



ACEIT 7.3 Sneak Peek

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ACEIT 7.3 Sneak Peek

NOTE: Screen captures in this presentation are from ACE 7.3 pre-Alpha and are subject to change.



Session Building

- **WBS Builder**
- **Milestone Phasing**
- **Partial Year Calculations**
- **Monthly/Quarterly Inputs**
- **RI\$K Wizard**

Session Analysis

- **Traceback Navigator Enhancements**

Reporting in ACE

- **New Learning Curve Report**
- **Additional Formatting Options**
- **Enhanced Report Filtering/Summarizing**
- **New Charting Capability**



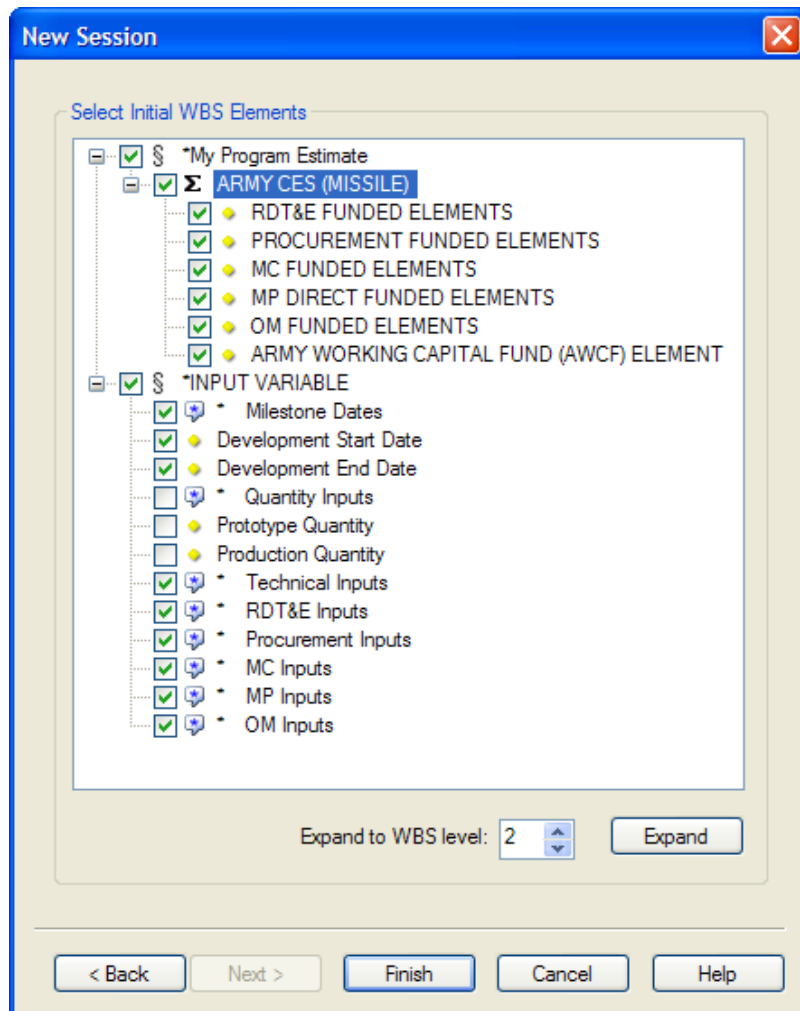
WBS Builder

- The WBS Builder simplifies the process of selecting and expanding System WBS/CES structures
- A new interface accessible from the New Session dialog

The image shows a screenshot of the 'New Session' dialog box in the WBS Builder software. The dialog has a blue title bar with the text 'New Session' and a close button (X) in the top right corner. The main area is divided into several sections. The 'Program' section contains fields for 'Name' (My Program), 'Base Year' (2010), 'Units' (M), 'Currency' (\$), 'First Year' (2007), 'Last Year' (2020), 'Maximum Rows' (200), and 'Default Case' (Point Estimate). The 'WBS/CES Initialization' section has two radio buttons: 'Use system WBS/CES indenture structure(s)' (selected) and 'Use a session template' (Browse...). The 'WBS/CES Selection' section features a list box with several items: 'ARMY CES (AIRCRAFT)', 'ARMY CES (AIS)', 'ARMY CES (ELECTRONICS)', 'ARMY CES (GENERIC)', 'ARMY CES (MISSILE)' (checked), 'ARMY CES (ORDNANCE)', and 'ARMY CES (SPACE)'. A 'Definition...' button is to the right of the list. At the bottom, there are three radio buttons: 'Show All' (selected), 'Show System', and 'Show Custom'. The bottom of the dialog has five buttons: '< Back', 'Next >' (circled in red), 'Finish', 'Cancel', and 'Help'.



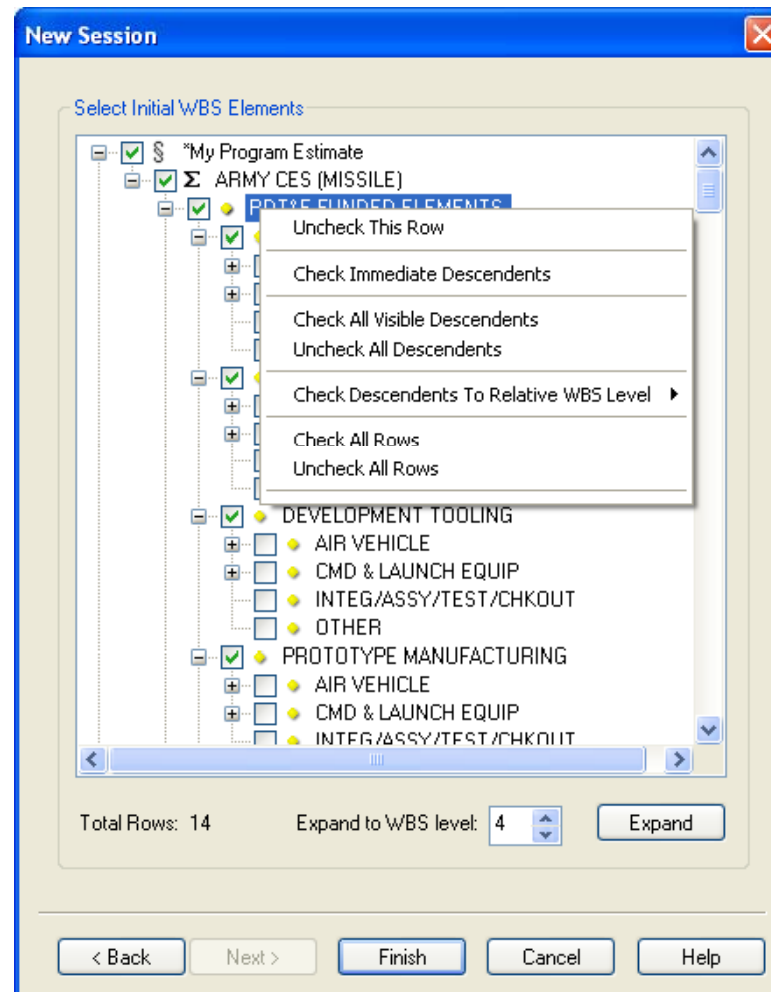
WBS Builder



- **New WBS/CES tree view for selecting specific elements**
- **Specify “down to level” for expanding WBS/CES structure**
- **Section headers for Input Variables can be selected**



- Many options available for selecting and unselecting rows





Milestone Phasing

- **New “MS” Time Phasing method**
- **Generates a phasing profile based on the percent of a row’s total cost spent through selected milestone dates**
- **Similar to Beta phasing but with multiple Time/Spent pairs**



Milestone Phasing

- A Milestone Dates section must be specified in the Input Variables

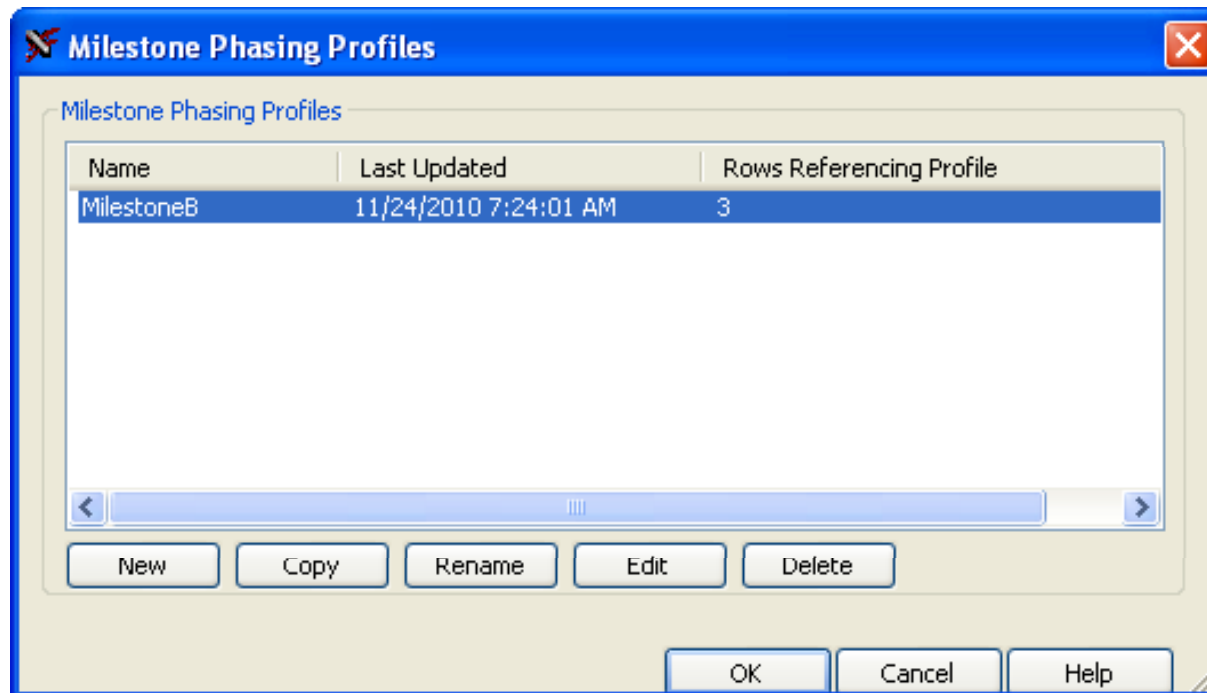
	WBS/CES Description	Unique ID	Point Estimate	Phasing Method	Equation / Throughput	F
4						
5	*INPUT VARIABLES	*IN_VAR				
6	**Milestone Dates	*MilestoneDates				
7	Milestone B Start	MS_B_StartDate	01OCT2010 *	C	01OCT2010	
8	Preliminary Design Review	PDRDate	01APR2012 *	C	DateAdd(MS_B_StartDate, 0,MSB_PDRDuration)	
9	Critical Design Review	CDRDate	01APR2014 *	C	DateAdd(PDRDate,0,PDR_CDRDuration)	
10	Delivery	DeliveryDate	01AUG2015 *	C	DateAdd(CDRDate,0,CDR_DelDuration)	
11	Development End Date	DevEndDate	01FEB2016 *	C	DateAdd(DeliveryDate,0,Del_DevEndDuration)	
12						

WBS/CES \ Methodology \ Yearly Phasing \ Spread Total /



Milestone Dates

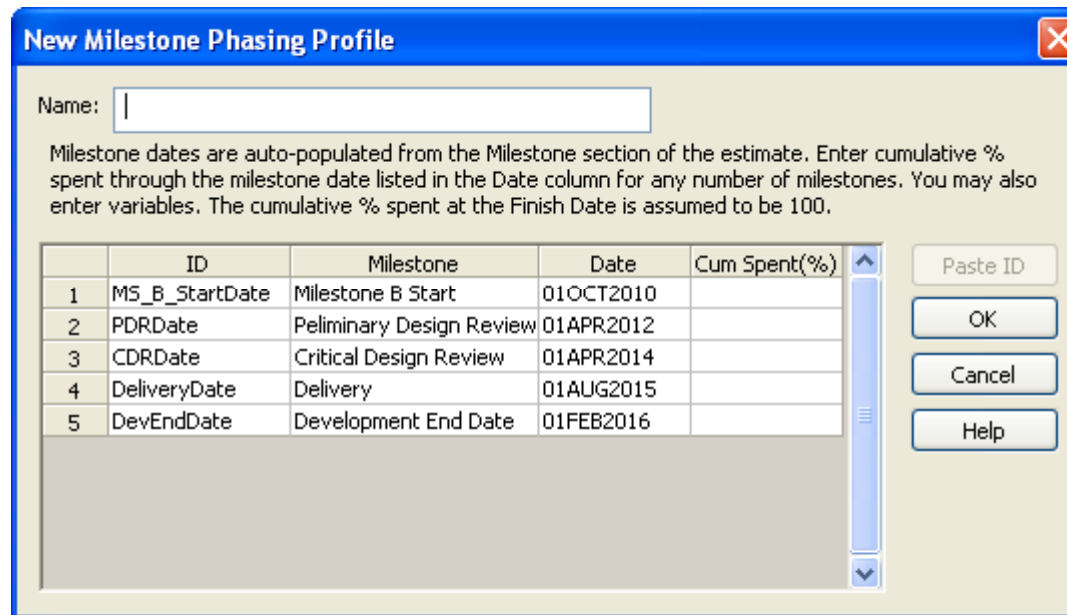
- Milestone phasing “profiles” are created through the Tools menu
- The profile names act as keywords so a profile can be used on several rows





Milestone Dates

- **New Milestone Phasing Profile dialog is auto-populated with the values from Milestone Date section**
- **Enter a name for the profile and the cumulative percent spent to any of the dates**



The dialog box titled "New Milestone Phasing Profile" has a blue title bar with a close button (X) in the top right corner. Below the title bar is a text input field labeled "Name:" with a vertical cursor. A paragraph of text explains that milestone dates are auto-populated from the Milestone section of the estimate and that users should enter cumulative % spent through the milestone date. Below this text is a table with five rows and five columns: ID, Milestone, Date, and Cum Spent(%). The table contains the following data:

	ID	Milestone	Date	Cum Spent(%)
1	MS_B_StartDate	Milestone B Start	01OCT2010	
2	PDRDate	Peliminary Design Review	01APR2012	
3	CDRDate	Critical Design Review	01APR2014	
4	DeliveryDate	Delivery	01AUG2015	
5	DevEndDate	Development End Date	01FEB2016	

To the right of the table are four buttons: "Paste ID", "OK", "Cancel", and "Help".



Milestone Phasing

- To phase a row with a profile, select phasing method “MS”
- Enter a Start Date and Finish Date
- Select the Milestone Phasing Profile

The screenshot shows the 'Input All Form' window with the following details:

- Title:** Development Engineering
- Phasing Method:** MS (circled in red)
- Equation/Throughput:** Avg_Rate\$ * MatTotTot(4, @MSB_Duration,@LOE_MSB)
- Duration:** Start Date: S_B_StartDate (circled in red), Finish Date: DevEndDate (circled in red)
- Shape:** MILESTONE: MilestoneB (circled in red)
- Milestone Table:**

	Milestone	Date	Cum Spent(%)
1	Preliminary Design	DateAdd(MS_B_ \$ 30	
2	Critical Design Re	DateAdd(PDRDa	75
3	Delivery	DateAdd(CDRDa	95



Milestone Phasing

Methodology Screen

Milestone Phasing Result.aceit - Methodology (BY2010\$K)

	WBS/CES Description	Unique ID	Point Estimate	Phasing Method	Equation / Throughput	Fiscal Year	Units	Milestone Phasing	Start Date	Finish Date
1	*My Program Estimate	*Estimate								
2										
3	Development Engineering		\$ 18,304.000 *	MS	Avg_Rate\$ * MSB_Duration * LOE_MSB			MilestoneB	MS_B_StartDate	DevEndDate
4										
5	*INPUT VARIABLES	*IN_VAR								
6	**Milestone Dates	*MilestoneDates								
7	Milestone B Start	MS_B_StartDate	01JAN2011 *	C	01JAN2011					
8	Peliriminary Design Review	PDRDate	01JUL2012 *	C	DateAdd(MS_B_StartDate, 0, MSB_PDRDuration)					
9	Critical Design Review	CDRDate	01JUL2014 *	C	DateAdd(PDRDate, 0, PDR_CDRDuration)					
10	Delivery	DeliveryDate	01NOV2015 *	C	DateAdd(CDRDate, 0, CDR_DelDuration)					
11	Development End Date	DevEndDate	01MAY2016 *	C	DateAdd(DeliveryDate, 0, Del_DevEndDuration)					

Methodology / Spread Total

BY Results

Milestone Phasing Result.aceit - Inputs/Results Viewer (BY2010\$K)

Point Estimate	WBS/CES Description	Total	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
1	*My Program Estimate								
2									
3	Development Engineering	\$ 18,304.000		\$ 2,014.954	\$ 4,490.172	\$ 4,354.271	\$ 3,666.661	\$ 2,678.346	\$ 1,099.597
4									
5	*INPUT VARIABLES								
6	**Milestone Dates								
7	Milestone B Start	01JAN2011							
8	Peliriminary Design Review	01JUL2012							
9	Critical Design Review	01JUL2014							
10	Delivery	01NOV2015							
11	Development End Date	01MAY2016							



Partial Year Calculations

- **The Fiscal Year Factor phasing method “F” only works on complete years regardless of where the Start and Finish date fall within a year**
- **The new Partial FY Factor phasing method “FP” will prorate the equation result for the fraction of the year that falls within the start and finish years**



Partial Year Calculation

Methodology Screen

Partial Year Result.aceit - Methodology (BY2010SK)

	WBS/CES Description	Unique ID	Point Estimate	Phasing Method	Equation / Throughput	Start Date	Finish Date
1	*My Program Estimate	*Estimate					
2							
3	Development Engineering		\$ 20,592.000 *	F	Avg_Rate\$ * 12[months] * LOE_MSB	MS_B_StartDate	DevEndDate
4	Development Engineering		\$ 18,301.636 *	FP	Avg_Rate\$ * 12[months] * LOE_MSB	MS_B_StartDate	DevEndDate
5							
6	*INPUT VARIABLES	*IN_VAR					
7	**Milestone Dates	*MilestoneDates					
8	Milestone B Start	MS_B_StartDate	01JAN2011 *	C	01JAN2011		
9	Development End Date	DevEndDate	01MAY2016 *	C	01MAY2016		

WBS/CES \ Methodology \ Yearly Phasing \ Spread Total /

BY Results

Partial Year Result.aceit - Inputs/Results Viewer (BY2010SK)

Point Estimate	WBS/CES Description	Total	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
1	*My Program Estimate								
2									
3	Development Engineering	\$ 20,592.000		\$ 3,432.000	\$ 3,432.000	\$ 3,432.000	\$ 3,432.000	\$ 3,432.000	\$ 3,432.000
4	Development Engineering	\$ 18,301.636		\$ 2,566.948	\$ 3,432.000	\$ 3,432.000	\$ 3,432.000	\$ 3,432.000	\$ 2,006.689
5									



Monthly/Quarterly Inputs

- Users can now enter and store Monthly or Quarterly input values
- Users specify the year range to enter monthly inputs
- Values are binned into their appropriate years for further calculations
- Monthly lead/lag can be specified and is applied to monthly inputs before they are binned into years
- Used with the Throughput phasing methods: IS, I, BY, TY, and SY

The image shows a screenshot of the 'ACE Session Properties' dialog box, specifically the 'Calculation' tab. The dialog has a blue title bar and a standard Windows-style interface. It contains several input fields and dropdown menus. The 'Time Increments' section, which includes radio buttons for 'Yearly only', 'Monthly', and 'Quarterly', and a sub-section for 'Range for Monthly or Quarterly' with 'First Year' and 'Last' dropdowns, is circled in red. Other visible fields include 'Program Name' (UAV Demo), 'Base Year' (2010), 'Units' (K), 'Currency' (\$), 'First Year' (2003), and 'Last Year' (2025). At the bottom, there are buttons for 'OK', 'Cancel', 'Set as Default', and 'Help'.



Monthly Inputs

Monthly Results.aceit - Monthly Phasing (BY2010\$K)

	WBS/CES Description	Phasing Method	Approp	Monthly Lead/Lag	Oct 2011	Nov 2011	Dec 2011	Jan 2012	Feb 2012	Mar 2012	Apr 2012
1	*My Program Estimate										
2											
3	BY Throughput	BY	3020			6	7				
4											
5	*INPUT VARIABLES										
6											
7	Inputs	IS			2	3					

Methodology \ Monthly Phasing /

Input All Form

Title: Inputs Phasing Method: IS

Unique ID: Replace Unique ID Phasing Wizard

Equation/Throughput:
[Input Throughput] Eq Builder... CER Lib...

Selected Row: 7 Move Item: Include Children:

My Program Estimate
INPUT VARIABLES
INPUT VARIABLES
Σ Inputs

Summary Adjustments FY Inputs Monthly Learning Spread Total RISK

Monthly Inputs

Period	Value
Oct 2011	2
Nov 2011	3
Dec 2011	
Jan 2012	
Feb 2012	
Mar 2012	
Apr 2012	
May 2012	
Jun 2012	
Jul 2012	
Totals	24.000

Filter: First Year: 2012 Last Year: 2015

Lead/Lag

	Lead/Lag	Fraction
1		
2		

Undo Redo Basic Close Help

- When Monthly is specified in File Properties, a Monthly workscreen and Monthly Input All Form tab are created



Monthly Inputs

- **Inputs/Results Viewer shows results after inputs are binned into fiscal years and calculated**

The screenshot shows a software window titled "Monthly Results.aceit - Inputs/Results Viewer (BY2010\$K)". The window contains a table with the following data:

	WBS/CES Description	Total	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
1	*My Program Estimate							
2								
3	BY Throughput	\$ 24.216			\$ 13.117	\$ 11.099		
4								
5	*INPUT VARIABLES							
6								
7	Inputs	24.000			5.000	19.000		



Monthly Inputs

- Lead/Lag specifications applied before binning to fiscal years
- Illustration leads 100% of values two months

	WBS/CES Description	Phasing Method	Approp	Monthly Lead/Lag	Oct 2011	Nov 2011	Dec 2011
1	*My Program Estimate						
2							
3	BY Throughput	BY	3020			6	7
4							
5	*INPUT VARIABLES						
6							
7	Inputs	IS		2,1	2	3	

	WBS/CES Description	Total	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
1	*My Program Estimate							
2								
3	BY Throughput	\$ 24.216			\$ 13.117	\$ 11.099		
4								
5	*INPUT VARIABLES							
6								
7	Inputs	24.000		5.000	13.000	6.000		



Quarterly Inputs

ACE 7.3 - [Monthly Results.aceit - Quarterly Phasing (BY 2010\$K)]

File Edit View Documentation Calc Cases Reports Tools Window Help

100%

Quarterly Phasing

Monthly Results...sing (BY2010\$K)

	WBS/CES Description	Phasing Method	Approp	Quarterly Lead/Lag	Qtr 1 FY2012	Qtr 2 FY2012	Qtr 3 FY2012	Qtr 4 FY2012	Qtr 1 FY2013	Qtr 2 FY2013
1	*My Program Estimate									
2										
3	BY Throughput	BY	302							
4										
5	*INPUT VARIABLES									
6										
7	Inputs	IS								

WBS/CES / Methodology / Quarterly Phasing /

Auto Indent Using Indent Level

Input All Form

Selected Row: [5] Move Item: [Up] [Down] [Left] [Right] [Goto] [Include Children] [Checked]

Title: Inputs Phasing Method: IS

Unique ID: [] Replace Unique ID [] Phasing Wizard []

Equation/Throughput: [Input Throughput] Eq Builder... CER Lib...

Summary Adjustments FY Inputs Quarterly Learning Spread Total RI\$K

Quarterly Inputs

Period	Value
Qtr 1 FY2012	5
Qtr 2 FY2012	
Qtr 3 FY2012	9
Qtr 4 FY2012	6
Qtr 1 FY2013	7
Qtr 2 FY2013	
Qtr 3 FY2013	
Qtr 4 FY2013	
Qtr 1 FY2014	
Qtr 2 FY2014	
Totals	27.000

Lead/Lag

	Lead/Lag	Fraction
1		
2		

Undo Redo Basic Close Help

When Quarterly is specified in File Properties, a Quarterly workscreen and Quarterly Input All Form tab are created



RI\$K Wizard

- **RI\$K Wizard.** Designed for new analysts, provides easy-to-follow screens that apply risk distributions to the estimate
 - The wizard gives guidance on whether uncertainty should be specified:
 - **on the current row**
 - **and/or on the variables**
 - **or not recommended for that type of methodology**
 - Easy-to-understand options help the analyst characterize the uncertainty
 - The wizard also displays any rows or variables feeding into the current row and shows if they already have risk specified. The analyst is given the opportunity to specify risk on these rows also.

NOTE: Advanced analysts will most likely continue to use the Advanced mode of the Input All form or the RI\$K workscreens to enter uncertainty.



RISK Wizard (*cont.*)

- Uses a tree control similar to the traceback navigator and displays any rows or variables feeding into the current row.
- Also shows if these variables have uncertainty specified and gives the analyst the opportunity to specify uncertainty on these rows, if desired.

RISK Wizard

Row #86 is an Equation:
SWLab\$ * GSSWHrs

Equation contains only variables. Applying risk to this row is not recommended.

Please select a variable and click Next to determine RISK for that variable.

Description	RISK Sta...	Action	Variable	Pt Estimate	RISK Dist.	Skew	Spread
06: Software							
Predecessors							
177: Software Labor Rate	None		SWLab\$	<Not ...			
176: Ground Station S/W Labor Hours	None		GSSWHrs	<Not ...			
199: Ground Dev Start Date	Inherited	Intermediate I...	GrndD...	<Not ...			
201: Ground Dev End Date	Inherited	Intermediate I...	GrndD...	<Not ...			

RISK is typically applied at the lowest level. Double click on intermediate variables (or click the down arrow) to view their predecessors. Select a variable and click Next to specify the RISK for that row.



RI\$K Wizard (cont.)

Information about the current row

RISK Wizard

Row #86 is an Equation:
SWLab\$ * GSSWHrs

Equation contains only variables. Applying risk to this row is not recommended.

Please select a variable and click Next to determine RI\$K for that variable.

Description	RI\$K Sta...	Action	Variable	Pt Estimate	RI\$K Dist.	Skew	Spread
86: Software							
Predecessors							
177: Software Labor Rate	None		SWLab\$	1.175038			
176: Ground Station S/W Labor Hours	None		GSSWHrs	15000			
199: Ground Dev Start Date	Inherited	Intermediate l...	GrndD...	38289			
201: Ground Dev End Date	Inherited	Intermediate l...	GrndD...	39201			

RI\$K is typically applied at the lowest level. Double click on intermediate variables (or click the down arrow) to view their predecessors. Select a variable and click Next to specify the RI\$K for that row.

< Back Next > Finish Cancel Help

Each variable in the equation is listed:

- View the risk specification(s)
- OR
- Select a variable to apply risk

Press Next to step through the wizard



RISK Wizard (cont.)

The wizard asks questions that will ultimately determine the uncertainty distribution form, spread and skew parameters.

RISK Wizard

Row #86 is an Equation:
SWLab\$ * GSSWHrs

Status	Row	Variable	Pt Estimate	RISK Dist.	Skew	Spread
In Progress	177	SWLab\$	1.175038			

How do you think the actual value will compare to your point estimate for SWLab\$?

- No information is available (LogNormal, Inherently Right Skewed)
- Equal probability it will be higher or lower (Triangular, Center Skew)
- Greater probability it will be higher (Triangular, Right Skew)
- Greater probability it will be lower (Triangular, Left Skew)
- They will be equal (No uncertainty)

How well does your estimate predict the actual value for SWLab\$?

- Estimate is a good approximation (Low Spread)
- Estimate is a moderate approximation (Medium Spread)
- Estimate is a weak approximation (High Spread)
- There is no uncertainty on this row



RI\$K Wizard (cont.)

Initial screen is displayed and RI\$K Status for that variable is set to COMPLETE. Specify risk for another variable, if desired.

Description	RI\$K Sta...	Action	Variable	Pt Estimate	RI\$K Dist.	Skew	Spread
86: Software							
Predecessors							
177: Software Labor Rate	Complete		SWLab\$	1.175038	LogNormal		High
176: Ground Station S/W Labor Hours	None		GSSWHrs	15000			
199: Ground Dev Start Date	Inherited	Intermediate I...	GrndD...	38289			
201: Ground Dev End Date	Inherited	Intermediate I...	GrndD...	39201			

- When finished, uncertainty distribution inputs will be pasted onto workscreen



Traceback Navigator

- **Traceback Navigator Enhancements.** Added capability to create a report from the navigator, copy the contents of the navigator to the clipboard, arrange columns, and view a breakdown of detailed calculations

The screenshot shows the 'Traceback Navigator (07 - Detailed LCC Estimate updated.aceit)' window. At the top, there are dropdown menus for 'Row: 130: SEPM' and 'Case: Point Estimate'. Below these are several buttons: 'Copy Contents', 'Arrange Columns...', 'Print Report...', and 'View Calc Details...'. A red circle highlights these four buttons. There are also 'Clear History' and 'Help' buttons. The main area is a table titled 'Traceback:' with columns for 'Description', 'ID', 'Equation', and 'Total'. The table contains a tree view of data for '130: SEPM', including 'Equation', 'Predecessors', and 'Successors'.

Description	ID	Equation	Total
130: SEPM			
Equation			
130: SEPM	SEPM\$	$0.37 * (\text{FYTot}(@\text{AF_Mfg}\$) + \text{FYTot}(@\text{Army_Mfg}\$))$	\$ 119,661.734
Start Date	aStartDate	ProcStartDate	01OCT2006
Finish Date	aFinishDate	ProcEndDate	30SEP2014
Predecessors			
104: Manufacturing (Air Force)	AF_Mfg\$		\$ 212,711.755
115: Manufacturing (Army)	Army_Mfg\$		\$ 110,698.336
204: Procurement Start Date	ProcStar...	$\text{DateOf}(\text{FYCFirstYr}(@\text{TotBuyQty}))$	01OCT2006
205: Procurement End Date	ProcEndDate	$\text{DateOf}(\text{FYCLastYr}(@\text{TotBuyQty}) + 1) - 1$	30SEP2014
Successors			
10: SEPM		SEPM\$	\$ 119,661.734 \$K



Traceback Navigator

- Create a report of Traceback Navigator contents

Print Report...

Description	ID	Equation	Total	Unwrapped Total	Appropriation	Phasing
- 130: SEPM						
- Equation						
130: SEPM	SEPM\$	$0.37 * (FYTot(@AF_Mfg\$)) + FYTot(@Army_...$	\$ 119,661.734	(no...	3010	...
Start Date	aStartDate	ProcStartDate		(na)		
Finish Date	fFinishDate	ProcEndDate		(na)		
- Predecessors						
104: Manufacturing (Air Fo...	AF_Mfg\$		\$ 212,711.755	(no...		
115: Manufacturing (Army)	Army_Mfg\$		\$ 110,698.336	(no...		
204: Procurement Start D...	ProcStartD...	DateOf(FYFirstYr(@TotBuyQty))		(no...		C
205: Procurement End Date	ProcEndDate	DateOf(FYLastYr(@TotBuyQty) + 1) - 1		(no...		C
- Successors						
10: SEPM		SEPM\$	\$ 119,661.734 \$K		3010	F
27: SEPM		SEPM\$	\$ 123,954.596 T...		3010	F
103: Procurement	Proc\$	Sum of children	\$ 453,305.671			



Traceback Navigator

■ Arrange columns in Traceback Navigator

Arrange Columns...

Arrange Columns

Available Columns

- Approp
- Category 10
- Category 11
- Category 3
- Category 4
- Category 5
- Category 6
- Category 7
- CES Number
- Comments (*) Example File Comments
- Funding Source
- Key Unit Cost Category
- MDEP
- Model
- PME Matrix
- Service
- ...

Filter

- Display all columns
- Display DEC's
- Display category columns

Column Arrangement

Title
Description
ID
Equation
Total
Unwrapped Total
Appropriation
Phasing
Used in Column
ID Referenced
Ref Type
Shared Kwd
Fee
G&A
Overhead

Set As Default OK Cancel



Traceback Navigator

- Break down Equation/Throughput calculations to lowest level to aid in equation writing and debugging
- Shows both total and time-phased results

View Calc Details...

For example: $0.37 * (\text{FYTot}(@\text{AF_Mfg}\$) + \text{FYTot}(@\text{Army_Mfg}\$))$

Detailed Row Breakdown

Operation	Total	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY
$0.37 * (\text{FYTot}(@\text{AF_Mfg}\$) + \text{FYTot}(@\text{Army_Mfg}\$))$	\$ 119,661.7...	\$ 119,661.7...	\$ 119,661.7...	\$ 119,661.7...	\$ 119,661.7...	\$ 119,661.7...	\$ 119,661.7...
$\text{FYTot}(@\text{AF_Mfg}\$) + \text{FYTot}(@\text{Army_Mfg}\$)$	\$ 323,410.0...	\$ 323,410.0...	\$ 323,410.0...	\$ 323,410.0...	\$ 323,410.0...	\$ 323,410.0...	\$ 323,410.0...
$\text{FYTot}(@\text{Army_Mfg}\$)$	\$ 110,698.3...						
$\text{FYTot}(@\text{AF_Mfg}\$)$	\$ 212,711.7...						
AF_Mfg\$	\$ 212,711.7...					\$ 4,015.341	\$ 7,43...
Army_Mfg\$	\$ 110,698.3...						
ProcStartDate	01OCT2006						
ProcEndDate	30SEP2014						

Copy Close Help



Learning Curve Report

- **New ACE Learning Curve Report displays T1 and calculated Unit Values for a selected range of units or for specific units on the learning curve**

Learning Report Options

Description Header Footer Row **Layout** Format

Learning Curve

Display Calculated Unit Values

Range (max=100)

First: Last:

Specific Units (comma delimited string, ex: 1-4,8)

Display Avg. Yearly Unit Values

Display Buy Schedule(s)

Learning Curve Costs for a Range of Units

Row 31 Basic Structure (AF) \$ 92,403.271 FY2010 SK

A. Learning Curve Parameters

Estimate Type	LTC = 92403.3 (FY2010, \$K)
Prior Quantity	0
Buy Quantity of Item	AFBuyQty = 119.0
Total Shared Quantity	176.0
Learning Curve Slope	AVSlope = 90.0
Learning Theory	U
Reference Cost Type	LTC,1,10 = 10000 (FY2003, \$K)
Unit Theory T1	\$1,250.8 (FY2003, \$K) (assumed rate of one)
Unit Theory T1	\$1,457.8 (FY2010, \$K) (assumed rate of one)
Shared Learning Keyword	StrShr
Related Shared Items:	
Basic Structure (Army)	Row 42

B. Calculated Unit Values

Unit #	1	2	3	4	5	6	7	8	9	10
Cost (2010 \$K)	1457.8	1312.0	1233.6	1180.8	1141.4	1110.2	1084.5	1062.7	1043.9	1027.3
Year	2007	2008	2009	2009	2010	2010	2011	2011	2011	2011

Unit #	11	12	13	14	15	16	17	18	19	20
Cost (2010 \$K)	1012.5	999.2	987.1	976.1	965.9	956.5	947.7	939.5	931.8	924.6
Year	2011	2011	2011	2011	2011	2011	2011	2011	2011	2011



Learning Curve Report

Row 31 Basic Structure (AF) \$ 92,403.271 FY2010 \$K

A. Learning Curve Parameters

Estimate Type	LTC = 92403.3 (FY2010, \$K)
Prior Quantity	0
Buy Quantity of Item	AFBuyQty = 119.0
Total Shared Quantity	176.0
Learning Curve Slope	AVSlope = 90.0
Learning Theory	U
Reference Cost Type	LTC,1,10 = 10000 (FY2003, \$K)
Unit Theory T1	\$1,250.8 (FY2003, \$K) (assumed rate of one)
Unit Theory T1	\$1,457.8 (FY2010, \$K) (assumed rate of one)
Shared Learning Keyword	StrShr
Related Shared Items:	
Basic Structure (Army)	Row 42

Includes **shared** and broken learning information

Option to display **buy schedules** - includes qtys for primary and shared learning rows, also displays annual and cumulative totals

B. Buy Schedules

		Name/ID	Row #	FY 2007	FY 2008
Row 31 Learning Qty	Air Force Buy Quantities	AFBuyQty	76	1.0	1.0
Row 42 Learning Qty	Army Buy Quantities	ArmyBuyQty	79		
Annual Total				1.0	1.0
Cum Total				1.0	2.0

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	Total
Row 31 Learning Qty	1.0	1.0	15.0	25.0	50.0	25.0	119.0
Row 42 Learning Qty	1.0	1.0	10.0	15.0	15.0	15.0	57.0
Annual Total	2.0	2.0	25.0	40.0	65.0	40.0	176.0
Cum Total	4.0	6.0	31.0	71.0	136.0	176.0	

Display **calculated unit values** for selected units on the learning curve

C. Calculated Unit Values

Unit #	25	50	100	150	175	200
Cost (2010 \$K)	893.7	804.4	723.9	680.7	664.9	651.5
Year	2011	2012	2013	2014	2014	
Break Number						

Option to display **Average Yearly Unit Values**

D. Average Yearly Unit Values

Year	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Avg. Yearly Value	1457.8	1312.0	1207.2	1125.8	945.8	804.5	721.7
Cum. Avg. Value	1457.8	1384.9	1296.1	1239.3	1002.6	891.0	810.1

Year	FY 2014
Avg. Yearly Value	676.6
Cum. Avg. Value	779.8



Reports with Workscreen Formatting

- New ACE report option to render and print tabular reports with workscreen formatting (color and fonts)

**System: UAV Demo Case: Point Estimate
(FY 2010 IN SK)**

Row	Cost Element	Approp	Total	FY 2003	FY 2004	FY 2005	FY 2006
80	*Estimating WBS						
81	Total		\$ 764,517.224	\$ 1,970.989	\$ 3,202.700	\$ 13,839.818	\$ 32,898.269
82	RDTE		\$ 93,154.198	\$ 1,970.989	\$ 3,202.700	\$ 13,839.818	\$ 32,898.269
83	Concept Refinement		\$ 1,147.824	\$ 1,147.824			
84	Contractor A	3600	\$ 576.302	\$ 576.302			
85	Contractor B	2040	\$ 571.522	\$ 571.522			
86	Technology Development		\$ 4,312.388	\$ 417.237	\$ 2,181.584	\$ 1,713.567	
87	Contractor A	3600	\$ 2,156.194	\$ 169.412	\$ 1,091.635	\$ 895.147	
88	Contractor B	2040	\$ 2,156.194	\$ 247.825	\$ 1,089.949	\$ 818.420	
89	System Development and Demonstration		\$ 87,693.986	\$ 405.929	\$ 1,021.117	\$ 12,126.250	\$ 32,898.269
90	Development Engineering		\$ 41,483.525		\$ 373.536	\$ 8,184.004	\$ 19,637.209
91	Air Vehicle	3600	\$ 10,992.817		\$ 373.536	\$ 4,921.468	\$ 4,681.319
92	Basic Structure	3600	\$ 5,102.286		\$ 213.993	\$ 2,627.413	\$ 1,846.613
93	Navigation/Guidance	3600	\$ 1,404.380		\$ 58.900	\$ 723.183	\$ 508.271
94	Propulsion	3600	\$ 2,399.545		\$ 100.638	\$ 1,235.641	\$ 868.440
95	Software	3600	\$ 2,086.606		\$ 0.005	\$ 335.231	\$ 1,457.994



Enhanced Report Filtering Options

Phased Report Options

Description Header Footer Page Layout Format Rows **Filter** Columns RISK

No Filter or Summary
 Filter by Category
 Summary by Category

Add Level Delete Level ↑ ↓

Category Column	Value
Service	Joint
Funding Source	Govt
Approp	3600
Approp	3300

AND
(across categories)

OR
(within same category)

Filter on an unlimited number of Category criteria
Only rows matching the criteria are returned

	Cost Element	Approp	Total	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008
1	Total		\$ 16,769.103	\$ 405.527	\$ 643.621	\$ 3,935.028	\$ 6,076.383	\$ 5,642.000	\$ 66.546
2	RDT&E		\$ 16,769.103	\$ 405.527	\$ 643.621	\$ 3,935.028	\$ 6,076.383	\$ 5,642.000	\$ 66.546
3	System Development and Demonstration		\$ 16,769.103	\$ 405.527	\$ 643.621	\$ 3,935.028	\$ 6,076.383	\$ 5,642.000	\$ 66.546
4	SEPM		\$ 15.090	\$ 2.515	\$ 2.515	\$ 2.515	\$ 2.515	\$ 2.515	\$ 2.515
5	Government SEPM	3600	\$ 15.090	\$ 2.515	\$ 2.515	\$ 2.515	\$ 2.515	\$ 2.515	\$ 2.515
6	Industrial Facilities		\$ 14,839.619		\$ 247.908	\$ 3,549.149	\$ 5,701.684	\$ 5,276.846	\$ 64.031
7	Construct/Convers/Expans	3300	\$ 11,415.091		\$ 190.699	\$ 2,730.115	\$ 4,385.911	\$ 4,059.112	\$ 49.254
8	Equip ACQ/Modern (Govt Owned/le	3600	\$ 3,424.527		\$ 57.210	\$ 819.034	\$ 1,315.773	\$ 1,217.734	\$ 14.776
9	Other Government Costs	3600	\$ 1,914.395	\$ 403.012	\$ 393.197	\$ 383.363	\$ 372.184	\$ 362.639	



Enhanced Report Summary Options

Phased Report Options

Description Header Footer Page Layout Format Rows Filter Columns RISK

No Filter or Summary
 Filter by Category
 Summary by Category

Add Level Delete Level ↑ ↓

Category Column

Service
WSR Req PEG
PEG Subcategory

Include rows explicitly
 Include parent rows la child rows with same l
 Include parent rows la child rows

Summarize by multiple categories

Filter and Summary demo.aceit - BY Phased Summary by Service, WSR Req (FY2010 \$K, Time Phased Summary by Category, ...

	Cost Element	Total	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
1	*Estimating WBS								
2	Joint	\$ 240,043.877	\$ 1,969.037	\$ 3,199.529	\$ 13,828.245	\$ 32,877.213	\$ 45,171.719	\$ 24,456.183	\$ 22,755.674
3	EE	\$ 222,988.090	\$ 1,969.037	\$ 3,199.529	\$ 13,828.245	\$ 32,877.213	\$ 45,171.719	\$ 21,144.861	\$ 22,099.350
4	RDTE	\$ 93,092.509	\$ 1,969.037	\$ 3,199.529	\$ 13,828.245	\$ 32,877.213	\$ 29,452.687	\$ 5,275.724	\$ 6,490.074
5	Procurement	\$ 129,895.581					\$ 15,719.032	\$ 15,869.136	\$ 15,609.276
6	SS	\$ 9,424.764						\$ 536.828	\$ 517.522
7	Depot	\$ 7,687.767						\$ 328.362	\$ 329.903
8	PPSS	\$ 1,736.997						\$ 208.466	\$ 187.619
9	TT	\$ 7,631.022						\$ 2,774.495	\$ 138.802
10	TrainingOM	\$ 2,359.637						\$ 138.802	\$ 138.802
11	CLS	\$ 5,271.385						\$ 2,635.693	
12	AF	\$ 310,575.037					\$ 4,015.341	\$ 9,498.349	\$ 6,074.349
13	EE	\$ 212,711.755					\$ 4,015.341	\$ 7,438.520	\$ 4,102.328
14	Procurement	\$ 212,711.755					\$ 4,015.341	\$ 7,438.520	\$ 4,102.328
15	SS	\$ 97,863.283						\$ 2,059.829	\$ 1,972.021
16	Depot	\$ 97,863.283						\$ 2,059.829	\$ 1,972.021
17	ARMY	\$ 213,723.992							\$ 3,867.359
18	EE	\$ 110,698.336							\$ 3,867.359
19	Procurement	\$ 110,698.336							\$ 3,867.359



Enhanced Report Summary Options

Phased Report Options

Description Header Footer Page Layout Format Rows Filter Columns RISK

No Filter or Summary
 Filter by Category
 Summary by Category

Add Level Delete Level ↑ ↓

Category Column

- WSR Req PEG
- PEG Subcategory
- Service

Simply reorder the Category Column selections to obtain different summary information

Filter and Summary demo.aceit - BY Phased Summary by WSR Req, Service (FY2010 \$K, Time Phased Summary by Category, Case:...

	Cost Element	Total	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
1	*Estimating WBS								
2	EE	\$ 546,398.181	\$ 1,969.037	\$ 3,199.529	\$ 13,828.245	\$ 32,877.213	\$ 49,187.060	\$ 28,583.381	\$ 30,069.037
3	RDTE	\$ 93,092.509	\$ 1,969.037	\$ 3,199.529	\$ 13,828.245	\$ 32,877.213	\$ 29,452.687	\$ 5,275.724	\$ 6,490.074
4	Joint	\$ 93,092.509	\$ 1,969.037	\$ 3,199.529	\$ 13,828.245	\$ 32,877.213	\$ 29,452.687	\$ 5,275.724	\$ 6,490.074
5	Procurement	\$ 453,305.671					\$ 19,734.373	\$ 23,307.656	\$ 23,578.963
6	Joint	\$ 129,895.581					\$ 15,719.032	\$ 15,869.136	\$ 15,609.270
7	AF	\$ 212,711.755					\$ 4,015.341	\$ 7,438.520	\$ 4,102.328
8	ARMY	\$ 110,698.336							\$ 3,867.359
9	SS	\$ 210,313.703						\$ 2,596.656	\$ 2,489.543
10	Depot	\$ 208,576.706						\$ 2,388.190	\$ 2,301.924
11	Joint	\$ 7,687.767						\$ 328.362	\$ 329.903
12	AF	\$ 97,863.283						\$ 2,059.829	\$ 1,972.021
13	ARMY	\$ 103,025.656							
14	PPSS	\$ 1,736.997						\$ 208.466	\$ 187.619
15	Joint	\$ 1,736.997						\$ 208.466	\$ 187.619



Charts in ACE!

Export charts to PowerPoint or Word

RISK Charts

Estimate Charts (Single Case, Drill down)

Comparative Charts (Multiple Cases)

Second Level of Visibility for Total

WBS/CES Description	Estimate	Comparative	RISK
80 *Estimating WBS			
81 Total			
82 RDT&E			
83 Concept Refinement Contractor A			
84			
94 Propulsion			
95 Software			
96 Ground Station			
97 Procure OTS Parts			
98 Design New Parts			
99 Software			
100 Int & Assy			
101 Prototype Manufacturing			
102 Air Vehicle			
103 Mobile Ground Station			
104 SEPM (RDT&E)			
105 Contactor SEPM			
106 Government SEPM			
107 System Test & Eval			
108 DT&E			
109 IDT&E (now done with LF)			
110 Test Facilities			
111 Industrial Facilities			
112 Construct/Converts/Expa			
113 Equip ACQ/Modern (Gov			
114 Other Government Costs			
115			
116 Procurement			
117 Manufacturing (Air Force)			
118 Air Vehicle (AF)			
119 Basic Structure (AF)			
120 Navigation/Guidance (AF)			
121 Propulsion (AF)			

Category	Ground Station Mods	Lower Propulsion Cost Scenario	New 3010 Budget and AF Buy Quantities	Point Estimate
RDT&E	~80,000	~90,000	~90,000	~90,000
Procurement	~450,000	~430,000	~450,000	~450,000
Operations & Support	~220,000	~210,000	~210,000	~210,000



Charts in ACE

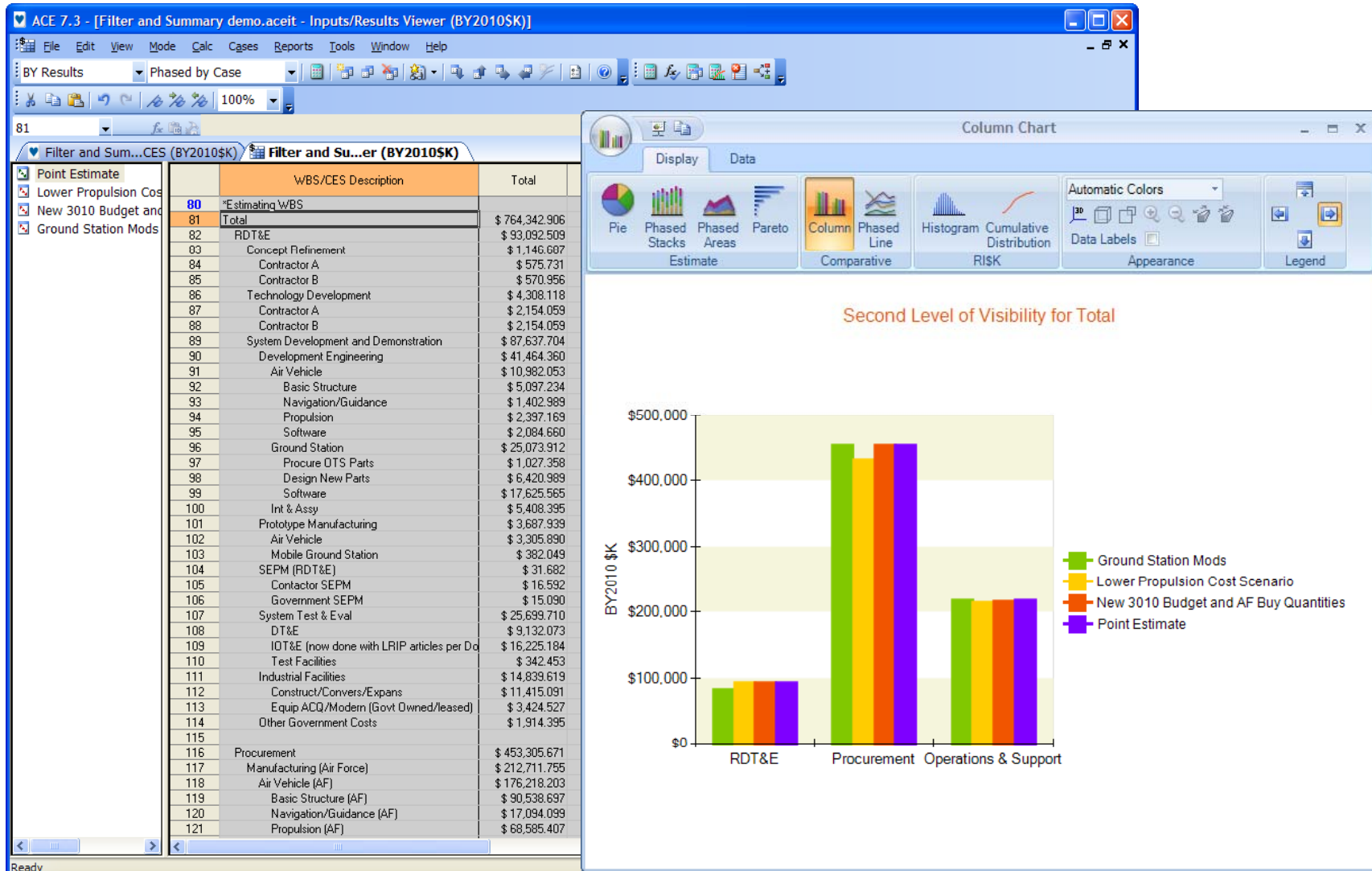
- Options on the Data ribbon to interactively change the chart

The screenshot shows the 'Data' ribbon in the ACE software interface. The ribbon is divided into three main sections: 'Results', 'Rows', and 'Filter'. The 'Results' section includes a 'Point Estimate' dropdown menu, a 'BaseYear' dropdown menu, and a date range selector set to '2006 to 2015'. The 'Rows' section includes a 'Total' dropdown menu, a 'Parent' button, 'Show More' and 'Show Less' buttons, and an 'Items to Display' spinner set to '1'. The 'Filter' section includes 'All', 'Filter', and 'Summary' buttons, and two dropdown menus for 'Appropriation' and 'Multiple values'. Callouts with arrows point to these features: 'Case(s) to Chart' points to the chart icon; 'Type of Dollars' points to the 'Point Estimate' dropdown; 'Adjust the year range' points to the 'BaseYear' dropdown and date range; 'Drill-down to show lower levels of detail' points to the 'Total' dropdown; and 'Filter and Summary options' points to the 'Filter' and 'Summary' buttons.



ACE Charts

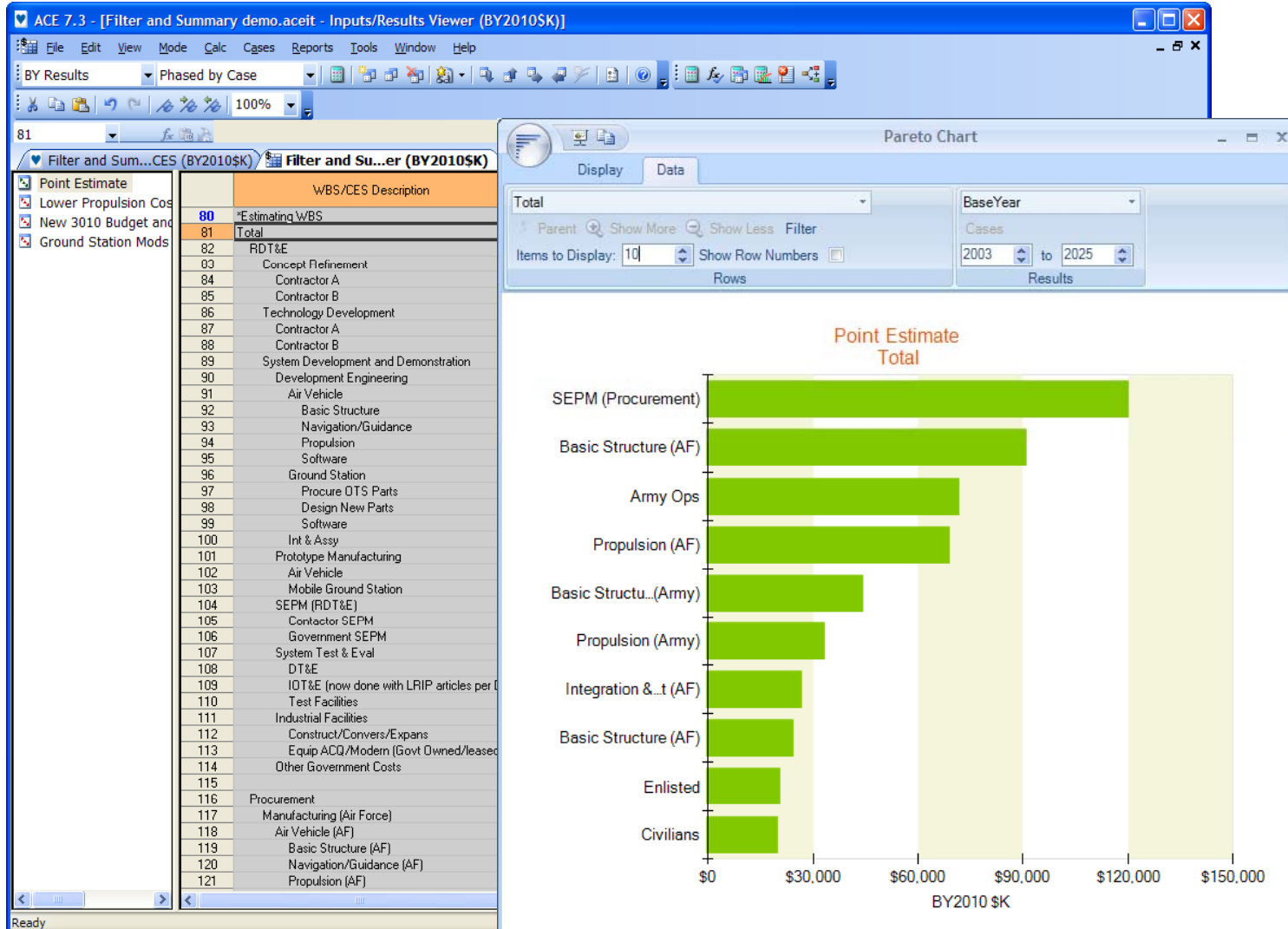
■ Sample Column Drill-down chart Comparing Cases





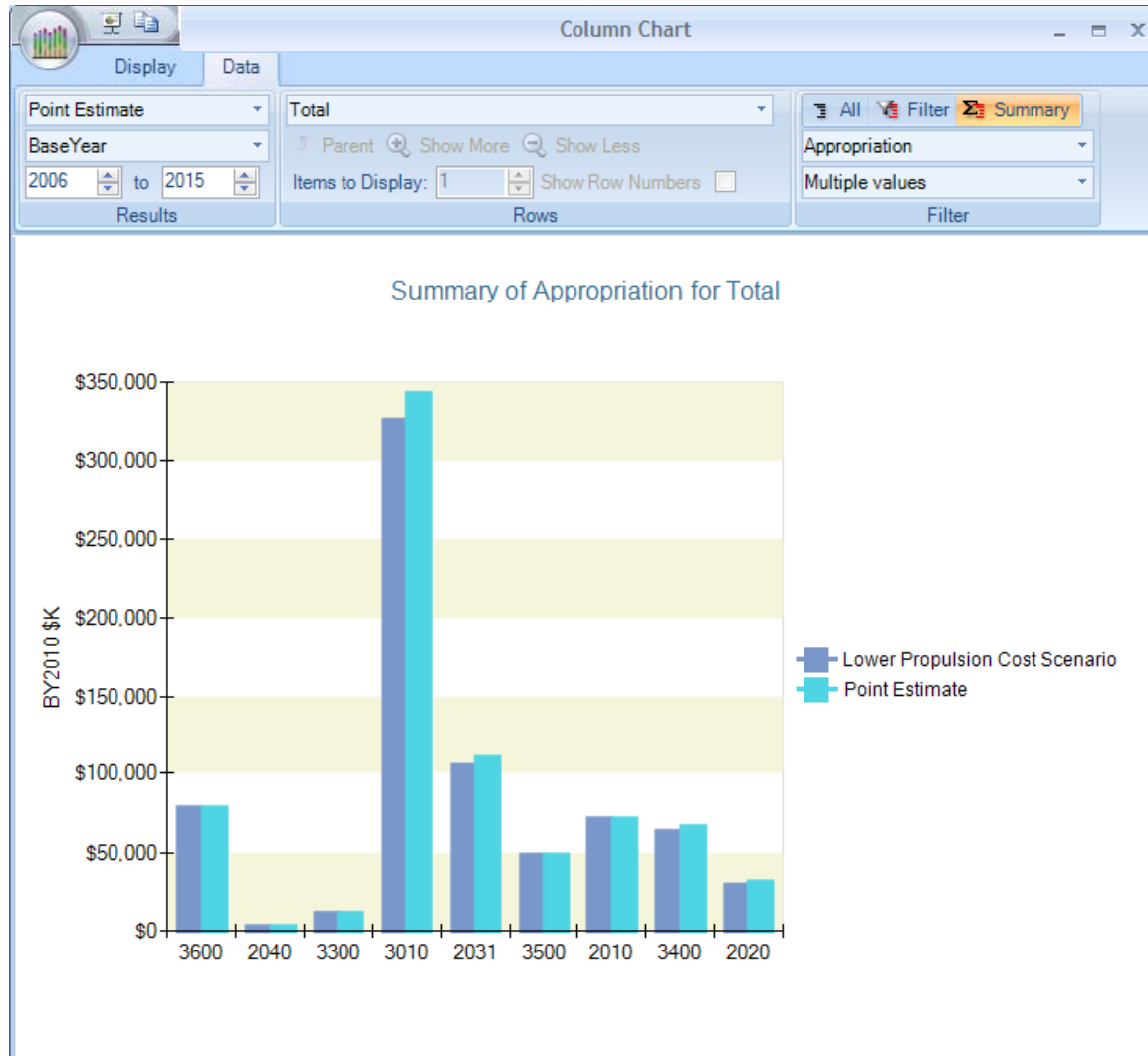
ACE Charts

Sample Pareto Chart





■ Sample Summary by Appropriation Column Chart





ACEIT 7.3 New Features

- **Configuration Information.** Overhauled the configuration functions to internalize them in the session. They can now be viewed from the redesigned Manage Cases dialog, and selectively included in the Inputs/Results Viewer (IRV) and on reports.
- **Enhanced Summary Sections.** Improved performance, easily display summary BY/TY/SY results
- **Input All Form Improvements**
 - Synchronize the workscreen in the background when the Input All Form is active
 - On the FY Inputs tab, support pasting into multiple highlighted cells
- **Workscreen Usability features**
 - Ctrl arrow keys now match Excel behavior
 - Newly added columns automatically added to All Columns workscreen
- **View results for a selected year range and use the Traceback Navigator in the IRV**
- **Find All option on the Find dialog**
- **ACE Report Options**
 - Support specification of non-continuous groups of rows (e.g., 1-5, 20-25)
 - Added an option to show/hide comment and blank rows



ACEIT 7.3 New Features

- **New "summing" capability for DEC's where parent row result is Min or Max of children**
- **Enhanced "Probability % of Occurrence" for modeling discrete risk.** Allows for uncertainty on the probability and the cost consequence.
- **CO\$TAT Stepwise Regression.** Added a new option for linear and log-linear analyses, which allows the analyst to review the regression results of several candidate independent variables.
- **CO\$TAT RI\$K Distribution Finder.** Added a new option to CO\$TAT which finds the best uncertainty distribution fit for a dataset.
- ***Show row numbers* option added to POST reports**
- **Add a Year Range option to select POST Charts**
- **Enhance the POST File Management Capability**
- **ACDB Short-term 2007 DID 1921-1 critical issues.** Address ACDB DDK and Report Writer short-term 2007 DID 1921-1 critical issues.

On schedule for ACEIT 7.3 release in April 2011



Thank You

