Mastering Delay Analysis in Construction Contracts Training Course (14 Days)

11 - 29 May 2026
Al Jubail

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Mastering Delay Analysis in Construction Contracts Training Course (14 Days)

Ref.: LPC103600452_64942 **Date:** 11 - 29 May 2026 **Location:** Al Jubail **Fees:** 17100 **Euro**

Course Overview

The Mastering Delay Analysis: Optimize Construction Project Success program provides a complete understanding of delay analysis in construction, combining technical, contractual, and analytical perspectives to enhance project performance and claim resolution.

Through this 14-day immersive experience, participants will explore delay analysis methods in construction, forensic schedule analysis training, disruption and delay claims, and time impact analysis training using real-world cases and simulations.

The program integrates the SCL Delay and Disruption Protocol, as-planned vs as-built analysis, collapsed as-built method, and MS Project delay analysis to ensure participants master both theory and practical application.
It also emphasizes legal interpretations, proactive mitigation strategies, and industry best practices for road construction project delay management and infrastructure delay analysis training.

Target Audience

- Project Managers and Construction Engineers
- Contract Managers and Claims Consultants
- Delay Analysts and Forensic Schedulers
- Quantity Surveyors and Cost Engineers
- Construction Lawyers and Contract Administrators
- Planning and Scheduling Specialists

Targeted Organizational Departments

- Project Management and Planning Departments
- Legal and Claims Units
- Contract Administration and Compliance Teams
- Engineering and Operations Divisions
- Quality Assurance and Risk Management Departments

These departments benefit from practical insights in construction delay analysis course, forensic schedule analysis training, delay reporting and documentation, and project scheduling and delay management.

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Targeted Industries

- Construction and Infrastructure Development
- Civil and Road Engineering Projects
- Oil & Gas and Energy Infrastructure
- Real Estate Development and EPC Contracting
- Government and Transportation Agencies

These industries face continuous challenges with delay and disruption claims and benefit from mastering structured, standardized, and software-supported delay analysis techniques in projects.

Course Offerings

By the end of this course, participants will be able to:

- Identify and categorize types of delays excusable, compensable, concurrent, non-excusable.
- Apply key delay analysis methods in construction such as as-planned vs as-built, impacted, collapsed, and time-impact analysis.
- Select the right choice of delay analysis method based on project data and contract requirements.
- Interpret contractual, legal, and technical aspects of delay and disruption claims following the SCL Delay and Disruption Protocol.
- Prepare accurate delay reporting and documentation for contract and arbitration purposes.
- Implement construction delay mitigation strategies, acceleration and recovery techniques, and proactive management practices.
- Use MS Project delay analysis and other software to support forensic schedule analysis and report preparation.
- Apply lessons from legal precedents and global best practices to strengthen claim defensibility.

Training Methodology

The course uses a blended approach combining instructor-led sessions, guided group workshops, and case-based analysis.
Participants will:

- Work on real construction and road infrastructure delay case studies.
- Perform delay quantification and forensic schedule exercises using MS Project.
- Engage in peer discussions on delay and disruption claims and contractual interpretations.
- Review arbitration examples aligned with the SCL Delay and Disruption Protocol.
- Reflect daily on practical takeaways and implementation strategies.

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Course Toolbox

- Digital materials on delay analysis in construction
- Templates for as-planned vs as-built and time impact analysis
- Checklists for delay reporting and documentation
- Case studies referencing the SCL Delay and Disruption Protocol
- Practice examples using MS Project
- Legal precedent summaries on delay and disruption claims

Course Agenda

Day 1: Foundations of Delay Analysis and Contractual Context

- **Topic 1:** Understanding project delays and their primary causes
- **Topic 2:** Core principles of delay analysis in construction projects
- **Topic 3:** Contractual obligations and risk allocation under FIDIC and NEC
- **Topic 4:** The life cycle of delay and disruption claims
- **Topic 5:** Legal implications and dispute triggers in delay analysis
- **Topic 6:** Case insights: Overview of delay dispute precedents
- **Reflection & Review:** Reflection on the fundamentals of delay analysis and contractual compliance

Day 2: Types and Classifications of Delays

- **Topic 1:** Identifying excusable, non-excusable, and compensable delays
- **Topic 2:** Understanding concurrent delay in construction
- **Topic 3:** Differentiating between employer and contractor-caused delays
- **Topic 4:** Establishing entitlement for extension of time claims
- **Topic 5:** Evaluating risk-sharing mechanisms in contract delay provisions
- **Topic 6:** Comparative case studies: Delay classification across jurisdictions
- **Reflection & Review:** Reflection on delay classification and entitlement principles

Day 3: Delay Claim Life Cycle and Claim Preparation

- **Topic 1:** Understanding the structure and stages of delay claims
- **Topic 2:** Evidence collection and documentation standards
- **Topic 3:** Correlating delay causes with time and cost impacts
- **Topic 4:** Quantifying claims and preparing defensible submissions
- **Topic 5:** Role of legal precedent in successful delay claims
- **Topic 6:** Case study: Lifecycle of a delay claim from notice to resolution
- **Reflection & Review:** Reflection on claim preparation and substantiation techniques

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Day 4: Programming and Project Scheduling Techniques

- **Topic 1:** Developing construction schedules and baseline programs
- **Topic 2:** Work Breakdown Structure WBS and sequencing logic
- **Topic 3:** Applying CPM programming techniques for delay analysis
- **Topic 4:** Critical path identification and schedule integrity checks
- **Topic 5:** Hands-on demonstration: MS Project delay analysis fundamentals
- **Topic 6:** Understanding schedule updates and data management
- **Reflection & Review:** Reflection on schedule development and accuracy validation

Day 5: Baseline Validation and Programme Integrity

- **Topic 1:** Establishing a reliable and auditable baseline
- **Topic 2:** Float management and total float allocation
- **Topic 3:** Incorporating time-risk allowances and milestones
- **Topic 4:** Resource loading, leveling, and schedule realism
- **Topic 5:** Techniques for program validation and approval
- **Topic 6:** Common pitfalls in baseline validation and how to avoid them
- **Reflection & Review:** Reflection on the importance of program integrity in delay analysis

Day 6: Recording and Monitoring Delays

- **Topic 1:** Techniques for monitoring progress and identifying delays
- **Topic 2:** Maintaining contemporaneous project records
- **Topic 3:** Reporting procedures for delay events
- **Topic 4:** Tools and templates for delay documentation and analysis
- **Topic 5:** Managing contractual notices and record submissions
- **Topic 6:** Common documentation errors in delay reporting
- **Reflection & Review:** Reflection on effective delay tracking and monitoring

Day 7: As-Planned vs As-Built Analysis

- **Topic 1:** Foundations of as-planned vs as-built analysis
- **Topic 2:** Identifying deviations and performance gaps
- **Topic 3:** Measuring the impact of critical delays
- **Topic 4:** Practical demonstration using MS Project
- **Topic 5:** Case study: Road construction project delay management
- **Topic 6:** Verification of as-built data and reliability assessment
- **Reflection & Review:** Reflection on comparative delay analysis methodologies

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Day 8: Impacted As-Planned and Collapsed As-Built Methods

- **Topic 1:** Concept and process of impacted as-planned analysis
- **Topic 2:** Conducting collapsed as-built delay assessments
- **Topic 3:** Additive vs. subtractive simulation in delay modeling
- **Topic 4:** Selecting the appropriate delay analysis method
- **Topic 5:** Performing time impact analysis using project data
- **Topic 6:** Limitations of simulation-based techniques
- **Reflection & Review:** Reflection on method selection and analytical precision

Day 9: Concurrency and Critical Path Evaluation

- **Topic 1:** Understanding the principles of concurrent delay
- **Topic 2:** Establishing causation and dominance of delays
- **Topic 3:** Critical path recalculation and impact mapping
- **Topic 4:** Role of float management in concurrency evaluation
- **Topic 5:** Demonstration: Analyzing concurrency in MS Project
- **Topic 6:** Presenting concurrency results in expert reports
- **Reflection & Review:** Reflection on concurrency evaluation and delay allocation

Day 10: Application of the SCL Delay and Disruption Protocol

- **Topic 1:** Structure and objectives of the SCL Delay and Disruption Protocol
- **Topic 2:** Prospective vs retrospective delay analysis under SCL guidance
- **Topic 3:** Integration of SCL principles into contract administration
- **Topic 4:** Delay entitlement and evidentiary standards
- **Topic 5:** Case application of the SCL Protocol in real disputes
- **Topic 6:** Cross-referencing SCL principles with FIDIC and NEC
- **Reflection & Review:** Reflection on standardization and protocol compliance

Day 11: Quantification of Delays and Disruptions

- **Topic 1:** Measuring time-related and cost-related impacts of delays
- **Topic 2:** Disruption analysis and productivity assessment
- **Topic 3:** The measured mile method and practical application
- **Topic 4:** Correlating costs to delay periods
- **Topic 5:** Visual reporting with MS Project and Excel integration
- **Topic 6:** Demonstration: Quantitative assessment of delay damages
- **Reflection & Review:** Reflection on quantification accuracy and report clarity

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Day 12: Delay Mitigation and Acceleration

- **Topic 1:** Proactive delay prevention and early risk detection
- **Topic 2:** Designing acceleration and delay recovery techniques
- **Topic 3:** Cost-benefit evaluation of mitigation strategies
- **Topic 4:** Assessing acceleration impacts using project schedules
- **Topic 5:** Communication and stakeholder management in mitigation
- **Topic 6:** Case study: Mitigation strategies in highway expansion projects
- **Reflection & Review:** Reflection on proactive delay management and recovery

Day 13: Reporting, Presentation, and Legal Defense

- **Topic 1:** Structuring comprehensive delay analysis reports
- **Topic 2:** Presenting claims before legal and arbitration panels
- **Topic 3:** Using forensic schedule analysis evidence effectively
- **Topic 4:** Common errors in delay report presentation
- **Topic 5:** Case precedents on report acceptance and rejection
- **Topic 6:** Drafting executive summaries for delay claims
- **Reflection & Review:** Reflection on clarity, transparency, and professionalism in reporting

Day 14: Integration, Capstone Project, and Review

- **Topic 1:** Integrating multiple delay analysis techniques in one report
- **Topic 2:** Group exercise: Road and infrastructure project delay analysis
- **Topic 3:** Preparing and presenting delay findings
- **Topic 4:** Peer and expert review of project submissions
- **Topic 5:** Ethical standards and best practices in delay analysis
- **Topic 6:** Final summary and actionable implementation roadmap
- **Reflection & Review:** Reflection on full-course integration and professional readiness

FAQ

What specific qualifications are needed before enrolling?

A background in project management, construction, or contracts is preferred. Scheduling or claims experience will enhance understanding.

How long is each day’s session and total duration?

Each session lasts 4–5 hours, including interactive workshops and exercises. The total course spans **14 days 60–70 hours**.

Does the course include practical software demonstrations?

Yes, participants will use MS Project and similar tools to perform delay analysis methods in construction and project scheduling and delay management exercises.

How This Course is Different from Other Delay Analysis Programs

Unlike short or theory-only courses, this 14-day masterclass provides a structured, practice-oriented journey through all aspects of delay analysis in construction — technical, contractual, legal, and software-based.
It incorporates the SCL Delay and Disruption Protocol, forensic schedule analysis, and MS Project demonstrations tailored to road and infrastructure delay management.

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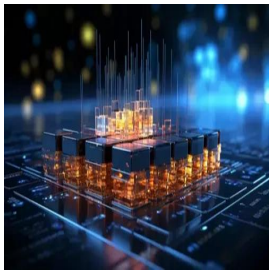
Training Course Categories

Finance and Accounting Training Courses

Agile PM and Project Management Training Courses

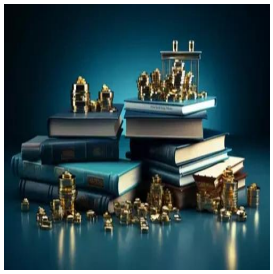
Certified Courses By International Bodies

Communication and Public Relations Training Courses



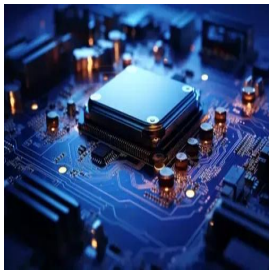
Data Analytics Training and Data Science Courses

Environment & Sustainability Training Courses



Governance, Risk and Compliance Training Courses

Human Resources Training and Development Courses



IT Security Training & IT Training Courses

Leadership and Management Training Courses

Legal Training, Procurement and Contracting Courses

Maintenance Training and Engineering Training Courses

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Training Course Categories

Marketing, Customer Relations, and Sales Courses

Occupational Health, Safety and Security Training Courses

Oil & Gas Training and Other Technical Courses

Personal & Self-Development Training Courses

Quality and Operations Management Training Courses

Secretarial and Administration Training Courses

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WHO WE ARE

Agile Leaders is a renowned training center with a team of experienced experts in vocational training and development. With 20 years of industry experience, we are committed to helping executives and managers replace traditional practices with more effective and agile approaches.

OUR VISION

We aspire to be the top choice training provider for organizations seeking to embrace agile business practices. As we progress towards our vision, our focus becomes increasingly customer-centric and agile.

OUR MISSION

We are dedicated to developing value-adding, customer-centric agile training courses that deliver a clear return on investment. Guided by our core agile values, we ensure our training is actionable and impactful.

WHAT DO WE OFFER

At Agile Leaders, we offer agile, bite-sized training courses that provide a real-life return on investment. Our courses focus on enhancing knowledge, improving skills, and changing attitudes. We achieve this through engaging and interactive training techniques, including Q&As, live discussions, games, and puzzles.

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