BLACKBIRD FOR TRAINING

# BIM Management and Revit Modeling Training Course

27 September – 1 October 2027
Cape Town ( South Africa)



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**Ref:** 69_362846 **Date:** 27 September – 1 October 2027 **Location:** Cape Town ( South Africa) **Fees:** 4200 GBP

## Introduction:

This BIM Management and Revit Modeling Training Course for Construction Projects equips you to deliver compliant digital project environments across five practical days. You will construct a Federated BIM Execution and Multi-Disciplinary Revit Coordination Model that unifies architectural designs, structural grids, and parameterised component schedules into an audited delivery package. You need a working knowledge of construction documentation and foundational computer-aided drafting, as this practitioner-level course builds directly into advanced authoring workflows. You will practise hands-on in interactive lab sessions, authoring parametric geometry, resolving clashes, and validating data exchange protocols.

## Course Objectives:

- Build a parametric architectural building model establishing structural grids and coordinate levels in Autodesk Revit
- Draft a project BIM Execution Plan aligning team delivery milestones with ISO 19650-2 information workflows
- Map multi-disciplinary linked models across architectural, structural, and building service systems within a Common Data Environment
- Run automated algorithmic quality checks using Dynamo routines to identify geometric rule clashes and data anomalies
- Test federated project exchanges against buildingSMART open data formats using Industry Foundation Classes and Information Delivery Specifications
- Present a coordinated multi-disciplinary construction drawing package with automated material quantity schedules to project stakeholders

## Target Audience:

- You author architectural models and technical construction documentation requiring structured Autodesk Revit workflows
- You coordinate multi-disciplinary building designs across structural and engineering systems using federated models
- You manage project information delivery plans, client data requirements, and Common Data Environment protocols
- You supervise digital design deliverables and model audit checks to maintain quality control across project teams



## Course Outline:

### Day 1: Establishing Project Datum Points and Architectural Building Assemblies

- Setting spatial project levels and structural grids in Autodesk Revit
- Linking computer-aided drafting underlays into parametric coordinate systems
- Authoring multi-layer external walls and glazed curtain wall assemblies
- Placing parametric doors, windows, floors, ceilings, and component staircases
- Build: Architectural Base Model and Parametric Spatial Core

### Day 2: Integrating Multi-Discipline Models and Information Management Frameworks

- Aligning project exchange workflows with ISO 19650-1 principles
- Configuring project Employer Information Requirements and Master Delivery Plans
- Linking multi-disciplinary structural and building service engineering files
- Establishing shared coordinates across federated Common Data Environment workspaces
- Build: Multi-Discipline Integrated Model and Coordination Framework

### Day 3: Generating Coordinated Construction Documentation and Parameterised Schedules

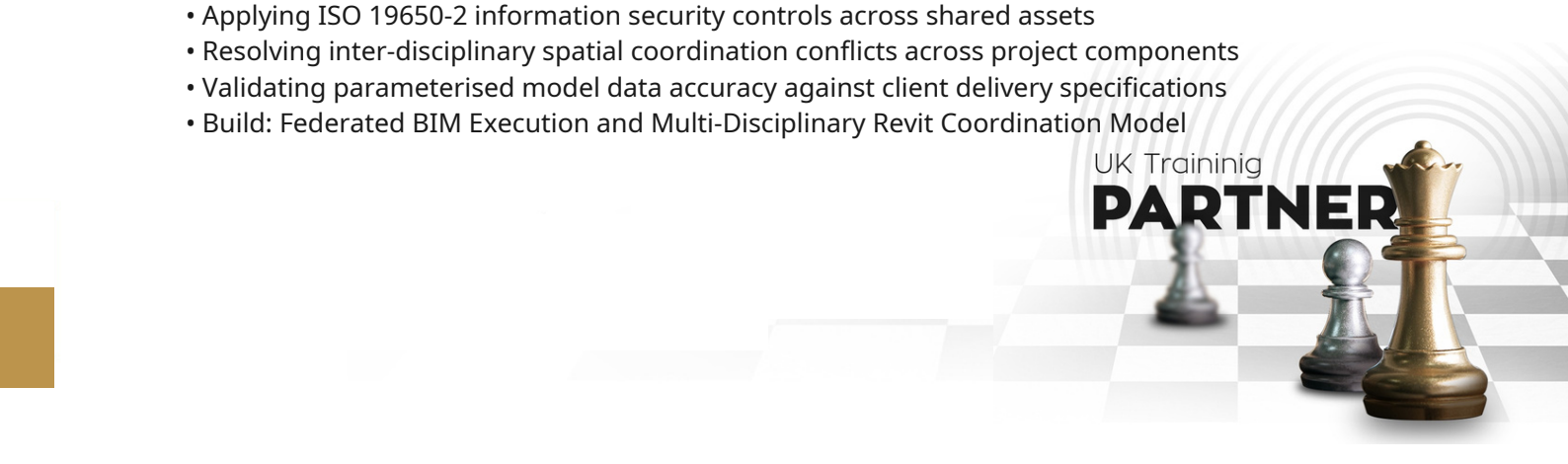
- Extracting automated material quantity schedules using custom project parameters
- Generating dimensioned plan views, sections, callouts, and elevation sheets
- Applying standardised annotation tags and graphical visual display overrides
- Organising drawing title blocks and revisions for construction issue
- Build: Coordinated Construction Documentation Package and Quantity Schedule

### Day 4: Executing Model Quality Audits and OpenBIM Interoperability Checks

- Running visual programming scripts using Dynamo for automated compliance
- Validating digital data schemas against buildingSMART Information Delivery Specifications
- Exporting vendor-neutral data using Industry Foundation Classes schema settings
- Tracking spatial interference items using BIM Collaboration Format logs
- Build: Clash Detection Log and OpenBIM Validation Audit

### Day 5: Consolidating Federated Models and Delivery Strategy in Practical Lab

- Federating architectural, structural, and engineering models in collaborative lab
- Applying ISO 19650-2 information security controls across shared assets
- Resolving inter-disciplinary spatial coordination conflicts across project components
- Validating parameterised model data accuracy against client delivery specifications
- Build: Federated BIM Execution and Multi-Disciplinary Revit Coordination Model



## Skills You Will Gain:

- Parametric Revit Architectural Element Authoring
- ISO 19650-2 Information Workflow Management
- Multi-Disciplinary Model Federation
- Dynamo Algorithmic Quality Checking
- Industry Foundation Classes Export Configuration
- BIM Collaboration Format Issue Tracking
- Information Delivery Specification Audit Verification
- Automated Material Take-off Scheduling

## Why Attend This Course:

- Master parametric design authoring inside Autodesk Revit to eliminate manual drafting errors and coordinate drawing packages rapidly
- Structure project information exchanges according to international ISO 19650 standards to streamline consultant team handovers
- Automate model verification routines with visual programming in Dynamo and open data formats to detect spatial clashes early
- Finalise a complete Federated BIM Execution and Multi-Disciplinary Revit Coordination Model that demonstrates technical compliance across design phases

## Conclusion:

Returning to your organisation, you will immediately open your Federated BIM Execution and Multi-Disciplinary Revit Coordination Model to benchmark active project templates against standardised coordinate systems. You will present the completed execution plan, coordination guidelines, and automated scheduling methods to your design team leads and project directors. After integrating these methods into your team's live file sharing environment, you will check clash detection logs and data parameters to confirm design coordination and document accuracy across every deliverable.

## Frequently Asked Questions FAQ:

### What will you be able to do after this BIM Management and Revit Modeling Training Course for Construction Projects?

You will be able to manage collaborative digital project deliveries, author parametric building components, and coordinate multi-disciplinary models. You will establish project information standards under ISO 19650-2, automate compliance checking with Dynamo, and publish coordinated construction drawings and schedules.



## What do you need to know before starting this BIM Management and Revit Modeling Training Course for Construction Projects?

You need a foundational understanding of architectural or engineering drawing conventions and basic computer-aided drafting software. Familiarity with standard construction documentation processes is beneficial, but prior experience in advanced visual programming or formal building information modelling management is not required.

## What deliverable do you build during this BIM Management and Revit Modeling Training Course for Construction Projects?

You build a Federated BIM Execution and Multi-Disciplinary Revit Coordination Model. This technical package combines an architectural base model, linked multi-disciplinary systems, parametric quantity schedules, Dynamo automated checking routines, and open Industry Foundation Classes export definitions.

## How does this BIM Management and Revit Modeling Training Course for Construction Projects differ from a general drafting course?

This course focuses specifically on intelligent information management, parametric element relationships, and collaborative data workflows rather than purely two-dimensional drafting. You will learn to govern data exchange standards, coordinate federated multi-disciplinary models, and automate project compliance checking.

