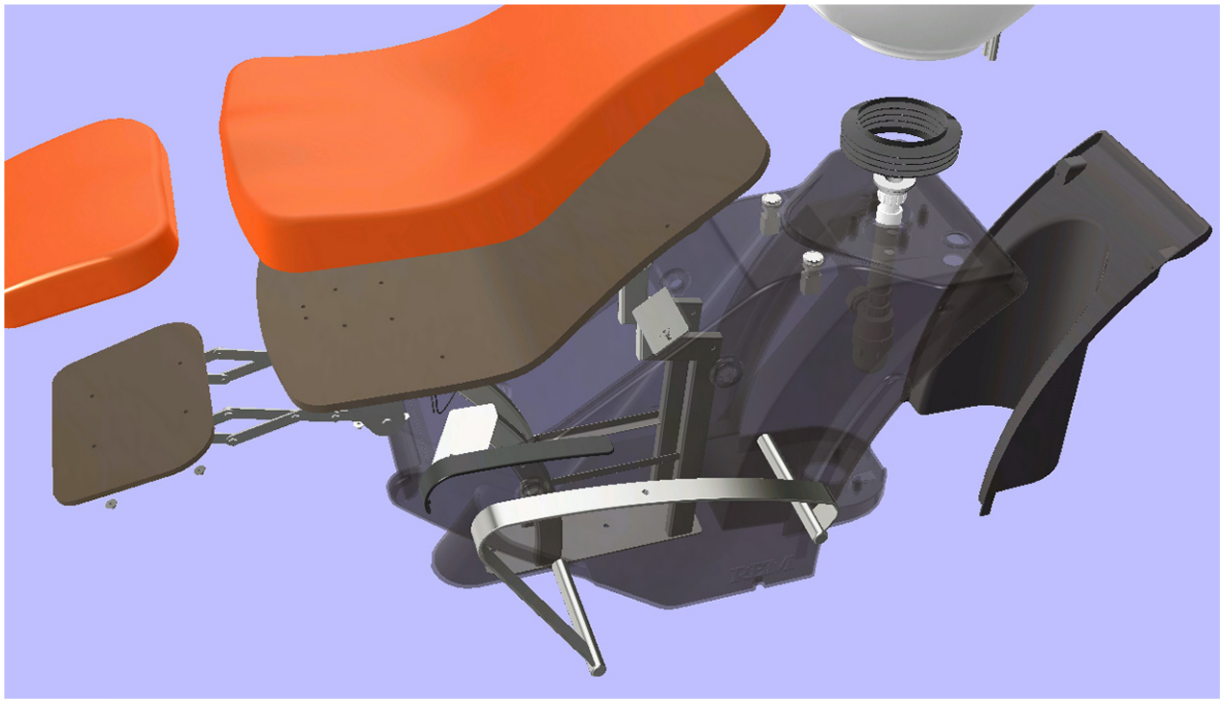
SimplyRhino

sales, training and support



Intermediate/Advanced Rhino

Outline & Objectives

Rhinoceros®
NURBS modeling for Windows

Simply Rhino Limited
0208 498 9900
www.simplyrhino.co.uk
training@simplyrhino.co.uk

Simply Rhino - Intermediate Rhino

Course Outline

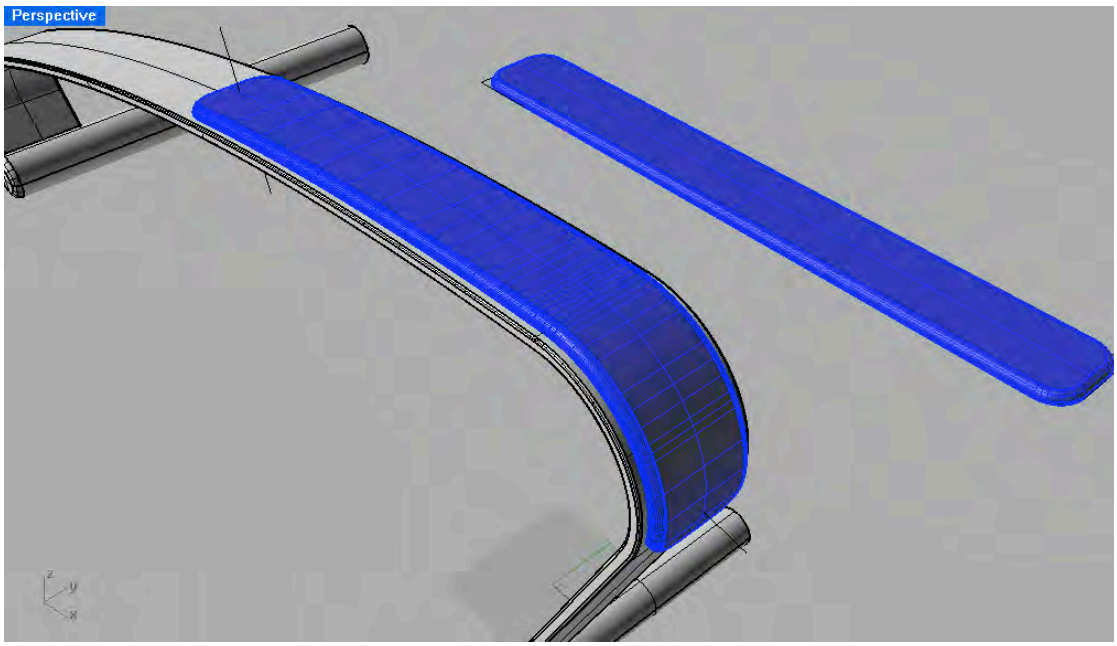
This course is geared towards design and engineering professionals of all disciplines who have a good basic understanding of Rhino but wish to improve their overall knowledge to become more confident and productive with Rhino. The course contains both intermediate and advanced material, and concentrates on creating cleaner geometry and explaining NURBS in more detail before moving on to practical examples demonstrating efficient modelling techniques. planning projects and some advanced surfacing. Although the class follows a clearly defined structure there is scope for trainees to discuss individual work examples and work on live project examples.

Structure

This comprehensive, fast moving two day class starts with a brief refresher on Rhino basics before moving on to discuss NURBS topology in more detail and looking at a range of tools and strategies useful in creating clean 'optimised' geometry. The second day takes a more project oriented approach and looks at a project from initial sketches through to a detailed model. Large model management, export and importing data, 2D drawings and modifications via the new UDT tools are also discussed.

Prerequisites

Trainees should have ideally completed the Simply Rhino Level 1 course and have been using Rhino for at least eight weeks.

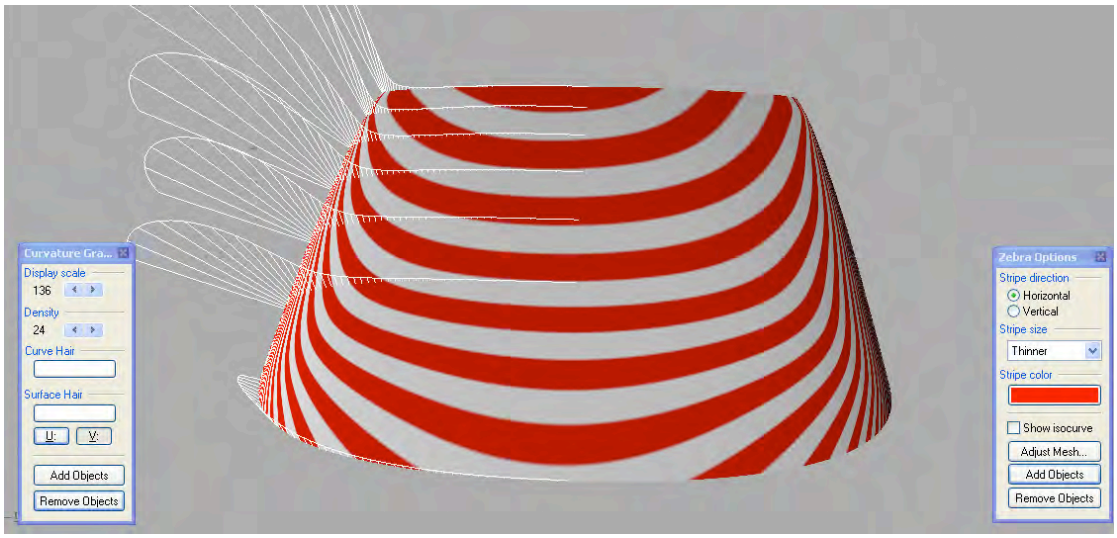


Curriculum

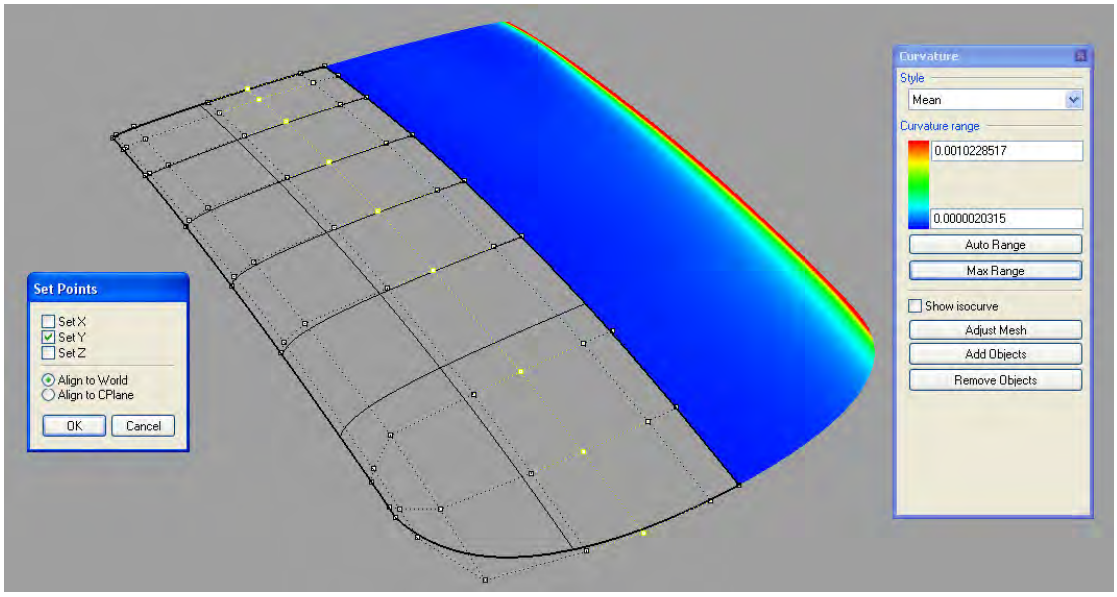
Day One

Geometry, Curves and Surfaces

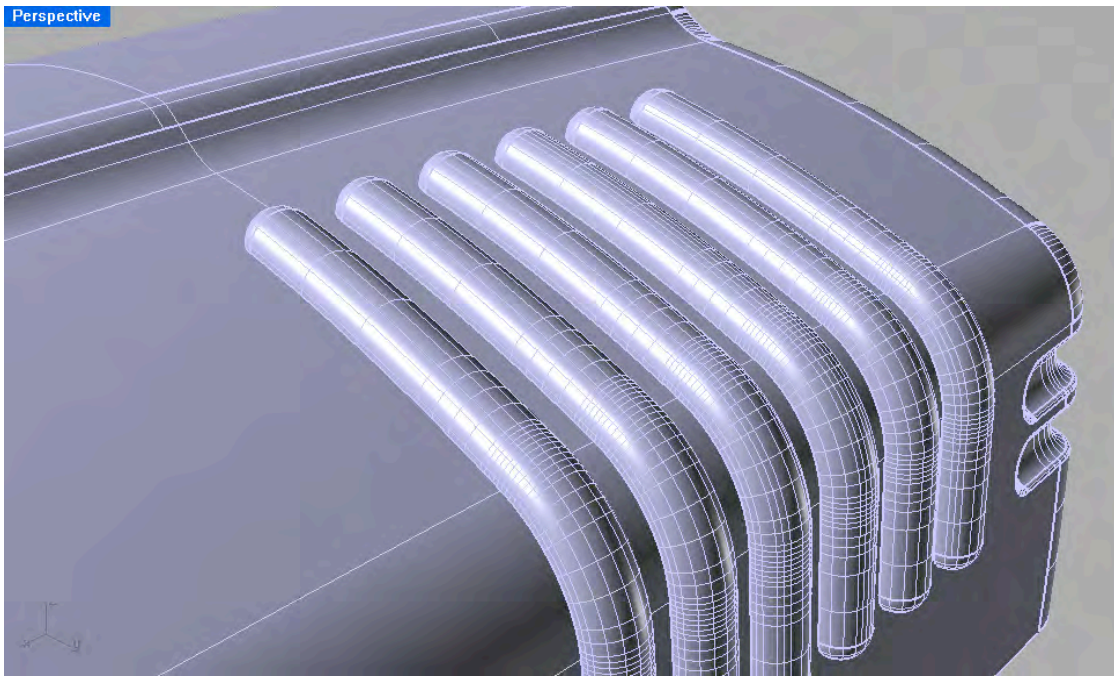
Rhino Refresher	Modelling Constraints Custom Construction Planes Modelling History Viewport Properties and Page Layouts
NURBS Topology	NURBS geometry explained Curve and Surface Degree Rational v Non-Rational Geometry Strategies for Rebuilding Curves and Surfaces Point Editing
Curve & Surface Evaluation	Curvature Graph and G-Con Environment Maps Zebra Stripes Curvature Analysis Match, Merge and Symmetry



Creating Optimised Surfaces	Surface Tools that can match continuity Surface Building Strategy Match and Merge Blend Srf Symmetry Brief Introduction to T-Splines for Rhino

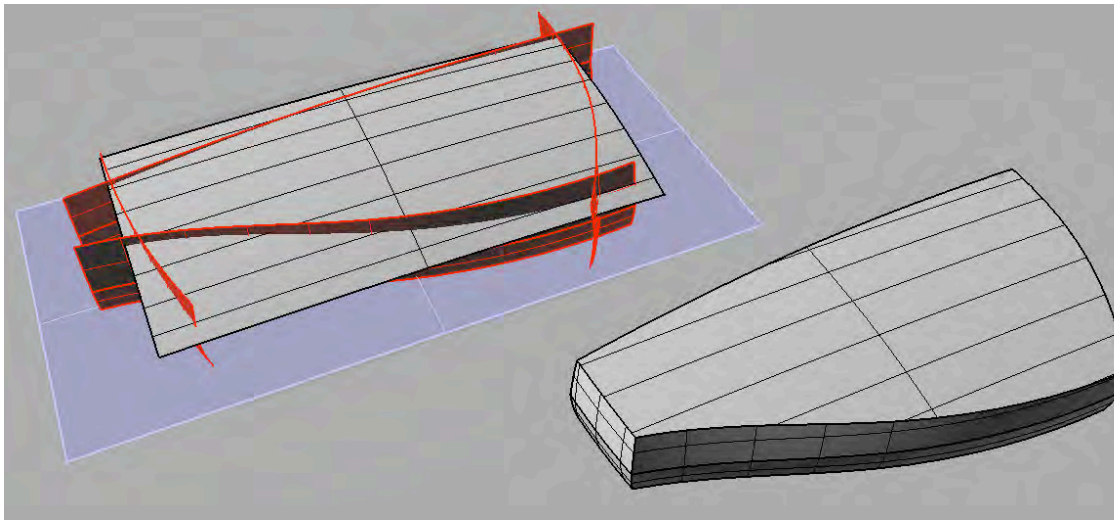


Advanced Surface Editing	A look at some of the advanced surface editing tools within Rhino.
Orient and Array Tools	Using Rhino's intelligent orient and array tools to apply detailing (as image below) and repetitive structural elements.

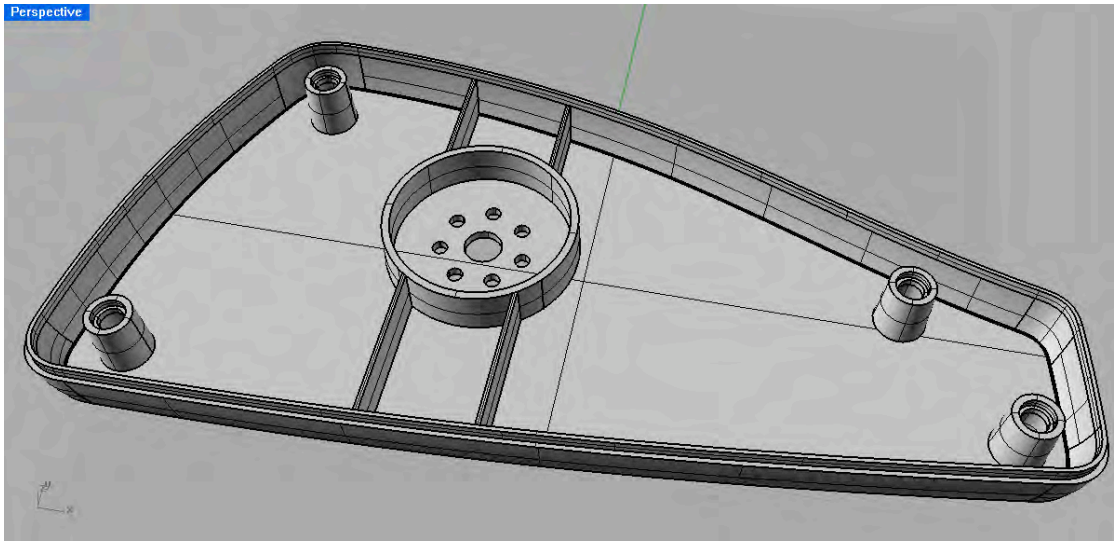


Day 2 - Modelling Strategy

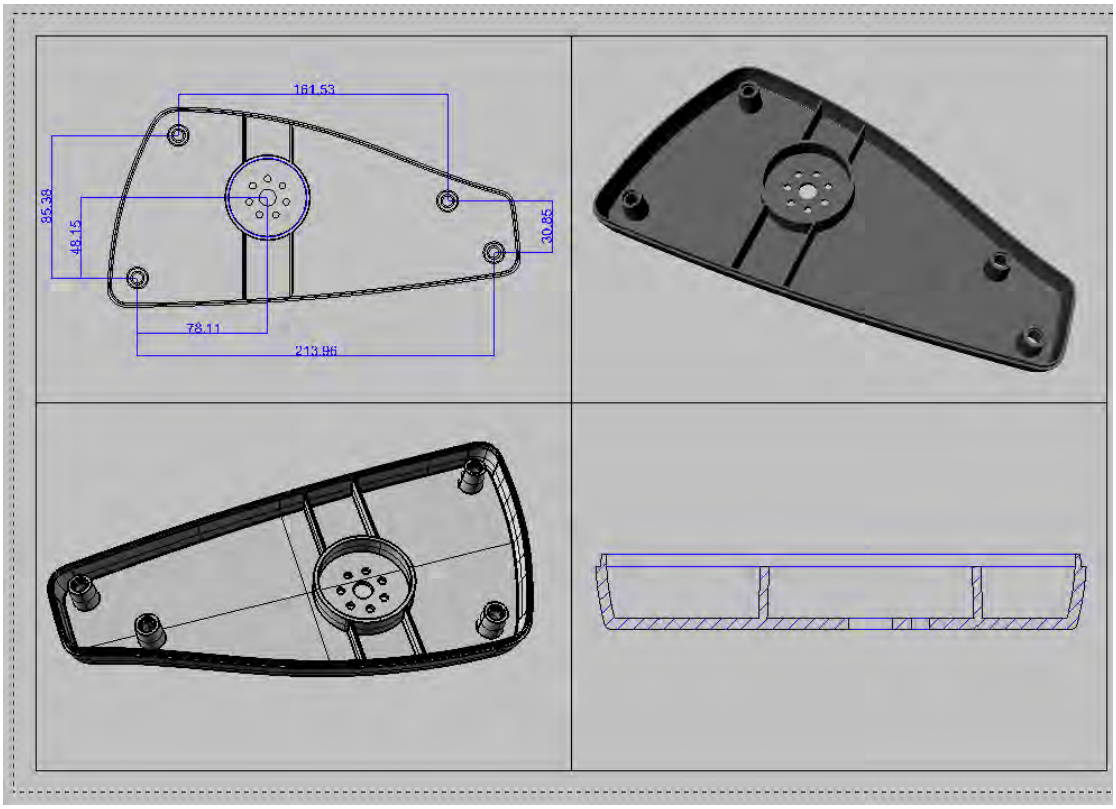
Building a Concept Model	Working with Sketches Background Bitmap Advanced Picture Frame Usage Importing 2D Data Quick Conceptual Model Strategy



Joining Surfaces	Checking for Watertight Joins Filleting and Blending Variable Filleting/Blending Strategies What to do When Fillets Fail How to avoid difficult surfaces (eg five sides)
Developing the Model	Shelling Strategies Adding Lip, Rib and Boss Detailing Adding styling details



Exporting Data	Common File Formats Preparing data for Rapid Prototyping 2D Layouts



Strategies for 'Organic' Forms	Examine various strategies for creating organic forms and how there is always more than one tool to create the surface you have in mind.
UDT Tools	Flow Along Surface - Deforming flat objects accurately Cage Editing Taper, Twist and Stretch
Managing Large Projects	Block Instances Layer Options Worksessions Discussed Named Views
Rendering with V-Ray	An introduction to the high-end renderer V-Ray for Rhino.