

Welcome to Uncertainty Calculator 3.2 (Win 2000)

Uncertainty Calculator 3.2 (UnCal3.2), a Windows 2000 application, is a 'FREEWARE' software program developed to address uncertainties for commonly made measurements in a simple, straightforward manner; congruent with the basic guidelines contained within measurement uncertainty publications such as ISO 'Guide to the Expression of Uncertainty in Measurement ', 1993, NIST Technical Note 1297, etc

New for UnCal3.0 (Initial Win 2000 Release)

- Fields for entering individual and expanded uncertainty units
- Fields for entering Correlation coefficient approximations for each uncertainty value
- Tab menu for accessing all major functions / screens
- Student t distribution divisors expanded beyond 'GUM' table
- Normal distribution divisor selections have been added
- A worksheet for preprocessing uncertainty components comprised of formulae
- A worksheet for deriving sample statistics from measurement data
- Computation tool for determining an uncertainty value from a given Standard Uncertainty
- Bayesian method for computing Effective Degrees of Freedom
- Type B individual Effective Degrees of Freedom computations
- Quick Print command for printing data without need for Windows application
- Excel tools for importing spreadsheet contents
- Model Equation entry screen
- Individual Type A and Type B uncertainty components increased from 10 ea. to 20 ea.
- Expanded On-line dB / Percentage Calculator with memory function
- Options screen for changing default setups
- Optimized for 800 x 600 display with auto resizing for higher resolutions
- Quick print command for displaying contents of main screen
- Global column change(s) tool
- Online tutorial
- Hot Key assignments for commonly used functions
- Manual or Auto-sequence data entry
- Remarks expanded from 20 to 40 lines
- Downward compatible with previous revisions
- Updated Online manual

REVISION HISTORY

Revision 3.0

Initial Win 2000 release

Revision 3.1

- A 'Type A' entry is no longer required i.e. only Type B uncertainty components can be computed without any Type A components.
- Variances computed as square of Standard Uncertainty rather than compiled RMS (variance computation change does not effect previously computed combined Std Uncertainty or Expanded Uncertainty calculations).

Revision 3.2

- Bug fixed with computing negative correlations coefficients (negative correlations sign was not carried through the calculations such that negative correlations were calculated as positive correlations).
- A new Option (see Option Menu) that normalizes Type A and B Standard Uncertainty & Variance RMS results to 1 Sigma (1 Std Deviation) – does not affect Type A and B Combined RMS results.
- New Sample Statistic functions that computes Standard Error of the Means and Coefficient of Variation.

- On-line manual HELP file appendix omitted for faster on-line loading. Revision history added to on-line manual.

INSTALLATION

UnCal3.2 is normally provided as a self-extracting Zip file. Copy the Zip file to a temporary directory. From this directory run the Zip file to extract the following files:

UnCal3.2.cab
SETUP.LST
Setup.exe
UC_Readme.rtf

Once extracted, run ' Setup.exe' and follow the screen prompts. After UnCal3.2 has been installed, the UnCal3.2 Systems File will need to be setup with the paths of the applications that UncCal3.2 uses e.g. Word, Excel, Write, etc. (follow steps via Read Me command button from System File menu).

Note: UnCal's on-line manual, UC_Manual.rtf and Tutorial UC_Tutorial.xls, are initially installed in UnCal3.2's application directory. They may be viewed externally to UnCal3.2 by clicking on them (UnCal3.2's System file must be set up to view them from within the program).

Note: UncCal3.2 now has an Options file for saving option defaults (See the Options Tab menu for changing UncCal3.2 defaults and saving / opening Options file).