

## 2006 Inflation Indices Now Available on the ACEIT website!

The February ACEIT E-News takes a closer look at statistical analysis. This month's Tip of the Month, [Generate Estimates and Prediction Levels in CO\\$TAT](#), discusses creating prediction intervals to capture the risk associated with using CERs in your estimate. Learn more about [CO\\$TAT's Non-Linear Regression](#) in the ACEIT Highlight's section. Interested in being a Beta tester for ACEIT? Read how you can be part of the next [Beta test team for the ACEIT 7.0 release](#). Ever wonder how ACEIT stacks up against spreadsheet applications? View our latest Power Point presentation, [ACEIT 6.1a vs Spreadsheets](#), available online. Read about our latest training offering, [Building Custom Inflation Indices](#). Take a look our current [Training Schedule](#) and monitor the latest [Support Alerts](#), all in this month's E-News.

## Tip of the Month



### Generate Estimates and Prediction Levels in CO\$TAT

CO\$TAT makes it easy to develop linear, log-linear and non-linear CERs along with learning curve and beta phasing analysis directly in Excel and that you can paste directly into your ACE estimate. But did you know that you can also create prediction intervals to capture the **uncertainty** associated with using the CER in your cost model? To create a prediction interval, use the Prediction Interval dialog (CO\$TAT > Prediction Intervals) to enter the values for your independent variables and the confidence level you wish reported (typically 80% to get the 10/90 bounds). When you create a report in CO\$TAT, prediction intervals showing the point estimate and a range of expected outcomes are created automatically. Note that an 80% prediction interval provides the statistical lower and upper bound within which the predicted value will occur 80% of the time. This data can be copied directly to ACE's RISK Workscreen. Please see help topics related to Prediction Intervals in CO\$TAT for more information or consider taking one of our CO\$TAT/RISK courses for in-depth training.

## ACEIT Highlight: CO\$TAT Non-Linear Regression

Non-linear regression analysis is used in situations where the relationship between the dependent variable and the independent variable(s) cannot be characterized as varying only in terms of fixed amounts or varying only on a proportional basis. When the relationship is a combination of fixed variations and proportional variations, the solution cannot be found directly with the Method of Least Squares but must be found through iterative techniques. Unfortunately, in such situations there is no guarantee of a "best fit" solution.



In CO\$TAT 6.1a (the current production version), there are three optimization methods to choose from in the Non-Linear analysis user interface form:

- Modified Marquardt
- Downhill Simplex
- Gauss-Newton method (this method was the only one available prior to version 6.1)

First, specify the dependent variable by selecting it from the list of variables in your data set. Next, "point and click" to write the dependency equation in terms of numeric constants, dataset variables (excluding the dependent and weighting variables), coefficients (character strings which are not defined as variables), and legal arithmetic operators and math functions (e.g. a\*KLOC + b\*NCSCI).

Optionally you can select a weighted variable if you wish to perform a weighted regression. Specify the error term by selecting Multiplicative, Additive, or MUPE (Minimum-Unbiased-Percentage Error). Several optimization settings are available such as: Maximum Iterations, Convergence Tolerance, and Differential Delta for Approximate Derivatives. When ready to solve for the coefficients, use the "Verify" button to set the initial conditions and check for syntax errors.

CO\$TAT will generate the nonlinear regression report that includes the following: the estimated coefficients, approximate standard errors of the coefficients, approximate confidence intervals for the coefficients, goodness-of-fit measures, percentage error table, etc. Best of all, the CER and the full report can be easily copy/pasted directly into the ACE session. If the data changes, it is very simple to exploit the integrated nature of ACEIT to update your cost model and documentation with a few clicks.

## Beta Testers Needed

**We Need You!** If you are interested in helping us test ACEIT 7.0, please visit our website and complete the [Beta Tester Survey](#). We will select our next Beta test group based on the survey results. Beta testers will be invited to work with our development team to test new features added to ACEIT. Also, testers will be invited to our East Coast or West Coast Beta test sessions. What you get is hands on "free training" and a preview of ACE 7.0. What ACEIT gets is your feedback that will influence the final product.



## Downloads

### New Downloads Available

[ACEIT 6.1a vs. Spreadsheets](#) – This Power Point presentation focuses on common perceptions and hidden issues when using spreadsheets. It discussed the many benefits of using ACEIT: Standard structure / consistent format, built-in Mil-Handbook WBS definitions, automatic WBS summation via WBS indenture structure, built-in error-trapping, Automatic data normalization, and many more. It further compares reporting and graphing capabilities. To view the presentation, visit the [ACEIT website](#).

## Training Highlight

### Building Custom Inflation Indices

Can't wait for us to publish the latest indices? We can help you **Build Custom Inflation Indices** that you can use in your ACE session and efficiently share with others. Call (805) 964-6964 ext. 147 or E-mail the [ACEIT Training Coordinator](#) so we can help you get the support you need.

## Training Schedule

### Upcoming ACEIT Training

March 2006 – May 2006 classes listed below. For a complete listing of all upcoming training, check the [ACEIT training schedule](#).

|   | Mar  | Apr                               | May                             |
|---|--|-----------------------------------|---------------------------------|
| <a href="#">Advanced ACEIT (In Depth ACEIT/POST)</a>  |  | <a href="#">3-6 Las Vegas, NV</a> |                                 |
| <a href="#">Automated Reports and Presentations Using Excel (POST)</a>                      |  | <a href="#">5-6 Las Vegas, NV</a> |                                 |
| <a href="#">Basic ACEIT</a>   | <a href="#">20-23 Las Vegas, NV</a>          | <a href="#">25-28 WDC</a>         | <a href="#">2-5 Herndon, VA</a> |
| <a href="#">Training Bundle - 4 Day (CO\$TAT/RISK)</a>                                      | <a href="#">7-10 Herndon, VA</a>             |                                   |                                 |
| <a href="#">Training Seminar - Building and Using Inflation Indices in ACEIT (0.5 days)</a> | <a href="#">1<sup>st</sup> Arlington, VA</a> |                                   |                                 |

**On-Site and Mechanics Training** are available; contact our [Training Coordinator](#) for more information.

## Support Alerts on ACEIT.com

 There have been **0 Support Alerts** posted since the last e-news.

Please see the [Support Alert page](#) of the ACEIT website for more information on recent alerts and to view other Warnings and Informational postings. You will need to login and have current DMS.

|                 |  |                         |
|-----------------|--|-------------------------|
| ACEIT Support:  | <a href="mailto:aceit_support@tecolote.com">aceit_support@tecolote.com</a> | (805) 964-6964 ext. 211 |
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