

Rhino.Inside®.Revit Essentials Course

Fundamental workflows and techniques when working with
Rhino.Inside.Revit

Introduction

Course Structure

All delivered live and online followed by access to session recording.

Course Objectives

The goal of this course is to provide practical knowledge of Rhino.Inside. A few simple yet thorough hands-on exercises will cover most of the functionalities of the platform. This would allow users to gain immediate understanding of how to use Rhino.Inside in the context of Revit. Attendees will be able to apply the workflows taught in this training in any design challenge which relies on establishing a link between Rhino and Revit.

Target Audience

AEC professionals of all size and calibre will benefit from attending this course, although prerequisites such as basic knowledge of Rhino, Grasshopper and Revit will be required. The course builds on a mix of theoretical and practical examples with an architectural backdrop, but the material is applicable to virtually any field which utilizes both software platforms. The knowledge gained is in that respect discipline agnostic.

Course Prerequisites

The class teaches Rhino.Inside.Revit. A basic understanding of both Rhino and Revit is therefore required.

Rhino + Grasshopper: Basic understanding of the Rhino and Grasshopper interface. There are no complex Rhino manipulations in this course. The GH definitions used throughout the course are kept simple. The focus of this training is on Rhino.Inside.Revit functionality. Where more complex material is utilized, such as tree manipulation or python code, these will be explained in passing.

Revit: Basic understanding of Revit interface required. Concepts such as objects taxonomy inside Revit, or family creation, will be covered during the class where necessary.

Software

The course is based on Revit 2023, Rhino 7 and latest Rhino.Inside. It is possible to use Revit 2022 with minimum downtime for upgrading the course resources. No 3rd party Grasshopper plug-ins are required, but some may be used such as LunchBox.

Overview

Course Duration

The course is divided in two sections, first Revit to Rhino and secondly Rhino to Revit. All delivered in total of 4 x 4-hour live sessions. Sessions are also recorded for post workshop trainee access.

Topics Covered During the course

What is Rhino.Inside | Interface | Revit Tab | Grasshopper Tab | Color Coding | GUI | Basics of BIM | Revit Categories | Revit Types | Elements | Filters | BREP to Direct Shape | Direct Shape with Category and Material | Adaptive Components | Family Creation | Wall Creation | Curtain Wall Mullion Manipulation | Creation of Floors, Railings and other elements | Topography | Setting Revit Element Parameters from Rhino and Driving Revit Families from Rhino Grasshopper

Part 1 Revit to Rhino

Intro

Rhino.Inside is a relatively new platform and it swiftly overtook the AEC industry as the main interoperability tool between Rhino and Revit.



What is BIM, Element Taxonomy

Refresher on what BIM is and how that dictated a formal break down elements.

Revit Categories

Understand Revit Categories further to pave the way for correct Rhino.Inside use.



Rhino.Inside Interface

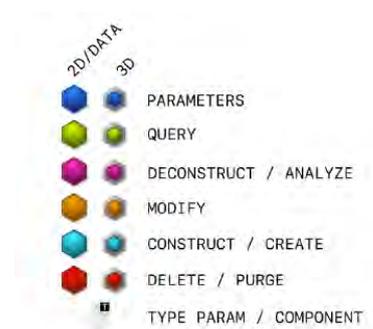
Introduction to Rhino.Inside plugin. Location inside Revit | How to start | Location inside Rhino | Colour Coded Nodes

Revit to Rhino

Bring Revit elements to Rhino in an organised and robust manner. We will investigate different ways to bring geometry to Rhino and accessing specific documents and linked Revit documents.

Generate Live Revit Geometry from Rhino

The day is finally here! We can now generate native Revit geometry directly from Rhino. We will investigate different approaches from Direct Shapes, Families, Adaptive



Components, to driving Revit Families from Grasshopper. We will discuss different workflows and how to decide on the workflow based on individual cases.

Setting up Sheets and more

We will look at a few non-geometrical aspects, such as setting up sheets, using phasing, and more.

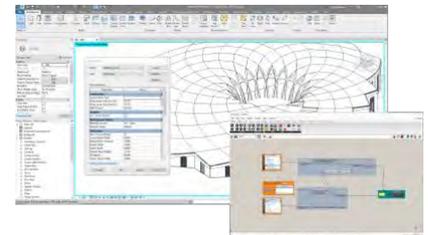
Coding

For those who are interested in coding we will look into extending Rhino.Inside capabilities through Python and Revit API.

Part 2 Rhino to Revit

Intro to Grimshaw Eden Core Project

Application of Rhino.Inside on AEC industry project. We will be building a simplified model of the project between Rhino and Revit.

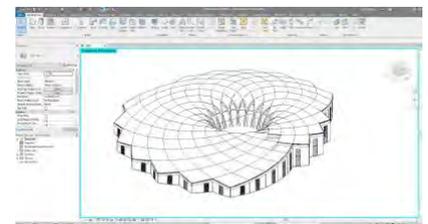


Create Levels

We will start by creating levels using information from Rhino.

Create Floors

Learning how to create different native Revit elements, starting with floors.

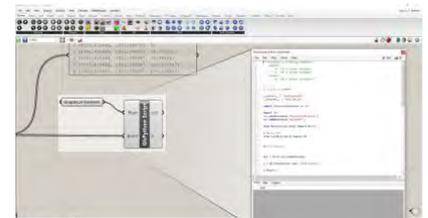


Create Columns and Beams

Using a simple concept and Revit families we will create columns and beams.

Create Roof through Adaptive Components

We will create a complex roof using information from Rhino and adaptive components in Revit.



Create Windows and Changing Parameters

Using different types of window family from Revit we will create windows with different heights and create new Revit types.

Curtain Walls and Mullions and Changing Parameters

We will create façade using custom made Revit Curtain Walls and Curtain Panels and parametrically control it through Grasshopper.

Instructor

Ivana Petrusovski, B-Arch, M-Arch, MSc, PhD

Ivana Petrusovski a Computational Design Lead at Grimshaw Architects. With more than 15 years' experience in computation for AEC she has been supporting large scale projects, setting strategies for digital technologies & teaching Rhino and Grasshopper both in academia and practice.

Her PhD research looks at advancing interaction with digital media in Architecture and Urban Design. Her work has been exhibited at V&A, Miami Art Basel, Amsterdam Light Festival, and public spaces in London.



Course Dates and Booking

For upcoming course dates and to make a booking visit the Simply Rhino Website:
<https://simplyrhino.co.uk/training/courses/rhino-inside-revit-essentials-course>