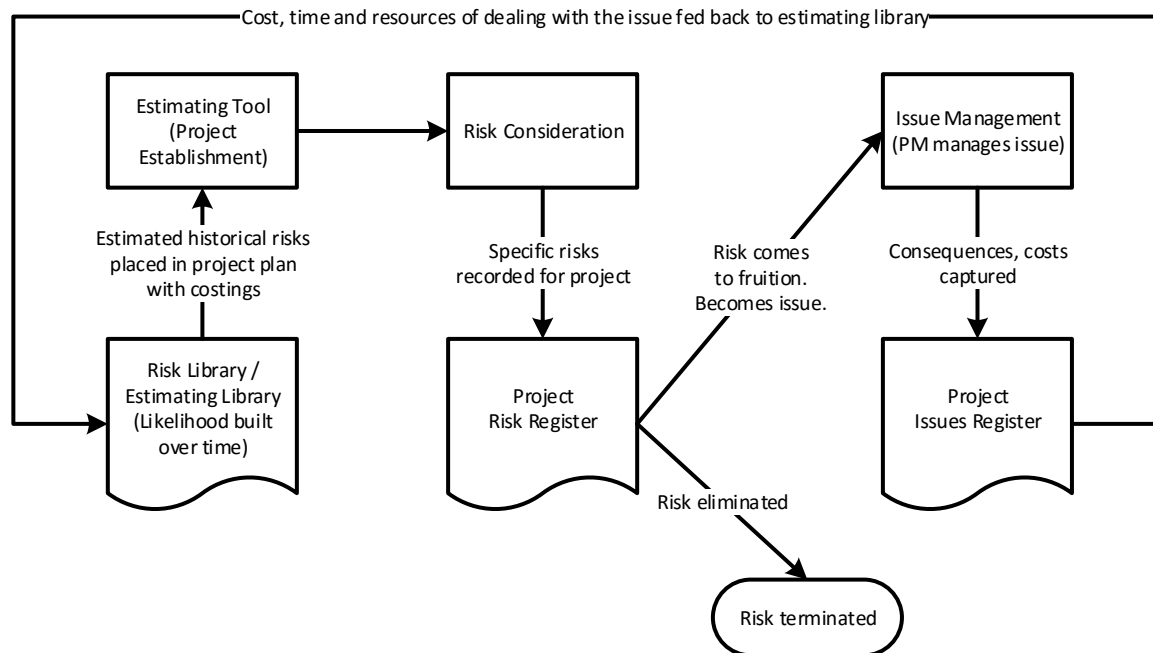


Risk and Issues Cycle in Projects

Richard Hemsworth (Project Coach and EPMO Director)

Risks and issues in projects are a mixed bag. Regulatory risks are generally well managed by the project manager or the contractor. Corporate risks can often get scant treatment, other than the tokenistic update of the monthly corporate risk register. If accurate and thorough risk and issues management takes place through the project Risk/Issues cycle, however, there is a far more wide-ranging upside.



More mature project management organisations create three registers:

- a risk register,
- an estimating library (containing lessons learned and costs of previous project issues), and
- an issues register.

Risk Register

Definition of a Risk

A risk is an uncertain event or set of events that should they occur will have a material effect on the achievement of the project's objectives (time, quality, cost, scope, benefits)

Project Risk Register

The Project Risk Register shows the risks, the owner of these risks, the planning of the measures and their status. In addition it records the extent to which the risks threaten the project. This prevents time being wasted on removing negligible risks.

An accepted formula for this is: Risk = Likelihood x Consequence

ISO 31000 has a 5 x 5 grid. Likelihood is graded 0 to 5 (rare, unlikely, possible, likely, almost certain). Consequence is graded 0 to 5 (minimal, minor, moderate, major, catastrophic).

Overall risk gradings are commonly labelled Low, Medium, High, and Extreme; describing risks from uncomfortable (risk taken into account), to hazardous (prevention is better than cure), to damaging (needs to be corrected before proceeding, to fatal (to be prevented at all costs).

Risk Analysis

Risk analysis is a procedure that provides insight into foreseeable problems in a project. To diminish the risks, precautionary actions and countermeasures are taken. The step-by-step questioning approach below describes a method for assessment:

1. What can go wrong?
2. What problem can the risk cause in the project?
3. How big is the risk?
4. What possible causes can the problem have?
5. What is the likelihood of these causes?
6. What are possible preventative actions or countermeasures?
7. What are the alternatives or make-shift solutions?
8. How much will it cost to fix if the risk eventuates?
9. How much time delay will the risk cause if it eventuates?

Risk Library

Risk libraries allow for cost and time estimates for risk eventuation to be included in options at the beginning of a project. The estimating tool (cost plan) must provide for project approval documentation to include a contingency quantum for eventuation of each risk.

Risk Register Fields

Risk Registers are best made available to all project managers through intranet websites, or at a minimum, spreadsheets. The list of fields below illustrates the typical parameters used to capture project risk. Better systems allow you to decide which fields are made part of any automated reports (perhaps through the PMO). The project manager should be able to control which risk/s appears on the reports.

Risk Field	Value Type	Description
Project Name	Text	Name of project (as per Business Case)
Project Number	Number	From accounting system
Project Manager	Text	Name of project manager
Risk Details	Text	Description of the risk
Status	Dropdown: Open or Closed or Review (default Select)	<ul style="list-style-type: none"> • Open: Risk is still current • Closed: Risk no longer exists or has become an issue • Review: Risk is being assessed

Risk Field	Value Type	Description
Risk ID Number	Number	Unique number for this project
Risk Type	Dropdown: Business/organisational or Project or Stage (default Select)	<ul style="list-style-type: none"> • Business/organisational = impacts the whole of business or organisation. • Project = impacts the whole project. • Stage = impacts the current project stage.
Risk Category	Drop down choice: Strategic/Commercial Economic/financial/market Legal/regulatory Organisational/management/ human factor Political Environmental Technical/operational/infrast ructure (default Select)	Standard definition list from Prince 2 or PMBoK
Owner	Text	Name of person who has identified the risk
Date recorded	Date	Date the risk was recorded in this system
Date of last change	Date	Date of last change to this entry (change tracking)
Likelihood	Dropdown: Almost Certain or Likely or Possible or Unlikely or Rare (default Select)	<ul style="list-style-type: none"> • Almost Certain (weight = 5) • Likely (weight = 4) • Possible (weight = 3) • Unlikely (weight = 2) • Rare (weight = 1)
Consequence	Select: Minimal Or Minor Or Moderate Or Major Or Catastrophic (default Select)	<ul style="list-style-type: none"> • Minimal (weight = 1) • Minor (weight = 2) • Moderate (weight = 3) • Major (weight = 4) • Catastrophic (weight = 5)
Risk Level	Calculated number	Likelihood x Consequence
Risk Trend	Dropdown: Increasing or Steady or decreasing (default Select)	Risk level since last assessment.

Risk Field	Value Type	Description
Mitigation (Measures)	Text	Description of mitigation and measures to manage the risk
Due Date	Date	Date by which mitigation measure needs to be in place
Action Owner	Name	Name of person assigned to mitigate the risk
Status	Dropdown choice: Open or Closed (default Select)	Open: Risk is being monitored. Closed: Risk has eventuated into an issue, or risk no longer exists.
Contingency Cost (\$)	Currency	Cost to fund mitigation plan/action.
Contingency Delay (days)	Number	Additional project days allocated to mitigate risk.
Show Risk on Exec Report?	Dropdown: Yes or No (default No)	If Yes, Risk appears Executive report (Used for automated report generation)
Show Risk on Board Report?	Dropdown: Yes or No (default No)	If Yes, Risk appears Board report (Used for automated report generation)
Comment on the effectiveness of the mitigation, once the risk has been closed.	Text	Provides further information on the effectiveness of the implemented mitigation measure.

Issues Register

Definition of an Issue

A project issue is a problem which has actually occurred and either has a positive or negative effect on a project's chances of achieving its objectives.

Project Issues Register

The issues register is a tool that enables the project manager to record all project issues in a structured manner. In this way, the issues do not get lost and are dealt with in systematically and are made visible through the management chain. For each issue the type is described, as well as the request for change, the findings and any associated questions. The project manager determines the priority of the issue, so that the most important ones are addressed first.

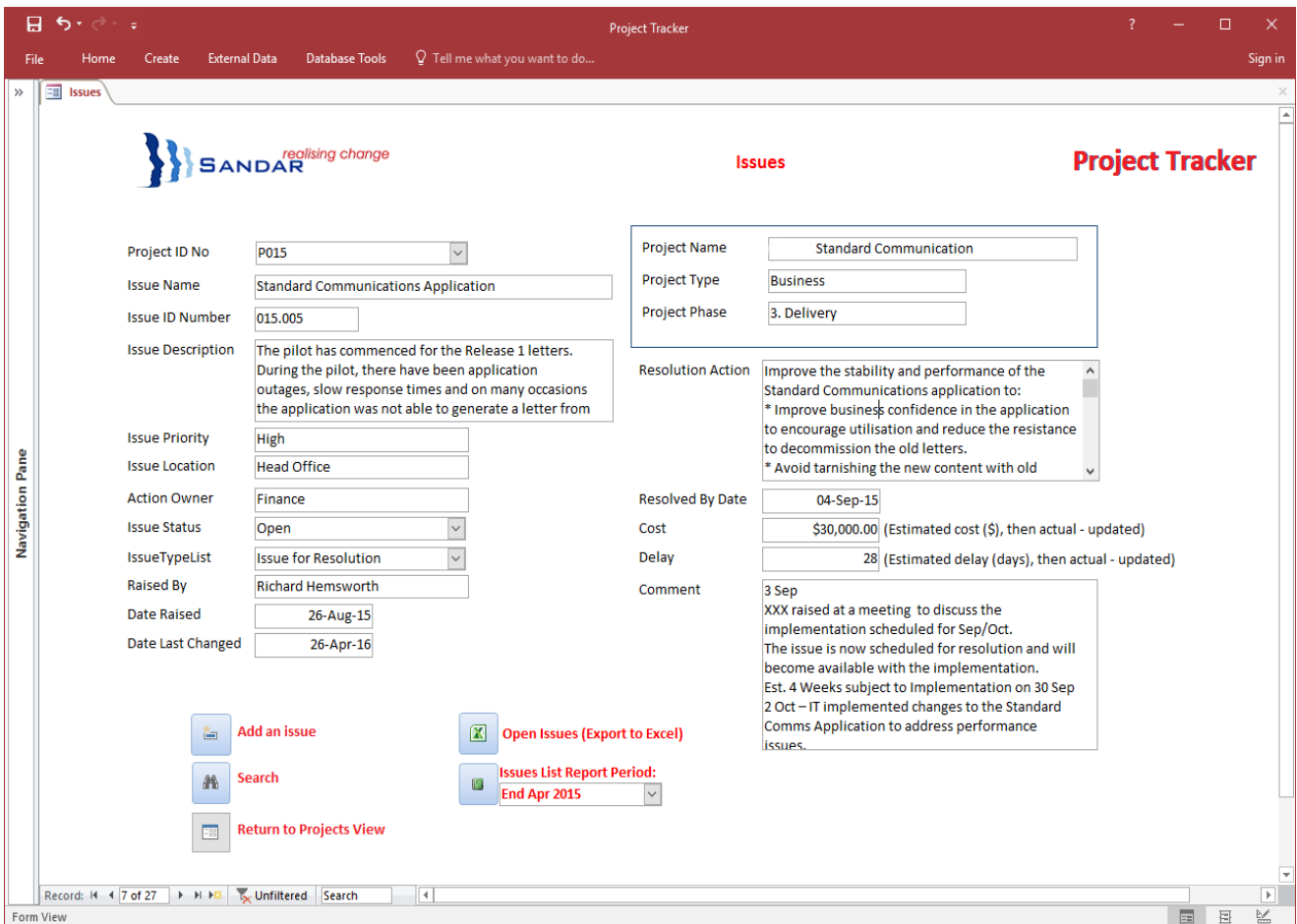
Issues Fields

The fields in the table below provide a best-practice list of parameters for capturing project issues. As with risks, automated reporting systems allow inclusion of issues in reports at the discretion of the project manager or PMO.

Issue Fields	Value	Description
Project Name	Text	Name of project as per Business Case
Project Number	Number	From Accounting system
Project Manager	Text	Name of project manager
ID Number	Number	Unique number for this project
Issue Details	Text	Description of the issue.
Issue Type	Dropdown: Request for change or Finding or Issue or Question (default Select)	<ul style="list-style-type: none"> Request for change = Project change may be required (could either, time, cost and/or quality) Finding = new concern, not logged as a risk Issue = eventuated risk Question = Clarification required.
Status	Dropdown: Open or Closed or Review (default Select)	<ul style="list-style-type: none"> Open: Issue is still current Closed: Issue has been resolved. Review: Issue is being assessed
Resolution	Text	Description on how issue was resolved
Raised by	Text	Name of person who raised the issue
Date raised	Date	Date the issue was recorded in this system.
Date of last change	Date	Date of last change to this entry (change tracking)
Status	Dropdown: Open or Closed (default Select)	<ul style="list-style-type: none"> Open: Issue is unresolved Closed: Issue has been resolved.
Priority	Select: High Or Medium Or Low (default Select)	<ul style="list-style-type: none"> High = Issue is causing project to go Red. Medium = Issue is causing project to go Amber . Low = Issue has the potential to cause project to go Amber or Red.
Action Owner	Name	Name of person assigned to resolve issue.
Date due to resolve issue	Date	Date issue needs to be resolved by before budget, timeline or quality is impacted.
Estimated Cost (\$)	Currency	Cost to resolve issue.
Estimated Delay	Number of days	Days allocated to resolve issue.

Issue Fields	Value	Description
Show Issue on Exec Report?	Dropdown: Yes or No (default No)	If Yes, Issue appears Executive report
Show Issue on Board Report?	Dropdown: Yes or No (default No)	If Yes, Issue appears Board report

Examples of risk and issues database registers are available from projects@sandar.com.au. If you have access or SharePoint you can easily design your own from the above information. Or you can purchase and implement one of the well-known project tracking software tools. Sample screen prints are attached below:



The screenshot displays the 'Project Tracker' software interface. The main window shows an issue record with the following details:


- Project ID No:** P015
- Issue Name:** Standard Communications Application
- Issue ID Number:** 015.005
- Issue Description:** The pilot has commenced for the Release 1 letters. During the pilot, there have been application outages, slow response times and on many occasions the application was not able to generate a letter from
- Issue Priority:** High
- Issue Location:** Head Office
- Action Owner:** Finance
- Issue Status:** Open
- IssueTypeList:** Issue for Resolution
- Raised By:** Richard Hemsworth
- Date Raised:** 26-Aug-15
- Date Last Changed:** 26-Apr-16
- Project Name:** Standard Communication
- Project Type:** Business
- Project Phase:** 3. Delivery
- Resolution Action:** Improve the stability and performance of the Standard Communications application to:
 - * Improve business confidence in the application to encourage utilisation and reduce the resistance to decommission the old letters.
 - * Avoid tarnishing the new content with old
- Resolved By Date:** 04-Sep-15
- Cost:** \$30,000.00 (Estimated cost (\$), then actual - updated)
- Delay:** 28 (Estimated delay (days), then actual - updated)
- Comment:** 3 Sep
XXX raised at a meeting to discuss the implementation scheduled for Sep/Oct. The issue is now scheduled for resolution and will become available with the implementation. Est. 4 Weeks subject to Implementation on 30 Sep 2 Oct – IT implemented changes to the Standard Comms Application to address performance issues.

At the bottom of the interface, there are navigation buttons: 'Add an issue', 'Open Issues (Export to Excel)', 'Search', 'Issues List Report Period: End Apr 2015', and 'Return to Projects View'. The status bar at the bottom indicates 'Record: 1 of 7 of 27', 'Unfiltered', and 'Search'.

Project Tracker
Sign in

File Home Create External Data Database Tools Tell me what you want to do...

Risks



Project ID No:

Risk ID Number:
Risk ID Format: [projectno].[riskno] e.g., R001.001

Risk Name:

Date Recorded:

Date Last Updated:

Risk Description:

Location:

Project Manager:

Risk Type:

Risk Status:

Risk Category:

Risk Impact:

Risk Owner:

[Add a risk record](#)

[Search](#)

[Return to Projects View](#)

[Export Open Risks To Excel](#)

[Project Risk Report](#)

Risks

Project Name:

Project Type:

Project Phase:

Risk Likelihood:

Risk Consequence:

Risk Level:

Risk Trend:

Mitigation:

Action Due Date:

Contingency Cost: (\$)

Contingency Delay: (days)

Residual Likelihood:

Residual Consequence:

Residual Risk Level:

Risk Acceptance Signoff: (Approval Authority Name)

Risk Acceptance Date:

Comment:

[Download Excel Risk Template](#)

Record: 15 of 138 Unfiltered Search

Comment on the effectiveness of the mitigation

Consequence Likelihood		Project Tracker				
		Minimal (1)	Minor (2)	Moderate (3)	Major (4)	Catastrophic (5)
Almost Certain (5)	Low (5)	Medium (10)	High (15)	Extreme (20)	Extreme (25)	
Likely (4)	Low (4)	Medium (8)	High (12)	Extreme (16)	Extreme (20)	
Possible (3)	Low (3)	Medium (6)	Medium (9)	High (12)	Extreme (15)	
Unlikely (2)	Low (2)	Low (4)	Medium (6)	Medium (8)	High (10)	
Rare (1)	Low (1)	Low (2)	Medium (3)	Medium (4)	High (5)	

Useful References

Project Management Institute (2013). A Guide to the Project Management Body of Knowledge (PMBok Guide) 5th Edition, PMI.

Office of Government Commerce (2009). Managing Successful Projects with PRINCE2, Stationery Office Books, Axelos, Norwich, United Kingdom.