



# ACEIT 8.0: Designed with our Users in Mind

#### Developed by cost analysts for cost analysts

New Model Builders



Experienced Model Builders



Model Reviewers





# Challenges for our Users

New Model Builders



- Getting started
- Learning modeling basics
- Gaining proficiency quickly

Experienced Model Builders



- Modeling efficiently
- Adding model complexity
- Managing model
   performance

Model Reviewers



- Quickly understanding
- Reviewing for consistency
- Validating the modeling approach



# Design and Development Challenges

# A Little History

- ACEIT's basic architecture framework ties back to ACEIT 3.0 from 1996
- ACEIT's file format last revision was with ACEIT 7.0 in 2006

## Preparing for **S** Future

- The architectural framework needed to be updated
- The file format introduced with ACEIT 7.0 is the basis for the ACEIT 8.0 however, it was significantly updated

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Save a back-up copy of your 7.5 file before converting to 8.0



# ACEIT 8.0 Release Summary

- ACE modernization is the focus of ACEIT 8.0
- <u>CO\$TAT</u> includes some added statistical analysis measures
- <u>POST</u> updated for compatibility with new .acex sessions
  - **JACS** includes some calculation engine improvements



ACDB removed from ACEIT:

Independent new web ACDB available to government users in JIAT

This presentation primarily focuses on ACE Consult the ACEIT 8.0 release notes for full details



## ACE 8.0 Complete Rebuild

- New platform: Opened up the potential to implement features not available in the old platform
- New environment: Upgraded the User interface and calculation engine User interface - a mix of Visual Basic and C# using the .NET 4.5 framework Engine - written in Visual C++ 2017
- Complete interface rebuild: Coded all new interface
- Engine: reusing calculation engine code to ensure the results stay the same
- Redesign: Offered the opportunity to relook at features and assess potential new directions



# Opening ACE 8.0

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# We reorganized the workspace to better meet the challenges of our users



# New Workspace Builds off Familiar Elements

## ▲ ACE 7.5

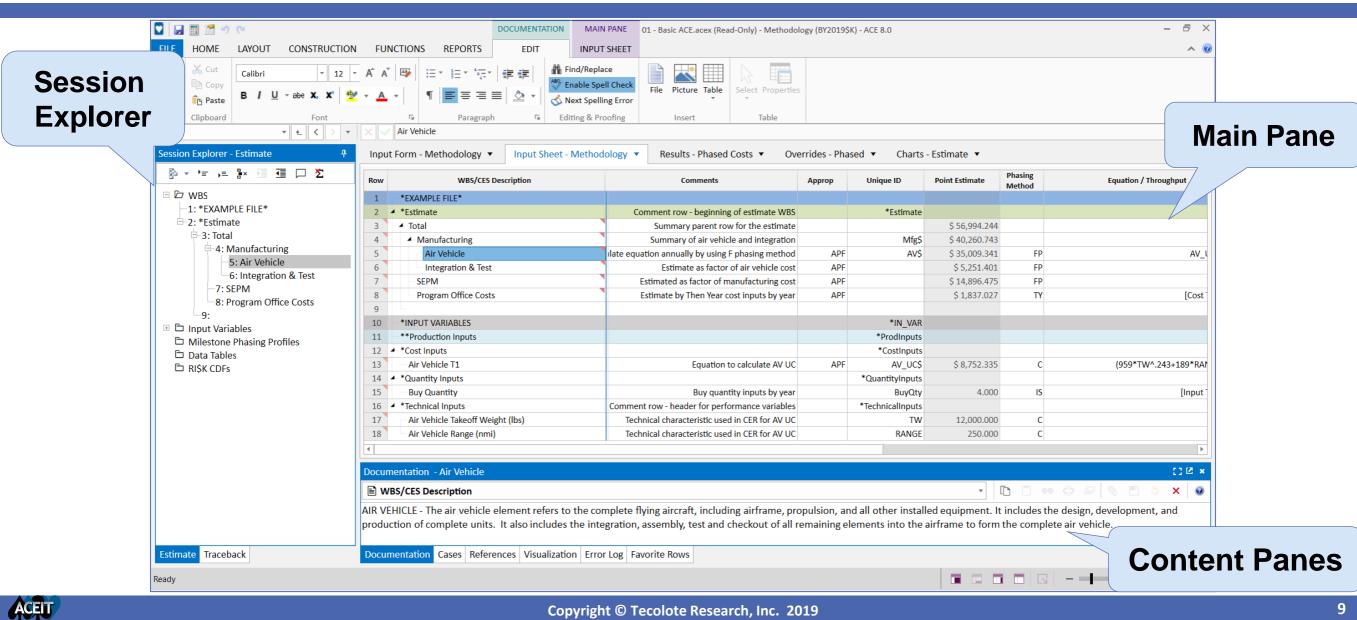
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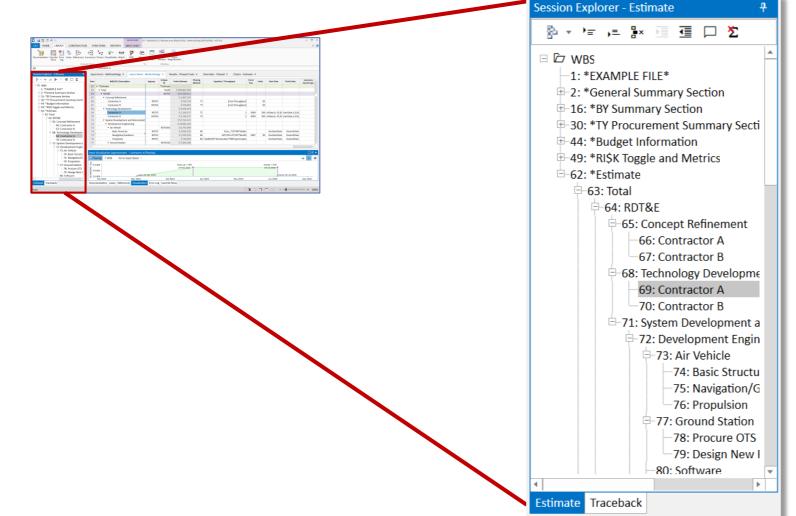
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	6	Integration & Test	Estimate as factor of air vehicle cost	APF		\$ 5,251.401	FP	0.15*AV\$			
	7	SEPM	Estimated as factor of manufacturing cost	APF		\$ 14,896.475	FP	0.37*Mfg\$			
	8	Program Office Costs	Estimate by Then Year cost inputs by year	APF		\$ 1,837.027	TY	[Cost Throughput]		\$K	
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	13	Air Vehicle T1	Equation to calculate AV UC	APF	AV_UC\$	\$ 8,752.335	С	(959*TW^.243+189*RANGE^.652)/2	2015	\$K	
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	18	Air Vehicle Range (nmi)	Technical characteristic used in CER for AV UC		RANGE	250.000	C	250			



## 8.0 Workspace Improves How you "See" the Model



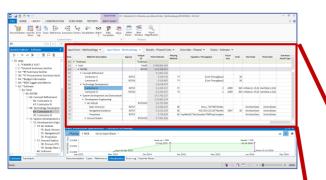
# Session Explorer: Improves Model Navigation



Use the Session Explorer to navigate the model

- Estimate mode
  - View session WBS tree
  - Organize input variables
  - See elements previously hidden: Milestone Profiles and Custom CDFs
  - Build new data tables
- Traceback mode
  - Replaces Traceback Navigator

## Main Pane: Gives Easy Access to Inputs and Results



### Main Pane tabs

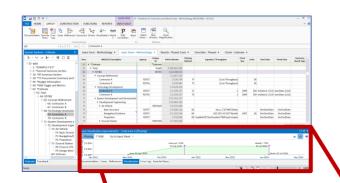
- Input Forms
- Input Sheets
- Results
- Overrides
- Charts

## Combines the functionality of the: ACE Workscreens, Input All Form, Input/Results View and Chart dialog in one flat interface

Row	WBS/CES Description	Approp	Unique ID	Point Estimate	Phasing Method	Equation / Throughput	Fiscal Year	Units	Start Date	Finish Date	Summary A Result Type
62	<ul> <li>*Estimate</li> </ul>		*Estimate								
63	▲-Total		Total\$	\$ 909,863.284							
64	RDT&E		RDTE\$	\$ 63,508.912							
65	<ul> <li>Concept Refinement</li> </ul>			\$ 1,067.220							
66	- Contractor A	RDTEF		\$ 536.734	TY	[Cost Throughput]		\$K			
67	Contractor B	RDTEA		\$ 530.487	TY	[Cost Throughput]		\$K			
68	<ul> <li>Technology Development</li> </ul>			\$ 4,678.474							
69	Contractor A	RDTEF		\$ 2,339.237	TC	2	2009	\$M	artDate,0,-15,0)	StartDate,1,0,0)	
70	Contractor B	RDTEA		\$ 2,339.237	TS	2	2009	\$M	artDate,0,-15,0)	StartDate,1,0,0)	
71	<ul> <li>System Development and Demonstrati</li> </ul>			\$ 57,763.217							
72	<ul> <li>Development Engineering</li> </ul>			\$ 19,681.254							
73	<ul> <li>Air Vehicle</li> </ul>		RDTEAV\$	\$ 6,755.589							
74	-Basic Structure	RDTEF		\$ 4,506.110	BE	Struc_T1\$*NRT1Ratio			DevStartDate	DevEndDate	
75	Navigation/Guidance	RDTEF		\$ 1,532.524	BE	425.555+25.555*NavWt	1997	\$K	DevStartDate	DevEndDate	
76	Propulsion	RDTEF		\$ 716.954	BE	<pre>'ropMnth\$*DevDuration*NRPropComplex</pre>			DevStartDate	DevEndDate	
77	<ul> <li>Ground Station</li> </ul>		RDTEGS\$	\$ 7,503.106							

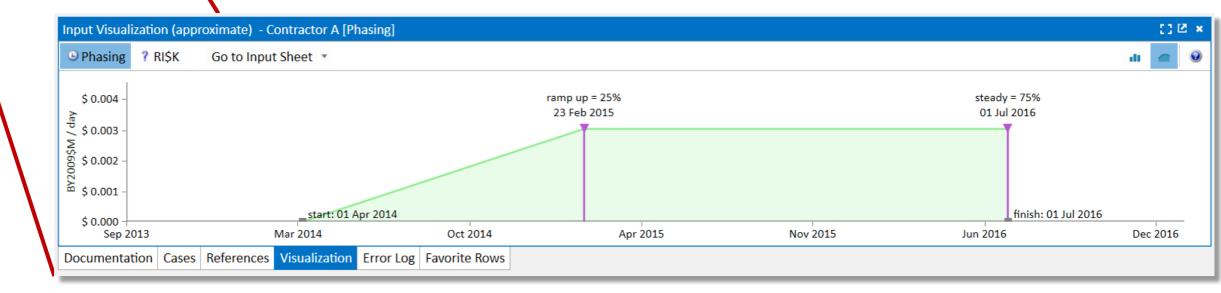


## Content Panes: Provide Model Detail Visibility



### Content panes add insight to the workspace

 Thirteen views covering documentation, visualization, cases, error log, reference rows, driver rows and more





#### 

- New Model Builders may be new to cost analysis, new to ACE or both
- ACE helps analysts learn sound practices and ensures methods are applied properly



# Get Started Quickly with New Session Screen

 $\left( \epsilon \right)$ 

Info
 New

🐸 Open

4

Dotions

Help

🔀 Exit

## Session Settings

- Enter all estimate information and inflation specifications in one location
- Includes Mil Std 881-D templates
- Tailor WBS indenture prior to creating the session

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	Estimate Information				
Initial WBS					
	Program Name: My Program				
Custom WBS	Base Year: 2019				
Aircraft System WBS (881D)	Units: Thousands • Currency: \$ •				
AIRCRAFT SYSTEM WBS (ESH)	First Year: 2019 1 Last Year: 2029				
Army CES Aircraft (881D)	Default Case: Point Estimate				
Army CES AIS Army CES Electronic/Generic (881D)	Politi Estimate				
Army CES Ground Vehicle (881D)	Monthly				
Army CES Missile/Ordnance (881D)	Has Monthly Inputs:				
Army CES Space (881D)					
Army CES Strategic Missile (881D)	System Inflation Table				
ASC SMALL MISSILE/MUNITION SYSTEM					
ASC/RW EW SYSTEMS	Name: US Government Indices for FY 2018 *				
ASC/SM AERONAUTICAL SYSTEMS	As of Date: 14May2018 Year Type: Fiscal Start Month: October				
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DHS IT LCC WBS					
DHS Security System WBS	Enter WBS				
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FAA LIFE CYCLE COSTS	Validate				
FAA Standard WBS version 5.1					
FAA Standard WBS Version 5.2					
FAA1810 WBS					
Create					



# Create Estimates with Guidance from Input Forms

## Use guidance on input forms to select from four methodology types

- Periodic
- Time phased inputs
- Spread total
- Learning Curves

Input Form - Method	ology 🔻 Input Shee	et - Methodology 🔻	Results - Phased C	osts   Overrides - Phas	ed  Charts - I	RI\$K 🔻
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Perio (Yearly/M Calcula or Const	onthly) tion	Time Phased (Yearly/Monthly Inputs	()	Spread Total over Time Calculation		Learning Curve Calculation
Specify an Equation calculated periodically (cost, non-cost)	or a Constant value	ecify time phased cost (BY, non-cost values.	s	cify total value/equation, and h pread it over time using Beta cu bull, Rayleigh, Trapezoid, Perce or Milestone phasing profile.	ntages	ify cost improvement curve ers to calculate learning curve.



# Create Equations and Variables on-the-fly

- Specify the estimating method and enter variables from one location
  - Define new variables
  - Select the variable type
  - Specify a location to store the variable

Input Form - M	Input Sheet - Methodology  Results - Phased Costs  Char	s - Estimate  Verrides - Phased		
Title: Ne Unique ID:	ew Row CES#: WBS#:	PE Value:		$\land \land$
Periodic	Equation/Value 100 Start Date: DevStartDate	「「」 Finish Date:		fx fx
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	Calculat Date Variable   Calculate: Duration Variable  Technical Variable  Factor Variable  Calculate: Duration Variable  Calc	Cost Variable Phased Quantity Var	riable ≯	
	Choice Variable > General Variable >	Total Quantity Varia	ble ⊦	
		Date Variable	×	New Section (*Milestone Dates)
		Duration Variable	•	Other Sections
		Technical Variable	•	
		Factor Variable	•	
		Choice Variable	•	
		General Variable	•	



## Model Basic Elements from Relevant Data

View the equation and all variables in one view

- Session Explorer: shows
   the WBS row
- Input Form: shows the equation and phasing

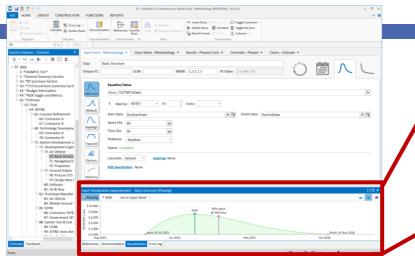
ACEIT

 References Pane: shows all the variables used in the row's calculation

Documentation Favorite Error Rows Log	ssors Drivers Visualization Watch RISK More 1 Correlation * Select New 2 Panes * Window Mag	Poom	- C × ^ @
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74 • £ < > • ×			
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-69: Contractor A	Time (%): 40 ID		
-70: Contractor B	Peakness: Medium v		
⊡-71: System Development a	Trapezoid Statuce Complete		
-73: Air Vehicle	Status: Complete		
74: Basic Structu	Calculate: Annual		
-75: Navigation/G	Percent		
-76: Propulsion	RI\$K Specification: None		
-78: Procure OTS			
-79: Design New I	Milestone		
-80: Software			
-81: Int & Assy	ferences - Rows used by Basic Structure		() 🖻 🗙
-82: Prototype Manufac -83: Air Vehicle	🕈 📖 🔶 S <sub>.00</sub> III 🗸 🗸	Show 0	Column References 🛛 🥹
-84: Mobile Ground 4	w WBS/CES Description	Approp Unique ID Equation/Value Result Fiscal Units	Used In
⊟-85: SEPM		Year	
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	173 Development End Date		inish Date
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	eferences Documentation Visualization Error Log		

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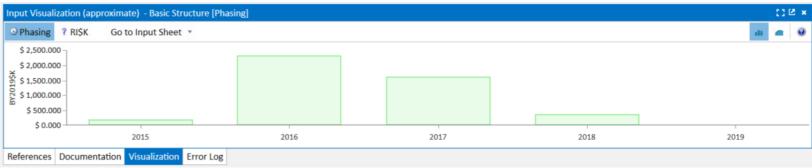
# Better Understand Phasing and RI\$K Inputs

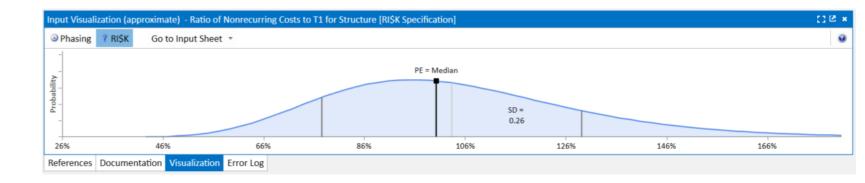


## Improve your input understanding with data visualizations

- View the shape of the phasing and uncertainty
- Explore phasing adjustments by selecting and dragging parameters

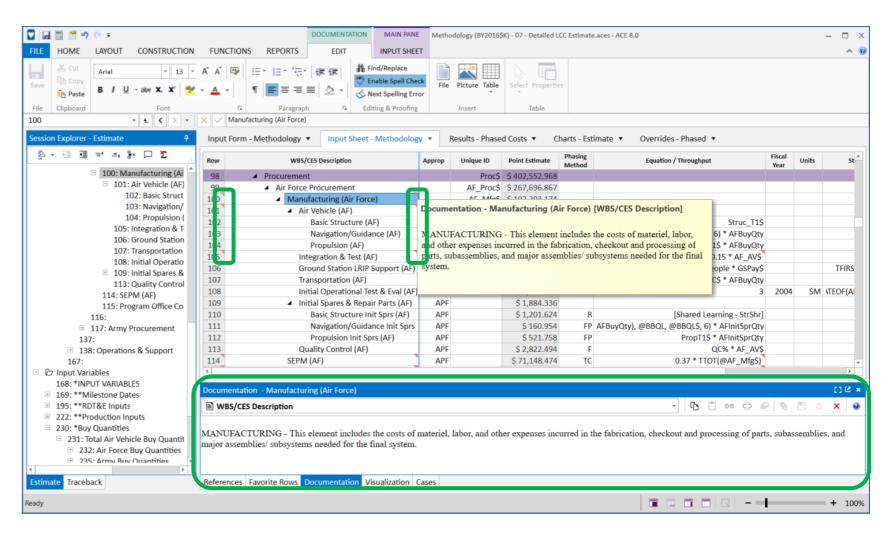






# Store Documentation within your Estimate Files

- Enter documentation for any cell
- View Cell
   Documentation in the
   Content Pane





# Quickly Create Cases and See Model Results

Base Year  Point Estimate Results Type Calculate Calculate 64	MAIN PANE     07 - Detailed LCC Estimate.accs - Results (B       CTIONS     REPORTS     RESULTS       Defined At <level 2="" elements="" wbs="">        ☐ From     2011       Phasing Profile     Prorate        ☐ To     2033       Ions     PE Percent Adj.        ④         %       ☐ Include Prior / To Con RIŞK Allocation Options</level>	Select Months column columns	<ul> <li>Create what-if cases</li> <li>Specify case overrides</li> </ul>
Session Explorer - Estimate 4	Input Form - Methodology  Input Sheet - Methodology  Row WBS/CES Description  A *Estimate  A * Total  Contractor A Concept Refinement Contractor A Contractor B C	FY 2011         FY 2011         FY 2012         FY 2013         FY 2015         FY 2016         FY 2017         <	• View phased results
-72: System Development and Demc     -73: Development Engineering     -74: Air Vehicle     -75: Basic Structure     -76: Navigation/Guidance     -77: Propulsion     -79: Procure OTS Parts     80: Design New Parts     81: Software     82: Int & Assy     -83: Prototype Manufacturing     -84: Air Vehicle     -85: Mobile Ground Station     -86: SEPM     -87: Contactor SEPM     -89: System Test & Eval     -90: DT&E     -91: IOT&E (now done with Lf     -92: Test Facilities     -93: Industrial Facilities	70       Contractor A         71       Contractor B         72       4 System Development and Demonstration         73       4 Development Engineering         74       4 Air Vehicle         75       Basic Structure         76       Navigation/Guidance         77       Propulsion         78       4 Ground Station         79       Procure OTS Parts         80       Design New Parts         81       Software         82       Int & Assy         83       4 Prototype Manufacturing         84       Air Vehicle         85       Mobile Ground Station         86       - SEPM	\$ 2,355 259       \$ 181954       \$ 1,193.140       \$ 980.166       Image: Constraint of the second seco	ology  Input Sheet - Methodology  Results - Phased Costs  Charts - Estimate  Comparative RISK Analysis  RDT&E Procurement Operations & Support
94: Construct/Convers/Expar 95: Equip ACQ/Modern (Gov 96: Other Government Costs 97: 98: Procurement 99: Air Force Procurement 99: Air Force Procurement 90: Manufacturing (Air Force) Estimate Traceback	Case Name     Compare     Time Last Calculation       Point Estimate     3/21/2019 5:3       Higher Uncertainty     3/21/2019 5:3       Lower Propulsion Cost Scenario     3/21/2019 5:3       New 3010 Budget and AF Buy Quantities     3/21/2019 5:3       Propulsion and OM Mods     5       Propulsion, Ground Station and OM Mods     5       References     Favorite Rows     Documentation       Visualization     Cases     Error	Ilated         Description         Overridden Row           2:16 PM         0           Increased uncertainty on Production inputs         4           Override propulsion unit cost with lower cost.         4           Override 3010 Budget row to slip money to later         3           Overrides to NREC complexity factor and Propuls         8           Overrides to NREC complexity factor and Propuls         11	+ 100%

ACEIT

# ACE 8.0 Helps Experienced Users

- Experienced Model Builders have built estimates with ACE
- Experienced users utilize ACE to produce quality estimates and to be more productive



# **Configurable Workspace**

Tailor Workspace to your needs: Arrange panes on multiple monitors



Open multiple instances of ACE to easily compare model results



# Enhanced User Experience

New capabilities promote efficiency

- Drag and drop rows
   between panes
- Use Equation Auto-Complete within the Input Sheet
- View information in Input Sheet and References simultaneously
- Arrange Panes and Zoom
- Right-click menus

ACEIT

FILE HOME LAYOUT CONSTRUCTION	ELING	MAIN PANE 07 -	Detailed LCC	Estimate.ac	ex (Read-Only) -	Methodology (B	Y2019\$K) - ACE 8.0					- 🗆 ×
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Session Explorer - Estimate 7	Input (	Form - RI\$K   Input Sheet - Methodol		Poculto Di	nased Costs 🔻	Overrider	- Phased  Charts - Estimate					
	Row	WBS/CES Description	Approp	Unique ID	Point Estimate	Phasing Method	Equation / Throughput	Fiscal	Units	Start Date	Finish Date	Summary *
-2: *General Summary Section	74	Basic Structure	RDTEF	ID	\$ 4,506.		Struc T1\$*NRT1Ratio	Year		DevStartDate	DevEndDate	Result Type
E-16: *BY Summary Section	75	Navigation/Guidance	RDTEF		\$ 1,532.		425.555+25.555*NavWt	1997	ŚK	DevStartDate	DevEndDate	
B-30: *TY Procurement Summary Secti	76	Propulsion	RDTEF		\$ 716.		ropMnth\$*DevDuration*NRPropComplex	1557	ψı,	DevStartDate		
⊕-44: *Budget Information	77	Ground Station	norter	RDTEGS\$	\$ 7,503.		replandiç bevbaladını martopeonipiex			Devolution	Devenubute	
	78		RDTEF	NDTE039	\$ 976.		GSUC\$*GndStatQty fx			+D-+- 0.0 120)	StartDate 0.20)	
⊡-62: *Estimate		Procure OTS Parts									StartDate,0,30)	
₽-63: Total	79	Design New Parts	RDTEF	DOTECHUĆ	\$ 6,526.		Row 209 (\$ 488.10	8}			StartDate,0,30)	
-64: RDT&E	80	Software		RDTESW\$	\$ 3,283.		Ground Station Un				SWDevEndDate	
-65: Concept Refinement	81	Int & Assy	RDTEF		\$ 2,138.		.15*(TTot(@RDTEAV\$)	_	L	DevEndDate,-1)	DevEndDate	
-66: Contractor A	82	<ul> <li>Prototype Manufacturing</li> </ul>			\$ 3,334.							
-67: Contractor B	83	Air Vehicle	RDTEF		\$ 2,971.		1.5*AV_T1\$			ProtoStartDate		
68: Technology Developme	84	Mobile Ground Station	RDTEA		\$ 363.		1.75*TGS_T1\$			ProtoStartDate	ProtoEndDate	
-69: Contractor A	85	▲ SEPM			\$ 21.							
-70: Contractor B	86	Contractor SEPM	RDTEF		\$ 10.		ContLab\$*ContStaffQty			DevStartDate	DevEndDate	
□-71: System Development a	87	Government SEPM	RDTEF		\$ 11.		GovtLab\$*GovtStaffQty		3	tartDate,0,-21)	DevEndDate	
B-72: Development Engin	88	<ul> <li>System Test &amp; Eval</li> </ul>			\$ 16,047.							
□-73: Air Vehicle	89	DT&E	RDTEF		\$ 9,282.		8000	2010	\$K			
-74: Basic Structu	90	IOT&E (now done with LRIP article	RDTEF		\$ 6,416.		Fact*(TTot(@RDTEAV\$)+TTot(@RDTEGS\$))					
-75: Navigation/G	91	Test Facilities	RDTEF		\$ 348.		[Cost Throughput]	2010				
-76: Propulsion	92	Training	RDTEF		\$ 2,120.		2000	2016	\$K	DevStartDate	DevEndDate	
⊡-77: Ground Station	93	<ul> <li>Industrial Facilities</li> </ul>			\$ 15,084.							
-78: Procure OTS	94	Construct/Convers/Expans		DTEConst\$	\$ 11,603.		10000	2010	\$K	DevStartDate	DevEndDate	
-79: Design New I	95	Equip ACQ/Modern (Govt Owned,	RDTEF		\$ 3,481.		.3*RDTEConst\$					
-80: Software	96	Other Government Costs	RDTEF		\$ 1,473.	441 TY	[Cost Throughput]		\$K			
-81: Int & Assy	4											Þ.
□-82: Prototype Manufac -83: Air Vehicle												
-84: Mobile Ground !	Referen	ces - Rows used by Procure OTS Parts										()@ ×
E-85: SEPM	2 🗉	→ <sup>S</sup> .' ID₂ <del>+</del>									Show Column Re	ferences 🧕
-86: Contractor SEPN	Row	une lere part it.								Fiscal Un		
-87: Government SEF	ROW	WBS/CES Description			Approp	Unique ID	Equation/Value		Result	Year	its Use	ain
⊟-88: System Test & Eval		Ground Station Unit Cost			RDTEF	GSUC\$	4	50	\$488.10	8 2014	\$K Equation /	
-89: DT&E		Number of Ground Stations				GndStatQty		2		2		Throughput
-90: IOT&E (now don	171	Development Start Date			1	evStartDate	01Jul20	15	01JUL201	5	Start Date	
91: Test Facilities												
92: Training			_								Zo	om
Estimate Traceback	Referen	ces Documentation Visualization Error	Log									
THE PROPERTY	and the rest of the		0				Deves					
Ready				A	rrar	ıge	Panes 🧕			-  @		+ 100%



# More Built in Phasing Methods

- Weibull and Rayleigh Phasing methods added to 8.0
  - Weibull: shape and % Spent at Finish
  - Rayleigh: % Spent at Finish

0 🔄 📰 🖉 🤊 🗠	07 - Detailed LCC Estimate.acex - Methodology (BY20195K) - ACE 8.0	- 🗆 ×
FILE HOME LAYOUT CONSTRUCTION FUNCTI	IONS REPORTS	<u>∧</u> ∅
Paste Gopy V Format Painter • Calculate fg Syntax Check Docum	Image: Section 1       Image: Section 2       Image: Section 2       Image: Section 2       Image: Section 2         Image: Section 2       Image: Section 2       Image: Section 2       Image: Section 2       Image: Section 2         Image: Section 2       Image: Section 2       Image: Section 2       Image: Section 2       Image: Section 2         Image: Section 2       Image: Section 2       Image: Section 2       Image: Section 2       Image: Section 2         Image: Section 2       Image: Section 2       Image: Section 2       Image: Section 2       Image: Section 2         Image: Section 2       Image: Section 2       Image: Section 2       Image: Section 2       Image: Section 2         Image: Section 2       Image: Section 2       Image: Section 2       Image: Section 2       Image: Section 2         Image: Section 2       Image: Section 2       Image: Section 2       Image: Section 2       Image: Section 2         Image: Section 2       Image: Section 2       Image: Section 2       Image: Section 2       Image: Section 2         Image: Section 2       Image: Section 2       Image: Section 2       Image: Section 2       Image: Section 2         Image: Section 2       Image: Section 2       Image: Section 2       Image: Section 2       Image: Section 2         Image: Section 2       Image: Section	
74 • t < > • × ✓ 1.	3.1.1	
Session Explorer - Estimate 4	Input Form - Methodology 🔻 Input Sheet - Methodology 🔻 Results - Phased Costs 🔻 Charts - Estimate 🔻 Overrides - RI\$K 💌	
※ · · · · · · · · · · · · · · · · · · ·		
	Title: Basic Structure	
-56: Total Estimate at Probability Level	Unique ID: CES#: WBS#: 1.3.1.1.1 PE Value: \$4,466.480 (50%)	
-57: Procurement Estimate at Probability Leve		] - , _
60: Delta between Procurement Budget and	C Equation/Value	
-61:		
B-62: *Estimate	Beta Curve Struc_T1S*NRT1Ratio	fx
E 63: Total		
⊟-64: RDT&E	Approp: RDTEF      FY:      Units:	
⊖-65: Concept Refinement —66: Contractor A		
67: Contractor B	Start Date: DevStartDate / Finish Date: DevEndDate	fx 🛱
=-68: Technology Development	Bayleich Shape: 1 ID	
69: Contractor A	kayleign	
-70: Contractor B	% Spent at Finish: 90 fx	
□ 71: System Development and Demons	Status: Complete	
-72: Development Engineering	Trapezoid Sardas Comprese	
74: Basic Structure	Calculate: Annual • Lead/Lag: None	
75: Navigation/Guidance		
76: Propulsion	Percent RISK Specification: None	
⊟-77: Ground Station		
-78: Procure OTS Parts -79: Design New Parts		
-80: Software	Milestone	
-81: Int & Assy		
B-82: Prototype Manufacturing		
83: Air Vehicle	Input Visualization (approximate) - Basic Structure [Phasing]	[]@ ×
84: Mobile Ground Station	O Phasing ? RISK Go to Input Sheet *	di a Q
B: SEPM		
87: Government SEPM	\$14.000 - \$12.000 -	
e−88: System Test & Eval	\$ \$10.000 -	
-89: DT&E	× \$8.000 -	
-90: IOT&E (now done with LRIP	9 5 6000-	
91: Test Facilities	5 4.000 - 5 2.000 -	
92: Training	\$ 0.000	01 Nov 2018
• • • • • • • • • • • • • • • • • • •	Aug 2014 Jan 2015 May 2017 Oct 2018	
Estimate Traceback	Visualization Error Log Watch 1 Watch 2 Watch 3 References Case Documentation Successors	

### View Phasing with Input Visualization

# Add Custom Columns to the Session

Supports more complex estimating scenarios

- Additional calculation columns
- Specify text to categorize session rows then sum/filter results
- Store data from Plugins
- Create additional comment columns

ACEIT

** Insert Rows -
Inform     Comments     Approp     Unique ID     Point Estimate     Phasing Method     Equation / Throughput       A J Custom Column     Total\$     \$ 902,561.337     F
Inform     Comments     Approp     Unique ID     Point Estimate     Phasing Method     Equation / Throughput       A J Custom Column     Total\$     \$ 902,561.337     F
Non-cost     Column holds cost data and/or equations       Custom Column holds cost data and/or equations       © Text - Column holds dates of the form DDMMMYYYY       © Text - Column holds dates of the form DDMMMYYYY       © Text - Column holds cost that can be used for filtering       © Text - Column holds cost that can be used for filtering       © Text - Column holds cost that can be used for filtering       © Text - Column holds cost that can be used for filtering       © Text - Column holds cost that can be used for filtering       © Text - Column holds cost that can be used for filtering       © Text - Column holds cost that can be used for filtering       © Text - Column holds cost that can be used for filtering       © Text - Column holds cost that can be used for filtering       © Text - Column holds cost that can be used for filtering       © Text - Column holds cost that can be used for filtering       © Text - Column holds cost that can be used for filtering       © Text - Column holds cost that can be used for filtering       © Text - Column holds cost that can be used for filtering       © Text - Column holds cost that can be used for filtering       © Text - Column holds cost that can be used for filtering       © Text - Column holds cost that can be used for filtering       © Text - Column holds cost that can be used for filtering       © Text - Column holds cost that is not evaluated
A d Custom Column       RDTES       \$ 60,672.479         Column Title:       Contract       \$ 1,058.240         Column Title:       Contract       \$ 533.150       TY       [Cost Throu         Unique ID:       Contr       \$ 2,355.259       TC         Column Description:       Specify Contractor       \$ 2,355.259       TC         Tag:       CTR       \$ 1,7,326.751         Custom Column holds non-cost data and/or equations       \$ 3,74,373       BE       PropMnth\$* DevDuration* NRPropC         Te XS       \$ 7,04,373       BE       PropMnth\$* DevDuration* NRPropC         TE XS       \$ 7,986.468       GSUC\$* GM         Te XS       \$ 965.726       BE       GSUC\$* GM         Date       Column holds cast data ond/or equations       CSUC\$* Struc_T12       BE       4500 * GSC         Te XS       \$ 965.726       BE       GSUC\$* GM         Custom Column holds cast data ond/or equations       \$ 704.373       BE       PropMnth\$* DevDuration* NRPropC         Te XS       \$ 7,986.468       GSUC\$* GM       GSUC\$* GM         Date       Column holds cast of the form DDMMMYYYY       E       GSUC\$* SYMAMMonths* SWCAS         Generation       Column holds comparets and text that is not evaluated       Fe WS       \$
A J Custom Column       (2)       \$ 1,058.240         Column Title:       Contract       \$ 531.150       TV         Unique ID:       Contr       \$ 527.090       TV       [Cost Throu         Column Description:       Specify Contractor       \$ 2,355.259       TC         Column Description:       Specify Contractor       \$ 2,355.259       TC         Tag:       CTR       \$ 17,326.751
S 1,058,240         Column Title:       Contract         Column Title:       Contract         Column Description:       Specify Contractor         Specify Contractor       \$ 2,355,259         Column Type:       S 17,326,751         Custom Column Nolds non-cost data and/or equations       \$ 1,534,036         Otom holds cost data and/or equations       \$ 1,534,036         Tet VS       \$ 6,665,445         Custom Column holds cost data and/or equations       \$ 1,534,036         Date - Column holds text that can be used for filtering       \$ 965,726         Date - Column holds dates of the form DDMMMYYYY       \$ 5,470,051         Mission - Cost Math and the specified of the specifie
Column Title:       Contract       \$ \$27.090       TY       [Cost Throut]         Unique ID:       Contr       \$ \$ 4,710.518       (S \$ 2,355.259       TC         Column Description:       Specify Contractor       \$ 2,355.259       TC       (S \$ 2,355.259       TS         Column Type:       CTR       \$ \$ 17,326.751       (S \$ 4,427.036       BE       Struc_T1\$ * NR         Non-cost - Column holds non-cost data and/or equations       \$ \$ 4,427.036       BE       Struc_T1\$ * NR         Cost - Column holds cost data and/or equations       \$ \$ 7,986.468       (S \$ 2,955.266       (S \$ 2,055.266         Te VS       \$ \$ 6,665.445       (S \$ \$ 7,986.468       (S \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
Unique ID:         Contr         3 327,030         11         (Lost Inflot           Unique ID:         Contr         \$ 4,710.518         (Distribution)           Column Description:         Specify Contractor         \$ 2,355.259         TC           Tag:         CTR         \$ 54,903.721         (Distribution)           Custom Column Nype:         \$ 56,665.445         (Distribution)           Non-cost - Column holds non-cost data and/or equations         \$ 17,326.751         (Distribution)           © Text - Column holds cost data and/or equations         \$ 7,986.468         (Distribution)           © Text - Column holds text that can be used for filtering         \$ 965.726         BE         GSUC\$\$ Gisus + SWLab\$\$ SWLab\$\$ SWLab\$\$ SWLab\$\$ SWLab\$\$ SWLab\$\$ SWLab\$ SWL
Unique ID:         Contr         Specify Contractor         TC           Column Description:         Specify Contractor         \$ \$ 2,355.259         TC           Tag:         CTR         \$ \$ 1,326.751         \$ \$ 4,27.036         BE           Custom Column holds non-cost data and/or equations         \$ \$ 1,326.751         \$ \$ \$ 4,427.036         BE         \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
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Tag:       CTR       \$54,903,721         Custom Column Type:       \$17,326,751         Non-cost - Column holds non-cost data and/or equations       \$4,427,036       BE         Otom Column holds cost data and/or equations       \$1,534,036       BE       \$25,555 + 25,555 +
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Non-cost       - Column holds non-cost data and/or equations         Cost       - Column holds cost data and/or equations         Text       - Column holds text that can be used for filtering         Date       - Column holds dates of the form DDMMMYYYY         Comment       - Column holds comments and text that is not evaluated
Cost - Column holds cost data and/or equations       \$ 704.373       BE       PropMnth\$* DevDuration * NRPropC         Text - Column holds text that can be used for filtering       \$ 7,986.468       \$ 965.726       BE       GSUC\$* Gnd         Date - Column holds dates of the form DDMMMYYYY       \$ 7,020.742       BE       GSUC\$* SWLab\$* SWManMonths* SWC         Comment - Column holds comments and text that is not evaluated       FE       \$ 477.051       MS       SWLab\$* SWManMonths* SWC
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OS\$ \$439,335.890 Child
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### **Combines DECs and Category Columns**

# Easier Access to Advanced Model Content

- New Session Folders
  - Milestone Phasing Profiles
  - Data Tables
  - RI\$K CDFs
  - Quickly add new profiles and access them from estimating rows

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330: Number of Personnel Required for 331:       Software Design Review       SWDesignDate       DATEADD(SWDevStartDate, 0, SWDesignDuration)       29 Aug 2013       40         331:       ast:       *Continuing System Improvement 332: *Continuing System Improvement 333: Hardware Mod Percentage 334: Software Mod Percentage 335: Years of HW Maint 336: Years of SW Maint 337:       Software Code Inspection       SWCodeInspectDate       DATEADD(SWCodeReviewDate, 0, SWFinalCodeDuration)       29 Aug 2013       40         Prototype Manufacturing Start Date       Software Dovelopment End Date       DATEADD(SWCodeReviewDate, 0, SWFinalCodeDuration)       29 Aug 2013       40         Prototype Manufacturing Start Date       WCodeInspectDate       DATEADD(SWCodeReviewDate, 0, SWFinalCodeDuration)       29 Aug 2013       40         Prototype Manufacturing Start Date       WCodeInspectDate       DATEADD(SWCodeReviewDate, 0, SWFinalCodeDuration)       29 Aug 2013       40         Prototype Manufacturing Start Date       Prototype Manufacturing Start Date       Prototype Manufacturing Start Date       Prototype Manufacturing End Date       DevEndDate       DevEndDate       01 Nov 2015         Procurement End Date       ProcEndDate       DATEADP(ProCHRSTYR(@TotBuyQty))       01 Oct 2013       01       01         Milestone Phasing Profiles       Software Collapse Folder       Add Milestone Profile       Software Collapse Folder       Add Milestone Profile       Soft					29 Sep 2012	2					
331:       -331:       -331:       -332: *Continuing System Improvement       333: Hardware Mod Percentage       -333: Hardware Mod Percentage       -333: Software Mod Percentage       -333: Software Mod Percentage       -336: Software Development End Date       SWDevEndDate       DATEADD(SWCodeInspectDate, 0, SWFinalCodeDuration)       29 Sep 2014       95         - 335: Years of HW Maint       -336: Years of SW Maint       -337:       -337:       01 Jan 2014       -         - 337:       -338:       -       -       -       -       -       -         - 337:       -       -       -       -       -       -       -       -         - 338:       -											
333: Hardware Mod Percentage       333: Hardware Mod Percentage       334: Software Dovelopment End Date       SWCodeInspectDate DATEADD(SWCodeRopetDate, 0, 1)       29 Nov 2014       95         333: Years of HW Maint       335: Years of SW Maint       335: Years of SW Maint       01 Jan 2014       97         337:       337:       338:       Prototype Manufacturing End Date       ProtoEndDate       DATEADD(SWCodeInspectDate, 0, 18)       01 Jan 2014         937:       337:       938:       Prototype Manufacturing End Date       ProtoEndDate       DATEOF(FYCFIRSTYR(@TotBuyQty))       01 Oct 2013         938:       Procurement End Date       ProcEndDate       DATEOF(FYCFIRSTYR(@TotBuyQty) + 1) - 1       30 Sep 2021         90       Data Tables       Scollapse Folder       Add Milestone Profile       Add Milestone Profile         97       RDT&ES_Point_Estimate       Point_Estimate       TotShimate       TotShimate         90       08\$\$       Point_Estimate       TotShimate       TotShimate         98       Point_Estimate       TotShimate       TotShimate       TotShimate		Software Code Review	-		_						
- 334: Software Mod Percentage       -334: Software Mod Percentage       -335: Years of HW Maint       -335: Years of HW Maint       Prototype Manufacturing Start Date       Prototype Manufacturing Start Date       Prototype Manufacturing End Date       DATEADD(DevStartDate, 0, 18)       01 Jan 2014         -337:       -337:       -338:       OI Nov 2015       Procurement Start Date       ProcEndDate       DATEOF(FYCFIRSTYR@TotBuyQty))       01 Oct 2013         -338:	· · ·	Software Code Inspection		· · · · · · · · · · · · · · · · · · ·							
335: Years of HW Maint       335: Years of HW Maint       01 Jan 2014         336: Years of SW Maint       Prototype Manufacturing End Date       PrototantDate       DevEndDate       01 Nov 2015         337:       338:       Procurement End Date       ProcEndDate       DATEOF(FVCFIRSTYR(@TotBuyQty))       01 Oct 2013         D' Milestone Phasing Profiles       SwDesign       Sepand Folder       DATEOF(TLASTTP(@TotBuyQty) + 1) - 1       30 Sep 2021         B' RIJSK CDFs       Add Milestone Profile       Add Milestone Profile       Add Milestone Profile       ForceSpring         B' RISK CDFs       Add Milestone Profile       ForceSpring       Sep 2021       ForceSpring		Software Development End Date	SWDevEndDate	DATEADD(SWCodeInspectDate, 0, 1)	29 Dec 2014						
336: Years of SW Maint       Prototype Manufacturing End Date       ProtoEndDate       DevEndDate       01. Nov 2015         337:	-	Prototype Manufacturing Start Date	ProtoStartDate	DATEADD(DevStartDate, 0, 18)	01 Jan 2014						
-337: 338:       Procurement Start Date       ProcStartDate       DATEOF(FYCFIRSTYR(@TotBuyQty))       01 Oct 2013         338:       Procurement End Date       ProcEndDate       DATEOF(TLASTTP(@TotBuyQty) + 1) - 1       30 Sep 2021         Image: SwDesign       StartDate       SwDesign       StartDate       DATEOF(TLASTTP(@TotBuyQty) + 1) - 1       30 Sep 2021         Image: SwDesign       StartDate       Collapse Folder       StartDate       StartDate       StartDate         Image: SwDesign       StartDate       Collapse Folder       Add Milestone Profile       StartDate       StartDate         Image: SwDesign       StartDate       Collapse Folder       Add Milestone Profile       StartDate       StartDate         Image: SwDesign       StartDate       StartDate       StartDate       StartDate       StartDate         Image		Prototype Manufacturing End Date	ProtoEndDate	DevEndDate	01 Nov 2015	i					
338:       Procurement End Date       ProcEndDate       DATEOF(TLASTTP(@TotBuyQty) + 1) - 1       30 Sep 2021         Image: Comparison of the strength of the strengt of the strength of the strength of the st		Procurement Start Date	ProcStartDate	DATEOF(FYCFIRSTYR(@TotBuyQty))	01 Oct 2013						
Image: Constraint of the second se		Procurement End Date	ProcEndDate	DATEOF(TLASTTP(@TotBuyQty) + 1) - 1	30 Sep 2021						
Estimate Transback	Image: Constraint of the second state of the second sta	pse Folder					P3 (2. v				



# New Data Tables

- New separate data tables
  - Three Table Types
    - FY Independent
    - FY Dependent
    - Vectors

ACEIT

- Create tables of any size without adding more rows or Fiscal Years to the session
- Reference Tables with Unique IDs and Matrix Equations

	FUNCTIONS RE	Data Ta	able (BY2016\$K)	- 07 - Detaile	d LCC Estimate.aces - ACE 8.0					-	□ × <
Action Control Contro	g * 📁 heck Documentation Fa	avorite Rows	eplace eplace Unique ID oTo <b>Find</b>		t == Insert Rows + ent == Delete Rows mns + □ Toggle Comment + Construction						
ession Explorer - Estimate											
💁 🕶 🗉 == == 🖹 🗢 🖓 🖕		wer Costs		Unique ID:	Man\$						
133: Navigation *	Type: FY Indep	pendent	Ŧ								
134: Propulsion 135: Quality Contro	Rows: 9			Columns:	3						
136: SEPM (Army)	✓ Is Cost Input (	Cost Type: BY	- App	rop: OMA	• Units: \$K	∗ Ba	se Year: 2016				
137: ☐ 138: Operations & Support 167: ☐ Input Variables	Specify headers on t	Specify headers on the first row (right click on the header), describing the contents of each column. Enter a description for each row in the data table and fill In the values. e.g., configuration matrix, # of systems per site, etc.									,
168: *INPUT VARIABLES	WBS/CES Description	Average Basic Pay A	Annual DOD Comp	osite Rate	Annual Rate Billable to Other Fe	deral Agency					
169: **Milestone Dates	E9	65 7	5		72						
195: **RDT&E Inputs	E8	60 7			69						
222: **Production Inputs	E7	55 6			64						
230: *Buy Quantities	E6	50 6			59						
231: Total Air Vehicle Buy Quant	E5	45 5			53						
232: Air Force Buy Quantitie:	E4	40 5	0		48						
235: Army Buy Quantities	E3	35 4	5		46						
238: Army Transportable Groun 239:	E2	33 4	0		40						
<ul> <li>240: *Initial Spares Calculations</li> </ul>	E1	30 4	0		40						
<ul> <li></li></ul>											
□ □ Milestone Phasing Profiles											
SWDesign											
□ 🗁 RI\$K CDFs	References										:⊵ ×
RDT&E\$Point_Estimate	2 🕹								Show Colum	n References	5 😧
Proc\$Point_Estimate		undere o date						ti			-
O&S\$Point_Estimate	Row WBS/CES Description		Unique	ID .	Equation		Result	Used In			
Data Tables											
Manpower Costs (Man\$)											
Estimate Traceback	References Favorite	Rows Documentat	ion Visualizat	tion Cases	Error Log						
eady									R	+	100%



# Faster Results through Incremental Calculation

New calculation options can save time by calculating the session smartly

- Calculate Incremental model calculations
- Full Calculate Complete calculation of the session
- Calculate RI\$K Full Calculate with RI\$K simulation

💟 📙 📰 🗂 🤭 🍽					MAIN P	ANE	07 - Detailed LCC Est	imate.ace	ex (Read-Only) - Method	ology (BY2	MAIN PANE 07 - Detailed LCC Estimate.acex (Read-Only) - Methodology (BY2019\$K) - ACE 8.0						
FILE HOME LAY	UT	CONSTRUCTION	FUNCTIONS	REPORTS	INPUT S	HEET											
Paste Vormat Painter	Cal	culate	Documentation	Reference	s Favorite Rows	Find	Replace Replace Unique		E Insert Rows → 💽 Ind × Delete Rows 🛛 🖅 Uni 0 Result Format 💽 Fill	ndent 🎽							
Clipboard		Calculate	F9	ntent	Panes 🖙		Find		Cons	truction							
64	Calculate RI\$K Ctrl+Shift+F9																
Session Explorer - Estin	ate 🔳	Calculate CAIV		thode	ology 🔻	Inp	ut Sheet - Method	ology 🔻	Results - Phased	Costs 🔻	Charts -	Estimate 🔻 🤇	Overrides - RI\$K 🔻				
≫ v v≡ ,≞ ⊪×		Full Calculate	Ctrl+Alt+														
i⊐-63: Total	2	Select Cases	Shift+F9	`	VBS/CES De	scriptio	1		Comments		Approp	Unique ID	Point Estimate				
□ 05: 10tal		Calculate All Cases	alt+F9									*Estimate					
<b>□-65: Co</b>		Full Calculate All C	ases									Total\$	\$ 904,459.331 (86%)				
-66	Cor	Clear Results		E								RDTE\$	\$ 62,952.687 (13%)				
-67	Cor			icept R	efinement								\$ 1,058.427				



# Manage Documentation

Image:		- □ × ~ @
Image: Copy		
Clipboard Calculate Manage Documentation Find Construction		
94 T t C T X Open Documentation Pane		
Session Explorer - Estimate 4 Documentation Review t Sheet - Methodology 🔻 Results - Phased Costs 🔻 Charts - Estimate 🔻 Overrides - Phased 🔻		
Introduction     Comments     Approp     Unique ID     Point Estimate     Phasing Method	Equation /	/ Throughput
-91: APA \$70.960 F		
Phasing Method Alt+F3 Phasing Method Alt+F3 APA \$612.833 F	mentation	
93: Operating Material Reple Distribution Form Shift+F3 al (Army) APA S 6,907.088 FP		
94: Basic Structure Repler Comments s (Army) APA S 1,650.371 Reference Count	Rows	Туре

- Shows all the documentation across the session
- Replaces the Keywords workscreen
- Lists all definitions, shows associated rows, counts the number of references and provides a preview
- Add Attached Documents

1       209       User       Air Vehicle AUC: Calculates the average unit cost ofe mainted         2       257,258       User       Hardware/Software Mod Percentage: These constant inpm         2       259,260       User       Years of HW/SW Maint: These constant inputs are usedm in         1       90       User       The MatTotTot function uses the data tables ArmyLab\$of the         1       25       User       The Milestone Phasing profile "SWDesign" used in thisof the         1       48       User       StepVal function works similar to HLookUp in Excel. Ty yearl         1       51       User       This row is calculated by multiplying the unit cost f for more         2       2,74       User       This row is calculated by multiplying the unit cost f for more         2       Attachment ACEIT 101 75 CARD.docx       Attachment ACEIT 101 75 CARD.docx							
2       259,260       User       Years of HW/SW Maint: These constant inputs are usedm in         1       90       User       The MatTotTot function uses the data tables ArmyLab\$of the         1       25       User       The Milestone Phasing profile "SWDesign" used in thisof the         1       48       User       StepVal function works similar to HLookUp in Excel. Ty yearl         1       51       User       Ground Station LRIP Support (AF): This row uses ACE' as out         2       52,74       User       This row is calculated by multiplying the unit cost f for more         1       2       Attachment ACEIT 101 75 CARD.docx       4         Image: ACEIT 101 75 CARD.docx       Attachmed       Attachmed	tenance costs.						
1       90       User       The MatTotTot function uses the data tables ArmyLab\$of the         1       25       User       The Milestone Phasing profile "SWDesign" used in thisof the         1       48       User       StepVal function works similar to HLookUp in Excel. Ty yearl         1       51       User       Ground Station LRIP Support (AF): This row uses ACE' as out         2       52,74       User       This row is calculated by multiplying the unit cost f for more         1       2       Attachment ACEIT 101 75 CARD.docx         4       ACEIT 101 75 CARD.docx	n improvement						
1       25       User       The Milestone Phasing profile "SWDesign" used in thisof the         1       48       User       StepVal function works similar to HLookUp in Excel. Ty yearl         1       51       User       Ground Station LRIP Support (AF): This row uses ACE' as out         2       52,74       User       This row is calculated by multiplying the unit cost f for more         1       2       Attachment ACEIT 101 75 CARD.docx         4       ACEIT 101 75 CARD.docx	improvement o						
1       48       User       StepVal function works similar to HLookUp in Excel. Ty yearly         1       51       User       Ground Station LRIP Support (AF): This row uses ACE' as our         2       52,74       User       This row is calculated by multiplying the unit cost f for more         1       2       Attachment ACEIT 101 75 CARD.docx         4       ACEIT 101 75 CARD.docx	he Session Exp						
1     51     User     Ground Station LRIP Support (AF): This row uses ACE' as our       2     52,74     User     This row is calculated by multiplying the unit cost f for more       1     2     Attachment ACEIT 101 75 CARD.docx	e Session Expl						
2 52,74 User This row is calculated by multiplying the unit cost f for more 1 2 Attachment ACEIT 101 75 CARD.docx • Preview ACEIT 101 75 CARD.docx ACEIT 101 75 CARD.docx	ly buy quantity						
ACEIT 101 75 CARD.docx	ur finish year.						
ACEIT 101 75 CARD.docx	e information.						
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Decumente							
Documents							



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# Tailor Standard Reports Quickly

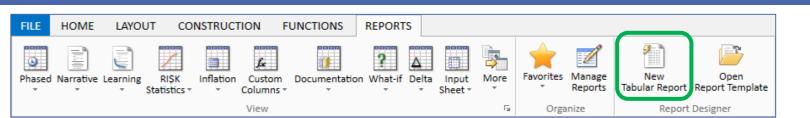
- Report Settings controls
   basic report parameters
  - Change settings
  - Press refresh
  - Save the new report template

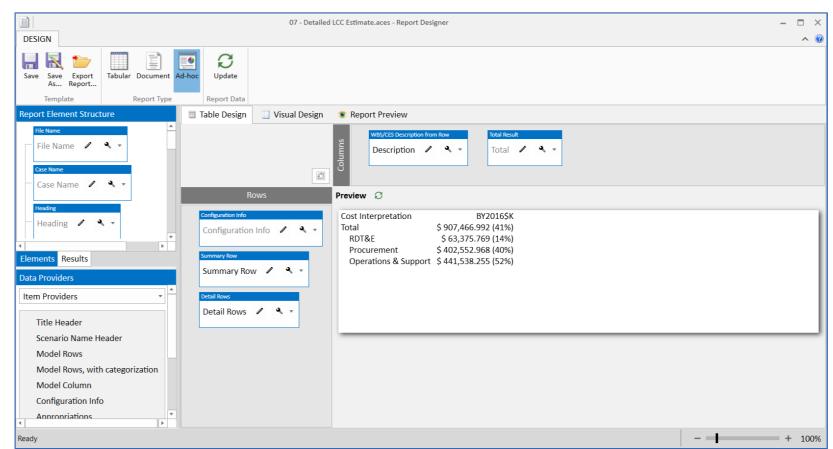
O6 - Implementing O&S Estimating Me	ethods.acex - BY Pha	ased Costs (all row	s) - BY 2019\$K,	, Point Estimate – 🗆 🗙
File REPORT				Refresh
Update Settings				
Print Print				<b>Report View</b>
Data Page Setup 🖓				
WBS/CES Description	Approp	Total	FY 201 🔺	Banart Sattings
1 *EXAMPLE FILE*	Арргор	Total	11201	Report Settings 8
2 *Budget Information				Report Name:
3 Procurement Budget		\$ 422,569.066		
4 Air Force Aircraft (APF) Budget		\$ 280,632.822		BY Phased Results
5 Army Aircraft (APA) Budget	APA	\$ 141,936.244		Report Title:
6				%CostType% Phased %ResultsType% (all rows)
7 *Estimate				%coscrype% Phased %Results type% (all tows)
8 Total		\$ 904,357.656	\$ 1,874.3	
9 RDT&E		\$ 62,851.012	\$ 1,874.3	🔿 Cost Type
10 Concept Refinement		\$ 1,058.427	\$ 1,058.4	Obligation *
11 Contractor A	RDTEF	\$ 532.172	\$ 532.17	001641011
12 Contractor B	RDTEA	\$ 526.255	\$ 526.25	Base Year
13 Technology Development		\$ 4,637.328	\$ 441.16	O Then Year
14 Contractor A		\$ 2,318.664	\$ 179.12	Same Year
15 Contractor B		\$ 2,318.664	\$ 262.03	
16 System Development and Demonstration		\$ 57,155.257	\$ 374.79	
17 Development Engineering		\$ 19,508.162		─ RI\$K
18 Air Vehicle		\$ 6,696.175		(▽) Case
19 Basic Structure		\$ 4,466.480		
20 Navigation/Guidance		\$ 1,519.046		Configuration Info
21 Propulsion		\$ 710.649		
22 Ground Station		\$ 7,437.118		✓ Rows
23 Procure OTS Parts		\$ 967.631		
24 Design New Parts     25 Software		\$ 6,469.487		Categorize
		\$ 3,254.875		Columns
26         Int & Assy           27         Prototype Manufacturing		\$ 2,119.994 \$ 3,305.561		
28 Air Vehicle		\$ 3,305.561 \$ 2,945.723		Phased Values
Zo Air venicie	RUTEF	3 2.743./23		
				Formats T



# Customize Reports with Report Designer

- Create your own tables
- Drag and drop elements to specify rows and columns content
- Save and export the tables to create larger reports







# ACE 8.0 Helps Reviewers

- Model Reviewers primarily need to understand existing models and audit them for consistency and sound practices
- Reviewers use ACE to quickly understand a model and focus the review on high impact items



## Understand the Model

### Review the session information before diving deeper into the model

- Review session metrics
- Scan documentation
- Check documentation across the model

	Methodology (BY2019\$K) - 06 - Implementing O&S Estimating Meth	hods.acex - ACE 8.0		- 8 ×		
Info		Session Properties		Documentation Review		0
IIIO		Program Name Base Year	UAV Demo 2019	Docun	nentation Review	
Introduction Documentation	Introduction This session provides a detailed Operations and Support (O&S) estimate that shows many of ACE's core features. The Operations and Support WBS in this session is based on the CAIG Draft O&S Guide. This session is an enhanced version of "05 -	Units Currency First Year Last Year	2013 Thousands \$ 2014 2036	Total rows in the estimate: 271 WBS rows in the estimate: 148 Lowest level WBS rows in the estimate: 103 Total # of unique definitions and attachments (All counts exclude blank and comment rows,	<u>25</u>	
Conclusion Documentation	Conclusion Click button to add Conclusion Documentation.	Last real Default Case System Inflation Table Custom Inflation Table Session Metrics Last Saved	2056 Point Estimate US Government Indices for FY 2018 none 05Feb2019 13:21:18	WBS Definitions Without Documentation With System Documentation With User Documentation Rows in the WBS	Methodology Definition Without Documentation With Documentation Rows in the WBS	15
Documentation Review	Documentation Review Overview of all documentation contained in the file. Counts the number of system and user-created WBS and Methodology Definitions. Pie charts allow you to visualize rows with/without documentation. Links allow you to review rows without documentation.	Rows Years Cases User-Created Custom Columns Rows Containing: RI\$K Specifications	260 23 2 3	140 95%	143 97% 39	6
Protect	Session Protection Enter a password to protect the session.	WBS Definitions Equation/Throughput Definitio Documentation File Size Attached Documents File Size	19 ons 57 122 KB 0 Reference Count Row 1 45	s Type C User MANUFACTURING - This element inch	Lowest-Level Rows in the WBS	2
Gain Ownership	Gain Ownership This option is only enabled when two users are working in the same ACE session. Depending on the status of the files, you will receive different messages when you try to gain ownership of a file.		2 53,75 2 54,76 4 49,57,72 2 58,80 2 59,81 1 60 1 60 1 60 1 71 1 71 1 72	User MANUACLURING - Insi element incl User This is just a fixed cost per year (S3M) User This is toroken in three rows so sparse 77.9 User This row for both Army and Air Force i User This row is calculated by multiplying a User SYSTEM ENGINEERING/PROGRAM MU User DEVELOPMENT COST FACTOR - System User OTHER - This element includes any fur User These are constant costs that occur e User This row is calculated as that cost of this row is calculated as a factor of th 55,77 User Aphasing is used for learning curves. Herer Air Mehicle (Rasic Structure, Maxiension	for AF and \$4t date for the row. are bought forhicle Basic Structure. as simple unitction of the estimate. time-phased fhe finish date column. NAGGEMENT - the system enhansing methic v/Project Management ( 600 300,000 ded costs not inand ibalilites. ery year of procurement. refers to the complete air vehicle. rdware unit coandity (ArmyGSQty). sit cost (GSTV quantity (ArmyGSQty). s vehicle cosction of the estimate. This row estimearning Input Sheet.	•

for the final system



## Audit Model Methods with Traceback

#### Session Explorer - Traceback

- 1: \*EXAMPLE FILE\*
- 2: \*General Summary Section
- ⊞ 16: \*BY Summary Section
- ∃ 30: \*TY Procurement Summary Section
- # 44: \*Budget Information
- 62: \*Estimate
  - 🖹 -63: Total
  - 🖻 64: RDT&E
    - E-65: Concept Refinement
    - -68: Technology Development
    - □-71: System Development and Demonstration
      - -72: Development Engineering
        - -73: Air Vehicle
        - -74: Basic Structure
        - C 171: Development Start Date
        - □-⇔ 173: Development End Date □-⇔ 171: Development Start Dat
        - □-c= 171: Development Start Dat
        - ←⇔ 51: Enable Variable RI\$K □ □ ←⇔ 199: Basic Structure T1
          - ← 51: Enable Variable RI\$K (1 =
        - ← 223: Ratio of Nonrecurring Cos<sup>®</sup> ⊕-**75: Navigation/Guidance**
        - E 76: Propulsion
        - -77: Ground Station

.......

- •
- Estimate Traceback

ACEIT

## Session Explorer Traceback mode

- · See all rows linked to a selected row
- See full predecessor trail for complete traceback to root input. Trace reference logic to its origin
- Works with WBS and Input Variables
- Recommended set up to open both References and Successors Panes

Succes	Successors - Rows that use Development Start Date (DevStartDate)														
1	Image: A state of the state											🗌 Sh	now Column Refer	ences	0
Row		WBS/CES De	scription			Uni	que ID		Equation		Lo	cated In	Result		-
69	Contractor A									2	Start Dat	e	\$ 2,318.664		
70	Contractor B									2	Start Dat	e	\$ 2,318.664		
74	Basic Structure								Struc_T1\$*N	RT1Ratio	Start Dat	e	I,466.480 (50%)		
75	Navigation/Guidanc	e							425.555+25.555	*NavWt	Start Dat	e	.,519.046 (50%)		
76	Propulsion						)	pMnth\$*Dev[	Duration*NRProp	Complex	Start Dat	e	3710.649 (50%)		
78	Procure OTS Parts						GSUC\$*Gn	dStatQty	Start Dat	e	\$ 967.631				
79	Design New Parts						4500*GS	Complex	Start Dat	e	i,469.487 (50%)				
86	Contactor SEPM								ContLah\$*Cont	Staff∩tv	Start Dat	ρ	\$ 10 002 (40%)		
Refere	nces Favorite Rows	Visualization	Cases	Error Log	Watch 1	Watch 2	Watch 3	3 Successors	Documentation	RI\$K Gr	oupings				



# Quickly Access a Variety of Result Views

## View phased, total, uncertainty or allocated results in BY, TY, or SY \$

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	<ul> <li>Concept Refinement</li> </ul>	\$ 1,058.240	\$ 1,058.240										
67	Contractor A	\$ 531.150	\$ 531.150				Sheet -	Methodolo	gy 🔻 🛛 F	Results - RI	\$K Statistics	s 🔻 🛛 Cł	harts - Estir
68	Contractor B	\$ 527.090	\$ 527.090										
69	<ul> <li>Technology Development</li> </ul>	\$ 4,710.518	\$ 266.172	\$ 1,250.306	\$ 1,067.636	\$ 285.600	nate	Mean	Std Dev	cv	5%	10%	15%
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		. (38%)	\$ 56,214.	\$ 14,910.	0.2652	\$ 35,603.	\$ 38,987.	\$ 41,57
			4	<ul> <li>Manufact</li> </ul>	turing	\$ 35,16	6. (48%)	\$ 36,848.	\$ 9,524.	0.2585	\$ 23,471.	\$ 25,801.	\$ 27,393
			5	Air Vel	hicle	\$ 30,57	9. (46%)	\$ 32,560.	\$ 8,382.	0.2574	\$ 20,884.	\$ 22,839.	\$ 24,21
			6	Integra	ation & Test	\$ 4,58	7. (64%)	\$ 4,287.	\$ 1,361.	0.3175	\$ 2,380.	\$ 2,697.	\$ 2,927
			7	SEPM		\$ 13,01	1. (28%)	\$ 17,520.	\$ 6,808.	0.3886	\$ 8,701.	\$ 9,865.	\$ 10,868
			8	Program	Office Costs	S 1.84	1. (50%)	\$ 1,846.	\$ 638.	0.3458	\$ 794.	\$ 1,022.	\$ 1,179

# Review Model Consistency in Reports

💟 🛃 🗃 🗂 🤊 (° =	DOCUMENTATION MAIN PANE Methodology (BY2019\$K) - 06 - Implementing O&S Es	timatiı
FILE HOME LAYOUT CONSTRUCTION FUNCTIONS REPO	TS EDIT INPUT SHEET	
Phased Narrative learning RI\$K Inflation Columns + View	Detailed Basis of Estimate (BY) - Point Estimate - 06 - Implementing O&S Estimating N         File REPORT            Ø          Ø          Ø	Refresh Report View
Create and Tailor Narrative Reports	Detailed Basis of Estimate (BY)	Report Settings      Report Name:     BY ACE Narrative (Selected Rows)     Report Title:     Detailed Basis of Estimate (BY)
<ul> <li>Select from template</li> </ul>	Row 50 Integration & Test (AF) \$ 23,621.164 BY20195K	Cost Type
<ul> <li>Use settings to adjust the template</li> </ul>	Fy2017         FY2018         FY2019         FY2020         FY2021         FY2022         FY2023         FY2024           \$ 285.001         \$ 261.668         \$ 247.556         \$ 237.181         \$ 3,251.852         \$ 5,052.459         \$ 9,617.976         \$ 4,667.471	<ul> <li>RI\$K</li> <li>Case</li> <li>Rows</li> <li>Filter</li> </ul>
<ul> <li>Refresh the Report</li> </ul>	Total \$ 23,621.164	Attachments
<ul> <li>Review modeling methods and documentation</li> </ul>	B. Phasing Methodology (Yearly Factor/Inputs) C. Estimating Methodology (Equation/Throughput Calculated Yearly and Summed) 0.15*AF_AV\$ C.1 Methodology Rationale This is our standard program office integration factor.	<ul> <li>Fiscal Year Phasing Results</li> <li>Phasing Methodology</li> <li>Estimating Methodology</li> <li>Cost Adjustments</li> <li>Learning Curve Parameters</li> <li>Variables</li> <li>*</li> </ul>

Ready

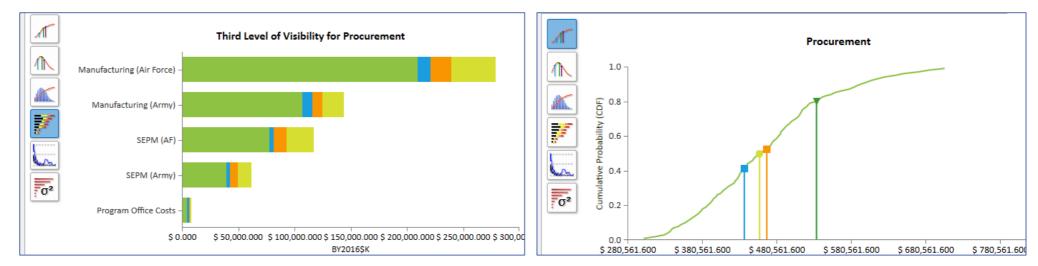
ACEIT

- + 100%

# Quickly Generate Charts to Understand Results

- Estimates
  - One case multiple views
- Case Comparative
  - Two or more cases
- Uncertainty
  - CDF
  - PDFs
  - Contributors
- Analysis





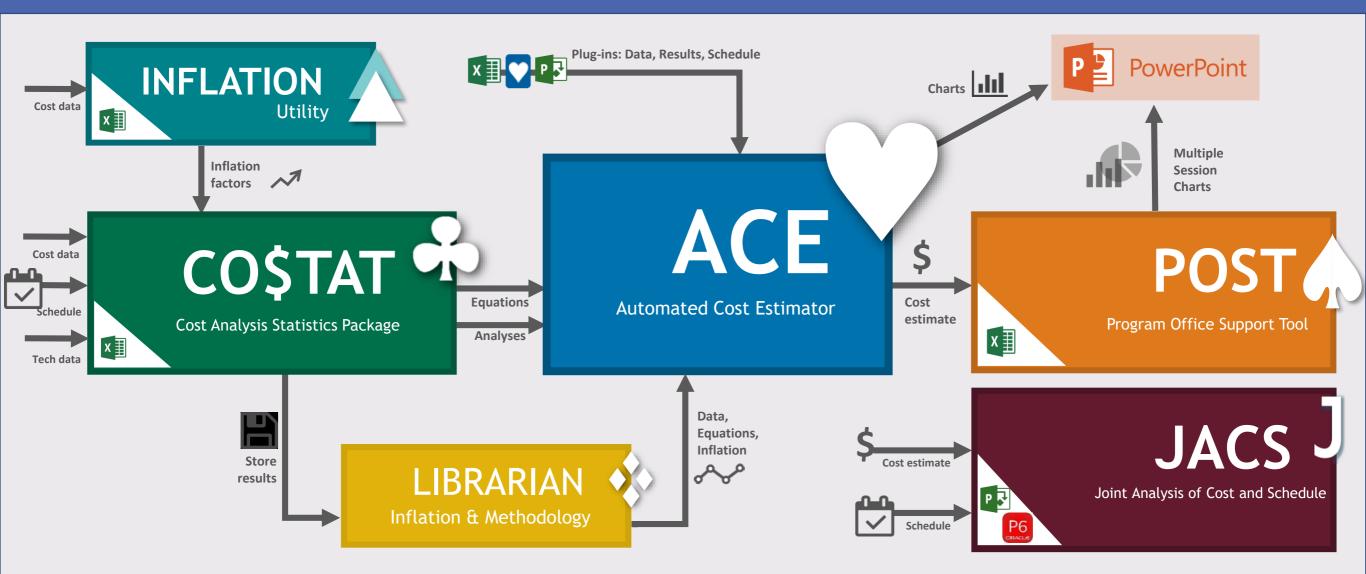


# New ACEIT Architecture (() (return a.fn.t

 Revised Architecture to better show how cost, schedule and technical data flow through the ACEIT applications



# **ACEIT 8.0 Architecture**





# ACE 8.0 Educational Resources

## • Several products available to assist with the transition to 8.0



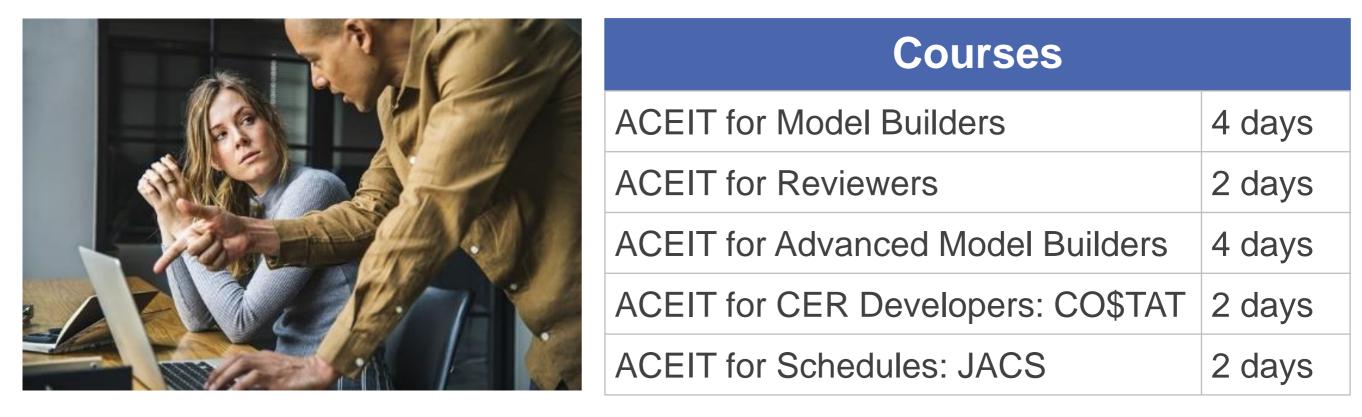
# **Transitioning Resources**

<ul> <li>Transitioning Flyer</li> <li>Compares 7.5 to 8.0</li> <li>Download at aceit.com</li> </ul>	<ul><li>Webinars</li><li>Army Road Show</li><li>We will schedule more</li></ul>
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<ul> <li>Help Text</li> <li>Updated for ACE 8.0</li> <li>Available in software</li> </ul>	New Web Help • How-To style articles • ACEIT.com User Resources
Help Desk <ul> <li>Email ACEIT_support@tecolote.com</li> <li>Call: 805-964-6963</li> </ul>	<ul> <li>Training Classes</li> <li>Learn from Expert Instructors</li> <li>Classes Available</li> </ul>

ACEIT

# ACEIT 8.0 Training

# Instructors, possessing real-world experience with ACEIT, provide hands-on training



# More Information

- Visit www.ACEIT.com
- Please contact ACEIT Support

Email: aceit\_support@tecolote.com

Phone: (805) 964-6963

