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COURSE BROCHURE

BIM Level of Development and Model Quality Checking Course

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Registered in the United Kingdom and Saudi Arabia

BIM Level of Development and Model Quality Checking Course

BIM Level of Development and Model Quality Checking is a 1-week training course for BIM coordinators, model checkers and design reviewers, who leave with a model quality checking plan built around a level of development matrix. Clients now accept or reject deliverables by what a model contains, so vague detail expectations become disputes and rework. Jupiter Prime Training treats BIM Level of Development and Model Quality Checking as a measurable acceptance routine.

Why BIM Level of Development and Model Quality Checking Matters Now

Three forces shape model acceptance today: owners who reuse models for operation and maintenance, contractors who extract quantities and set-out points straight from geometry, and automated checking tools that test thousands of elements in minutes. Teams with agreed detail levels and written rules catch defects before issue; teams without them argue over each submission. The course draws on ISO 19650, the international series for managing information over the life of a built asset, its level of information need concept, and the Industry Foundation Classes IFC open exchange schema.

Who Gains Most from BIM Level of Development and Model Quality Checking

- Coordinators who federate discipline models and police exchange deadlines
- Model checkers who run validation rules and record defects
- Design reviewers who decide whether a package is fit for its stated use
- Discipline modelling leads who set element detail for their authors
- Client-side technical staff who accept models into asset records

Design and contracting firms gain most when coordinators, checkers and discipline leads attend together.

BIM Level of Development and Model Quality Checking Capabilities

Participants turn loose detail expectations into matrices and repeatable tests.

- Specify development levels for each element and stage — discipline modelling leads
- Build an element progression matrix with mandatory attributes — appointing parties
- Apply geometry, coordinate and data validation checks before exchange — coordinators
- Design rule sets with severity levels for automated checking — model checkers
- Communicate quality trends through dashboards and issue records — project leads
- Assess packages against sign-off criteria and record exceptions — design reviewers

Key BIM Level of Development and Model Quality Checking Terms

- Level of Development LOD — the degree to which an element's geometry and attached information can be relied on at a given stage.
- Element Progression Matrix — a table setting the required development level of every model element at each project stage and exchange.
- Level of Information Need — the ISO 19650 concept defining the quality, quantity and granularity of information required for a purpose.
- Rule-Based Model Checking — automated testing of a model against written rules for geometry, naming, properties and spatial relationships.
- BIM Collaboration Format BCF — an open format for exchanging model issues with viewpoints, comments and status between applications.
- Model Sign-Off — the recorded decision that a model package meets agreed criteria and may be used for its declared purpose.

BIM Level of Development and Model Quality Checking Day by Day

Day 1: Development Levels Across Design Stages

- LOD 100 to 500 Definitions — Setting What Each Stage Must Show
- Level of Information Need — Matching Geometry and Data to Purpose
- Model Uses by Stage — Linking Detail to Downstream Decisions
- Element Ownership Rules — Assigning Authors for Each Component
- Over-Modelling Risks — Balancing Effort Against Decision Value

Day 2: Element Progression Matrices

- Element Progression Matrix Layout — Mapping Components to Stages
- Uniclass and OmniClass Classification — Grouping Elements Consistently
- Attribute Requirements per Element — Defining Mandatory Data Fields
- Progression Milestones — Aligning Matrix Columns with Information Exchanges
- Matrix Version Control — Recording Agreed Changes Between Parties

Day 3: Geometry and Data Validation

- Geometric Accuracy Tolerances — Accepting or Rejecting Modelled Positions
- Model Origin and Coordinates — Preventing Misaligned Federated Models
- Duplicate and Orphan Element Checks — Cleaning Models Before Exchange
- IFC Export Validation — Confirming Entity Mapping and Property Sets
- COBie Data Completeness Tests — Readiness for Asset Handover

Day 4: Rule-Based Checking and Quality Dashboards

- Rule Set Design — Translating Requirements into Automated Tests
- Rule Severity Levels — Separating Blocking Issues from Advisories
- BCF Issue Records — Assigning and Tracking Model Defects
- Quality Dashboard Metrics — Showing Compliance Trends to Leads
- Exception Approval Logs — Documenting Accepted Deviations

Day 5: Practising Model Sign-Off

- Sample Model Audit — Applying Day 3 Validation Checks
- Rule Run on Live Package — Testing Day 4 Rule Sets
- Matrix Gap Review — Comparing Delivered Elements to Day 2 Matrix
- Sign-Off Criteria and Signatures — Releasing Models for Use
- Model Quality Checking Plan — Assembling Matrix, Rules and Gates

Applying BIM Level of Development and Model Quality Checking After the Course

- Lead a matrix session with discipline leads to set development levels for the next model exchange.
- Run the new rule set on one live package and publish the first quality dashboard with tracked BCF issues.

BIM Level of Development and Model Quality Checking Questions FAQ

What is BIM Level of Development and Model Quality Checking and why does it matter now?

It is the practice of defining how detailed each model element must be and testing whether delivered models meet that definition. It matters because models now feed quantities, set-out and asset records directly.

Which roles gain most from BIM Level of Development and Model Quality Checking?

BIM coordinators, model checkers, design reviewers, discipline modelling leads and client technical staff gain most. They define, test or accept model content on building and utility projects.

How does BIM Level of Development and Model Quality Checking differ from a clash detection course?

It focuses on whether each element carries the right detail and data, rather than finding physical conflicts between disciplines in a federated model.

What do you bring back from BIM Level of Development and Model Quality Checking?

You bring back a model quality checking plan containing a level of development matrix, validation tolerances, a rule set with severity levels and sign-off criteria for your models.

BIM Level of Development and Model Quality Checking: The Way Forward

The model quality checking plan first informs what detail each discipline must deliver at the next exchange. Coordinators run it, checkers apply its rules and reviewers sign against it. After its first use, revisit which rules flagged noise rather than real defects, and where reviewers still disagreed.