#### Full Monte 2016 for Microsoft Project

# Interface

Full Monte 2016 features a new spreadsheet style interface that supports a hierarchical approach to assigning uncertainty data.

🛞 FM 20	016 HW vs SW Demonstration (Basic Mapp	pings).mpp -	Full Monte V	ew: Task Ed	dit (custor	n)						
<u>F</u> ile	<u>E</u> dit <u>V</u> iew <u>H</u> elp Risk Analysis	Graphs						Search for Nar	me or ID		>>	SW Task 1
ID	Task Name	Remaining Duration	Duration Distribution Type	Duration Optimistic	Duration Most Likely	Duration Pessimistic	Duration Confidence Interval (%)	Early Finish Histogram	Cost Histogram	Duration Histogram	Â	Distribution <u>Type</u> : Triangular
0	HW vs SW Demonstration (2015)	14 wks	(None)					Graph	Graph	Graph		Enter the distribution parameters either as absolute durations or as percentages of
1	Hardware vs Software	14 wks	(None)					Graph	Graph	Graph		the deterministic remaining duration, which is 18 days
2	Initiate	1 wk	(None)					6/5/15 5:00	\$0	1 wk		Duration or Percent
3	Development	12 wks	(None)					Graph	Graph	Graph		Optimistic: 171 days of 95%
4	Hardware	12 wks	(None)					Graph	Graph	Graph		Opumisuc. 17.1 days of 35%
5	HW Task 1	4 wks	Normal	90%	100%	110%	100%	Graph	Graph	Graph	] ≡	Most likely: 18.5 days of 105%
6	HW Task 2	4 wks	Normal	90%	100%	110%	100%	Graph	Graph	Graph		Pessimistic: 27 days of 150%
7	HW Task 3	4 wks	Normal	90%	100%	110%	100%	Graph	Graph	Graph		Confidence interval (%): 100%
8	HW Task 4	4 wks	Normal	90%	100%	110%	100%	Graph	Graph	Graph		Set Correlations. (No branching) -
9	HW Complete	0	(None)					Graph	\$0	0		
10	Software	54 days	(None)					Graph	Graph	Graph		17. 27
11	SW Task 1	18 days	Triangular	95%	105%	150%	100%	Graph	Graph	Graph		l days
12	SW Task 2	18 days	Triangular	95%	105%	150%	100%	Graph	Graph	Graph		6
13	SW Task 3	18 days	Triangular	95%	105%	150%	100%	Graph	Graph	Graph		
14	SW Task 4	18 days	Triangular	95%	105%	150%	100%	Graph	Graph	Graph		39d
15	SW Complete	0	(None)					Graph	\$0	0		ays
16	Integration	1 wk	(None)					Graph	\$4,400	1 wk		
17	Integration	1 wk	(None)					Graph	\$4,400	1 wk		
18	Marketing	3 wks	(None)					8/28/15 5:0	\$0	3 wks		Cancel Apply Changes
19	Brochure Development	2 wks	(None)					8/21/15 5:0	\$0	2 wks		Help View Correlation
20	D 1 D17		0.1					0.00.000.00	0.455.5.0 00 1 1		-	

The content of the spreadsheet view is user configurable and can include data columns from Microsoft Project and Full Monte, buttons for graphical reports, and Gantt charts.

To simplify the insertion of data columns, the field picker now groups available columns by data type.

File       Edit       View       Help       Risk Analysis       Find:         Task       Task Name       Duration       Duration       Duration       Duration       Duration       Duration       Duration       Privation       Pri		Hardware vs Software wCorrelation(2014).mpp - Full Monte View: Task Edit (custom)											
Task Name         Duration         Duration         Duration         Duration         Duration         Duration         Duration         Confidence         Early Finish         Early Finish         Prior         Prior         Histogr           0         Hardware vs Softwar         Sort Ascending         0         04Sun15 17:00         05kun15 17:00         15ken16 kopt 10:16         Gaa           7         HW Task 2         18 days         Triangular         90%	File	Edit View Help	Risk A	nalysis								Find:	
0       Hardware vs Softwar       Sort Ascending       04Sep 15 17:00       15Sep 15 09:17       18Sep 15 08:58       Gra         1       Initiate       e       Sort Descending       05Jun 15 17:00       05Jun	Task ID	Task Name	Remaining Dura	Duration Find in Co	Duration	Duration	Duration ssimistic	Confidence Interval (%)	Early Finish (MSP)		Early Finish Expected Value	Finish Percentile (80%)	Early Finish Histogram
1       Initiate       5         2       Development       Delete Column       28Aug 15 17:00       05Jun 15 17:00       11 15 VT ask 1       18 days       Triangular       90%       120%       150%       100%       27Jul 15 17:00       0       16 in S Parcentile       90%       120%       150%       100%       27Jul 15 17:00       0       16 in S Parcentile       90%       120%       150%       <	0	Hardware vs Software		Sort Ascer	nding				04Sep15 17:00	1	5Sep15 09:17	18Sep15 08:58	Graph
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Late Finish Percentile											Late Finish Hi	stogram	
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Late Finish Standard Deviation											Late Finish St	andard Deviation	

In the following example, the Hardware summary task (ID 3) was assigned a Normal distribution and this has been inherited by all the Hardware subtasks. The user can override the inherited value at any level.

			S				1	
2	Development	60 days	(None)					28Au
3	🖯 Hardware	60 days	Normal	90%	100%	110%	100%	28Au
4	HW Task 1	20 days	Normal	90%	100%	110%	100%	03Jul
5	HW Task 2	20 days	Normal	90%	100%	110%	100%	31Jul
5	HW Task 3	20 days	Normal	90%	100%	110%	100%	31Jul
7	HW Task 4	20 days	Normal	90%	100%	110%	100%	28Au
3	HW Complete	0	Normal	90%	100%	110%	100%	28Au
Э	Software	54 days	(None)					20Au
)	SW Task 1	18 days	(None)					01Jul

In Graph button columns, the constant value is now displayed (rather than a blank cell) if no distribution information exists for the cell.

The user can now select the default units for entering/displaying durations from the View menu.

Viev	v Help F	isk Analysis		_					
	Open Named Vi Close View	ew	on ion	Duration Optimistic	Duration Most Likely	Duration Pessimistic			
а	Reset Current Vi	ew to Default							
lı 🗸	Observe Hierarc	hy		3.5 days	5 days	6.5 days			
<b>C</b>	Expand All								
Ð	Collapse All								
	Undo Sort			17 days	20 days	23 days			
	Resize All Columns to Fit Data				18 days	19.88 days	22 days		
_	Date Format		+		90%	100%	110%		
_	Default Duration	Unit	•		Minute				
-HV	v Complete	U	(None)		Hour				
J Softv	vare	54 days	Triangu	~	Day		0%		
SW Task 1 18 days Triangu					Week 0%				
SW Task 2 18 days Triang			Triangu		Use My MSP Setting				
SV	SW Task 3 18 days Triangu				Let Full I	Monte Decid	0%		
SV	SW Task 4 18 days Triangu								

Specific units can be selected along with the current setting in Microsoft Project. The user can also let Full Monte automatically choose an appropriate unit for each cell (as with Full Monte 2.1).

The 'Copy to Clipboard' option now only copies valid data rows from views.

# **Templates**

Templates can be defined with specific sets of uncertainty information. This allows organizations to model risk matrices/groups/bands and simplify the assignment of uncertainty information to tasks.

Templates are defined and maintained under Edit, Manage Templates.

This following template has been defined for "SW High Risk" work and specifies a Triangular distribution with optimistic/pessimistic values of 95/150 percent, 100% confidence and no correlation.

🛞 Manage Templ	ates				
Template <u>N</u> ame	SW High Risk 🔹	Template Type:	Oistribution & Correlation	O Distribution Only	Correlation Only
Distribution <u>Type</u>	Triangular 🔹			Correlation So	urce % Correlation
Enter as percenta value:	ges of the deterministic	95%	150%		
<u>O</u> ptimistic	95%				
<u>M</u> ost likely	105%				
<u>P</u> essimistic	150%	5%			
Con <u>fi</u> dence interv	al (%) 100%				
<u>H</u> elp			Ne <u>w</u>	Delete Ren	ame Close

Templates can be utilized in two ways:

- Assigned directly to one or more selected tasks
- Assigned based on the contents of a custom text field

#### **Template Assignment to selected tasks**

The user can select one or more tasks in the spreadsheet view using standard conventions like Click, Shift+Click, Ctrl+Click or Ctrl+A.

Right Click on any selected row and the context menu "Apply Template  $\rightarrow$ " will be displayed. Use the mouse to select an appropriate template. The uncertainty data from the chosen template will be applied to all selected tasks.

3	🖯 Hardware	(	60 days	60 days Normal		1%
4	HW Task 1	1	20 days	Normal	90	)%
5	HW Task 2		20 days	Normal	90	%
6	Apply Template	•	DEFA	ULT		%
7	HW Task 4	:	HWF	HIGH RISK		<mark>%</mark>
8	HW Complete		HWL	OW RISK		%
9	Software		HWN	AEDIUM RISH	<	
10	SW Task 1		INHE	RITED		
11	SW Task 2		NON	E		
12	SW Task 3		SW H	IGH RISK		
13	SW Task 4		SW L	ow RISK		
14	SW Complete	SW ME		IEDIUM RISK		
15	Integration		From	Text Field	•	
10	Delivery		n	(Mana)		

### Template Assignment based on custom Text field

As well as applying templates to selected tasks by choosing a specific name from the provided list, the user can select 'From Text Field' and then choose an available custom text field that contains the name of the template to be assigned to each task. Custom text fields with lookup values are supported.

The following screenshot shows a custom column (named Distribution Template) in Microsoft Project that has pre-defined values matching template names.

Task Name 🚽	Distribution Template •	Duration 👻	Start 👻	Finish 👻	
Initiate	None	5 days	6/1/15 8:00 AM	6/5/15 5:00 PM	ŀ
▲ Development		60 days	6/8/15 8:00 AM	8/28/15 5:00 PM	
▲ Hardware		60 days	6/8/15 8:00 AM	8/28/15 5:00 PM	
HW Task 1	HW Low Risk	20 days	6/8/15 8:00 AM	7/3/15 5:00 PM	Ī
HW Task 2	HW Low Risk	20 days	7/6/15 8:00 AM	7/31/15 5:00 PM	
HW Task 3	HW Low Risk	20 days	7/6/15 8:00 AM	7/31/15 5:00 PM	ŀ
HW Task 4	HW Low Risk	20 days	8/3/15 8:00 AM	8/28/15 5:00 PM	
HW Complete		0 days	8/28/15 5:00 PM	8/28/15 5:00 PM	
▲ Software		54 days	6/8/15 8:00 AM	8/20/15 5:00 PM	Ī
SW Task 1	SW High Ris 🗸	18 days	6/8/15 8:00 AM	7/1/15 5:00 PM	Ī
SW Task 2	None No u	incrtainty		/27/15 5:00 PM	Ī
SW Task 3	HW Low Ris	k Low risk han Pick Medium	dware tasks a rick bardware tasks	/27/15 5:00 PM	ŀ
SW Task 4		sk High risk ha	ardware tasks	/20/15 5:00 PM	
SW Complete	SW Low Risk	Low risk soft	ware tasks	/20/15 5:00 PM	1
Integration	SW High Rig	Risk Medium	risk software tasks	/4/15 5:00 PM	Ī
Delivery	Sty High Kis	uays	5/4/10 0.00 PIVI	<del>9</del> /4/15 5:00 PM	Ī

If the selected custom text field has no name associated with it, it will be renamed "Distribution Template'.

Full Monte will validate to ensure the contents of the selected custom field contains data matching valid template names (although it is case insensitive). If the field on any task contains data that does not match an existing template name, the process is aborted and the user informed. Any tasks with blank values in the selected field will be ignored and no changes will be made to task uncertainty data for those tasks.

The following confirmation dialog is shown before the templates are applied

🖳 Apply Template Confirm	
1 of the selected tasks will be explicitly set	
4 of the selected tasks will inherit from these	Set all tasks explicitly
0 tasks cannot accept the distribution because they are foreign or have zero durations	
0 tasks cannot accept an update of just the distribution	Update distributions only
0 tasks cannot accept an update of just the correlations	Update correlations only
Don't show this dialog again in this session. (Use Control key to get it back.)	OK Cancel

The dialogs contains informational messages regarding how many tasks will be affected and also allows the user to choose whether distributions and/or correlations should be set. There is also an option to suppress the dialog during the remainder of a Full Monte session (it will always be displayed on first use in a new session). The user can also force the dialog to be displayed by holding down the Control (Ctrl) key when selecting the template to apply.

Full Monte will detect where the same template is being applied to both a summary task and its subtasks and will only apply the template to the summary task while setting the sub-tasks to 'inherit' unless the option to 'Set all tasks explicitly' is selected..

## Views

Views, formerly known as 'Reports' in earlier versions of Full Monte, are accessible from the View menu.

A basic set of views is pre-defined but the user can create custom views to meet their requirements.

🛞 FM.	2016 H\	W vs SW Demonstration (Basic Mappir	gs).mpp - Full Mo	onte View: Task Edit (custom)	
<u>F</u> ile	<u>E</u> dit	View Help Risk Analysis Gra	ohs		
		Open Named View	► (Nev	w)	tion
ID		<u>C</u> lose View	All C	Cost Percentiles	nistic
0	Θ	Reset Current <u>V</u> iew to Default	All E	arly Finish Percentiles	1105
1	E	✓ Observe <u>H</u> ierarchy	Grap	phs	110%
2		E <u>x</u> pand All	Hist	ory	110%
3		Collapse All	Mes	sage Log	110%
4		<u>U</u> ndo Sort	Resu	ults	110%
5		Resize All Columns to Fit Data	Risk	Adjusted Schedule	110%
6		Date Format	Torr	nado <mark>(</mark> Cost)	110%
7		Default Duration Unit	Torr	nado (Schedule with Index)	110%
8		HW Iask 4	4v Torn	nado <mark>(</mark> Schedule)	110%
9		HW Complete	0 Triangu	lar	
140			EAL TO DEC	1 0.00/ 40.00/	44.00

### Split Tornado (Schedule) / Split Tornado (Cost) Reports

Showing the results of sensitivity analysis using split color bars was available in Full Monte 2.1.14197.1 or later by renaming the regular Tornado view however these are now available as standard views in Full Monte 2016. The point where the color changes is the project or deliverable expected finish date.

ID	Task Name	Remaining Duration	Percent Critical	Percent Critical (Sensitivity)	Sensitivity Index	Sensitivity Index 50.0	Optimistic Finish of Project	Pessimistic Finish of Project	2015 Sep 06	13	20	Early Finish Histogram
14	SW/ Task 4	19 dava	0.4%	0.4%	55%		9/9/15 10-14AM	9/21/15 11-59				Graph
14	JW Idak 4	10 uays	04%	04%	55%		3/3/13 TU.14/M	3/21/13 11.33				Cilapii
11	SW Task 1	18 days	84%	84%	55%		9/9/15 10:14AM	9/21/15 11:59				Graph
13	SW Task 3	18 days	42%	42%	28%		9/10/15 3:13PM	9/18/15 1:49PM				Graph
12	SW Task 2	18 days	42%	42%	28%		9/10/15 3:18PM	9/18/15 1:39PM				Graph
5	HW Task 1	4 wks	16%	16%	3%		9/11/15 11:38AM	9/14/15 3:19PM				Graph
8	HW Task 4	4 wks	16%	16%	3%	]	9/11/15 11:38AM	9/14/15 3:19PM				Graph
6	HW Task 2	4 wks	8%	8%	2%		9/11/15 11:50AM	9/14/15 1:21PM				Graph
7	HW Task 3	4 wks	8%	8%	2%		9/11/15 11:50AM	9/14/15 1:19PM				Graph

#### **History Report**

The History report performs an analysis of Actual over Estimated durations for complete tasks. This is useful for validating the choice of future optimistic/pessimistic duration values. Graphical representations of the historical data for child tasks are available for summary levels.

Task Name	Percent Complete (MSP)	Baseline Duration	Actual Duration	Actual over Estimated Duration
🖯 Task 0	68%	0	76.96 wks	Graph
🖯 Task 1	68%	108 wks	76.96 wks	Graph
🕀 Task 419	64%	101.8 wks	65.41 wks	Graph
Task 434	100%	6.6 wks	19.4 wks	293%
Task 433	100%	9 wks	21.4 wks	237%
Task 431	100%	38.2 wks	37.4 wks	97%
Task 429	100%	38.2 wks	37.4 wks	97%
Task 427	100%	66.4 wks	26.6 wks	40%

For summary levels the Graph button produces a histogram showing the results for child tasks.



#### Project Project with Actuals.mpp (Analysis performed on 3/23/2015)

#### Joint Confidence Level (JCL) Report

The Joint Confidence Level (JCL) scatterplot shows the percentage of simulation results where both the cost and schedule results for the analysis are within target cost and time parameters.

The National Aeronautics and Space Administration (NASA) requires this report to be produced at Key Decision Point (KDP)-C for all projects over \$250 million.

Each point on the chart represents the cost and schedule information for a single iteration of the simulation. Full Monte automatically performs 5001 simulations to produce the chart.

In the following example we can see just 10% of results fell within the target cost of \$86,000 and finishing before 9/10/15 although the cost could increase to around \$88,000 while still achieving the 9/10/15 schedule target (the hover text is for a point in the upper left quadrant).



#### **Histogram Reports**

The histogram chart has been significantly enhanced both in terms of content and configuration.



Mean = 9/15/2015:9:15 AM, Standard deviation = 27.3 hours, Deterministic value = 9/4/2015:5:00 PM (2%). 100% (10/1/2015) 10% 90% (9/21/2015) 80% (9/18/2015) 8% 70% (9/16/2015) Cumulative Frequency 60% (9/16/2015) 6% % of Hits 50% (9/15/2015) 40% (9/14/2015) 4% 30% (9/11/2015) 20% (9/9/2015) 2% 10% (9/8/2015) -0% (9/3/2015) 9/7/2015 9/14/2015 9/21/2015 9/28/2015

Each bar represents 1 day. (Markers show start of interval.)

Histogram Content Enhancements

- Y-Axis legends
- Deterministic value and chance of achievement in title block

Histogram Configuration Enhancements

- X-Axis can now exclude non-work time
- The preferred interval of the X-Axis markers can now be specified
- S-Curve can now be smoothed with Cubic Spline Interpolation

The preferred X-Axis interval is specified when performing risk analysis.

🛞 Risk Analysis		<b>—</b>		
Number of Simulations:	mber of Simulations: 100000			
Preferred Date/Duration Hist Sched <u>u</u> le Sensitivity Target: C <u>o</u> st Sensitivity Target: <u>H</u> elp	ogram Interval	None None Hour Half Day Day Week Two Weeks Four Weeks		

The specified preferred interval may not be honored for a specific task if the range of values cannot be sensibly displayed using the selected time unit. For example, if the range of finish dates for a specific tasks spans several months, then a preference of an hourly interval will not be applied to that specific task and a more suitable scaling interval (Days, Weeks etc.) will be used.

### **Duration Histogram**

A new duration chart type has been introduced. This allows the user to view the range of possible durations for projects, subprojects or tasks.



An example of the range of durations for a project.

When the duration histogram is produced for a single task, the user specified distribution curve is overlaid on the graph for reference purposes.



## **Resource Rate Uncertainty**

In Full Monte 2.1, cost uncertainty was calculated based on the sampled duration for each task on each iteration of the simulation. With Full Monte 2016 it is also now possible to model resource rate uncertainty as well. Choose Edit, Edit Resources to open the Resource Edit Dialog

Resource ID	Cost Rate(s)	Cost Rate Distribution Type	Cost Rate Optimistic	Cost Rate Most Likely	Cost Rate Pessimistic	Confidence Interval (%)
All Resources		(None)				
Widget T1	\$1,500.00	Normal	90%	100%	110%	100%
Widget T2	\$2,300.00	(None)				
HW Eng	\$50.00/h	Triangular	100%	100%	110%	100%
SW Eng	\$60.00/h	(None)				
PM	\$80.00/h	(None)				

In this example we are modelling a  $\pm 10\%$  range for Widget T1 and up to a 10% increase in the hourly rate for Hardware Engineers.

## **Calculations**

### **Expected/Mean Values**

Mean or Expected date values are now calculated taking into account calendars. This prevents mean values occurring in non-working periods.

### Sensitivity

The basis for sensitivity information (as estimated during the Risk Analysis process or based on a Full Analysis for a specific task) is now available in reports. The user also now has control over the number of simulations performed when performing the full analysis for a specific task.

The full analysis option for sensitivity is now available in any custom views that contain sensitivity tornado charts.

The estimated sensitivity values have been improved both for cost and schedule especially where correlations are applied.

## **Field Mapping**

Full Monte stores configuration and user entered data in Microsoft Project custom fields. Some fields are mandatory (Full Monte will not work without them) while others are optional.

With Full Monte 2.1, only data stored in custom fields was available for reporting so even if data was not technically mandatory (Full Monte could be used without it), if it was not mapped then it could not be referenced in reports.

One final issue with Full Monte 2.1 was that some Full Monte results could not be mapped at all; for example percentile values.

Table 1 compares the standard (default) custom fields utilized by Full Monte 2.1 and Full Monte 2016 for Microsoft project.

	Project Custom Field	
Full Monte Data	FM 2.1	FM 2016
Cost Expected Value	Cost1	
Cost Standard Deviation	Cost2	
Cost Sensitivity Optimistic	Cost3	
Cost Sensitivity Pessimistic	Cost4	
Merge Point Delay	Duration1	
Total Slack Standard Deviation	Duration10	
Early Start Standard Deviation	Duration3	
Early Finish Standard Deviation	Duration4	
Late Start Standard Deviation	Duration5	
Late Finish Standard Deviation	Duration6	
Free Slack Expected Value	Duration7	
Free Slack Standard Deviation	Duration8	
Total Slack Expected Value	Duration9	
Early Finish Expected Value	Finish1	
Late Finish Expected Value	Finish2	
Optimistic Project Finish (sensitivity)	Finish3	
Pessimistic Project Finish (sensitivity)	Finish4	
Cost Sensitivity Attributable Variance	Number10	

Percent Active (branching)	Number6	
Percent Critical	Number7	
Sensitivity Index	Number8	
Sensitivity Attributable Variance	Number9	
Early Start Expected Value	Start1	
Late Start Expected Value	Start2	
Full Monte Input Data	Text1	Text1
Early Start Histogram	Text11	
Early Finish Histogram	Text12	Text7
Late Start Histogram	Text13	Text11
Late Finish Histogram	Text14	Text10
Free Slack Histogram	Text15	Text9
Total Slack Histogram	Text16	Text13
Cost Histogram	Text17	Text4
Analysis Log Messages	Text18	Text3
Full Monte Results		Text2
Duration Histogram		Text5
Finish Histogram		Text8
Start Histogram		Text12

Table 1

With Full Monte 2016 for Microsoft Project, all data that was previously stored in Cost, Duration, Number, Start and Finish custom fields has now been consolidated into a single Text field (Full Monte Results). This dramatically reduces the total number of custom fields required for Full Monte data.

Furthermore, the user can choose to modify the default mappings to just two mandatory fields (Full Monte Input Data and Full Monte Results).

**Note**: If histogram data is not mapped to custom fields then histogram and percentile data will not persist between sessions and a Risk Analysis must be performed to re-create the data before histogram and percentile data will be available for viewing/reporting in a new session. Barbecana recommends that histogram data for important fields like 'Early Finish' is mapped to a custom field so that it persists between sessions.

As well as the mandatory and suggested mapped fields, the user can also add mappings for any other Full Monte data they wish to be available in a Microsoft Project custom field. This includes uncertainty and percentile data.

Heid Mapping Information						
Task Fie	Task Fields Resource Fields					
The first retain h	st two fields on this tab must be ma nistogram and percentile informatio	pped. In addition, mapping the hist n between invocations of Full Mont	ogram fields wil e.	I		
	Data		MSP Field	<u> </u>		
	Full Monte Input Data		Text1			
	Full Monte Results					
	Analysis Log Messages		Text3	=		
	Early Finish Histogram		Text6			
	Duration Optimistic		Duration 1			
	Early Finish Percentile (80%)		Finish1	+		
Reset	Reset this tab to System Default Value Apply to Subprojects					
Reset	Reset this tab to User Default Values Make this the User Default					
H	elp	ОК	Cance	<b>ال</b> ال		

The field mapping dialog has been enhanced to allow users to easily revert to the Full Monte system default mappings, their own private default mappings, or to maintain a project specific mapping.

In order to support resource rate uncertainty the dialog has tabs for both Tasks and Resources.

### **External subprojects**

Full Monte 2016 no longer requires that linked projects share the same field mappings. This greatly simplifies performing a schedule risk analysis on an IMS comprising schedules from different sources.

### Data conversion from Full Monte 2.1

When a project with existing Full Monte 2.1 uncertainty information is opened in Full Monte 2016, the existing data will be automatically converted to the Full Monte 2016 format. Once converted the data will no longer be accessible to Full Monte 2.1.

### **Documentation**

For Full Monte 2016, the documentation has been re-written and split into two manuals. These are an Installation Guide and a user Guide. The installation guide now includes more detail and a trouble shooting section.

## **Percentile Values**

Two new options have been added for Percentiles; Custom... and All.



Selecting Custom... allows the user to add specific percentiles values to those available for inclusion in reports and mapping to Microsoft Project custom fields.

Custom Percentile Dialog	<		
Enter a value between 0 and 100:			
Add to list	]		
Manage List Cancel OK	]		

The user can select 'Add to List' to permanently add the new percentile value to Full Monte pick lists.

The 'All' option will insert all defined percentile values into columns in the report. This is especially useful when creating a report to export data to Excel.