



## IntervalMAX FAQs

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Integrated Sciences Group answers frequently asked questions about our IntervalMAX software. The answers are intended to provide further clarification about the capabilities of our calibration interval analysis product. If you have any questions or comments regarding any of the FAQ topics listed below or would like us to answer additional questions, please contact us at [isg@isgmax.com](mailto:isg@isgmax.com).

### Question

How does the calibration interval analysis capability of IntervalMAX compare to other ISG software?

### Answer

IntervalMAX uses advanced reliability modeling methods to analyze historical pass/fail (i.e., in-tolerance or out-of-tolerance) data and establish optimal calibration intervals for manufacturer/models, groups or classes of measuring equipment and measurement systems. IntervalMAX combines rigorous reliability modeling techniques with interval adjustment cost and workload analysis to establish optimal calibration intervals for large, medium or small equipment inventories in the shortest amount of time at minimum expense.

IntervalMAX is an “enterprise” application providing company-wide support to multiple users. Analyses are performed in an automated batch processing mode, supplemented by engineering oversight, as needed.

SPCView is a user-interactive plug-in application for UncertaintyAnalyzer that uses measured values and associated uncertainties to project uncertainty growth and establish optimal calibration intervals for performance parameters of individual measuring equipment such as reference standards.

Our Method A3 Interval Tester freeware analyzes user specified information about the number of tests/calibrations conducted at the current interval into the number of intolerances observed. An algorithm, based on Method A3 documented in NCSLI RP-1, is used to compare the observed and target/desired reliabilities. If a significant difference is determined, then a new/revised calibration interval is recommended. The Method A3 Interval Tester operates in a user-interactive mode.

Why is IntervalMAX sold as a site license?

IntervalMAX is designed to analyze calibration history data for a wide-variety of measuring and test equipment (MTE). Most companies and government agencies centralize the collection and maintenance of their historical calibration



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### Question

Will IntervalMAX be compatible with my equipment data management software?

What types of data are required to use IntervalMAX?

Is IntervalMAX difficult to use?

What reports can I generate with IntervalMAX?

### Answer

data. Consequently, IntervalMAX is sold as a site license with pricing scaled according to the number of MTE inventory items that are assigned calibration intervals.

IntervalMAX can analyze data from any equipment management program provided that the calibration service history data are stored in the form of sequential records for each item serviced. Each record must also indicate any relevant change in the status of the serviced item.

IntervalMAX contains a Data Import Profile Screen that is used to develop an import profile that cross-references external fields from the equipment data management program to IntervalMAX data fields. The import profile is then run to import the necessary data from the external database or other file format, including:

- Microsoft Access
- dBase III and IV
- Microsoft Excel
- Lotus 1-2-3
- HTML
- ASCII (Delimited)
- ODBC

The required input data fields are described in the Data Import-Export Guide that can be downloaded from the IntervalMAX Program Features page of our website ([www.isgmax.com/imax\\_features.htm](http://www.isgmax.com/imax_features.htm)).

Many of our customers have benefited from our System Administrator training. However, some have been able to implement and integrate IntervalMAX in their systems and have had no difficulty producing valid calibration intervals, with only the aid of the standard IntervalMAX user documentation set.

The analysis reporting capability of IntervalMAX encompasses a wide range of equipment management objectives. A subset of the available reports is listed below.

- Instrument Class Interval Report
- Similar Equipment Group Interval Report
- Model Number Interval Report
- Serial Number Interval Report



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### Question

### Answer

How does IntervalMAX compare to software offered by other companies?

Interval Impact Report (Workload/Cost)  
Serial Number Dogs/Gems  
Model Number Dogs/Gems  
System Evaluation Report

Has IntervalMAX been validated?

Currently, no other software product incorporates the rigorous reliability modeling methods and interval adjustment cost and workload analyses contained in IntervalMAX.

Currently, there are no standards or guidelines for testing and validating calibration interval analysis software. However, there are many common-sense protocols that ISG applies, some of which are summarized below.

#### **Validation of mathematical and statistical methods.**

ISG routinely publishes papers and articles that clearly describe the mathematical and statistical concepts that are incorporated in our software products. This serves two purposes:

1. It shows that we have an unsurpassed technical understanding of calibration interval analysis concepts and principles.
2. The information can be reviewed and scrutinized in the public domain.

#### **Verification of numerical approximations and calculations.**

Depending upon the sophistication of the numerical algorithms, our program calculations are verified via hand calculations, Excel spreadsheets, or math and statistics applications such as MathCAD. Verification of numerical algorithms are achieved in a number of ways including:

1. Extensive alpha testing via internal peer review and verification.
2. Vigorous beta testing via external review and verification by selected customer base.
3. Widespread peer review and verification via distribution of freeware subprograms and applets.
4. Large-scale customer use and feedback over the past 15+ years.



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### Question

### Answer

#### **Verification of program functionality.**

Another important aspect of our software validation is the verification that the program screens, templates, or worksheets function as intended and that data entered into drill-down screens are properly stored and transferred to other screens as needed. Our protocol for testing and validating program functionality is the same as described for numerical algorithms.

**Note:** When software validation is of primary concern, we provide customers with specific validation reports upon request.

Will IntervalMAX run on the Windows 7, Vista, Macintosh or Linux operating systems?

IntervalMAX is a 32-bit Windows-based application. Therefore, it will run on the 32-bit editions of the Windows 7 and Vista operating systems. The Microsoft WOW64 emulator also allows 32-bit applications to run seamlessly on the 64-bit editions of these operating systems.

IntervalMAX does not run on the Macintosh or Linux operating systems. However, it will run on Macintosh or Linux operating systems running a PC emulator program without any degradation in functionality.

What kind of technical support can I expect to receive?

Technical support is a major consideration for many software users, especially when using a specialized analysis program. Registered IntervalMAX system administrators have access to free technical support (via phone, fax and email) from professionals with established calibration interval analysis expertise.

Why should I purchase interval analysis software from ISG?

Since ISG has been a major pioneer in developing measurement science analytical methodology over the past 30 years, our software products embody the most advanced tools and methods available.

Our state-of-the-art software products not only comply with ISO standards and guidelines, they also incorporate several ground-breaking measurement uncertainty analysis methods and techniques developed and published by ISG personnel.

Our commitment to product excellence is epitomized by an unmatched level of software maintenance and support. Unlike other companies, we continually strive to improve



**State-of-the-Art Measurement Analysis Software,  
Training and Consulting Services**

★ Celebrating over 22 YRS of Excellence and  
Innovation 1987-2010

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#### **Question**

#### **Answer**

the functionality of our software by including customer suggested new features or enhancements as part of our free service updates.