



# Uncertainty Sidekick Pro Updates

## August 10, 2007

A cosmetic change was made to the Operator Bias Uncertainty Worksheet. The OK and Cancel buttons were moved to the upper left corner of the worksheet and the Help button was moved to the upper right corner.

In addition, several minor bugs were detected and corrected.

## March 15, 2008.

A few minor bugs were detected and corrected. The most significant of these involved a sign error in computing the Estimated True Value.

## May 15, 2008

Several changes and additions were made in the 080515 update:

### Screen Resolution

The resolution of the **Bias Standard Uncertainty** displayed on the **Parameter Bias Uncertainty Worksheet** has been increased by one digit. The increased resolution is also displayed for the **Error Limits** and **Uncertainty** values on the **Parameter Uncertainty Worksheets**:

	Error Source	Type	± Error Limits (deg C)	Confidence (%)	Degrees of Freedom	Uncertainty (deg C)	Include?
2	Parameter Bias	B	0.07	95.00	∞	0.04	<input type="checkbox"/>
3	Random Error	A	0.012	95.00	9	0.005	<input checked="" type="checkbox"/>
4	Resolution Error	B	0.005	100	∞	0.0029	<input checked="" type="checkbox"/>
5	Other Error						<input type="checkbox"/>

### Old Parameter Bias Resolution

	Error Source	Type	± Error Limits (deg C)	Confidence (%)	Degrees of Freedom	Uncertainty (deg C)	Include?
2	Parameter Bias	B	0.07	95.00	∞	0.036	<input type="checkbox"/>
3	Random Error	A	0.012	95.00	9	0.005	<input checked="" type="checkbox"/>
4	Resolution Error	B	0.005	100	∞	0.0029	<input checked="" type="checkbox"/>
5	Other Error						<input type="checkbox"/>

### New Parameter Bias Resolution

### Drill-Down Reports

The option to include notes on drill-down reports has been included for the following screens and worksheets:

- Operator Uncertainty Worksheet
- Parameter Uncertainty Worksheets
- Measuring Environment Uncertainty Worksheet

The links to report notes have been improved for the **Set or Select Report Options** dialog.

A new **Report menu** has been added to the **Parameter Bias Uncertainty Worksheet** and new reports are now available for the Tolerance Data, Reference Data, and Multivariate "Compute Bias from" options:

OK Cancel Edit Run Help

Old Menu

OK Cancel Report Edit Run Help

New Menu

June 16, 2008

### Sample Standard Deviations

A modification was made in the calculation of sample standard deviations to compensate for machine precision limitations. Only cases where extremely high precision is needed will be affected.

February 15, 2009

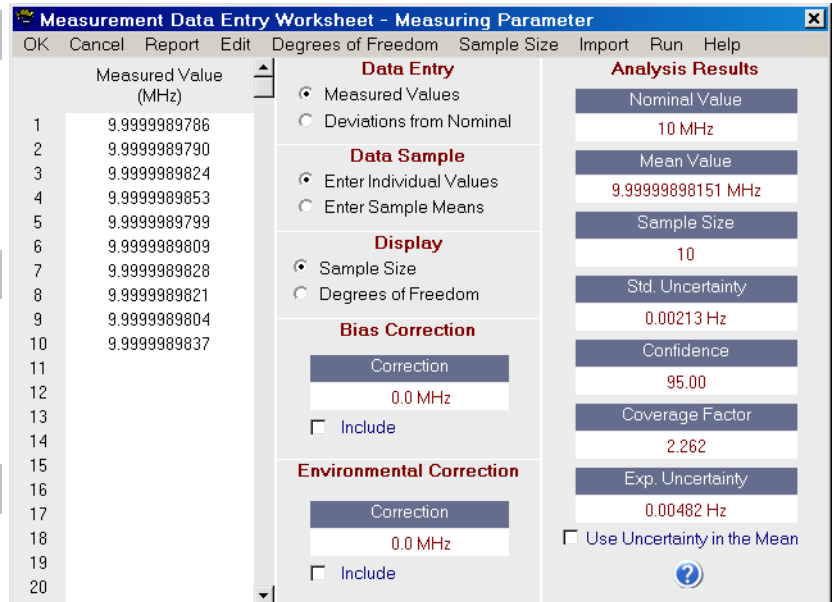
### Adding Logos to Analysis Reports

A bug was fixed that caused logo files to be inadvertently deleted. No other changes were made in the 2/15/2009 update.

October 15, 2009

### The Bayesian Analysis Report

A minor bug in the Bayesian Analysis Report was corrected. In addition, the report header has been modified to improve clarity.



November 5, 2009

### Computation of the t-Statistic

A bug in the function used to compute the Student's t-statistic was corrected. The bug prevented completion of the computation for degrees of freedom greater than 190.

April 4, 2010

### Parameter Analysis Results Report

Minor changes were made to include all parameter identifiers on the report.

May 4, 2010

### Help File Pointers

An error in opening the correct Help File topic from the Other error source Uncertainty Worksheet was detected and corrected.

August 9, 2011

### Summary Report

The User Preferred nomenclature for Confidence Limit can now be shown in the Analysis Results Table header of the Summary Report. For example, if the user prefers the term "Expanded Uncertainty," this will replace the "Confidence Limit" column header.

**Note:** The actual information shown is still the confidence limit, computed from a confidence level and degrees of freedom. Accordingly, if a term other than Confidence Limit is used, the user should indicate the difference in the Analysis Summary Notes and opt to include them in the report.

### True Value Reporting

Errors have been detected and corrected in the estimated true value and associated confidence limits shown on reports

### SMPC Analysis Report

The estimated bias confidence limits have been replaced by bias uncertainties.

### Reported Distributions and Include Options

Distributions and Include options have been added to the Parameter Analysis Results and Operator Bias Analysis reports.