

InterVAL® –  
the main features at a glance

InterVAL allows you to plan and evaluate factorial validation studies. With minimal expenses and effort, a comprehensive validation protocol covering trueness, precision and sensitivity according to relevant standards (with LoD, LoQ, CC $\alpha$ , CC $\beta$ , etc....) is generated for your analytical in-house methods.

The flexible software solution InterVAL further offers:

- optimized factorial experimental designs
- impressive performance-analysis tools
- a comprehensive measurement uncertainty protocol
- statistically sound evaluation procedures
- a factorial analysis module
- power curve (POD)
- a powerful module for quality-control charts
- validation and measurement-uncertainty reports
- professional charts and tables
- customizable diagrams
- a flexible import module
- many data management functions, including user administration

There are two different versions available:  
**InterVAL and InterVAL Plus**

**Find out more!**

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#### **Software and statistical methods for analytical quality assurance**

QuoData GmbH develops innovative software and provides comprehensive services in the areas of quality assurance, process optimization, the development and validation of measurement methods, and experimental/sampling design.

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**\*Analytical-quality-assurance software**  
for in-house validation



**\*InterVAL is the professional and indispensable**  
software solution for the validation of your analytical  
in-house methods.

For many years, QuoData has been developing  
cost-effective and powerful concepts for the  
validation of analytical methods.

Take advantage of the QuoData-expertise that  
has flown into InterVAL's conception.

Get in touch with us.



\* With InterVAL, a comprehensive and legally admissible validation of your in-house analytical methods is guaranteed.

With skillfully computed combinations of concentration levels, matrices, and experimental conditions, a mere 32 actual measurements are sufficient to assess your method for accreditation, and to ensure the legal admissibility of your results.

With InterVAL, a single mouse-click allows you to generate a factorial experimental design or to carry out the corresponding evaluation.

You obtain comprehensive validation and measurement uncertainty protocols, along with compelling and stylish charts and tables. Get in touch with us.

## InterVAL® – more than just method validation

Intelligible measurement uncertainty assessments and method validations ensure the legal admissibility of your analytical results. You save time and money thanks to factorial in-house validation studies of your analytical in-house methods.

It is precisely for such factorial validation studies that we have developed the InterVAL software solution. InterVAL provides professional instruments for factorial planning, data management, and the evaluation and documentation of your factorial validation studies.

## Evaluation – absolutely future-proof

On the one hand, InterVAL allows you to carry out evaluations according to ISO 11843 and DIN 32645. On the other hand, on the basis of your validation data, you can perform a simultaneous assessment of reproducibility and measurement uncertainty. This particular procedure, specially developed by QuoData, has been taken up at the level of European legislation (commission decision 657/2002) and is currently being prepared for incorporation into international standards. You can thus profit already now from the cutting-edge statistical methods which are becoming increasingly important in international standards.

## Experimental design – increase your efficiency

InterVAL increases your validation study's efficiency, thus bringing costs down. The study's design ensures that precision, trueness, sensitivity and measurement uncertainty are assessed simultaneously. Optimized factorial-orthogonal experimental designs allow matrix and sampling effects to be assessed without any additional testing. With InterVAL, the reliability of the validation results is significantly higher than with conventional studies, even though no replicates and fewer test-data are required.

## Quality assurance – take control

A powerful QC-chart module is available in InterVAL for quality control purposes on the basis of your validation data. Follow-up validation of your method is carried out by a special evaluation tool.

## Charts and reports – many possibilities

- Generate and customize comprehensive validation reports according to your needs
- Create professional charts and tables
- Customize your charts as you require with the powerful chart editor

## Customer services – a range of advantages for you to benefit from

- Licenses include regular InterVAL software updates
- Introductory and more advanced workshops are offered at least once a year on favorable terms
- The InterVAL-hotline – available during working hours and free of charge – via telephone or email
- The InterVAL-forum provides an online platform for communication with other users and for all kinds of advice and assistance
- We adjust and expand the software according to your requirements (and charge according to the amount of work involved)

## Contact – get in touch with us

Find out more about InterVAL, the software application used by many customers the world over. InterVAL is recommended by the European reference laboratory (CRL) in Berlin as reference software. InterVAL's worldwide user community includes the Russian VGNKI's Food Safety Lab and the U.S. Food and Drug Administration (FDA).

## Find out more!

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\*Uhlig, Steffen; Gowik, Petra; Radeck, W. (2003): Performance of a matrix-comprehensive in-house validation study by means of an especially designed software. In: Analytica Chimica Acta 483 (1-2), S. 351–362. Jülicher, Bernd; Gowik, Petra; Uhlig, Steffen (1999): A top-down in-house validation based approach for the investigation of the measurement uncertainty using fractional factorial experiments. In: The Analyst 124 (4), S. 537–545. Jülicher, Bernd; Gowik, Petra; Uhlig, Steffen (1998): Assessment of detection methods in trace analysis by means of a statistically based in-house validation concept. In: The Analyst 123, S. 173–179.