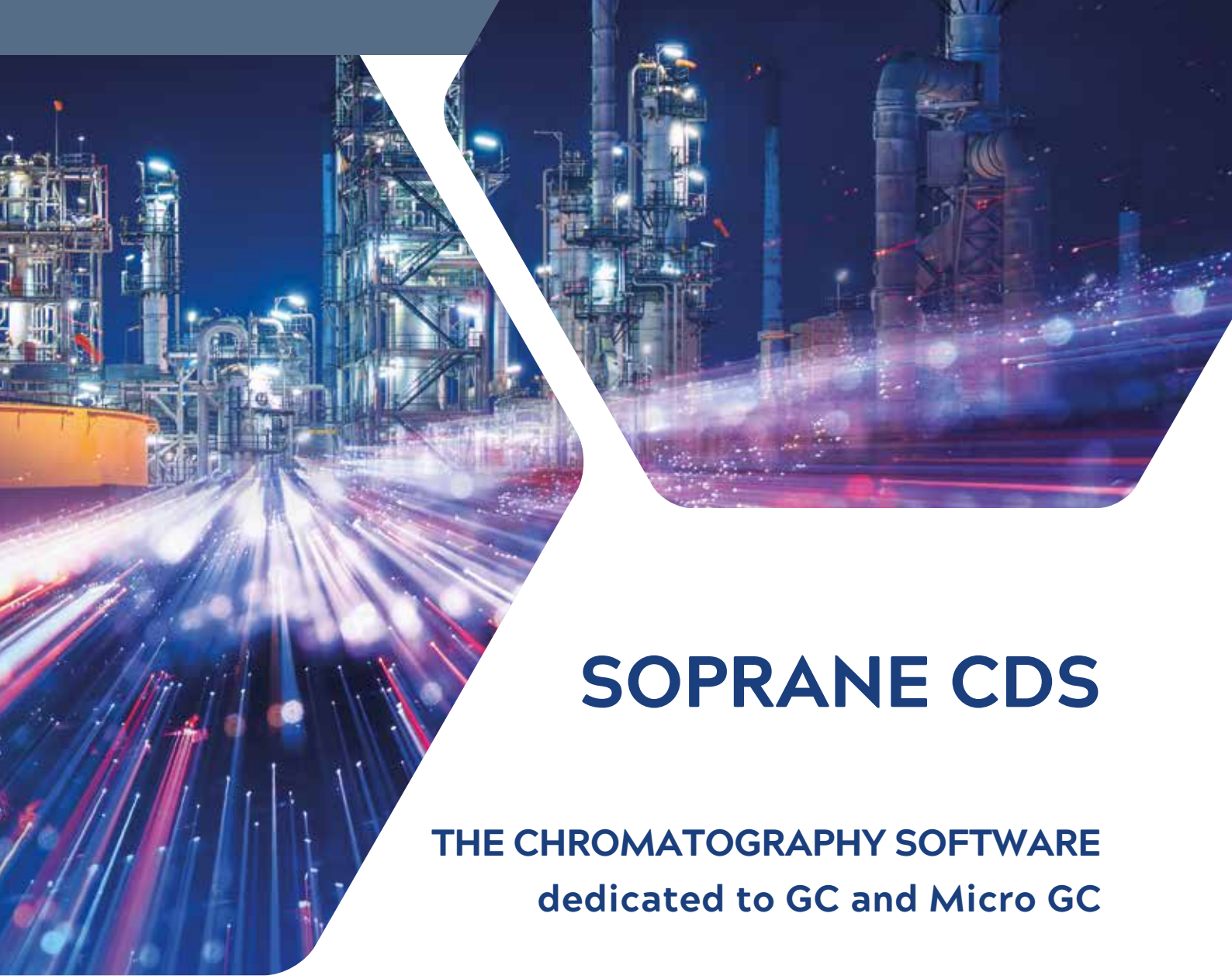


SOPRANE CDS

THE CHROMATOGRAPHY SOFTWARE
dedicated to GC and Micro GC

Simplicity and high performance
from laboratory analysis
to on-line process applications

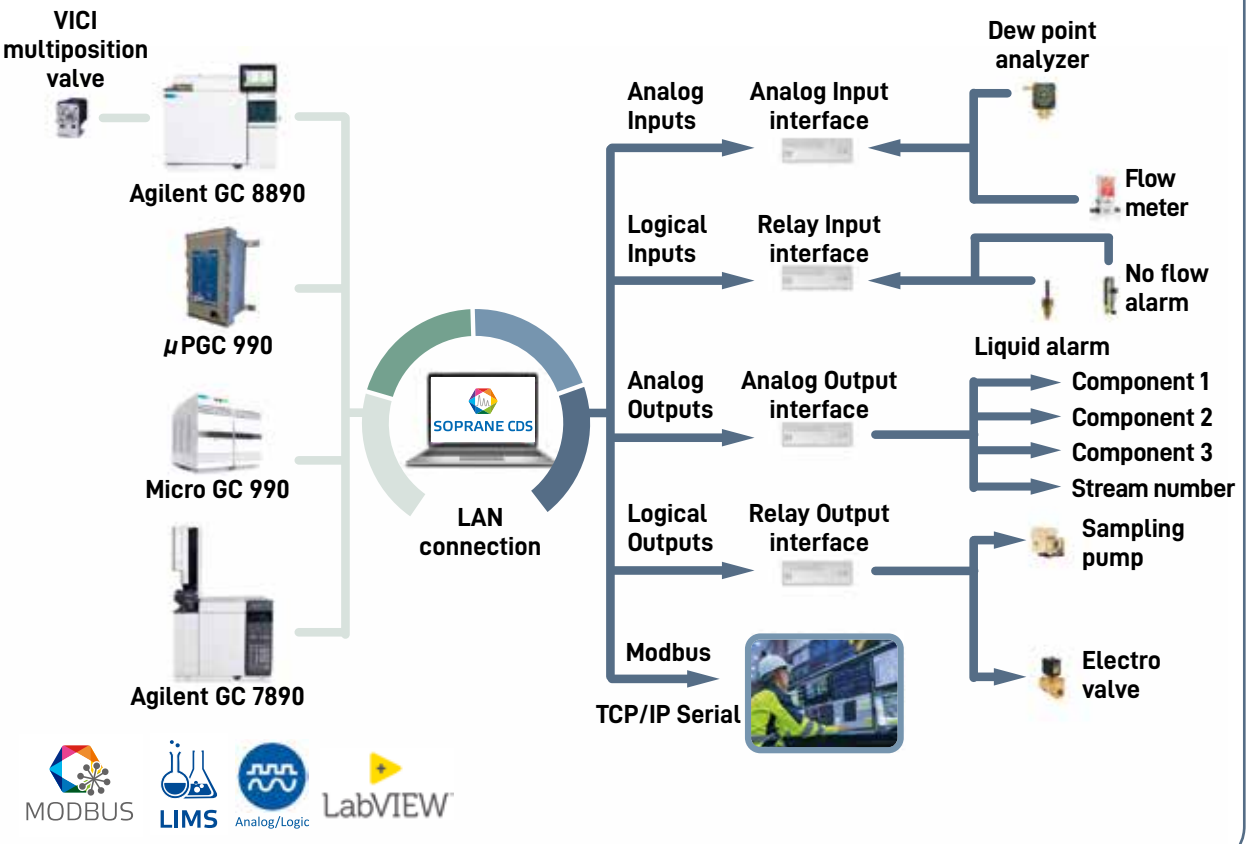
SRA INSTRUMENTS
ANALYTICAL SOLUTIONS

Soprane CDS is a powerful software platform for seamless analyzer integration and data management. It handles everything from automated sampling to extensive hardware connectivity for system control. Its modern, intuitive graphical interface ensures that analysis results and trends are always easy to view and customize.

Soprane CDS enables you to:

- Control Agilent 8890, 8860, 8850, 7890, and 7820 GCs, Varian 4900, Agilent 3000, 490, and 990 Micro GCs, as well as all SRA Micro GCs using dedicated drivers.
- Monitor system status, and configure or program parameters from dedicated pages.
- Manage line selectors, solenoid valves, and VICI Valco multi-position valves.
- Control external accessories, suction pumps, flow or pressure sensors, sampling components, and data transmission interfaces.
- Track both incoming and outgoing alarms.
- Manage sequences and automated calibrations.
- Acquire signals from external analyzers and integrate these values with chromatographic results.
- Transmit results via analog outputs or Modbus protocols.

Each PC can simultaneously control up to four instruments. The software automatically acquires signals, performs calculations, transmits results, and generates customized reports.



SOPRANE CALCULATION OPTIONS

Natural Gas Physical Properties

Calculations are performed in compliance with the **ISO 6976:2016** standard.

CALCULATED PARAMETERS	
Ideal/Real Molar mass	Ideal/Real superior calorific value
Ideal/Real density	Wobbe index
Ideal/Real specific gravity	Compressibility factor
Ideal/Real inferior calorific value	Fact. of compression

- **Available units of measurement:**
  MJ/m³, kJ/m³, MWh/m³, kWh/m³, Wh/m³, KCal/m³, BTU/si.
- **Reference temperature:**
  0 ° C / 0 ° C, 15 ° C / 15 ° C, 25 ° C / 25 ° C.
- **Analysis report:**
  - ☐ Raw and normalized % concentration
  - ☐ Total concentration
  - ☐ Alarm concentration
  - ☐ Graphical trend of any calculated parameter.

Carbon content and calorific value in refinery fuel gases

Calculations are performed in compliance with the following standard: **EN 15984:2022**.

CALCULATED PARAMETERS	
Carbon content g/100 g gas	Ideal/Real Molar mass
Ideal/Real inferior calorific value KJ/100 g gas	Real density at 15 ° C
Ideal density at 15 ° C	Ideal/Real superior calorific value KJ/100 g gas

Density and vapor pressure in LPG, propane, and butane mixtures

Calculations are performed in compliance with the following standards: **ISO 8973**, **ISO 7941**, **ISO 6578**.

CALCULATED PARAMETERS	
Carbon total	Vapor pressure at 70 ° C
Upper/Lower calorific value	Sum C_3
Liquid density	Sum C_4
Liquid specific gravity	Sum C_5
Vapour pressure at 37.8 ° C	Sum Olefins
Vapor pressure at 40 ° C	Temperature evaporation 95%
Vapor pressure at 50 ° C	

Custom Calculation Package

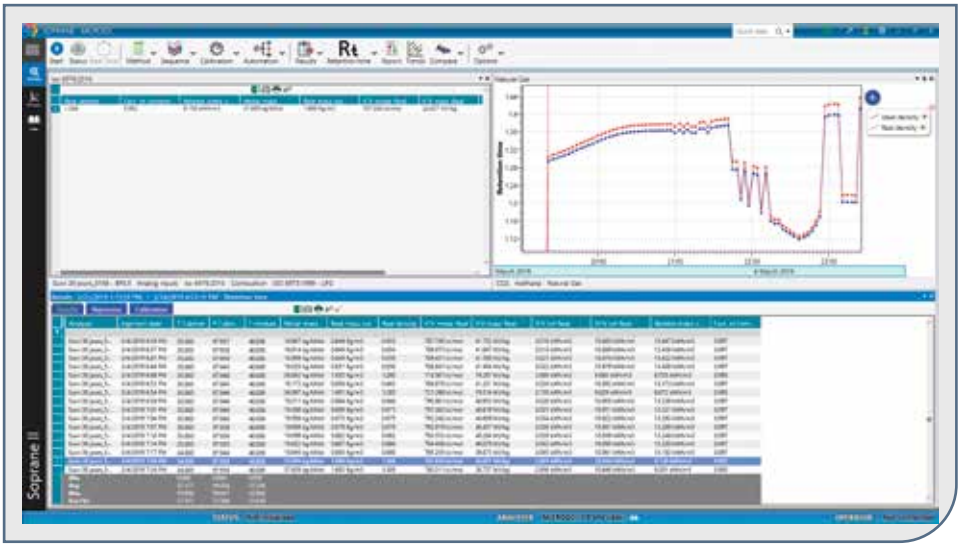
SRA software can perform any type of calculation via a direct link to Excel. A dedicated tool enables the configuration of a worksheet containing component names, calculation variables, results, coefficients, and all other parameters required for custom calculations. At the end of each analysis, the results are automatically imported back into **Soprane CDS**.

ADVANCED CONTROL AND AUTOMATION

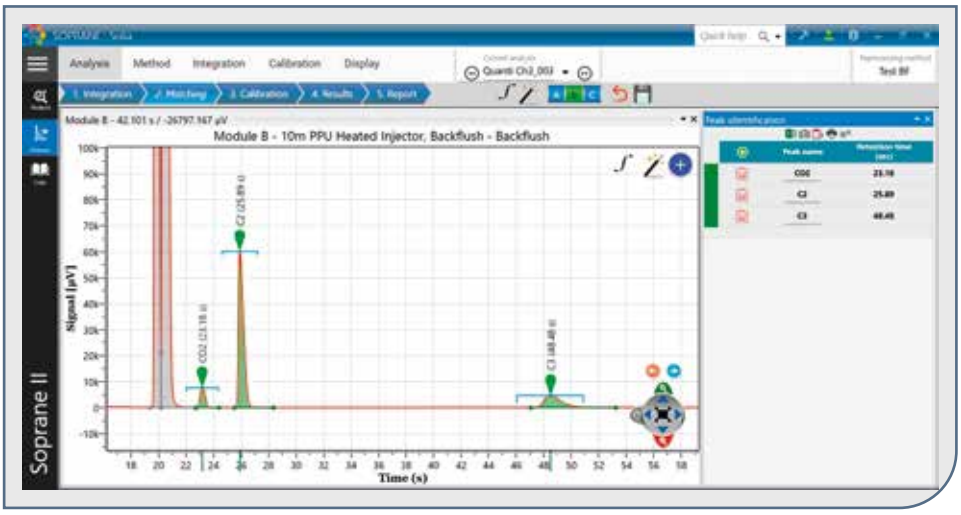
Soprane CDS centralizes all analytical operations into a single, intuitive platform. The main screen delivers essential commands and real-time updates at a glance, allowing operators to instantly monitor active analysis lists, concentration profiles, and batch statistical data.

With a single click, users can manage sequences, configure instrument parameters, and review system alarms. From the results list, it is easy to view chromatograms, verify integration parameters, and overlay multiple traces for comparison.

Simple, powerful, and secure. Three password-protected user access levels (Operator, Service, and Administrator) ensure strict operational rights, with every action safely recorded in a secure log file.

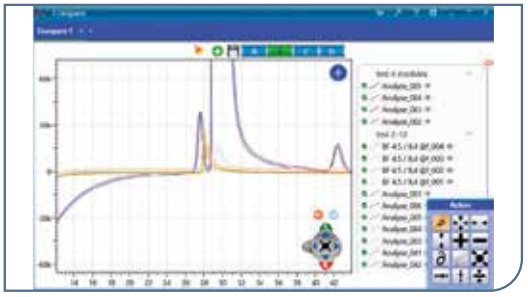


Main screen
Results and calculations, graphical trends, list of all results with statistical values.



Method creation
Five guided logical steps:

- ☐ Integration
- ☐ Matching
- ☐ Calibration
- ☐ Results
- ☐ Report.



- **Complete management of chromatographic data**
- **Comparison and superposition of 2 to 64 chromatographic traces**

The chromatograms can be imported into other software with their conversion into CSV. A dedicated “File Exporter” program also allows to customize the export of all results in CSV.

- **Event scheduling and automation**

The events table schedules the actions in sequence to be carried out before, during or after the analysis.

- **Two-Way Transmission**

Seamlessly transmit results via analog (4-20 mA, 0-1 V, 0-10 V) or digital Modbus signals. Bi-directional communication allows your SCADA system to independently start, stop, or change sequences.

- **Alarms management**

Divided between instrumental and concentration alarms, they can be set with specific criteria, displayed with a message on the screen, a physical contact of a relay, sending an email message.

- **Setting of Modbus addresses and parameters to be transmitted**

Any quantity calculated or measured by the software, including signals acquired from other analyzers, can be added to the chromatographic results.

- **Customizable analysis reports**

Pre-configured reports defined as simple, medium, and complete are immediately available for printing. Customized reports in terms of format, company graphics and texts are easily created.

CONCLUSIONS

The Ultimate Solution for GC Automation

- Soprane CDS bridges the gap between complex chromatographic data and seamless laboratory or process operations. By integrating multi-instrument control, advanced compliance calculations, and automated data transmission, it optimizes your entire analytical workflow.
- Powered by a secure, user-friendly interface, SRA Instruments delivers unmatched performance and flexibility to meet today's demanding industrial and research challenges.

Contact us for a demonstration or a personalized quote!

SRA INSTRUMENTS
ANALYTICAL SOLUTIONS

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*This information is subject to change without notice.

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