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Strategic Project Management

Dissecting Repetitive Project Failure

Real-world case studies to demonstrate the benefits of forensic planning.

Project Management beyond 2020 – Tactical or Strategic



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About

For more than 34 years, GBA Projects has been involved in thousands of projects of varying scale around the world

We provide professional project management, construction management, planning, scheduling, monitoring and control services to industries and organisations from sectors including: infrastructure; building and construction; energy; mining; information technology; and government.

We work in partnership with clients to deliver solutions tailored to their needs. We help make your vision a reality.



Project Controls
Planning, Scheduling
Forensic Planning
Risk Ranging
Governance & Auditing

Today's topic

Talking Tactics...

- Projects continually fail
- Same trends are noted
- Digital disruption
- Forensic analysis of project failure
- How do we solve this problem

Project Failure Statistics & Trends

Why Projects Fail – real cases

Strategic objectives for 2020 & Beyond

Strategic Project Management

Centred around our conference theme, is 2020 about strategy or tactics.
What is the difference? Is it Planning vs Doing? Is it Executives vs Project Team?

Strategy

- How do we define a project?
- Are we managing the right projects?
- How do we prioritise projects?
- Do our projects link back to our strategy?
- Long term thinking

Tactics

- Specific goals and objectives
- Micro managing
- Assigning people to specific tasks
- Digital fluency, AI, Technology
- Short term thinking

KPMG Survey, 2018

30 percent of organisations are likely to deliver a project **on time**.

KPMG Survey, 2018

36 percent of organisations are likely to deliver a project **on budget**.

Nothing has changed

The definition of insanity is doing the same thing over and over again, but expecting different results

Albert Einstein

KPMG Survey, 2018

The KPMG survey outlined other key areas of concern that have compounded the ongoing problem for project delivery.

Our take: you don't know what you don't know. And if you don't know what you need to know to deliver a project, then your project will fail.

People

- 49% of organisations have formal skill review processes for Project Management
- Leading Change
- Conflict resolution & negotiation skills
- Delegation of Authority
- Contract Negotiation

Process

- 49% of organisations had a formal PMO
- Role of the sponsor not understood
- Engagement of the sponsor
- Recruitment processes – 'accidental project managers'
- 36% apply risk management practices

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Buzz Words

people, process, tools, **data**.

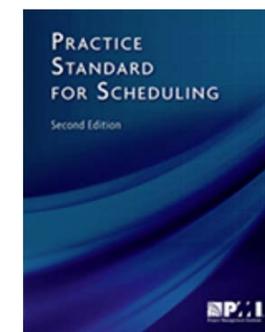
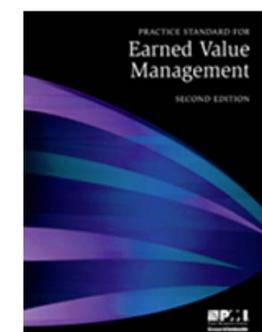
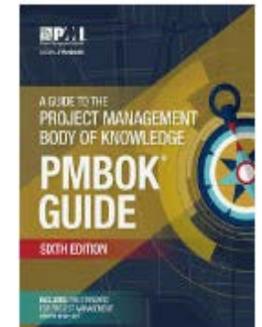
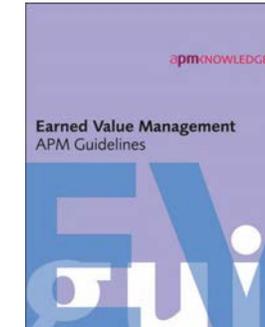
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Process

Too many standards perhaps?

Frameworks

- AS-4817-2006
- PMI Practice Standard for Earned Value Management
- PMI Practice Standard for Scheduling
- Risk Engineering Society Contingency Guideline 2016
- ANSI 748 Earned Value Standard
- APM Guideline for Earned Value Management
- PMBOK



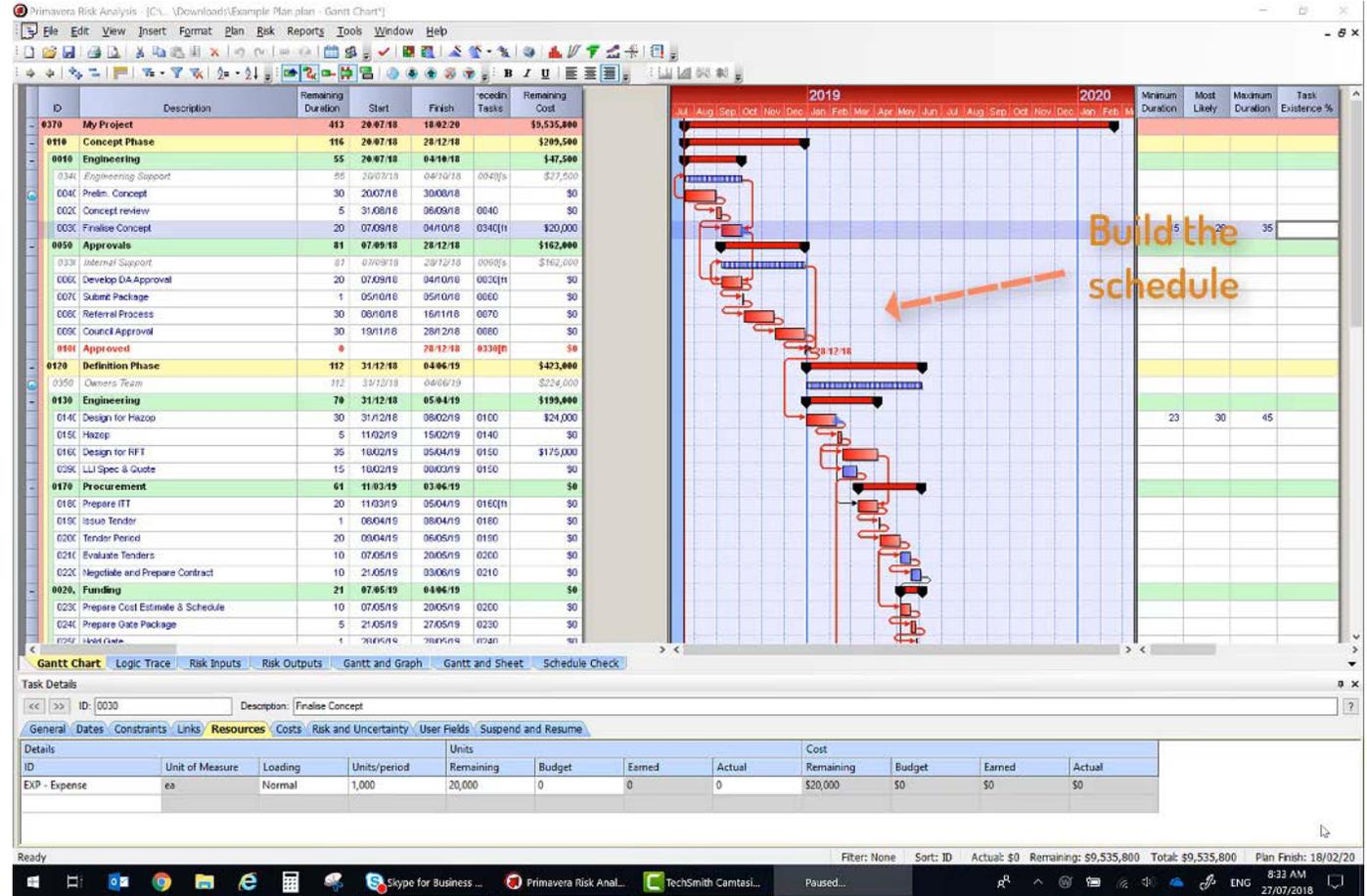
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Process

Project Management Processes are well defined.

Frameworks

- De-risk corporate investment
- Provide assurance that benefits can be obtained
- Clearly articulate processes and procedures
- Identify software & integrations necessary for success



Process



Tools & Data

We live in the age of Digital Disruption but we can use it to our benefit

Digital Disruption

- Emerging digital technologies
- Changing platforms
- Provides opportunity to re-shape projects
- Create value and efficiency
- Handle big data
- Artificial Intelligence

Project Management Technology Quotient

PMI's Pulse of the Profession 2019 report outlines several growing trends for organisations overcoming 'digital disruption'. Projects suffer from the ongoing changes in technology as it advances.

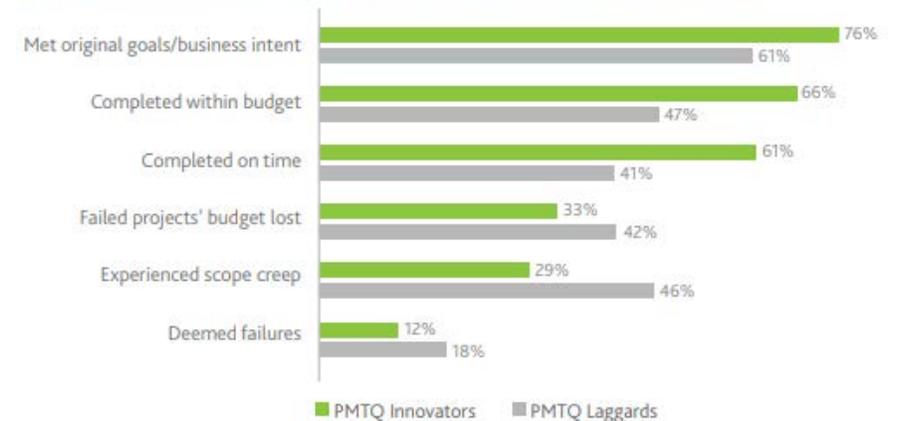
"The Technology Quotient is the ability to adapt, manage and integrate technology based on the needs of the organisation or the project at hand."

Some key findings:

High PMTQ

- Always curious
- All inclusive leadership
- Future Proof talent pool

Project Performance Metrics: PMTQ Innovators Versus the PMTQ Laggards



People

The human element of project delivery continues to follow the same trend.

Factors

- Economic Trend – we're in a boom
- Skills shortage
- Balance of Experience and Youth
- Generational – younger people want work/life balance – doesn't fit project world
- Flexible workforces
- Dynamic teams

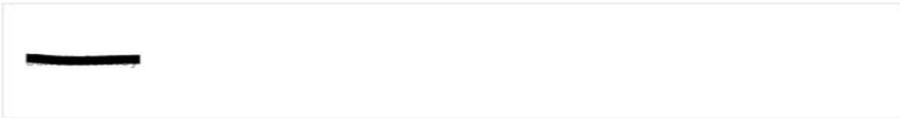
People

Our industry faces a resource shortage so severe that our training methods are yet to catchup.

Issues

- Lots of short experiences
- Chasing the \$
- Theorists and practitioners

 Planning & Scheduling Manager (Monitoring and Controlin...
Duration day = .67
I have an issue with my P6 in my computer only . The activities duration changed .The day that was 1 day now is .67 day.Our company has 4 computers with P6 and only in one this happened . Could somebody please help me to solve this issue?
[Comment \(5\)](#) • [Like \(1\)](#) • [Follow](#) • [Report spam](#) 4 days ago

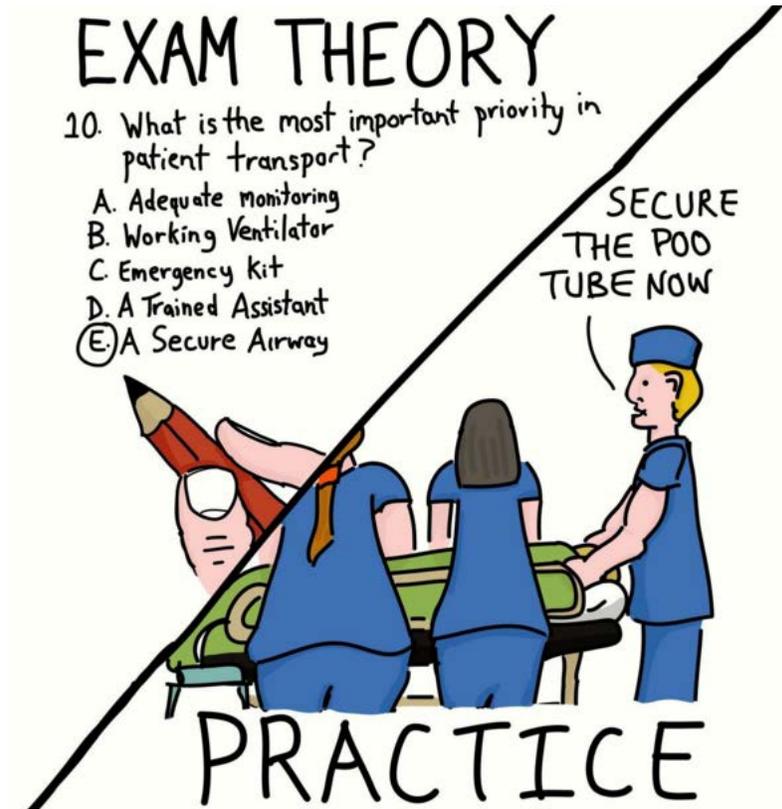
 Project Scheduler
Critical Path Progress
i received comment from client regarding my time schedule.They mentioned that "critical path has zero progress".Is there any rule that critical path hava must progress?

[Comment \(13\)](#) • [Like \(6\)](#) • [Follow](#) • [Report spam](#) 2 days ago

People

Our industry faces a resource shortage so severe that our training methods are yet to catchup.

Issues

- Theorists and practitioners
- Project team is time-poor
- Technical vs Project Management skills
- Qualifications and experience
- Competitive market drives wages
- Project managers often skip Project Controls training



Why do projects fail

Time is short

- Contractors are given tight deadlines
- Overlap of design & construct adds to uncertainty
- Client schedule "P80's" are not reset prior to contract award to give the contractor a realistic time-frame
- Lack of experienced, skilled project controls practitioners make this even worse



Why do projects fail

The changing landscape

- Lawyers now dictate project delivery
- You snooze you lose approach to variations
- Adversarial behaviors between Employer/Contractor
- Inadequate allocation of risks/shared between parties
- Limitation of liability is often 100% or more of the balance sheet

Contractors

The number of contractors in the Teir 1 group in Australia has shifted, but alarmingly the Earnings Before Income Tax (EBIT) drives lower investment.

EBIT (%) figures for these major contractors is around 1-3%.

2008

- Multiplex
- Lendlease
- Abigroup
- Baulderstone
- Leightons
- John Holland
- Theiss
- Laing O'Rourke
- Grocon

2018

- Multiplex (3.2%)
- Lendlease
- CPB
- John Holland (2.7%)
- Laing O'Rourke (-3.2%)
- Grocon
- Built (1.4%)
- Roberts Pizzarotti

Project Control Training

Hands on training in Project Controls is virtually non-existent in tertiary courses.

Project Controls makes up at least 70% of Project Management but is not taught practically (hands on) as part of PM training.

What is taught

- Project Management – 10 PMBOK areas
- Lectures on estimating
- Short courses on planning and scheduling
- Risk management basics

What is missing

- Access to case studies and sufficient training material
- More than 1 course on scheduling
- Access to appropriate industry software to learn and upskill
- Understanding of risk management in action (Qualitative & Quantitative)

A photograph of an industrial facility, likely a refinery or chemical plant. The image shows several large, cylindrical storage tanks made of metal, supported by a complex network of steel scaffolding and pipes. The tanks are arranged in a row, and the pipes connect them to various parts of the facility. The lighting is bright, suggesting a sunny day, and the overall scene is one of a large-scale industrial operation.

Forensic Planning Real Examples

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Forensic Scheduling

So **what** happens **when** a project is in dispute and **how** do we highlight **forensic** schedule information **efficiently** to support the claims process?

Forensic Scheduling

Forensic scheduling is the methodical analysis, study and investigation of events that impact a schedule to ascertain **the cause** and **extent** of delays

Forensic Planning Methods

Common methods of analysing delays

- As-planned vs as-built
- Contemporary period (window) analysis
- Retrospective time impact analysis
- Collapsed as-built
- *Refer SCL Delay Protocol for guidance*

But how do we *actually* do this?

Forensic Planning - 101

There are numerous ways to interrogate schedule data and every 'expert' has their own way. This way works for us time after time.

Overview

- Gather contemporaneous records – understand the event properly
- Review the Contract – does entitlement exist?
- If so, analyse the program to validate the quantum of the delay – ie, the total impact to the project

Process

- Identify critical path
- Identify if delay events are on the critical path or caused it to become critical
- Identify near-critical path and concurrency
- Logic and duration changes on near critical path
- Calendar changes
- 3 month window analysis

Example 1: Calendar changes

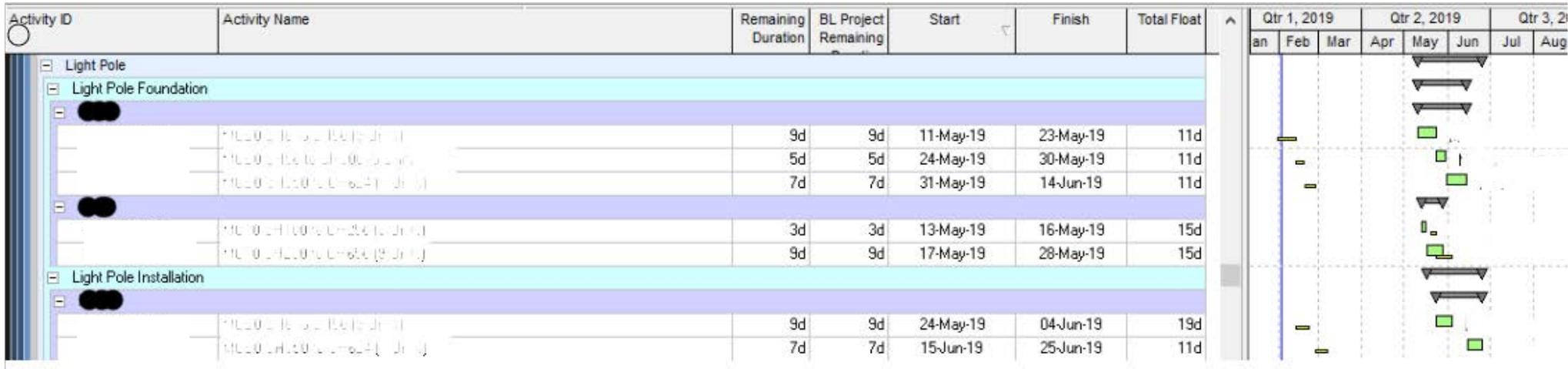
By sneaking non working days into the back-end of the schedule the planner was able to inflate the impact of the delay.

September 2019							October 2019							November 2019							December 2019						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
									1	2	3	4	5							1	2						
1	2	3	4	5	6	7	6	7	8	9	10	11	12	3	4	5	6	7	8	9	1	2	3	4	5	6	7
8	9	10	11	12	13	14	13	14	15	16	17	18	19	10	11	12	13	14	15	16	8	9	10	11	12	13	14
15	16	17	18	19	20	21	20	21	22	23	24	25	26	17	18	19	20	21	22	23	15	16	17	18	19	20	21
22	23	24	25	26	27	28	27	28	29	30	31			24	25	26	27	28	29	30	22	23	24	25	26	27	28
29	30																				29	30	31	1	2	3	4

 Added Exception

Example 2: Three Month Window

A Contractor should always be able to plan an accurate three month window. Failure to achieve progress on a short window is an indication of severe underlying resource problems.



Example 3: Duration & Logic Changes

Durations should only be reduced if the basis of the duration estimate is still known and if there are sufficient resources and special conditions to allow it.

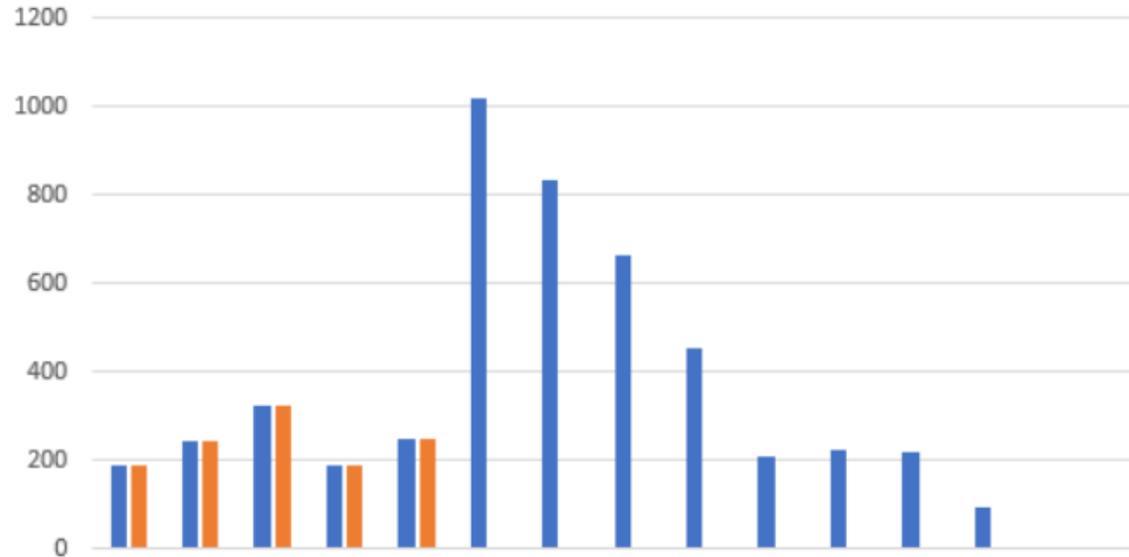
Final Commisioning	5 days
Project Finalisation	9 days
Stage - First Floor Complete	0 days
Stage - Contingency	5 days
Stage - Overall stage completion	0 days
Project Contingency	6 days
Stage - Staged Completion	0 days



Remaining Duration	BL Project Remaining	Start	Finish	Qtr 1, 2019		
				Jan	Feb	Mar
4d	8d	18Jan-19 A	09Feb-19			
2d	4d	09Feb-19	11Feb-19			
1d	1d	12Feb-19	12Feb-19			
2d	2d	13Feb-19	14Feb-19			
1d	1d	15Feb-19	15Feb-19			
1d	2d	16Feb-19	16Feb-19			
1d	1d	18Feb-19	18Feb-19			
7d	7d	18Feb-19	25Feb-19			
6d	6d	23Feb-19	01Mar-19			
2d	2d	26Feb-19	27Feb-19			

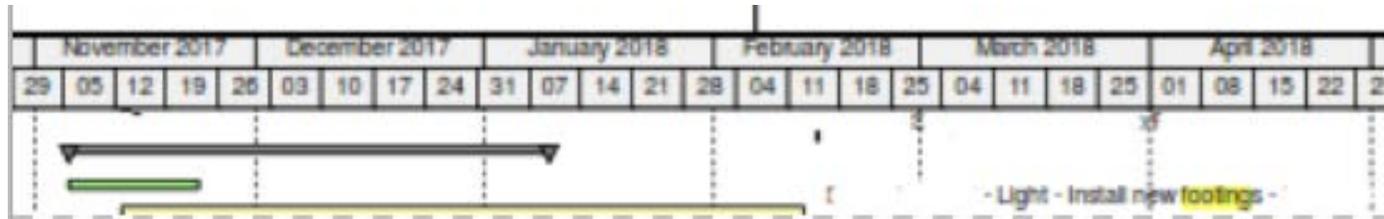
Example 4: Delays for Convenience

Always check the number of activities planned looking forward. A good schedule is resource balanced.



Example 5: Basis of Duration

A basis of schedule is important to understand the basis of durations, logic and assumptions. Critical works should have a basis of duration (build up) to enable better progress measurement to be undertaken.



Example 6: Detect Change

Acumen Fuse is a very powerful tool in the forensics tool belt.

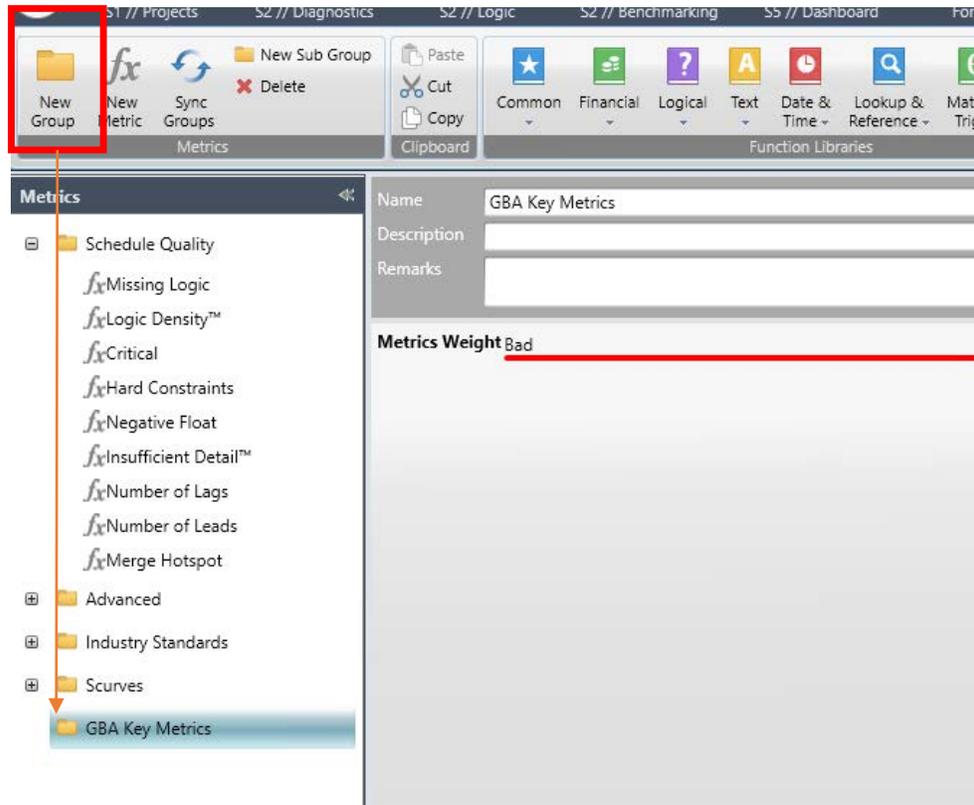
The screenshot displays the Primavera P6 Professional interface for a project named 'HR (House Renno)'. The main view is a Gantt chart showing activities from May 2019 to February 2020. The left pane lists activities with their names, durations, start/finish dates, and total float. The right pane shows a detailed Gantt chart for activity A1650, 'Quote - Truss Fabrication Pricing', with various task dependencies and durations. The bottom pane provides detailed data for activity A1650, including duration, status, and labor units.

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	Trade
A3630	All Reference Walls installed	0.0d	26-Aug-19		0.0d	STR
A3640	Measure & Quote	1.0d	26-Aug-19	26-Aug-19	0.0d	DR
A3710	Fabrication	30.0d	27-Aug-19	08-Oct-19	0.0d	DR
Roller Door						
A2790	Measure & Quote	1.0d	16-Jul-19	16-Jul-19	35.0d	DR
A2840	Lead time on Roller Door	25.0d	17-Jul-19	20-Aug-19	35.0d	DR
Stage 1 - Extension Build						
New Slab (South)						
A2540	Cure Time - main slab	21.0d	24-Jun-19 A	02-Jul-19	10.0d	CON
A2560	Cure Time - pods	21.0d	24-Jun-19 A	02-Jul-19	10.0d	CON
Carport						
Structure						
A3530	Timber Framing - Shared Wall (50mm) capcot to MDR	1.0d	15-Jul-19	15-Jul-19	0.0d	STR
A5230	Timber Framing - External Walls	3.0d	16-Jul-19	18-Jul-19	0.0d	INU
A5310	Temporary Door Hoarding	2.0d	18-Jul-19	22-Jul-19	58.0d	GYP
Roof Truss						
A5270	Install Lintel Member over Roller door	1.0d	19-Jul-19	19-Jul-19	14.0d	STR
A5360	Truss Installation (over Capcot)	1.0d	09-Aug-19	09-Aug-19	0.0d	STR
Roller door installation						
A5340	Install Roller Door	1.0d	21-Aug-19	21-Aug-19	35.0d	DR
Internal Slab Walls, Columns & Trusswork						
A2610	Install Main Steel Columns (need Beam in for point of reference)	2.0d	05-Jul-19	06-Jul-19	0.0d	STR
A2710	Install sub-floor bracing & truss work	3.0d	09-Jul-19	11-Jul-19	25.0d	STR
A5300	Internal Wall Framing	2.0d	12-Jul-19	15-Jul-19	99.0d	STR
Roof Structure						
A5500	Install Steel Roof members	1.0d	09-Jul-19	09-Jul-19	23.0d	STR
A2340	Roof Truss/Structure - Main Area (excl. End Room)	2.0d	12-Aug-19	13-Aug-19	0.0d	STR
End Room						
A2630	1st Floor Structural	0.0d	06-Jul-19	06-Jul-19	71.0d	EIF

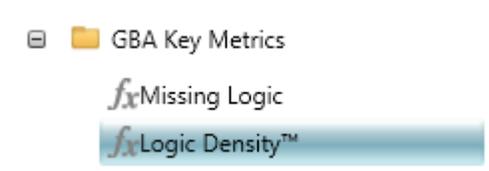
Activity	Quote - Truss Fabrication Pricing	Project	HR
Duration		Labor Units	
Original	15.0d	Budgeted	15d
Actual	0.0d	Actual	0d
Remaining	5.0d	Remaining	5d
At Complete	5.0d	At Complete	5d
Total Float	0.0d		
Free Float	0.0d		
Status			
<input type="checkbox"/> Started	18-Jul-19	Physical %	0%
<input type="checkbox"/> Finished	25-Jul-19	Suspend	
Exp Finish		Resume	
Constraints			
Primary	<None>	Secondary	<None>
Date		Date	

Tip: Acumen Fuse Metric Library

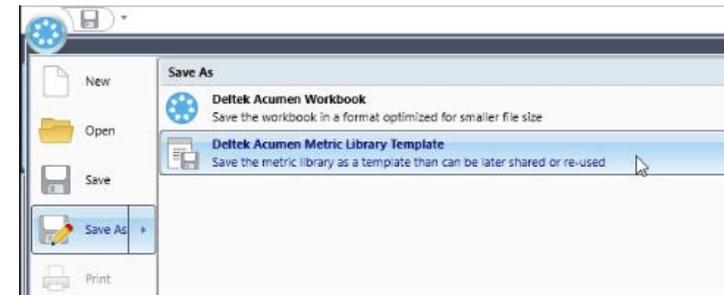
Generate your own Metrics library and save it for future use.



Copy the metrics you need

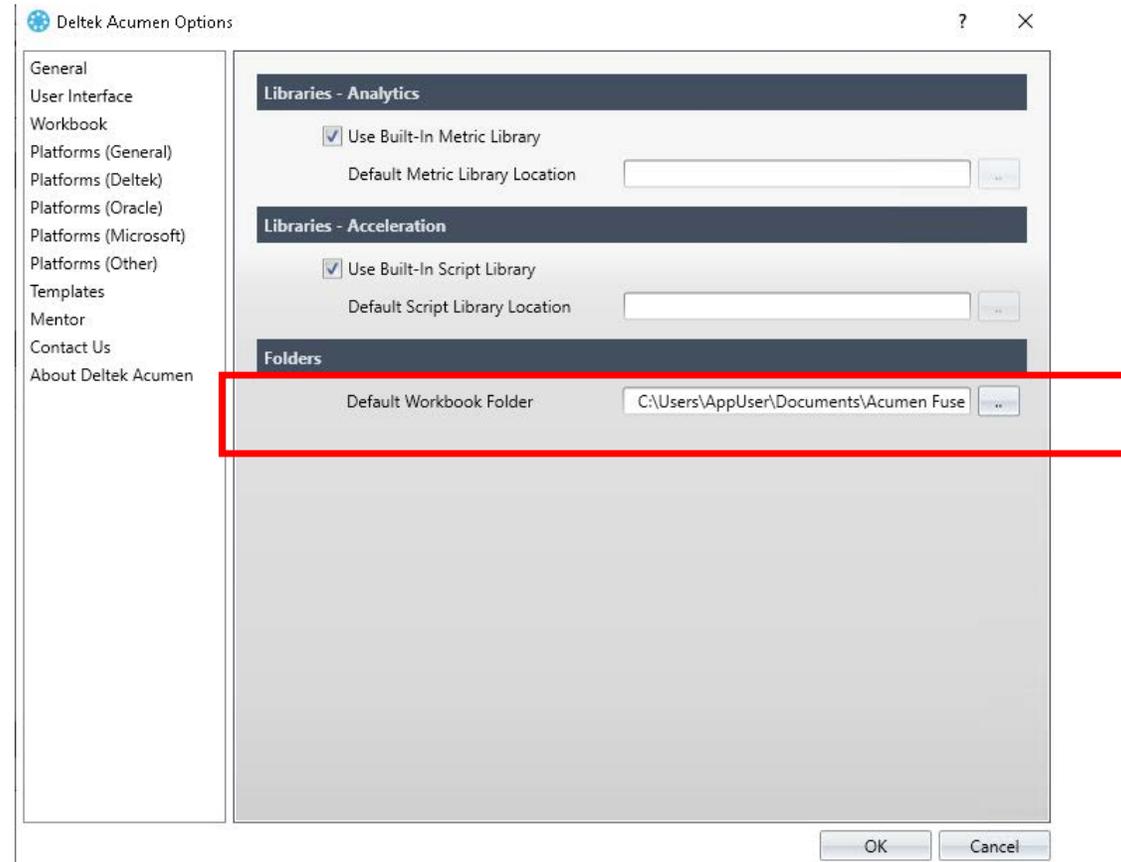


Save the template



Tip: Acumen Fuse Metric Library

Finally save your templates to the default workbook folder for future use on any project.



References

KPMG & AIPM “The State of Play in Project Management 2018

<https://www.aipm.com.au/images/news/report.aspx>

PMI Pulse of the Profession, 2019

<https://www.pmi.org/-/media/pmi/documents/public/pdf/learning/thought-leadership/pulse/pulse-of-the-profession-2019.pdf>

“Don’t Park Risk in a No Standing Zone” - Alison Mirams, CEO Roberts Pizzarotti
2019 Risk Engineering & Project Controls Conference Presentation

Thank you
Questions?

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