



Uncertainty Sidekick Pro

A powerful uncertainty analysis tool at a bargain price

Uncertainty Sidekick Pro is a sophisticated measurement uncertainty analysis windows application that incorporates and extends methods found in the ISO Guide to the Expression of Uncertainty in Measurement (the ISO GUM) and NCSLI RP-12. Uncertainty Sidekick Pro handles direct and multivariate measurements and utilizes interactive uncertainty analysis procedure checklists that access drill-down screens and worksheets that facilitate your uncertainty analysis.

ISO and ANSI / NCSL COMPLIANT

Uncertainty Sidekick Pro does not "dumb down" uncertainty analysis, does not require knowledge of statistics to use, and does not require a spreadsheet application to operate. Uncertainty Sidekick Pro is by far the most cost-effective measurement uncertainty analysis tool for achieving compliance with ISO 17025 and ANSI/NCSL Z540.3.

KEY FEATURES

Comprehensive On-Screen Information

- Interactive analysis procedure checklists provide a short, structured walk-through of the basic steps in estimating measurement uncertainty for typical measurement scenarios.
- All screens and worksheets have access to a full-featured on-screen Help with index, content, and search capabilities for over 400 topics.

Measurement Configuration Options

- Users can choose from a list of measurement configurations via the **Measurement Configurations Screen**.
- Selecting a measurement configuration instructs Uncertainty Sidekick Pro to deactivate screens and worksheets that are not required for the measurement uncertainty analysis.

Analysis of Direct Measurements

- Every aspect of the measurement uncertainty analysis process can be accessed via the Main Screen.
- Main Screen menu and tool bars and measurement uncertainty analysis procedure checklist provide quick access to drill-down analysis screens and worksheets.
- Information about the subject parameter being analyzed, key measurement process uncertainties, and the overall combined measurement uncertainty are all summarized on the Main Screen.

Analysis of Multivariate Measurements

- The Parameter **Multivariate Worksheet** is the primary screen for analyzing uncertainties for multivariate measurements.
- The equation for computing the parameter value of interest can contain up to 25 root variables or quantities.
- The parameter value equation can contain nested variables, each of which can be defined by a separate equation.
- Root variables and associated uncertainties are analyzed via **Error Source Uncertainty Worksheets**.
- Sensitivity coefficients for root variables are automatically computed via numerical partial differentiation of the parameter value equation.
- All equations are entered in the extremely versatile and nonproprietary **VB Script** format.
- Multivariate Analyses can be saved separately and imported into other Uncertainty Sidekick Pro analysis files.

Drill-down Worksheets for Analyzing Measurement Process Errors

- Parameter **Bias Uncertainty Worksheets** for estimating measurement uncertainty due to measuring and/or subject parameter bias.
- Measurement **Data Entry Worksheets** for estimating measurement uncertainty due to measuring and/or subject parameter random (repeatability) error.
- Parameter **Resolution Error Worksheets** for estimating measurement uncertainty due to measuring and/or subject parameter resolution error.
- **Operator Uncertainty Worksheet** for estimating measurement uncertainty due to operator bias.
- Measuring **Environment Uncertainty Worksheet** for estimating measurement uncertainty due to environmental factors.
- Other Error Worksheet for estimating measurement uncertainty due to other user defined errors.

Analysis of Type A, Type B and Type A,B Estimates

- The measurement uncertainty estimate type is automatically determined based on user data entry.
- Degrees of freedom are computed for all measurement uncertainty estimate types.
- Type B error limits can be computed as a linear or root-sum-square (RSS) combination of a fixed value, % of nominal or reading, % of full scale, and % of range or other components.

Data Importing

- Measurement units, measuring equipment and samples of measurement data can be imported into Uncertainty Sidekick Pro from external database or other file formats.
- The **Data Import Profile Screen** is used to develop an import profile, cross-reference external field data to Uncertainty Sidekick Pro fields and to run imports.
- The **Data Import Profile Screen** allows the user to view the data prior to importing into Uncertainty Sidekick Pro.
- The Windows Copy & Paste functions are also supported on all program screens and worksheets.

Correlation of Error Sources

- All error sources are assumed to be uncorrelated unless otherwise specified by the user.
- The **Correlation Coefficient Worksheet** assists the user in establishing correlations between error sources.
- Correlation coefficients are automatically included in the computation of the total, combined measurement uncertainty.

Charts and Plots

- Parameter bias distribution plots are automatically displayed on the Parameter Bias Uncertainty Worksheets.
- Combined error distribution plots are also displayed on the Main Screen.
- The Pareto Chart Screen displays a bar chart depicting the relative contributions of Type A, Type B, and Type A,B process uncertainties to the total, combined uncertainty.

Detailed and Summary Analysis Reports

- A variety of reporting levels are available including summary reports and "drill-down" reports for complete communication of analysis results.
- The Report Options Screen can be used to tailor the contents of each analysis report.
- Notes, charts and plots can be selected for inclusion on report pages.
- The Print Preview Screen provides navigation through reports pages prior to printing.
- Analysis reports can be saved in Rich Text or HTML file formats via the Print Preview Screen.
- Analysis reports can also be copied and pasted as images in Word, Excel, PowerPoint or other external application.

UncertaintyAnalyzer Pricing	
Uncertainty Sidekick Pro	\$195.00 + TX and S & H (USD)
Network License	See Our Web Site for Network Options

For More Information	
Call 1-661-872-1683	
Visit our Web Site	www.isgmax.com
Contact us by E-mail	sales@isgmax.com



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ADVANCED FEATURES

- **Bayesian analysis** to obtain the best estimates of both the subject parameter and measuring parameter values using Bayesian methods.
- A built-in **Type B Degrees of Freedom Calculator** provides a useful tool for estimating the degrees of freedom for heuristic (i.e., non-statistical) measurement uncertainty estimates.
- A **Measurement Units Database** that contains over eighty measurement areas and several hundred units in compliance with NIST Special Publication 811.
- An **Instrument Database** for storing and retrieving instrument and parameter specifications.
- An **Applications Launcher** for running external Windows programs from within Uncertainty Sidekick Pro.