

# V:Results™ Software for GC/MS Ion Traps

NEXT GENERATION MASS SPECTROMETRY DATA HANDLING SOFTWARE

*Varian offers a productivity enhancing, cost per sample reducing, high throughput GC/MS software solution for environmental and food & product safety laboratories.*



## Key Benefits

- ▶ **Report results to your customers faster**, by reducing the time needed to develop and validate methods.
- ▶ **Productivity tools speed up the daily analysis setup** while ensuring that your business rules are respected.
- ▶ **Enhanced processing speed accelerates results generation**, allowing you to perform multiple calculations effortlessly.
- ▶ **Assisted data review streamlines results interpretation** and focuses on out-of-range results, reducing the cost per analysis.
- ▶ **As markets become more regulated, V:Results Software has been designed to comply with USA EPA methods and EU directives**, for full compliance.

NOTICE: This document contains references to Varian. Please note that Varian, Inc. is now part of Agilent Technologies. For more information, go to [www.agilent.com/chem](http://www.agilent.com/chem).

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## Method development and Validation

V:Results comes with pre-defined method, sequence and report templates for EPA and EU directive-driven applications, helping you to quickly set-up your method. Fine tune to your liking and you are ready to start earning money.

When starting with an exploratory run, you can achieve multiple spectrum extractions from a single run, search them all automatically against your libraries and then automatically generate the compound table, including qualifier ions. Varian designed this workflow especially to reduce the time needed to develop a method.

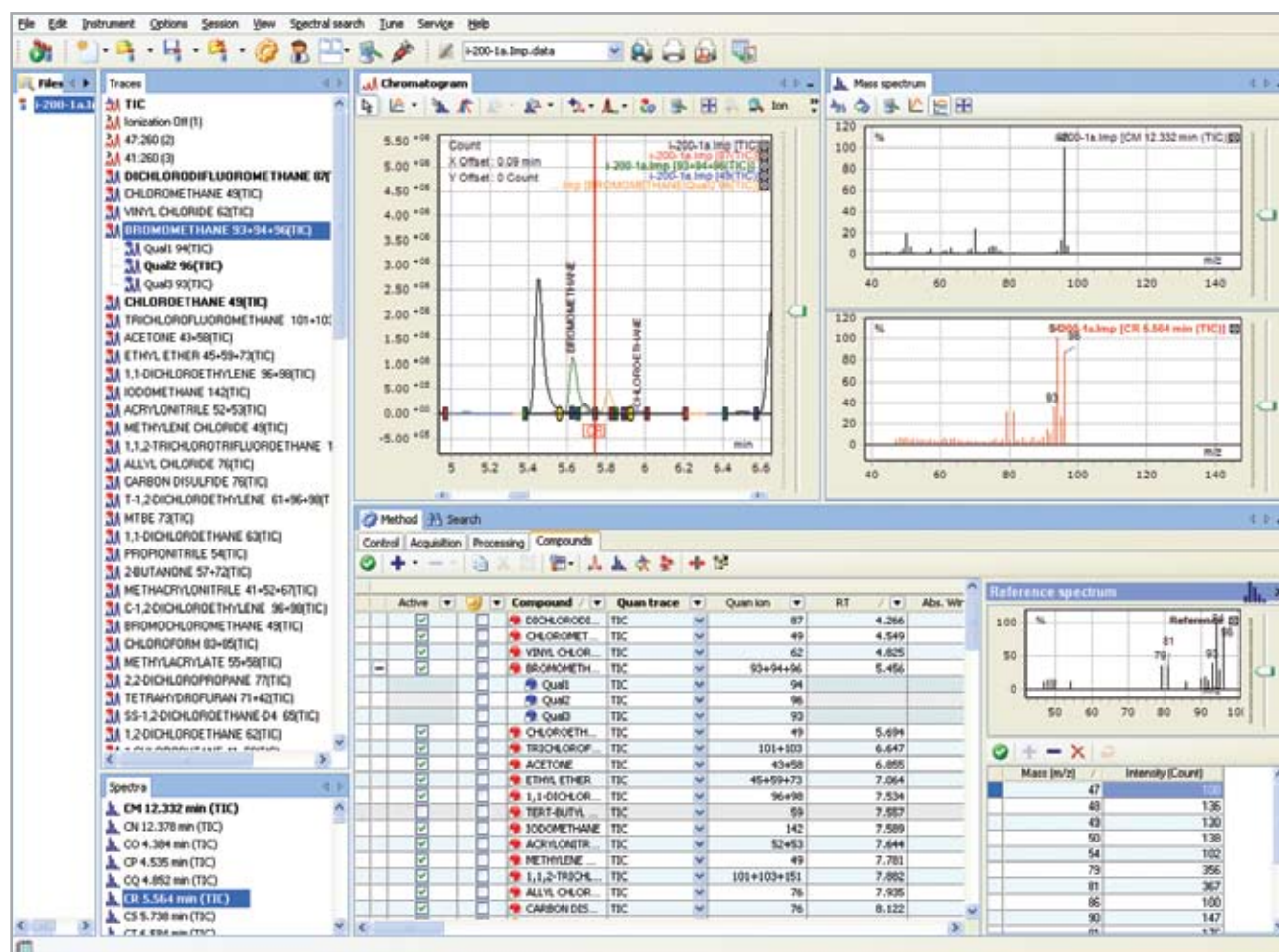


Figure 1. Screenshot of V:Results in Method development mode.

The compound table is displayed in a flexible spreadsheet style, and allows you to review and edit all component parameters and settings: identification, conformation, calibration, quantification, integration and more.

No need to go to different screens to find the parameter you need. Powerful filters, sorting and copy options ensure easy-of-use, even with hundreds of compounds!

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## Productivity Tools

We know that you don't want to spend time on getting your daily sequence running. Ensure that your instrument works correctly. With V:Results, Autotune parameters and results are shown in a single screen. For each of the parameters, the pass-fail result is shown and the validity date of the tune parameter indicates if you need to perform a tune.

You can design sequence templates that enforce the correct insertion of blanks, standards, control samples and other user-defined sample types. This ensures that sequences comply with your business rules and SOPs. When creating your sequence, simply state the number of samples you need to run and the sequence is created to include your control samples, blanks, etc.

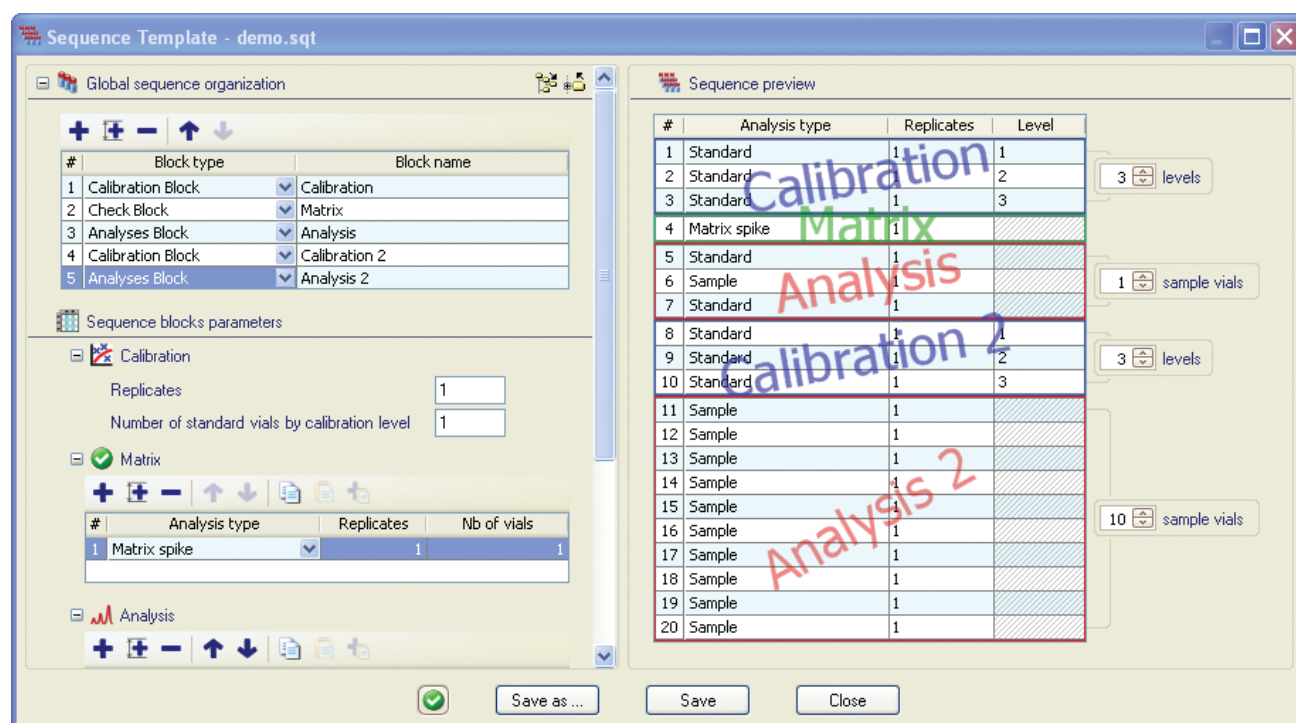


Figure 2. Screenshot of V:Results sequence template screen.

Don't spend time worrying if your sequence is correct. Any missing information in the sequence is identified with both color and an interactive icon. Simply click the icon and we direct you to the cell that needs input.

The novel run queue feature allows you to analyze multiple batches of samples by running multiple sequences, if needed, interlaced with priority samples, ensuring maximum flexibility and productivity.

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## Enhanced Processing Speed

The new processing algorithms of V:Results allow for faster result generation. Therefore, if you need to make a change to your method and reprocess your data, it won't cost too much time.

After running the sequence, the software has already processed all the data, generated the calibration curves and evaluated the quality control criteria to create a study that shows all results of your sequence in a single easy-to-evaluate screen.

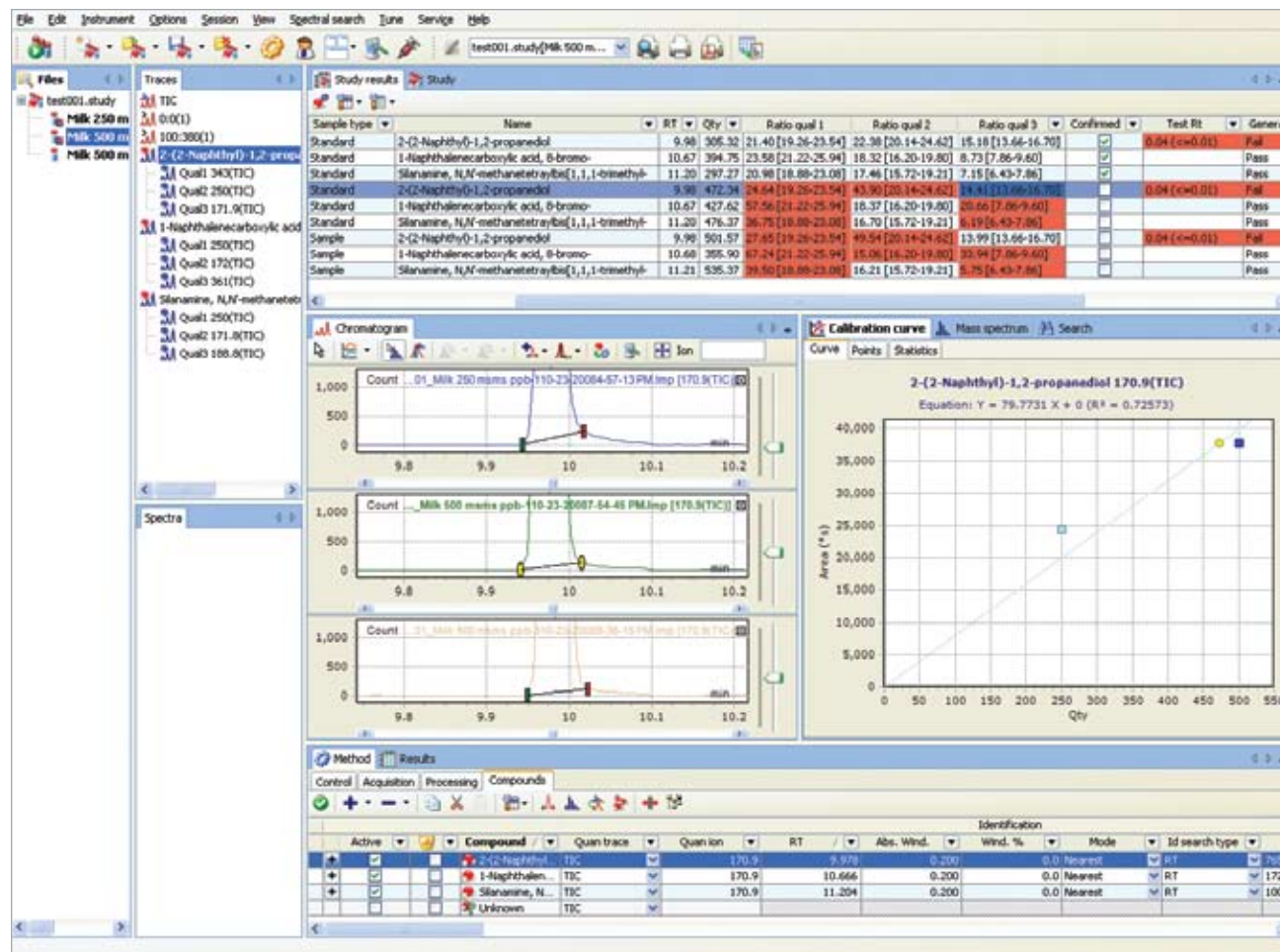


Figure 3. Screenshot of V:Results in review mode.

During a run you can take a QuickSnap of the running sample and perform calculations on the partial result. When you take another QuickSnap from the same sample, the calculated file is automatically updated and the new results shown, enabling you to evaluate your sample or even report results before the end of the analysis.

With a single click you can apply method modifications to all samples of an analysis batch, saving time and eliminating

the need for manual processing actions. Manual integrations are not lost when you reprocess a batch of samples, valuable time spent correcting samples is therefore never lost! By using the study feature, you can now easily generate results of the same samples with a different method without overwriting the initial results, perfect for case studies, research or method development.

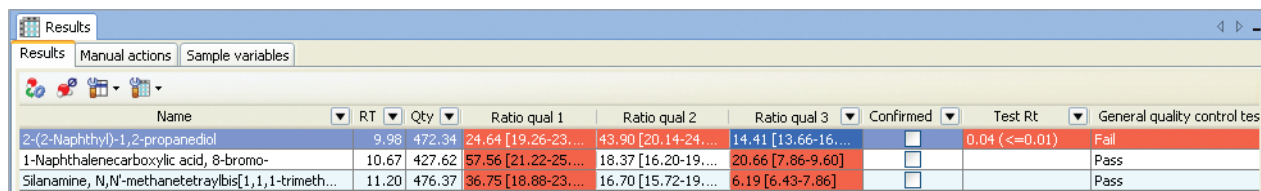


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## Assisted Data Review

Whether you want to see results of a single sample or all the results of a sequence, powerful filter and sorting options allow you to quickly review all relevant results. By adding quality control criteria, out-of-range results are flagged by text and color, both on component and sample

level, making it easy to identify which samples need attention. This allows you to review without consuming unnecessary paper, and improves productivity by speeding up data review.



Name	RT	Qty	Ratio qual 1	Ratio qual 2	Ratio qual 3	Confirmed	Test Rt	General quality control tes
2-(2-Naphthyl)-1,2-propanediol	9.98	472.34	24.64 [19.26-23....	43.90 [20.14-24....	14.41 [13.66-16....	<input type="checkbox"/>	0.04 (<=0.01)	Fail
1-Naphthalenecarboxylic acid, 8-bromo-	10.67	427.62	57.56 [21.22-25....	18.37 [16.20-19....	20.66 [7.86-9.60]	<input type="checkbox"/>		Pass
Silnanamine, N,N'-methanetetraylbis[1,1,1-trimeth...	11.20	476.37	36.75 [18.88-23....	16.70 [15.72-19....	6.19 [6.43-7.86]	<input type="checkbox"/>		Pass

Figure 4. Screenshot of V:Results results table with colored & text flags.

Group management allows multiple groups containing multiple components. You can filter the results to only display the desired component groups. Imagine that your base method contains 200+ components but you only need to see the results of one or more groups; simply check the groups you need and report.

The intuitive, easy-to-use report editor enables you to modify the pre-defined reports or generate report styles on the fly. The result of every change is immediately shown using your active data, so you never have to second-guess how the report will look.

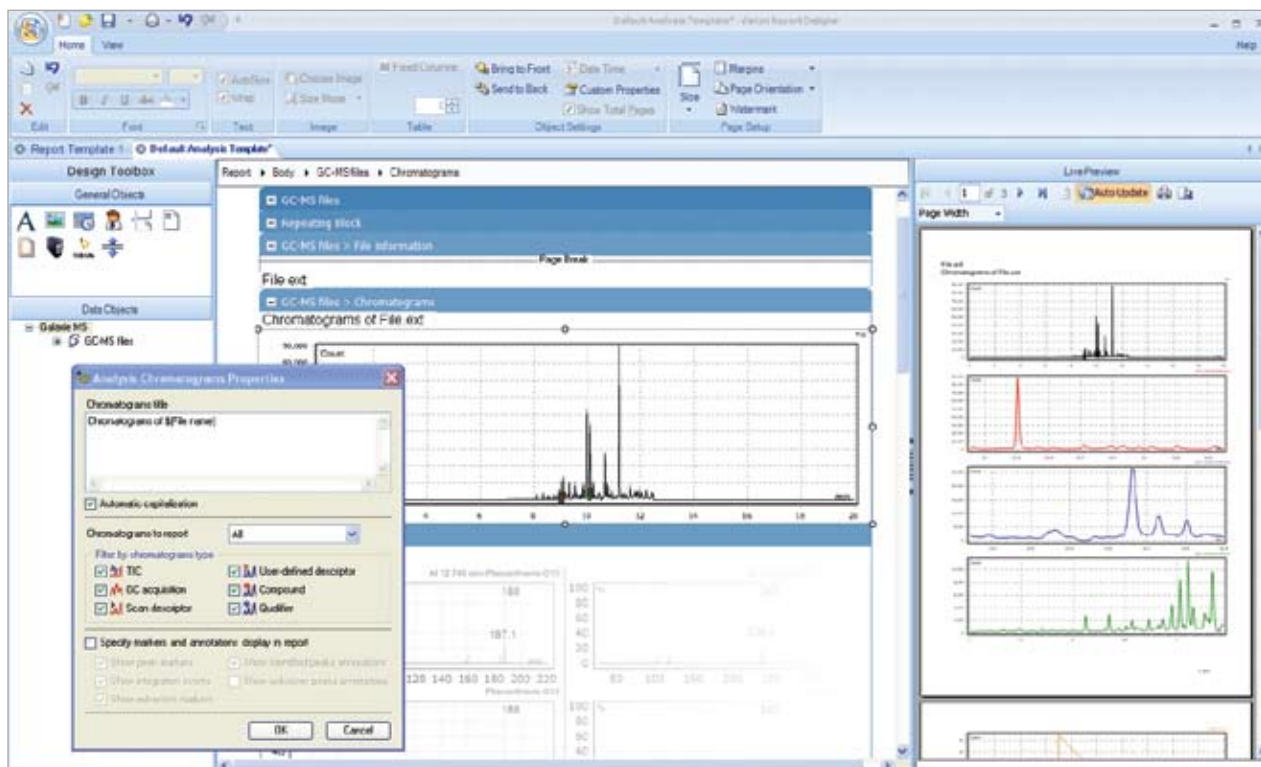


Figure 5. Screenshot of V:Results Report Editor.

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## Compliance

V:Results comes with all the features you need to meet USA EPA and EU directive demands. Apply the EPA-designed sequence templates to ensure the use of specific sequences when running samples and report them in a specific format using the predefined EPA standard report templates.

Performance-driven EU directives can be met using the identification tools and comprehensive user-defined quality control criteria. Extensive calibration information ensures that you can confidently report your analysis results.

Regulations demand that you meet tuning criteria, for which you can use the pre-defined EPA tuning criteria, or define your own. Every tune result is stored and can be re-loaded into your instrument. Varian GP ensures traceability of experimental conditions at all time by storing all method parameters with every analysis.

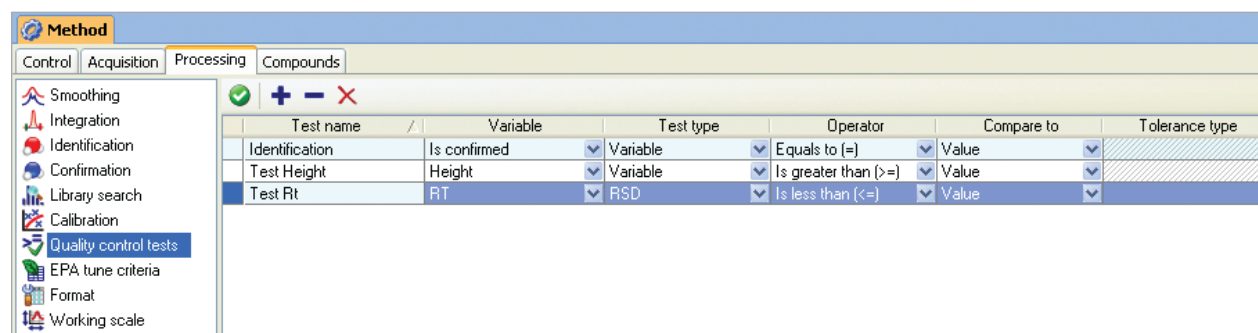


Figure 6. Screenshot of V:Results in Method QC control settings screen.

## Specifications and Requirements

### V:Results supports control of the following instruments:

- Varian 2000 Saturn GC/MS
- Varian 4000 GC/MS
- Varian 210-MS Ion Trap
- Varian 220-MS Ion Trap
- Varian 240-MS Ion Trap
- Varian 3800, 3900, 431-GC and 450-GC in connection with a MS
- Varian 8400 and 8410 autosamplers and CTC CombiPal autosampler

### V:Results PC requirements:

- Processor : Intel Core 2 Duo E8400 (3 GHz, 133 MHz, 6 Mb)
- Memory :4 Gb minimum 800 MHz DDR2 Dual Channel
- Operating System : English Windows Vista Business SP1 to XP Pro SP3 Downgrade with XP Media
- Hard Drive : 250 Gb (7200 Rpm) 3.5 in. Serial ATAII 3 Gb
- Optical Drive : 16 x DVD+/-RW Drive
- Varian recommends Dell OptiPlex 960 MT Computers



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