

Deltek

Deltek Acumen 8.8

Quick Start Guide

October 7, 2022

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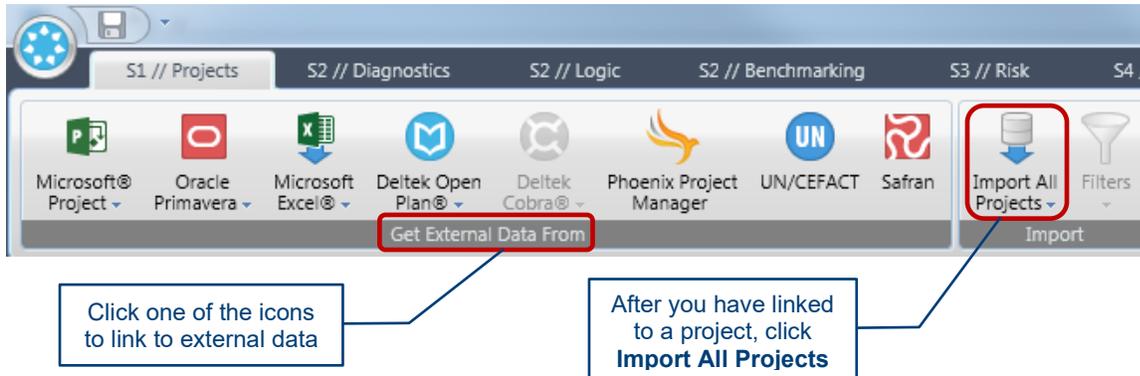
Contents

- Deltek Acumen Fuse Quick Start Guide 1
 - Import Schedule or Cost Data 1
 - Set Up and Run Analysis..... 1
 - Metric Analysis..... 2
 - Run Logic Integrity Checks..... 4
 - Get a High Level Overview 4
 - Compare Differences and Pinpoint Changes 5
 - Create and Edit Metrics 6
- Deltek Acumen Risk Quick Start Guide 7
 - Import Schedule or Cost Data 7
 - Apply Uncertainty 7
 - Add Risk Events 9
 - Run Risk Analysis..... 10
 - View the Risk Exposure Report..... 10
 - View the Risk Drivers Report..... 11
 - Risk Mitigation 11
 - Cost Risk from a Cost Loaded Schedule 12
 - Cost Risk 13
 - Integrated Cost / Schedule Risk Analysis 13

Deltek Acumen Fuse Quick Start Guide

Import Schedule or Cost Data

On the S1 // Projects tab, use the Get External Data menu to set up the Acumen workbook by linking to single or multiple schedules, cost estimates, or risk models. You can import baseline schedules or project snapshots as well.



Note: If you need specific metrics, like the DCMA DECM metrics, make sure you select them in the Acumen Options dialog box before creating your workbook, or import them from the Metrics tab.

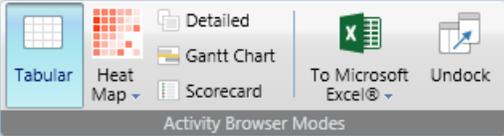
Set Up and Run Analysis

On the S2 // Diagnostics tab, set up your analysis by selecting the grouping and time phases you want to see. In the Analyze menu, click **Fuse** to run the analysis. Change the activity browser view or publish the results to a report.



S2 // Diagnostics Tab Options

<p>Grouping Options</p>	
<p>Phase Options</p>	

S2 // Diagnostics Tab Options	
Fuse Analysis	 Fuse 
Activity Browser Options	 Activity Browser Modes
Reporting Options	 Publish  Publish

Metric Analysis

- Ribbon Analyzer — View metric results for individual activity groupings.
- Phase Analyzer — View metric results for individual time phases.
- Activity Browser — View the activities included in a ribbon, phase, or metric result.

Deltek Acumen Fuse Quick Start Guide

The screenshot displays the Deltek Acumen Fuse software interface. At the top, there are several tabs: S1 // Projects, S2 // Diagnostics, S2 // Logic, S2 // Benchmarking, S3 // Risk, S4 // Acceleration, S5 // Dashboard, Forensics, Metrics, and Fields. Below the tabs is a ribbon menu with various icons for navigation and analysis. The main workspace is divided into several sections:

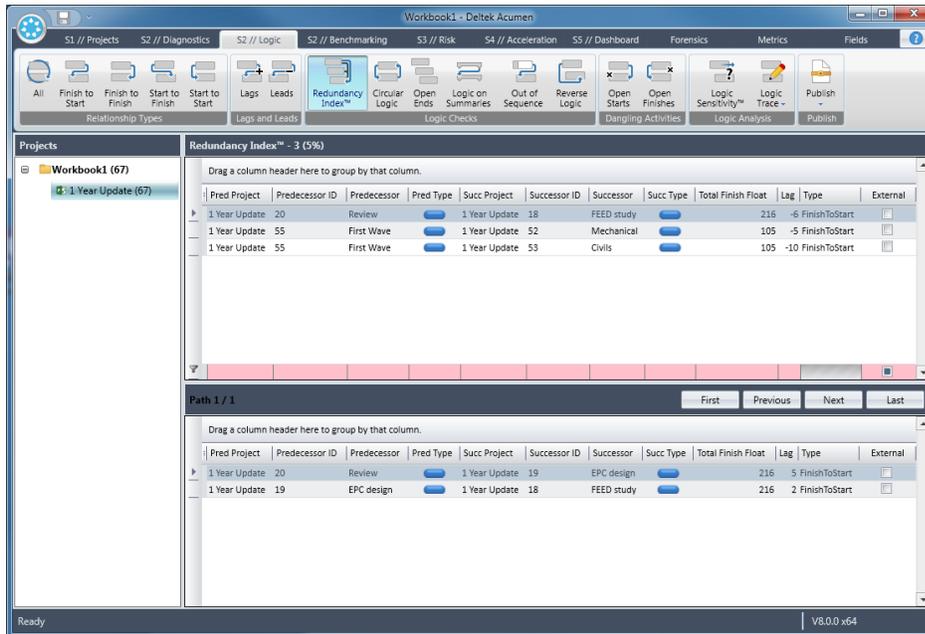
- Project / Snapshot:** Shows a timeline from Q2 2013 to Q1 2014 with a Gantt chart for the Current Schedule and CostRiskSheet.
- Ribbons:** A table showing various metrics across four quarters (Q2 2013, Q3 2013, Q4 2013, Q1 2014).
- Ribbon Analyzer:** A table showing metrics for Missing Logic, Logic Density, Critical, Hard Constraints, Negative Float, Insufficient Detail, Number of Lags, Number of Leads, Merge Hotspot, and Score.
- Phase Analyzer:** A table showing metrics for Missing Logic, Logic Density, Critical, Hard Constraints, Negative Float, Insufficient Detail, Number of Lags, Number of Leads, Merge Hotspot, and Score.
- Activity Browser:** A table showing a list of activities with columns for #, Excluded, Annotate, Id, Description, and Project.

Red boxes highlight the 'Ribbons', 'Ribbon Analyzer', 'Phase Analyzer', and 'Activity Browser' sections. A blue callout box at the bottom left points to the tabs and says 'Each tab is a pre-defined ribbon view'.

Each tab is a pre-defined ribbon view

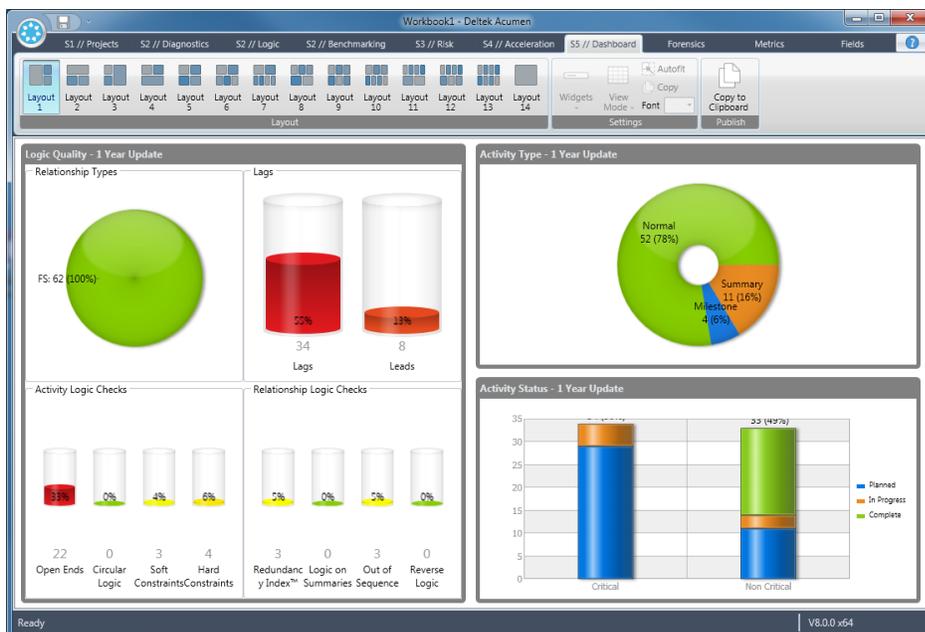
Run Logic Integrity Checks

Use the S2 // Logic tab to identify open ends, leads, lags, out of sequence activities, reverse logic, redundant logic, and circular logic. Group results by dragging a column heading to the top or select a column heading by which to sort results.



Get a High Level Overview

Use the S5 // Dashboard tab to get a high level overview of project status and quality. Click on an image to view the driving activities or additional information.

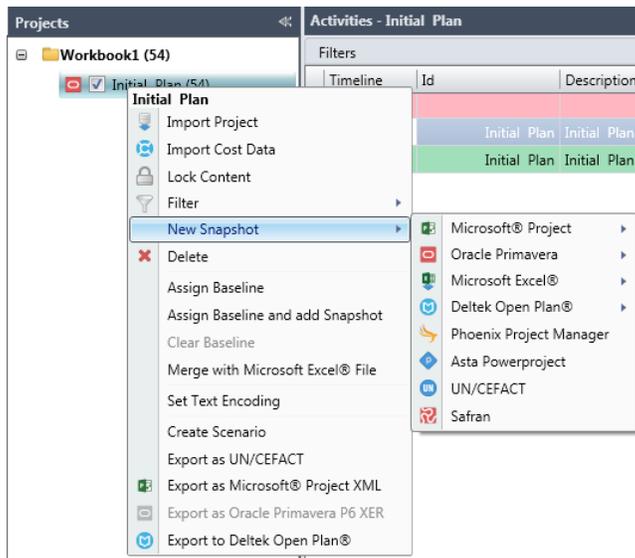


Compare Differences and Pinpoint Changes

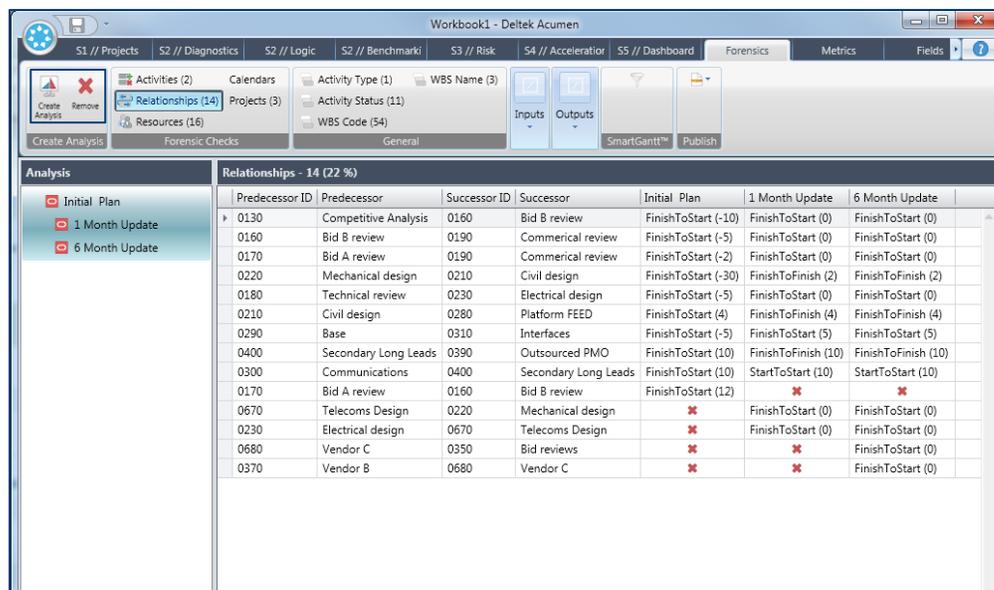
Before using the Forensics tab, you must load project snapshots to compare against one another. On the S1 // Projects tab, select the project to which you want to compare. With the project highlighted, use the Get External Data menu or right-click and select **New Snapshot** to add a snapshot for comparison. Once you have loaded all of your snapshots, click the Forensics tab to view variances between them.

Use the Forensics tab menu items to select attributes for Acumen’s variance analysis. Publish this view to Excel for a project forensics report. Drag column headings to the top to group results or select a column heading by which to sort results.

1. Load project snapshots.

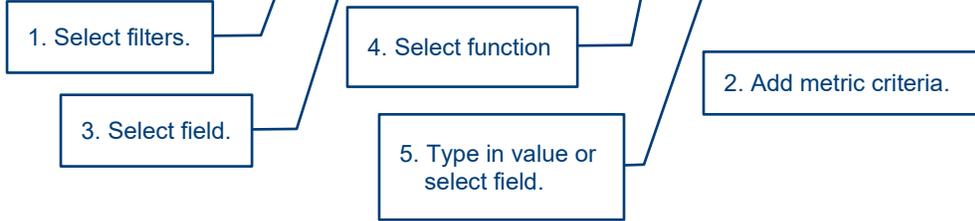
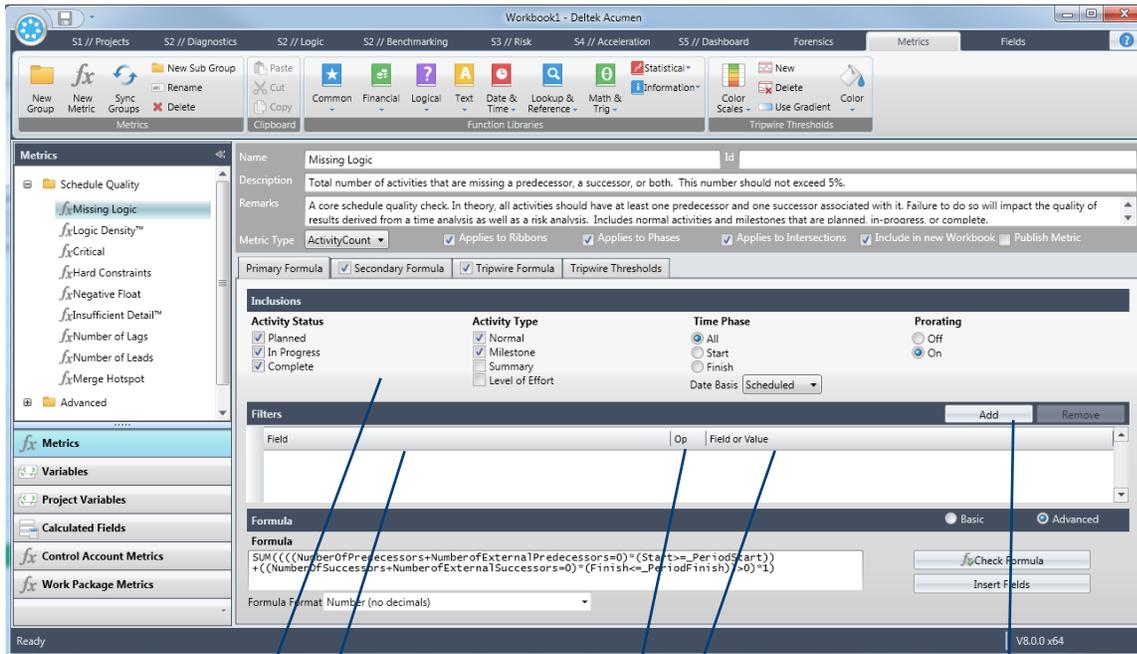


2. Compare variances.



Create and Edit Metrics

Use the Metrics tab to create new metrics and edit existing ones. Filter the activities, control accounts, or work packages you want included in each metric by status, type, or time period, and then click the **Add** button to add additional filters and criteria to the metric. Drop-down menus in each Filters column allow you to select fields and functions such as greater than, equal to, less than, and so on.

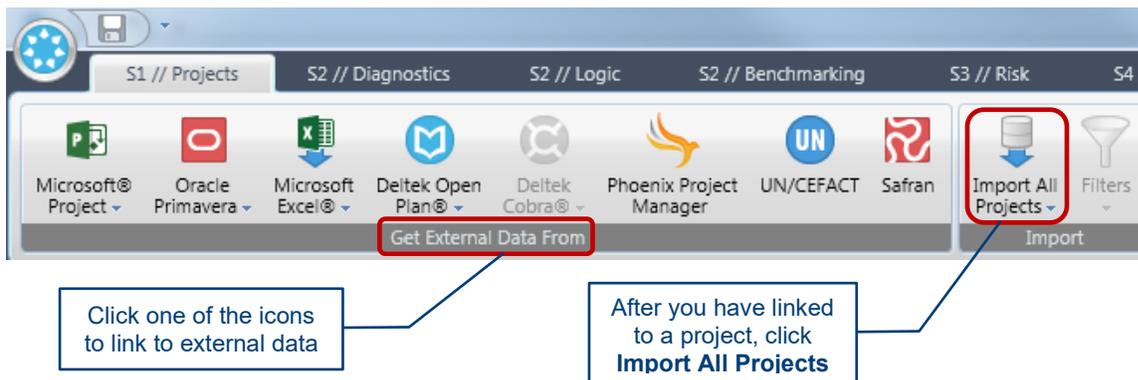


Note: For more information about creating your own metrics, see the *Acumen FUSE Metric Developer's guide*.

Deltek Acumen Risk Quick Start Guide

Import Schedule or Cost Data

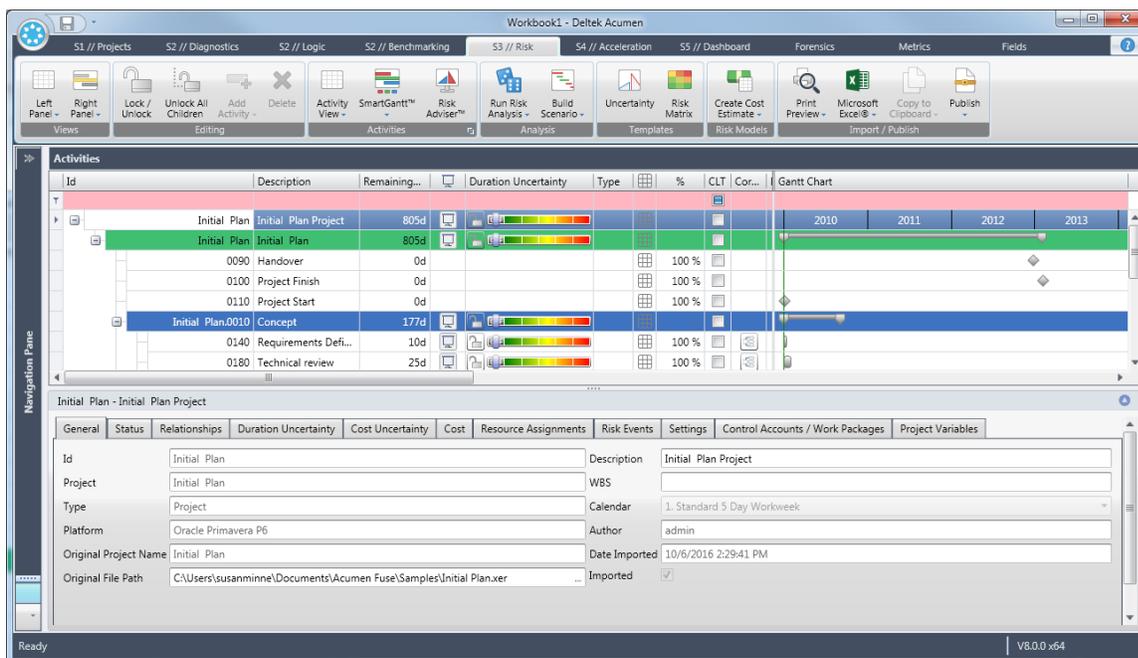
On the S1 // Projects tab, use the Get External Data menu to link to a single project or multiple projects.



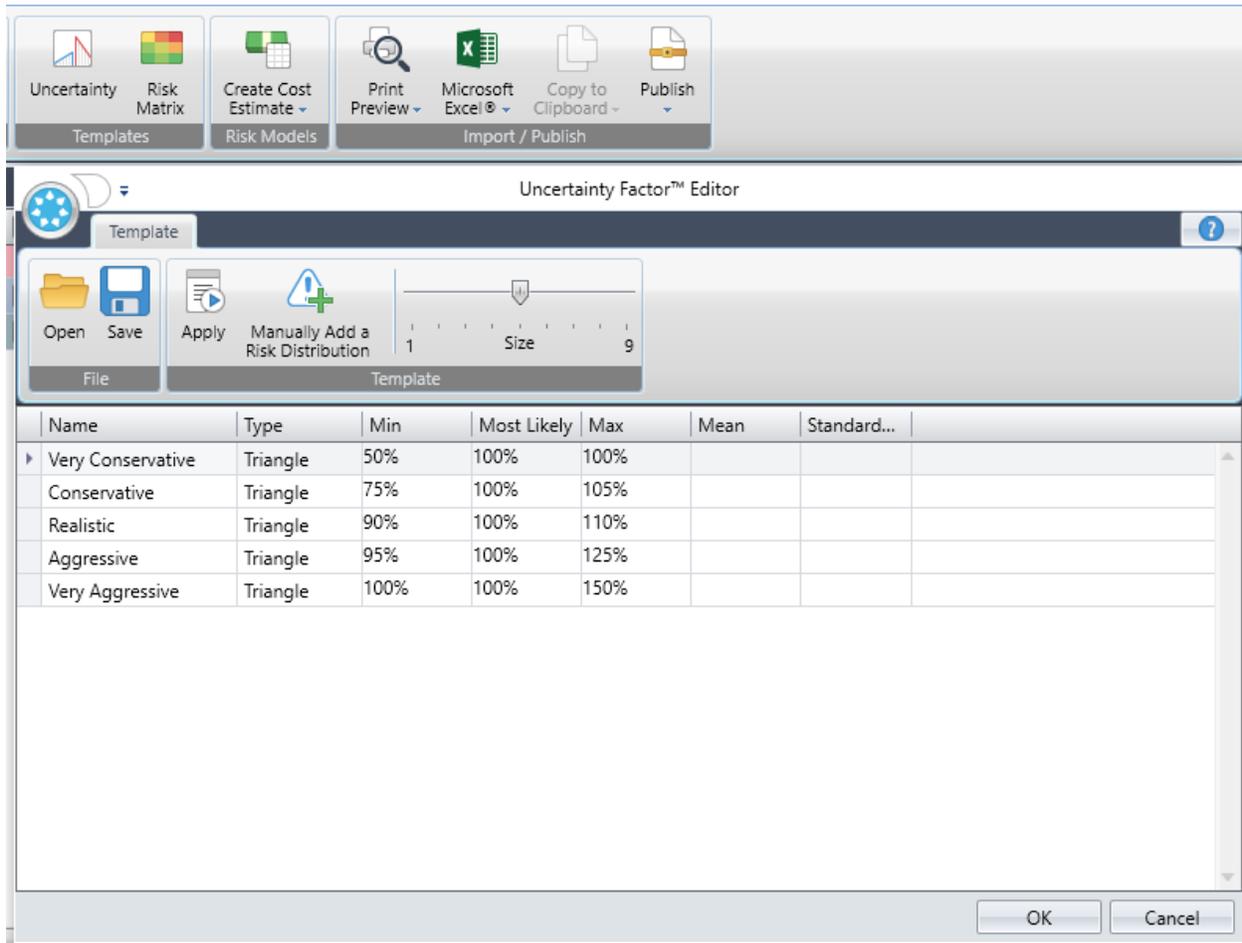
Cost data can come from a cost-loaded schedule or from an Excel spreadsheet using the Acumen template provided.

Apply Uncertainty

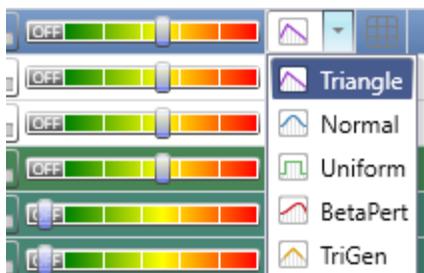
After you have loaded your schedule, you can use the Duration Uncertainty sliders on the S3 // Risk tab to apply duration or cost uncertainty to a single activity or groups of activities. Move the slider left (more conservative) or right (more aggressive) at any hierarchical level. The assignments automatically cascade down to any children.



The values represented by the slider are automatically calibrated to the length of your project. You can see and adjust those values by opening the Uncertainty template.

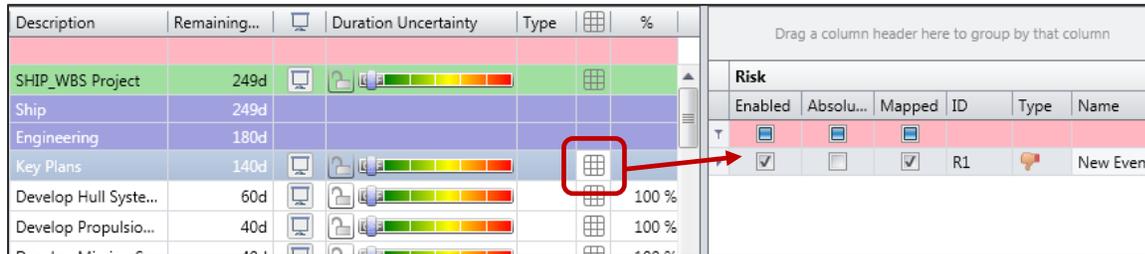


After you have enabled uncertainty for an activity, you can specify the shape of the distribution by clicking on the down arrow in the shape column next to the slider.



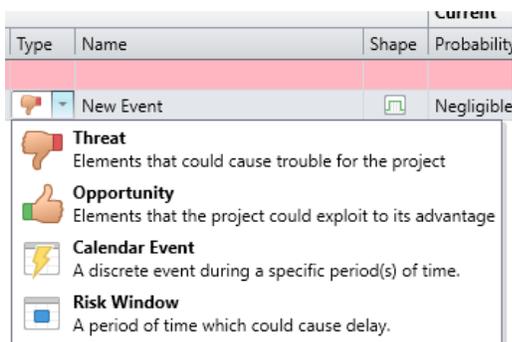
Add Risk Events

Click the matrix icon to the right of the sliders to add a new risk event. The event is mapped automatically to the selected activity or group of activities.

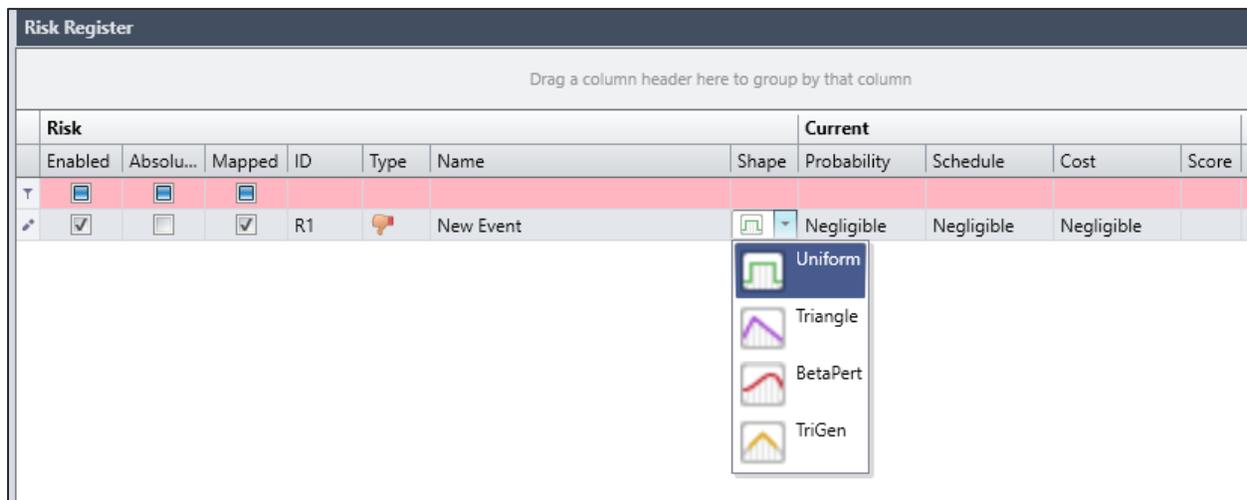


If you already have risks defined, you can import a spreadsheet of risk events using **Import from Microsoft Excel** whenever the risk register is displayed. Acumen provides a template of what the spreadsheet needs to contain.

Risks can be threats, opportunities, calendar events, or risk windows. There is more information on each of these in the online help.



Each risk event also supports various distribution types.



Note: For more information about the risk events, see *Risk Register (Risk Events)* in the Acumen online help: S3 // Risk Tab » Risk Register (Risk Events).

Run Risk Analysis

When you're satisfied with your risk and uncertainty loading, on the S3 // Risk tab, in the Analysis menu, click the **Run Risk Analysis** down-arrow to select the risk analysis/scenario that you want to run.

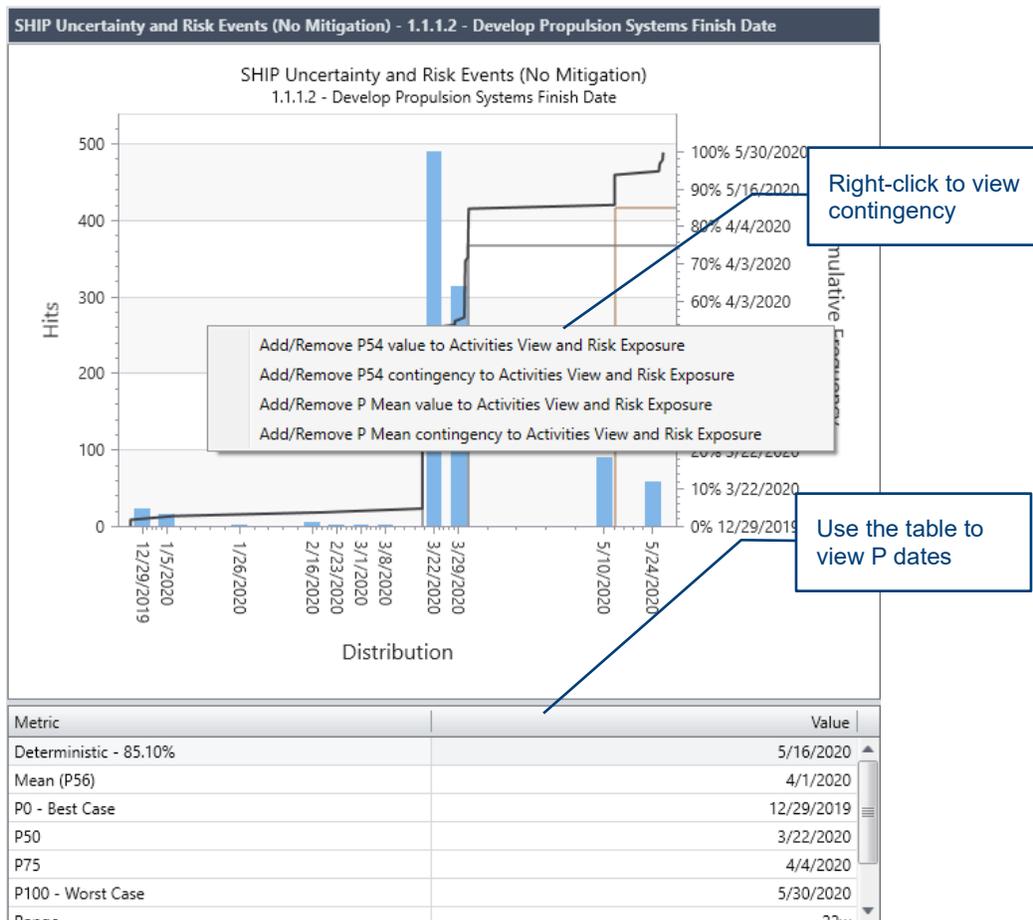


Risk analysis options include:

- Uncertainty Only (no risk events)
- Uncertainty and Risk Events (no mitigation)
- Uncertainty and Risk Events (mitigated, excluding overhead)
- Uncertainty and Risk Events (mitigated, including overhead)

View the Risk Exposure Report

After running the risk analysis, your results display in a histogram in the right panel. Right-click on any confidence level to view contingency. View probabilistic dates in the histogram and chart.



View the Risk Drivers Report

On the S3 // Risks tab, in the View menu, click **Right Panel » Risk Drivers** to view schedule and cost risk drivers. Using the Acumen Risk Contribution Factor™, find out how much impact activities and risk events have on any given milestone or group of activities.

Adjust the level of detail with the slider

Display risk drivers using the Right Panel menu

View impact from uncertainty, logic, and risk

The key shows which risk events are driving

Risk Mitigation

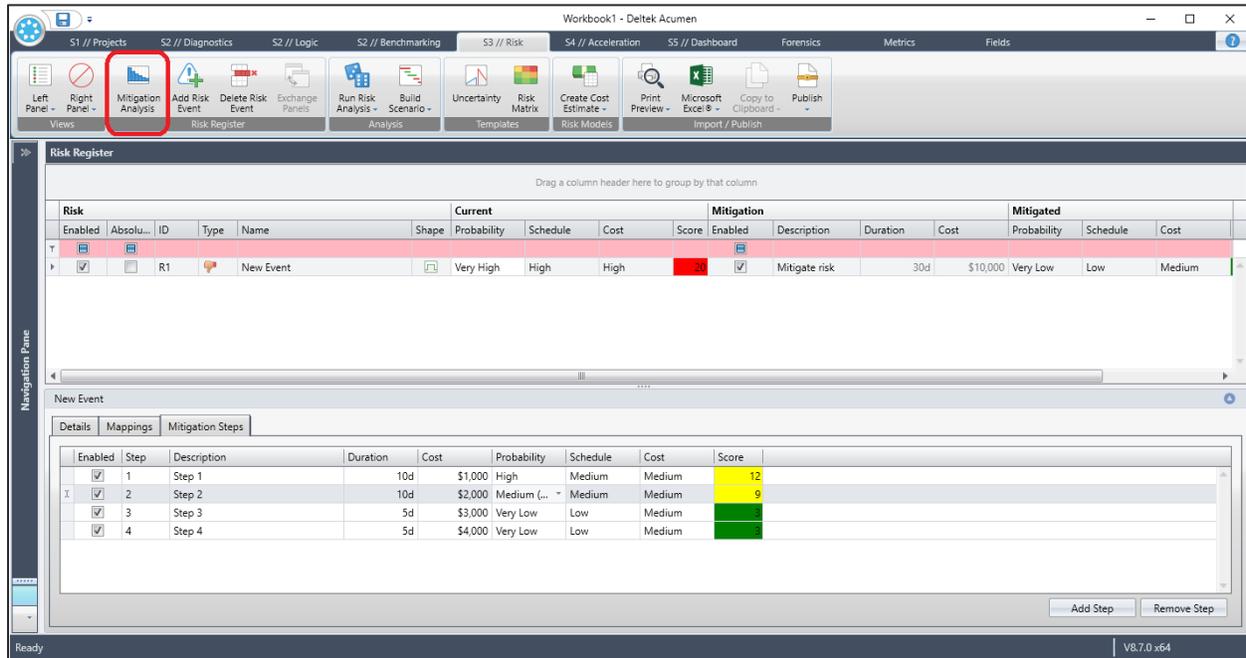
After you have identified risks that are key drivers, you may want to plan to mitigate them and see the impact on the risk analysis. Simple mitigation can be done in the risk register by enabling mitigation and setting the post mitigated probability and impacts.

Risk Register																		
Drag a column header here to group by that column																		
Risk	Current					Mitigation					Mitigated							
	Enabled	Absolu...	ID	Type	Name	Shape	Probability	Schedule	Cost	Score	Enabled	Description	Duration	Cost	Probability	Schedule	Cost	Score
T	<input type="checkbox"/>	<input type="checkbox"/>	R1		New Event		High	High	High	16	<input checked="" type="checkbox"/>	Mitigate risk	0d	\$0	Medium	Medium	Medium	9

Deltek Acumen Risk Quick Start Guide

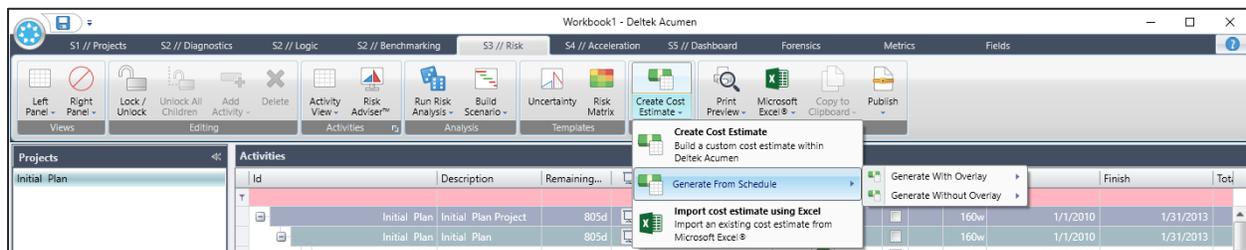
Detailed mitigation plans can be built using the Risk Mitigation Steps tab where you can add steps with their own duration and cost to the plan.

After your plan is complete, click **Mitigation Analysis** to see how each individual step affects the outcome.



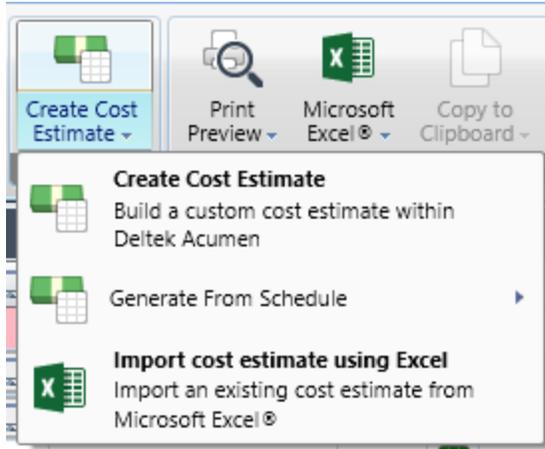
Cost Risk from a Cost Loaded Schedule

If you resource or cost load your schedules, you can create an Acumen Cost Risk model from the schedule. Use the **Create Cost Estimate** option to do this.



Cost Risk

You can create or import a cost model that is not based on the schedule. You can create a cost estimate from scratch or import one from Excel.



Integrated Cost / Schedule Risk Analysis

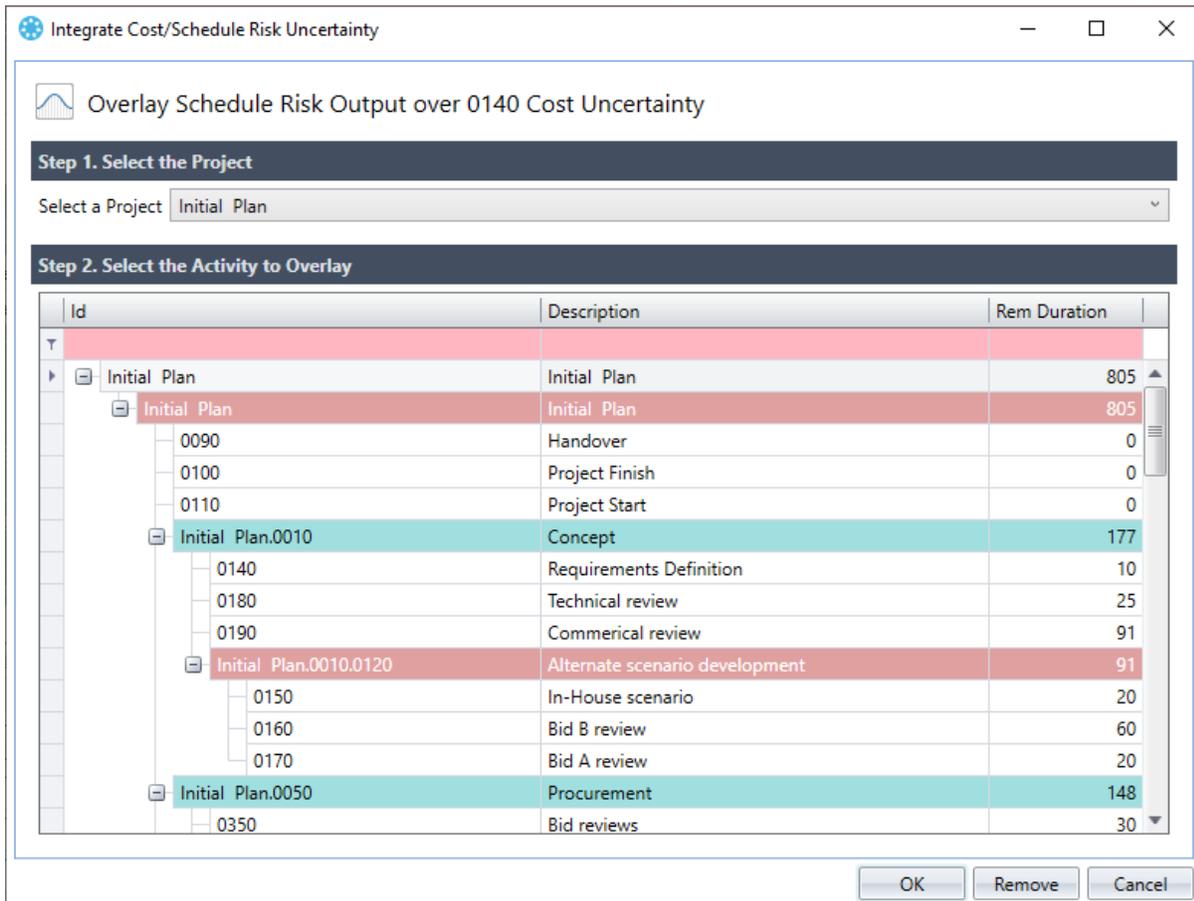
If you create your cost estimate from your schedule, you can link each cost line to the activity it came from or manually link cost lines to activities where it makes sense.

If you have an independent cost estimate not created from the schedule, you can link cost lines to activities or hierarchy nodes (like elements of the WBS).

To manually link cost lines to activities, click on the **Cost/Schedule Overlay** icon for the cost line you wish to link.

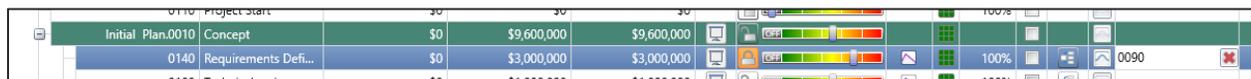
Activities												
	Id	Description	Actual Cost	Remaining Cost	Total Cost	Cost Uncertainty	Shape	%	CLT	Cor...	Activity Schedule...	Min Cost
	Initial Plan - Cost	Initial Plan - Cost...	\$0	\$195,571,640	\$195,571,640							
	Initial Plan	Initial Plan	\$0	\$195,571,640	\$195,571,640							
	0090	Handover	\$0	\$0	\$0			100%				
	0100	Project Finish	\$0	\$0	\$0			100%				
	0110	Project Start	\$0	\$0	\$0			100%				
	Initial Plan.0010	Concept	\$0	\$9,600,000	\$9,600,000							
	0140	Requirements Defi...	\$0	\$3,000,000	\$3,000,000			100%				\$2,850,000
	0180	Technical review	\$0	\$1,000,000	\$1,000,000			100%				
	0190	Commerical review	\$0	\$0	\$0			100%				
	Initial Plan.0010.01...	Alternate scenario...	\$0	\$5,600,000	\$5,600,000							
	Initial Plan.0020	Early Design	\$0	\$4,960,000	\$4,960,000							

Acumen displays the list of projects and their activities.



This is powerful in that you can have one cost estimate with links to multiple projects. Select the schedule line you want linked to the cost line and click **OK**.

Acumen displays the activity ID of the linked activity (or hierarchy node).



When you run risk analysis on the cost estimate, make sure you enable the option to **Account for cost of schedule risk impact**. You can also choose to **Use Dynamic Schedule Results** or results from the last time you refreshed the schedule results to the cost estimate.

To use these options, select a cost project in the Project pane and then on the S3 // Risk tab, in the Analysis menu, click the bottom of the Risk Analysis icon to display the drop-down menu. The options are located at the bottom of the menu.

Simulation	
Number of Iterations	1000
Complete Automatically Perform risk analysis until results converge to given accuracy.	
Automatic Accuracy	1 %
Convergence Iterations	100
Scenarios	
Uncertainty Only (No Risk Events) Perform the risk analysis including only duration uncertainty.	
<input checked="" type="checkbox"/>	Uncertainty and Risk Events (No Mitigation) Perform the risk analysis including both uncertainty and pre-mitigated risk events.
Uncertainty and Risk Events (Mitigated, Excluding Overhead) Perform the risk analysis including both uncertainty and pre-mitigated risk events, but without the cost/schedule effort required for mitigation.	
Uncertainty and Risk Events (Mitigated, Including Overhead) Perform the risk analysis including both uncertainty and pre-mitigated risk events, and including the cost/schedule effort required for mitigation.	
Repeatability	
<input checked="" type="checkbox"/>	Use Fixed Seed
Seed Value	1
Activity Correlation	
<input checked="" type="checkbox"/>	Use correlation to link activities
Hierarchical Risk Models	
Use Correlation to Overcome the Central Limit Theorem.	
Correlation Coefficient	50 %
Cost/Schedule Integration	
<input checked="" type="checkbox"/>	Account for cost of schedule risk impact
<input checked="" type="checkbox"/>	Use Dynamic Schedule Results

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