

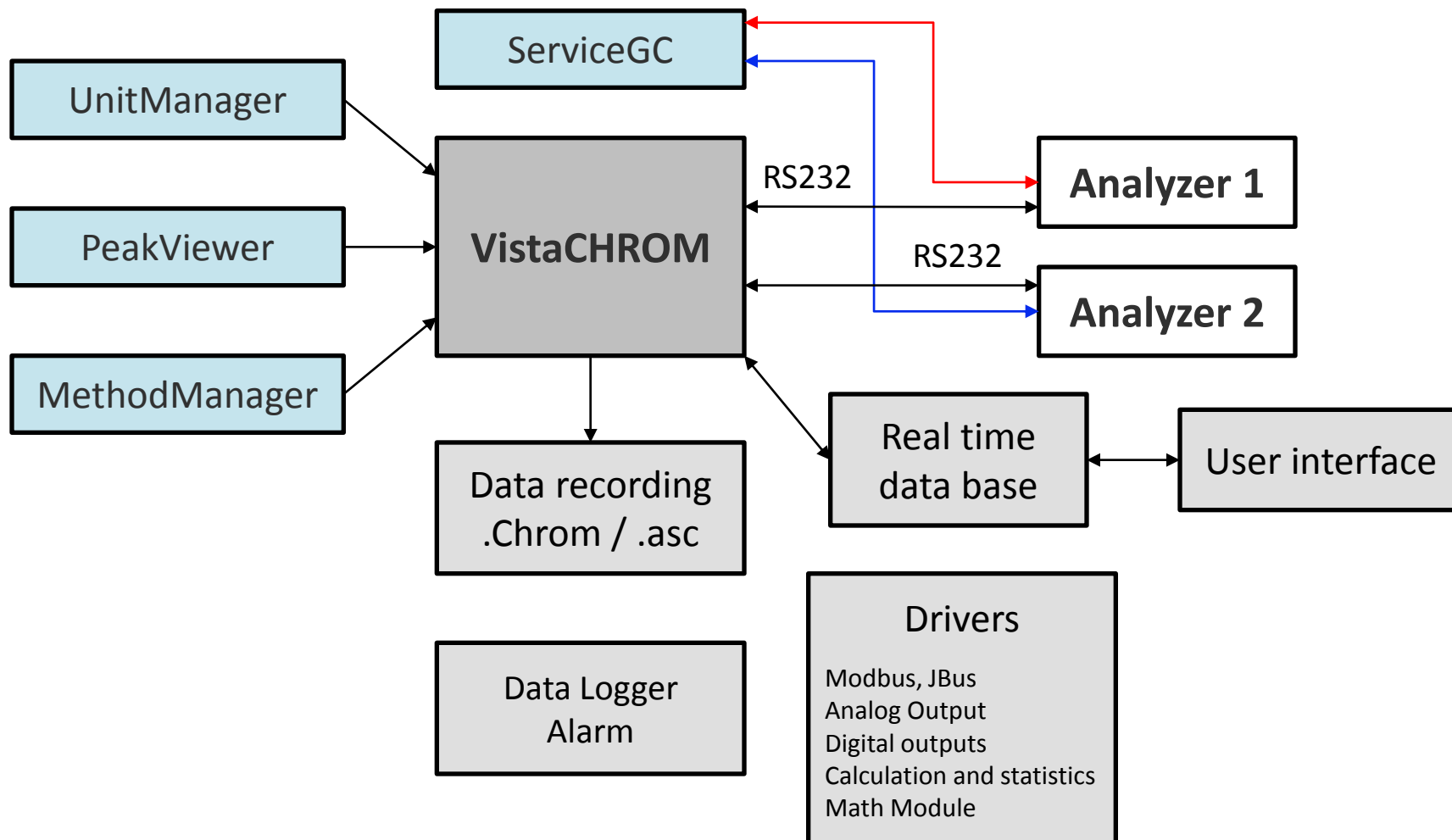
VISTACHROM 1.4.7

Chromatotec®

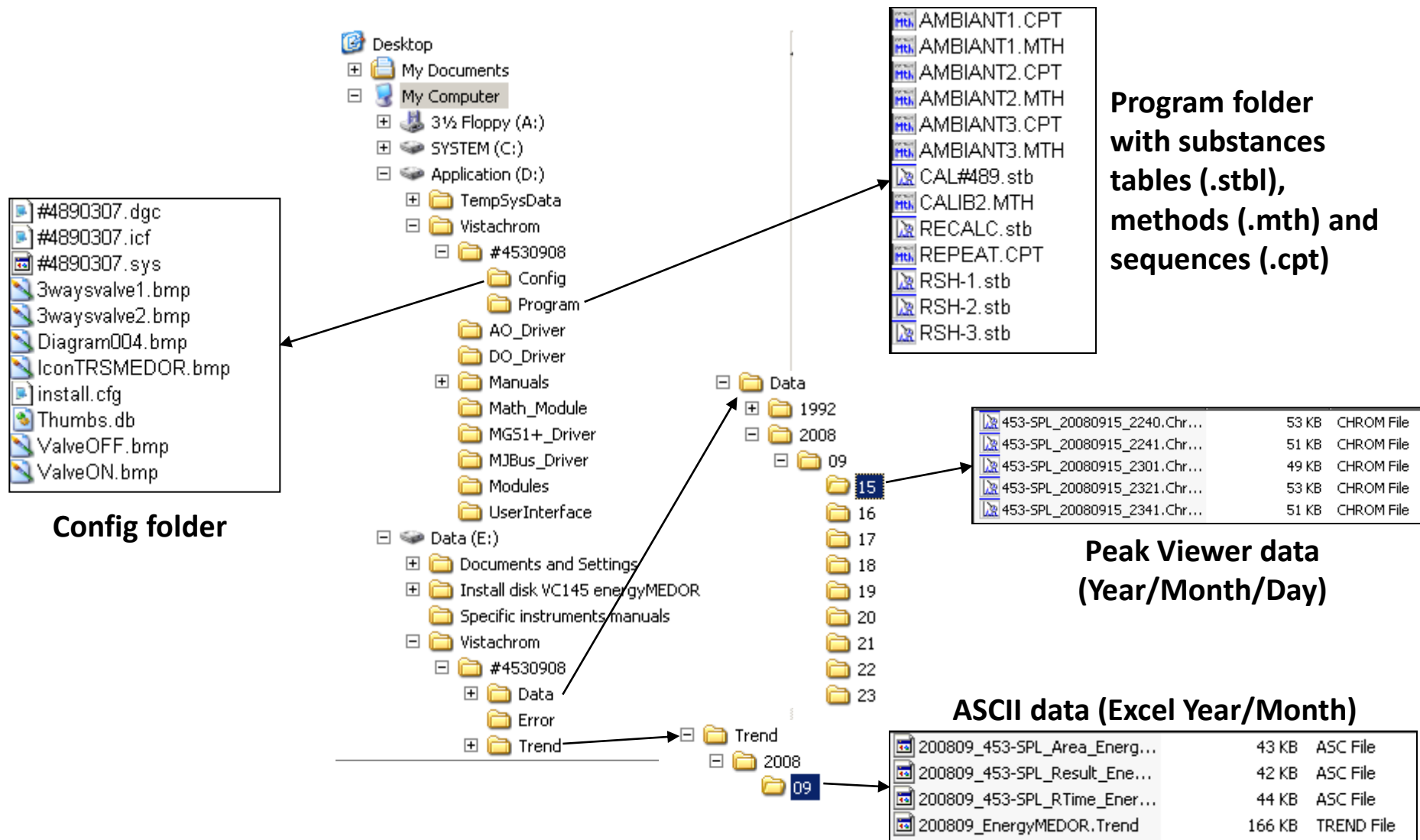
OUTLINE

- Organisation of VistaCHROM 1.4.7.
- Synoptic of the analyzer
- Method Manager
- Setup the GC
- Soft configuration
- Peak Viewer
- Unit Manager
- ServiceGC

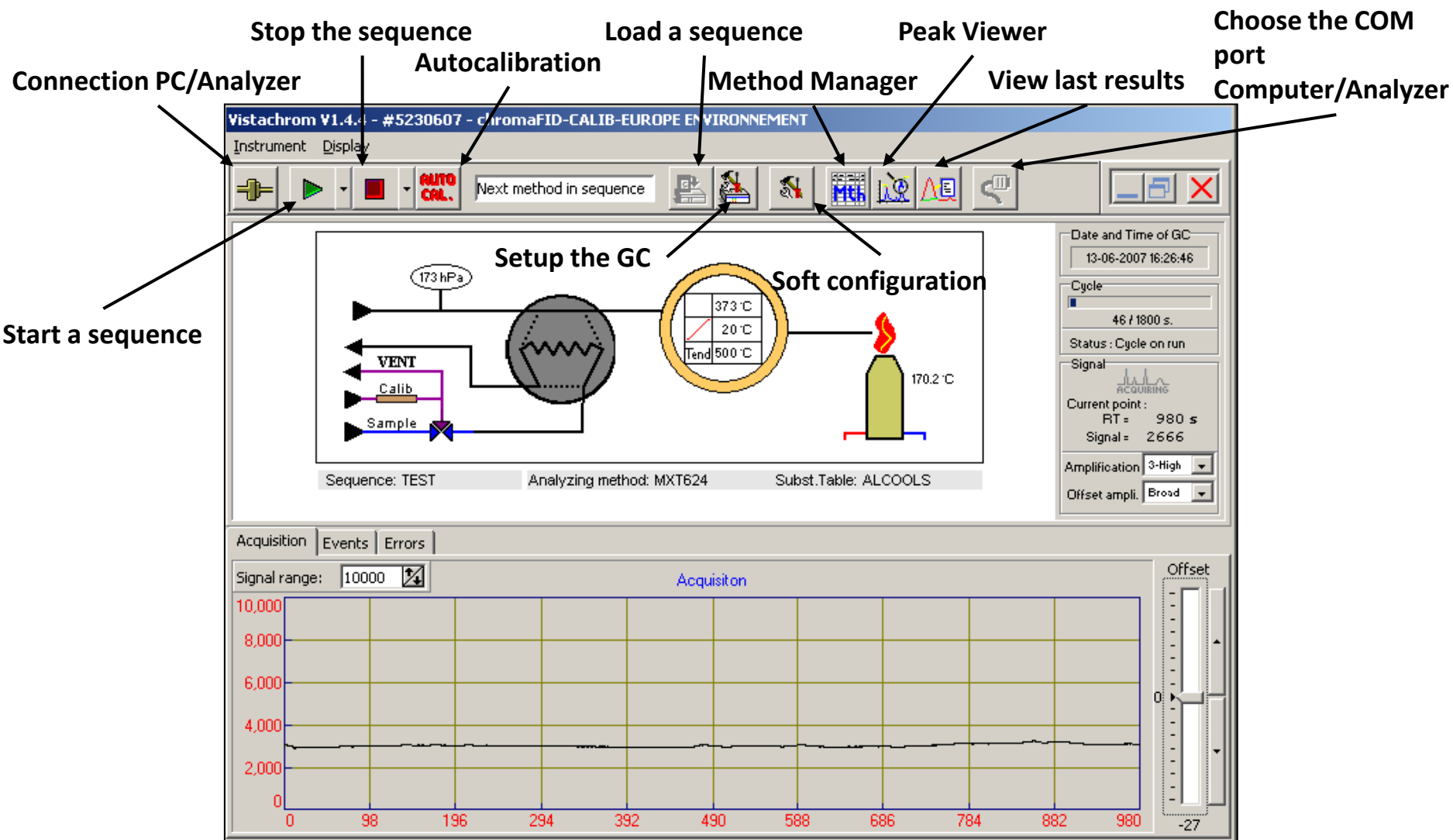
ORGANISATION OF VISTACHROM



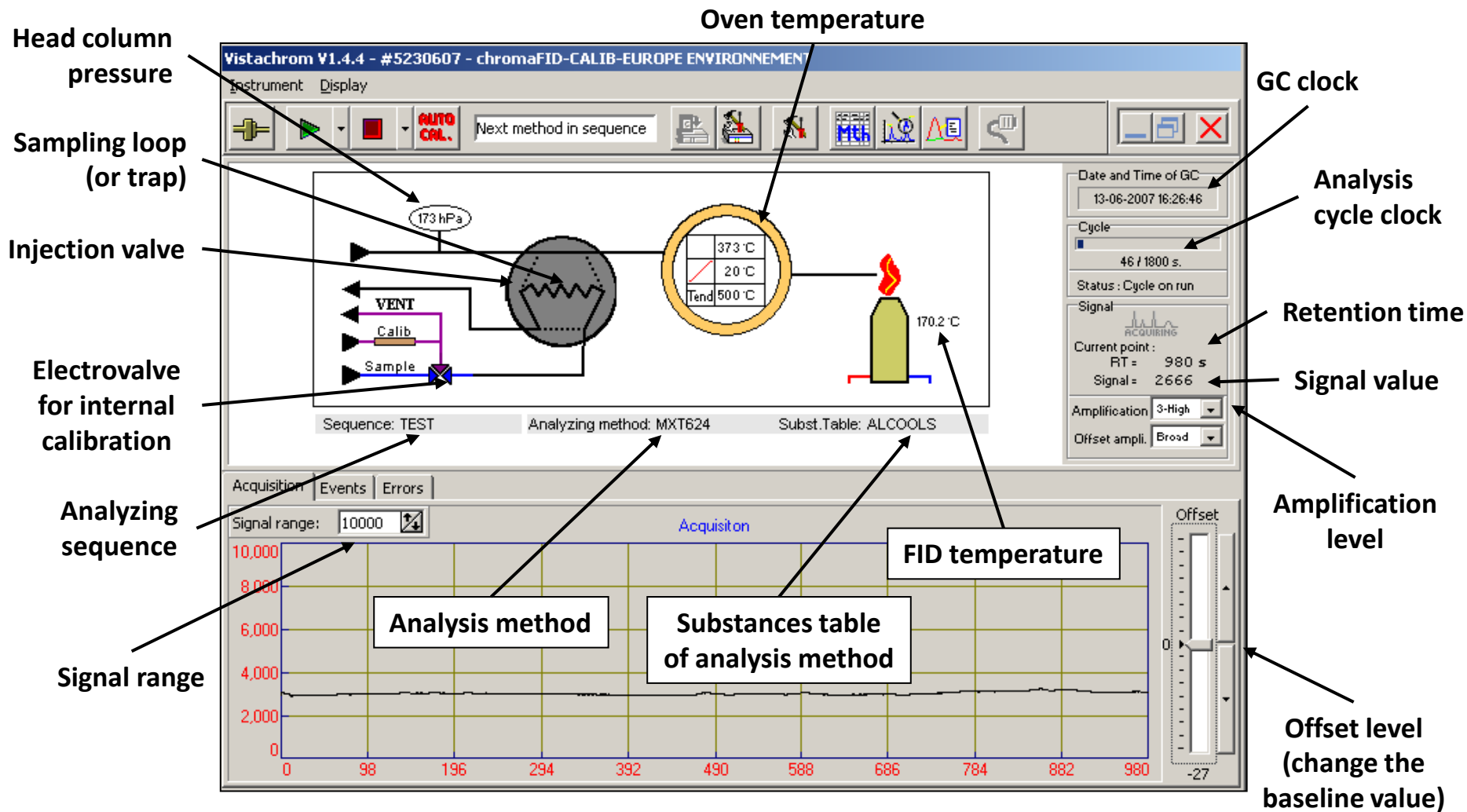
ORGANISATION OF VISTACHROM



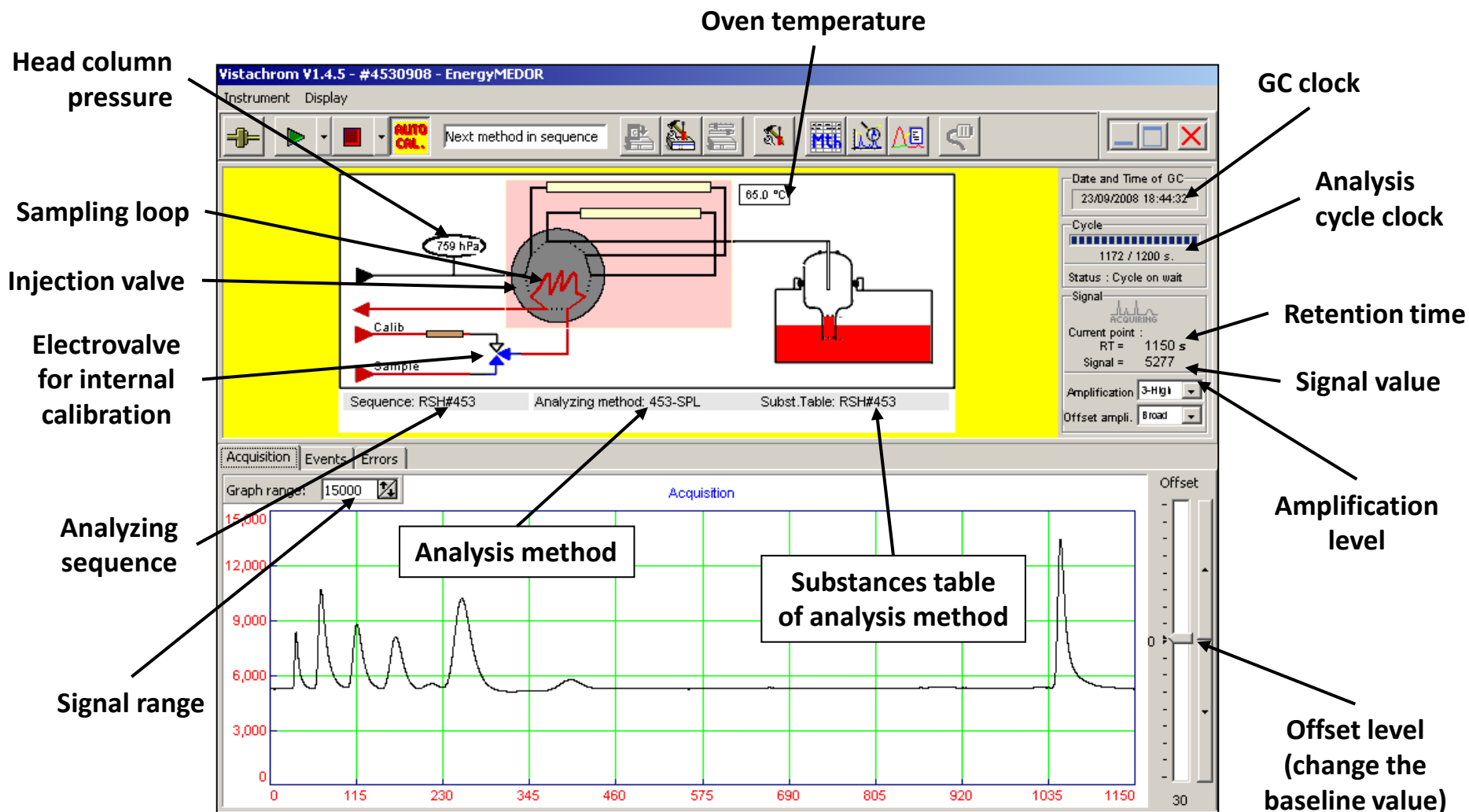
SYNOPTIC OF THE ANALYZER



SYNOPTIC OF THE ANALYZER (VOC ANALYZERS)

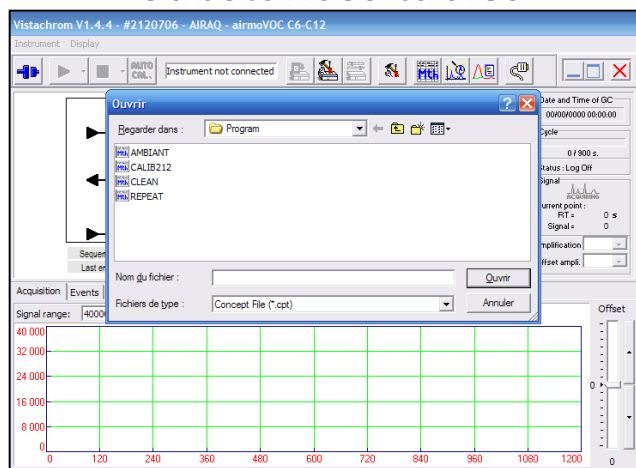


SYNOPTIC OF THE ANALYZER (MEDORS ANALYZERS)

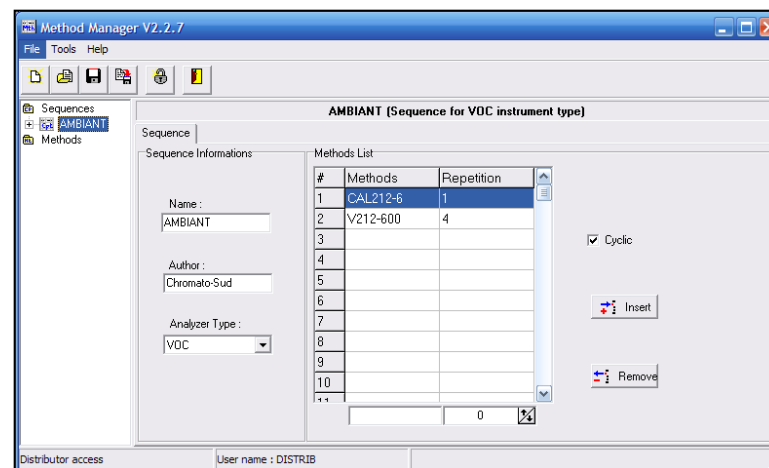


METHOD MANAGER

- Allow you to see, create or modify:
 - Sequences
 - Methods
 - Substances tables



Choose your working sequence

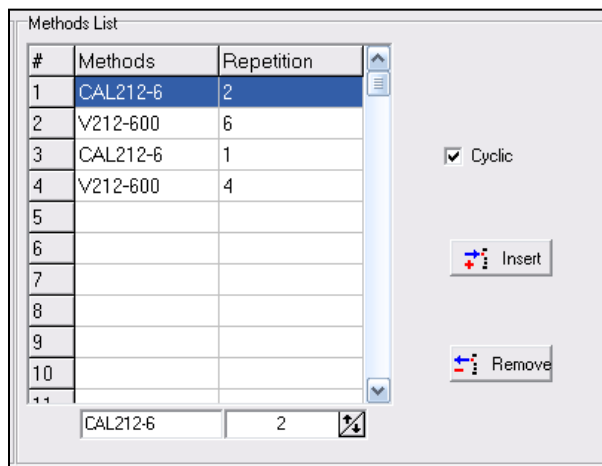


Sequence « AMBIANT » is composed by one CAL212-6 method and four V212-600 methods. This is a cycling sequence.

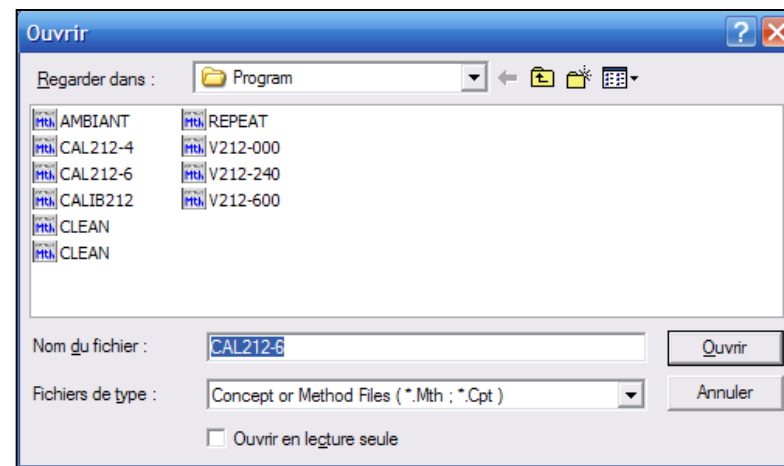
- You can modify the sequences: adding or removing methods

METHOD MANAGER

- You can modify the sequences: adding or removing methods which already exist.



- 1 – Double click to choose a method
- 2 – Choose the number of methods
- 3 – Click on “INSERT” to validate

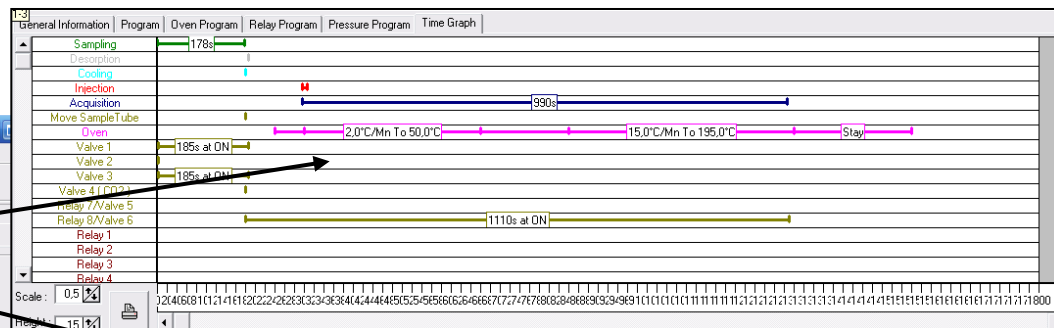


- 4 – Save the sequence: File Save As...

METHOD MANAGER

Sequence

Choose a method into the sequence



Sampling Relay Control					Analyzing Relay Control				
#	Time	Duration	Relay	State	#	Time	Duration	Relay	State
1	0	0	None	On	1	180	1110	Relay 3 / Valve 6	On
2	0	0	None	On	2	1	185	Valve 1	On
3	0	0	None	On	3	0	1	Valve 2	On
4	0	0	None	On	4	1	185	Valve 3	On
5	0	0	None	On	5	0	0	None	On
6	0	0	None	On	6	0	0	None	On
7	0	0	None	On	7	0	0	None	On
8	0	0	None	On	8	0	0	None	On
9	0	0	None	On	9	0	0	None	On
10	0	0	None	On	10	0	0	None	On

SAMP-1-3 (Method for VOC instrument type)

General Information | Program | Oven Program | Relay Program | Pressure Program | Time Graph

Cycle Duration 1800 s Synchronisation 60 s

Sampling Delay 0 s Duration 178 s Relay 0: No relay Volume Little

Desorption Delay 180 s Duration 5 s

Cooling Stop at 0 s + 5 s before desorption end Duration 0 s Temp. setpoint 25 °C

Injection Start at 105 s + 5 s after desorption end Duration 10 s

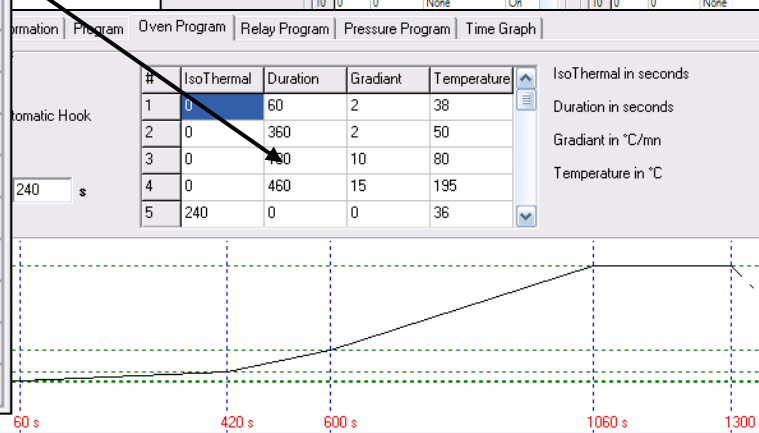
Acquisition Start at 105 s + 5 s after desorption end Duration 990 s

Move Sample Tube Delay 179 s Stop at 1621 s before end of cycle Duration 0 s Movements 2

Detector Amplification 3-High

Integration Slope 5 Signal unit/s Min Area 100 Surface unit Drift 50 Signal unit/s

Substances Table BOUCLE-3



METHOD MANAGER

SAMP-1-3 [Method for VOC instrument type]

General Information | Program | Oven Program | Relay Program | Pressure Program | Time Graph

Cycle Duration 1800 s Synchronisation 60 s

Sampling Delay 0 s Duration 178 s Relay 0: No relay Volume Little

Desorption Delay 180 s Duration 5 s

Cooling Stop at 0 + 5 s before desorption

Injection Start at 105 + 5 s after desorption

Acquisition Start at 105 + 5 s after desorption

Move Sample Tube Delay 179 s Stop at 1621 s

Detector Amplification 3-High

Integration Slope 5 Signal unit/s Min A

Substances Table BOUCLE-3

Edit substances table

Substances table information
 Substances table name VOCH248 Author CHROMATO-SUD
 For the analyzer serial number #2481000 Analyzer type none

Substances

#	Name	RT Min	RT Max	Select Peak	GC Result formula	With X=
1	ETHANE	6	16	Max	1,05 * X	Area/BS
2	ETHYLENE	26	36	Max	0,96 * X	Area/BS
3	PROPANE	61	71	Max	1,05 * X	Area/BS
4	PROPENE	160	170	Max	0,96 * X	Area/BS
5	I-BUTANE	198	208	Max	X	Area/BS
6	N-BUTANE	216	226	Max	X	Area/BS
7	ACETYLENE	259	269	Max	0,9 * X	Area/BS
8	TRANS-2-BUTENE	331	341	Middle	0,96 * X	Area/BS
9	1-BUTENE	342	352	Middle	0,96 * X	Area/BS
10	CIS-2-BUTENE	371	381	Max	0,96 * X	Area/BS
11	I-PENTANE	392	402	Max	X	Area/BS
12	N-PENTANE	409	419	Max	X	Area/BS
13	1-3-BUTADIENE	453	463	Max	0,98 * X	Area/BS
14	TRANS-2-PENTENE	474	484	Middle	0,96 * X	Area/BS
15	1-PENTENE	500	510	Max	0,96 * X	Area/BS
16	CIS-2-PENTENE	515	525	Max	0,96 * X	Area/BS
17	N-HEXANE	572	582	Max	X	Area/BS
18	ISOPRENE	595	605	Max	X	Area/BS

Calibration curve
 Linear
 Factor * X
 With X = [(Area + AreaOfs) / BS]

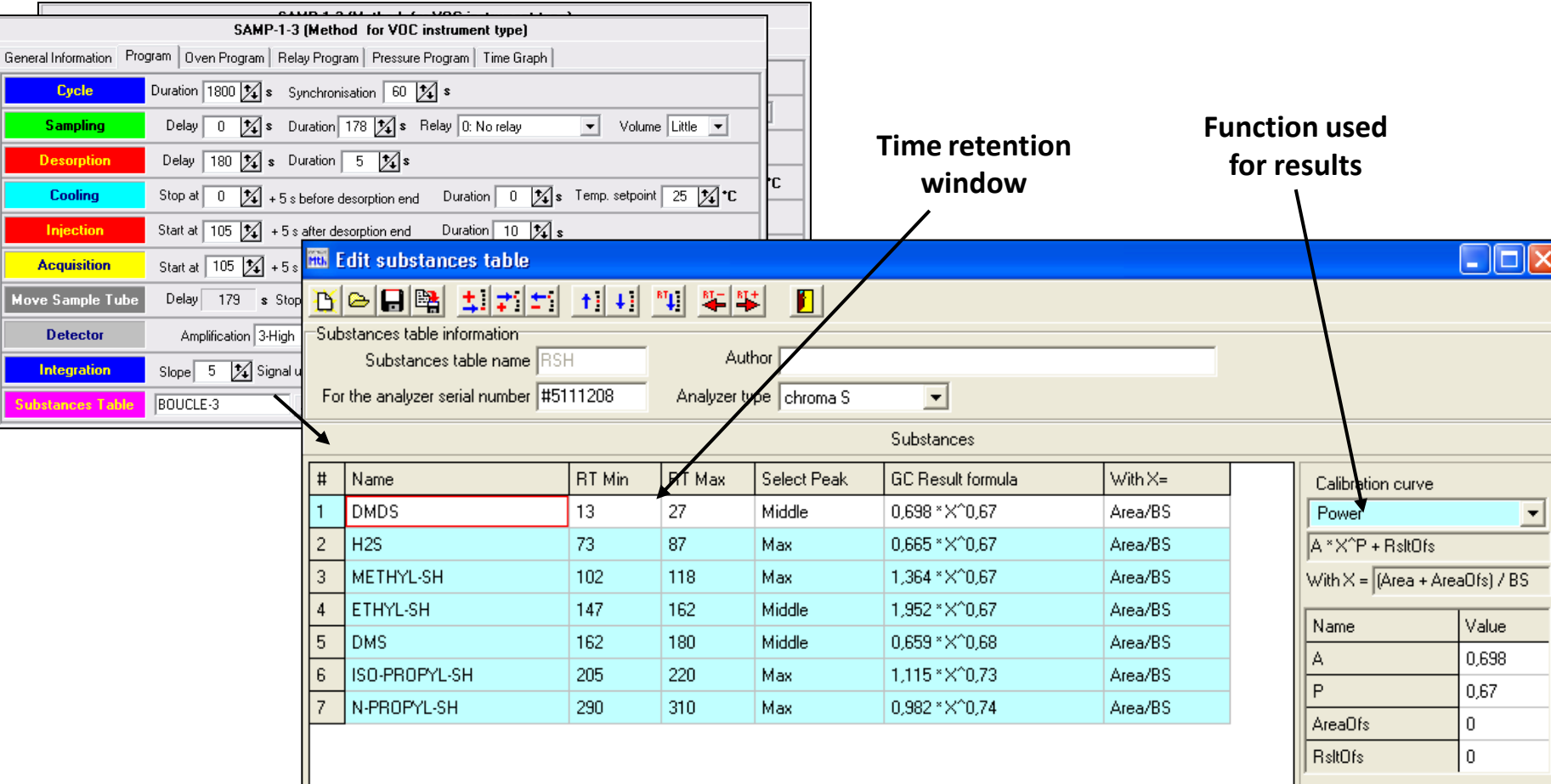
Name Value
 Factor 1,05
 AreaOfs 0

Time retention window

Function used for results

Response factors

METHOD MANAGER



SAMP-1-3 (Method for VOC instrument type)

General Information | Program | Oven Program | Relay Program | Pressure Program | Time Graph

Cycle Duration 1800 s Synchronisation 60 s

Sampling Delay 0 s Duration 178 s Relay 0: No relay Volume Little

Desorption Delay 180 s Duration 5 s

Cooling Stop at 0 + 5 s before desorption end Duration 0 s Temp. setpoint 25 °C

Injection Start at 105 + 5 s after desorption end Duration 10 s

Acquisition Start at 105 + 5 s

Move Sample Tube Delay 179 s Stop

Detector Amplification 3-High

Integration Slope 5 Signal u

Substances Table BOUCLE-3

Edit substances table

Substances table information

Substances table name RSH Author

For the analyzer serial number #5111208 Analyzer type chroma S

Substances

#	Name	RT Min	RT Max	Select Peak	GC Result formula	With X=
1	DMS	13	27	Middle	0,698 * X ^{0,67}	Area/BS
2	H2S	73	87	Max	0,665 * X ^{0,67}	Area/BS
3	METHYL-SH	102	118	Max	1,364 * X ^{0,67}	Area/BS
4	ETHYL-SH	147	162	Middle	1,952 * X ^{0,67}	Area/BS
5	DMS	162	180	Middle	0,659 * X ^{0,68}	Area/BS
6	ISO-PROPYL-SH	205	220	Max	1,115 * X ^{0,73}	Area/BS
7	N-PROPYL-SH	290	310	Max	0,982 * X ^{0,74}	Area/BS

Calibration curve

Power

A * X^P + RsltOfs

With X = (Area + AreaOfs) / BS

Name	Value
A	0,698
P	0,67
AreaOfs	0
RsltOfs	0

Function: $Y = A \times X^P$

METHOD MANAGER (CALIBRATION / AUTO-CALIBRATION SUBSTANCES TABLE)

Special line for auto-calibration (calculation of the new Base Sensitivity thanks to the known standard calibration concentration)

Substances table information

Substances table name: CALIB2 Author: Chromato-Sud

For the analyzer serial number: #5111208 Analyzer type: chroma S

Substances

#	Name	RT Min	RT Max	Select Peak	GC Result formula	With X
1	Base_Sensitivity	165	183	Middle	$X / (0,292 * [SampleVol])$	Area
2	DMS-STD	165	183	Sum	X	Area/BS

Calibration curve

Linear Auto-Calibration

X / Conc.

With X = Area + AreaOfs

Name	Value
Conc.	0,292
AreaOfs	0
Average point N=	3
Min BS	75000
Max BS	150000

3 means that Base Sensitivity is calculated with an average of the last three values

Alarm Window (known concentration of the standard $\pm$ X%)

Known concentration of the calibration standard (mg/m3)

SETUP THE GC

GC Configuration Editor V1.4.7 Beta 3

Information General Sampling Precolumn Column Detector

Analyzer

Serial Number #2460707 Type BTX1000

Instrument sensitivity

Base Sensitivity : 4200.00 **Base sensitivity**

Comments

Location Saint Antoine

Owner Chromato-Sud

Setup file version

Version 6 Release 1

Last update

Date 16:40 02-02-2012

Super User access User name : SUPER USER

GC Configuration Editor V1.4.7 Beta 3

Information General Sampling Precolumn Column Detector

Instrument mode

Instrument in Semi-Master mode

Baud rate

9600 19200 38400

Additional communication protocol

Protocol None Results in GC Unit/SamplingVol.

Method parameters

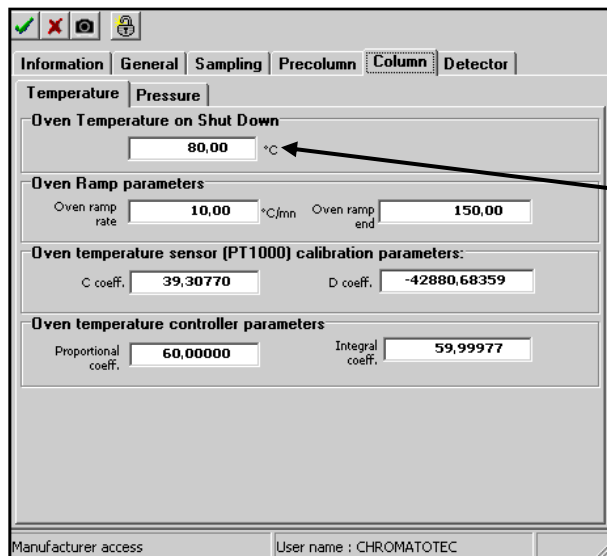
Calibration method CALIB15M Zero method Method in two cycles

Security heaters settings

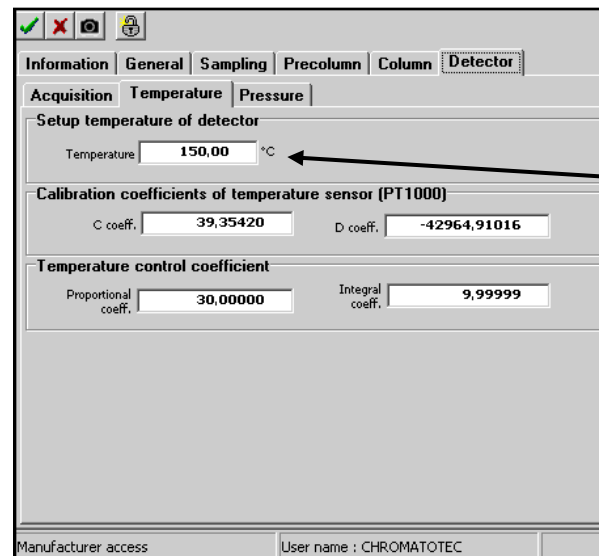
Maximum Temperature 200.0 °C Heating time at maximum power 900.0 s

Super User access User name : SUPER USER

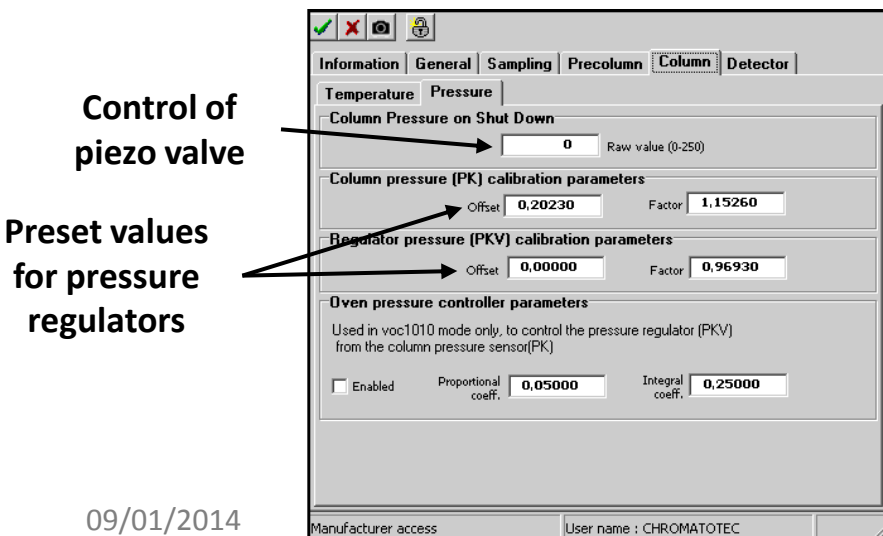
SETUP THE GC



Temperature of the column oven when the analyzer is in stand by mode

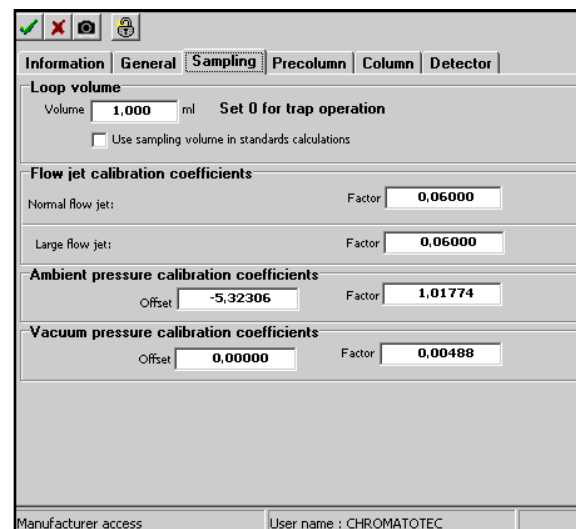


Temperature of the detector (or permeation oven for MEDORS analyzers)



Control of piezo valve

Preset values for pressure regulators



SOFT CONFIGURATION

Soft Configuration

Global | Files | Errors | Units | Group

At the end of analyze

☐ Wait second analyse.

☐ Display results dialog

☒ Send results to main window

Timeout on results : 150 % of cycle time

At shutdown

☐ Immediate stop GC

Soft Configuration

Global | Files | Errors | Units | Group

Files

☒ Save .Chrom file:

☒ Save .Trend files

☒ Save .ASC files

Naming type : Method+Sample Date

☒ "Tab" instead of " "

Default value

Concentration : 0.00

Area : 0.0

Retention Time : 0.00

Volume : 0.00

Soft Configuration

Global | Files | Errors | Units | Group

General

Error hold time 10 s

☒ Stop on Error Enabled

Filter : Valid Errors

Stop Errors

101-A frame received with an incorrect
107-Input buffer overflow.
108-Protocol violation may be caused t
109-Command with wrong parameters
110-Checksum error.
111-Frame error detected.
112-Parity error detected.
113-Data transmitted to receiver could
114-During on-line mode, ring buffer fo
115-Ring buffer for chromatography da
123-Power fails during method process
140-Standard factor parameter is equa
141-Standard sampling volume is equa
142-Standard sensitivity value is out of
143-Standard sensitivity means is out c
146-Overflow of the on-line command b
224-Temperature sensor of the oven fa
231-Column pressure is below 50 hPa.
241-During concept processing a call fi
242-Oven temperature is greater than
250-The temporary licence has expired

OK

Soft Configuration

Global | Files | Errors | Units | Group

Units of results

Unit type	Factory unit	Display and Output unit
Results	mg/m3	PPM
Temperature	Celsius (°C)	Celsius (°C)
Pressure	hecto-Pascal (hP)	hecto-Pascal (hP)

GC unit (mg/m³ for sample loops and ng for traps)

OK

Soft Configuration

Global | Files | Errors | Units | Group

Groups :

Name	Method	Unit
RSH	453-SPL	mg/m ³ S

Name of the group

Substances :

Substance	Factor
METHYL-SH	1
ETHYL-SH	1
ISO-PROPYL-SH	1
TBM	1
N-PROPYL-SH	1
2-BUTYL-SH	1

Composition of the group

Name RSH

Method 453-SPL

Unit mg/m³ S

Substance 2-BUTYL-SH

Factor 1.000

OK

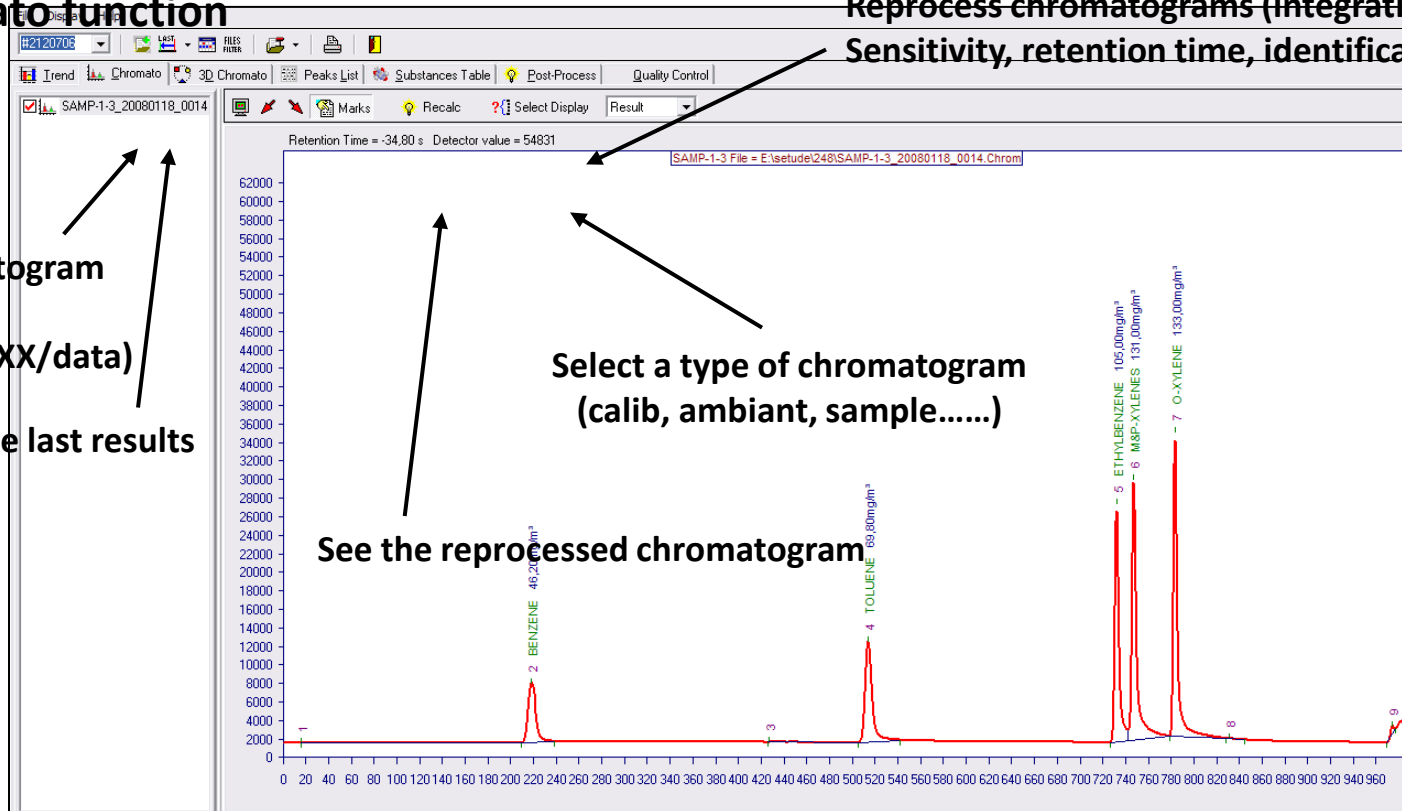
PEAK VIEWER

- Chromato function

Reprocess chromatograms (integration, Base Sensitivity, retention time, identification...)

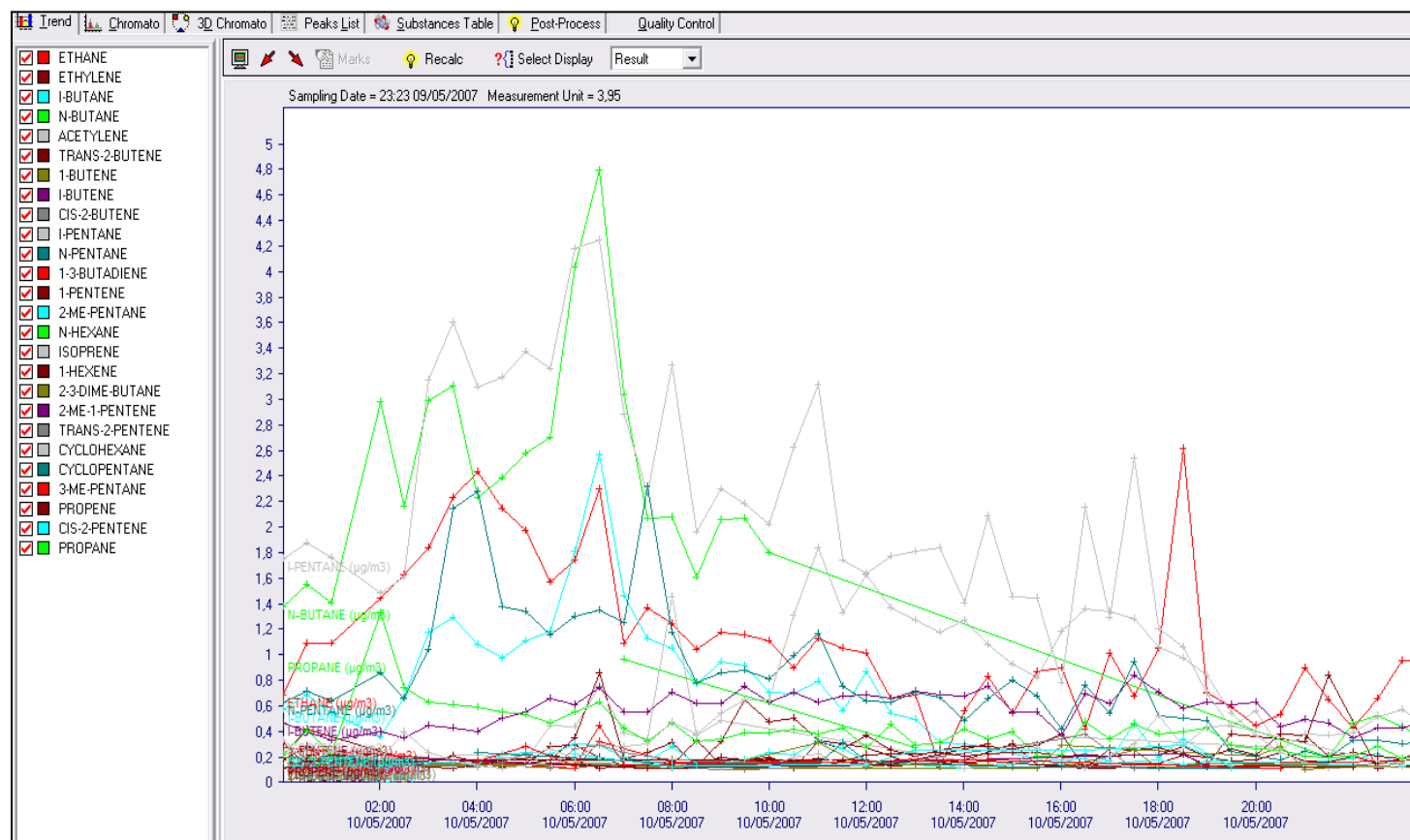
Open a chromatogram
(located into
E:\Data\#XXXXXXX\data)

See last results



PEAK VIEWER

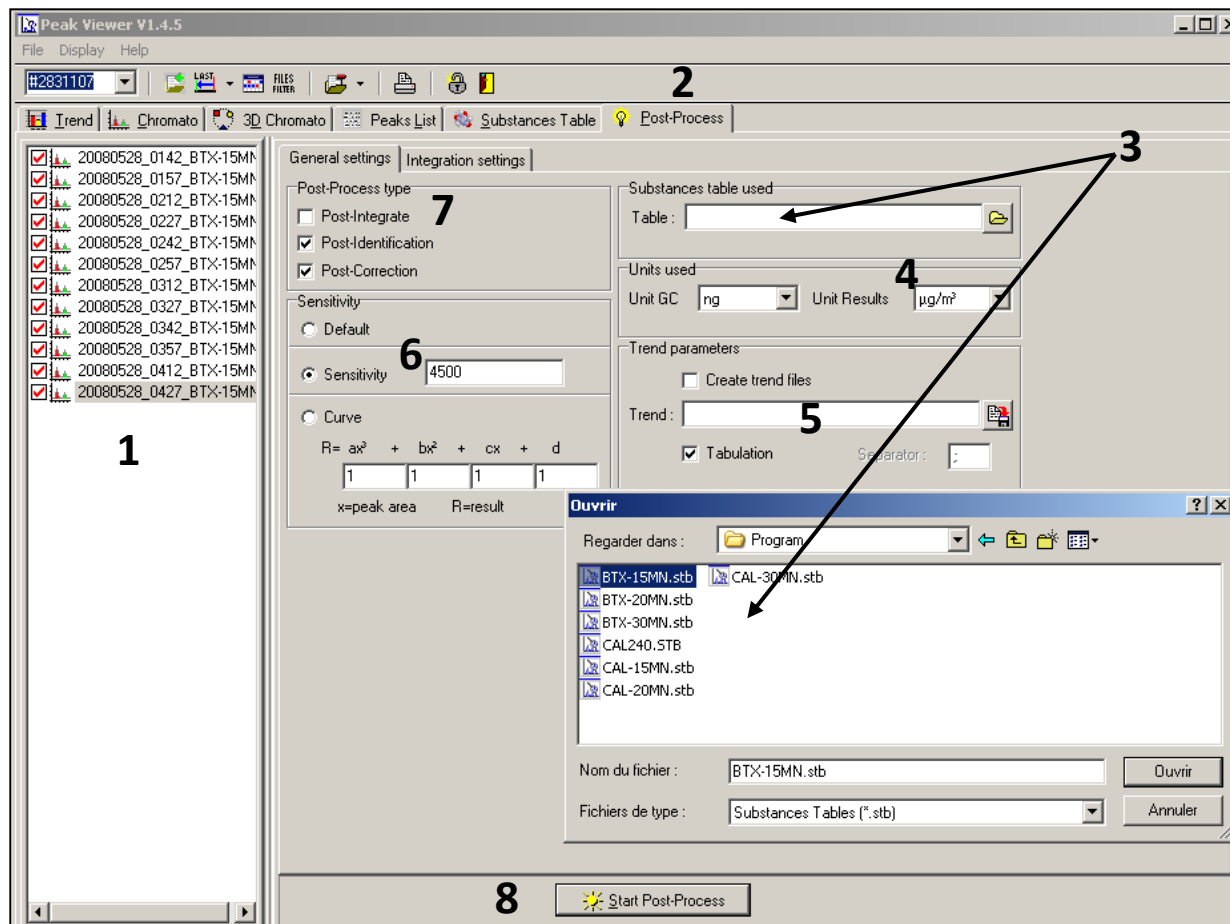
- Trend function (follow a parameter during the time)



PEAK VIEWER

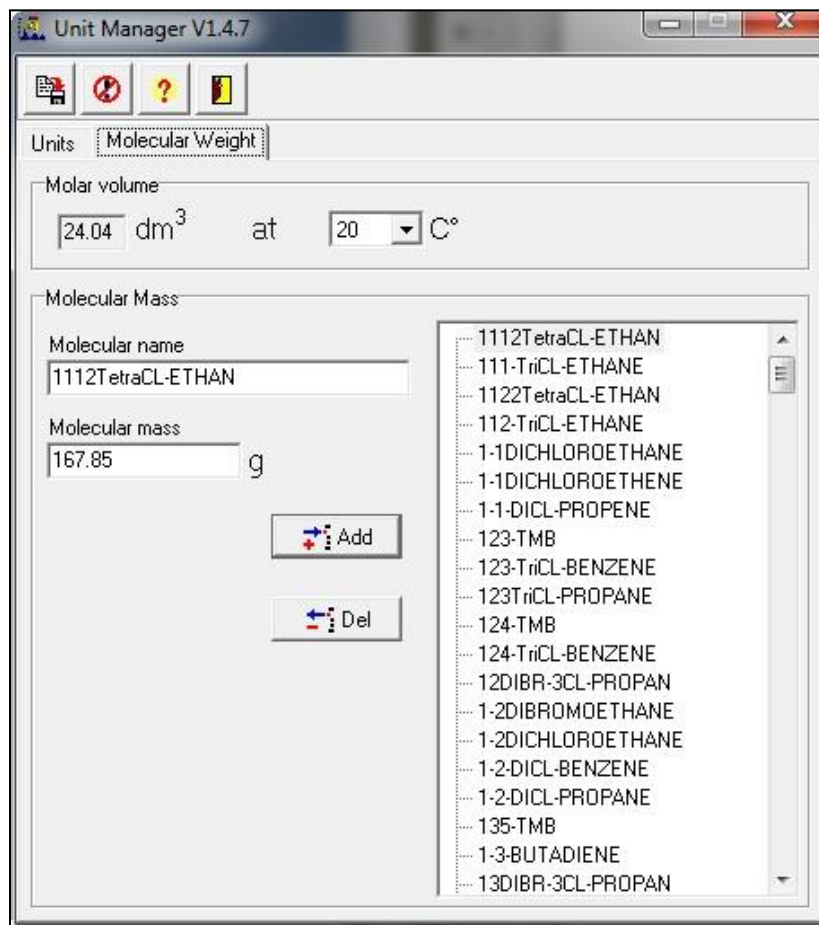
- **Post process function**

- 1) Select chromatograms you want to reprocess
- 2) Select Post process tab
- 3) Select the substances table
- 4) Select the unit of your BS (ng for trap or mg/m³ for loop) and of your results
- 5) Create ASCII files
- 6) Give a BS value
- 7) Retreatment functions
- 8) Click on Start Process
- 9) Select Chromato tab and click on « Recalc » to see the chromatogram post calculated.



UNIT MANAGER

- D:Application/Vistachrom/UnitManager



Unit Manager V1.4.7

Units: Molecular Weight

Molar volume: 24.04 dm³ at 20 C°

Molecular Mass

Molecular name: 1112TetraCL-ETHAN

Molecular mass: 167.85 g

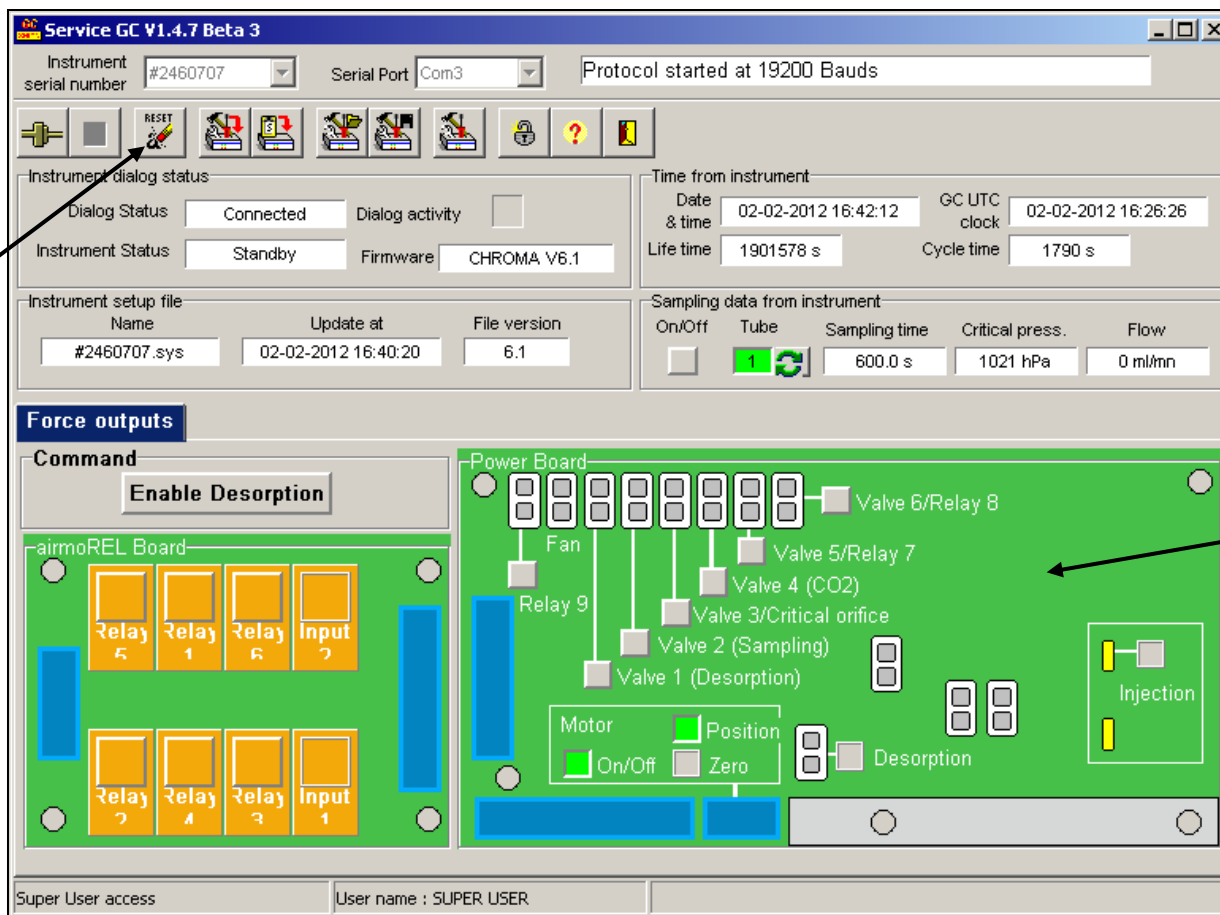
Add

Del

- 1112TetraCL-ETHAN
- 111-TriCL-ETHANE
- 1122TetraCL-ETHAN
- 112-TriCL-ETHANE
- 1-1DICHLOROETHANE
- 1-1DICHLOROETHENE
- 1-1-DICL-PROPENE
- 123-TMB
- 123-TriCL-BENZENE
- 123TriCL-PROPANE
- 124-TMB
- 124-TriCL-BENZENE
- 12DIBR-3CL-PROPAN
- 1-2DIBROMOETHANE
- 1-2DICHLOROETHANE
- 1-2-DICL-BENZENE
- 1-2-DICL-PROPANE
- 135-TMB
- 1-3-BUTADIENE
- 13DIBR-3CL-PROPAN

SERVICE GC

- D:Application/Vistachrom/ServiceGC



Reset of
analyzer

Control the relays
and
valves of the
analyzer



Thank you for your attention !