

ProjectChat 24 Knowledge Hub

You're Ready for a Schedule Risk Assessment, but is your Culture?

Matt Betros





GBA PROJECTS About Me

Matt Betros Managing Director GBA Projects

- 20 years as a planner / scheduler
- Project Controller (cost + schedule)
- Risk Facilitator
- Forensic delay analyst





You're Ready for a Schedule Risk Assessment, but is your Culture?



Knowledge Hub Today's Topic

- Defining risk culture
- Understand what a Schedule Range
 Analysis is
- See one in action



Knowledge Hub But first...

What does a good risk culture look like?



Knowledge Hub Risk Culture

Elements of a good risk culture include:

- Top-down support from management
- Leadership & Ownership
- Employee awareness, attitude & behaviours are aligned with risk practices & procedures
- Regular risk reviews
- Aims to continuously improve on risk management
- Risk training & awareness

- Use of PM software to manage risk (not just Excel!)
- Organisations have a defined risk appetite
- Organisations have a clear understanding of what 'good risk performance' looks like.
- Practical and fit-for-purpose approach & not bureaucratic



Knowledge Hub Risk Culture

Roadblocks for organisations:

- Lack of understanding
- Poor communication
- Lack of systems and workflows
- Lack of resources
- Lack of ongoing monitoring & capturing emerging risks
- Risk strategy and objectives not well defined or communicated (top-down)
- External factors (black swan events)



Knowledge Hub Standards & Guidelines

Multiple standards & guidelines available to support an organisation or project.







Knowledge Hub Contingency Determination

The base schedule must:

- Contain all elements of the project including approved changes.
- Represent the current assumptions and strategy for delivery.
- Be accompanied by a basis of schedule.
- Have inputs supported by relevant data, when possible.





Knowledge Hub Contingency Determination

Methods:

• Deterministic:

- Pre-defined Factor Based Percentage
- Expert Judgement Percentage (SME)
- Probabilistic Simulation:
 - 3-point estimation as inputs
 - Risk Factor and Correlation
 - Monte Carlo method to calculate contingency (Schedule Risk Analysis "SRA")

The probabilistic method uses inputs and a bit of science to provide a firm foundation for contingency determination!





Knowledge Hub Contingency Determination

Factors to consider during the process of determining contingency:

- The overall process should support effective decision making and **be repeated regularly**.
- Explicitly **identify all risks**, threats, uncertainties, treatments and responses.
- Identify **opportunity**.
- Contemplate an organisation's culture, strategies, "cognitive and deliberative biases"
- Consider the unique nature of projects in general. Not a one-size-fits-all approach!
- Cost and schedule trade offs are understood. Consider an integrated Cost and Schedule Range Analysis!





Knowledge Hub Schedule Range Analysis

Let's look at a simple risk model and see if we're culturally ready for it...



Knowledge Hub Acumen

Deltek Acumen Project Maturity Framework:

- Aim to establish validated schedules.
- Improve schedule quality.
- Account for risk.
- Optimised and mitigated to achieve target dates.
- Obtain team buy-in.





Knowledge Hub Our Base Schedule



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Knowledge Hub Our Schedule Quality



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Knowledge Hub Our Schedule Quality



Adjusted Schedule Model:

- Missing Logic & Open Ends
- Long durations (insufficient detail) 38%
- Links on Summaries
- Constraints
- Redundant Logic





Knowledge Hub **Risk Identification**



Risk Identification:

- Qualitative analysis.
- Uses Risk Matrix to Rank and Prioritise.
- Matrix configuration according to corporate definition and ranking.

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Knowledge Hub **Risk Identification**



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Knowledge Hub Risk Mapping



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Knowledge Hub **Exposure Analysis**





GDC

Knowledge Hub Exposure Analysis - Risk





Knowledge Hub Critical Schedule Drivers





Critical Schedule Drivers - DEVELOP Uncertainty and Risk Events (Mitigated, Excluding Overhead)



Knowledge Hub Advanced Concepts

Cover off things like CLT and other things

Further Functions

- Comparisons
- Cost Overlay & Probabilistic Cash Flow
- Scenario Planning
- Scenario Outputs

Theory

- Cognitive and deliberative biases
- Central Limit Theorem simpler models vs detailed
- Joint Confidence Level
- Correlation
- Garbage in is Garbage Out. Inputs need careful thought



Knowledge Hub Demonstrations

Learn more about Risk Analysis : <u>GBA Projects: Risk – YouTube</u>

Get the Risk Engineering Society (RES) Contingency Guideline from Engineers Australia.



Thank you

Is your organization ready for SRA?

Questions?

