

# BIM training with Autodesk Revit

5 days (35 hours)

## Presentation

**BIM**, an acronym for Building Information Model, is the geometric representation of a building in 3D, created on a computer with a view to analyzing, controlling and simulating certain behaviors. The BIM is therefore a structured set of information on an existing or planned building. It contains the objects making up the building, their characteristics and the relationships between these objects. This information complements the purely geometric description of the building's shape produced by certain software programs.

**Revit** is CAD and multi-trade software for BIM technology in the construction industry. Its powerful tools make it possible to use the intelligent model-based process to plan, design, construct and manage buildings and infrastructures. Revit supports a multidisciplinary design process for team design.

Published by the American company **Autodesk**, it is currently available in version 2018.

The course will use the latest stable version of the project (**Revit 2021**).

## Objectives

- Understand and implement B.I.M.  
requirements <https://www.autodesk.com/support/technical/product/revit>
- Master the main functions of architectural design software based on a concrete project
- Be proficient in Revit software functionalities.

## Target audience

Professionals, salaried or self-employed: Design office managers, technicians, engineers, draughtsmen, architects, project managers, architects' assistants or any other type of professional.

people responsible for or involved in an architectural project incorporating BIM.

## Prerequisites

Good knowledge of architecture.

## BIM training program

### MODULE 1

Understanding B.I.M.

- Definition
- Origins
- Philosophy...

Economic aspects

- Costs and economic estimates by player and by phase.
- B.I.M. and energy performance.
- Examples of RT2012 Operations integrating BIM

(advantages...) The BIM version of coordination

- Internal coordination
- External coordination ... Data

sharing and exchange

- Interoperability
- Flow management
- Design methods
- Time and cost management...

### MODULE 2

Software production

- 2d productions
- 3d productions
- Focus on software with B.I.M. integration

- IFC files
- Digital file exchange
- Overview of BIM software Architectural

## impact

- The contractual aspect
- Regulatory texts
- Responsibilities

## MODULE 3

### Managing BIM in practice

- Comparison of current and B.I.M.-based processes
- Case studies and case studies

### Preparatory studies and project management in general

- Terminology: time, duration, load
- Organization
- Difficulties encountered
- Project mission definition
- Study of project and customer expectations
- Program definition
- Review of different design approaches
- Needs expression methodology
- Mission formalization and validation
- Identifying objectives
- Formalization of these objectives and validation by managers

## MODULE 4

### Project players

- Definition of internal / external tasks
- Roles and commitments
- Communication

### Project implementation, management and monitoring

- Adjusting the digital model
- Ensure personal and collective follow-up points
- Measure and analyze discrepancies with the team
- Frequency of inspections and meetings

- Receipt of project data
- Progress analysis: quality, deadlines, loads and costs
- Project dashboards
- Proposal of solutions to the steering committee.
- Implementing the decision
- Project closing review and analysis
- Presentation of plans and final renderings
- Preparing the work specification
- Interpretation of municipal and departmental codes and by-laws
- Preparation of tender documents

## MODULE 5

### The B.I.M manager

- Role of the B.I.M manager
- In-house or outsourcing
- Responsibilities

### End of training

- Conclusions
- Level test

## Companies concerned

This training course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

## Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

## Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

## Organization

The course alternates theoretical inputs from the trainer supported by examples and

brainstorming sessions and group work.

## Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

## Sanction

A certificate will be issued to each trainee who completes the course.