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COURSE BROCHURE

BIM Coordination and Clash Detection Training Course

jupiterprime.uk

info@jupiterprime.uk

Registered in the United Kingdom and Saudi Arabia

BIM Coordination and Clash Detection Training Course

BIM Coordination and Clash Detection is a 1-week training course for BIM coordinators, MEP coordinators and design engineers, and it ends with a clash detection matrix and coordination report for a federated model. Congested zones are now resolved in models before steel or ductwork reaches site, so a missed clash costs far more than a meeting. Jupiter Prime Training treats BIM Coordination and Clash Detection as a weekly discipline of testing, triage and decisions.

Why BIM Coordination and Clash Detection Matters Now

Three groups shape clash work today: services contractors who prefabricate modules from model geometry; structural and architectural authors who change models between issue cycles; and clients who expect coordinated zones signed off before installation starts. A coordinator who sets sensible tolerances, groups results and assigns them to the right author shrinks thousands of raw clashes to a short list of real decisions; one who does not drowns meetings in noise. The course places these routines within the information management process of ISO 19650, the international series for organising information about buildings and civil works.

Who Gains Most from BIM Coordination and Clash Detection

- Model coordinators who federate discipline models and run scheduled clash tests
- Building services coordinators routing duct, pipe and cable tray through congested zones
- Structural and architectural designers who resolve penetrations, openings and headroom conflicts
- Site engineers who confirm that coordinated zones can be installed and maintained

A main contractor's digital construction unit or a design consultancy's coordination cell gains most when coordinators and discipline authors attend together.

BIM Coordination and Clash Detection Capabilities

Participants learn to turn raw clash output into prioritised, owned and closed issues.

- Build a federated model with aligned origins, levels and discipline file splits — weekly coordination cycle
- Design a clash matrix by discipline pair with hard, clearance and duplicate tests — coordinator workload
- Specify tolerances that separate real conflicts from modelling noise — design authors
- Apply grouping, status and assignment rules to clash results — issue owners
- Communicate issues with viewpoints, mark-ups and priority codes — coordination meetings
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Assess zone readiness and sign-off criteria before installation — site and prefabrication teams

Key BIM Coordination and Clash Detection Terms

- Federated Model — a combined view of separately authored discipline models, used for checking.
- Hard Clash — two elements physically occupying the same space, such as a duct passing through a beam.
- Clearance Clash — an element intruding into a required buffer, such as maintenance access around a valve or panel.
- Clash Matrix — a table pairing disciplines and element sets, defining which tests run, at what tolerance and how often.
- Clash Grouping — combining many related results, such as one pipe run hitting several beams, into a single actionable issue.
- Coordination Zone — a defined area or level resolved and signed off in sequence before installation.

BIM Coordination and Clash Detection Day by Day

Day 1: Coordination Context and Federation

- Coordination Roles Under ISO 19650 — Clarifying Who Resolves Each Clash
- Model Origin and Level Alignment — Preventing False Results From Misplacement
- Discipline File Splits and Search Sets — Controlling What Each Test Sees
- Federated Model Assembly — Combining Architecture, Structure and Services
- Coordination Zones and Sequencing — Ordering Floors and Plant Areas

Day 2: Clash Test Design

- Clash Matrix by Discipline Pair — Deciding Which Tests Run Each Cycle
- Hard, Clearance and Duplicate Tests — Matching Test Type to Risk
- Tolerance Setting — Filtering Insulation Overlaps and Modelling Noise
- Rule-Based Exclusions — Ignoring Approved Penetrations and Sleeves
- Test Scheduling Against Issue Cycles — Aligning Runs With Model Drops

Day 3: Triage, Grouping and Assignment

- Clash Grouping Methods — Collapsing Repeat Results Into Single Issues
- Status Workflow — Moving Issues From New to Resolved
- Assignment by Model Author — Routing Issues to the Right Discipline
- Priority Codes by Zone and Trade — Ranking What Blocks Installation
- Viewpoints and Mark-Ups — Making Each Issue Understandable at a Glance

Day 4: Meetings, Reports and Sign-Off

- Coordination Meeting Agenda — Turning Issue Lists Into Decisions
- Clash Reports and Dashboards — Showing Trend and Open Issue Counts
- Open Issue Exchange Formats — Sharing Issues Across Authoring Platforms
- Zone Sign-Off Criteria — Releasing Areas for Prefabrication
- Lessons Learned Register — Feeding Recurring Clashes Into Modelling Rules

Day 5: Practising the Clash Detection Matrix and Coordination Report

- Live Federation Exercise — Applying Alignment and Search Sets to Sample Models
- Matrix and Tolerance Build — Applying Discipline Pair Tests to the Project
- Triage Round — Applying Grouping, Priority and Assignment Rules
- Mock Coordination Meeting — Applying the Agenda to Real Results
- Clash Detection Matrix and Coordination Report — Completing the Work Product

Applying BIM Coordination and Clash Detection After the Course

- Replace a single all-against-all clash run with a discipline-pair matrix and tolerances on one live zone, then compare issue counts with the previous cycle
- Chair the next coordination meeting with grouped, assigned and prioritised issues and record zone sign-off decisions

BIM Coordination and Clash Detection Questions FAQ

What is BIM Coordination and Clash Detection and why does it matter now?

BIM Coordination and Clash Detection is the routine of combining discipline models, testing them for conflicts and resolving the results before construction. It matters now because prefabricated services and tight ceiling zones leave no room for clashes found on site.

Which roles gain most from BIM Coordination and Clash Detection training?

Model coordinators, building services coordinators, structural and architectural designers and site engineers gain most. Their decisions shape whether hospitals, data centres and stations reach installation with signed-off zones.

How does BIM Coordination and Clash Detection differ from an advanced BIM management course?

It focuses on the hands-on coordination cycle: tests, tolerances, triage and meetings. This course resolves geometry conflicts week by week within an agreed execution plan.

What do you bring back from BIM Coordination and Clash Detection?

You bring back a clash matrix with tolerances, grouping and assignment rules, a meeting agenda and a coordination report template, ready for your next cycle.

BIM Coordination and Clash Detection: The Way Forward

The clash detection matrix and coordination report first inform which discipline pairs and zones are tested in the next cycle. Coordinators run them, designers act on assigned issues and site teams rely on zone sign-offs. After the first few cycles, revisit tolerances and grouping rules against the clashes that still reach site.