



Uncertainty Sidekick Pro Update

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.

The screenshot shows the 'Measurement Data Entry Worksheet - Measuring Parameter' window. It features a menu bar with 'OK', 'Cancel', 'Report', 'Edit', 'Degrees of Freedom', 'Sample Size', 'Import', 'Run', and 'Help'. The main area is divided into several sections:

- Data Entry:** Radio buttons for 'Measured Values' (selected) and 'Deviations from Nominal'.
- Data Sample:** Radio buttons for 'Enter Individual Values' (selected) and 'Enter Sample Means'.
- Display:** Radio buttons for 'Sample Size' (selected) and 'Degrees of Freedom'.
- Bias Correction:** A 'Correction' field with '0.0 MHz' and an 'Include' checkbox (unchecked).
- Environmental Correction:** A 'Correction' field with '0.0 MHz' and an 'Include' checkbox (unchecked).

On the right side, the **Analysis Results** section displays the following values:

- Nominal Value: 10 MHz
- Mean Value: 9.99999898151 MHz
- Sample Size: 10
- Std. Uncertainty: 0.00213 Hz
- Confidence: 95.00
- Coverage Factor: 2.262
- Exp. Uncertainty: 0.00482 Hz

At the bottom right, there is a checkbox for 'Use Uncertainty in the Mean' (unchecked) and a help icon.

Line	Measured Value (MHz)
1	9.9999989786
2	9.9999989790
3	9.9999989824
4	9.9999989853
5	9.9999989799
6	9.9999989809
7	9.9999989828
8	9.9999989821
9	9.9999989804
10	9.9999989837
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