

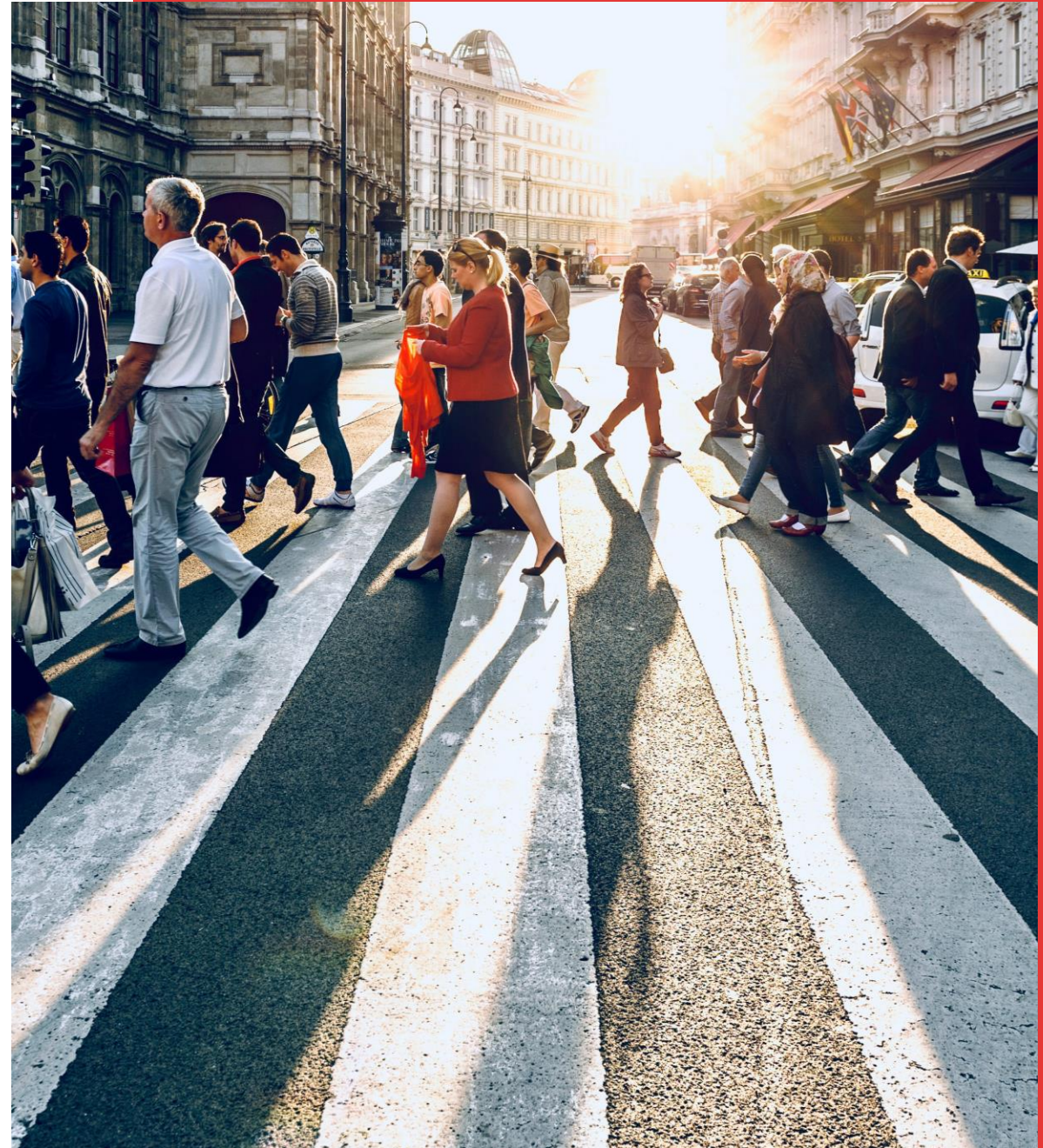


Schedules without Revisions

Project Chat 2026

25 March 2026

Presented by: Daniel Foster & Lauren
Macklin





01 What is a Schedule Without Revisions?

01. The Core Problem: Schedules Are Constantly Revised

Every time a schedule is updated, the original baseline logic is masked or destroyed.

Delay analysis becomes impossible without a way to 'see through' the revisions.



Float Manipulation

Schedulers add float by reducing durations or logic, disguising real delays



Logic Changes

Predecessor/successor links are revised to show schedule recovery



Scope Changes

New activities are inserted to absorb delays without acknowledgment



Baseline Drift

The original CPM logic is progressively eroded through updates



02. The Core Problem: Float Manipulation

YOU ARE THE PM

The contractor's update lands on your desk. The critical path now shows 18 days of total float. Last month it showed 3 days. Nothing on site has changed no extra resources, no acceleration, no recovery plan submitted.

YOU ARE THE CAM

Your work package shows 18 days float with nothing changed in your scope you're being held to a forecast you never agreed to

YOU ARE THE PLANNER

Your PM comes to you and says: "The schedule is showing us 3 days float that's too tight, it'll panic the client. Can you find some float in there?" You reduce a few activity durations by 10%, remove a finish-to-start lag. Done now it shows 18 days.

WHAT JUST HAPPENED

- ▶ No actual work was done faster. The project is still the same number of days late.
- ▶ The float didn't come from productivity – it came from compressing durations on paper.
- ▶ The PM reports to the client: 'We have 18 days of float – we're comfortable.' That is a false picture.
- ▶ When the delay eventually surfaces, it looks sudden and unexpected – when in fact it was always there.



03. The Core Problem: Logic Changes

YOU ARE THE PM

The contractor calls you. 'Don't worry we've re-sequenced the work. Cladding can now run in parallel with fit-out. We've recovered the program.' The updated schedule shows completion back on time. You pass this on to the client.

YOU ARE THE CAM

You own the cladding package, you know the two trades can't run simultaneously from prior experience, and can already see the on-site collision coming in Month 5

YOU ARE THE PLANNER

You're told to 'find some recovery.' You open the schedule and change the Finish-to-Start link between cladding and fit-out to a Start-to-Start with a 5-day lag. On paper, 3 weeks of delay vanishes. The schedule shows green. But those two trades can't actually work in the same area simultaneously.

WHAT JUST HAPPENED

- ▶ The logic change has no basis in reality – the sequencing constraint still exists on site.
- ▶ The delay hasn't gone away. It has been hidden inside the revised logic.
- ▶ When the trades clash on site and cladding has to stop, the delay reappears – and now looks like a new event.
- ▶ The original constraint existed in Month 2.



04. The Core Problem: Scope Changes

YOU ARE THE PM

You compare this month's schedule to last month's. It has grown from 380 activities to 430. The contractor says the extra activities are 'just more detail.' The completion date hasn't moved. You assume that's a good sign.

YOU ARE THE CAM

You now have 12 new phantom activities inserted into your sequence and are being asked to status them every fortnight.

YOU ARE THE PLANNER

You've inserted 50 new 'procurement' and 'inspection' activities between existing tasks. Each one absorbs a few days of the delay that had been building. Split across 50 new activities, the delay is invisible. Completion date: unchanged. Problem: solved on paper.

WHAT JUST HAPPENED

- ▶ 50 new activities have been used as invisible buffers — absorbing delay without declaring it.
- ▶ The PM sees no change in completion date and reports to the client that the project is on track.
- ▶ None of these new activities appear in the original baseline — the schedule has fundamentally changed.
- ▶ A comparison of activity counts between periods is one of the simplest manipulation red flags to spot.



05. The Core Problem: Baseline Drift

YOU ARE THE PM

It's Month 10. The client asks for a delay analysis going back to Month 1. You pull up the old schedules except the 'baseline' stored in the schedule has been quietly re-baselined three times. Month 1's logic barely resembles what was originally submitted. You have no idea what was planned.

YOU ARE THE CAM

You signed off a 90-day work package in Month 1 by Month 10 the baseline shows 75 days, and you never approved this change

YOU ARE THE PLANNER

Each month you've made small tweaks a duration here, a link there. Nothing dramatic, nothing that needed signing off. Over 10 months those small changes have accumulated. The schedule submitted today shares a name and structure with Month 1, but the logic is completely different.

WHAT JUST HAPPENED

- ▶ 12 months of small revisions have made the original program unrecognisable.
- ▶ No single change was large enough to challenge – but the cumulative effect is enormous.
- ▶ A retrospective delay analysis is now near-impossible – the forensic trail has been erased.
- ▶ This is the most common situation facing delay analysts on major projects at final account stage.



AUDIENCE POLL

PIN IT

On a scale from Nicolas to Cage - how are you today?



Join at menti.com | use code 3546 3524

Mentimeter

The screenshot shows the Mentimeter interface. At the top, there is a navigation bar with a logo and a dropdown menu. Below the navigation bar, there is a header section with the text "Menti" and "Schedules without Revi...". A QR code is displayed in the center of the slide. Below the QR code, there is a list of slides to be added to the presentation. The first slide is the poll question "On a scale from Nicolas to Cage - how are you today?". The second slide is "Which schedule revisions have you seen on your projects?". The third slide is "What would stop you from using this approach?".

Go to menti.com and enter code



AUDIENCE POLL

Join at menti.com | use code 3546 3524

Mentimeter

Which schedule revisions have you seen on your projects?

Menti
Schedules without Revi...
Select which slide to add

On a scale from Nicolas to Cage - how are you today?

Which schedule revisions have you seen on your projects?

What would stop you from using this approach?

Write as many as you can think of
Go to menti.com and enter code

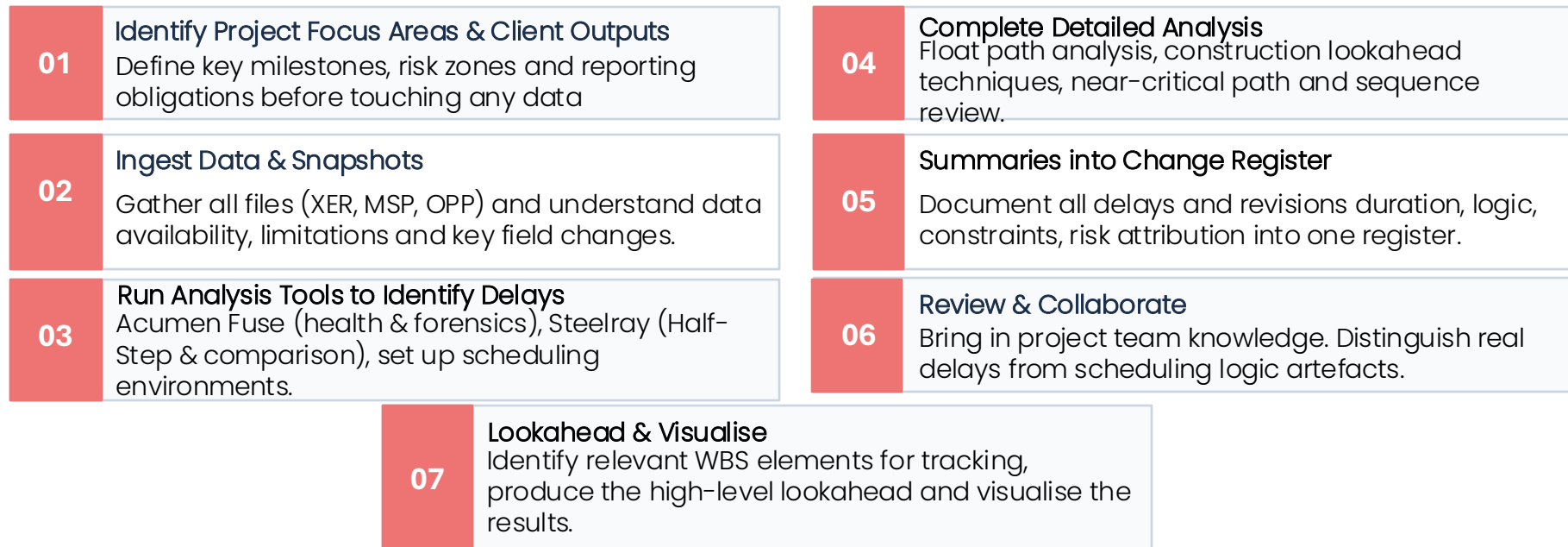




02 Schedule Review Process

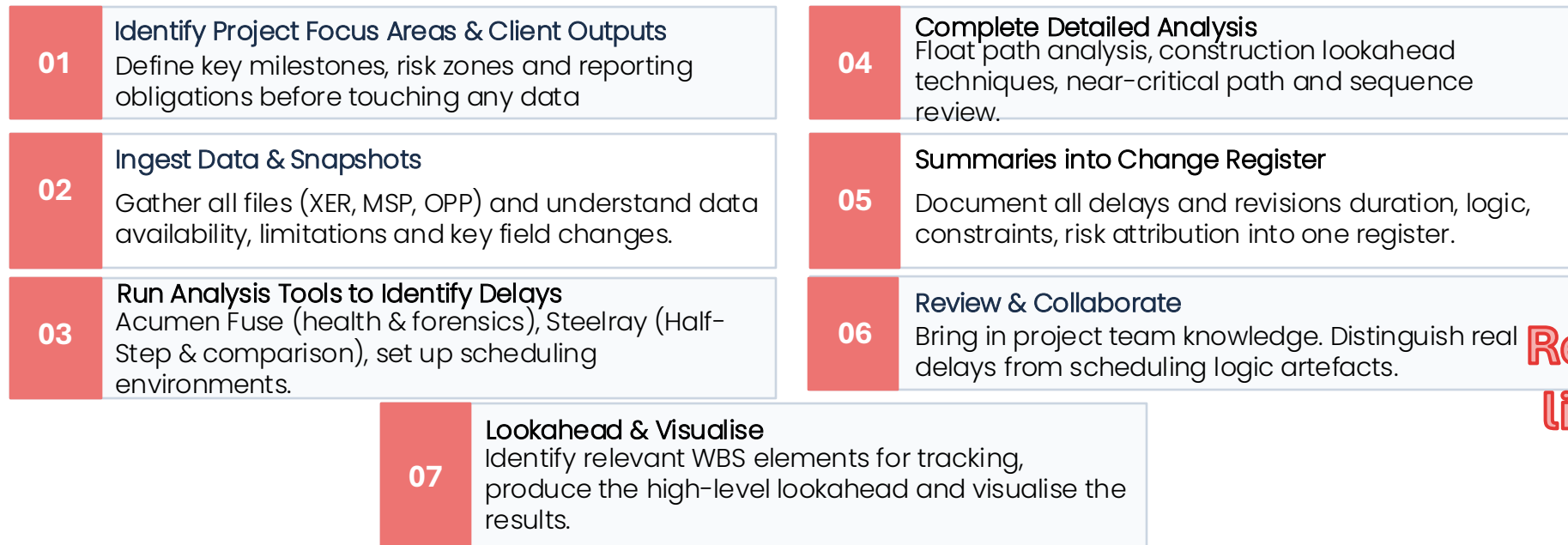
The Skeiny Way – The Seven-Step Process

A structured, repeatable method for schedule delay analysis from the first conversation with the client through to visualised output.



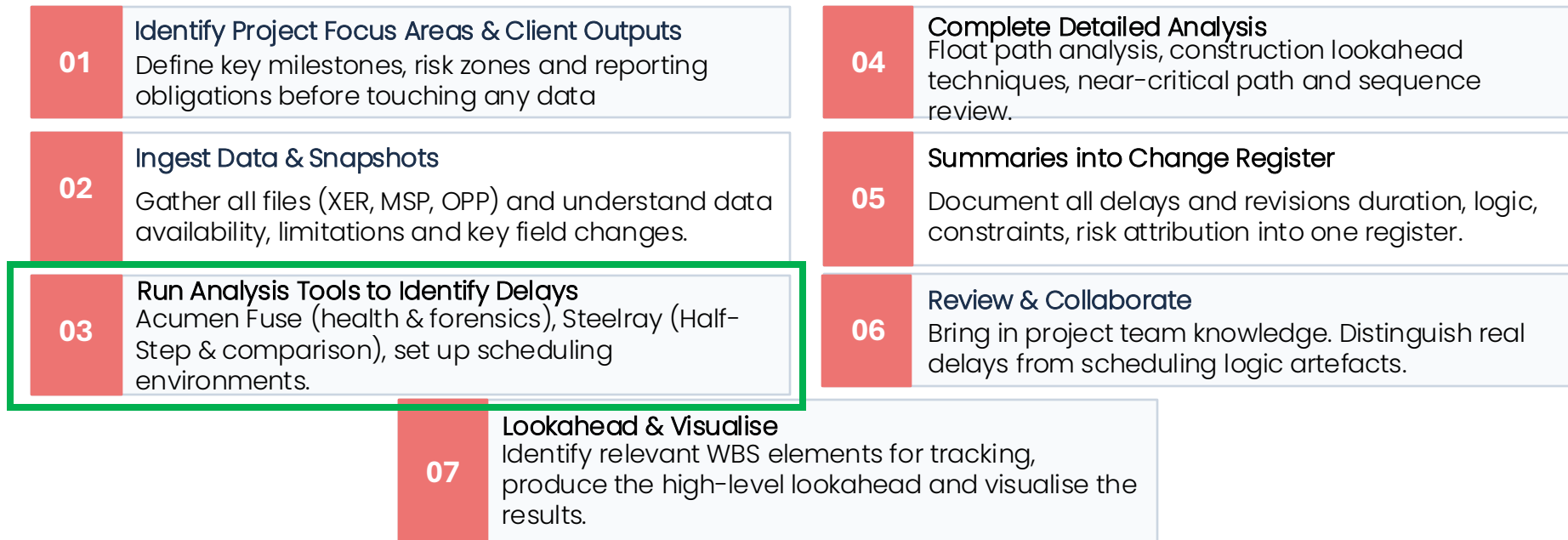
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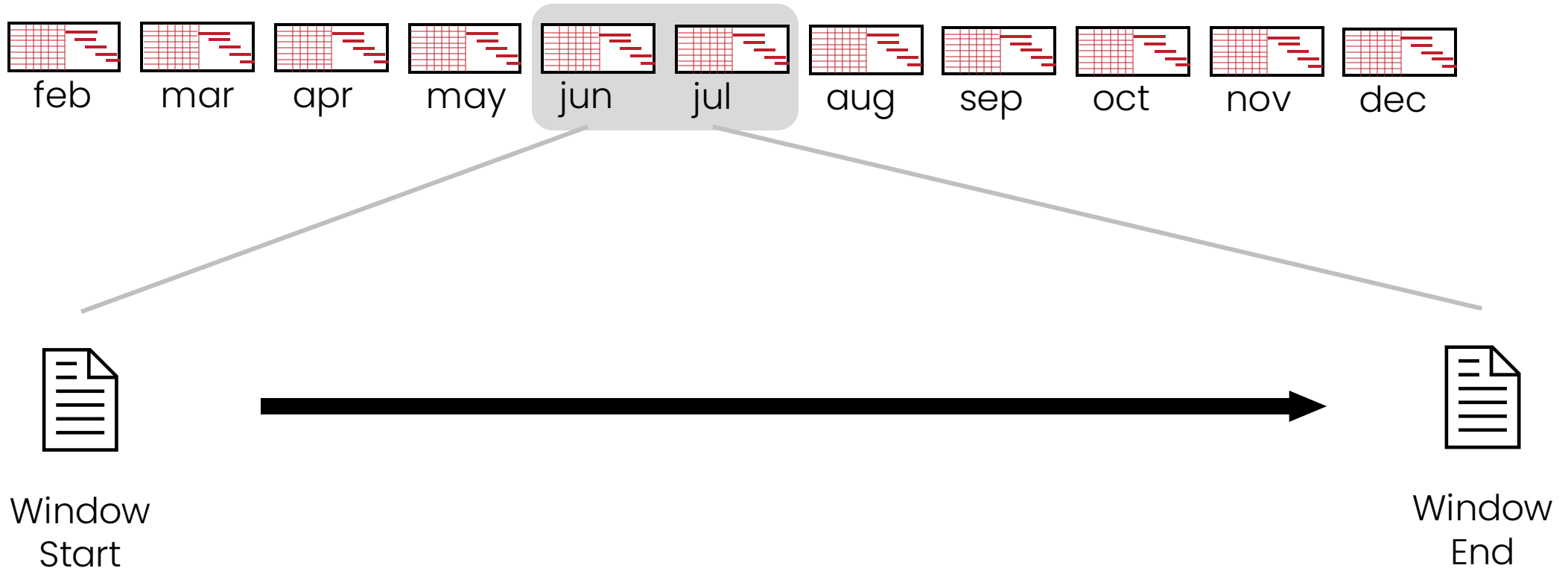
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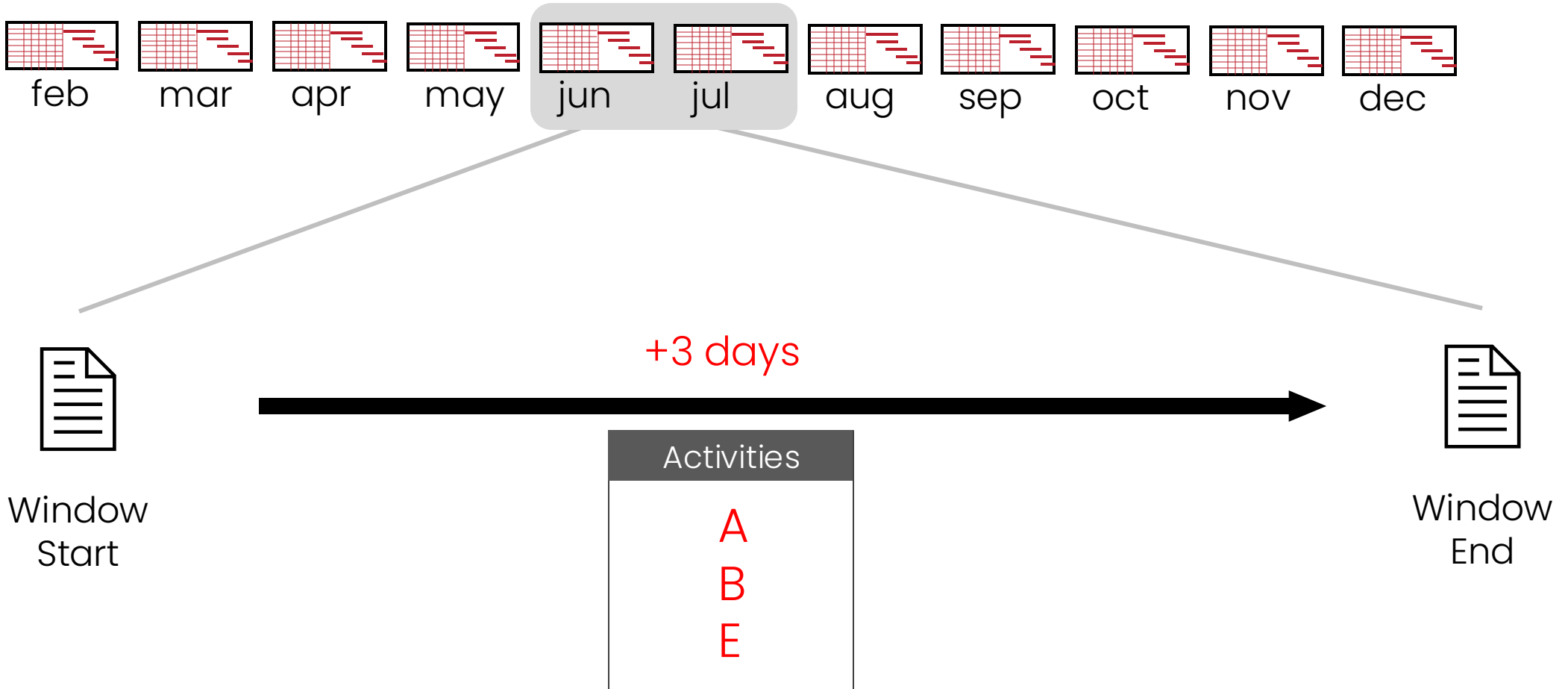


06. What is a Half-Step Analysis?

A half-step analysis first applies only the progress-related changes to the schedule and observes the causes of delays.

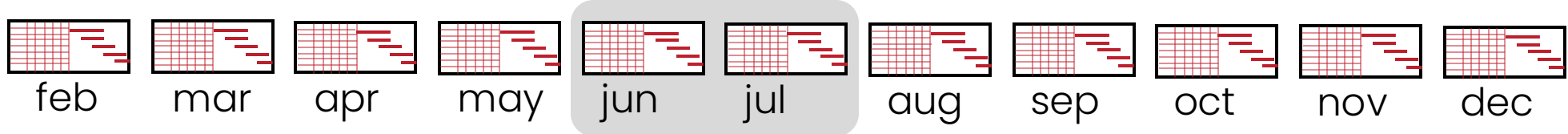


07. What is a Half-Step Analysis?



One approach: apply all the changes one-by-one.

08. What is a Half-Step Analysis?



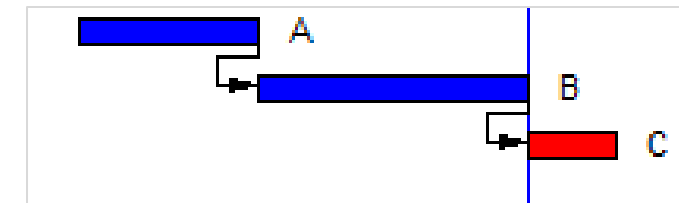
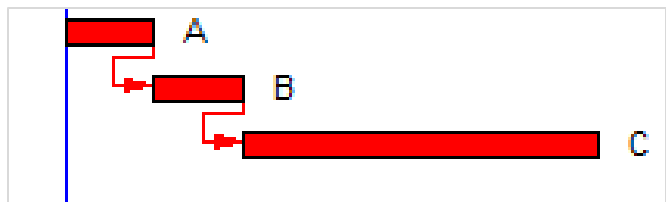
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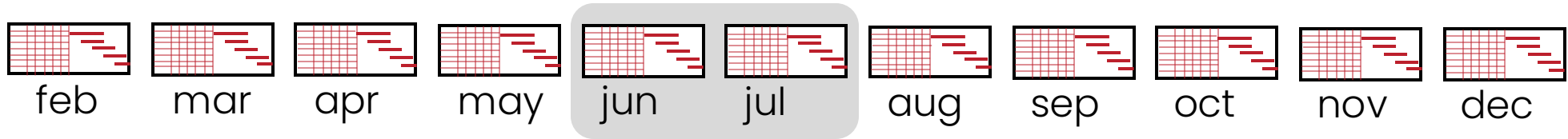
Window Start



Window End



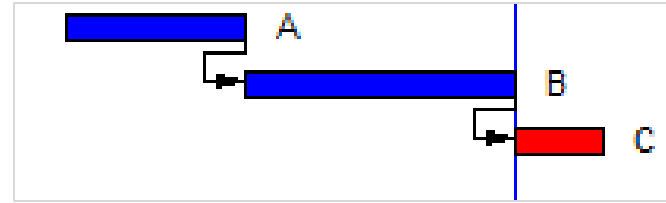
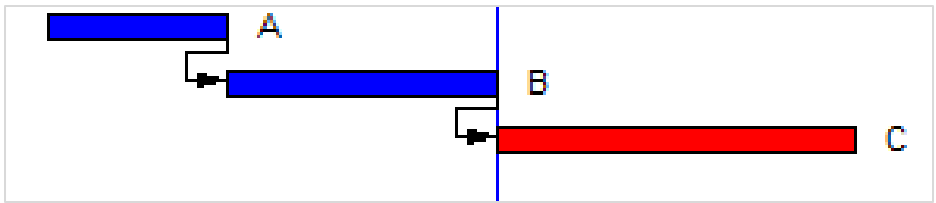
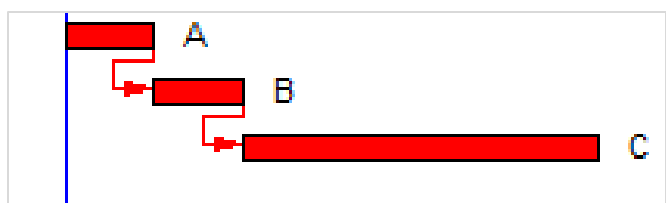
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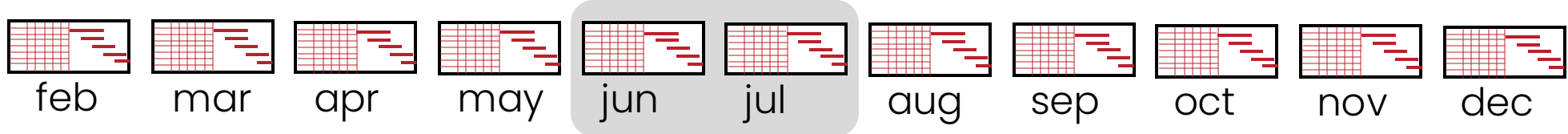
Window Start

Half Step

Window End



10. What is a Half-Step Analysis?



+3 days



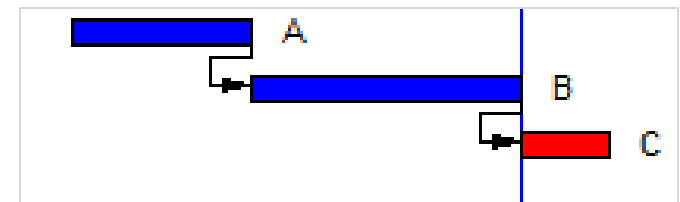
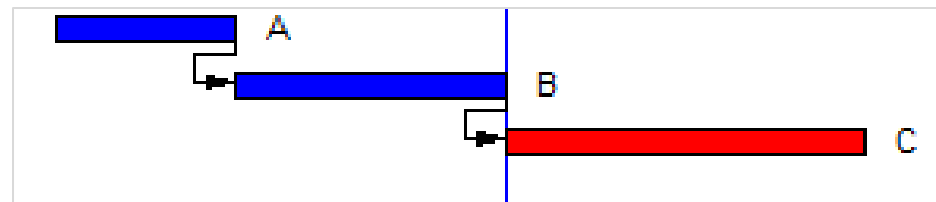
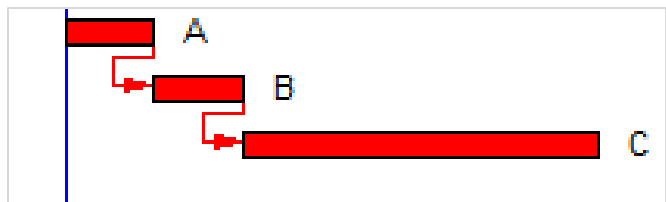
-3 days



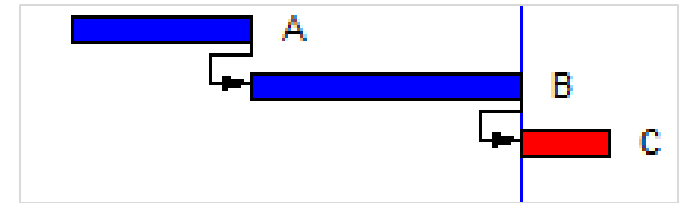
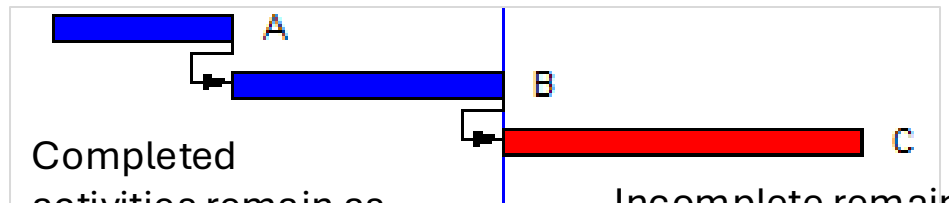
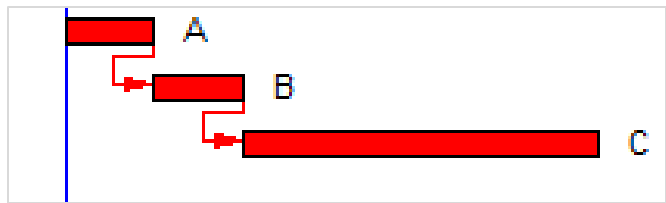
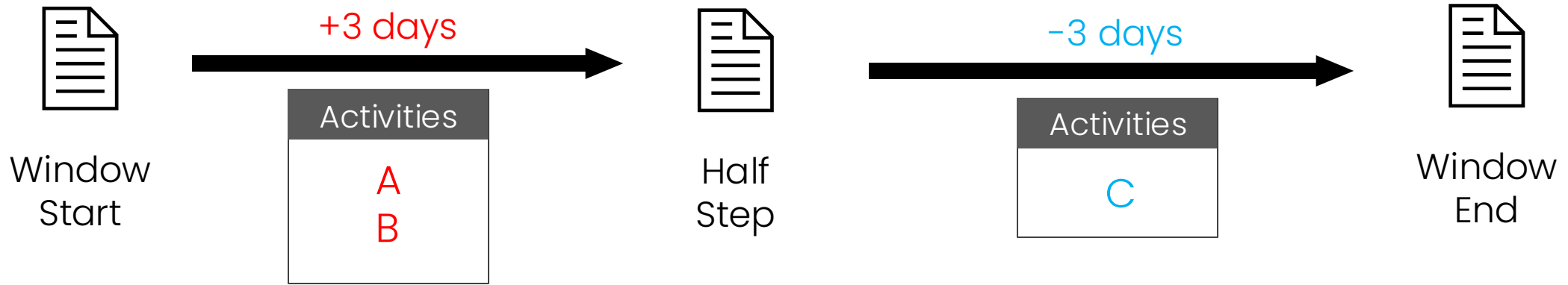
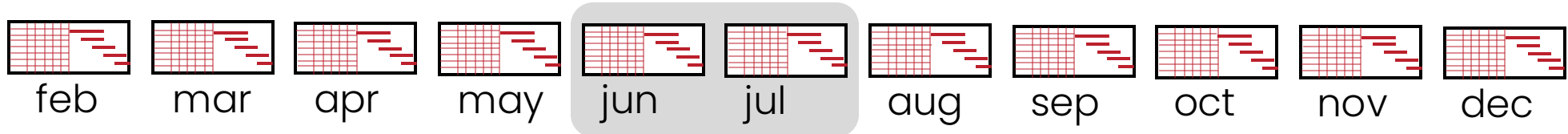
Window Start

Half Step

Window End



11. What is a Half-Step Analysis?



Completed activities remain as per completion dates

Incomplete remain as per their prior planned

13. Half-Step Analysis Fact Check



Why is Half-step analysis worth it?

- It is not predisposed to one side (owner or contractor).
- It goes much further than schedule comparison reports by showing the reasons for finish-date delays.
- It goes deeper into the behaviour of the critical and longest paths between updates.

Why Is a Half-Step Analysis So Difficult?

- A** Concurrent and pacing delays and recoveries
- B** Both delays and recoveries, some extending across update periods.
- C** Out-of-sequence execution
- D** Retained logic vs. progress override scheduling
- E** Multiple work calendars



03. The Skeiny Way – Steelray Delay Analyser Report

Steelray's Delay Analyser produces a period-by-period report of delays and schedule revisions across all submitted programs.



HOW TO RUN IN STEELRAY

- 1 Load all period files**
File → Open → load XER files for all periods in sequence. Steelray will order them by data date.
- 2 Select Delay Analyser**
Analysis → Delay Analyser → Configure. Set the target milestone (project completion or sectional completion).
- 3 Set analysis parameters**
Choose comparison type: period-over-period or against the baseline. Set the float threshold (recommend 0 for critical path focus).
- 4 Run and review**
Steelray produces a table: each period, delay accrued, activities responsible, and whether the delay is on the driving path.
- 5 Export report**
Reports → Delay Analysis → Export. This report feeds directly into the Change Register

WHAT THE REPORT REVEALS

- Which periods had the most delay accrued and which activities drove it
- Where schedule revisions masked delay: duration compressions, logic changes, new activities added
- Where genuine recovery occurred versus manufactured float recovery
- Whether the delay was on the critical / longest path or on a near-critical path that later became critical
- The revision history for each activity, every change across all periods in one place
- A foundation for risk attribution, which delays were in the contractor's control, which were not

OUTPUT: A Steelray Delay Analyser covering all submitted periods – delays identified, revisions catalogued, driving path confirmed.

03 Tools: Acumen Fuse & Steelray



01. Acumen Fuse — How to use it: Import & Quality Check



Start every monthly review by loading the contractor's file and running the automated quality gate before any delay analysis begins.

- 1 Import the Schedule File**
File → Import → select XER (P6) or BK3/XML (OPP).
Acumen reads the file and displays an import summary — check total activities, data date, and baseline status before proceeding.
Always verify the data date on import matches the contractor's submission letter date.
- 2 Run the DCMA 14-Point Health Check**
Metrics → DCMA 14-Point → Run.
Each of the 14 checks returns Pass, Warning, or Fail with a drill-down list of the specific activities causing each failure. Export this as a PDF — it is your formal non-conformance evidence.
More than 3 Fail results = consider rejecting the submission and requesting a corrected resubmission in writing.
- 3 Run Float Path & Near-Critical Analysis**
Metrics → Float Path → Configure Bands → Run.
Set the near-critical threshold to 20 working days. Acumen ranks all float paths from most critical outward. Path 1 = driving critical path. Paths 2–10 = near-critical risk zones. Note any path whose float is trending downward month-over-month.
A path dropping 5+ WD of float per period without recovery is your next delay in the making.

02. Acumen Fuse — How to use it: Forensics & Comparison



4

Run the Forensic / Half-Step Calculation

Forensics → New Analysis → set Period Start and Period End to the data date → Run. Acumen freezes the schedule at the data date, splits in-progress activities (Half-Step), and calculates the predicted Early Finish for every milestone. It then compares to the prior period automatically — Period Delay = $EF(\text{now}) - EF(\text{last month})$.

💡 Save the Acumen project file (.acumen) for this period. It preserves all settings for the forensic archive.

5

Run the Scenario Comparison

Scenarios → Add Scenario → load the previous period XER → Compare. Acumen shows a side-by-side diff: every activity where a date, duration, or logic link changed between the two periods. Flag activities where Total Float increased without a scope change — these are your manipulation candidates.

💡 Filter by 'Float Increase > 5 WD' to isolate artificial float generation instantly.

6

Export Findings & Update the Delay Register

Reports → Schedule Health → Export PDF | Reports → Forensics → Export PDF. Issue the health report to the contractor as formal schedule review correspondence. Extract the Period Delay figure into your monthly delay register with the risk attribution (Contractor / Employer / Concurrent) and any notice obligations triggered.

💡 A consistent monthly PDF trail from Acumen is contemporaneous evidence — far stronger than any retrospective reconstruction.

ACUMEN WORKFLOW COMPLETE: Import → DCMA → Float Path → Forensics → Compare → Export · Total time on a 2,000-activity schedule: ~45 minutes

03. Example comparison point



Half Step Acumen Feb25 Dec25 - Deltek Acumen

S1 // Projects S2 // Diagnostics S2 // Logic S2 // Benchmarking S3 // Risk S4 // Acceleration S5 // Dashboard **Forensics** Metrics Fields

Create Analysis ✖ Remove

Create Analysis

Projects (3)

Activities (9571)

Relationships (54808)

Resources (2024)

Calendars

Leads/Lags (53218)

Description (5525)

Activity Status (12188)

Activity Type (111)

Calendar (17934)

Original Duration (4807)

Remaining Duration (12012)

Primary Constraint (1414)

Total Float (37173)

Start (35903)

Finish (37134)

Early Start (56611)

Early Finish (56612)

Late Start (48513)

Late Finish (48462)

Critical (37729)

Longest Path (830)

Filter

SmartGantt™

Publish

Publish

Analysis	Projects						
	Name	Start	Finish	Time Now	Baseline Start	Baseline Finish	Activities
Feb 25 – Dec 25	Feb 25 – Dec 25	9/06/2022	30/12/2027	25/12/2025	9/06/2022	13/12/2028	57513
Feb 25 – Dec 25 – Half Step	Feb 25 – Dec 25 – Half Step	9/06/2022	30/12/2027	25/02/2025	9/06/2022	13/12/2028	57513
Feb 25 – Dec 25	Feb 25 – Dec 25	9/06/2022	30/12/2027	25/02/2025	9/06/2022	30/12/2027	49132

04. Steelray – How to Use It: Load, Health Check & Compare

Steelray's strength is speed and breadth – it reads any schedule format, produces audit-ready PDFs, and generates a complete revision change log in minutes.

1

Open the Schedule File

File → Open → select XER (P6).

Steelray validates the file on load and flags any import issues. No P6 licence or server connection required – works standalone on a laptop.

💡 For OPP: export via File → Export → XML (Scheduling Exchange Format) in Open Plan before loading into Steelray.

2

Run the Period Comparison

Analysis → Compare Schedules → load current period + previous period → Run. Steelray generates a full change log: activities added, deleted, duration changes, logic link changes, constraint changes, and date shifts. Sort by 'Float Change' to surface activities where float has increased without justification – your manipulation checklist.

💡 Save the comparison report alongside the native files. Together they are your month-by-month forensic archive.



05. Steelray – How to Use It: Float Path, Forensics & Reporting



Once the quality check and comparison are complete, use Steelray to trace the critical path, quantify slip, and produce the formal report package.

- 3 Trace the Critical Path & Float Trends**

Analysis → Critical Path → Trace from Completion Milestone.
Steelray traces the full driving path backwards from the project completion activity. Switch to Analysis → Float → Float Distribution to see how float is spread across the schedule. The Float Trend report shows each float path's value over all loaded periods – a path with consistently reducing float is your leading risk indicator.

Load 3–6 months of XER files at once to generate a multi-period float trend chart automatically.
- 4 Run Milestone Slip Analysis**

Analysis → Milestones → select key contract milestones → Compare Periods.
Steelray calculates the slip for each milestone between the current and prior period – equivalent to the Half-Step delta. Use this as your period delay figure. For each milestone: Planned Finish, Current Predicted Finish, Slip in calendar days.

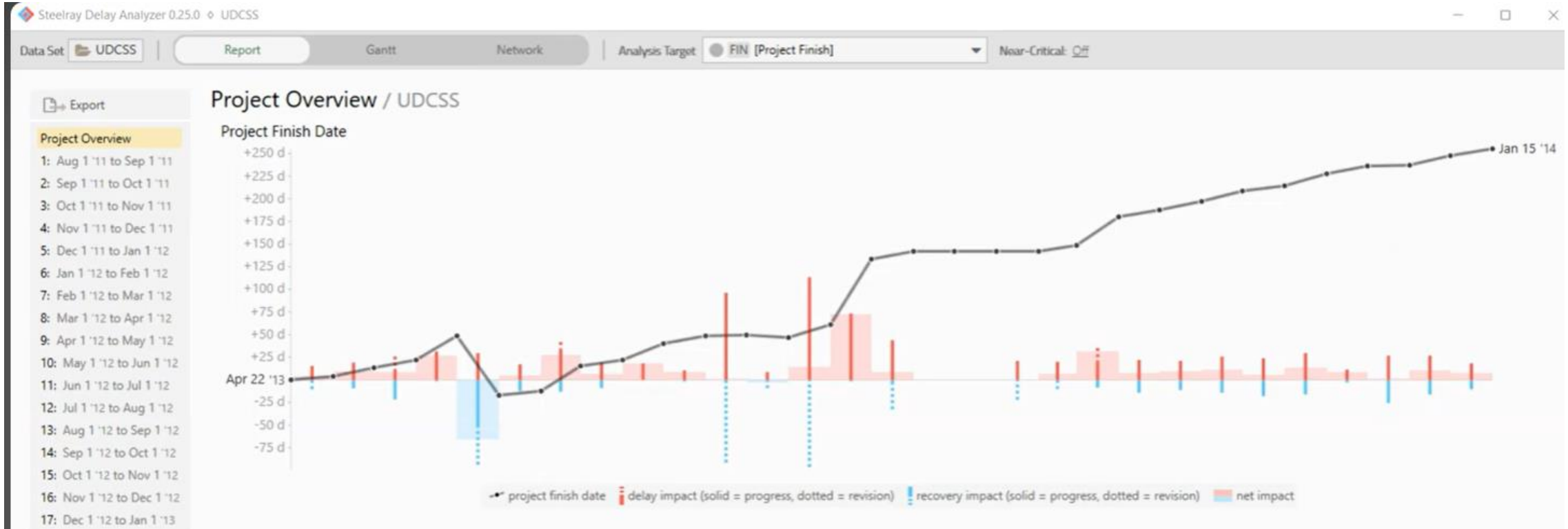
Cross-reference the slip figure with the float path trace to confirm the delay is on the true driving path, not a non-critical activity.
- 5 Export the Formal Report Package**

Reports → Export Excel → select: Health Report, Comparison Report, Float Trend, Milestone Slip.
All four reports combine into a single Excel package. This is designed to attach directly to your monthly schedule review correspondence to the contractor – no formatting work required. Each report shows schedule name, data date, and run timestamp.

File the Excel alongside the native XER file in your period archive folder. Together they are a complete contemporaneous record.

STEELRAY WORKFLOW COMPLETE: Open → Health Check → Compare → Float Trace → Milestone Slip → Export PDF · Total time: ~30 minutes

06. Steelray – Applications



06. Steelray – Applications

Steelray Delay Analyzer 0.17.0 • Schenectady

Data Set: Schenectady | Report | Gantt | Network | Analysis Target: FIN [Project Finish] | Near-Critical: 20 d

Project Overview

- Period 1: Aug 1 '11 to Sep 1 '11
- Period 2: Sep 1 '11 to Oct 1 '11
- Period 3: Oct 1 '11 to Nov 1 '11
- Period 4: Nov 1 '11 to Dec 1 '11
- Period 5: Dec 1 '11 to Jan 1 '12
- Period 6: Jan 1 '12 to Feb 1 '12
- Period 7: Feb 1 '12 to Mar 1 '12
- Period 8: Mar 1 '12 to Apr 1 '12
- Period 9: Apr 1 '12 to May 1 '12
- Period 10: May 1 '12 to Jun 1 '12
- Period 11: Jun 1 '12 to Jul 1 '12
- Period 12: Jul 1 '12 to Aug 1 '12
- Period 13: Aug 1 '12 to Sep 1 '12
- Period 14: Sep 1 '12 to Oct 1 '12
- Period 15: Oct 1 '12 to Nov 1 '12
- Period 16: Nov 1 '12 to Dec 1 '12
- Period 17: Dec 1 '12 to Jan 1 '13
- Period 18: Jan 1 '13 to Feb 1 '13
- Period 19: Feb 1 '13 to Mar 1 '13
- Period 20: Mar 1 '13 to Apr 1 '13
- Period 21: Apr 1 '13 to May 1 '13
- Period 22: May 1 '13 to Jun 1 '13
- Period 23: Jun 1 '13 to Jul 1 '13
- Period 24: Jul 1 '13 to Aug 1 '13
- Period 25: Aug 1 '13 to Sep 1 '13
- Period 26: Sep 1 '13 to Oct 1 '13
- Period 27: Oct 1 '13 to Nov 1 '13
- Period 28: Nov 1 '13 to Dec 1 '13
- Period 29: Dec 1 '13 to Jan 1 '14

Period 1 / Aug 1 '11 to Sep 1 '11

Progress

Id	Name	In Progress			Delay			Recovery		Impact		
		Exec	Delay	Wait	Imp	Near	Non	PS	EF	Delay	Recov	Net
PRMS-1000	Notice To Proceed	0.0 wd	0.0 wd	0.0 wd	6.0 wd	2.0 wd	0.0 wd	-0.3 d	0.0 d	8.0 d	0.0 d	8.0 d
DEM-1010	Cut/Cap Existing Utilities	11.0 wd	2.0 wd	0.0 wd	5.0 wd	1.0 wd	0.0 wd	-0.3 d	0.0 d	8.0 d	0.0 d	8.0 d
DEM-1000	Demolition Permits	13.0 wd	1.0 wd	1.0 wd	0.0 wd	1.0 wd	0.0 wd	-0.3 d	-2.3 d	0.0 d	0.0 d	0.0 d
DEM-1020	Demolition Mobilization	0.0 wd	0.0 wd	0.0 wd	0.0 wd	3.0 wd	0.0 wd	0.0 d	0.0 d	0.0 d	0.0 d	0.0 d
DEM-1040	Stakeout LOD	0.0 wd	0.0 wd	2.0 wd	0.0 wd	0.0 wd	0.0 wd	-6.0 d	-8.0 d	0.0 d	-2.0 d	-2.0 d

Revision

There were **16 schedule revisions**, for a net impact of -10.0 d (recovery).



06. Steelray – Applications

Steelray Delay Analyzer 0.17.0 ◊ Schenectady

The screenshot displays the Steelray Delay Analyzer interface. The main window shows a Gantt chart with a timeline from late December 2011 to early February 2012. The 'Analysis Target' is set to 'FIN [Project Finish]' with a 'Near-Critical' duration of 20 days. The left sidebar lists activity categories: UDC.1108B (Schenectady Jan 2012 Update), AD (Administration & Milestones), CN (Construction), 01 (Vertical Construction), ST (Demolition, Remediation, Sitework and Foun...), DE (Demolition), ST (Sitework), GE (General), CO (Delays and Change Orders), and C01 (PCO #01 Telecommunications Ductb...). The right sidebar provides a detailed view of the selected activity 'C01-1030 CO#01 Added Work', showing its start and end dates, scheduling mode (P6 → SDA), and a list of schedule revisions. A specific revision for 'Sun, 1/29 through Tue, 1/31' is highlighted, with a 7-day duration. Below this, a summary explains that during this period, two activities collectively recovered 7 days for the project finish date, while one activity delayed or recovered while near-critical without impacting the PF date. The bottom status bar shows the 'Data Date' as Sun, Jan 29, 2012 at 12am and the 'Target Finish' as Wed, Apr 17, 2013 at 5pm.



AUDIENCE POLL

What would stop you from using this approach?



menti.com
3546 3524

Waiting for participants

Menti
Schedules without Revi...

Select which slide to add

- Slide 1: Skeiny QR code
- Slide 2: On a scale from Nicolas to Cage - how are you today?
- Slide 3: Which schedule revisions have you seen on your projects?
- Slide 4: What would stop you from using this approach?

Select all that apply – be honest!

Go to menti.com and enter code


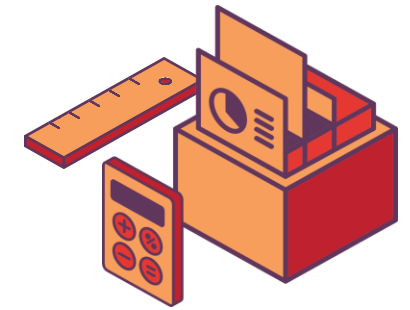


04 Fun Ways to See Delays Visually



01. Visual Delay Analysis Techniques


The best schedule analysis is worthless if no one understands it. Visuals tell the story.



Milestone Trend Analysis (MTA)

A simple line chart: X axis = reporting period, Y axis = predicted completion date. A rising line = ongoing delay. Instantly communicates project trajectory to executives.


💡 The scarier it looks, the better – clients understand this one!



Delay Waterfall Chart

Stacked bar chart showing cumulative delay broken down by risk category (Contractor, Employer, Concurrent, Neutral). Shows who 'owns' the delay visually.


💡 Colour-code by party – makes disputes uncomfortably obvious.



Float Consumption Heat Map

A heat map across the Gantt: activities coloured by float remaining. Green = healthy, amber = at risk, red = critical. Immediately shows where the schedule is burning.

💡 Looks like a fire spreading – very effective in presentations!

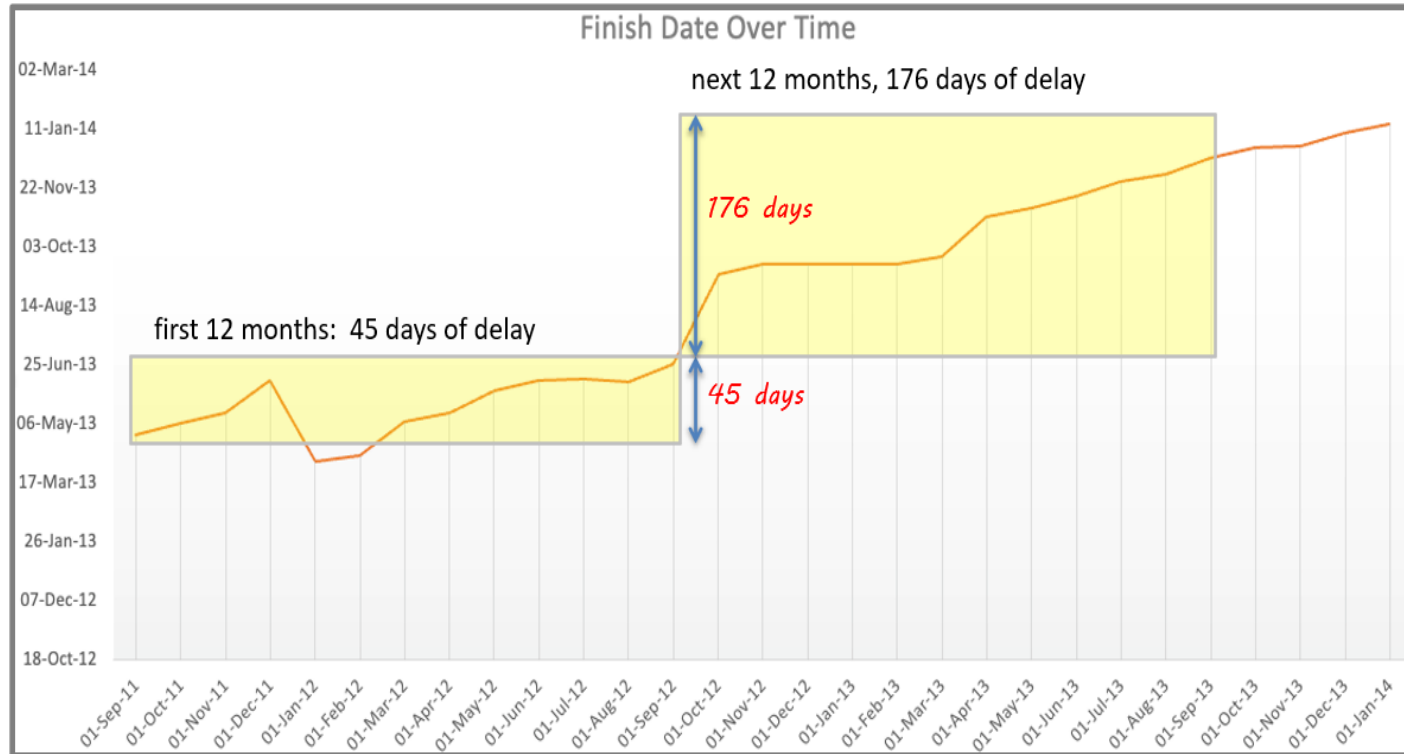


As-Planned vs As-Built Gantt Overlay

Dual-bar Gantt showing original plan (above) and actual/predicted (below) on the same time axis. Arrows connecting slipped activities make delay causation tangible.

💡 Lawyers love this – you can literally point to the gap.

02. Milestone Trend Analysis Chart



READING THE MTA CHART

Rising line:
= project falling further behind each period

Flat line:
= project tracking – no new delays accruing

Falling line:
= genuine recovery being made

Step change:
= discrete event (VO, weather, etc.)

Gradient:
= rate of delay accrual

**Simple. Undeniable.
No engineering degree required.**

Reference for the chart: Steeray Brian's PPT



03. Float Consumption Heat Map – Milestone Tracking



Track each milestone's planned start, planned finish, current start, current finish, and float remaining — coloured by risk level.

Critical (TF ≤ 0)
 High Risk (TF 1–5)
 At Risk (TF 6–15)
 Healthy (TF 16–30)
 Comfortable (TF > 30)

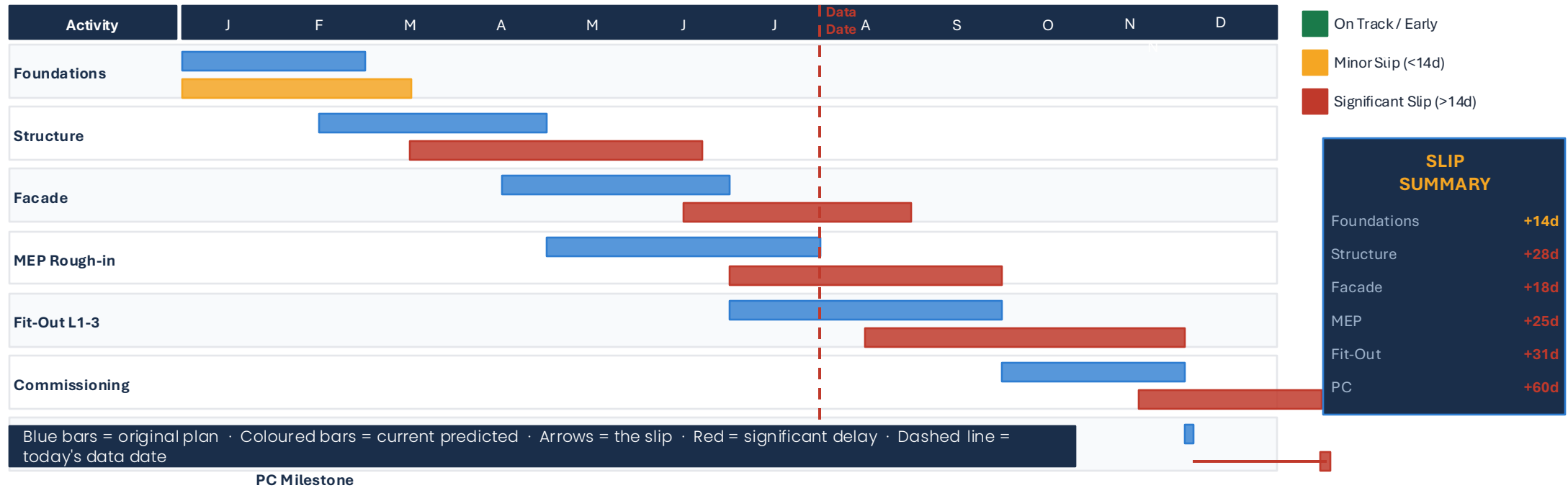
Milestone	Plan Start	Plan Finish	Current Start	Current Finish	Start Slip	Finish Slip	Float Remain
Foundations Complete	02 Jan	28 Feb	02 Jan	14 Mar	0d	+14d	12
Structure Topping Out	01 Mar	30 Apr	18 Mar	28 May	+17d	+28d	5
Facade Enclosure	01 May	30 Jun	02 Jun	18 Jul	+32d	+18d	8
MEP Rough-in Complete	15 May	31 Jul	20 Jun	25 Aug	+36d	+25d	3
Fit-Out Level 1–3	01 Jul	30 Sep	05 Aug	31 Oct	+35d	+31d	0
Fit-Out Level 4–6	01 Sep	30 Nov	10 Oct	15 Jan	+39d	+46d	-7
Building Commissioning	01 Nov	31 Dec	15 Dec	10 Feb	+44d	+41d	-12
Practical Completion	31 Dec	31 Dec	—	01 Mar	—	+60d	-21

Red rows = critical or negative float. Orange = high risk. Reading across each row shows the full drift picture — start slip, finish slip, and remaining float in one view.

04. As-Planned vs As-Built / Predicted – Gantt Overlay

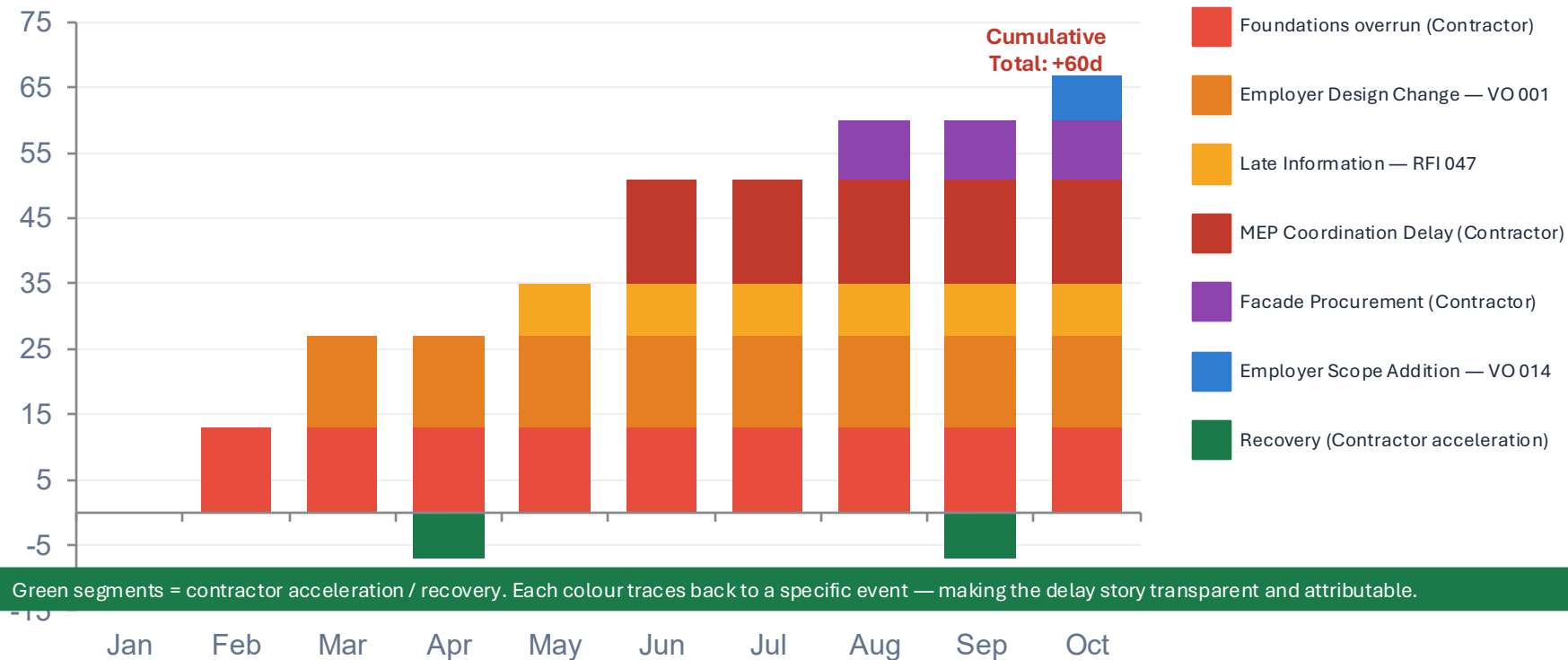


Each activity shown twice: planned bar (above, blue) and current predicted bar (below, coloured by delay severity). Arrows show the slip.



05. Cumulative Delay – Stacked Waterfall by Cause

Each colour represents a different delay event. Stacked bars show how individual causes have built up to the total cumulative delay at Practical Completion.



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- Slide 2: On a scale from Nicolas to Cage - how are you today?
- Slide 3: Which schedule revisions have you seen on your projects?
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