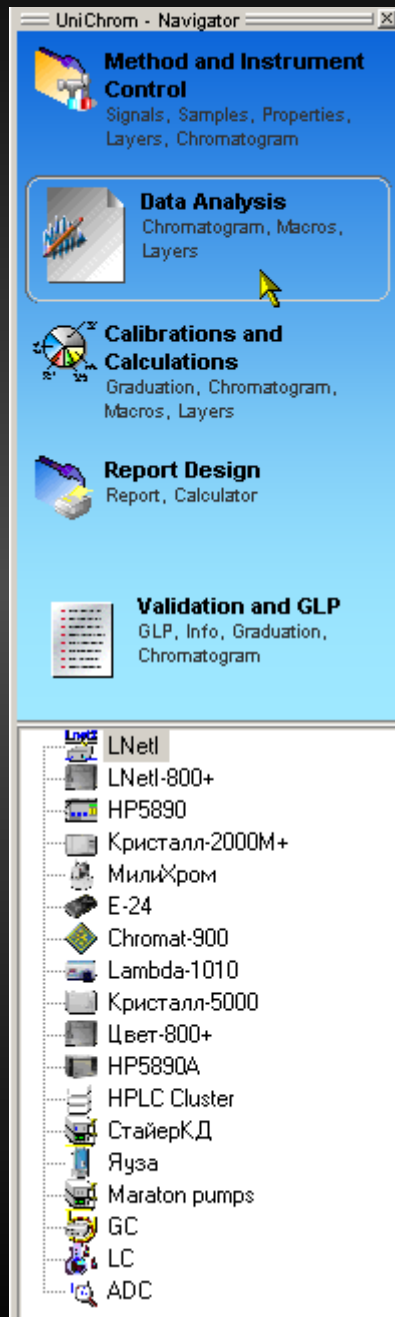


# UniChrom V

# UniChrom V – is a data processing system for Gas and Liquid chromatography

- Modular system architecture provides seamless integration of different chromatographic equipment types into single framework
- The System is easily expandable with the help of custom-developed “services” and file filters
- The System stores experimental data and processing methods in single container, together with GLP Log и Audit Trail.
- The System is directly interacts with OLE Automation – compliant applications

# UniChrom V – Task Selection



For every stage of user work is intended the separate task – the group of method pages, which are needed at selected step of analysis.

- **Method and Instrument Control** – definition of the sample lists and instrument method
- **Data Analysis** – work with chromatograms, definition of the integration methods
- **Calibrations and Calculations** – analysis of calibration curves for quantitative applications
- **Report Design** – customisation of built-in report layout
- **Validation and GLP** – review of data intended for System Validation and Verification

# UniChrom V – Method and Instrument Control

(5) Анализ газа по ГОСТ 23781 Библ -копия 1- УВ -Баллон 517984 ПГС Мониторинг Паспорт №3593 от 01-09-2005г

GC Instrument Properties Layers

Oven Inj1 Inj2 Det2

Temper Carr Split Carr Split Temper Ten

0,0 50,0 0,0 20,0 0,0 20,0 0,0 20,0 0,0 20,0 0,0 240,0 0,0 15,0

Object: Chromatograph / Oven / Temperature  
Chosen mode: 4 - ГОСТ 23781 - 5 изо - прогр

Parameter value: Current: 0 Setpoint: 50 Minimal: 0 Maximal: 250 Readiness: ± 0,2

Programme: 40 min

Rate	Value	Interval
0	50	5
10	220	18

Chromatograph / Oven / Temperature

- Chromatograph
  - Oven
    - Tempe
    - Carrier line
    - Inj1
      - Te
      - Ca
      - Sp
      - Se
    - Inj2
    - Inj3
    - Inj4
    - Detector
    - Aux device
    - System

Chromatograph / ГОСТ 23781 / ГОСТ 23781 - 2 / ГОСТ 23781-Прогр / ГОСТ 23781 - 5 изо - прогр / Продув /

Channel	Signal	+/-	RS	Colour	Scenario
1	5 - TCD1-YE	TCD1-YE	<input checked="" type="checkbox"/>	0	
2	6 - TCD2-MC	TCD2-MC	<input checked="" type="checkbox"/>	0	
3			<input type="checkbox"/>		

Samples: 1/32

Active list not selected Sample

Sample Lists:

List Name
1 (no name)
2

Samples:

Tower	Position
1	

Injector Type: Liquid Gas Manual Injection

Injection Parameters:

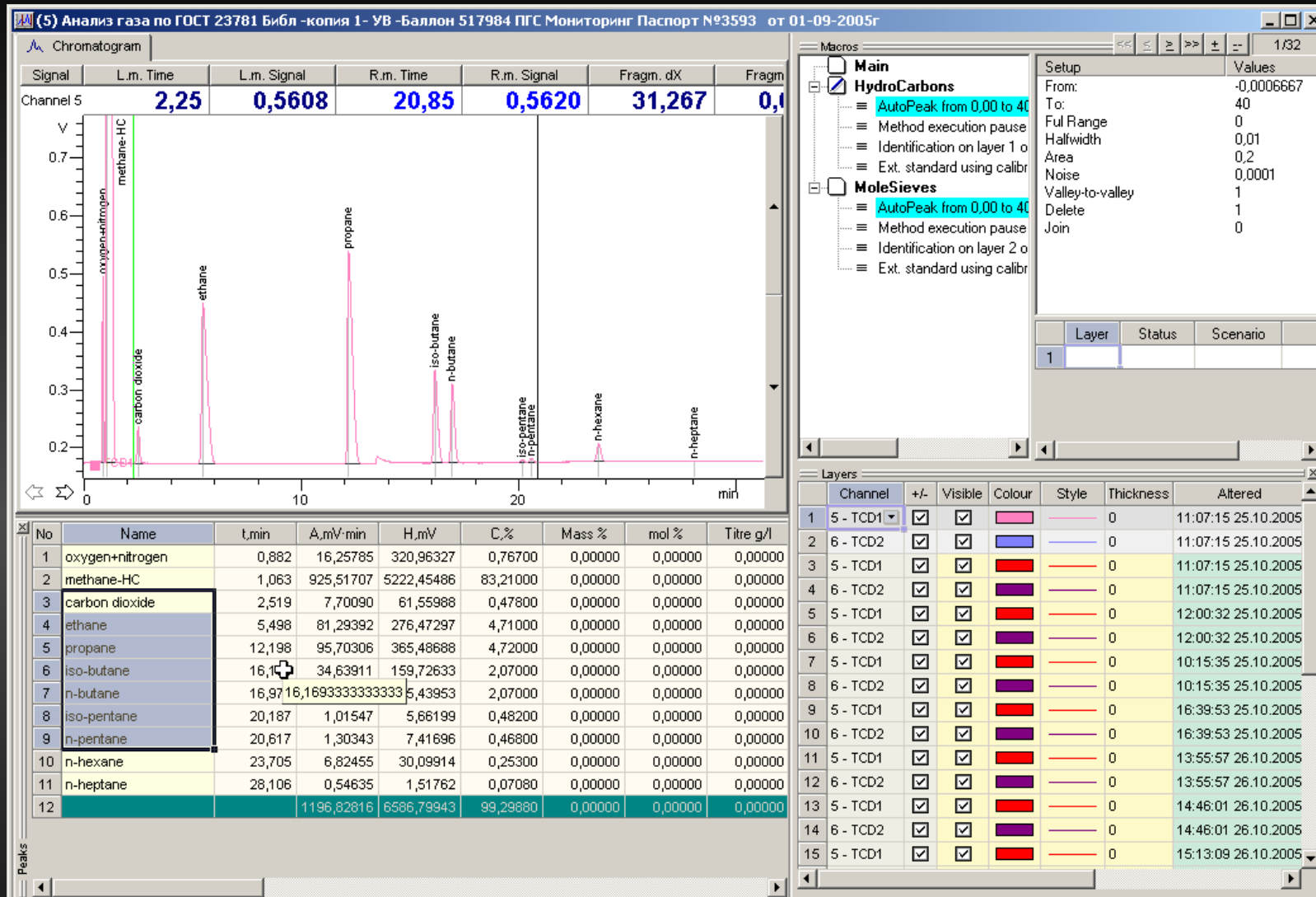
Parameter	Value
1 Pre wash with solvent A	
2 Pre wash with solvent B	
3 Post wash with solvent A	
4 Post wash with solvent B	
5 Number of plunger movements	

Chromatogram

Signal	L.m. Time	L.m. Signal	R.m. Time	R.m. Signal
Channel 5	8,20	0,5602	15,01	0,56

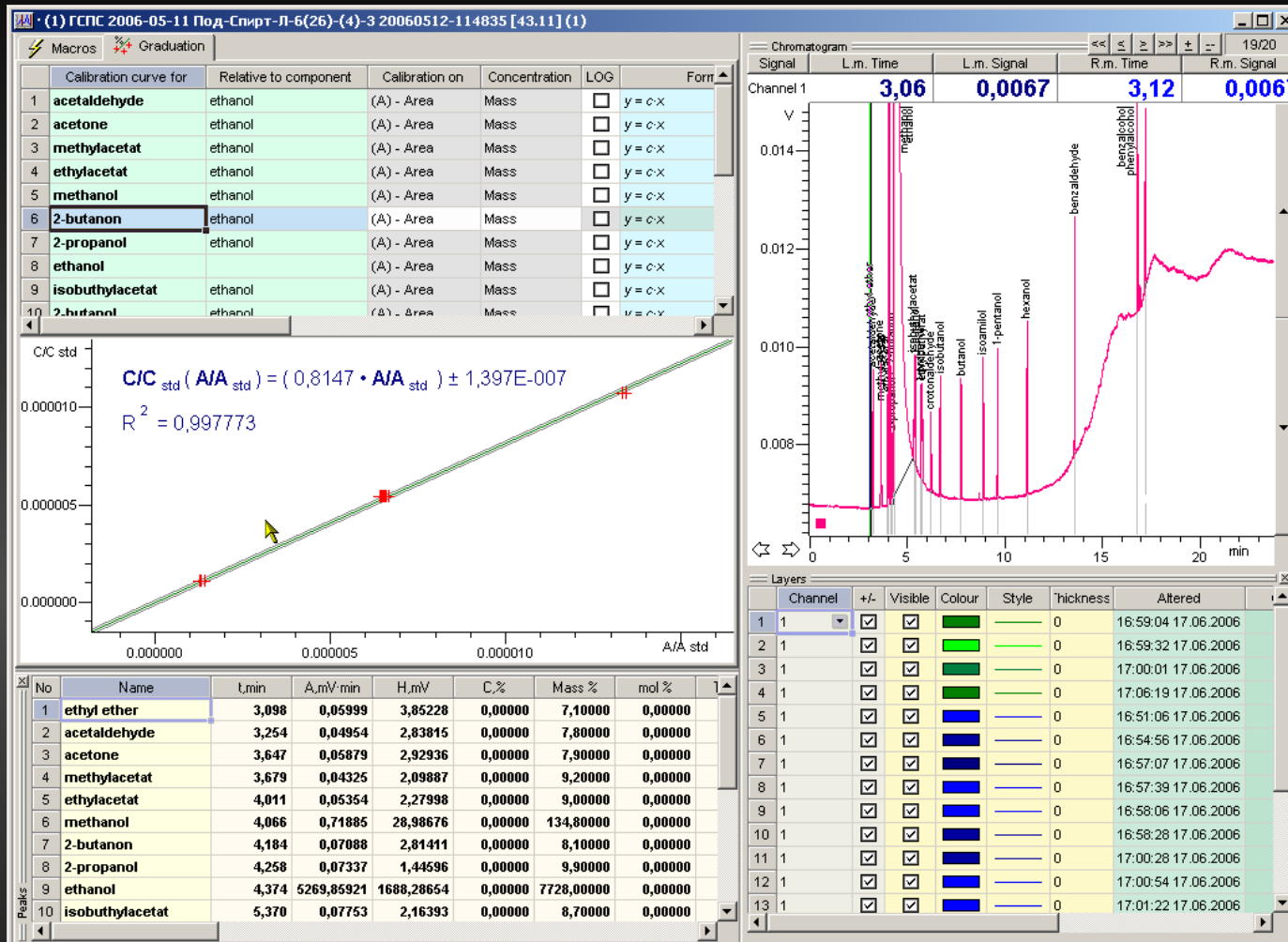
The number of pages (forms), sufficient for completing the TASK is not very big, and can be either increased or decreased to zero.

# UniChrom V – Data Analysis



Taken two-detector data analysis with different processing algorithms for chromatograms, registered from Mole-Sieves and Hydrocarbon column.

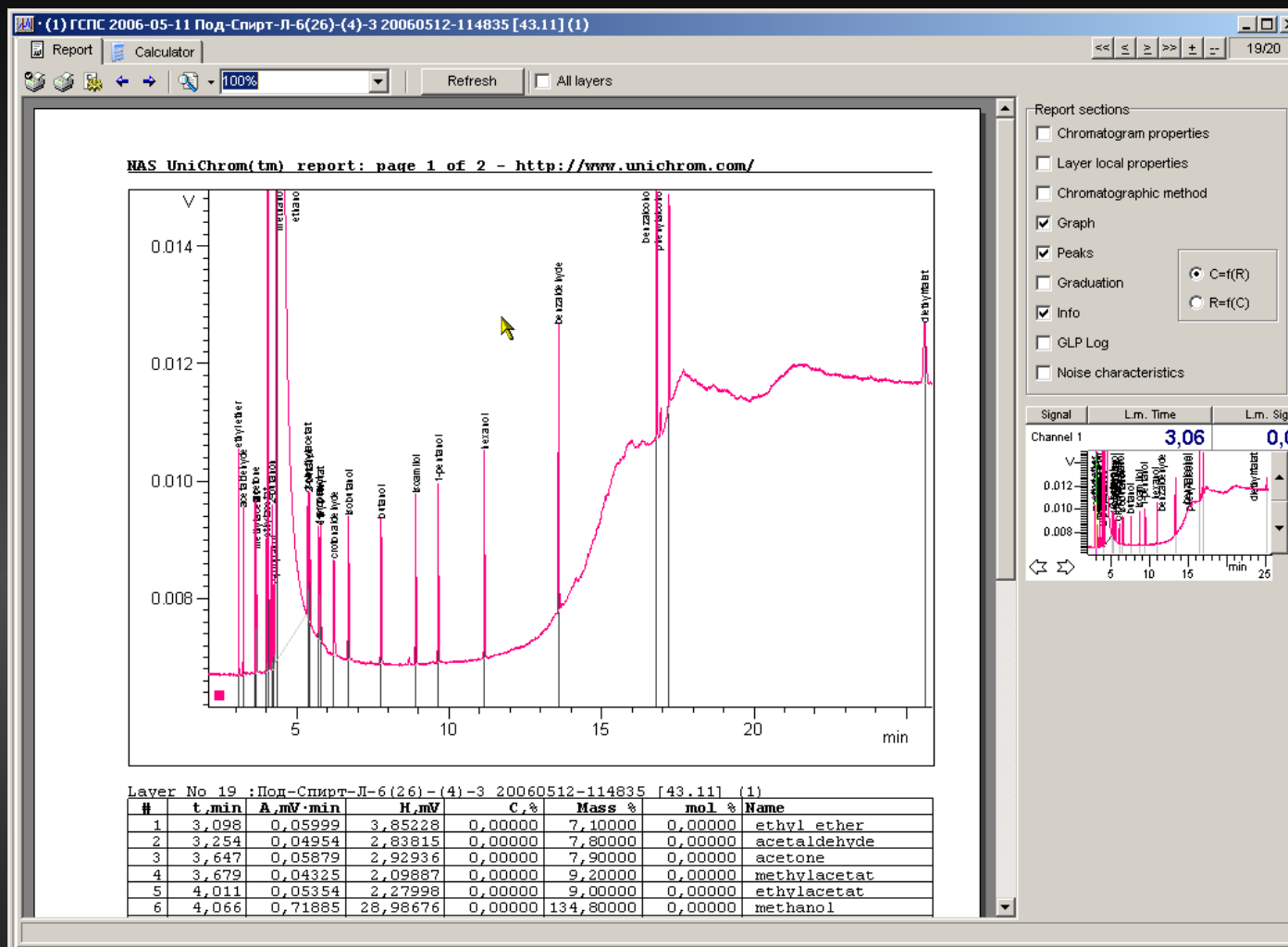
# UniChrom V – Calibrations and Calculations



Statistical Calibration Results – the rate of Quality for Quantitative analysis.

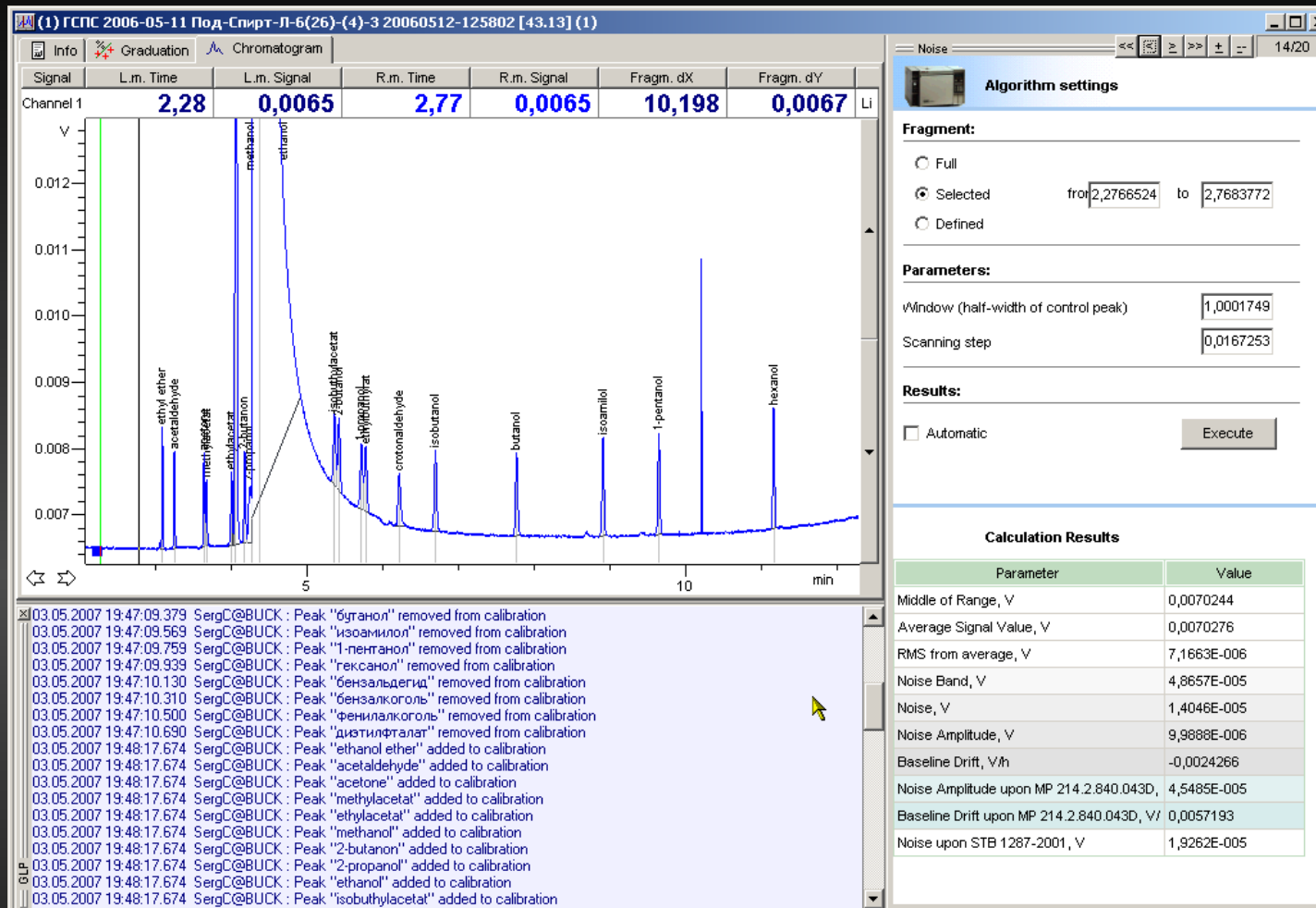
The Calibration is stored with the instrumental data or can be used from library file.

# UniChrom V – Report Design



Report generation «On The Fly». For tuned system with the limited number of methods is possible to leave the ONLY task - «Report Design».

# UniChrom V – Validation and GLP



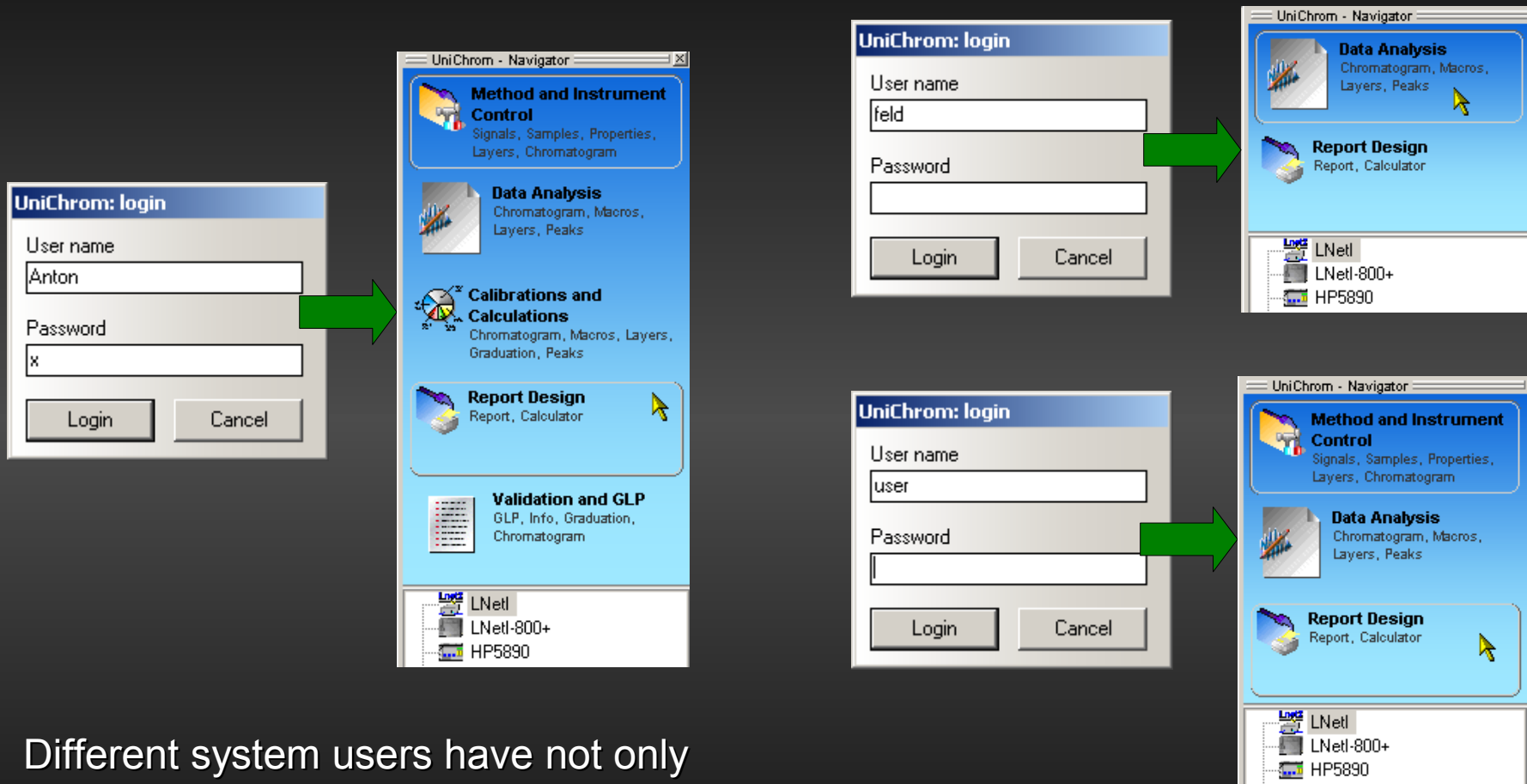
Validation data and GLP log viewer are collected in single Task.

It is easy to analyse the data inspect and pass the data to another programs.

The GLP Log accompany every chromatogram from theirs start time.

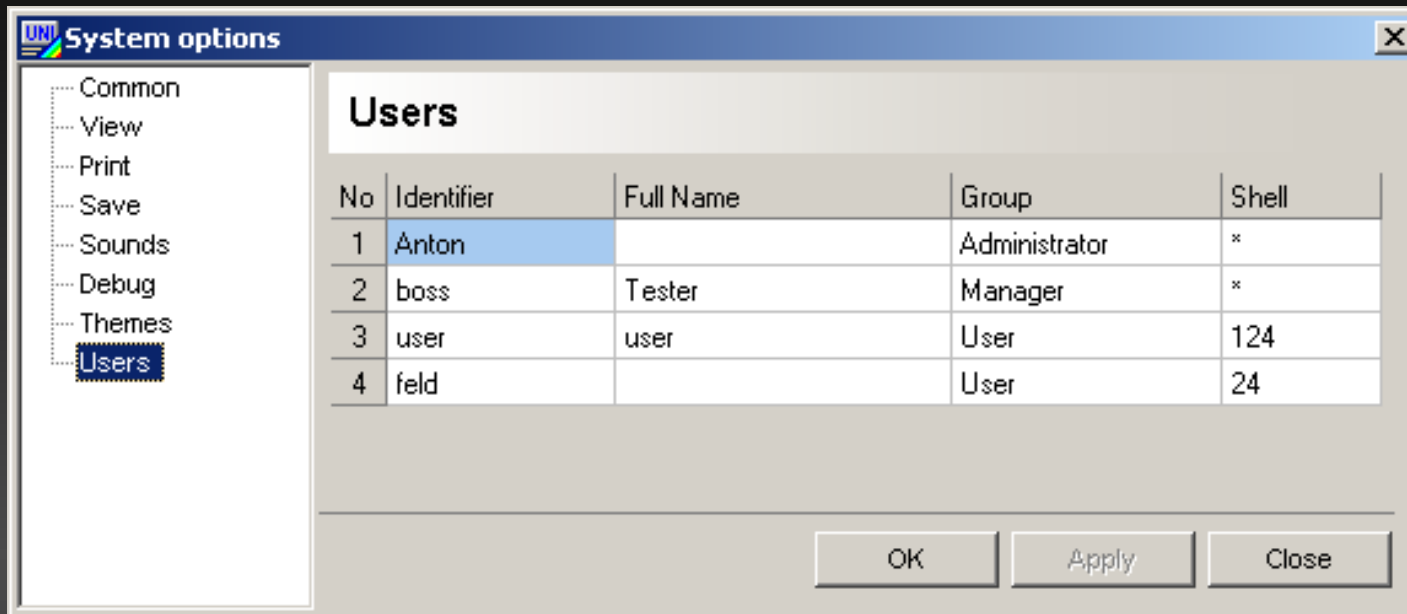


# UniChrom V – User-Level Access Control and user rights assignment



Different system users have not only different rights but also can be forced to use only specified system TASKS.

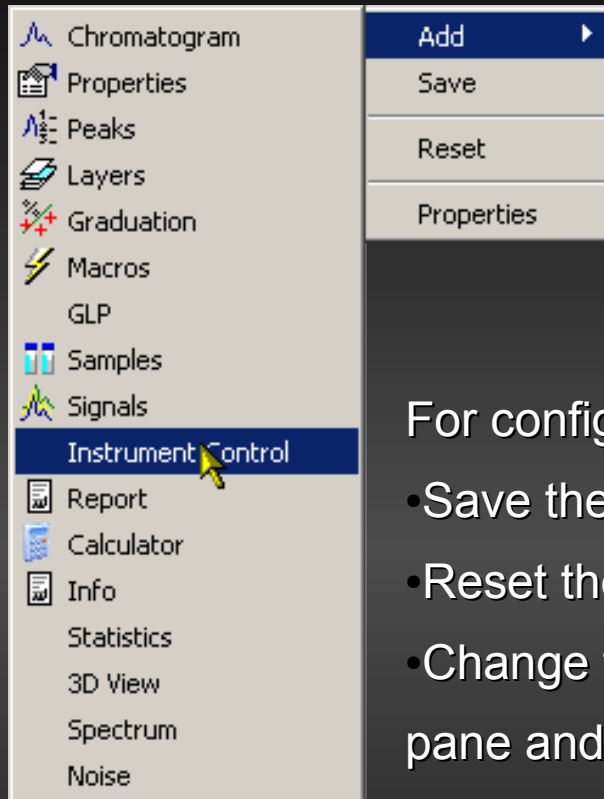
# UniChrom V – Users Management



Creation of new System User assumes setting for it:

- Identifier – the name under which the System distinguishes users
- Group – the level of user privileges
- Shell – The list of System TASKS, which the user allowed for access

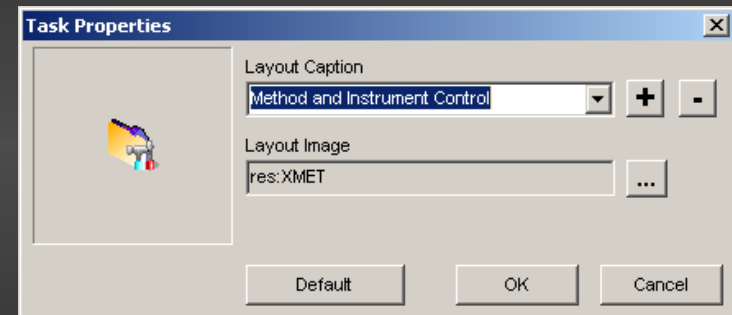
# UniChrom V – Forming the Task for System



System Administrator can form the TASK only from the pages which actually necessary. Other pages can be easily removed.

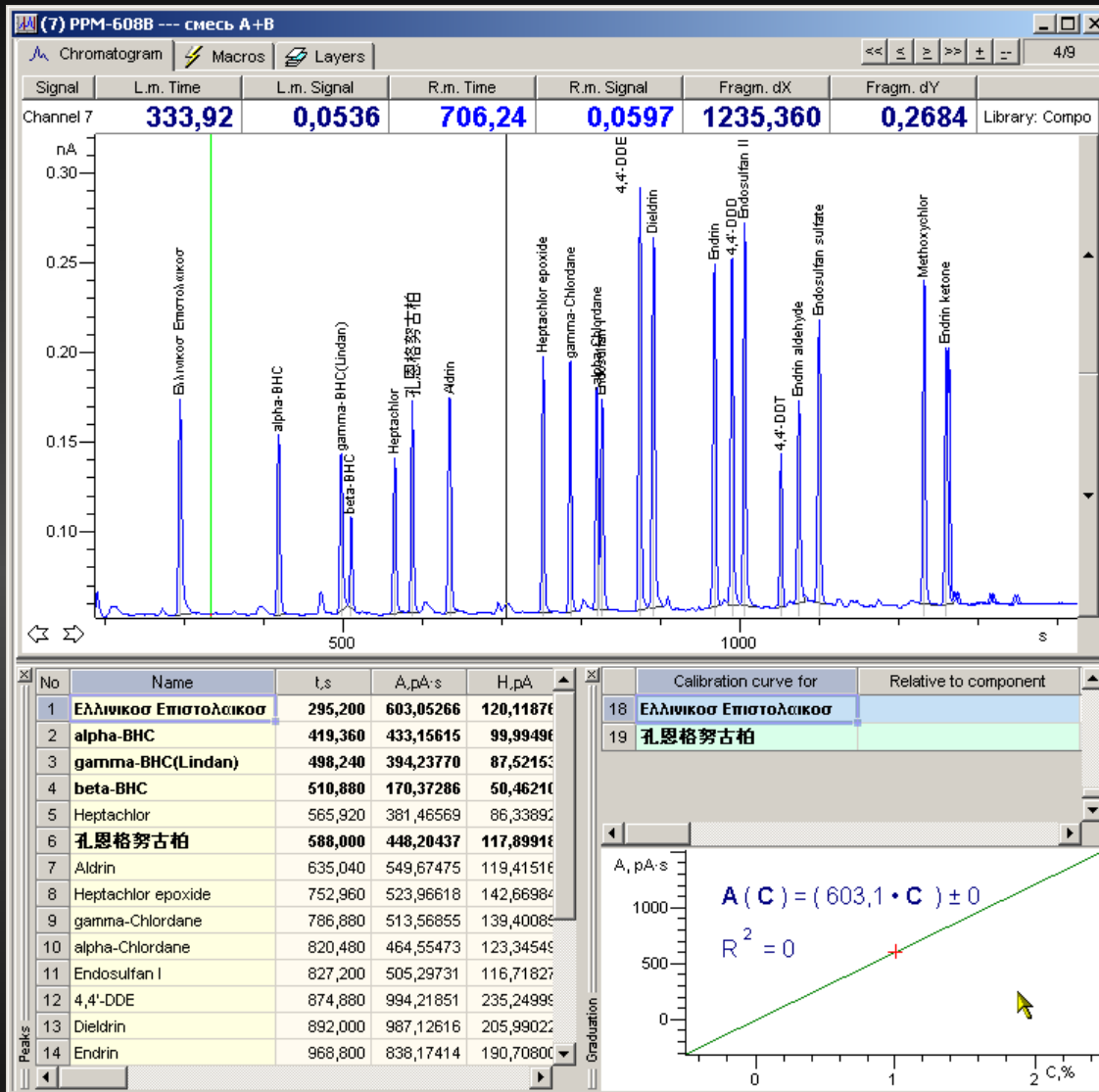
For configured Task is possible to:

- Save the Settings
- Reset the Settings to initial state
- Change the Task Icon in the navigator pane and the title for task



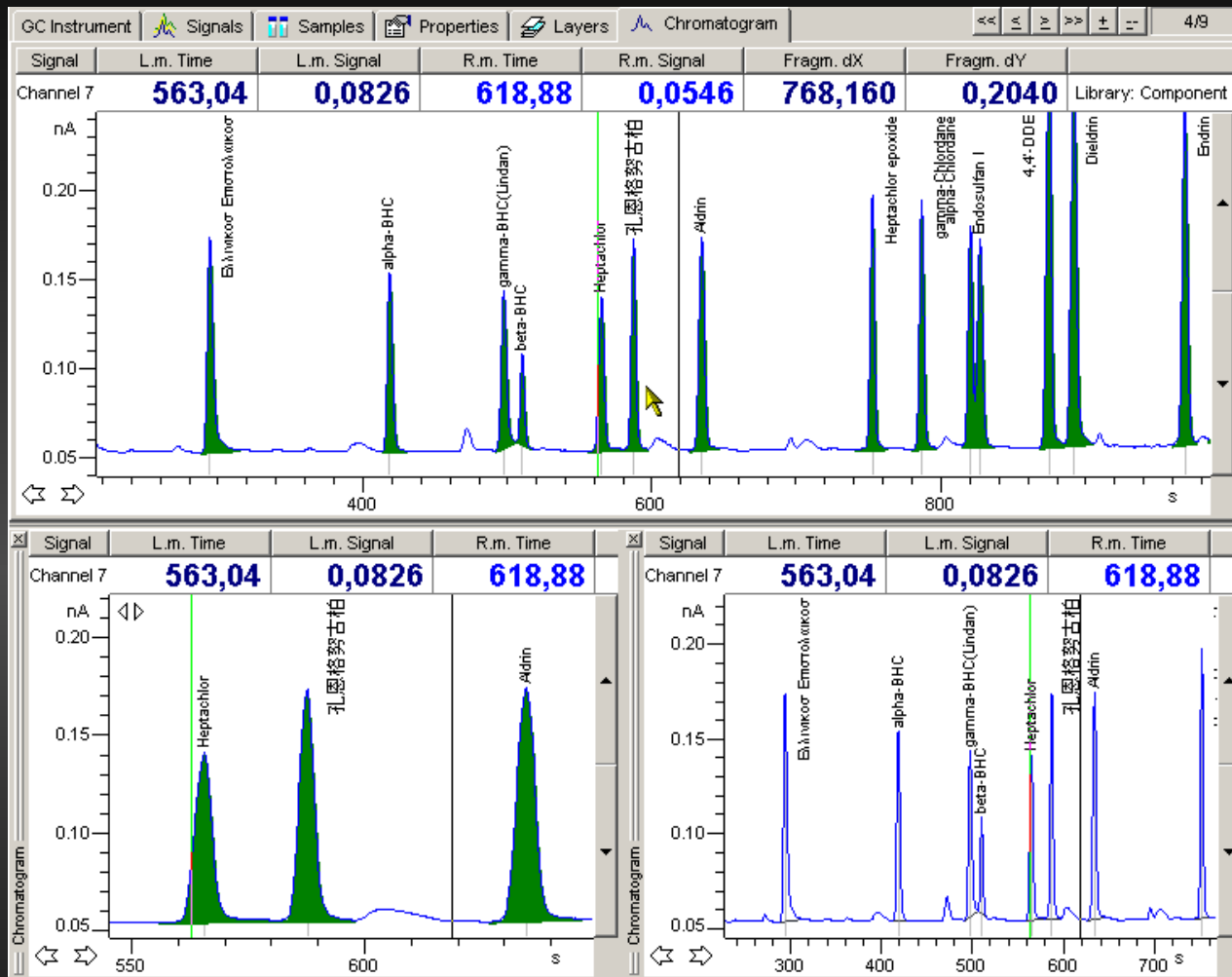
Additional Tasks can be created when needed

# UniChrom V – UNICODE support in methods



The UniChrom method files supports UNICODE symbols. This allows not only keep all entered informations but also name the peaks, layers, properties with any symbols known on the Earth.

# UniChrom V – new-style graphics



Every page in the TASK can exist in several instances. The pages are independent until their alteration would not affect the whole method.

New-style graphics supports traditional double-click for return to previous view scale, dragging the peak borders and the entire graphic with the mouse, colour-filling of the peak contour (according to the peak group).

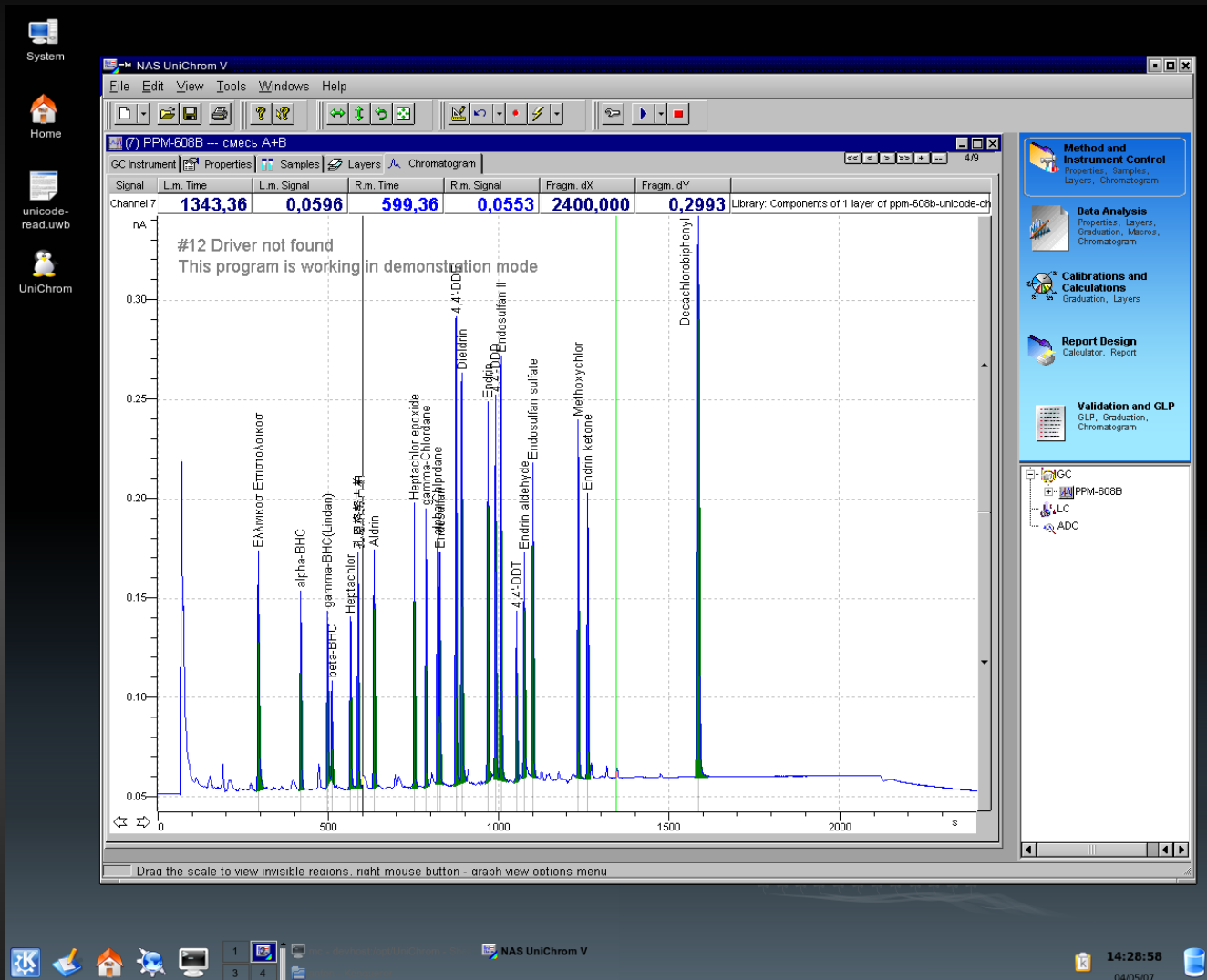
# UniChrom V – templates for data properties

Параметр	Значение
1 Имя слоя хроматограммы (№ заключения):	8 спиртов, библиотека, нормализована
2 Объект и цель анализа в текущем слое	проверка градуировки 0,3%
3 Экспертиза проведена на основании	постановления пр-ра Первомайского р-на г.Минска
4 Номер направления ГосМСЭ	постановления пр-ра Заводского р-на г.Минска
5 Дата направления ГосМСЭ	постановления пр-ра Первомайского р-на г.Минска
6 ФИО государственного медицинского эксп	
7 ФИО трупа (в родительном падеже)	
8 Дата смерти	
9 Дата вскрытия	
10 Дата поступления в лабораторию	
11 Дата начала исследования	
12 Дата окончания исследования	
13 Время начала исследования	
14 Время окончания исследования:	
15 ФИО лаборанта	
16 Экспертизу выполнил эксперт-химик	
17 Краткие обстоятельства дела	Так получилось
18 Объект исследования №1 (кровь)	кровь
19 Объект исследования №2 (моча)	моча
20 Объект исследования №3 (стекловидное т	слюна
21 Объект исследования №4 (мышца)	промывные воды
22 Объект исследования №5 (промывные во	стекловидное тело
23 Объект исследования №6	кровь
24 Имя метода	отработка методики
25 Имя файла метода	WBUCK\CIUC-CD\UniChrom Analytical Solutions\Alcohol Intoxication for SudMedExpert - Template - ru
26 Канал	6
27 Число измерительных каналов	2
28 Число слоев	43
29 Активный слой	17
30 Начало измерения	0
31 Конец измерения	5
32 Частота измерений, Гц	25
33 Инструмент	Кристалл-5000
34 Полярность сигнала детектора	+
35 Дата модификации	4 снежня 2006
36 Единицы концентрации	‰
37 Защита слоя	1

The lists of possible property values are placed in text files in **UniChrom\etc** directory

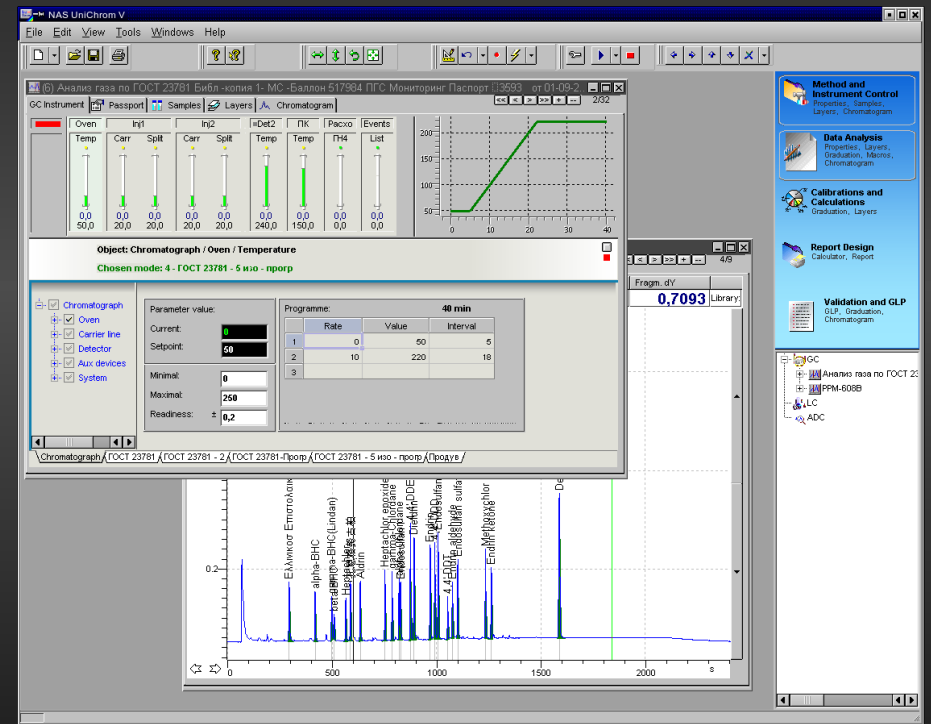
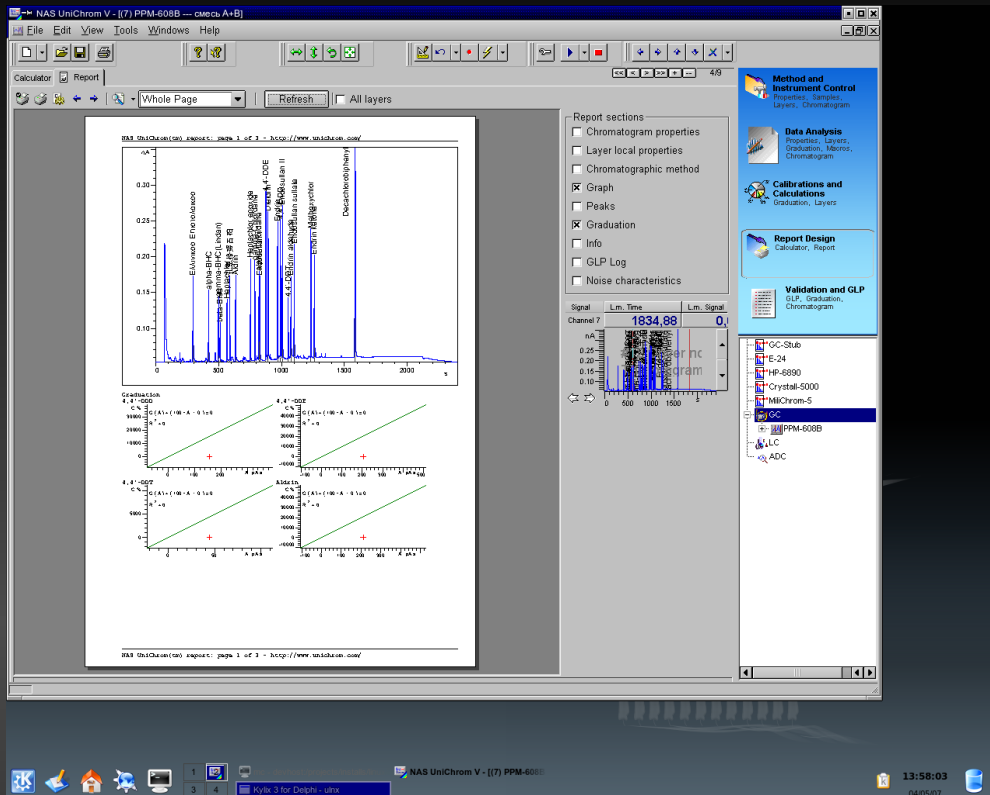
The Properties of **green colour** -  
Just fill the data in the table, and entered value would accompany current chromatogram layer.  
Every layer contains its own property values.

# UniChrom V – Linux



The Linux version functionally identical to Windows-one due to UniChrom V architectural concepts.

# UniChrom V – Linux



The Linux version functionally identical to Windows-one due to UniChrom V architectural concepts.



# What differ UniChrom V from UniChrom 4.x ?

In All except:

- File formats
- Instrument drivers
- Price