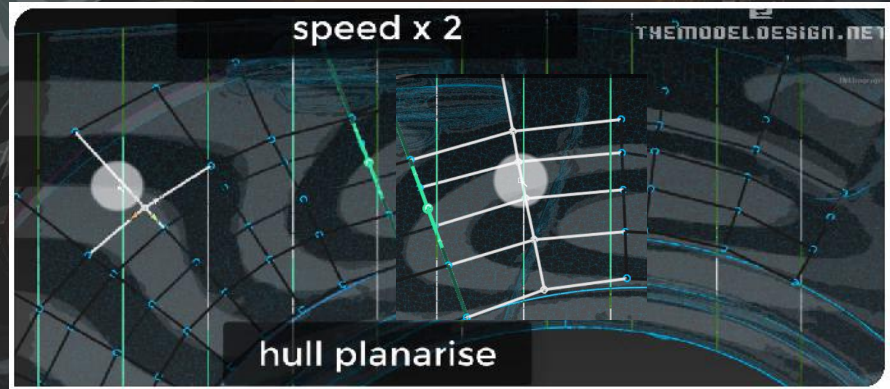
position influence 0
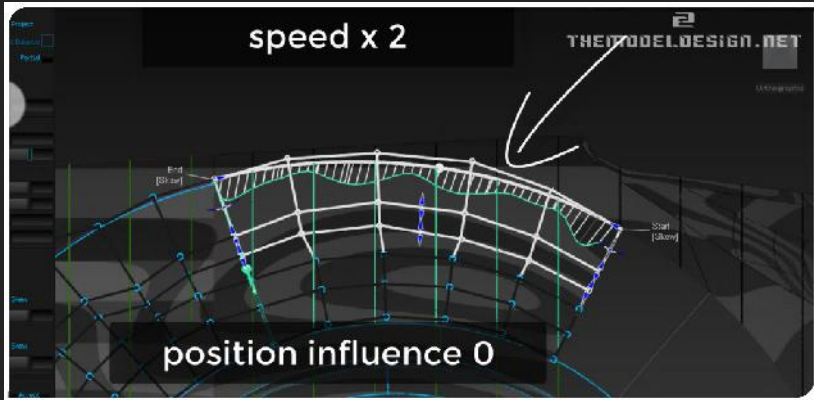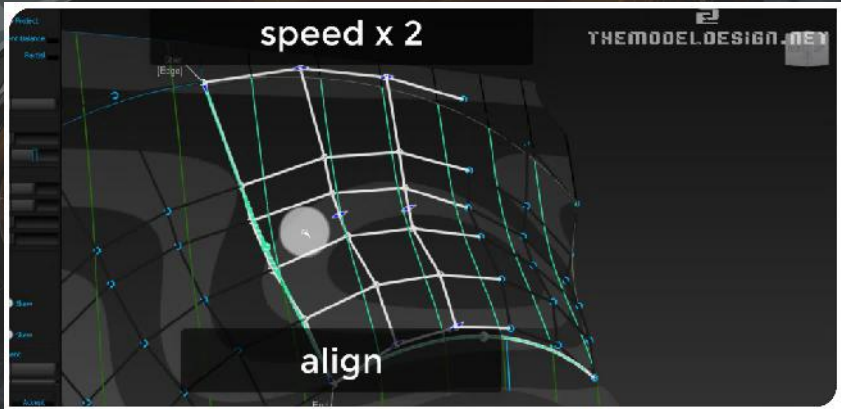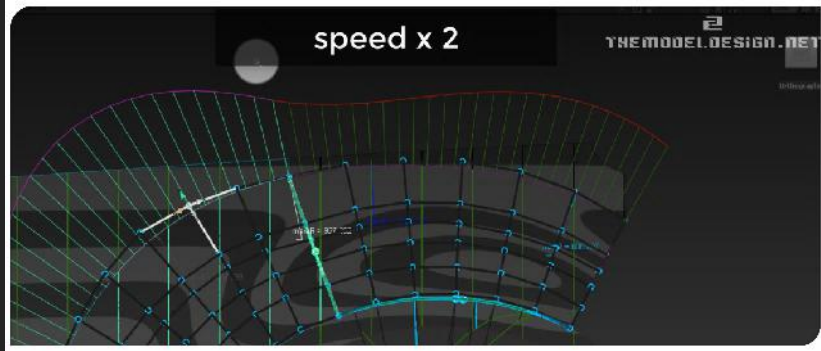
Try to keep the position influence 0 otherwise you will get exaggerated CVs movement, because Alias is trying to compute the alignment to eliminate the gap.
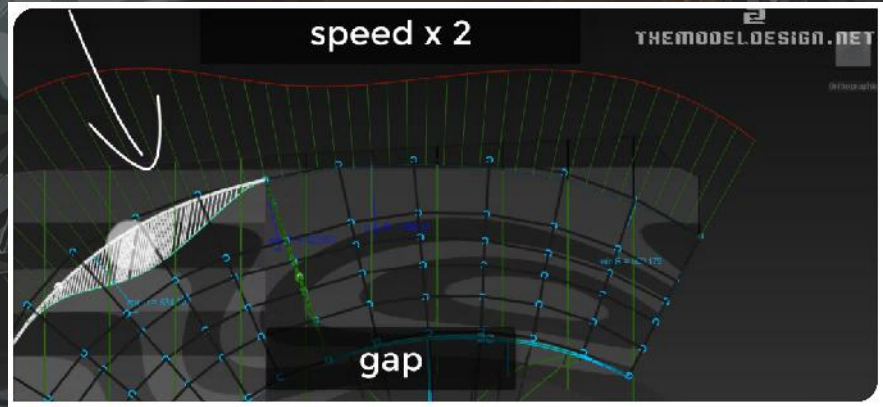
Position Influence   0.0000

speed x 2

align

Align tool can destroy our work and result is not always desired. Sometimes the align tool gets the CVs messed up.

11

Project Main Content Detailed Explanation

Go a bit further in terms of curvature comb.
Let just move it a touch to go that tiny step forward.

End of Part One