

BIM & Revit Architecture

This White Paper outlines the core concept of Building Information Modelling and the role of Revit in the BIM process.

All Revit Users

BIM & Revit Architecture

During training sessions in Revit Architecture, delegates frequently ask me to explain the relationship between Building Information Modelling (BIM) and Revit Architecture.

As most delegates are familiar with AutoCAD, I usually outline the differences between the traditional drafting workflow using AutoCAD and the BIM workflow using Revit Architecture.

- ▶ An AutoCAD project typically consists of a set of drawings, such as floor plans, elevations, sections, and schedules created as 2D graphics.
- ▶ A Revit Architecture project consists of a single file that contains all the 2D and 3D views and documentation related to the building design.

Core Concept of Building Information Modelling (BIM)

The first question to answer here is:

What is Building Information Modelling (BIM)?

The following definition explains the core concept of Building Information Modelling:

- ▶ A building information model is a digital representation of the building process that facilitates exchange of information in digital format. (digital collaboration is the true benchmark of evolution from traditional practice).

The second question to answer is:

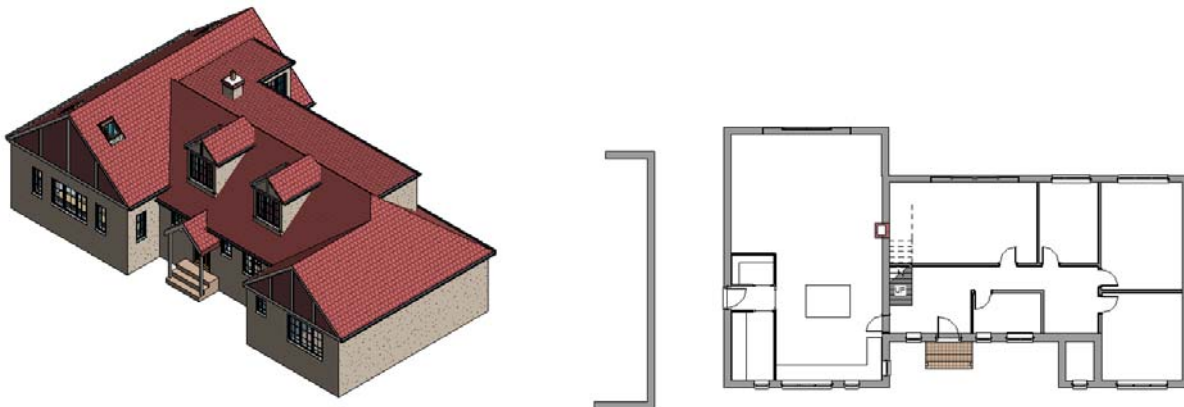
What is the Role of Revit in the BIM process?

Revit is a BIM modelling environment with Architectural, Structural and Mechanical versions. The Revit Platform of Revit Architecture, Revit Structure and Revit MEP (Mechanical, Electrical and Plumbing) is purpose built software designed to achieve BIM.

Revit Architecture is a **Parametric Building Modeller**, and is an important part of the BIM process. *Parametric* means you can that you can **revise instantly** (this is the literal meaning of the term Revit). An object modified in one view is updated in all views and schedules.

Building signifies that this program is designed for working with buildings, as opposed to pipes or roads. *Modeller* signifies how a Revit Architecture project is built in a single file around the building model (as shown on the left in Fig 1). All views, such as floor plans (as shown on the right in Fig 1), elevations, sections, details, schedules, as well as design sheets printed for construction documents, are automatically generated based on the model

Building Model: Fig 1



By creating complete models and associated views of those models Revit Architecture takes much of the tediousness out of producing a building design. The views are simply dragged from the project browser on to sheets that make up the construction document set.