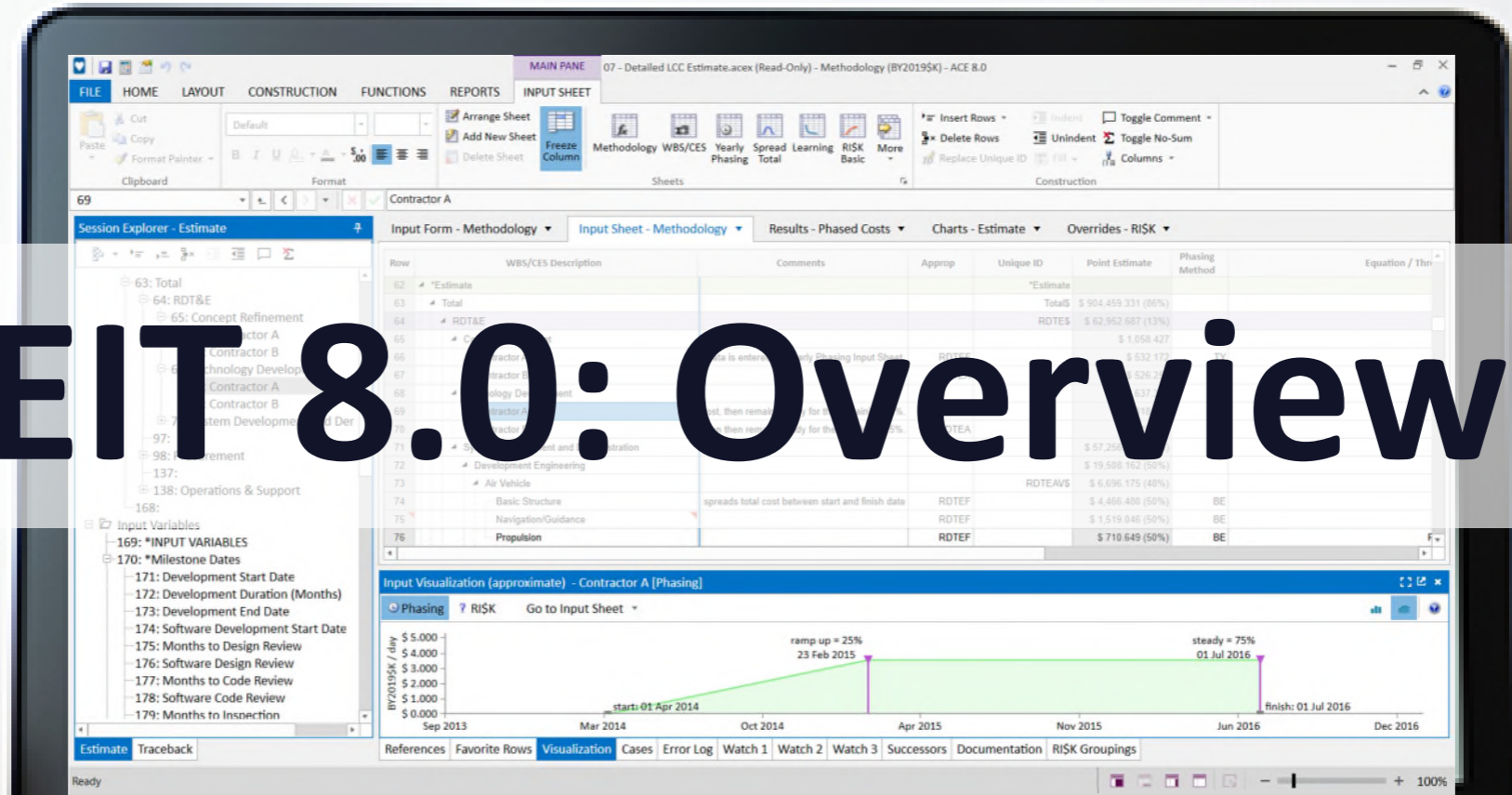


ACEIT 8.0: Overview

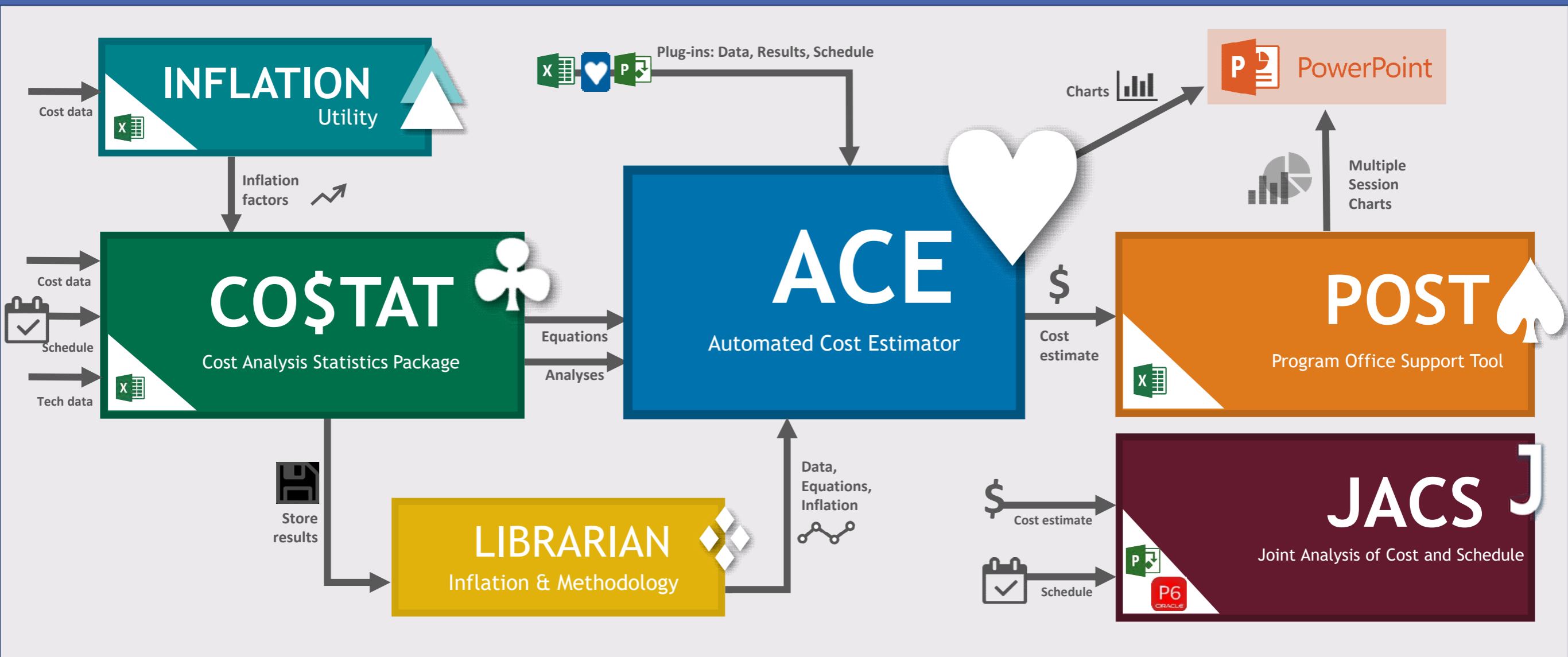


The ACEIT Concept

- **ACEIT (Automated Cost Estimating Integrated Tools)** is a family of applications that support program managers and cost/financial analysts during all phases of a program's life-cycle
- ACEIT is the premier tool for analyzing, developing, sharing, and reporting cost estimates, providing a framework to standardize the estimating process.
- Bring structure and consistency to the entire cost analysis process
 - Allow analysts to focus on estimate methodology rather than spreadsheet mechanics
- Over 30 Years of Ongoing Success
- In use at 250+ sites with over 8000 students trained

Developed *by cost analysts for cost analysts*

ACEIT 8.0 Architecture



ACEIT Components



ACE: Automated Cost Estimator – build a robust, accurate, and defensible cost model

- Includes inflation, learning, phasing, risk, documentation, and other essential cost estimating processes



CO\$TAT – perform cost estimating statistics and regression analysis



POST: Program Office Support Tool – automates what-if drills, charts, and tables from Excel

- Includes automated transfer of results to PowerPoint and Word



JACS: Joint Analysis of Cost and Schedule – perform cost and schedule analyses

- Utilizes the schedule logic and framework of MS Project or P6 with powerful ACEIT engine for processing



Librarian – manage and share custom inflation indices and CER Libraries



Inflation Utility – add-in to access the latest ACEIT provide government inflation indices in Excel



ACEIT Admin – modify ACEIT system settings including share data paths and license string

Benefits of Using ACEIT

- Implements Standardized Process and Increases Estimate Quality
- Provide Flexibility to Model Any System Type
 - **Life Cycle Cost Estimates (LCCE):** Independent Cost Estimates (ICE) and Program Office Estimates (POE)
 - **Other Cost Estimates:** Budget Estimates, Rough Order or Magnitude (ROM) Estimates, Independent Cost Assessments (ICA), Independent Government Cost Estimates (IGCE) and Estimate at Completion (EAC)
 - **Business Case Analysis:** Analysis of Alternatives (AoAs), Cost Effectiveness Analysis (CEA), Economic Analysis (EA) and Cost Benefit Analysis (CBA)
- Integrates with Other Applications Through an Open Platform
- Reduces Management Challenges of training and transferring projects to other team members



```
private=function(b,b,e){return  
  attr("aria-expanded",!1),  
  ("fade"),b.parent(".dropdown  
  end.find("> .active"),h=e&&  
  f).emulateTransitionEnd  
  t=function(){return a.fn.t  
  (e).on("click.bs.tab.data  
  end.data("bs.tab")
```

- An estimating platform
- A framework to build risk adjusted, integrated cost/schedule life cycle estimates for any project

ACE is an Estimating Platform

- Structured framework to build consistent cost estimating models that span the entire analysis process
 - Methodology
 - Documentation
 - WBS and Inputs Sections
 - Integrated Uncertainty Analysis
 - What-If Results
 - Reports and Charts

Row	WBS/CES Description	Approp	Unique ID	Point Estimate	Phasing Method	Equation / Throughput	Fiscal Year	Units	Start Date	Finish Date
1	** EXAMPLE FILE **									
2	* Estimate		*Estimate							
3	▲ Total			\$ 56,030,505 *						
4	▲ Manufacturing		Mfg\$	\$ 39,554,236 *						
5	Air Vehicle	APF	AV\$	\$ 34,394,988 *	F	AV_UC\$ * BuyQty				
6	Integration & Test	APF		\$ 5,159,248 *	F	0.15 * AV\$				
7	SEPM	APF		\$ 14,635,067 *	F	0.37 * Mfg\$				
8	Program Office Costs	APF		\$ 1,841,202 *	TY	[Cost Throughput]		\$K		
9										
10	*INPUT VARIABLES		*IN_VAR							
11	▲ **Production Inputs		*ProdInputs							
12	Air Vehicle T1	APF	AV_UC\$	\$ 8,590,747 *	C	(959 * TW ^ .243 + 109 * RANGE ^ .652) / 2	2012	\$K		
13	Buy Quantity		BuyQty	4 *	IS	[Input 1 throughput]				
14										
15	*Technical/Performance Characteristics									
16	Air Vehicle Takeoff Weight (lbs)		TW	12000.00 *	C		12000			
17	Air Vehicle Range (nmi)		RANGE	250.00 *	C		250			
18										

Documentation - Integration & Test

Equation / Throughput

This is our standard program office integration factor.

Dashboard View

- Session Explorer
 - Estimate
 - Traceback
- Main Pane
 - Input Form
 - Input Sheet
 - Results
 - Overrides
 - Charts
- Content Panes
 - Up to thirteen views

The screenshot displays the ACEIT software interface. On the left is the 'Session Explorer - Estimate' pane showing a hierarchical WBS tree. The main area is divided into two panes: the top one is a table with columns for 'Point Estimate', 'Phasing Method', 'Equation / Throughput', 'Start Date', and 'Finish Date'; the bottom one is a 'Phasing' chart showing a ramp-up period from 29 Sep 2020 to 31 Mar 2023 and a steady state until 30 Sep 2024. A bottom bar contains various view options like 'Favorite Rows', 'Documentation', 'Cases', 'Error Log', 'Visualization', 'Successors', 'References', and 'Drivers'.

Point Estimate	Phasing Method	Equation / Throughput	Start Date	Finish Date
\$ 8,473,064 (25%)				
\$ 6,673,807 (24%)				
\$ 1,373,328	FP	TestingHrs*Testing\$	DevStartDate	DevFinishDe
\$ 2,900,419 (24%)				
\$ 82,076	TS	ProtoQty*AFUC\$	DevStartDate	DevFinishDe
\$ 52,020 (50%)	TS	ProtoQty*PropellerQty*PropUC\$	DevStartDate	DevFinishDe
\$ 50,283 (50%)	%	ProtoQty*VehSSUC\$		
\$ 2,603,356 (24%)				
\$ 832,320 (21%)	BE	DevAvionicsHwEm*DevAvionicsHWLR\$	DevStartDate	DevFinishDe
\$ 1,851,036 (30%)	BE	DevAvionicsSwEm*DevAvionicsSwLR\$	DevStartDate	DevFinishDe
\$ 32,684 (48%)	%	ProtoQty*(BatteryUC\$+AntennaUC\$)		
\$ 156,060	W	ProtoQty*PayUC\$	DevStartDate	DevFinishDe
\$ 510,000	FP	100		
\$ 1,734,000	BY	[Cost Throughp		
\$ 48,956,344 (35%)				
\$ 5,174,792 (49%)	FP	ProdAVS*		
\$ 27,249,543 (49%)	ProdAVS			
\$ 6,825,024	FP	ProdQty*AFPropAV		

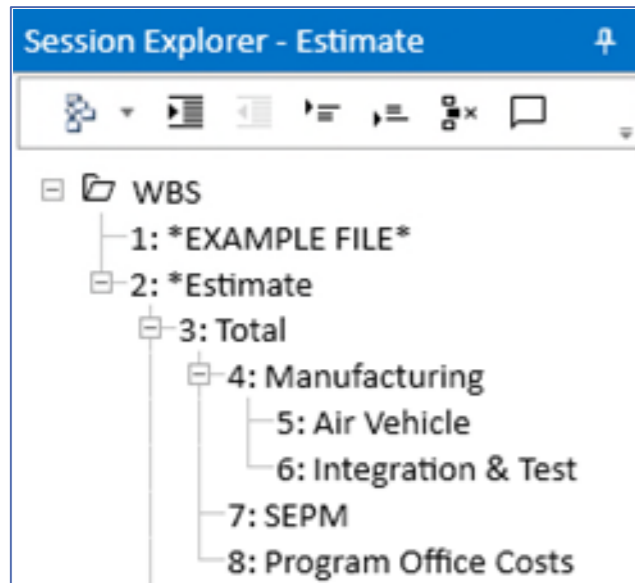
Main Pane:
Forms, Tables, Results,
Charts, and Overrides

Session Explorer:
WBS tree & Traceback

Content Panes:
quick access to
Documentation,
References,
Visualizations,
Cases, Error Log
and more...

Built-In WBS Hierarchy

- ACE uses an indenture structure to sum lower level elements ensuring proper calculation of parent rows at all times
 - Tree-view allows for expansion and collapse of model rows
 - Easily insert new WBS rows without updating parent levels



Row	WBS/CES Description	Point Estimate	Equation / Throughput
1	*EXAMPLE FILE*		
2	*Estimate		
3	Total	\$ 56,509.678	
4	Manufacturing	\$ 39,906.659	
5	Air Vehicle	\$ 34,701.443	AV_UCS*BuyQty
6	Integration & Test	\$ 5,205.216	0.15*AVS
7	SEPM	\$ 14,765.464	0.37*Mfg\$
8	Program Office Costs	\$ 1,837.555	[Cost Throughput]

Create Estimates with Guidance from Input Forms

- Easily enter estimate methodologies using guidance on input forms
 - Select from four methodology types – Periodic, Time Phased Inputs, Spread Total, and Learning Curves

The screenshot displays the 'Input Form - Methodology' interface. At the top, there are navigation tabs: 'Input Form - Methodology', 'Input Sheet - Methodology', 'Results - Phased Costs', 'Overrides - Phased', and 'Charts - RISK'. Below the tabs, there is a 'Title:' field containing 'New Row'. Underneath, there are input fields for 'Unique ID:', 'CES#:', 'WBS#:', and 'PE Value:'. A red box highlights a row of four icons: a circular arrow with the equation $a \cdot x + b$, a calendar icon, a bell-shaped curve, and a learning curve icon. Below these icons are four methodology options, each with a description:

- Periodic (Yearly/Monthly) Calculation or Constant**: Specify an Equation/Value to be calculated periodically or a Constant value (cost, non-cost, or date).
- Time Phased (Yearly/Monthly) Inputs**: Specify time phased cost (BY, TY, or SY) or non-cost values.
- Spread Total over Time Calculation**: Specify total value/equation, and how to spread it over time using Beta curve, Weibull, Rayleigh, Trapezoid, Percentages or Milestone phasing profile.
- Learning Curve Calculation**: Specify cost improvement curve parameters to calculate learning curve.

Enter Data Directly into Input Sheets

- Alternatively to Input Forms enter data directly into Input Sheets
- Specific columns used in spreadsheet view to enter equations and annual throughputs

Row	WBS/CES Description	Point Estimate	Phasing Method	Equation / Throughput	Fiscal Year	Units
63	▲ Total	\$ 904,459.331 (86%)				
64	▲ RDT&E	\$ 62,952.687 (13%)				
65	▲ Concept Refinement	\$ 1,058.427				
66	Contractor A	\$ 532.172	TY	[Cost Throughput]		\$K
67	Contractor B	\$ 526.255	TY	[Cost Throughput]		\$K
68	▲ Technology Development	\$ 4,637.328				
69	Contractor A	\$ 2,318.664	TC		2	2009 \$M
70	Contractor B	\$ 2,318.664	TS		2	2009 \$M
71	▲ System Development and Demonstration	\$ 57,256.932 (13%)				
72	▲ Development Engineering	\$ 19,508.162 (50%)				
73	▲ Air Vehicle	\$ 6,696.175 (48%)				
74	Basic Structure	\$ 4,466.480 (50%)	BE	Struc_T1\$*NRT1Ratio		
75	Navigation/Guidance	\$ 1,519.046 (50%)	BE	425.555+25.555*NavWt	1997	\$K

WBS Rows

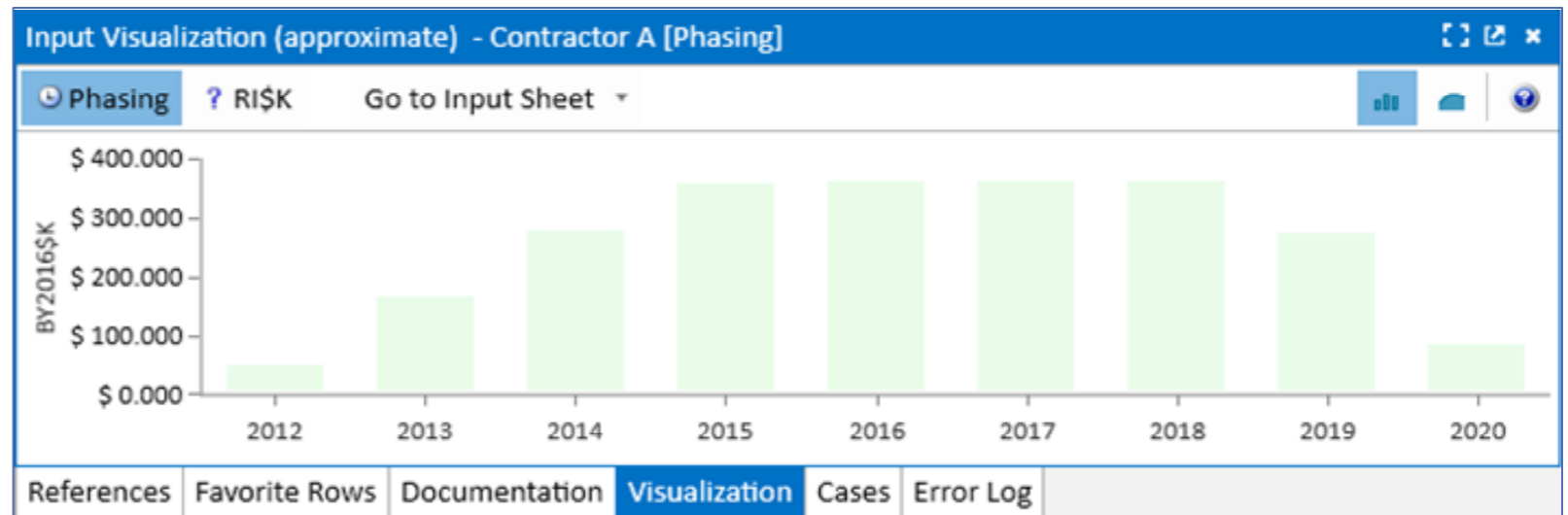
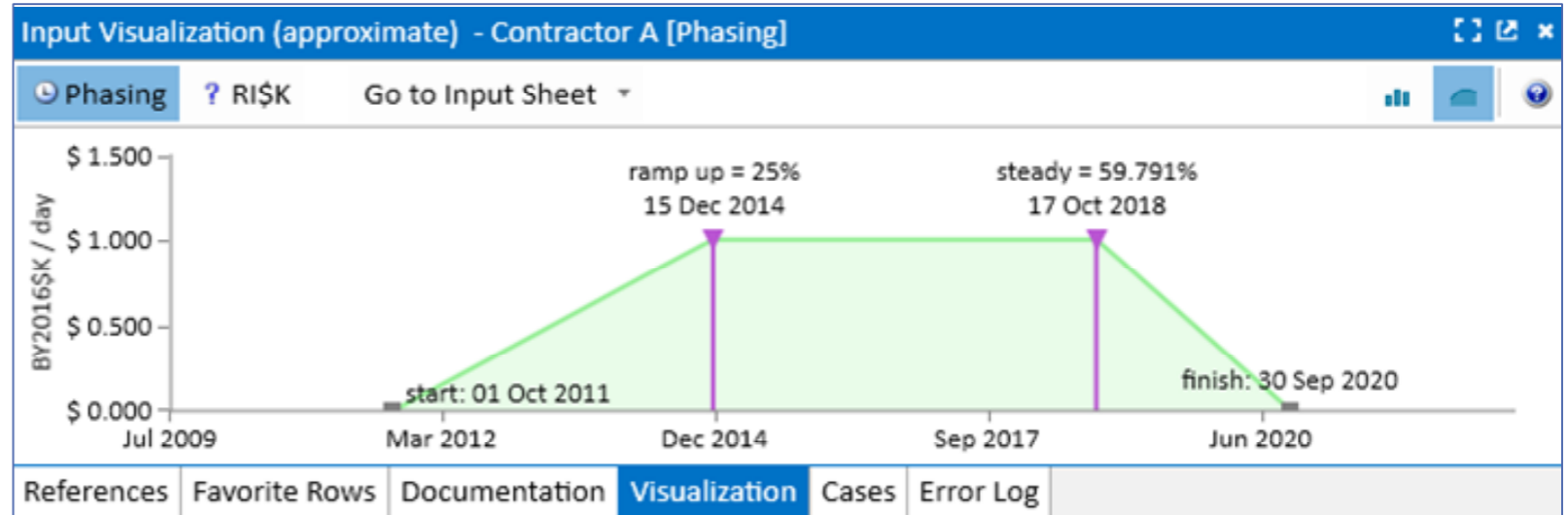
Row Results

Throughputs

Equations

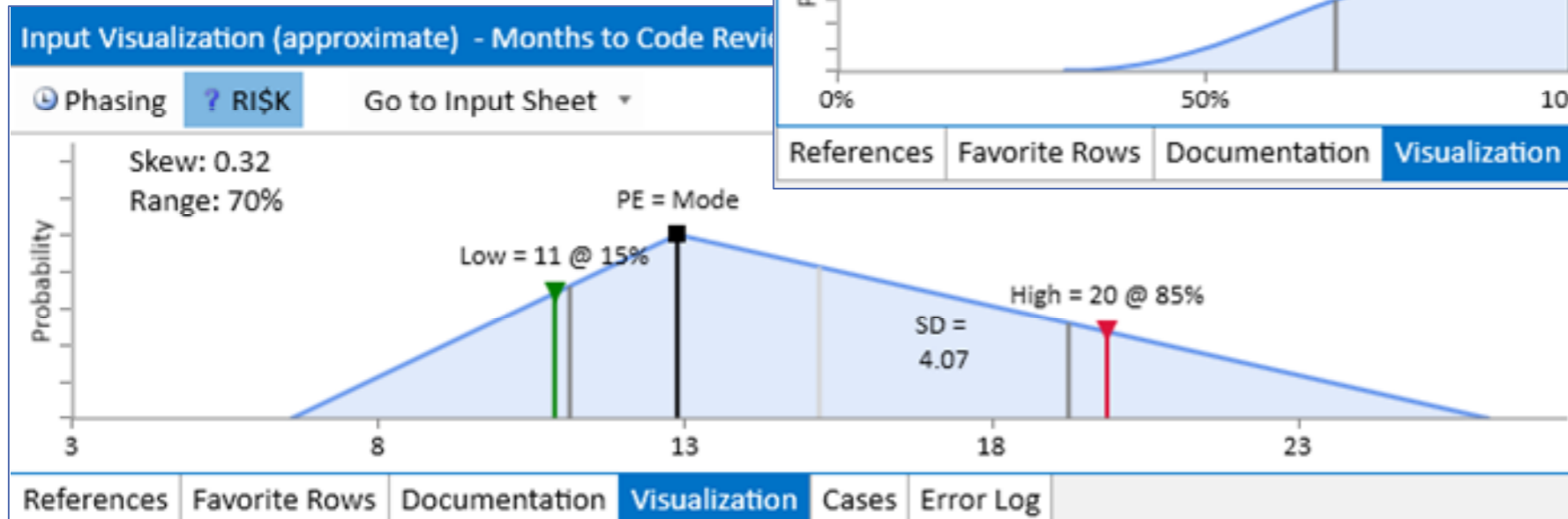
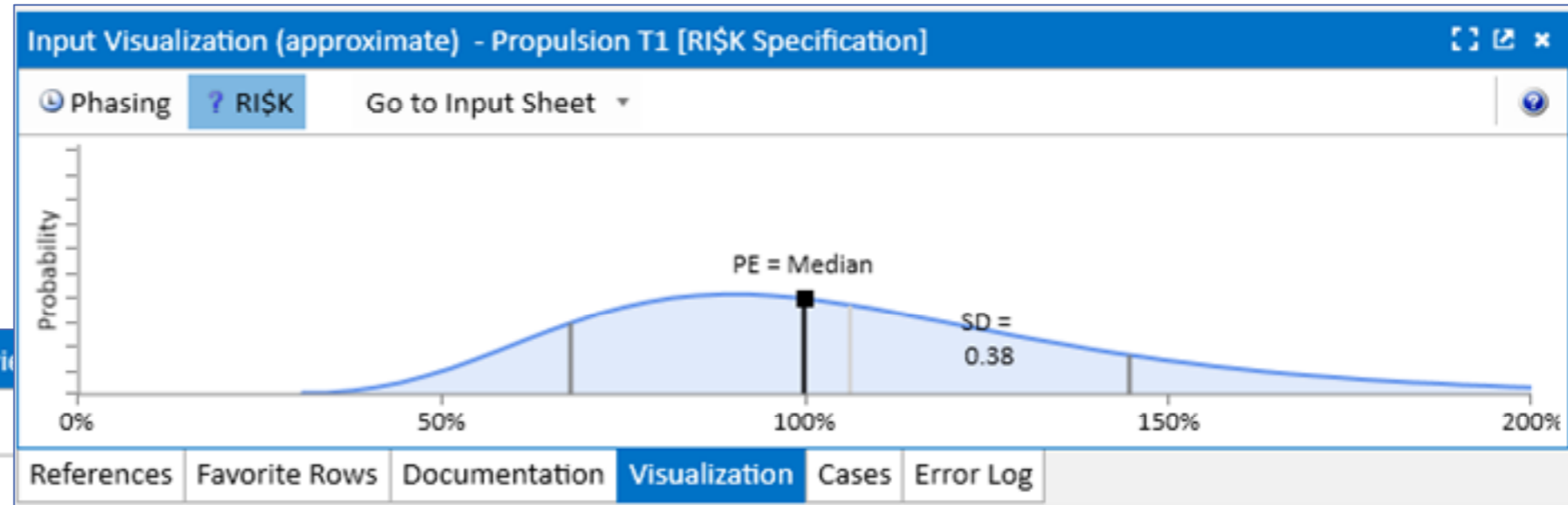
Real-Time Input Visualizations - Phasing

- Improve your understanding of the estimate definition with Input Visualization
 - Visualization pane
 - View shape of the phasing
 - Change the phasing shape by selecting and dragging parameters



Real-Time Input Visualizations – RI\$K

- Visualize uncertainty inputs and change them on the fly



Quick Access to a Variety of Result Views

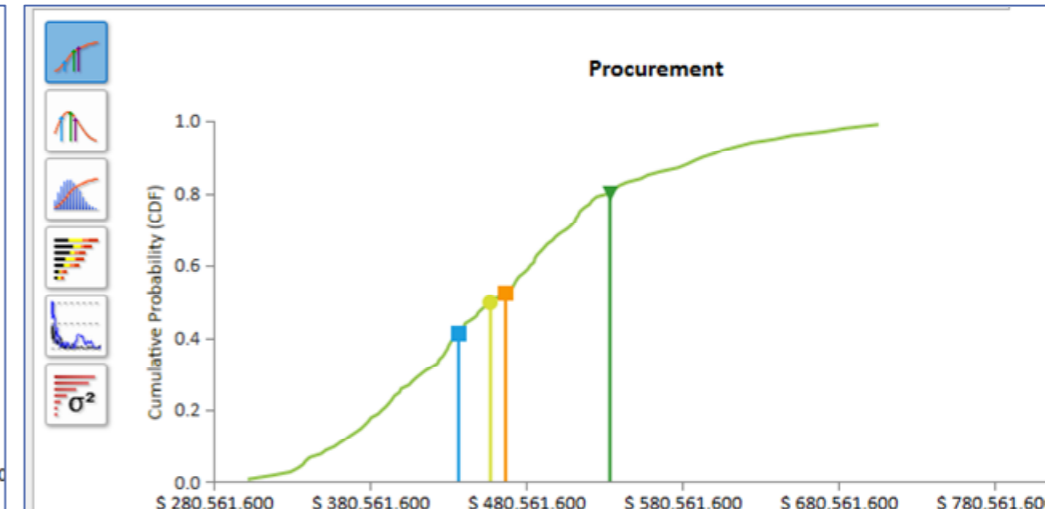
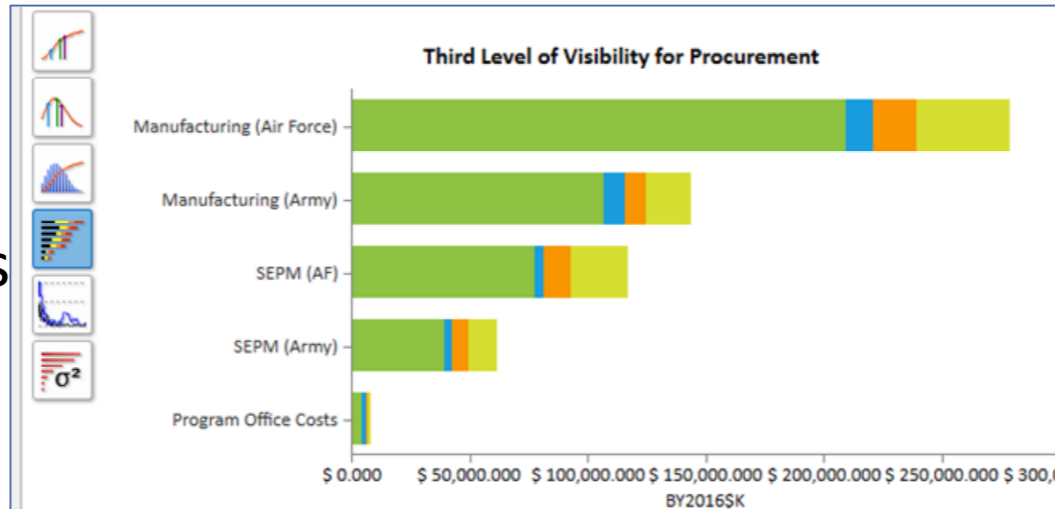
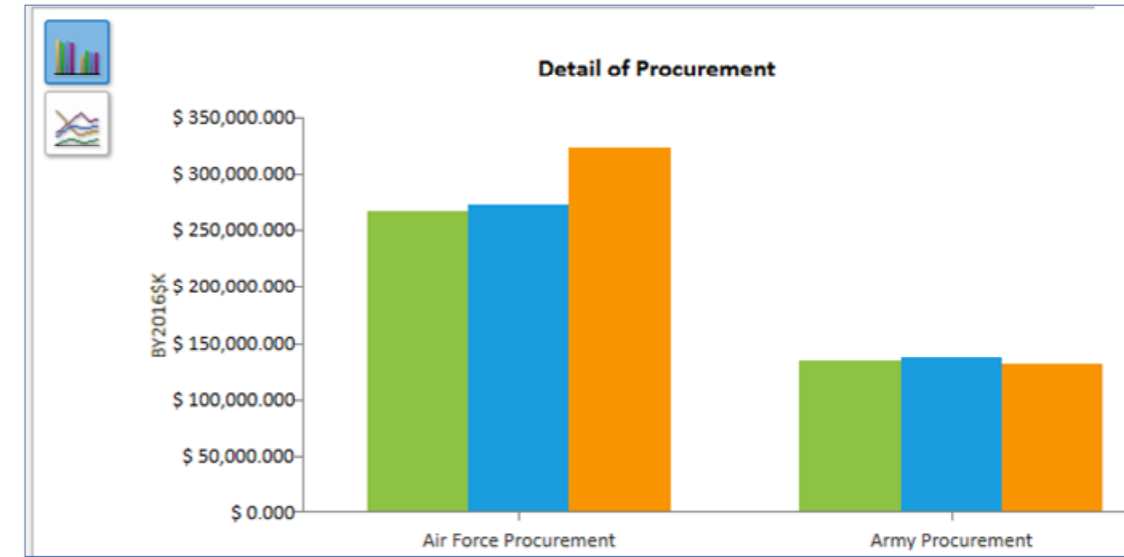
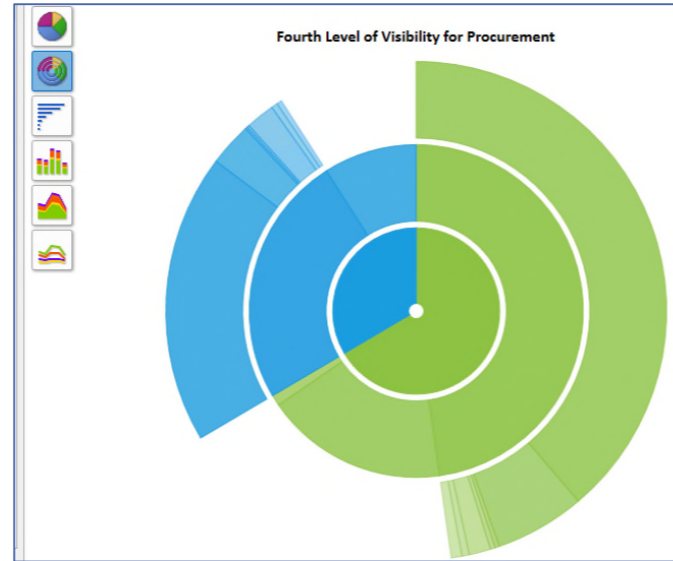
- View phased, total, uncertainty or allocated results in BY, TY, or SY dollars

Row	WBS/CES Description	Total	FY 2011	FY 2012	FY 2013	FY 2014
63	*Estimate					
64	Total	\$ 907,466.992	\$ 8,812.812	\$ 7,267.761	\$ 13,578.674	\$ 36,136.151
65	RDT&E	\$ 63,375.769	\$ 8,812.812	\$ 7,267.761	\$ 13,578.674	\$ 18,074.491
66	Concept Refinement	\$ 1,058.240	\$ 1,058.240			
67	Contractor A	\$ 531.150	\$ 531.150			
68	Contractor B	\$ 527.090	\$ 527.090			
69	Technology Development	\$ 4,710.518	\$ 266.172	\$ 1,250.306	\$ 1,067.636	\$ 285.600
70	Contractor A	\$ 2,355.259		\$ 57.371	\$ 171.485	\$ 285.600
71	Contractor B	\$ 2,355.259	\$ 266.172	\$ 1,192.935	\$ 896.151	

Estimate	Mean	Std Dev	CV	5%	10%	15%		
8. (38%)	\$ 56,214.	\$ 14,910.	0.2652	\$ 35,603.	\$ 38,987.	\$ 41,571.		
4	Manufacturing	\$ 35,166. (48%)	\$ 36,848.	\$ 9,524.	0.2585	\$ 23,471.	\$ 25,801.	\$ 27,393.
5	Air Vehicle	\$ 30,579. (46%)	\$ 32,560.	\$ 8,382.	0.2574	\$ 20,884.	\$ 22,839.	\$ 24,218.
6	Integration & Test	\$ 4,587. (64%)	\$ 4,287.	\$ 1,361.	0.3175	\$ 2,380.	\$ 2,697.	\$ 2,927.
7	SEPM	\$ 13,011. (28%)	\$ 17,520.	\$ 6,808.	0.3886	\$ 8,701.	\$ 9,865.	\$ 10,868.
8	Program Office Costs	\$ 1,841. (50%)	\$ 1,846.	\$ 638.	0.3458	\$ 794.	\$ 1,022.	\$ 1,179.
9								

Quick Access to Robust Charting

- Estimate Charts
 - One case multiple views
- Case Comparative
 - Two or more cases
- Uncertainty
 - CDF, PDFs, Contributors
- Analysis
 - Understand estimate drivers



Built-In Documentation Features

- Store documentation within your estimate files
 - Enter documentation for any cell
 - Create narrative reports from the embedded documentation
 - Manage model-wide documentation for updates and review

The screenshot displays a software interface with a table of WBS/CES items and a detailed documentation panel. A red arrow points from the 'Equation / Throughput' column of the table to the documentation panel.

Row	WBS/CES Description	Point Estimate	Phasing Method	Equation / Throughput
73	Development Engineering	\$ 20,030.041 (47%)		
74	Air Vehicle	\$ 6,665.445 (49%)		
75	Basic Structure	\$ 4,427.036 (50%)	BE	Struc_T1S * NRT1Ratio
76	Navigation/Guidance	\$ 1,534.036 (50%)	BE	425.555 + 25.555 * NavWt
77	Propulsion	\$ 704.373 (50%)	BE	PropMeth * DevDuration * NRPropComplex
78	Ground Station	\$ 7,986.468 (50%)		

Documentation - Navigation/Guidance

Equation / Throughput

LIMITATIONS - This CER yields an "average" cost for a program with "average" problems, "average" technology, "average" schedule and "average" engineering changes. Exercise caution when estimating outside of the range of the data.

CER -

DIS = 425.555+25.555*PCDWT, where
DIS = Total Nonrecurring Electrical Power Supply (EPS) Power Conditioning & distribution (PCD) Suite cost in FY94 \$K excluding fee
PCDWT = EPS PCD Suite Weight (lbs)

DATA RANGE -

	PCDWT
MIN	5.5
MAX	355.5
SAMPLE STD DEV	130.5

Create Unlimited What – if Cases

- Create unlimited number of cases saved in the same file
- Override inputs to view and compare results of alternate scenarios

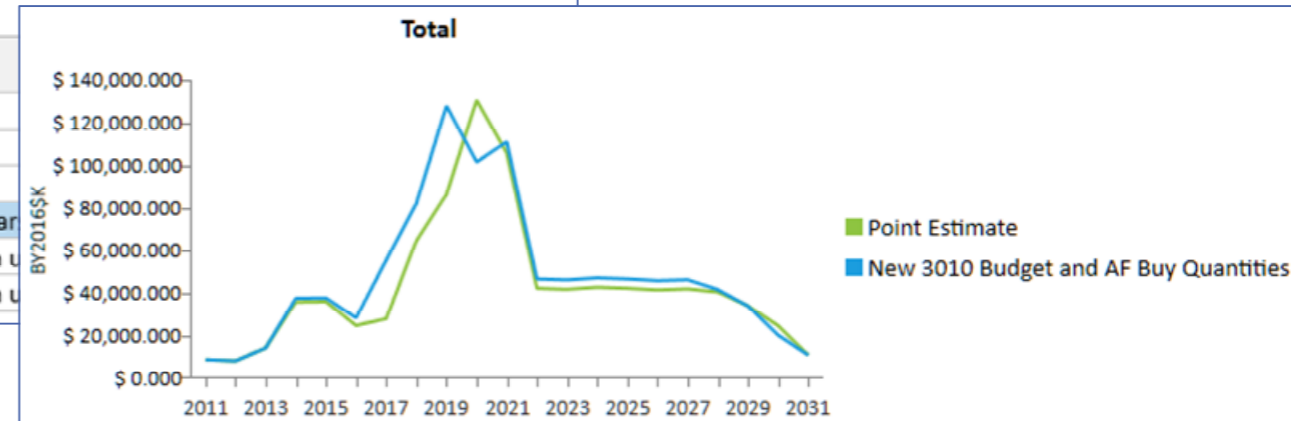
Input Form - Methodology ▾ Input Sheet - Methodology ▾ Results - RISK Statistics ▾ Charts - Estimate ▾ Overrides - Phased ▾

Row	WBS/CES Description	Total	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
231	Total Air Vehicle Buy Quantity	202										
232	Air Force Buy Quantities	145				1	1	2	16	25	50	
233	Low Rate Initial Production	5		0	0	1	1	2	1			
234	Full Rate Production	140						0	15	25	50	25
235	Army Buy Quantities	57						1	1	10	15	15

What happens to the cost if we change the quantities per year?

Cases

Case Name	Compare	Time Last	Description
<input checked="" type="checkbox"/> Point Estimate	<input checked="" type="checkbox"/>	4/2/2019	
<input checked="" type="checkbox"/> Higher Uncertainty	<input type="checkbox"/>		Increased uncertainty on Production inputs
<input checked="" type="checkbox"/> Lower Propulsion Cost Scenario	<input type="checkbox"/>		Override propulsion unit cost with lower cost.
<input checked="" type="checkbox"/> New 3010 Budget and AF Buy Quantities	<input type="checkbox"/>	4/2/2019	Override 3010 Budget row to slip money to later year
<input checked="" type="checkbox"/> Propulsion and OM Mods	<input type="checkbox"/>		Overrides to NREC complexity factor and Propulsion u
<input checked="" type="checkbox"/> Propulsion, Ground Station and OM Mods	<input type="checkbox"/>		Overrides to NREC complexity factor and Propulsion u



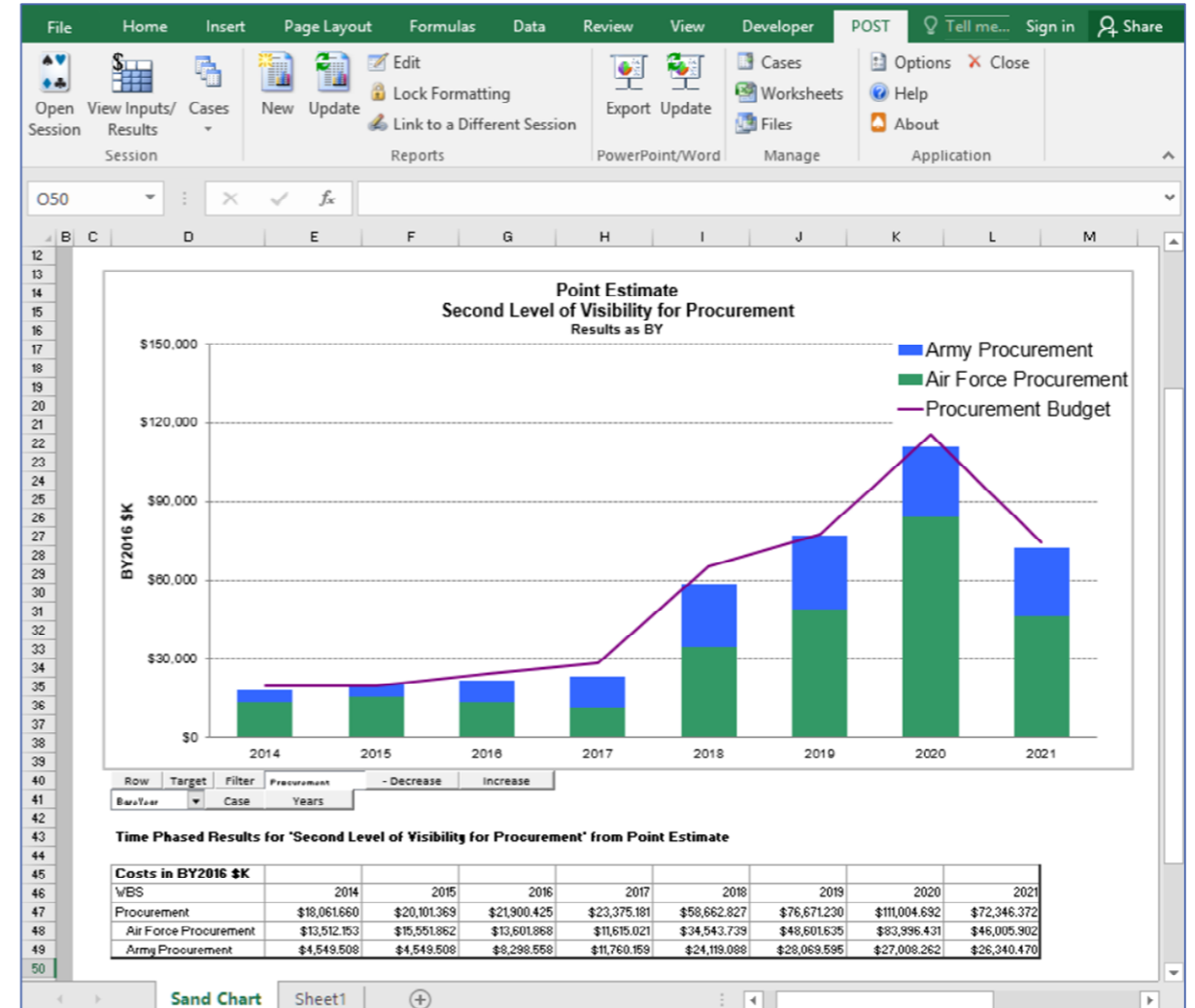


```
private=function(b,b,e){return  
  attr("aria-expanded",!1),  
  ("fade"),b.parent(".dropdown  
  .find("> .active"),h=e&&  
  f).emulateTransitionEnd  
  t=function(){return a.fn.t  
  (e).on("click.bs.tab.data  
  data/"bs.fst.))
```

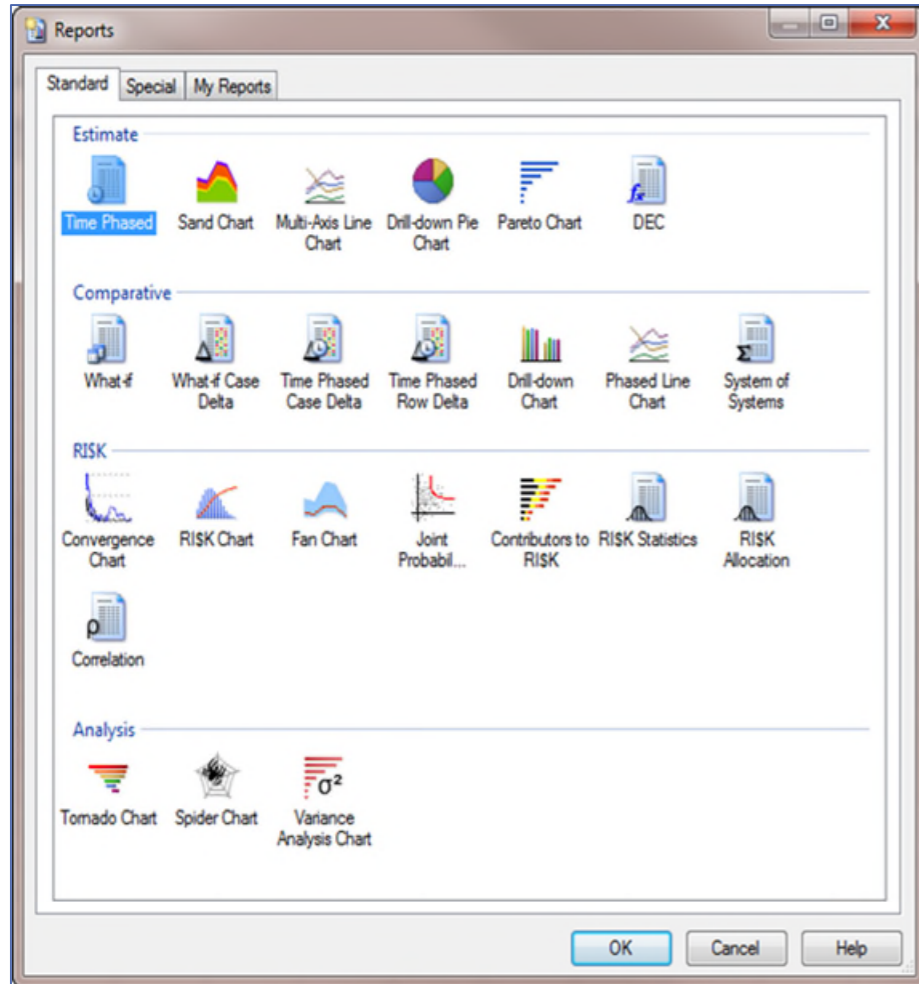
- Excel add-in providing tabular and graphical reports linked to your ACE session
- Create alternative scenario (what-if) estimates
- Graphically identify cost and uncertainty drivers
- Populate and automatically update PowerPoint presentations

POST - Excel Based Add-in

- Easily create, update and manage charts and reports in Excel workbooks
 - Create charts and report for any ACE or POST case
 - Chart and reports saved in individual worksheets
 - Workbook can be shared with other stack holders
 - ACEIT is needed on the machine to manipulate the charts and reports



POST Reports and Charts



• Graphical Charts

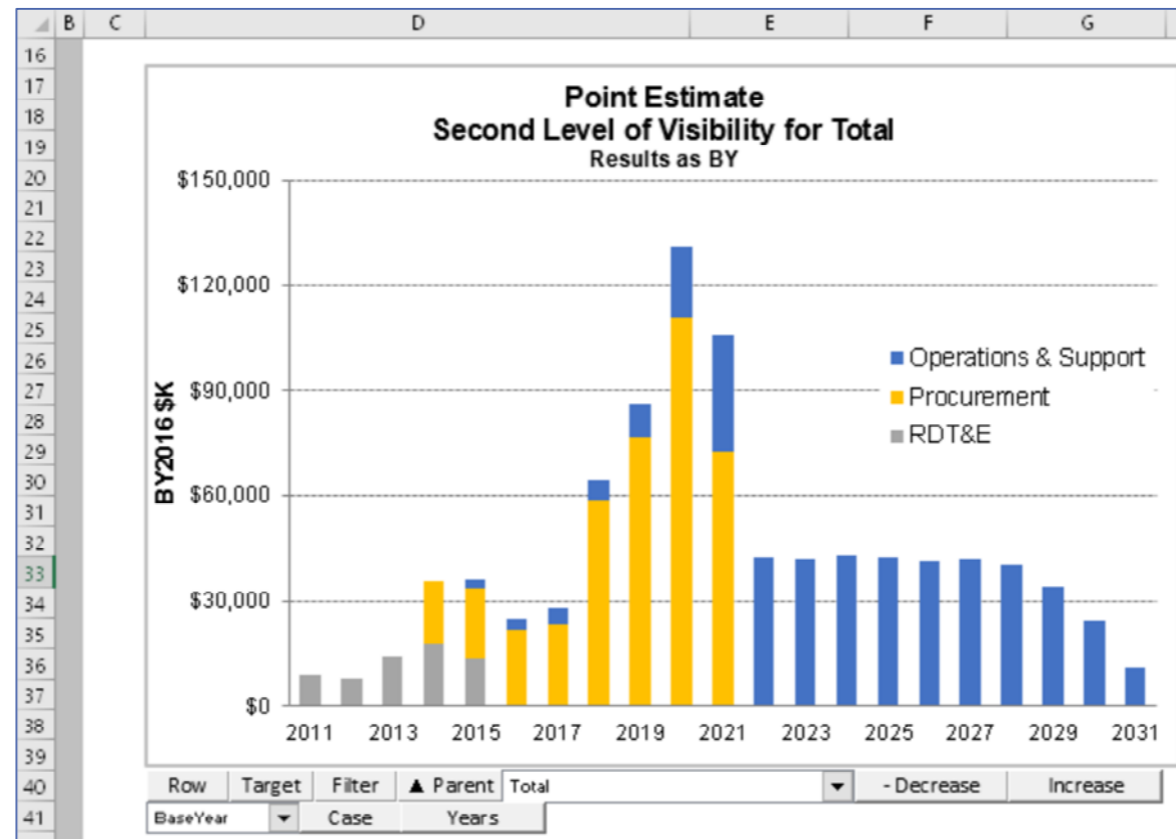
- **Estimate:**
 - Sand
 - Multi-Axis Line
 - Drill-Down Pie
 - Pareto
- **Comparative:**
 - Drill-Down
 - Phased Line
- **RISK:**
 - Histogram/CDF
 - Fan
 - Joint Probability
 - Convergence
 - Contributors
- **Analysis:**
 - Tornado
 - Spider
 - Variance Analysis

• Tabular Reports

- **Estimate:**
 - Time Phased
 - DEC
- **Comparative:**
 - What If
 - What If Case Delta
 - Time Phased Case Delta
 - Time Phased Row Delta
 - System of Systems
- **RISK:**
 - Statistics
 - Allocation
 - Correlation

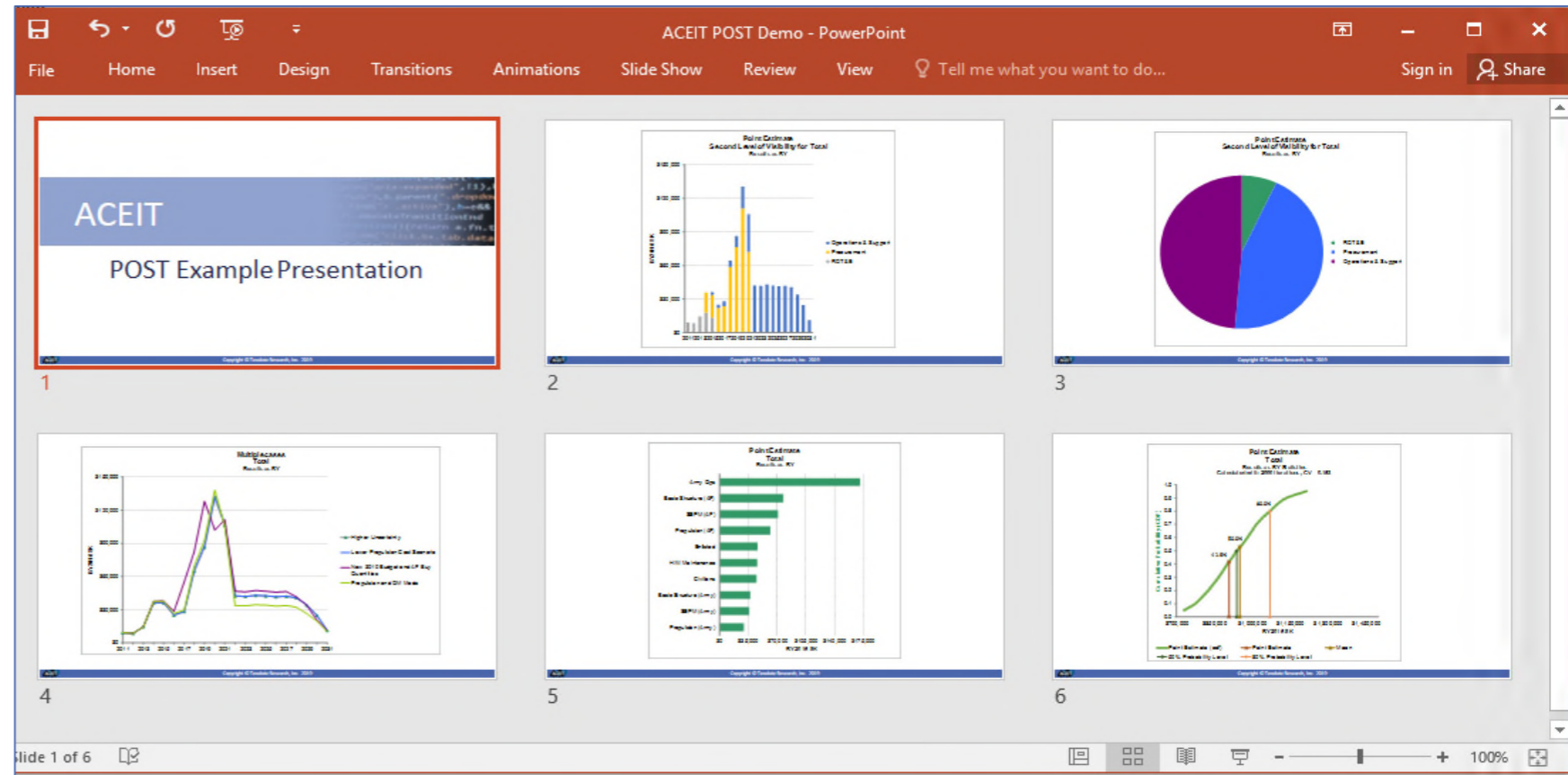
The Benefits of an Excel Add-In

- POST Charts are part of Excel and allow for immense customizability
- POST controls give quick access to chart options and data



Manage and Update Estimate Briefings

- Tell the story of your project
- Export all charts and reports to MS PowerPoint
- Automated Presentation updates
 - Update the POST charts and reports for changes to the ACE session
- Three step process
 - Modify ACE Session
 - Update POST Charts
 - Update PowerPoint

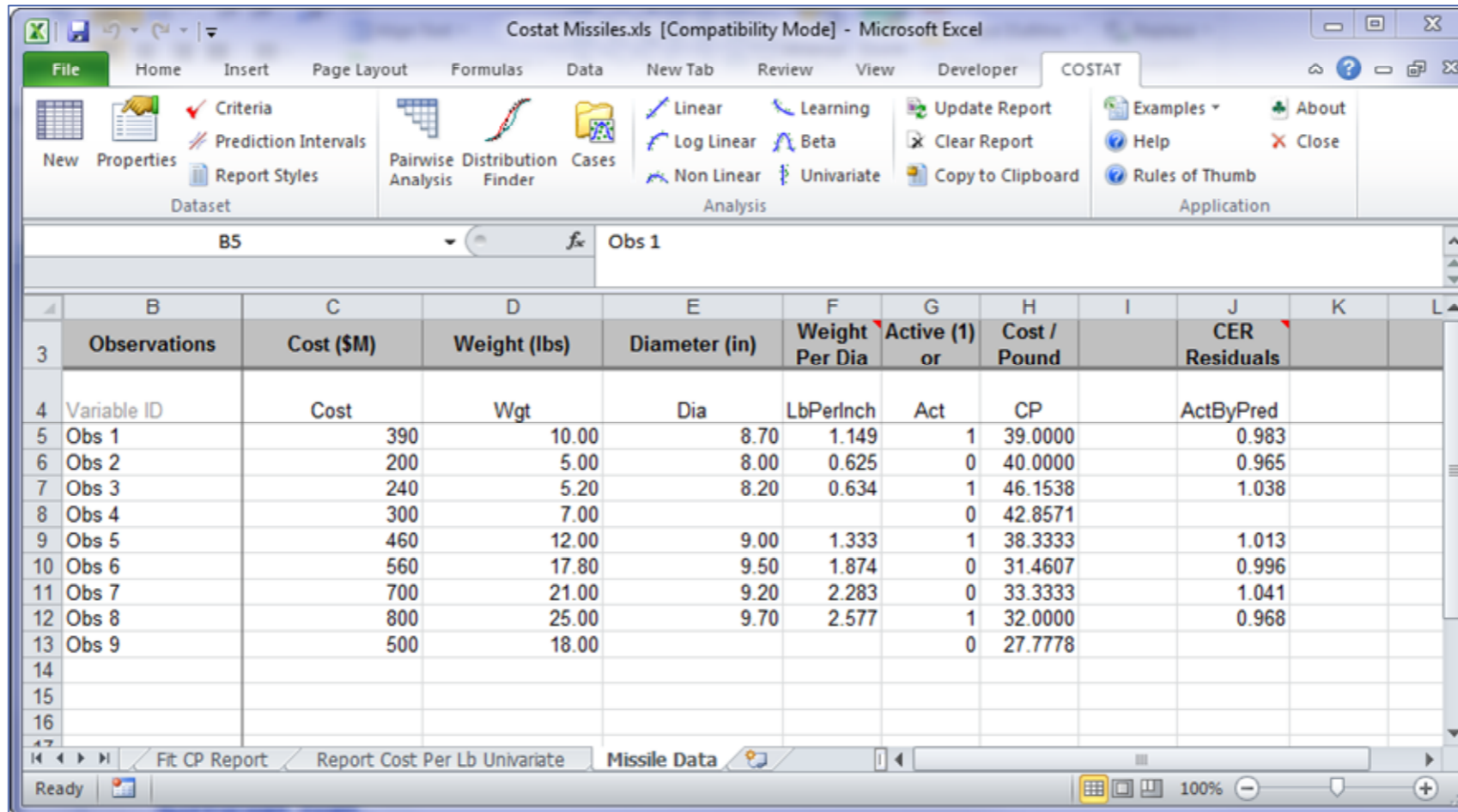




- Statistical analysis tool designed specifically for cost analysis
- Conduct analysis
 - CER development: linear and nonlinear regression, univariate analysis,
 - Learn Curves
 - Beta curve fitting
 - Uncertainty distribution fitting
- Easily exports analyses results to ACE or Librarian

CO\$TAT - Excel Based Add-in

- Datasets easily created, updated, and managed in Excel workbooks

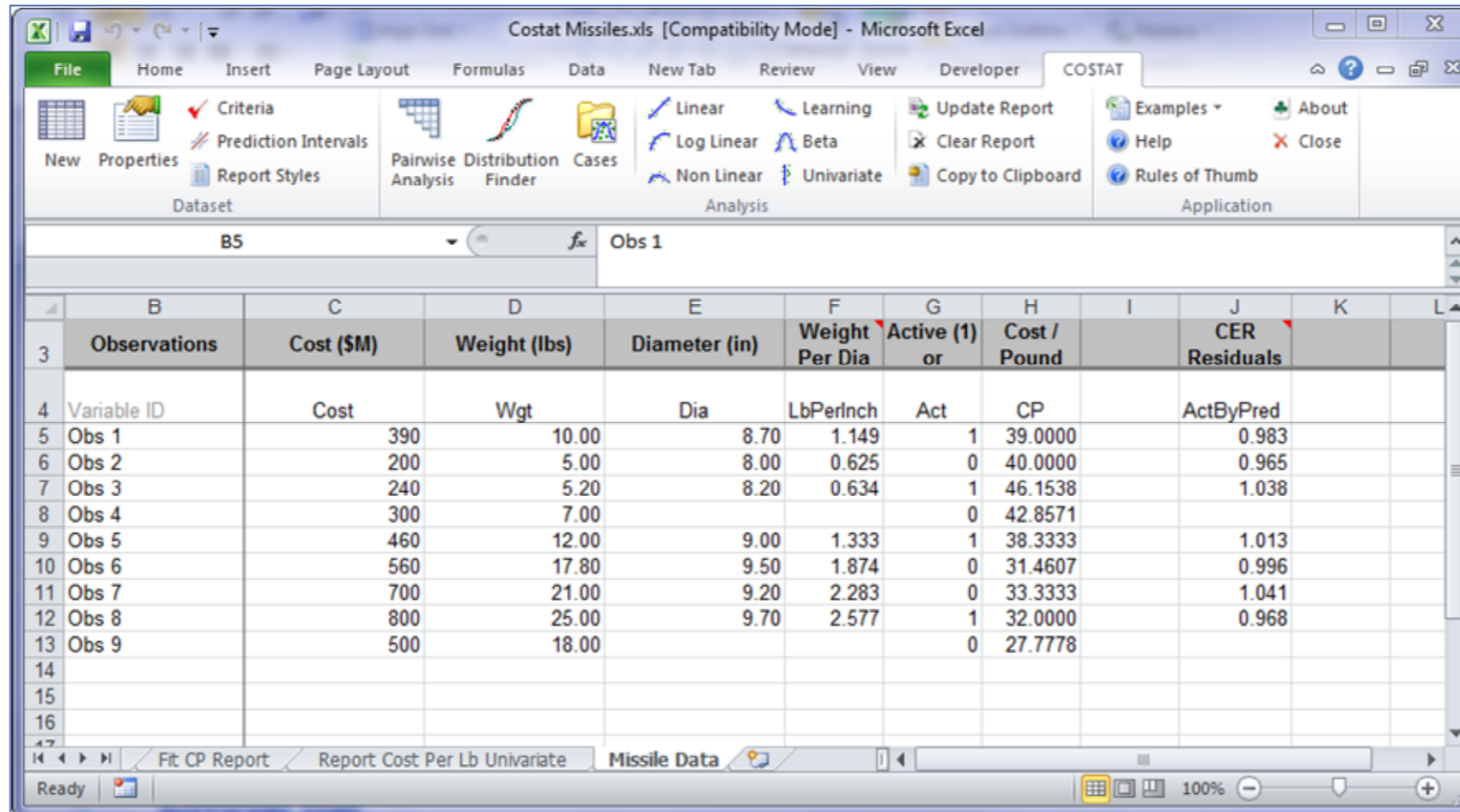


The screenshot shows the Microsoft Excel interface with the COSTAT add-in. The ribbon is divided into three main sections: Dataset, Analysis, and Application. The Dataset section includes options for New, Properties, Prediction Intervals, Report Styles, Pairwise Analysis, Distribution Finder, and Cases. The Analysis section includes Linear, Log Linear, Non Linear, Learning, Beta, and Univariate. The Application section includes Update Report, Clear Report, Copy to Clipboard, Examples, Help, Rules of Thumb, About, and Close. The spreadsheet below shows a table of missile data.

Observations	Cost (\$M)	Weight (lbs)	Diameter (in)	Weight Per Dia	Active (1) or	Cost / Pound	CER Residuals
Variable ID	Cost	Wgt	Dia	LbPerInch	Act	CP	ActByPred
Obs 1	390	10.00	8.70	1.149	1	39.0000	0.983
Obs 2	200	5.00	8.00	0.625	0	40.0000	0.965
Obs 3	240	5.20	8.20	0.634	1	46.1538	1.038
Obs 4	300	7.00			0	42.8571	
Obs 5	460	12.00	9.00	1.333	1	38.3333	1.013
Obs 6	560	17.80	9.50	1.874	0	31.4607	0.996
Obs 7	700	21.00	9.20	2.283	0	33.3333	1.041
Obs 8	800	25.00	9.70	2.577	1	32.0000	0.968
Obs 9	500	18.00			0	27.7778	

Run Analysis

- Select dependent and independent variables as well as analysis options



The screenshot displays the Microsoft Excel interface with the COSTAT add-in. The ribbon includes sections for Dataset, Analysis, and Application. The data table below shows 13 observations with columns for Cost (\$M), Weight (lbs), Diameter (in), Weight Per Dia, Active (1) or, Cost / Pound, and CER Residuals.

Observations	Cost (\$M)	Weight (lbs)	Diameter (in)	Weight Per Dia	Active (1) or	Cost / Pound	CER Residuals
Variable ID	Cost	Wgt	Dia	LbPerInch	Act	CP	ActByPred
Obs 1	390	10.00	8.70	1.149	1	39.0000	0.983
Obs 2	200	5.00	8.00	0.625	0	40.0000	0.965
Obs 3	240	5.20	8.20	0.634	1	46.1538	1.038
Obs 4	300	7.00			0	42.8571	
Obs 5	460	12.00	9.00	1.333	1	38.3333	1.013
Obs 6	560	17.80	9.50	1.874	0	31.4607	0.996
Obs 7	700	21.00	9.20	2.283	0	33.3333	1.041
Obs 8	800	25.00	9.70	2.577	1	32.0000	0.968
Obs 9	500	18.00			0	27.7778	

Comprehensive Statistics

- Statistical results and charts are viewed quickly in a detailed report stored in the Excel workbook

LogLinear 1

Wednesday, 09 April 2014, 1:59 PM

I. Model Form and Equation Table

Model Form:	Unweighted Log-Linear model
Number of Observations Used:	7
Equation in Unit Space:	$LbPerInch = 0.9975 * Wgt^{1.1} * Dia^{(-0.9987)} * 0.9996^{Act}$

II. Fit Measures (in Fit Space)

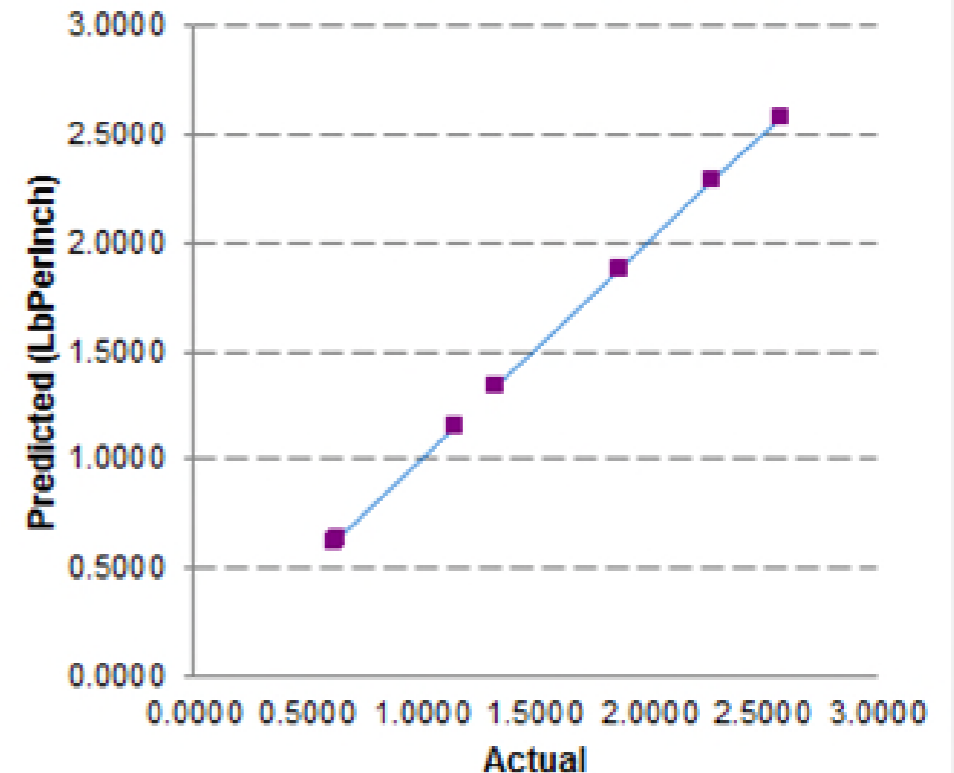
Coefficient Statistics Summary

Variable	Coefficient	Std Dev of Coef	Beta Value	T-Statistic (Coef/SD)	P-Value	Prob Not Zero
Intercept	-0.0025	0.0043		-0.5879	0.5979	0.4021
Wgt	1.0000	0.0003	1.1219	3935.9014	0.0000	1.0000
Dia	-0.9987	0.0023	-0.1257	-442.2979	0.0000	1.0000
EXP_Act	-0.0004	0.0000	-0.0003	-5.1540	0.0142	0.9858

Goodness-of-Fit Statistics

Std Error (SE)	R-Squared	R-Squared (Adj)	Pearson's Corr Coef
0.0000	100.00%	100.00%	1.0000

Actual vs. Predicted (Unit Space)



Compare Metrics for Different Equation Attempts

- View, compare, analyze and export all results from a simple interface

Click here to add filter criteria

Type	Name	Status	Equation	DF	F-Prob	T-Prob Intercept	T-Prob b1	T-Prob b2	T-Prob b3	R² Adj(%)	SE (fit space)
Linear	Linear Weight	Passed Criteria	Cost = 92.93 + 27.39 * Wgt	7	1.0000	0.9802	1.0000			95.6943	42.2261
Linear	Linear Wgt & Dia	Passed Criteria	Cost = 27.85 * Wgt + 10.85 * Dia	5	1.0000		1.0000	0.9890		99.7394	26.6279
Linear	Linear WgtPerInchDia	Passed Criteria	Cost = 46.07 + 289 * LbPerInch	5	1.0000	0.9278	1.0000			98.9361	23.1289
Linear	Linear WgtPerInchDi...	Passed Criteria	Cost = 21.31 + 291.9 * LbPerInch + 3...	4	1.0000	0.8567	1.0000	0.9846		99.7402	11.4293
Log Linear	LogLinear Weight	Passed Criteria	Cost = 64.59 * Wgt ^ 0.7649	7	1.0000	1.0000	1.0000			96.4678	0.0886
Log Linear	LogLinear Wgt & Dia	Passed Criteria	Cost = Wgt ^ 0.572 * Dia ^ 2.133	5	1.0000		0.9999	1.0000		99.9849	0.0748
Log Linear	LogLinear WgtPerInch...	Passed Criteria	Cost = 336.4 * LbPerInch ^ 0.9006	5	1.0000	1.0000	1.0000			98.4181	0.0656
Log Linear	LogLinear WgtPerInch...	Passed Criteria	Cost = 317.7 * LbPerInch ^ 0.9088 *	4	1.0000	1.0000	1.0000	0.9696		99.4649	0.0382
Univariate	Univariate on Cost P...	Passed Criteria	[CP] 36.77	8							1.9950
Distributio...	Fit Cost Per Pound F...	Calculated	CP = Uniform(27.07, 46.47)	0							
Distributio...	Fit CER Residuals	Calculated	ActByPred = Beta(0.3823, 0.4347, 0...	0							
Log Linear	LogLinear 1	Passed Criteria	LbPerInch = 0.9975 * Wgt ^ 1 * Dia ^...	3	1.0000	0.4021	1.0000	1.0000	0.9858	100.0000	0.0001

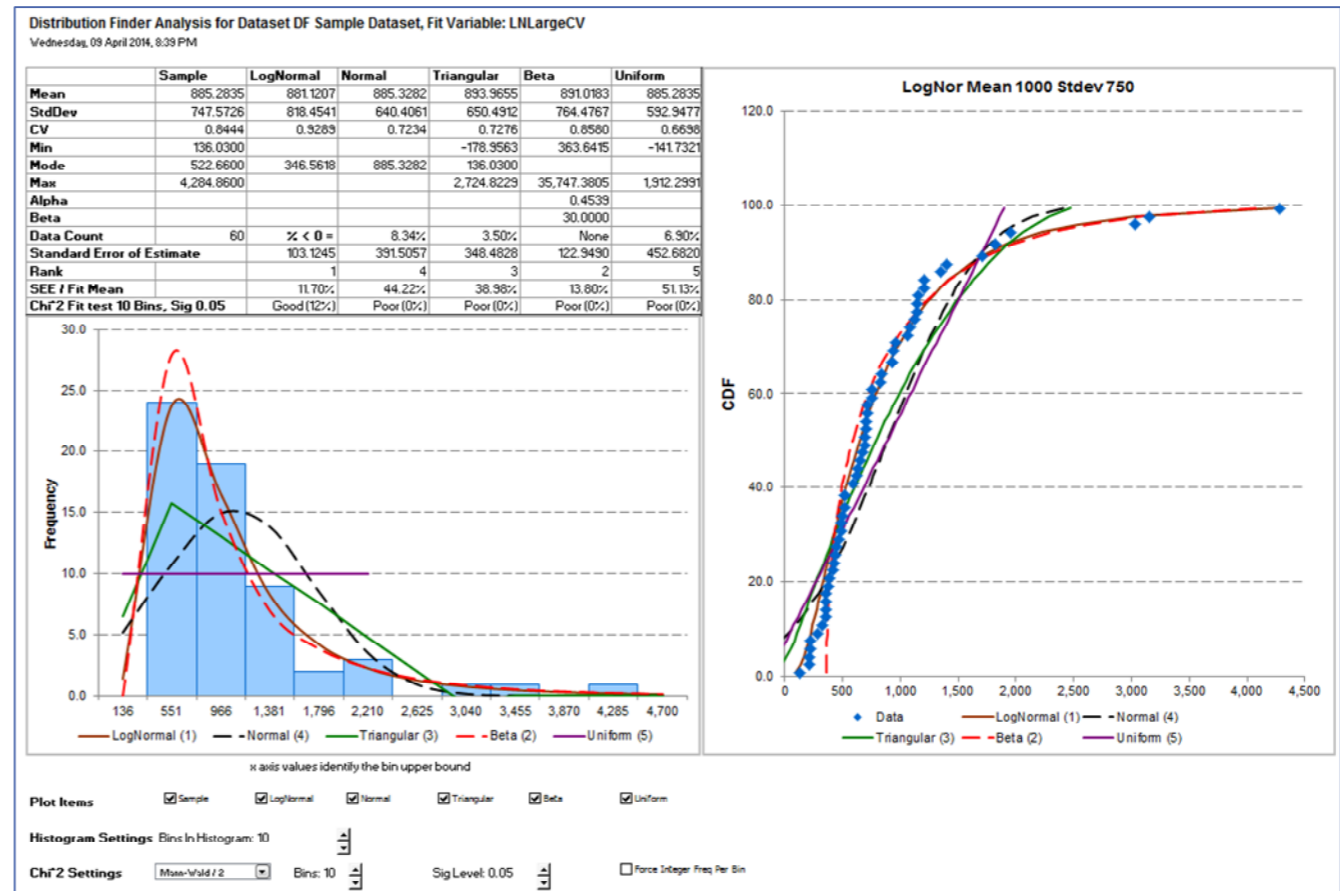
Criteria: Criteria 1

OK Cancel Apply Help

Distribution Finder

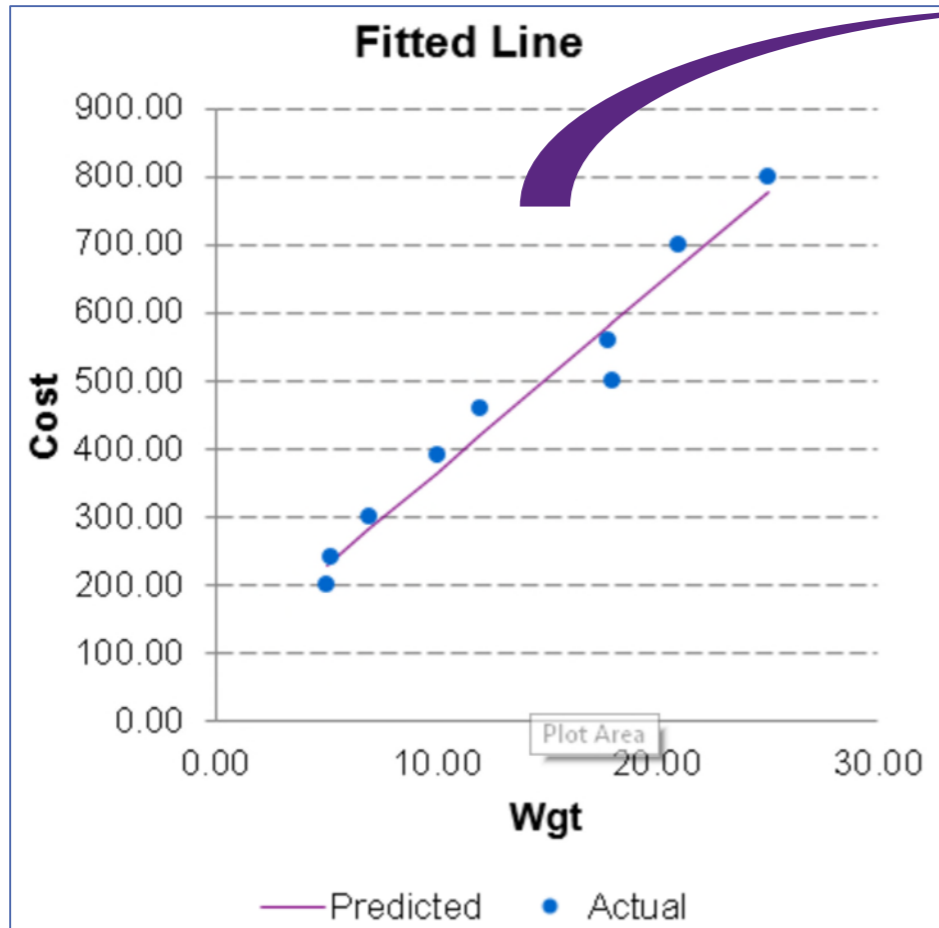
- Analyze the distribution shape of a data set to inform uncertainty analysis

	B	C
		LogNor Mean
	Observations	1000 Stdev
		750
3		
4	Variable ID	LNLargeCV
5	Project 1	353.82
6	Project 2	438.44
7	Project 3	424.04
8	Project 4	934.55
9	Project 5	754.40
10	Project 6	415.07
11	Project 7	473.28
12	Project 8	225.47
13	Project 9	1,129.11
14	Project 10	3,154.59
15	Project 11	1,821.75
16	Project 12	1,959.22
17	Project 13	1,148.85
18	Project 14	
19	Project 15	4,284.86
20	Project 16	492.64
21	Project 17	758.22
22	Project 18	708.66
23	Project 19	714.72
24	Project 20	1,081.27
25	Project 21	210.94
26	Project 22	1,059.59
27	Project 23	1,160.09
28	Project 24	1,714.10
29	Project 25	289.40
30	Project 26	499.08
31	Project 27	936.16
32	Project 28	387.57
33	Project 29	489.42



Export Directly into ACE

- Export CER and uncertainty bounds directly into ACE



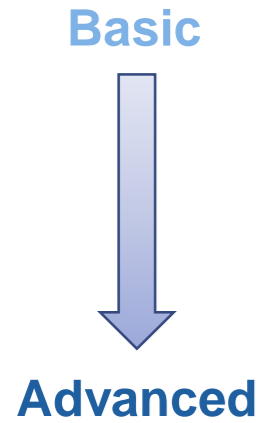
ACE Software Interface - Input Sheet - Methodology

Row	WBS/CES Description	Point Estimate	Phasing Method	Equation / Throughput	Fiscal Year
2	*Estimate				
3	Total	\$ 56,509.678			
4	Manufacturing	\$ 39,906.659			
5	Air Vehicle	\$ 34,701.443	F	AV_UCS*BuyQty	
6	Integration & Test	\$ 5,205.216	F	0.15*AVS	
7	SEPM	\$ 14,765.464	F	0.37*MfgS	
8	Program Office Costs	\$ 1,837.555	TY	[Cost Throughput]	
9					
10	*INPUT VARIABLES				
11	**Production Inputs				
12	*Cost Inputs				
13	Air Vehicle T1	\$ 8,675.361	C	(959*TW^0.243+189*RANGE^0.652)/2	201
14	*Quantity Inputs				
15	Buy Quantity	4.000	IS	[Input Throughput]	
16	*Technical Inputs				
17	Air Vehicle Takeoff Weight	12,000.000	C		12000



- A robust risk analysis add-in tool for MS Project (standalone for Primavera P6 also available)
- A vital program management tool to help keep a program on track and under budget

What is JACS?



- JACS provides three levels of possible integration and analysis
 - Conduct a schedule risk analysis
 - Integrate cost into the schedule risk analysis
 - Perform joint confidence level analysis (uncertain cost/schedule and risk events)

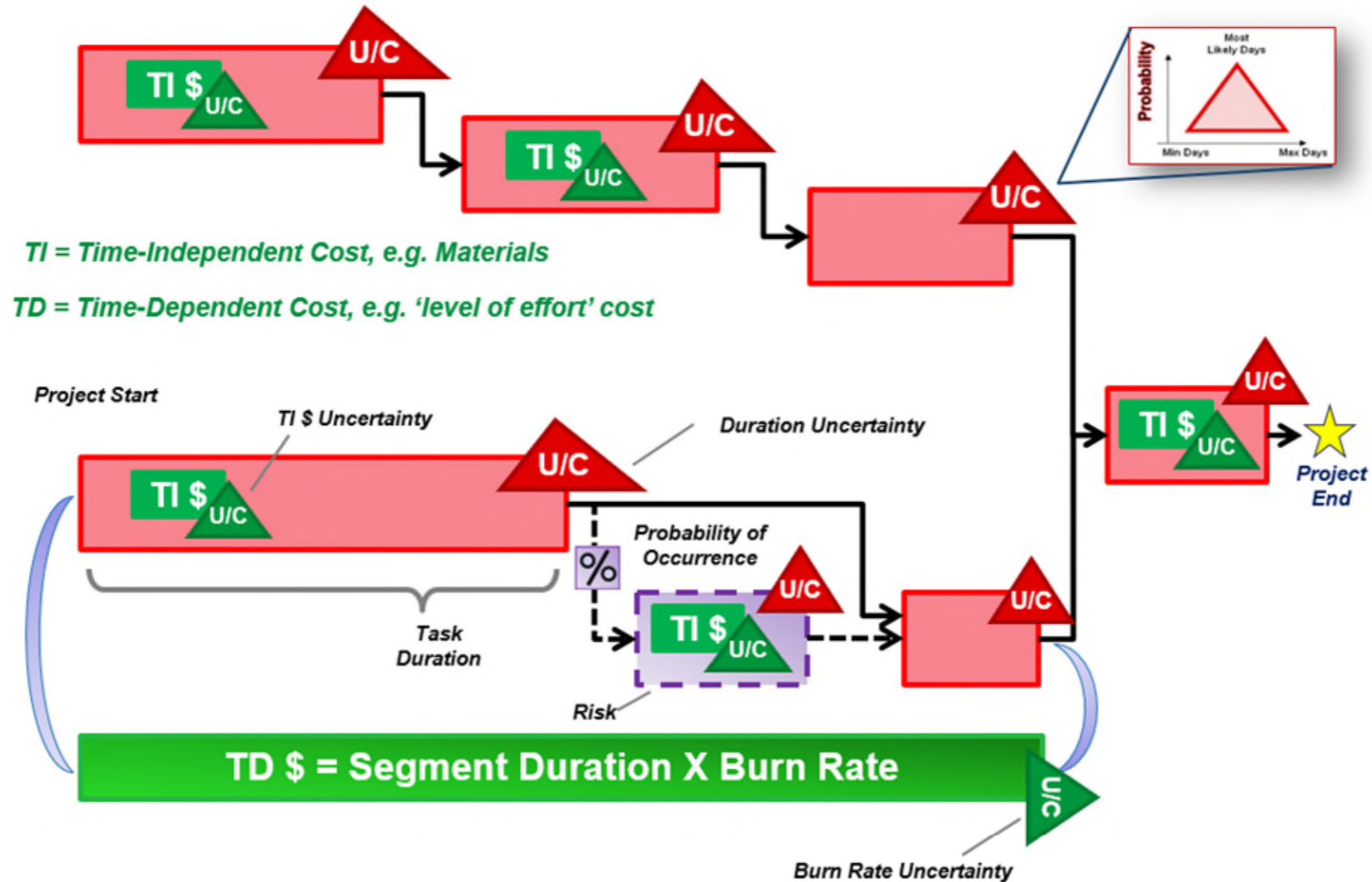


JACS Help Answer Management Questions

- Empowers the analysts to answer key project management questions
 - Are there enough funds to complete the effort by target date?
 - What is the likelihood of completing the effort by target date?
 - What can be done to increase the likelihood of being on-time?
 - If the program slips beyond target end date what is the potential cost overrun and schedule slip?

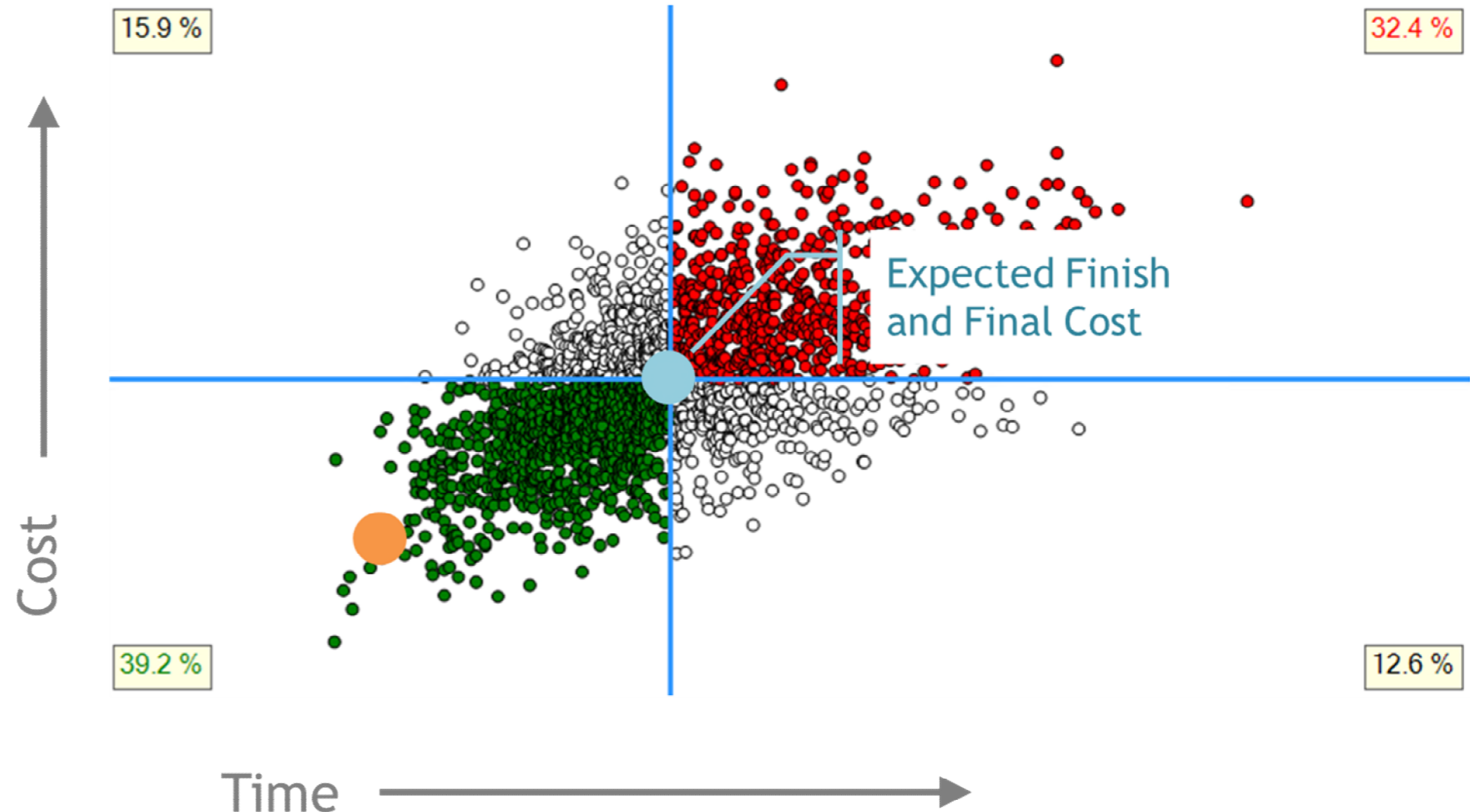
Duration		TI and TD Costs						Risk Events					
Name	Duration	JACS Duration Uncertainty	Cost	JACS Baseline Cost	JACS TI Task Cost	JACS TI Cost Uncertainty	JACS TI Spending Contour	JACS TD Task Cost	JACS TD Cost Uncertainty	JACS Threat ID	JACS Is Threat	JACS Threat % Likelihood	JACS Is Threat Active
[-] Air Vehicle Project	490 days		\$30,920,000.00	\$0.00	\$0.00			\$0.00			No	0	No
[-] Manufacturing	490 days		\$22,000,000.00	\$0.00	\$0.00			\$0.00			No	0	No
Air Vehicle (T1)	180 days	Manu=0.75	\$9,900,000.00	\$9,900,000.00	\$4,400,000.00		Early Peak	\$5,500,000.00			No	0	No
Integration (T1)	90 days	Manu=0.75	\$1,480,000.00	\$1,480,000.00	\$900,000.00		Turtle	\$580,000.00			No	0	No
Air Vehicle (T2)	180 days	Manu=0.75	\$9,200,000.00	\$9,200,000.00	\$5,500,000.00		Early Peak	\$3,700,000.00			No	0	No
Integration (T2)	90 days	Manu=0.75	\$1,420,000.00	\$1,420,000.00	\$860,000.00		Turtle	\$560,000.00			No	0	No
[-] SEPM (Hammock)	490 days		\$8,400,000.00	\$8,400,000.00	\$0.00			\$8,400,000.00	LN*(100,20)		No	0	No
SEPM Start	0 days		\$8,400,000.00	\$0.00	\$0.00			\$0.00			No	0	No
SEPM Finish	0 days		\$0.00	\$0.00	\$0.00			\$0.00			No	0	No
Other	160 days	LN*(95,15)	\$520,000.00	\$520,000.00	\$0.00			\$520,000.00			No	0	No

Integrated Risk & Uncertainty Landscape – the JACS Paradigm



Identify Cost and Schedule Range

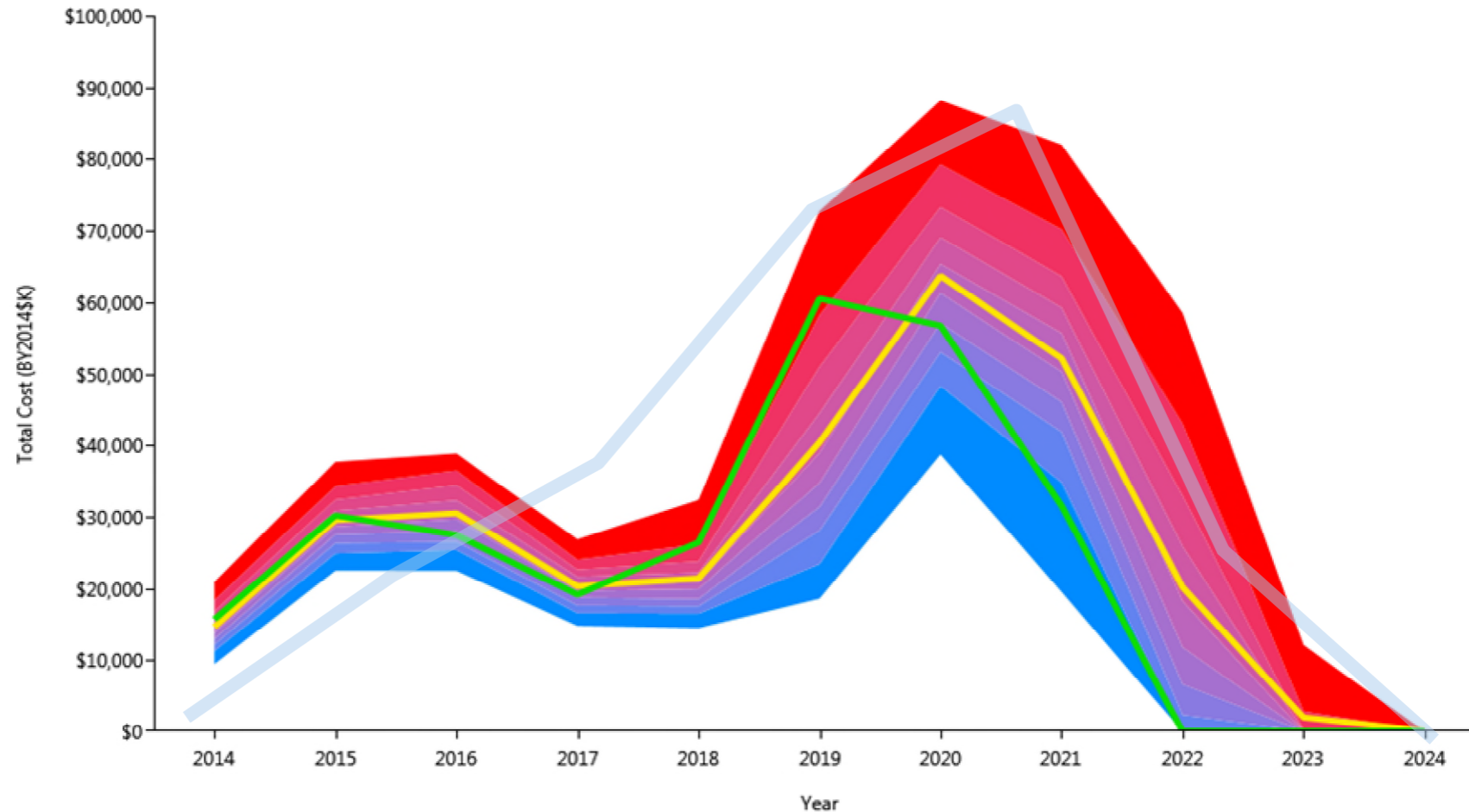
- Understand the confidence level of combine cost and schedule
 - Can you meet the cost and schedule of the program?



Assess Required Funds Over Time

- Graphs assist analyst and managers with understanding funding

Annual Cost Uncertainty
Missile System Project

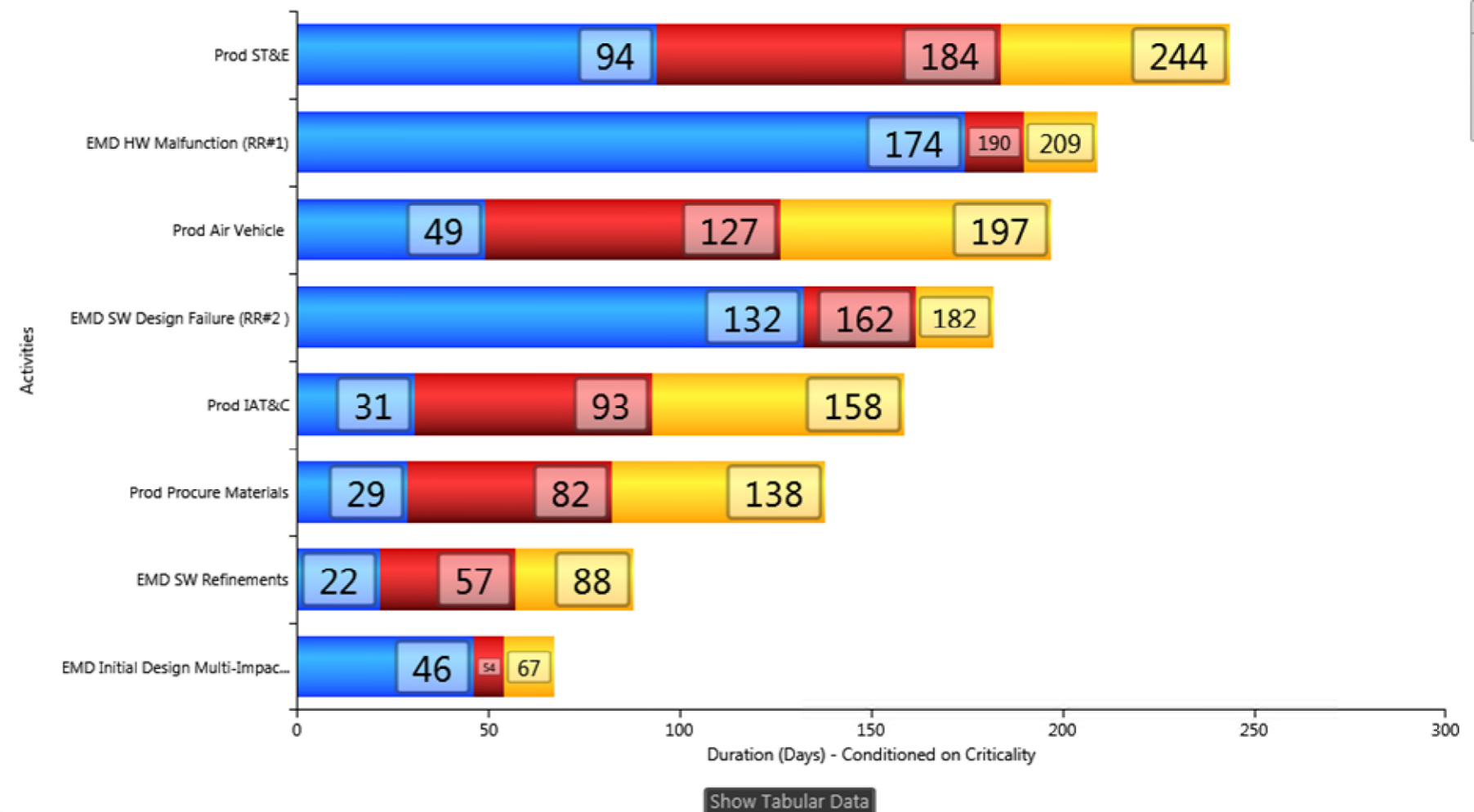


Show Tabular Data

Identify Areas with Highest Potential Impact

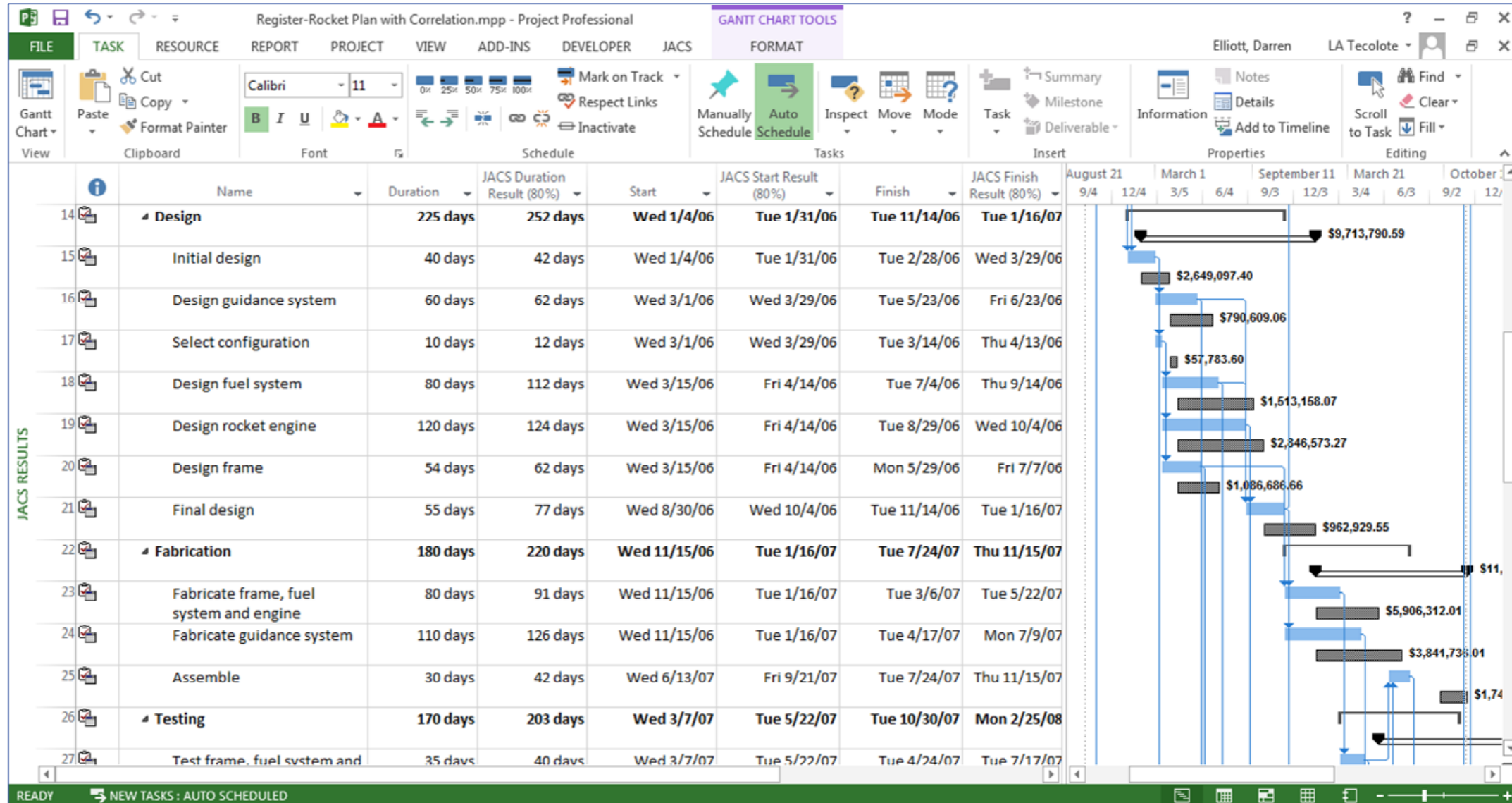
- What items in the project have the most uncertainty or opportunity to mitigate risk?

Duration Tail Contingency Delta from Estimate
Missile System Project



View Risk Adjusted Schedules

- Generate updated schedules with higher confidence of completion



JACS Insight: Dashboard Charting Tool

- Quickly view JACS top level results in dashboard-style format
- Customize the dashboard to your areas of interest



ACEIT Training Classes

- ACEIT offers hand-on training opportunities

ACEIT Training Approach

Tell me and I forget.

Teach me and I remember.

Involve me and I learn.

Benjamin Franklin

- Instructors with real-world experience using ACEIT
- Onsite courses available upon request

ACEIT 8.0 Classes

- ACEIT for Model Builders – 4 days
- ACEIT for Reviewers – 2 days
- ACEIT for Advanced Model Builders - 4 days
- ACEIT for CER Developers: CO\$TAT – 2 day
- ACEIT for Schedules: JACS – 2 days

More Information

- Visit www.ACEIT.com
- Please contact ACEIT Sales
Email: aceit_sales@tecolote.com
Phone: (805) 964-6963