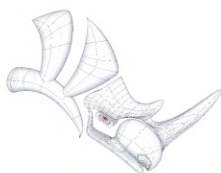
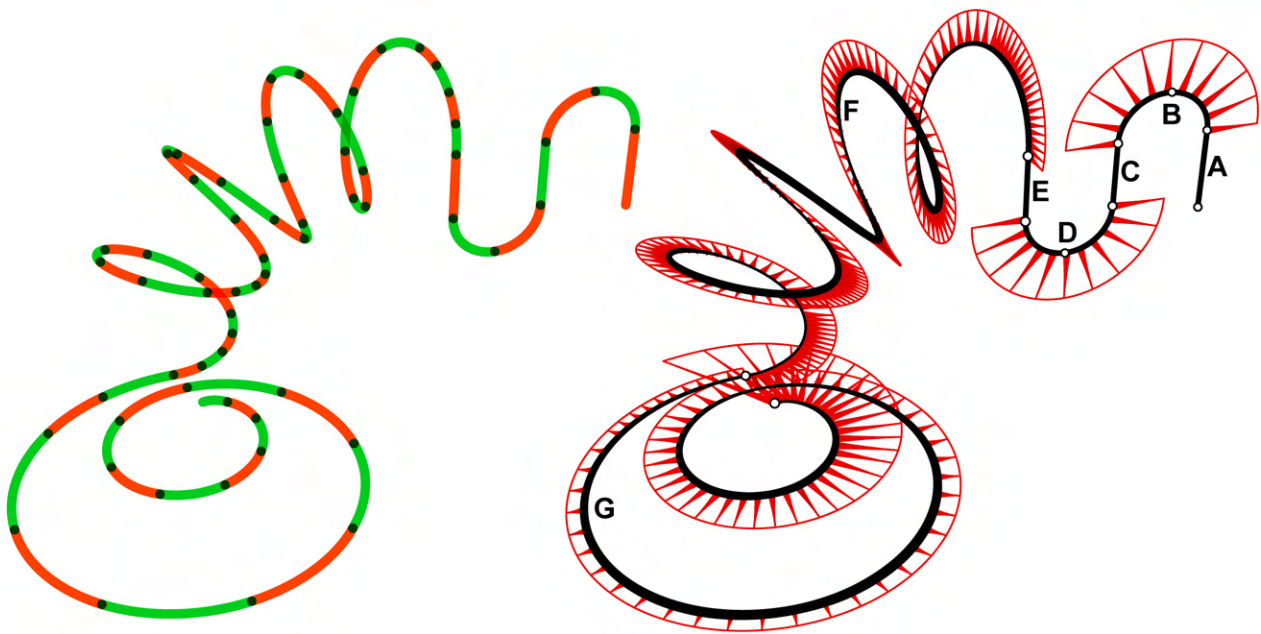


SimplyRhino

sales, training and support



RhinoCeros
NURBS modeling for Windows

RhinoScript Training Outline & Objectives

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

Computation in Rhino with Rhinoscript

-Foundation-

Course Structure

This intense two day workshop provides participants an opportunity to learn general concepts and technical strategies involved in scripting within Rhino. Students will be presented with various strategies for utilizing coding within a design environment.

The workshop is geared towards those that have a working understanding of NURBS-based modelling techniques within Rhino, and would like to extend their modelling knowledge with scripting. We will cover a comprehensive gamut of the various functions included in Rhinoscript. Throughout the workshop, lessons will be structured around fundamental concepts in coding from provided examples, while most customized scripts will come as a modification of these. This will allow for a clear and synoptic approach to learning the principles of Rhinoscript.

Goals

The goal of this workshop is to present participants with a concise demonstration of the possibilities available with scripting inside Rhino. The pace will be fairly quick, as students are expected to actively adopt the techniques from session to session. By the end of the two day workshop, we will have covered the fundamentals involved with Rhinoscript, though it will be up to each participant to continue their development with taught concepts to ensure a more thorough understanding of coding. Of significant importance will be the reasons and rationale behind scripting, though participants will have many opportunities to pick up valuable techniques.

Prerequisite

-Working understanding of NURBS modelling in Rhino

Curriculum

Session 1 – Background and Basics

Session 1A (Approximately 3-4 hrs)

1. General overview of Rhinoscript in relation to Rhino 3D and VBScript
2. Elements of Rhinoscript
 - a. VBScript in Windows
 - b. Syntax and conventions in VBScript within Rhino 3D
 - c. Variable Types and their application
 - d. Operators
 - e. Using Rhinoscript Help

Session 1B (Approximately 3-4 hrs)

1. Branching Logic
 - a. Boolean concepts
 - b. Composite branching for customized logic
2. Iteration
 - a. Finite vs. Open iteration structures
 - b. Script structure in relation to geometrical output
 - c. Iteration for automation vs. emergence
3. Encapsulation
 - a. Procedures and their relevance to code
 - b. Functions
 - c. Application memory in relation to encapsulation
 - d. Deploying code

Session 2 – Application of Basics

Session 2A (Approximately 3-4 hrs)

1. NURBS-based scripting functions

- a. Relative Space vs. '3D' Space
 - b. Curve Domain and its application
 - c. Surface Domain and its application
2. Vector and Coordinate Planes
 - a. Relevance and application of each system
 - b. Vector functions
 3. Data exchange using common file types & applications

(If there is time & interest within the group) – Grasshopper for Rhino

There is a separate 1 Day Course that covers these topics in detail

Session 3A (Approximately 3-4 hrs)

1. Introduction
 - a. Background and Interface
 - b. Interpretation of Rhino3D tools
 - c. Relationship to various Rhinoscript functions
2. Toolsets
 - a. Logics and Scalars explained
 - b. Workflow for design development

Session 3B (Approximately 3-4 hrs)

1. Case studies using Rhinoscript and Grasshopper
2. Brief introduction to VB.NET within Grasshopper