Welcome to ACEIT 8.2

Supporting
Inflation & Escalation
Best Practices

ACEIT: Designed to Support Best Practices

Since the 1980's, ACEIT has been designed to…

Provide a **standardized framework** to support estimating processes for US Government and other organizations

Support cost analysts to follow **established best practices** with analysis, model development, uncertainty, and reporting

OSD CAPE seeks to better define program costs associated with inflation vs. escalation.

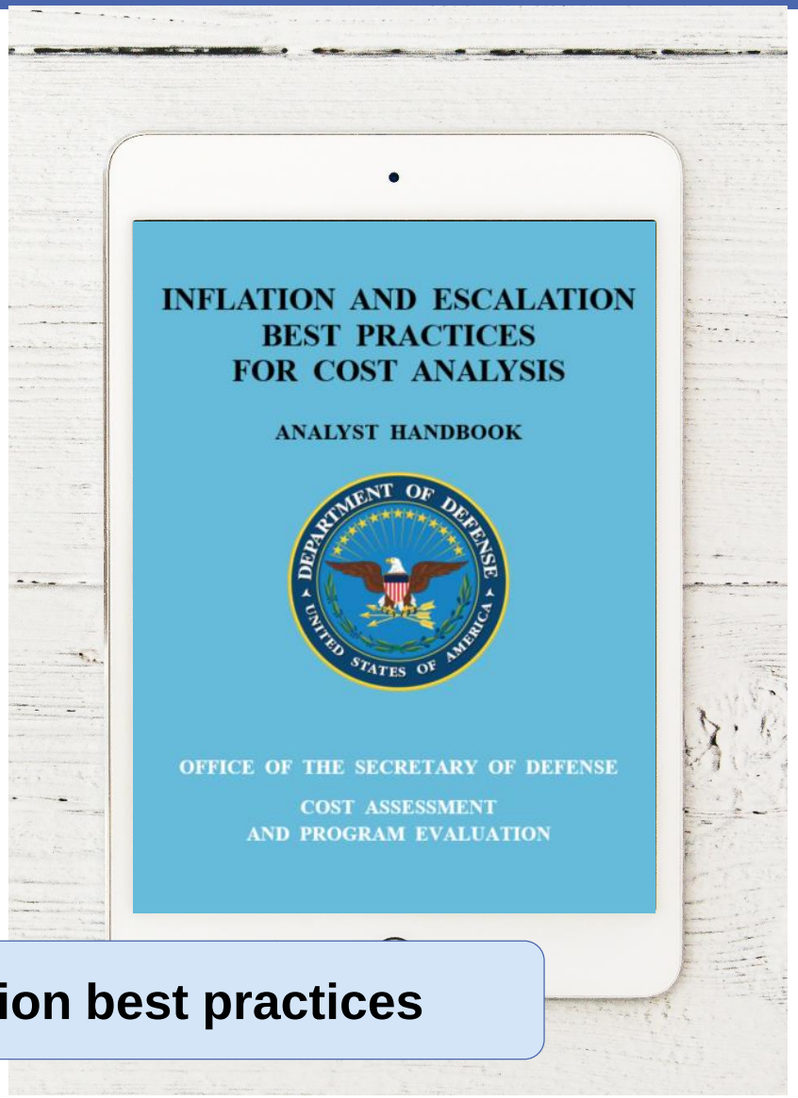
ACEIT 8.2 supports that mission.

OSD CAPE Inflation and Escalation Guidance

In December 2021, OSD CAPE published updated guidance on inflation and escalation practices

CAPE Goals

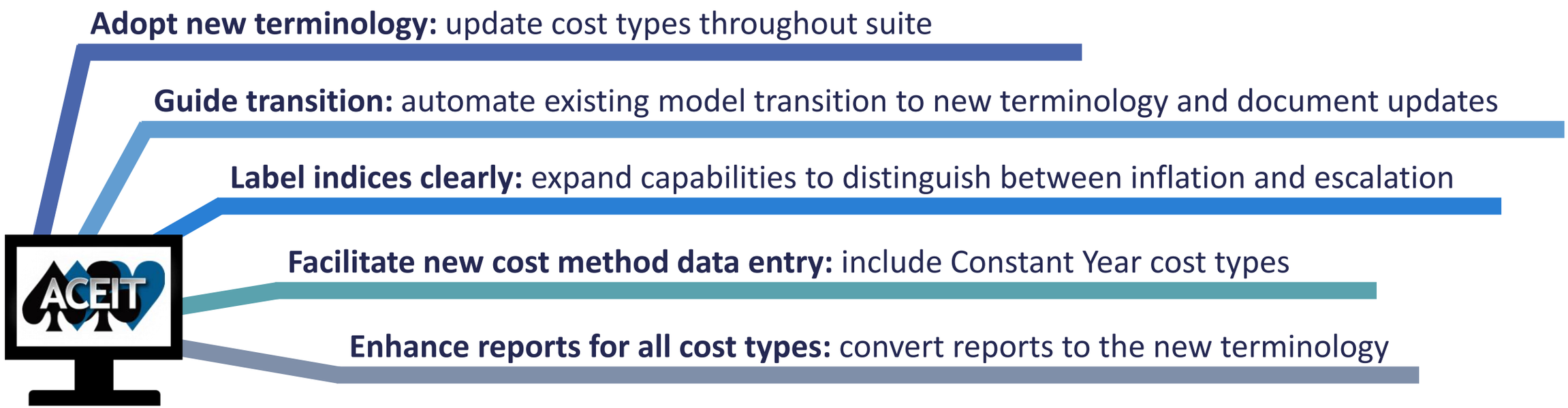
- Account for differences between inflation and escalation
- Adopt consistent terminology
- Use realistic escalation rates to estimate costs in Then-Year dollars
- Make long-term assumptions about fuel prices, military pay, others rates that balance realism and stability of estimates
- Normalize inputs appropriately for use in cost estimate calculations
- Use Then Year and Constant Year dollars for external budgeting and decision making reports
- Document and label all indices used



These guidelines go beyond OSD: they are **cost estimation best practices**

Empowering Analysts to Adopt New Practices

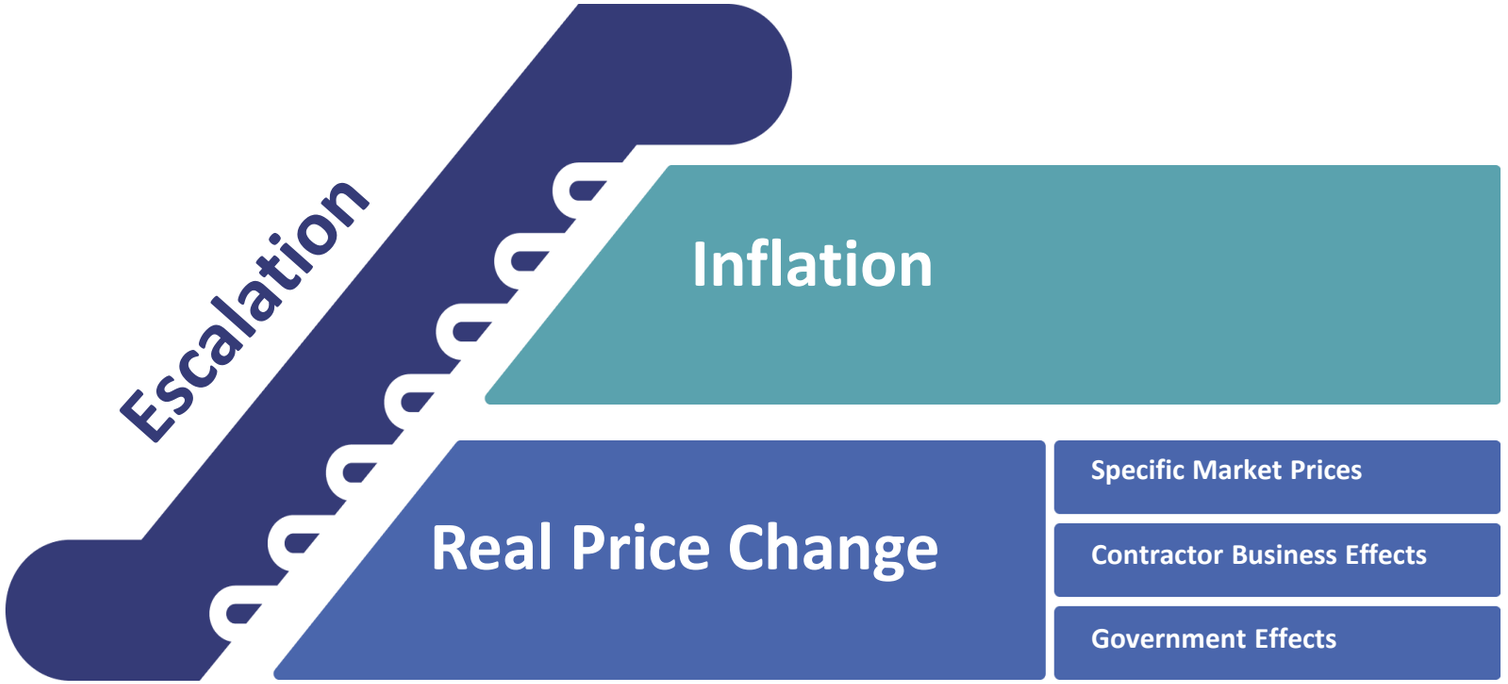
ACEIT 8.2 is designed and developed to…



<u>Our goal</u>: lead analysts through terminology changes so they can focus on selecting indices to correctly normalize inputs and inform estimates

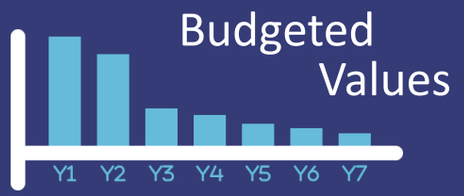
Price Change: Not Just Inflation

- **Inflation**: economy-wide price change
- **Real Price Change**: any price change a commodity experiences not explained by inflation;
  - Includes specific market price changes, contractor business effects, government effects
- **Escalation**: overall price change to specific commodity; includes **Inflation** and **Real Price Change**



Focus on Obligations vs Expenditures

Obligations



Obligations - recorded prior to disbursement of funds from US Treasury

Include adjustment for timing of expected expenditure (**outlay profile)**

Expenditures

Expenditures - dollars at the time they leave US Treasury to pay a bill

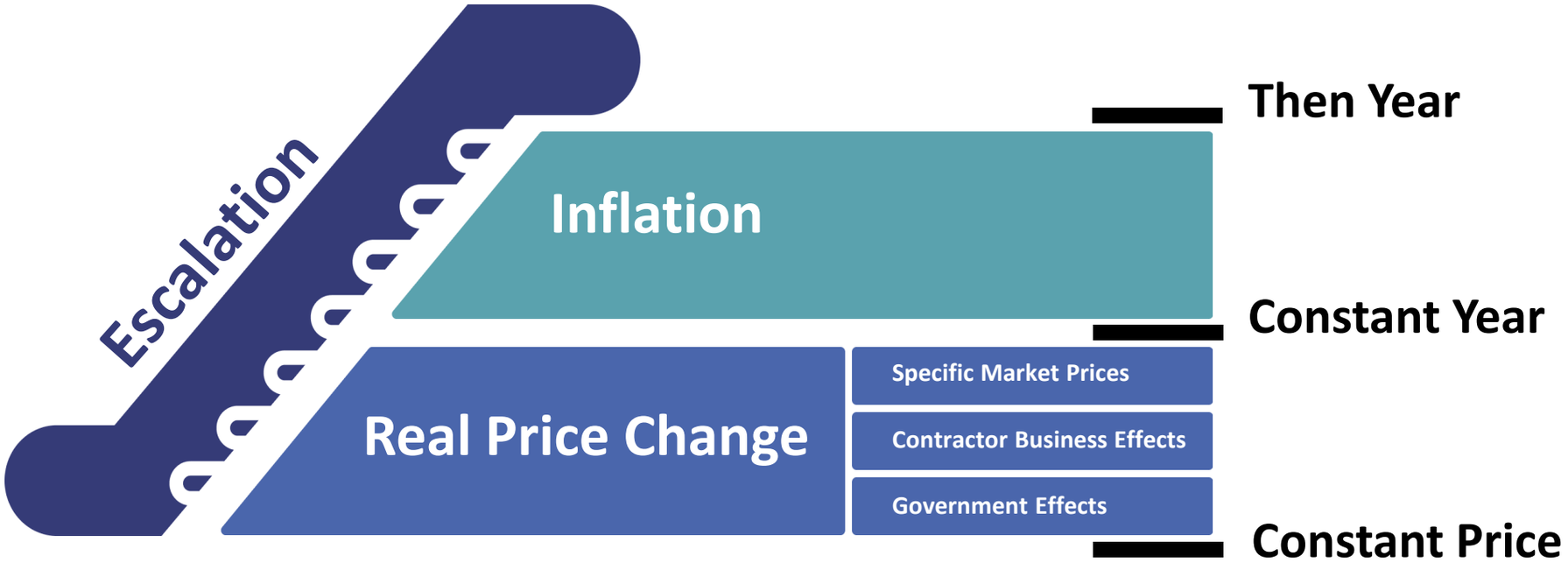
No time delay means no need to adjust for future changes in value **(no outlay profile)**

Important distinction when selecting indices:

- **Weighted indices** incorporate outlay profiles; appropriate for Obligations
- **Raw indices** do not incorporate outlay profiles; appropriate for Expenditures

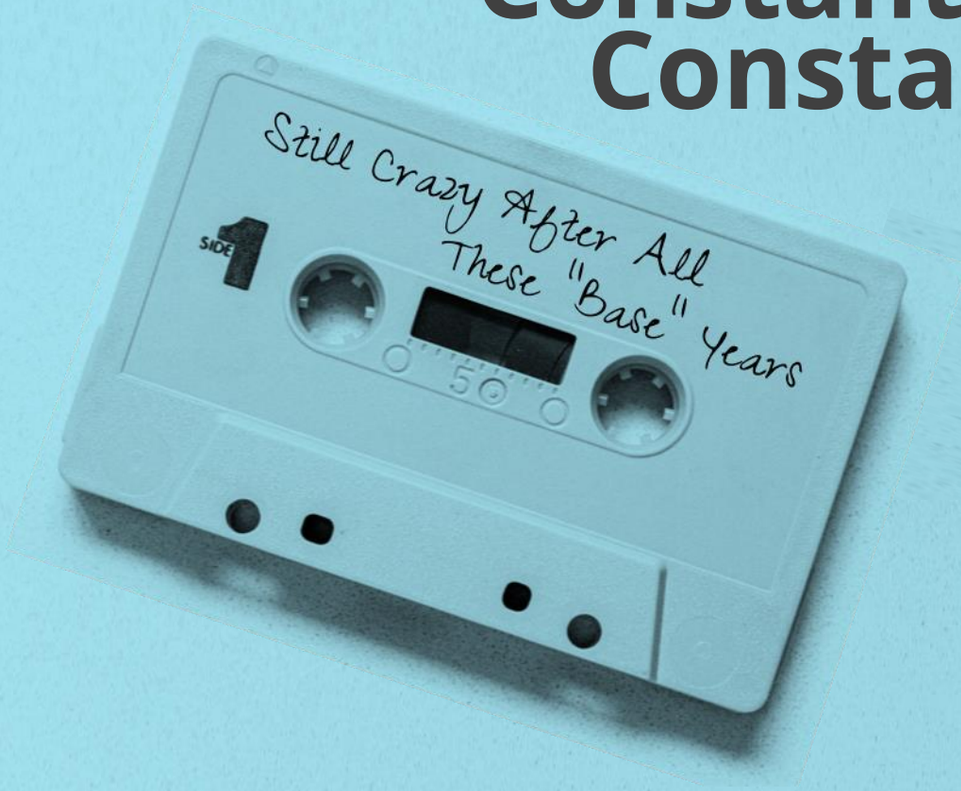
New Cost Types for Improved Clarity

- **Constant Price** (CP$): Impacts of escalation not included (no inflation or real price change)
  - Expressed relative to a single normalization year
- **Constant Year** (CY$): Impacts of real price change included, but not inflation
  - Often called “real dollars” outside DoD



BASE YEAR dollars ARE OUT

Constant Price & Constant Year dollars are IN

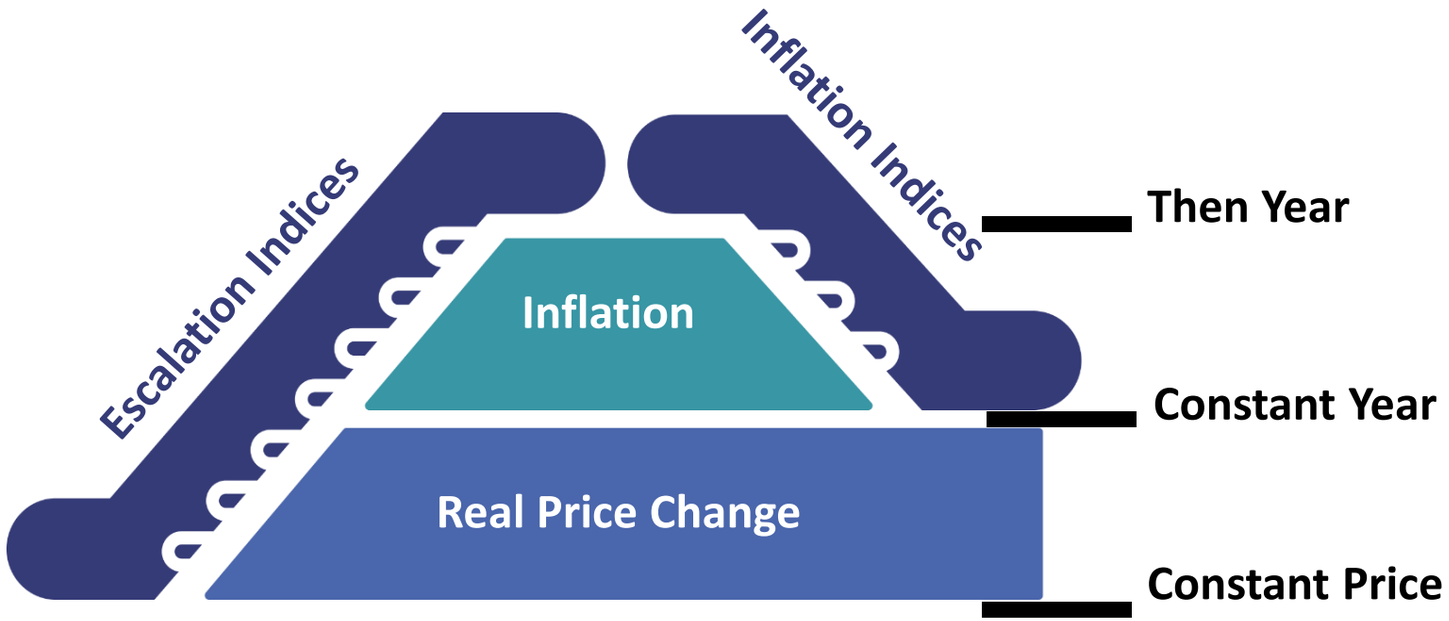


By replacing Base Year dollars (BY$) with CP$ or CY$ cost estimators can more easily:

- ✓ Understand if costs include impacts of real price change or not
- ✓ Identify type of index used to produce each value

Escalation and Inflation Index Types

- DoD seeks to have well defined **escalation** and **inflation** indices
- With these two measurements, all three major cost type categories can be calculated
  - Real Price Change indices not well defined



In ACE:

Escalation defined in **Approp** column

WBS/CES Description	Approp	Deflator Index
Basic Structure (AF)	APR	APR_D

Inflation defined in **Deflator Index** column

WBS/CES Description	Approp	Deflator Index
Basic Structure (AF)	APR	APR_D

New Cost Type Terminology in ACEIT

Constant Price

CP — Normalized to remove the effects of escalation and any outlay profile

ACEIT 8.1 term: ***Base Year*** *(BY) dollars*

Then Year Obligations

TYO — Contain effects of Escalation and outlay profiles

ACEIT 8.1 term: ***Then Year*** *(TY) dollars*

Constant Year Obligations

CYO — Contain effects of Real Price Change and outlay profiles

ACEIT 8.1 term: ***Reportable BY (Results only)***

Then Year Expenditures

TYE — Contain effects of Escalation but no outlay profiles

ACEIT 8.1 term: ***Same Year*** *(SY) dollars*

Constant Year Expenditures

CYE — Contain effects of Real Price change but no outlay profile

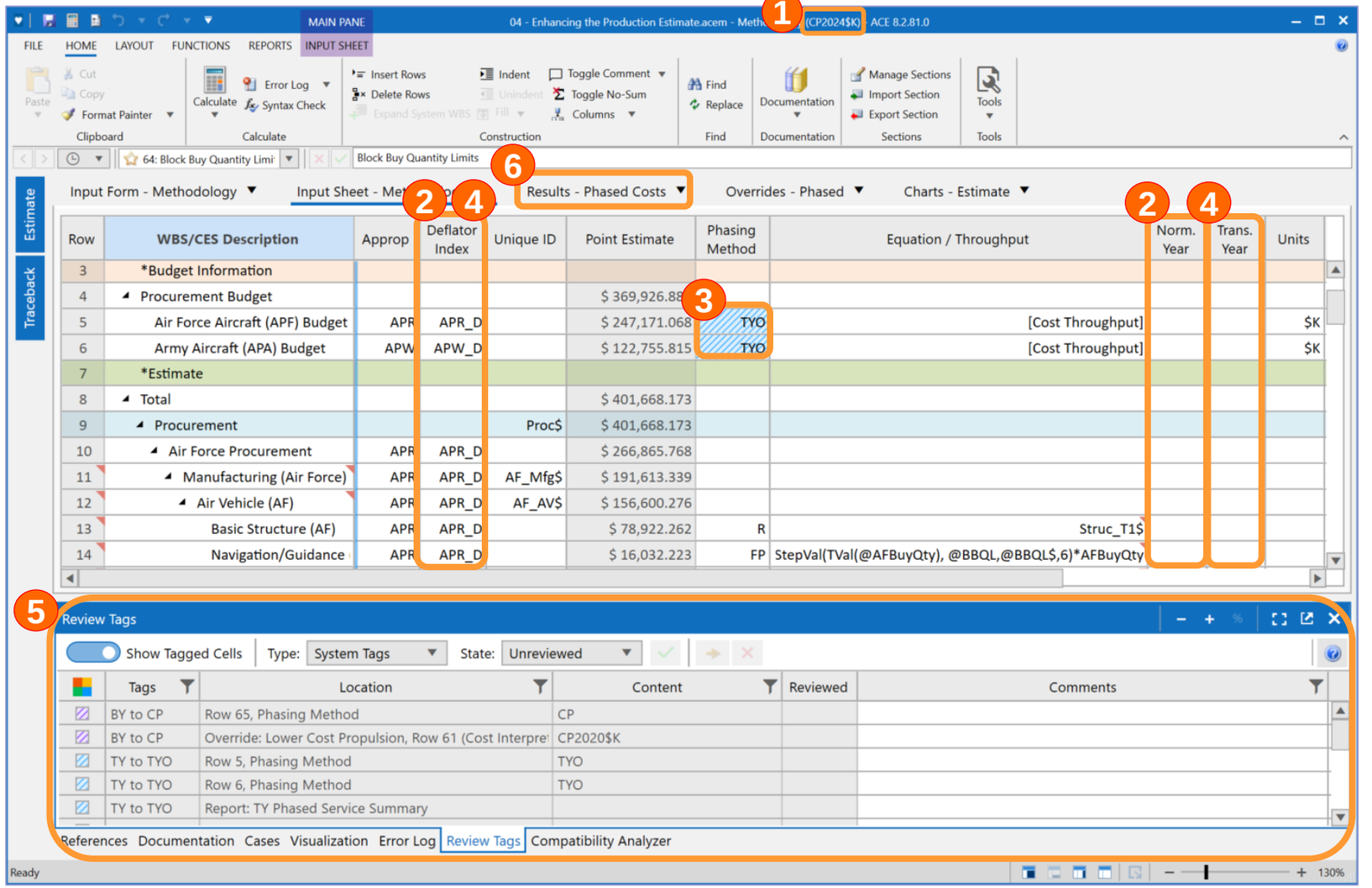
ACEIT 8.1 term: ***Reportable BY (Results only)***

ACEIT 8.2 adopts OSD CAPE Handbook cost terms

ACEIT 8.2 Details

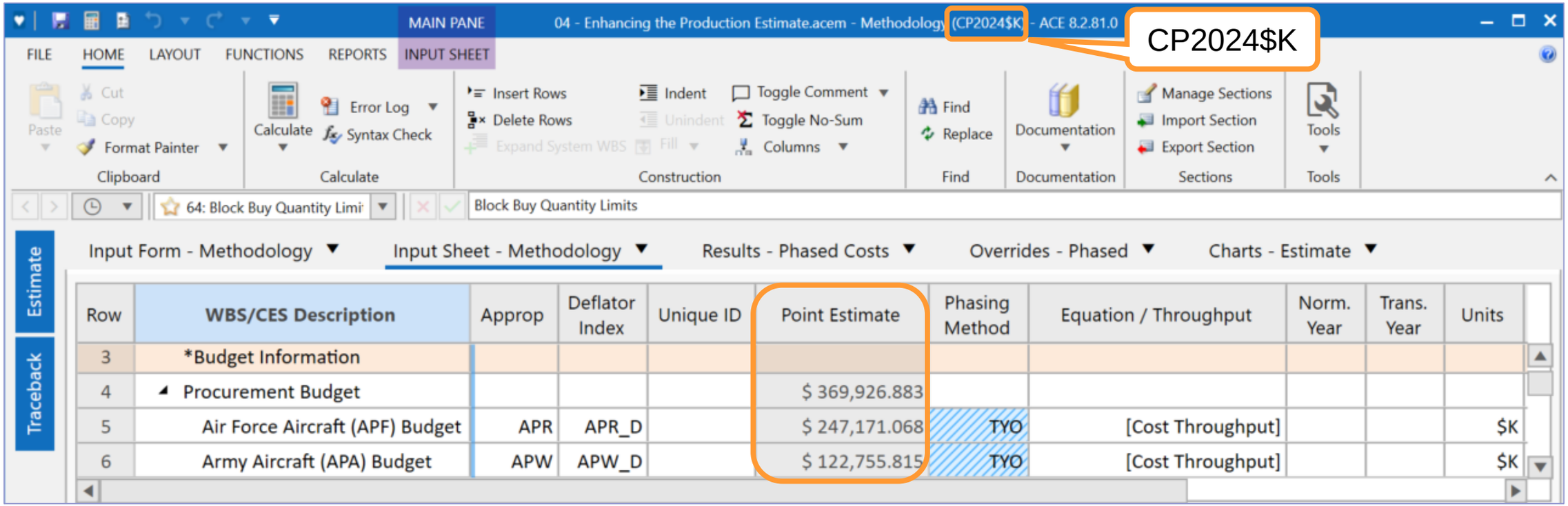
High Profile Updates to ACE

1. Session Results in Constant Price
2. Renamed “Fiscal Year” Column “Norm. Year”
3. Updated Phasing Methods to new cost types
4. Support for CY$ inputs with Deflator Index and Trans. Year
5. Review Tags Pane tracks system cost type changes
6. Results in new Cost Types



Session Results in Constant Price

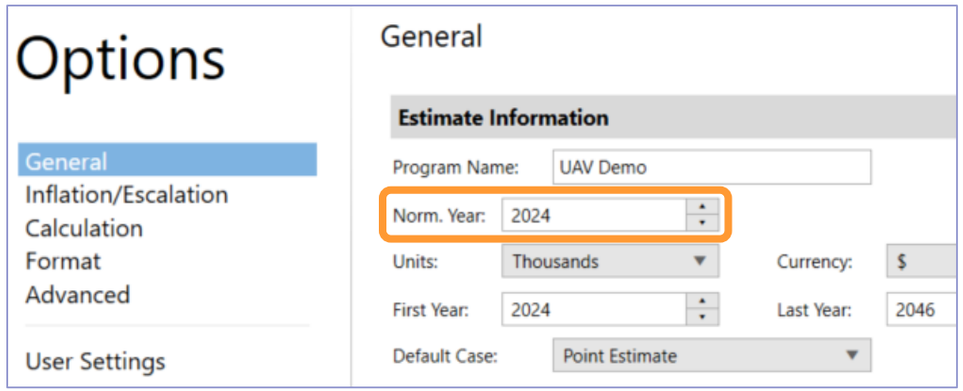
- Constant Price used to understand historical trends, compare costs, develop CERs
- ACE sessions calculated in CP$ of user-selected Norm. Year



Row	WBS/CES Description	Approp	Deflator Index	Unique ID	Point Estimate	Phasing Method	Equation / Throughput	Norm. Year	Trans. Year	Units
3	*Budget Information									
4	Procurement Budget				$ 369,926.883					
5	Air Force Aircraft (APF) Budget	APR	APR_D		$ 247,171.068	TYO	[Cost Throughput]			$K
6	Army Aircraft (APA) Budget	APW	APW_D		$ 122,755.815	TYO	[Cost Throughput]			$K

Renamed Session “Base Year” and “Fiscal Year” Column to “Norm. Year”

- **Base Year** and **Fiscal Year** terms were overloaded in ACEIT
- Session base year renamed Norm. Year
- Renamed to Norm. Year as a descriptor year of normalization



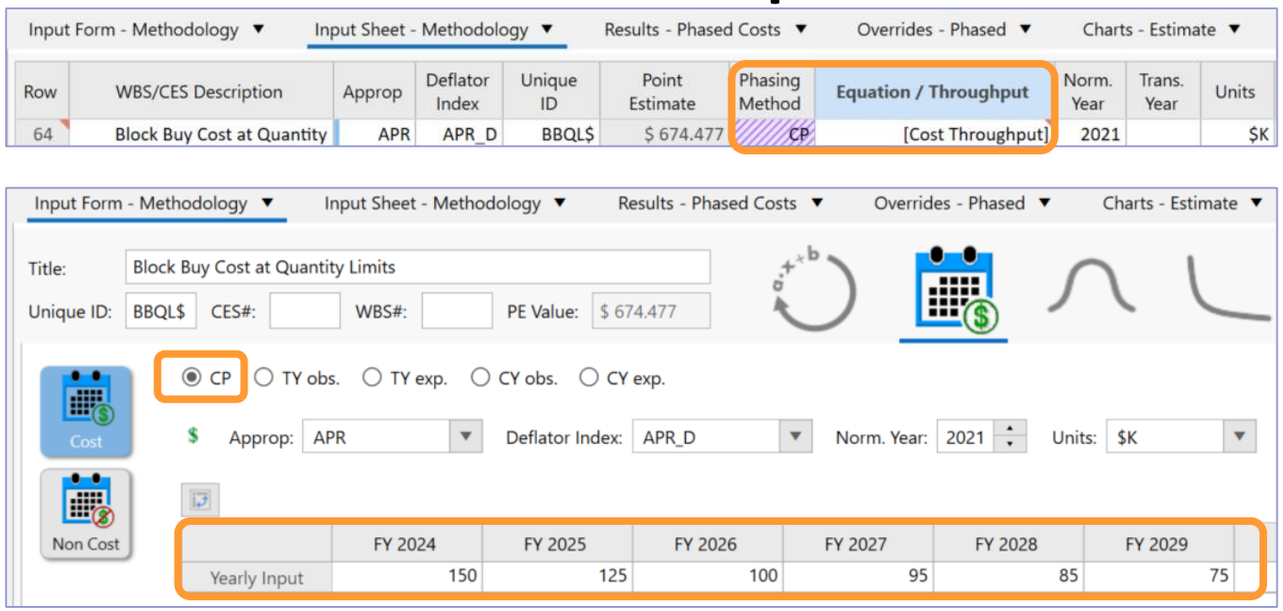
Input Form - Methodology | Input Sheet - Methodology | Results - Phased Costs | Overrides - Phased | Charts - Estimate

Row	WBS/CES Description	Approp	Deflator Index	Unique ID	Point Estimate	Phasing Method	Equation / Throughput	Norm. Year	Trans. Year	Units
56	*Production Inputs									
57	*Cost Inputs									
58	Air Vehicle T1				$ 1,934.457					
59	Basic Structure T1	APR	APR_D	Struc_T1$	$ 1,255.835	C	1200	2022		$K
60	Navigation/Guidance T1	APR	APR_D		$ 160.590	C	TVal(@BBQL$, SFirst)			
61	Propulsion T1	APR	APR_D	PropT1$	$ 518.032	C	495	2022		$K
62	Transportation Unit Cost	APR	APR_D	TransUC$	$ 10.706	C	10	2021		$K

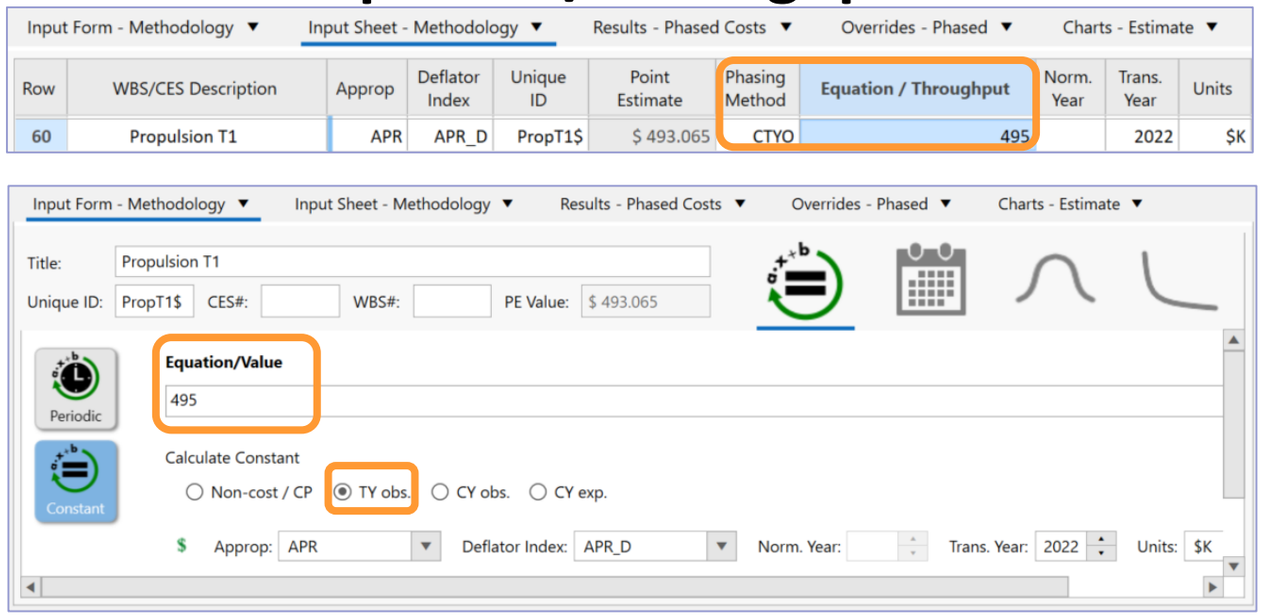
Updated Cost Phasing Methods

Phasing Methods drive how ACE calculates a row's equation or time phased inputs

Time Phased Inputs



Equation/Throughputs



Time Phased Cost Phasing Methods

Yearly/Monthly cost data entered by time period

CP TYO TYE CYO CYE

ACEIT 8.1 terms: ***BY, TY, SY***

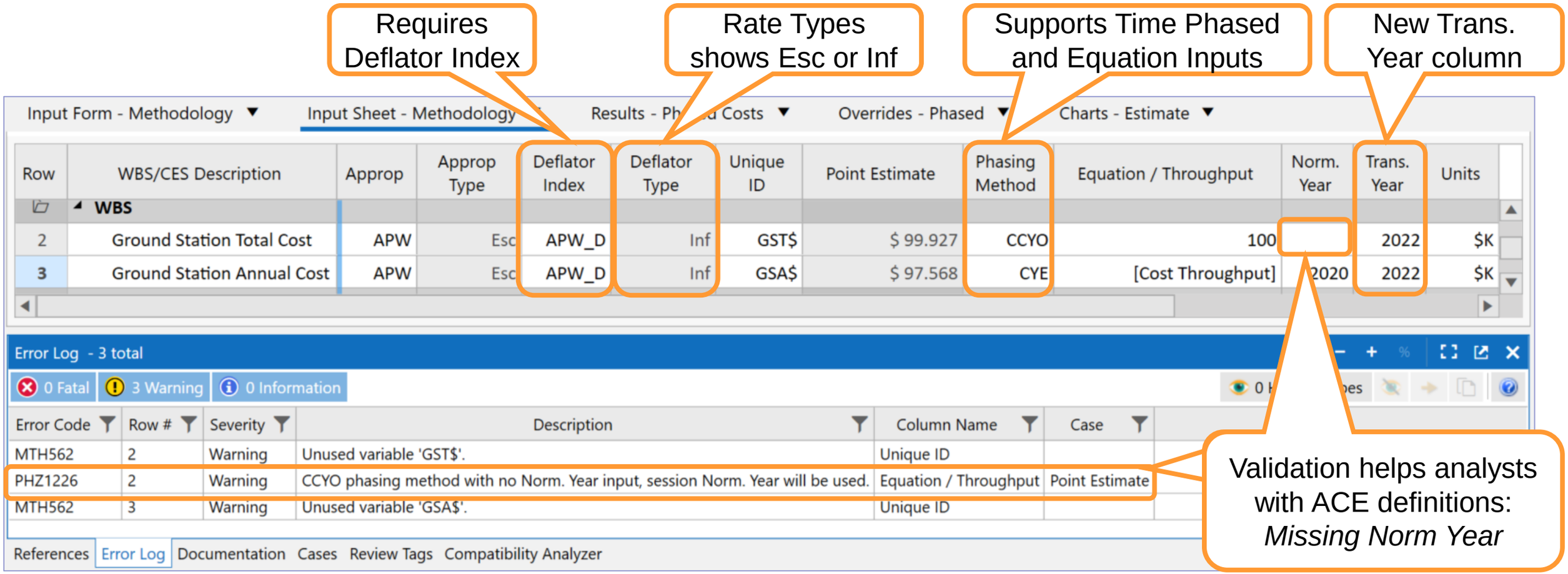
Equation/Throughput Cost Phasing Methods

ACE uses the term "Constant" for non-Time phased methods

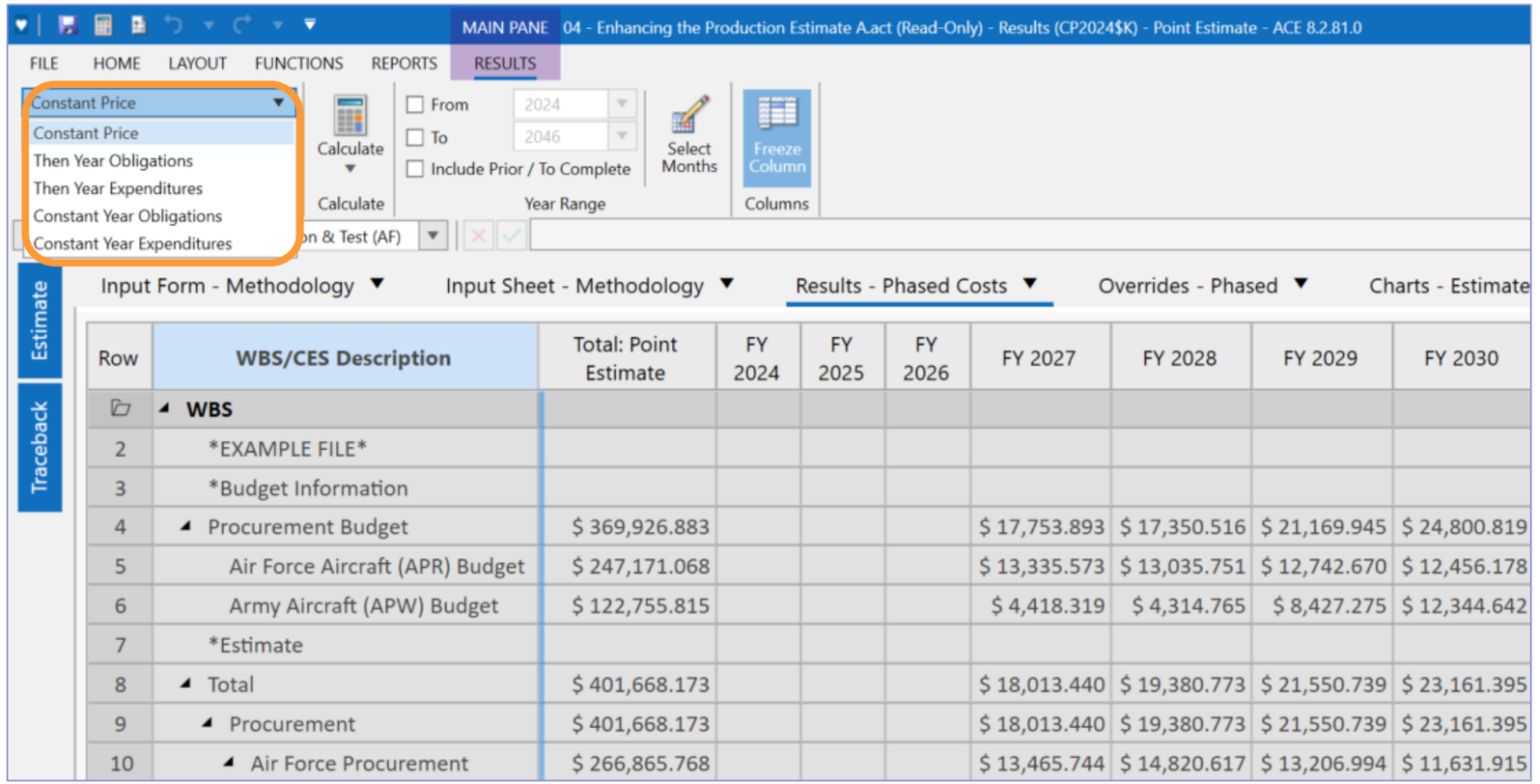
C CTYO CCYO CCYE

ACEIT 8.1 terms: ***C and CTY***

Support for CY$ Inputs

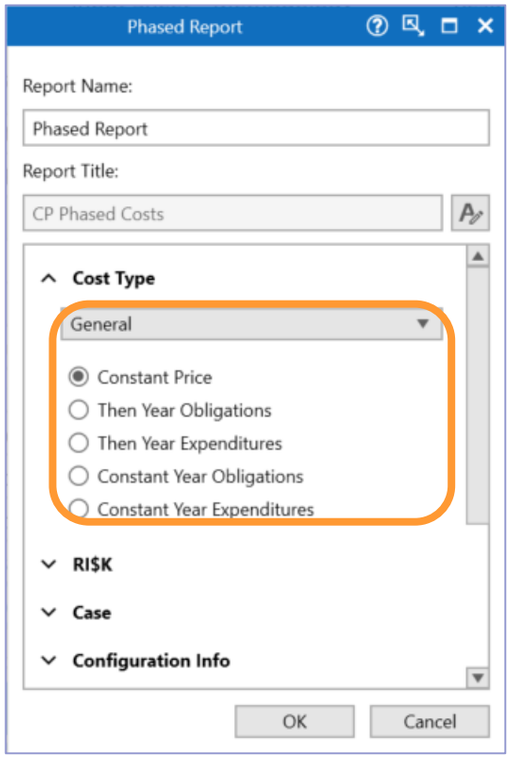


Results and Reports in All Cost Types



Row	WBS/CES Description	Total: Point Estimate	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
	WBS								
2	*EXAMPLE FILE*								
3	*Budget Information								
4	Procurement Budget	$ 369,926.883				$ 17,753.893	$ 17,350.516	$ 21,169.945	$ 24,800.819
5	Air Force Aircraft (APR) Budget	$ 247,171.068				$ 13,335.573	$ 13,035.751	$ 12,742.670	$ 12,456.178
6	Army Aircraft (APW) Budget	$ 122,755.815				$ 4,418.319	$ 4,314.765	$ 8,427.275	$ 12,344.642
7	*Estimate								
8	Total	$ 401,668.173				$ 18,013.440	$ 19,380.773	$ 21,550.739	$ 23,161.395
9	Procurement	$ 401,668.173				$ 18,013.440	$ 19,380.773	$ 21,550.739	$ 23,161.395
10	Air Force Procurement	$ 266,865.768				$ 13,465.744	$ 14,820.617	$ 13,206.994	$ 11,631.915

- Clear cost type selection
- Obligations vs. Expenditure options emphasized



Cost Types Updated Across the ACEIT Suite

ACE

Updated Cost Types
- Phasing Methods
- Data Tables
- Cost overrides
- Sunk costs
- Summary Sections
- Results/Reports /Charts

New Columns
- Norm. Year
- Deflator Index
- Approp/ Deflator Type
- Trans. Year

New Cost Types
- CY Obs
- CY Exp

Other
- New Inf/Esc Functions
- Updated Plug-ins
- System Tags
- Backwards Compatibility
- Inf/Esc index labels
- New .ACT file extension
- Updated error logging
- Outlay Reporting
- What-If Analysis for Inf/Esc indices

CO$TAT

- Norm. Year

POST

- Updated Cost Types
  - Results
  - Reports
  - Charts
- Norm. Year

INFLATION

- Updated Cost Types
- Updated Function
- Updated Wizard

JACS

- Updated Cost Types
- Norm. Year

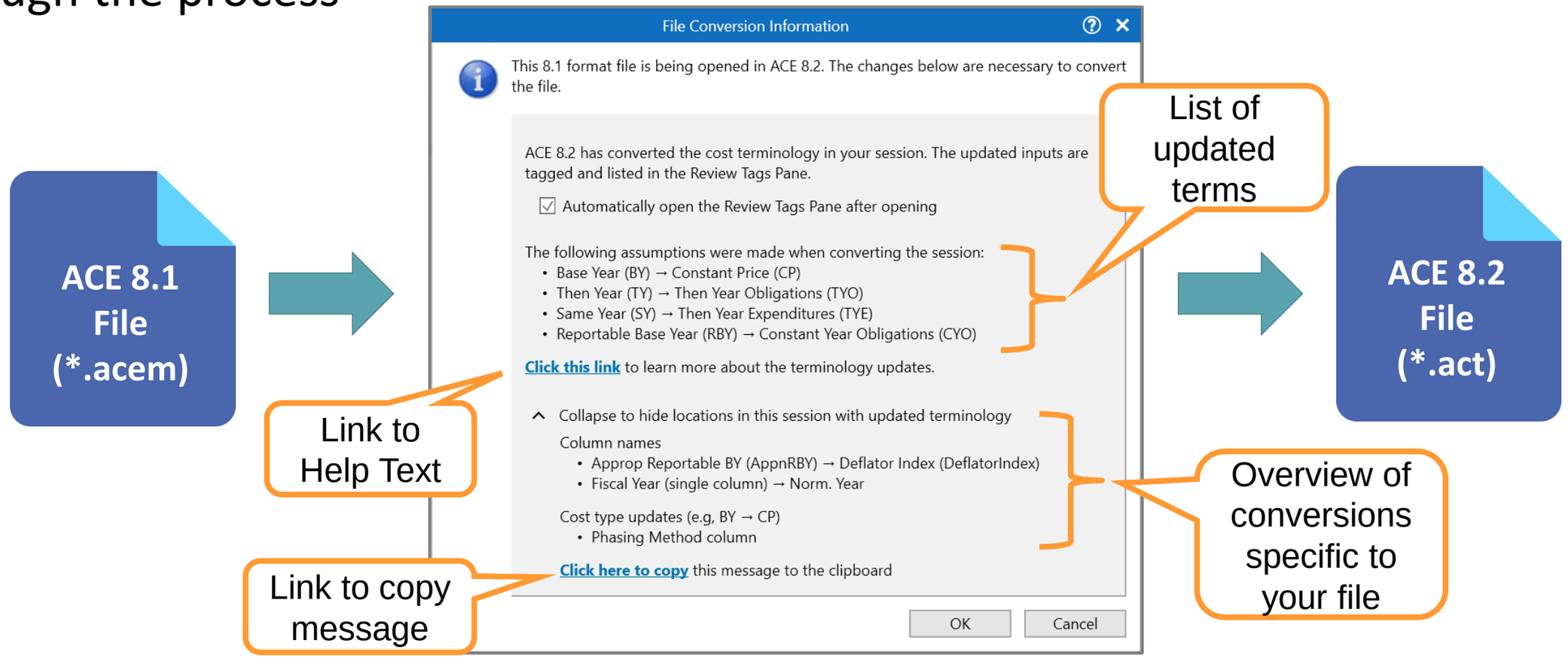
LIBRARIAN

- Inf / Esc index labels
- Increased code / term length
- Negative codes

Help text updated throughout the suite

Process of Transitioning Files

When opening an existing session in ACE 8.2 there is messaging to help the user through the process

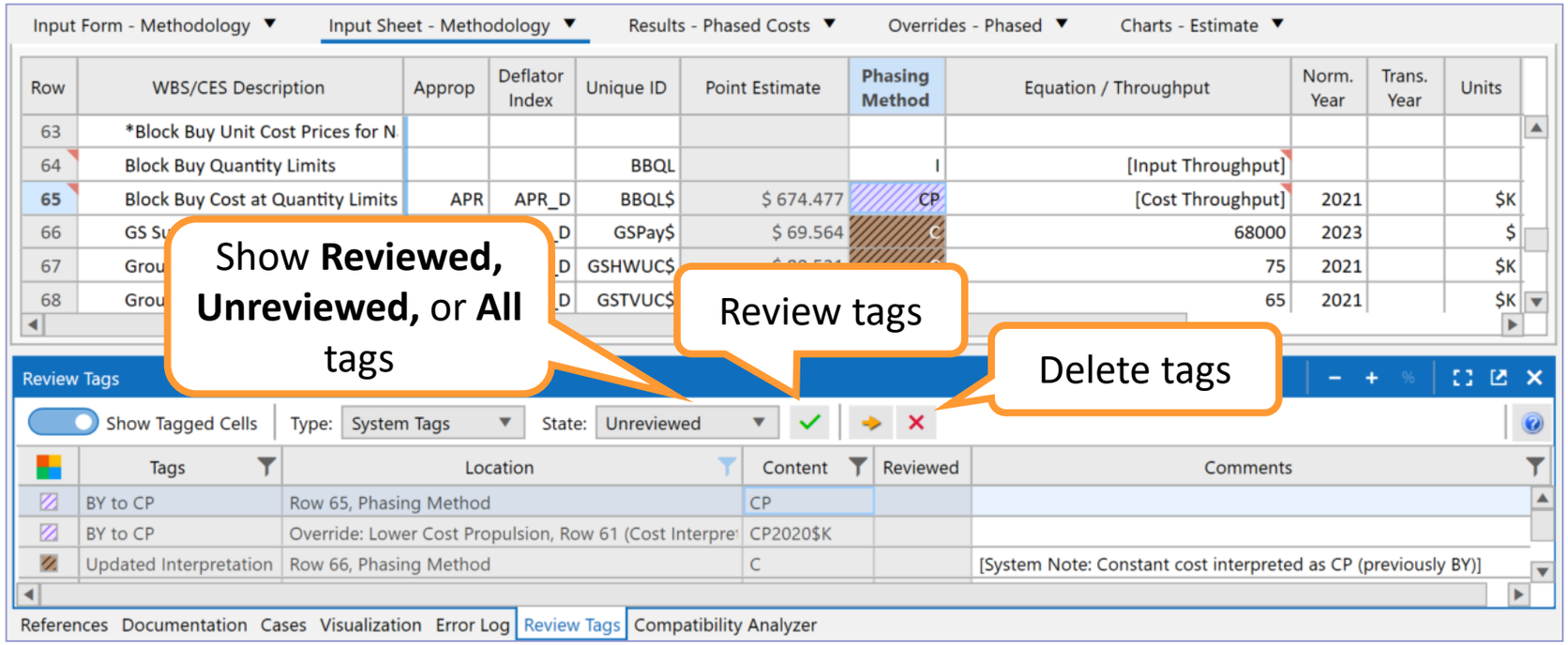


Analyst Responsibility after Conversion

DoD Analyst

ACE 8.2 *automatically converts* terminology

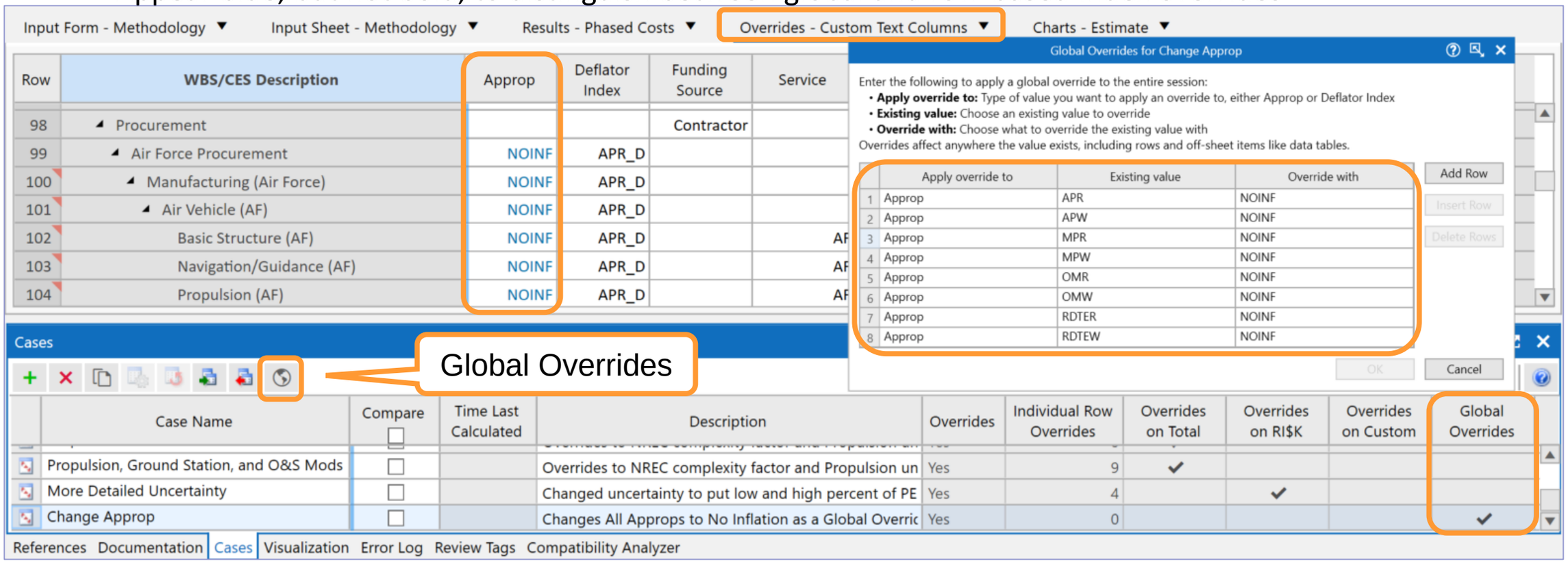
Analyst must *review* and *update* as desired



- Review Tags Pane lists every change made to the session
- Main Pane shows cells with conversions visibly tagged

New Features Added to Support Inf/Esc

- New Global Case Overrides
  - Override an Index throughout the session - includes data tables and functions
  - Visible on Overrides – Custom Text Columns
    - Appear blue, but not bold, to distinguish between global and row-based index overrides



What if I’m not a DoD Analyst?

DHS Analyst

Yes! Everyone can continue to use ACEIT. Remember:

BY → CP

TY → TYO

SY → TYE

NASA Analyst

After opening files in ACE 8.2, review System Tags in Review Tags Pane.

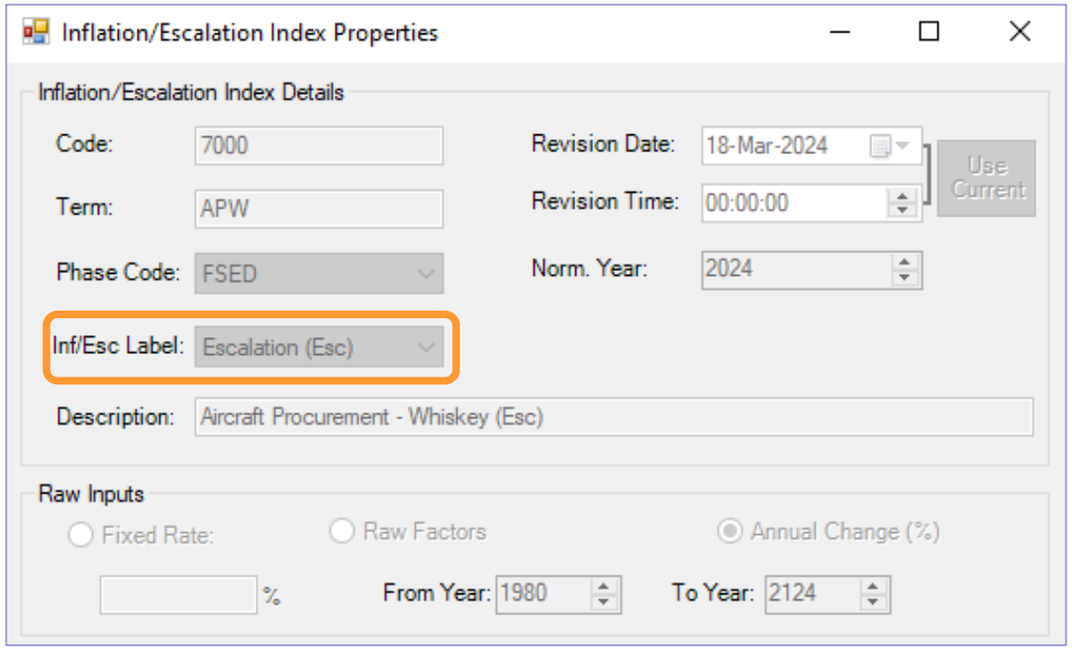
Industry Analyst

Not at all. New rate labels are optional.

Australian Analyst

Of course. If your org later decides to better distinguish inflation vs. escalation, update your rates and start using the new CY cost types.

The Software is Updated…What's Next?



ACEIT 8.2 allows orgs to **label indices** as *Inflation, Escalation,* or *Other*

- Add labels in the LIBRARIAN
- View labels in ACE columns and reports
- Create new indices for inflation or escalation in Librarian Custom Tables
- Utilize new cost types

Updated software unlocks functionality.
Now it's up to the community to evolve their indices.

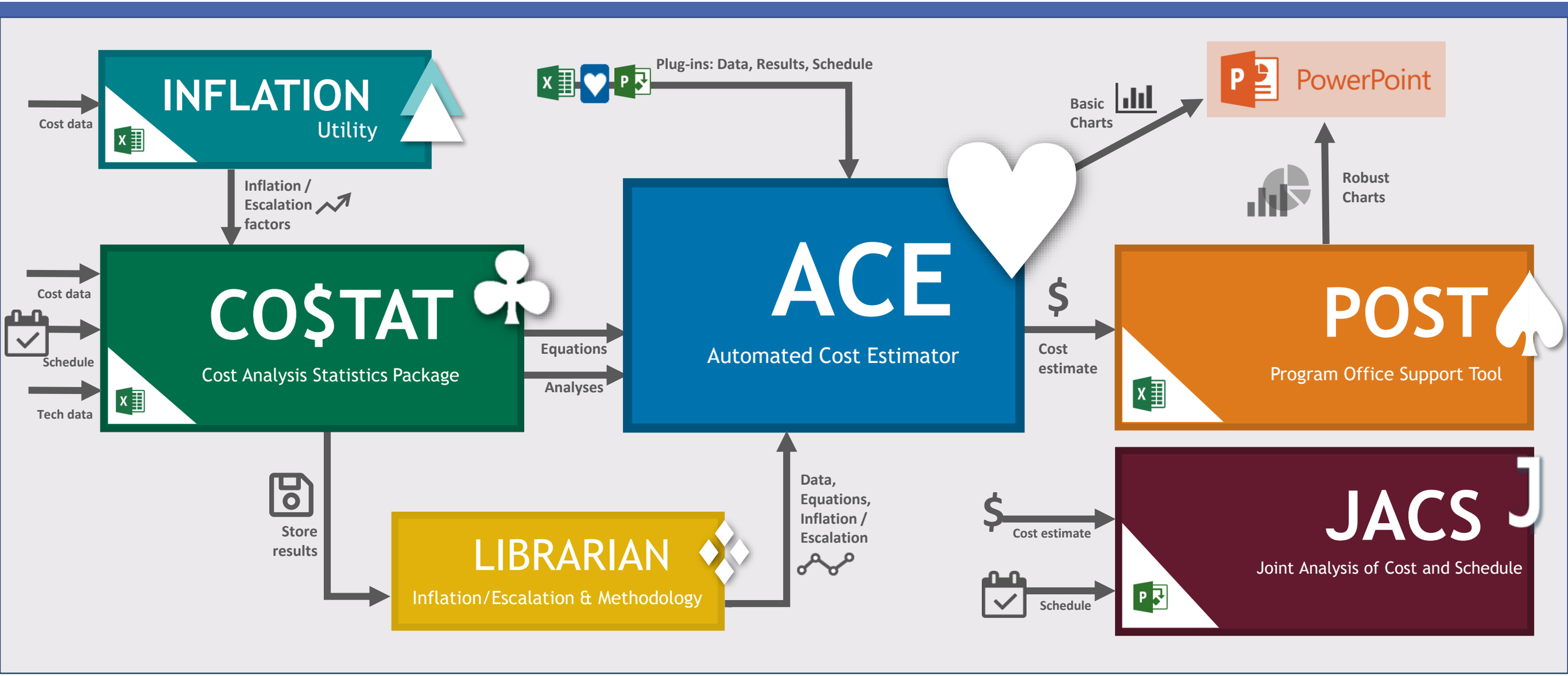
Conclusion

ACEIT is empowering DoD analysts to transition to new escalation framework

Non-DoD analysts have the same great experience, plus access to new capabilities for future use

Backup

ACEIT 8.2 Architecture



ACEIT 8.2 Training

Instructors with real-world experience with ACEIT provide hands-on training.


In-person


Self-paced


Onsite

ACEIT for Model Builders

- Construct an estimate
- Enter methods
- Incorporate Uncertainty
- Generate a CER
- Create What-if Cases
- Open estimate in POST

Introductory Course
4 Days of Instruction

ACEIT for Reviewers

- Review an estimate
- Understand methods
- Understand Uncertainty
- Generate Reports

Introductory Course
2 Days of Instruction

ACEIT for Advanced Model Builders

- Modeling Durations
- Advanced Functions
- Data Table
- Advanced Uncertainty Analysis
- Model Integration

Advanced Course
4 Days of Instruction

ACEIT for CER Developers

- Dataset Organization
- Understand the dataset
- Analyze the dataset
- Validate the analysis
- Document

Independent Course
2 Days of Instruction

ACEIT for Schedulers

- Introduction to Joint Confidence, JACS, and MS Project
- Using JACS to build a JCL
- Analysis Results
- Working with JACS files

Independent Course
2 Days of Instruction

More Information

Visit www.ACEIT.com

Please contact ACEIT Support

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