

# Schedule Delay Analysis: Forensic Methods and Practical Applications

Instant Online Download

4-Part Series

## Who Should Attend?

- Construction Owners
- A/Es
- Contractors
- Subcontractors
- Construction Managers
- Contract Administrators
- Owner Representatives
- Construction Attorneys
- Consultants

## Why Listen to this 4-part series?

- Understand how to choose a correct delay analysis method
- Learn to determine how events on projects impacted project schedules as well as each sides' liabilities and event causation
- Learn the importance of sound contemporaneous project documentation and its role in the resolution of time extension requests and delay claims
- Discover the ins and outs of each delay analysis method and when each one is best applied
- Explore the As-Planned vs. As-Built delay analysis methods
- Understand and distinguish between the forensic schedule analysis modeled methodologies
- And much, much more!



## Agenda at a Glance

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**Part 1.** Schedule Delay Analysis:  
Choosing a Method and Why  
They Differ

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**Part 2.** Schedule Delay Analysis  
— Observational Methods —  
Static & Dynamic Logic

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**Part 3.** Schedule Delay Analysis  
— Modeled Methods —  
Additive & Subtractive

Available On-Demand

**Part 4.** Forensic Schedule  
Analysis & Discretionary Logic

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# Schedule Delay Analysis: Forensic Methods and Practical Applications

## 4-Part Series

Dear Construction Professional:

With increasingly complex projects, the stakes for project delay have risen substantially. On public construction particularly, where sophisticated contract clauses are drafted to govern requirements for time and cost recovery, it is important to be proactive in schedule development, management and project documentation. Listen in on this 4-part series presented by today's leading experts on the subject to learn what you should be doing if anticipating a claim on an existing project or are already involved in developing or negotiating a delay claim. Gain control of schedule delay strategy and methods today!

Get your team together for this on-demand training to make sure your firm stays on top of this crucial subject, including:

- Schedule Delay Analysis Methods
- Observational Methods — Static & Dynamic Logic
- Modeled Methods — Additive & Subtractive
- Forensic Schedule Analysis & Discretionary Logic

Train your whole staff with these flexible sessions, that review types of schedule delay analysis, its methods, considerations for choosing a right method for your particular project, legal and practical implications and much more. Save travel and hotel expenses and lost work time. All sessions are available for download at your convenience.

Make the most of this information-packed training. Set up a weekly lunchbox meeting for your staff to participate and learn. One tidbit from one session could save your company tens of thousands of dollars.

I hope you will enjoy this informative series!

Warmest regards,

Paul Levin  
Publisher



Train your whole team for one low price. Don't delay — order today!

*Amount of documentation & reliability of the source are very important!*

## Part 1

### Schedule Delay Analysis — Choosing a Method and Why They Differ

■ **James G. Zack, Senior Advisor, Navigant Construction Forum**

Which method of schedule delay analysis is best is still a wide-open issue among schedulers, claim consultants, construction managers, contractors and attorneys. The level of debate has increased in recent years since AACE International published their Recommended Practice — Forensic Schedule Analysis. What has not been widely discussed or written about is what factors should go into the decision-making process when choosing a delay analysis method for a particular project or a specific claim.

Listen to this 90-minute recorded session to get answers to pressing questions and to:

- Learn about the differences in various delay analysis methods and how to choose which is best for your projects
- Understand what factors and issues should be addressed before committing to a potentially lengthy and expensive process
- Discover if the choice of delay analysis method is irrevocable once made
- Determine the risk of trying to change methods in mid-stream

#### YOUR PRESENTER



**James G. Zack, Jr.** is the Senior Advisor and a Former Executive Director, Navigant Construction Forum™ — the construction industry's global resource for thought leadership and best practices on avoidance and resolution of construction project disputes globally. Formerly Mr. Zack was Executive Director, Corporate Claims Management, Fluor Corporation; Vice President, PinnacleOne; and Senior Construction Claims Consultant, CH2M HILL, Inc. With more than 40 years' experience, he is a recognized expert in mitigation, analysis and resolution or defense of construction claims. A Fellow of AACE and RICS, Mr. Zack is a Certified Forensic Claims Consultant, a Certified Construction Manager and a Project Management Professional, as well as a nationally known author and speaker on construction claims.

*If it wasn't written down, it didn't happen!*

## Part 2

### Schedule Delay Analysis — Observational Methods — Static & Dynamic Logic

#### ■ Scott Lowe, Principal, Trauner Consulting Services

Like engineering, CPM scheduling is both an art and a science. CPM scheduling delay analysis techniques allow the analyst to distinguish critical delays from non-critical delays and calculate their impact on the project duration, identify concurrent delays that did or would have delayed the project completion and differentiate between concurrent and pacing delay. When choosing a method there are a number of technical, practical and legal considerations that a delay analyst makes.

This presentation focuses on those methodologies referred to in the industry as “observational” methods. It explores the performance of a credible delay analysis and identify many of the strengths and pitfalls of these methodologies.

This informative recorded program will help you:

- Understand and distinguish between the forensic schedule analysis observational methodologies
- Become familiar with the use of the observational methodologies, such as the As-Planned vs. As-Built, and the Contemporaneous Period Analysis (often called “windows”)
- Discover the various enhancements to the As-Planned vs. As-Built that will improve an analysis beyond a “total time” analysis
- Learn about the different types of Contemporaneous Period Analysis, and understand the difference between losses (or gains) due to progress and those due to changes to the schedule
- Identify the strengths and pitfalls of the observational methodologies

#### YOUR PRESENTER



**Scott Lowe** is a Principal with Trauner Consulting Services. He is the co-author of the book “Construction Delays.” He is also past Chairman of CMAA’s Time Management Committee, leading the development of CMAA’s scheduling standards and procedures. Mr. Lowe was the lead developer of and an award-winning instructor for the National Highway Institute’s course “Managing Highway Contract Claims: Analysis and Avoidance.” He has analyzed delays and delay costs on hundreds of construction projects throughout his 30+ year career. His expertise lies in the areas of critical path method scheduling, construction claim preparation and evaluation, dispute resolution, technical document development, contract administration, and cost analysis.

*The speaker was well versed in what works and what doesn’t work for forensic scheduling, something that you learn by hands-on experience.*

*Activities that were on the contemporaneously predicted critical path may not be on the as-built critical path.*

## Part 3

# Schedule Delay Analysis — Modeled Methods — Additive & Subtractive

### ■ Patrick Kelly, Associate Director, Navigant Consulting

The time for performance of a project is usually of the essence to the employer and the contractor. This has made it quite imperative for contracting parties to analyze project delays. A major source of the disputes lies with the limitations and capabilities of the techniques in their practical use.

Hence it is imperative that both owners and contractors develop an understanding of delay measuring methods along with advantages and disadvantages of each. Because it's known that various methods give different allocations of delay responsibilities when applied to the same set of delay claims data, reinforcing the common notion that the most appropriate technique for any claims situation depends on the claims circumstances and the project.

The different results stem mainly from the unique set of requirements and application procedures each technique employs. This presentation focuses on those methodologies referred to in the industry as "modeled" methods. It explores the performance of a credible delay analysis and identify many of the strengths and pitfalls of these methodologies.

Listen to this information-packed program to:

- Understand and distinguish between the forensic schedule analysis modeled methodologies
- Become familiar with the use of the modeled methodologies that "add" activities to the schedule to model events, such as the Impacted As-Planned and the Retrospective TIA and Collapsed As-Built
- Discover the nature of the Impacted As-Planned, the limited circumstances in which one can implement such an analysis, and the difficulties in doing so
- Learn about the process of creating a Collapsed As-Built, and the difficulties of creating a "collapsible" model
- Review the uses, benefits, and problems with implementing a Retrospective TIA, including the contractual reasons why one may be necessary
- And much more!

### YOUR PRESENTER



**Patrick Kelly** is an Associate Director in Navigant's Global Construction Practice. He provides services in construction management, contracting, project controls, scheduling, earned value analysis, forensic schedule analysis for delay and disruption, and claims and disputes resolution.

He has extensive experience in transportation, facilities, and critical structures assignments. He has worked for both contractors and owners on small and large construction projects at the federal, state, and local level. Patrick is an expert in claim investigation, source data validation, Forensic Schedule Analysis method selection, and delay analysis. He has provided Forensic Schedule Analysis and litigation support to owners, contractors, and attorneys, on construction methods, cost analysis, and delay/disruption issues. He worked on numerous cases before federal and state courts, arbitration panels, negotiations, and mediation. He has a thorough understanding of delay and impact analysis methods, analysis and quantification of productivity and disruption, application of construction legal doctrines, and in the calculation of and productivity losses.

## Part 4

### Forensic Schedule Analysis & Discretionary Logic

■ **John Livengood, Managing Director, Navigant's Global Construction Practice**

Discretionary logic — the type of logic that is not dictated by either the contract or the physical necessity of the project — continues to cause difficulty for fair and accurate analysis of schedule updates during the course of the project in the construction industry. Further, these analytical problems persist in the methodologies associated with post-construction FSA.

This session highlights several applications and refinements of existing forensic delay methodologies, particularly As-Planned vs. As-Built, Contemporary Period Analysis and Collapsed As-Built, which can assist in identifying the as-built critical path and delay responsibility in projects with significant amounts of discretionary logic.

Listen to this information-packed program to:

- Understand the basics of the major forensic delay methodologies
- Gain information on the role of discretionary logic in CPM schedules
- Discover how to consider and address discretionary logic in forensic applications
- Identify which FSA methodologies can address discretionary logic with little problem
- Determine how to adapt some methodologies to appropriately address discretionary logic

#### YOUR PRESENTER



**John Livengood, Esq., AIA, FAACE** is a Managing Director in San Francisco with Navigant's Global Construction Practice and is President of the AACE International. He has more than 40 years of experience in construction, design, claims and delay analysis and development as well as litigation support. He is a registered architect and attorney. John has developed and defended claims for and against owners, contractors, designers and governmental entities on large (and a few small) projects of all types. John has served as an arbitrator in ICC and UNCITRAL proceedings as well as dozens of times as an expert witness in court and arbitration proceedings throughout the world. This work has generally focused on delay claims with associated productivity and cost issues. He is active in numerous professional associations including the American Bar Association (ABA) and the International Bar Association (IBA).

*Performing a forensic schedule delay analysis on a project with excessive discretionary logic can make certain FSA methodologies unreliable.*

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On-Demand

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