G L O B A L  A N A L Y T I C A L  S O L U T I O N S

40 YEARS ANALYTICAL SOLUTIONS GERSTEL

GERSTEL

# MAESTRO

## Software


Unparalleled productivity and ease of use

Comprehensive sample preparation

Full integration into Agilent ChemStation

Unique graphical sequence scheduler







# GERSTEL **MAESTRO** Software

*The MAESTRO software provides a comprehensive and efficient solution for the modern laboratory. All GERSTEL modules and systems are operated in a simple, efficient and transparent manner using the MAESTRO software in stand-alone mode or fully integrated with Agilent Technologies ChemStation software. Just one method and one sequence table runs the complete system from sample preparation and sample introduction to GC/MS or LC/MS analysis. MAESTRO is designed for simple and efficient laboratory operation – day in and day out.*

## Easy and convenient operation

- "Sample Prep by Mouse-Click" using the PrepBuilder functions
- Graphical Sequence Scheduler for easy method optimization and planning
- Just one method and one sequence table runs the complete system from sample prep to GC/MS or LC/MS

## Efficient and productive

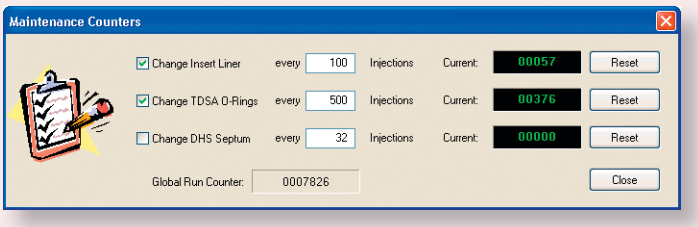
- PrepAhead / Multiple Sample Overlap: Automated overlapping of sample preparation and analysis for maximum throughput
- Control of up to 4 autosamplers from one PC

## Highly flexible

- Priority samples can be added to the system at any point in the analysis sequence
- Automated plugin integration of new accessories

## Reliable and fully traceable

- LOG file and Service LOG file functions ensure traceability and easy trouble-shooting
- Automated e-mail notification, in case the sequence stops prematurely, enables prompt intervention to ensure that your samples are analyzed as planned
- Real-time monitoring of all modules and parameters
- Selectable maintenance function reminds you to change consumable parts or perform regular maintenance tasks whenever a user-defined number of injections has been reached





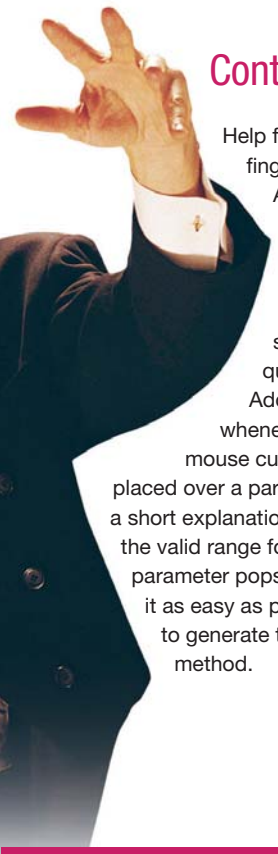


## Sample Prep by Mouse-Click

The GERSTEL MultiPurpose Sampler (MPS) is a fully automated sample preparation and sample introduction robot for GC (GC/MS) and LC (LC/MS). Sample preparation is performed in a controlled, highly accurate and reproducible manner for best possible results.

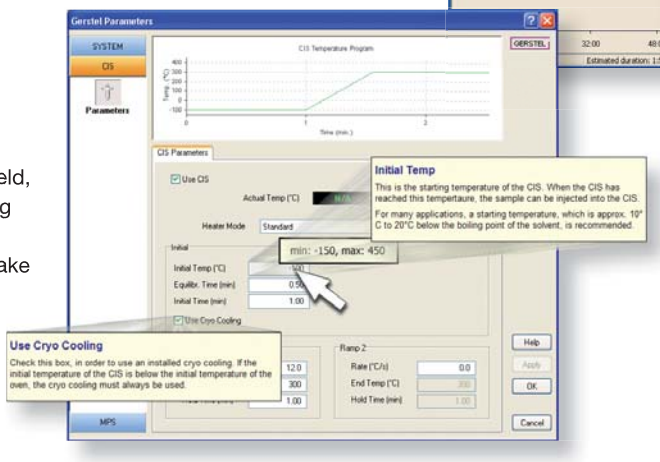
**PrepBuilder**
The PrepBuilder function helps you automate all sample prep steps by mouse-click:

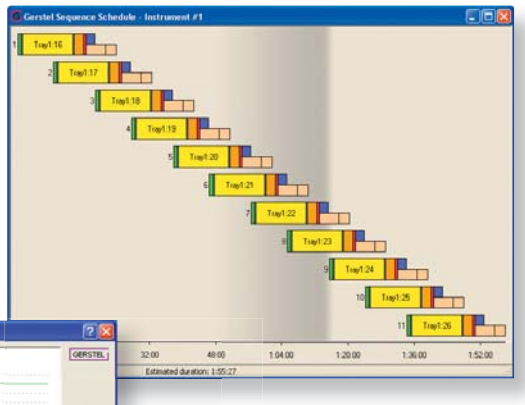
- **Standard addition**
  **Derivatization**
- **Sample transfer**
- **Washing**
- **Dilution**
- **Incubation**
  **and Agitation**
  **Extraction**
  **Mixing**
  **Conditioning**
- **Liner Exchange**
- **Weighing**
- **Solid Phase Extraction**
- **Evaporation**
- **Sample Introduction**



## Context sensitive help

Help for the topic at hand is always at your fingertips in the MAESTRO software. Activate the help function for a single field of interest with a mouse-click or press the help button to display the on-line user manual with extensive help on the software screen in question. Additionally, whenever the mouse cursor is placed over a parameter field, a short explanation showing the valid range for that parameter pops up to make it as easy as possible to generate the method.



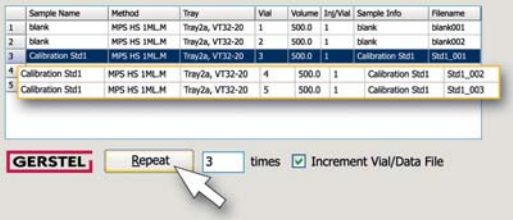




## Scheduler

The MAESTRO Scheduler provides an at-a-glance graphical overview of all sample preparation steps, the GC/MS or LC/MS analysis times and the total analysis time for the entire batch of samples. Based on the scheduler overview, sample preparation and analysis times are easily optimized for highest throughput. When the method is changed, the effect on productivity is immediately seen on the display, the sequence is checked for errors before the run to ensure that all samples are analyzed as planned.

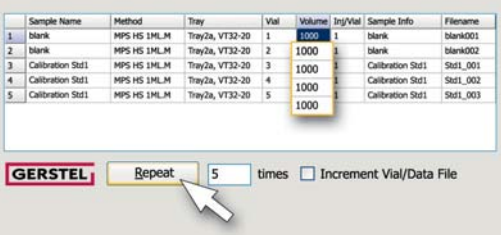
## Intelligent sequence editor

The sequence editor has intelligent fill-down functions that let you generate new sequences extremely easily and quickly. Very little effort is required to create the sequence table that runs your daily samples.

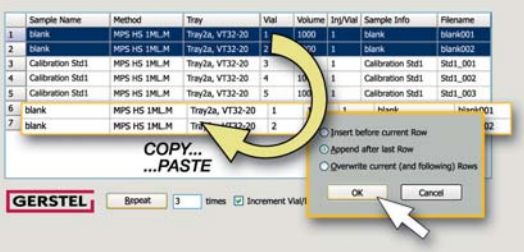



◀ ***New sequence table*** *generated by simple repeat function of first line*

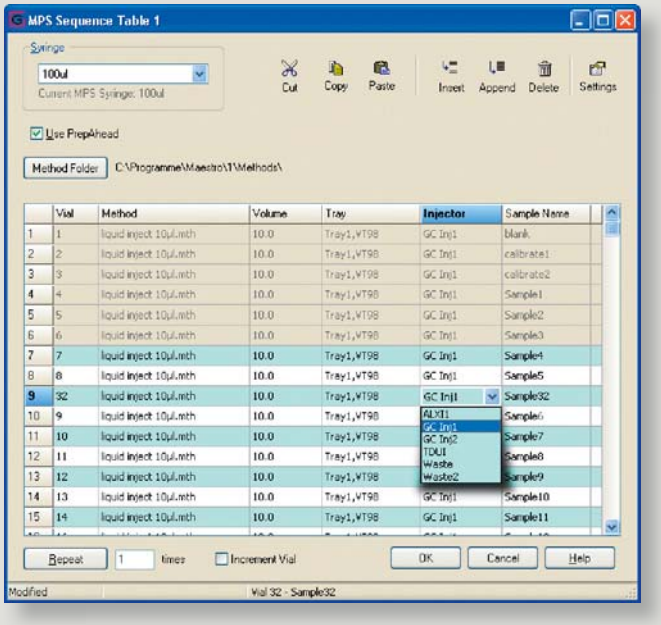
***Intelligent fill-down function*** *with "Increment Vial/ Datafile" option*




◀ ***New sequence table*** *generated by modifying an existing table. Trays, injectors or methods are easily replaced by highlighting one cell and pushing repeat button.*

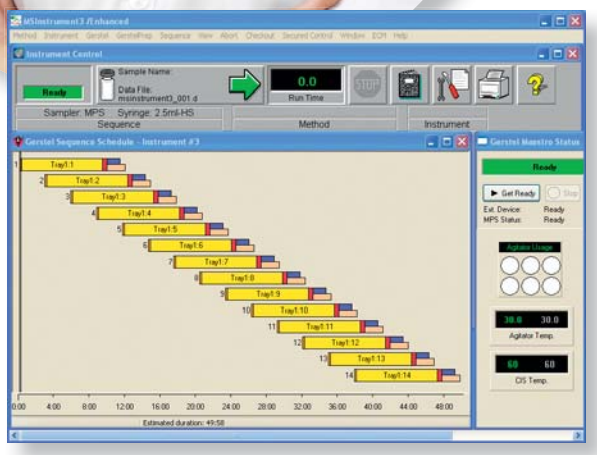


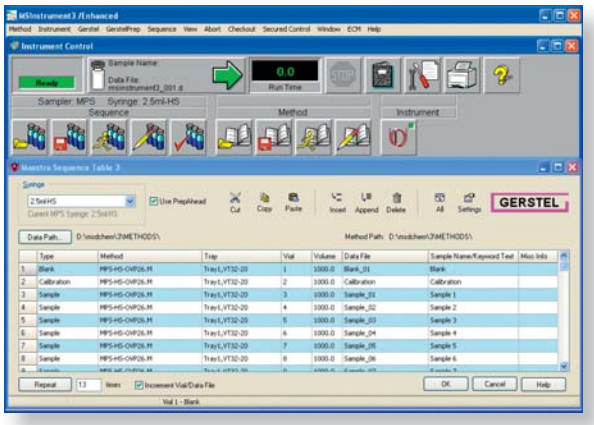

◀ ***Copy/paste function*** *with clear indication of destination*




▲ ***Priority samples can be added*** *to the system at any point in the analysis sequence.*

***Methods, trays and injectors*** *can be selected directly from pull-down menus. Only those methods that are configured with the selected syringe are displayed. This makes method selection easier and reduces the risk of error. The same applies to trays and injectors: It is only possible to select those that fit the method listed in the sequence line.*





# MAESTRO supported techniques

## Liquid handling

- Sample introduction
- Standard addition
- Derivatization
- Extraction and dilution
- Automated weighing option
- Heating, conditioning and mixing

## Extraction and concentration

- Solid Phase Extraction (SPE)
- Solid Phase Micro Extraction (SPME)
- Twister: Stir Bar Sorptive Extraction (SBSE) and thermal desorption
- Liquid / liquid extraction (LLE)
- Twister Back Extraction (TBE)
- Membrane Assisted Solvent Extraction (MASE)

## Gas phase extraction

- Dynamic Headspace (DHS)
- Headspace GC (HS)
- Headspace Solid Phase Micro Extraction (HS-SPME)

## Thermal Desorption

- Thermal desorption of adsorbent tubes (TDS, TDU)
- Direct thermal extraction (TDS, TDU)
- Automated TDU liner EXchange with micro-vials (ATEX)
- Dynamic Headspace with adsorbent trapping (DHS)

## Matrix Elimination

- Solid Phase Extraction (SPE)
- Automated Liner EXchange (ALEX)
- Automated TDU liner EXchange with micro-vials (ATEX)

## Optimizing / Accelerating Separation

- Multidimensional GC
- Modular Accelerated Column Heating (MACH)
- Temperature Programmed Liquid Chromatography (Polaratherm)
- Preparative Fraction Collector (PFC)

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