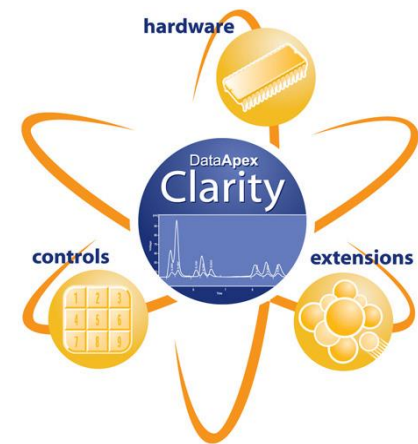


Clarity – co se v ní změnilo

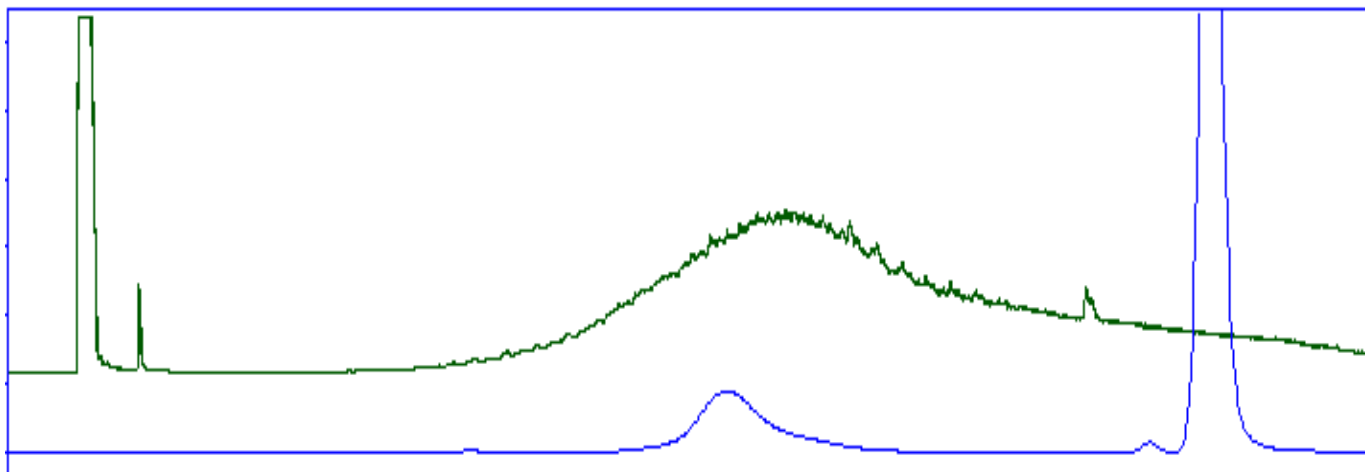


Chromatografický software - Historie a současnost

Clarity – její možnosti a vývoj

Clarity – přístup k uživatelům

Chromatografický signál



Historie vyhodnocování



Chromatografická datastanice

- Sběr a ukládání signálu
- Integrace (vyhodnocení času, výšky, plochy)
- Identifikace a kvantifikace
- Prezentace výsledků
- Archivace a zálohování
- Řízení chromatografů
- Speciální výpočty a vyhodnocení

Vývoj v posledních letech

- Nové funkce dříve prováděné externími programy
 - Grafické presentace
 - Speciální výpočty – tabulkové kalkulátory
 - Statistické vyhodnocení

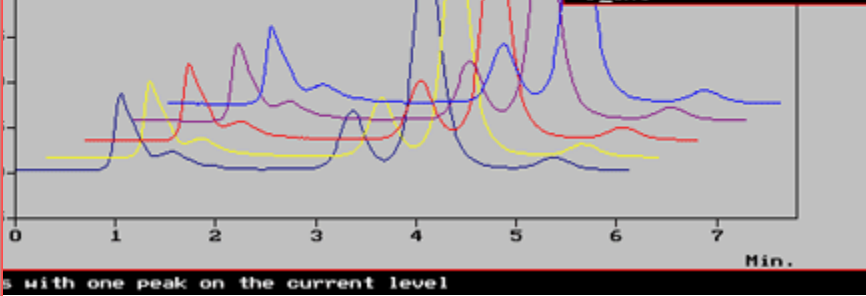
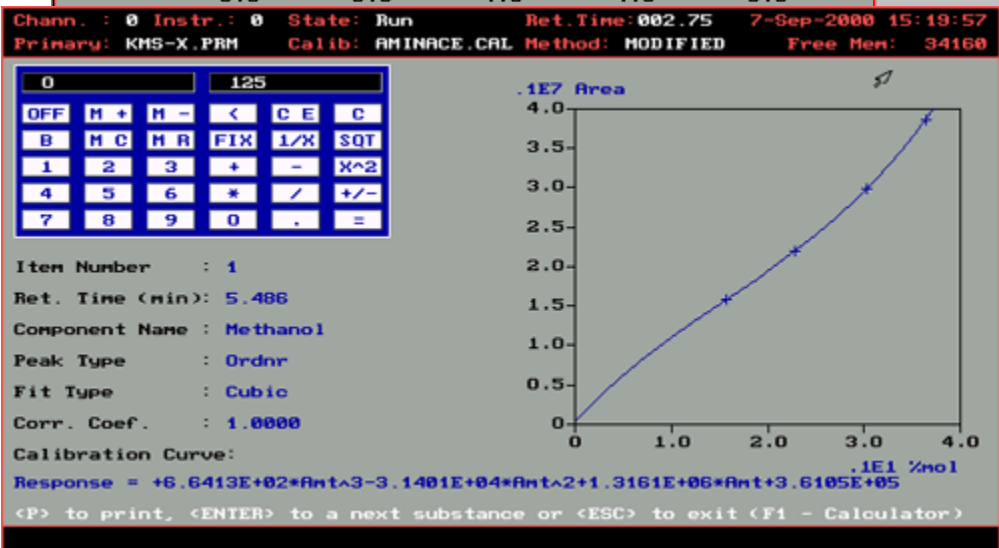
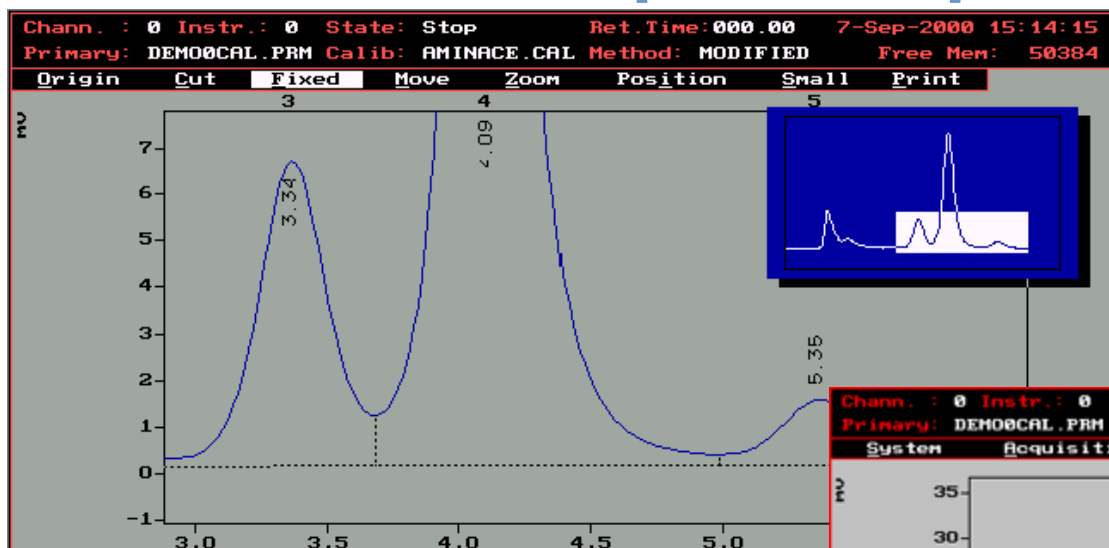
- Práce v síti
 - Client-server architektura, vzdálený přístup
 - Databáze
 - LIMS (Laboratory information management system)

- Podpora práce v regulovaném prostředí
 - Validace, dokumentace, archivace a zálohování

Historie stanic od DataApexu



1991 Apex (Apex Extra)



1994 CSW

The screenshot displays the 'Chromatography Station' software interface. The main window shows a graphical representation of a GC instrument labeled 'My GC FID' with a 'NoName' label below it. A 'My GC FID Setup' dialog is open, showing 'GC Type' as 'HP 5890' and 'Autosampler' as 'CTC A200S Sampler'. A 'User Accounts' dialog is also open, showing a user named 'User' with 'Developer' level access to channels 1, 2, 3, and 4. A 'My LC A (WORK2)' window is in the foreground, displaying a chromatogram with peaks at 10.1 and 14.70 minutes, and a table of sequence parameters.

Sequence	
(None)	
Instrument	
DEFAULT2	
Method	
DEFAULT2	
Analysis	
First on Chann 2	
Waiting	

2001 CSW32

The screenshot displays the Chromatography Station CSW32 software interface. The main window shows two instrument panels: 'GC 5890' and 'LC UV-VIS'. The 'GC 5890' panel includes a 'Login' button. The 'LC UV-VIS' panel shows a graphical representation of the instrument. Overlaid on these are several other windows:

- System configuration:** A window with tabs for 'Main', 'Channel 1', and 'Channel 2'. It shows a list of drivers for 'All' and 'Selected' channels, including 'Int7 A/D Card driver', 'DEMO Driver', 'Int5 A/D Card driver', 'USB acquisition driver', 'HP5890 GC Driver', 'PAD Driver', 'CB11 Pump Driver', 'FLUX RHEOS 2000 Pump Driver', 'LabAlliance Pump Driver', 'CB20 Pump Driver', 'ECOM LCP 4100 Pump Driver', 'Bischoff2250 Pump Driver', 'HP7673A Sampler', 'ECOM AS54 Sampler', and 'Spark Midas Sampler'.
- Log:** A window displaying a table of system events.
- My GC (Ethanol in blood):** A window showing a method configuration for 'TEST 6-05-XII-2002'. The sample is 'Blank' (Sample ID: 0006) and the method is 'Ethanol in blood'. The status is 'Single Run' and 'Waiting'. A schematic diagram of the chromatography system is visible, along with a 'Project: WORK1' label.

2003 Clarity

The screenshot displays the Clarity software interface with three main windows:

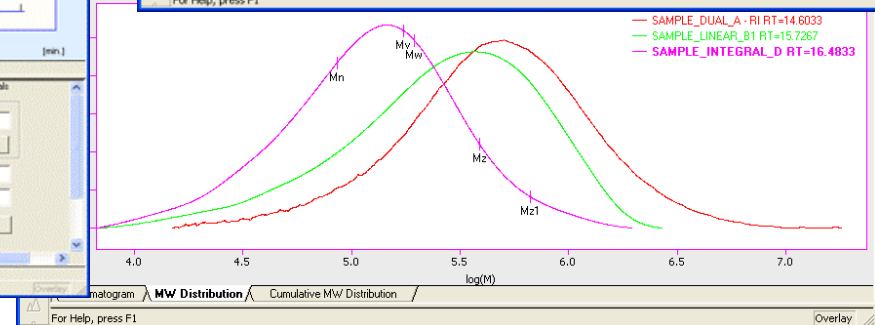
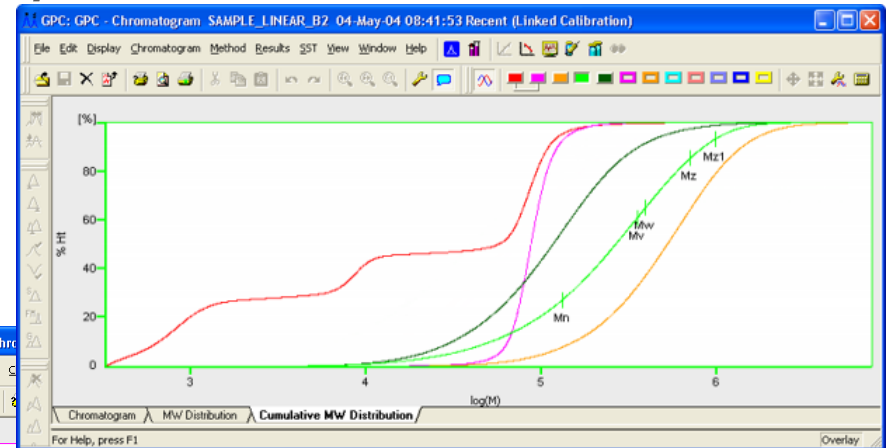
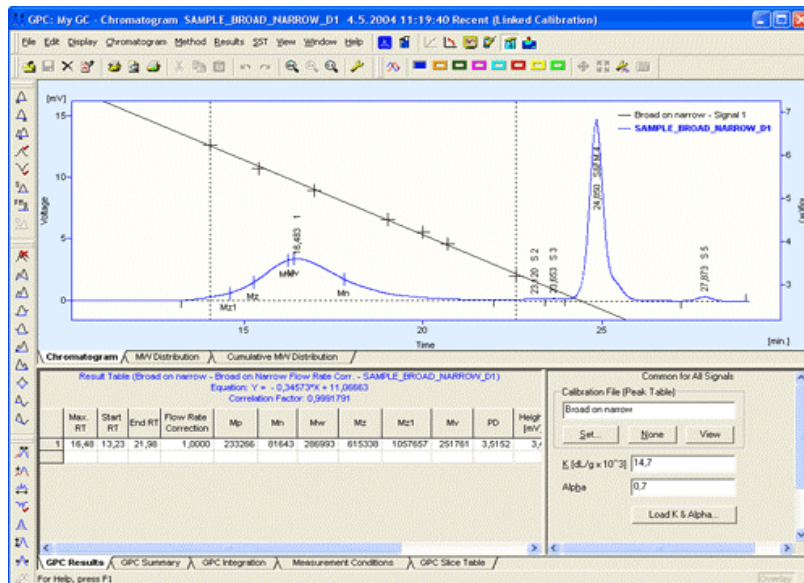
- System Configuration:** A window for setting up control modules. It lists various drivers and instruments under categories like Detectors, GC, and LC. The 'Number of Instruments' is set to 2.
- Validator:** A window showing the instrument configuration for 'Validator' and 'My LC'. It includes a menu bar (System, Login, Logout, Lock, View, Help) and a toolbar with icons for help, settings, and execution.
- Validator - Method ESTD:** A window for configuring a method. It shows a flow diagram of the instrument setup and a table of parameters:

Parameter	Value
File Name	Validator - 12 (23.únor 2004)
Sample	win 2000 bez USB{INT7}
Sample ID	Validator 11
Method	ESTD
Mode	Single Run

The 'Validator - Method ESTD' window also features a menu bar (File, Monitor, Analysis, Method, Setting, View, Window, Help), a toolbar, and a status bar that reads 'For Help, press F1' and 'Project: OQ'. The status bar also indicates 'Waiting'.

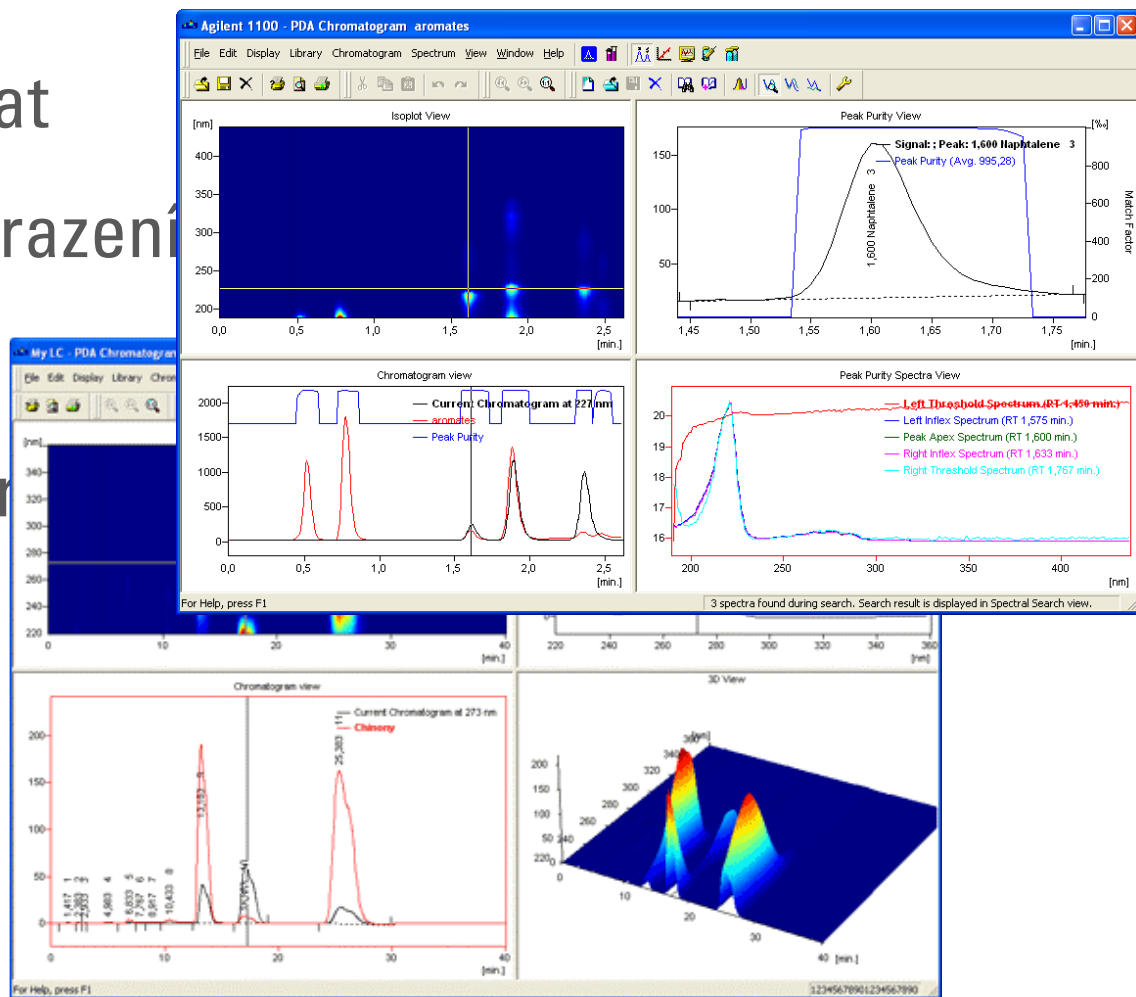
GPC

- Stanovení distribuce molekulových hmotností
- Offline řešení i pro data z jiných softwarů

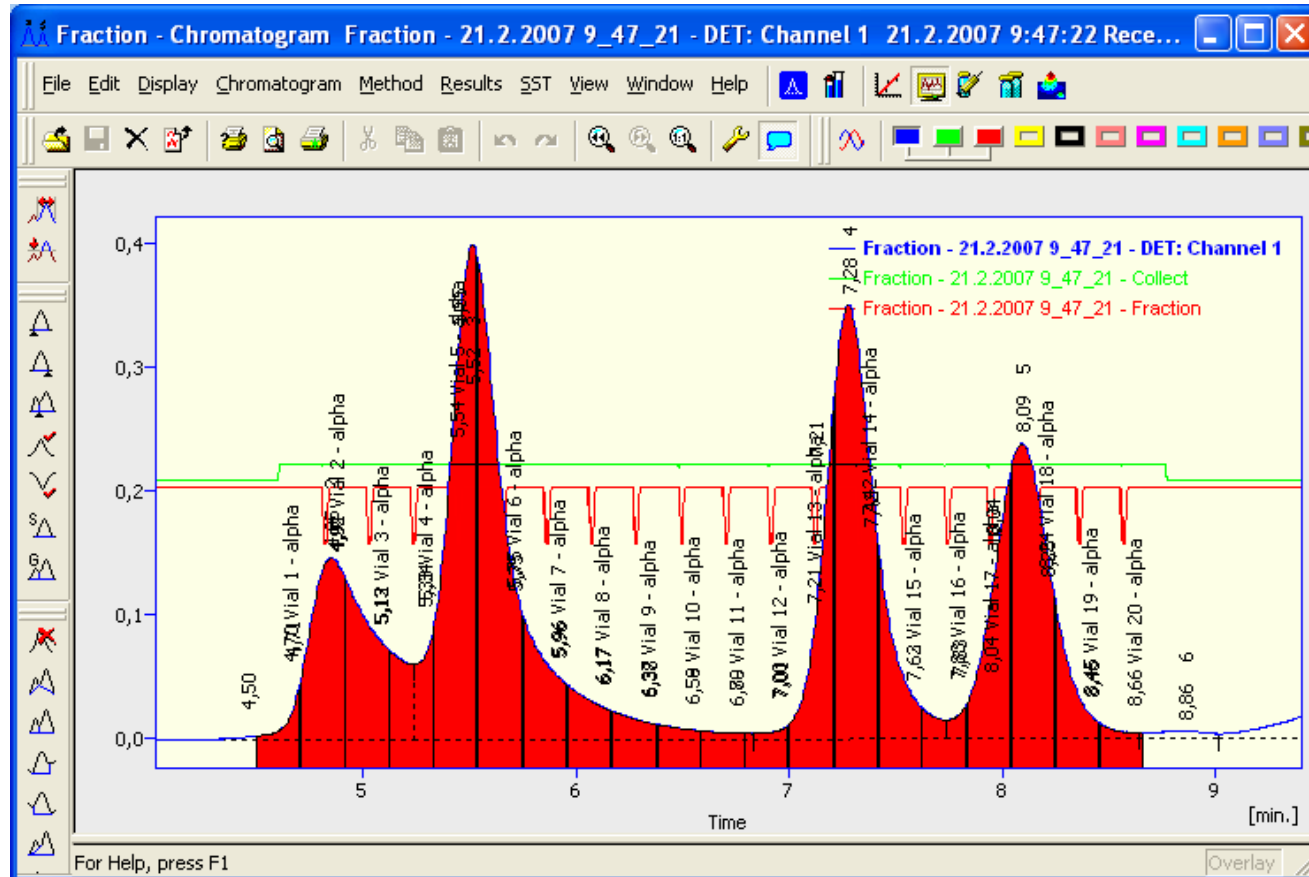


PDA

- Zpracování 3D dat
- Isoplot & 3D-zobrazení
- Peak Purity
- Knihovny spekter

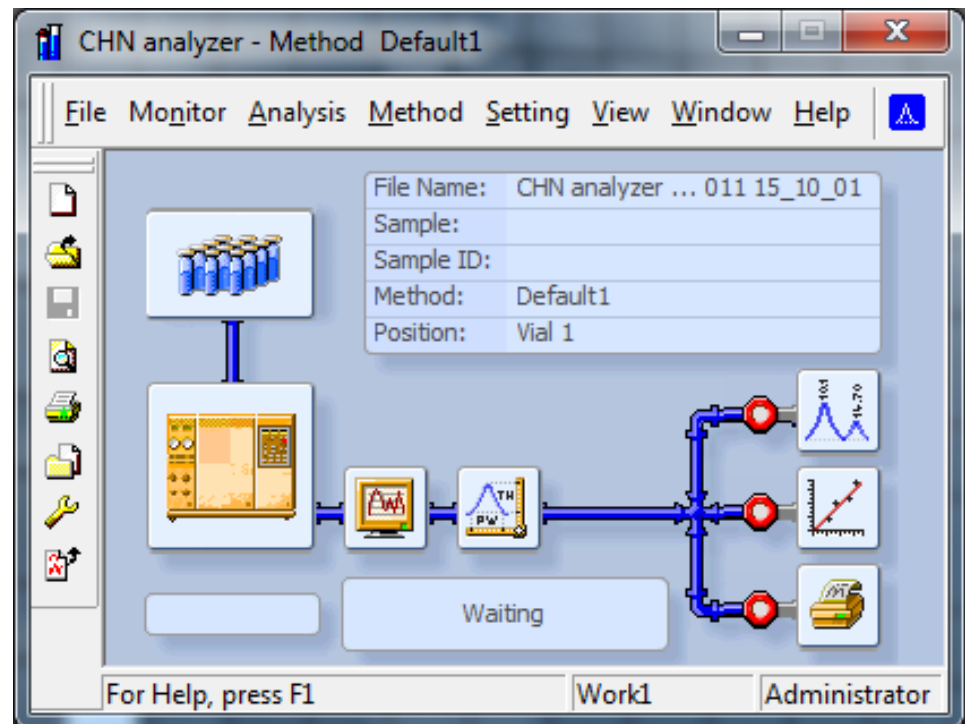


FC-GP



EA

- Pro elementární analyzátořy
- Sekvenční tabulka pro rutinní analýzu
- Připojení vah



NGA

- Analýzy plyných paliv
- Výpočty výhřevnosti a dalších parametrů na základě složení

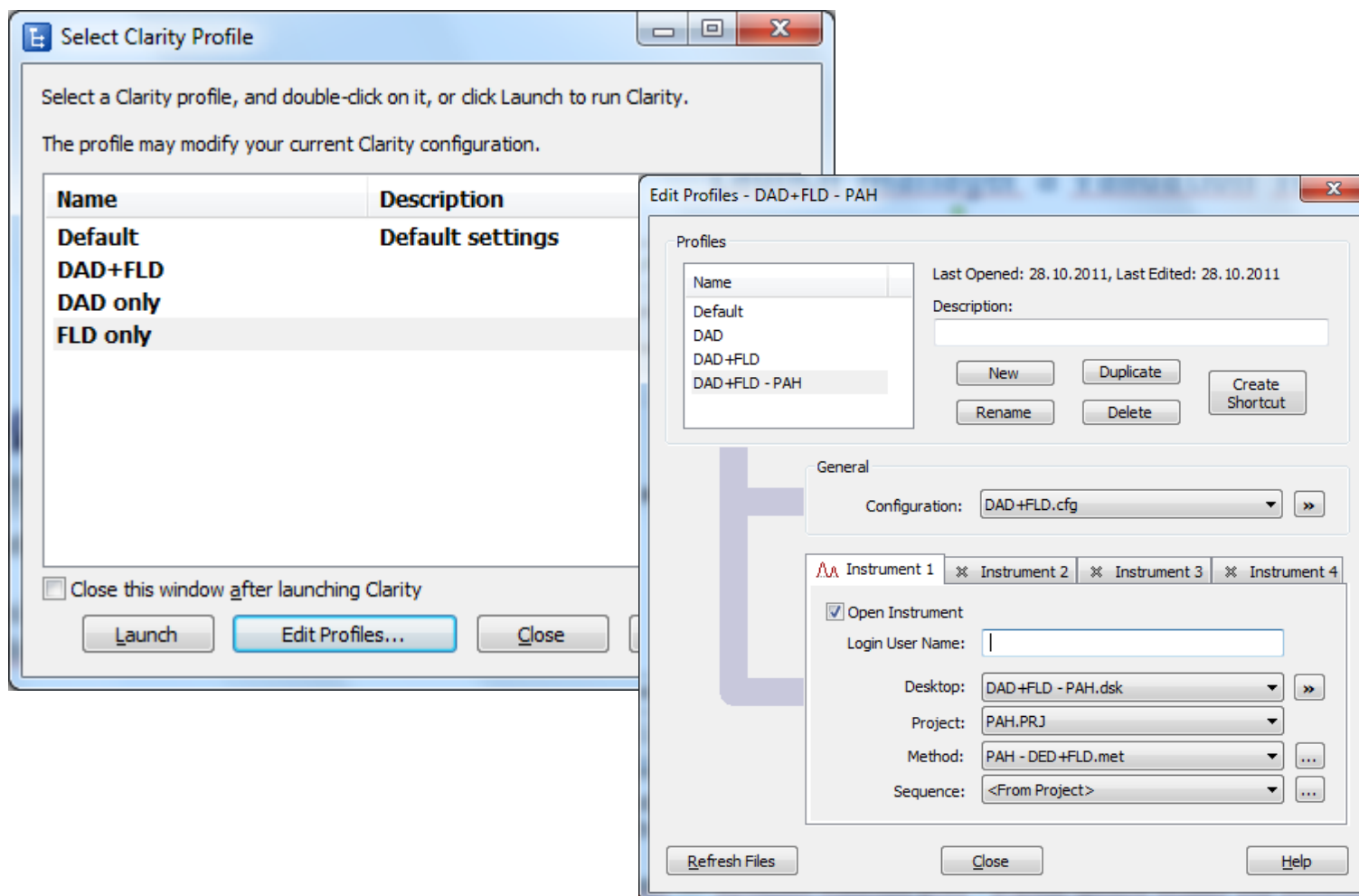


Results for Norm: Natural Gas ISO 6976-95
Chromatogram Name: 2nd Measurement
Norm Table Signature Status: ✓ Valid (Last Signed by: DataApex, Ltd.)


Result Calculations

Property	Value	Units
Compound Links	3 Warnings	
Gas	Real	
Compression Factor	0,9981	
Mean Molecular Weight	16,345	
Relative Density	0,5652	
Density	0,6926	kg/m3
Superior Calorific Value	870,07	kJ/mol
Inferior Calorific Value	783,35	kJ/mol
Wobbe Index	49,04	MJ/m3

Launch Manager



Regulované prostředí



Validator Certificate 69/01

Validator S/N: 69
Validated: November 24, 2008
Validation Expiry: November 24, 2009

Validation performed using calibrated HP Digital Multimeter 34401A (S/N 3146A11899 (EZU Calibration list 200700140))

CHROMATOGRAM DATA:
SET1: Single chromatogram eight gaussian peaks, evenly spaced by 30 s and increasing in size by 10. The last peak height is 8000 mV and area is 50000 mV.s. The chromatogram length is 300 s, after repeated indefinitely.
SET2: Seventeen individual chromatograms, containing five gaussian peaks, evenly spaced 1 individual chromatogram length is 180 s. First five chromatograms have peaks of the same size factor of 10 in each subsequent chromatogram. The first chromatogram has peak heights 9000 50000 mV.s. Those chromatograms serve for the generation of calibration file and linearity. The last six chromatograms have peaks increasing in size by factor of 10, the last peak has height 90 50000 mV.s. Last six chromatograms have peaks 1,3,5 of the same size: height 90 mV and area 2 has height 0.9 mV and area 5 mV.s and peak 4 has height 9 mV and area 50 mV.s.
SET3: Twenty square peaks. The heights decrease from 1 000 mV to -1000 mV in 100 mV; chromatogram length is 820 s, the peaks are spaced by 20 s and their width is 20 s. The baseline is 0 mV.
SET4: Five gaussian peaks of the same height, evenly spaced and increasing in width by a factor later peaks are overlapping. The total chromatogram length is 200 s, the peaks are spaced by 30 s at 0 mV and the first peak height is 9000 mV. The first peak area is 12 500 mV.s.

The Validator was calibrated and programmed with the above-described data tested and it was found to be accurate.

Validation performed by: *[Signature]*



Declaration of Software Validation
 Structural validation and Statement of compliance with 21 CFR Part 11

Release Date: 2011-10-05
Product Name: Clarity Chromatography Station
Version Number: 3.0.7

This document certifies that the software was developed, tested and structurally validated following a Certified Quality System conforming to GLP, GAMP, GMP and ISO 9001 Guidelines. This product was approved by management.

- To support this certificate for GLP/GMP requirements of the user of this product we will provide the following information:
- Description of the product
 - Functional specification
 - Development plan
 - Test plans, routines and result
 - Revision Status
 - Source code documentation

DataApex will maintain this documentation including software source code on-site. DataApex may require a non-disclosure agreement to be provided by those wanting access to the source code.

21 CFR Part 11 Compliance Features:
 This software has been developed and tested in a manner consistent with the requirements of 21 CFR Part 11. It incorporates features that can provide technical compliance with FDA regulated industries. It incorporates features that can provide technical compliance implemented and operated in accordance with that regulation. The product description contains information related to the inclusion of the 21 CFR Part 11 feature set. The Test Demonstrations show how these features were evaluated.

21 CFR Part 11 Compliance Features include Software Security, Data Integrity, Audit Trail. These features are briefly elaborated in the database D019.

The Clarity in Regulated Environment manual (M132) provides detailed procedures, which comply with the regulations.

Prague, October 5, 2011 *[Signature]*
 Jan Hrubý, DataApex

www.dataapex.com | ISO9001 certified
 Tel: +420 251 013 400 (fax)

Installation Qualification Test: Passed

File	Path
ispdch.exe	d:\clarity_303007982\utils
ispdch.dll	d:\clarity_303007982
ispdch.sys	d:\clarity_303007982\new_driver\ispdch2
ispdch.exe	d:\clarity_303007982\new_driver\ispdch2
ispdch.exe	d:\clarity_303007982\new_driver\ispdch2




CERTIFIKÁT

Certifikační místo
 TÜV SÜD Management Service GmbH
 potvrzuje, že společnost



DataApex, spol. s r.o.
 Lety 24
 CZ - 252 29 Dobřichovice
 s provozovnou
 Podohradská 1

OQ Validation - Welcome



6,100 glucose 3
 A-823 fructose 6
 7947 glycyl B

...NEXT GENERATION
 advanced software for chromatography

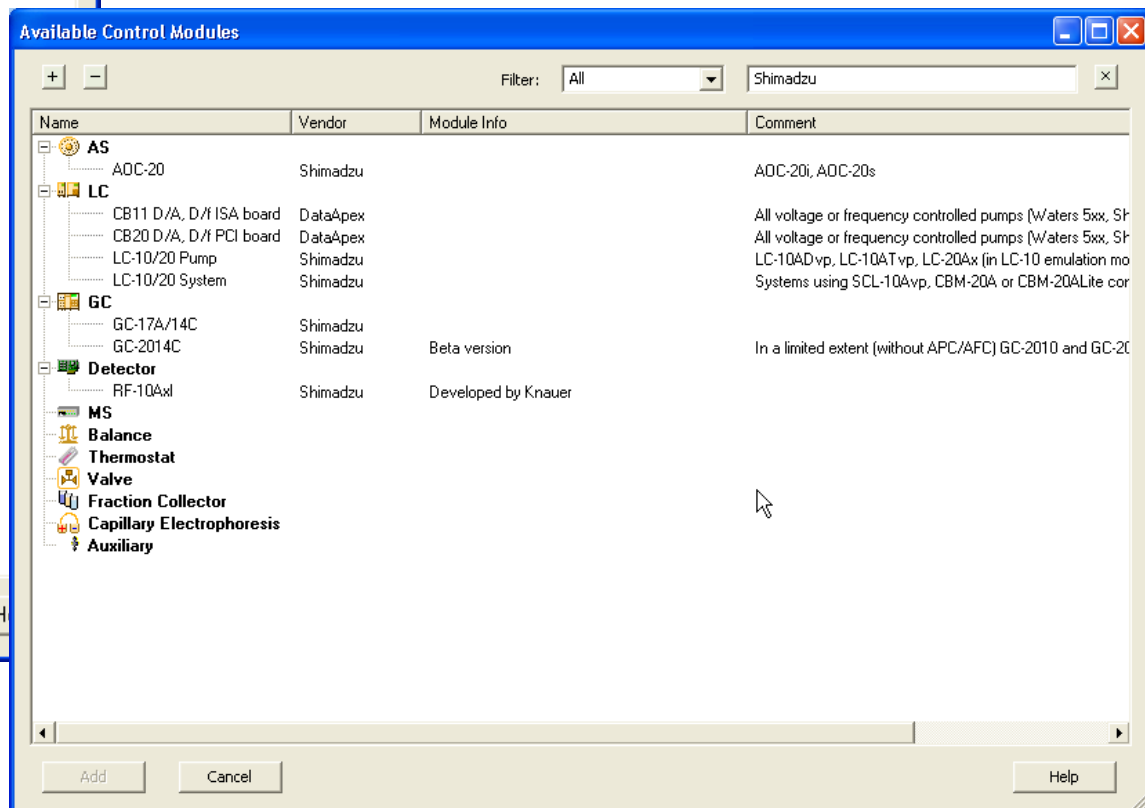
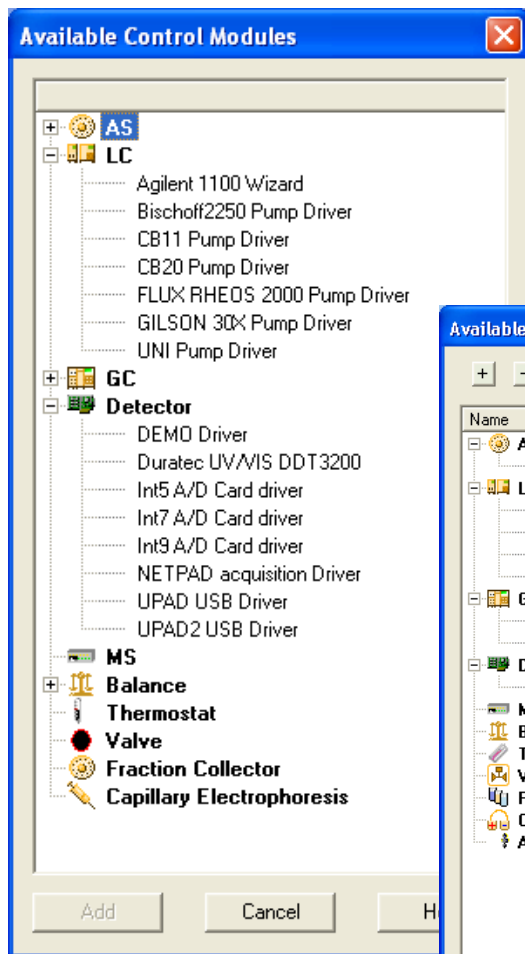
Welcome to Clarity OQ Validation.

This wizard will guide you through the validation process of Clarity and your acquisition hardware. It will verify that the acquisition works correctly, run self-tests on the selected A/D converter, etc.

The Clarity's SST extension is necessary to run this wizard!

< Back
Next >
Cancel
Help

Řízení chromatografů



Clarity může řídit ...

- Agilent
- Shimadzu
- Knauer
- CTC
- LabAlliance
- Merck-Hitachi
- Spark Holland....

CLARITY – LIST OF CURRENTLY CONTROLLED INSTRUMENTS

HPLC Systems

	Producer	Name	Interface	Status
	Agilent	1100 system including DAD	GPIB, LAN	Ready
	Agilent	1200 system (in 1100 emulation mode only)	LAN	Testing
	Knauer	Smartline 1000 system *	RS232	Ready
New	Shimadzu	LC-10, LC-20 Prominence; both incl. PDA	RS232+ corresp. controller	Testing

* Developed by Knauer company

HPLC Components (p/n A24)

	Producer	Type	Name	Interface	Status
	Agilent	detector	1100: DAD***, MWD***, VWD, RID, FLD	GPIB, LAN	Ready
	Agilent	detector	1200: DAD***, MWD***, VWD, RID, FLD (in 1100 emulation mode only)	LAN	Testing
	Agilent	pump	1100: Binary, quaternary, isocratic	GPIB, LAN	Ready
	Agilent	pump	1200: Binary, quaternary, isocratic (in 1100 emulation mode only)	LAN	Testing
	Agilent	column oven	1100 TCC	GPIB, LAN	Ready
	Agilent	column oven	1200 TCC	LAN	Testing
	Alltech/Grace	pump	301, 426, 626, 726	RS232 - LC UNI	Ready
New	Antec Leyden	pump	LC100	RS232	Testing
	Beckman/Altex	pump	110A, 110B, 114	CB20	Ready
New	Bischoff	pump	2250	RS232	Testing
	Bio-Rad	pump	1350	CB20	Ready
	Duratec	detector	DDT-3200 PDA **	USB	Ready
	Ecom	pump	LCP 4020, LCP 4000	CB20	Ready
	Ecom	pump	LCP 4100, Alpha10, Alpha 50, Alpha 100, Beta10, Beta 50	RS232 - LC UNI	Ready
	Ecom	detector	Sapphire, Topaz	RS232	Ready
	Flom	pump	301M	RS232 - LC UNI	Ready
	Flux	pump	Rheos 2000	RS232	Ready
	Gilson	pump	302-307	GSIOC	Ready
	Gynkotech	pump	M300CS, M480	CB20	Ready

Více než 100 nových vlastností

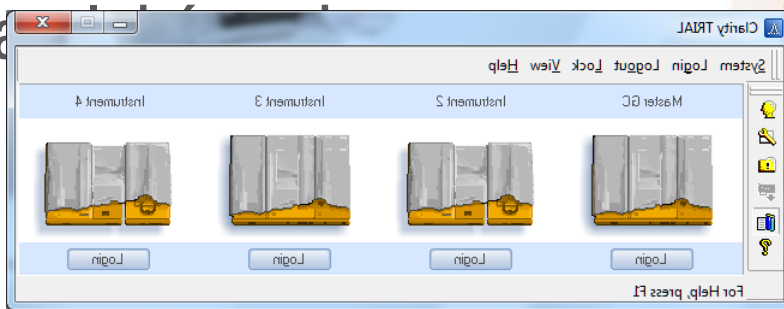
- Kalibrace
- Import/Export
- Chromatogram
- Event table
- Uživatelské rozhraní
- Reporty
- Sekvence

v Clarity 3.0



Clarity

- Univerzální software pro chromatografii (GC, LC, CE, EA, ...)
- Až 4 nezávislé chromatografy
- Modulární systém
- Velký počet řídicích modulů
- Uživatelské rozhraní



Limity Clarity ?

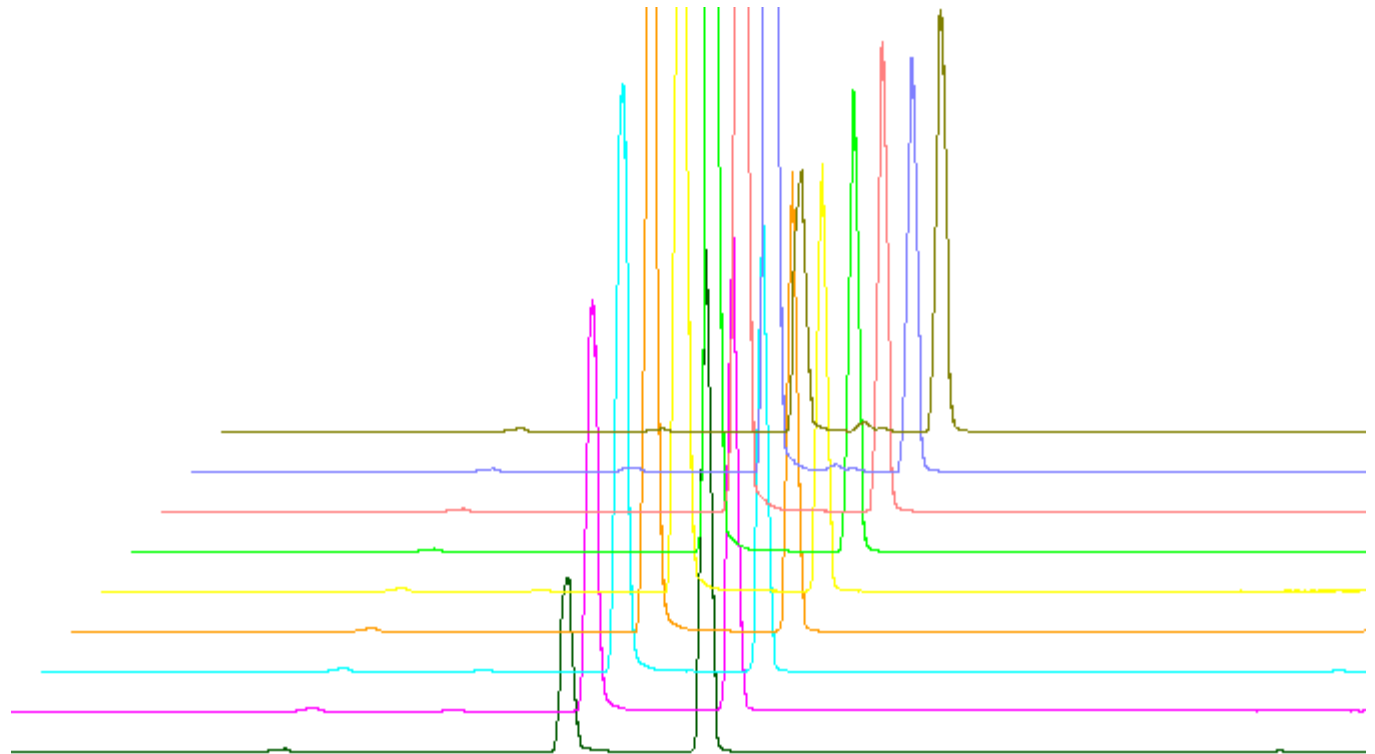
- Kolik chromatogramů lze otevřít v Overlay?

- 12

- 20

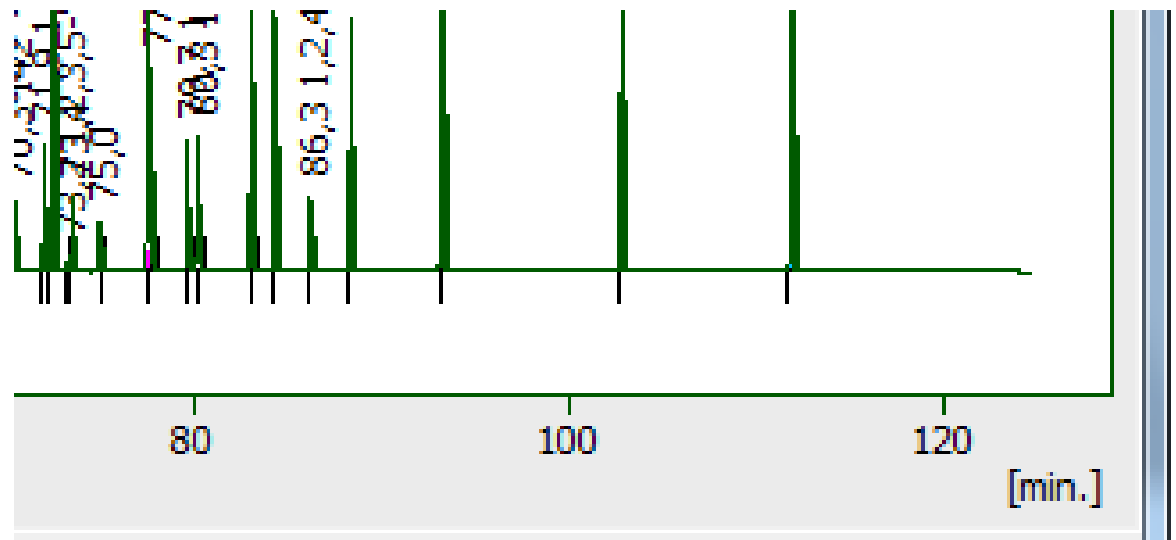
- 1000

- 10000



Limity Clarity ?










- Jak dlouhý může být chromatogram?
- 100 minut
- 1000 minut
- 10000 minut
- 70000 minut



Limity Clarity ?

- Jaký počet signálů může mít jeden instrument?

- 4
- 8
- 12
- 64

	From
 Detector	
 FLD : Detector 1	Agilent 1100
 FLD : Detector 2	Agilent 1100
 FLD : Detector 3	Agilent 1100
 FLD : Detector 4	Agilent 1100
 DAD : Detector 1	Agilent 1100
 DAD : Detector 2	Agilent 1100
 DAD : Detector 3	Agilent 1100
 DAD : Detector 4	Agilent 1100

Požadavky na (software) Clarity

- 1: Jednoduchý a pochopitelný
- 2: Schopný splnit všechny požadavky
 - - Nesplnitelné?
- Jednoduché základní uživatelské rozhraní
- Vhodně zvolené defaultní hodnoty
- Pokročilé a méně časté funkce skryté hlouběji v rozhraní

Změny v přístupu

PERS01A <-- ESTD No valid level in ISTD compound

	Reten. Time	Area [mV.s]	Area [%]	Amount [g/kg]	Amount [%]	Peak Type	Compound Name
1	1,188	0,768	1,0	0,768	19,2		
2	1,750	0,618	0,8	0,618	15,4		
3	2,302	33,046	41,0	0,629	15,7	Ordnr	ETHANOL
4	2,553	1,567	1,9	1,567	39,2		
5	2,857	44,543	55,3	N/A	N/A	ISTD	T-BUTANOL
	Total	80,541	####	4,000	89,5		

!!! Result Table (Uncal - Pers01) No ISTD Amount given in Calibration !!!

	Reten. Time [min]	Response	Amount [g/kg]	Amount [%]	Peak Type	Compound Name
1	1,188	0,768				
2	1,750	0,618				
3	2,302	33,063			Ordnr	ETHANOL
4	2,553	1,576				
5	2,857	44,529			ISTD	T-BUTANOL
	Total					

Nové vlastnosti pro pokročilé

- Uživatelské sloupce

The screenshot displays a chromatogram software window titled 'laball - Chromatogram'. The main plot shows Voltage [mV] on the y-axis (ranging from -5 to 10) and Time on the x-axis (ranging from 0 to 10). A large peak is observed at approximately 8.31 minutes, labeled '8.31 cyclamate'. Smaller peaks are labeled at 3.56 and 4.61 minutes. Below the plot is a 'Result Table' with the following data:

Reten. Time [min]	Area [mV.s]	Area [%]	Compound Name	Signal/Noise	RRT [(cyclamate)]
1	3,557	18,147		8,129	0,428
2	4,608	8,247		4,092	0,555
3	8,307	3254,916	98,64 cyclamate	874,856	1,000
4	12,988	18,487		3,033	1,564
Total	3299,797	100,00		-	-

An 'Add User Column' dialog box is open in the foreground. It has the following fields and options:

- Title: RRT
- Units: (cyclamate)
- Calculate Total:
- Expression: `[Reten. Time]/[(cyclamate$Reten. Time)]`
- Columns list: Reten. Time (selected)
- Variables list: Sample Amount, Sample Dilution, Injection Volume, ISTD Amount, Chromatogram Amount, Unretained Peak Time, Column Length, Noise, ASTM Noise, 6-Sigma Noise, Drift

Vlastnosti pro pokročilé uživatele

- Event table

Method Setup fld-Pal

Common for all detectors

	Name	Input					Output			
		Type	Source	Input	Value	Units	Output Type	Output	Parameter	Store
1	Next	Dig. Input Run	FC GP	Next	Up	---	Valve 1	Next	---	<input checked="" type="checkbox"/>
2	Collect	Dig. Input Run	FC GP	Collect	Up	---	U-PAD1	Digital Output 2	Low	<input checked="" type="checkbox"/>
3	Waste	Dig. Input Run	FC GP	Collect	Down	---	U-PAD1	Digital Output 2	High	<input checked="" type="checkbox"/>
4	Init	Run Begin	---	---	---	---	Valve 1	Position	1	<input type="checkbox"/>
5	Shutdown	Close Instrument	---	---	---	---	Valve 1	Position	8	<input type="checkbox"/>
6										<input type="checkbox"/>

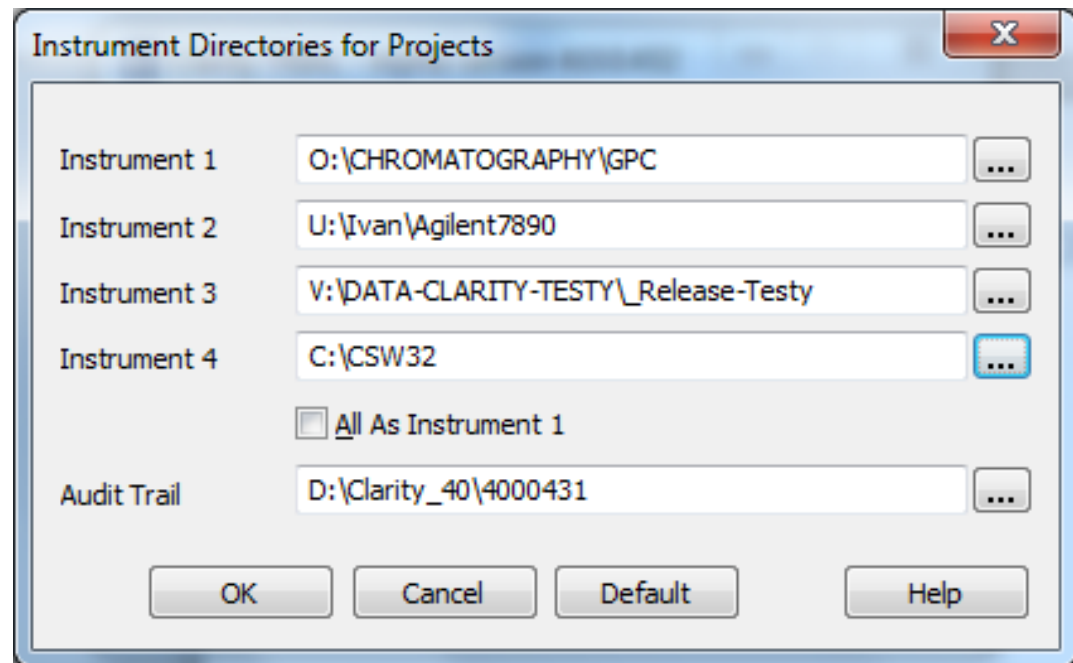
Vlastnosti pro pokročilé uživatele

- Příkazová řádka

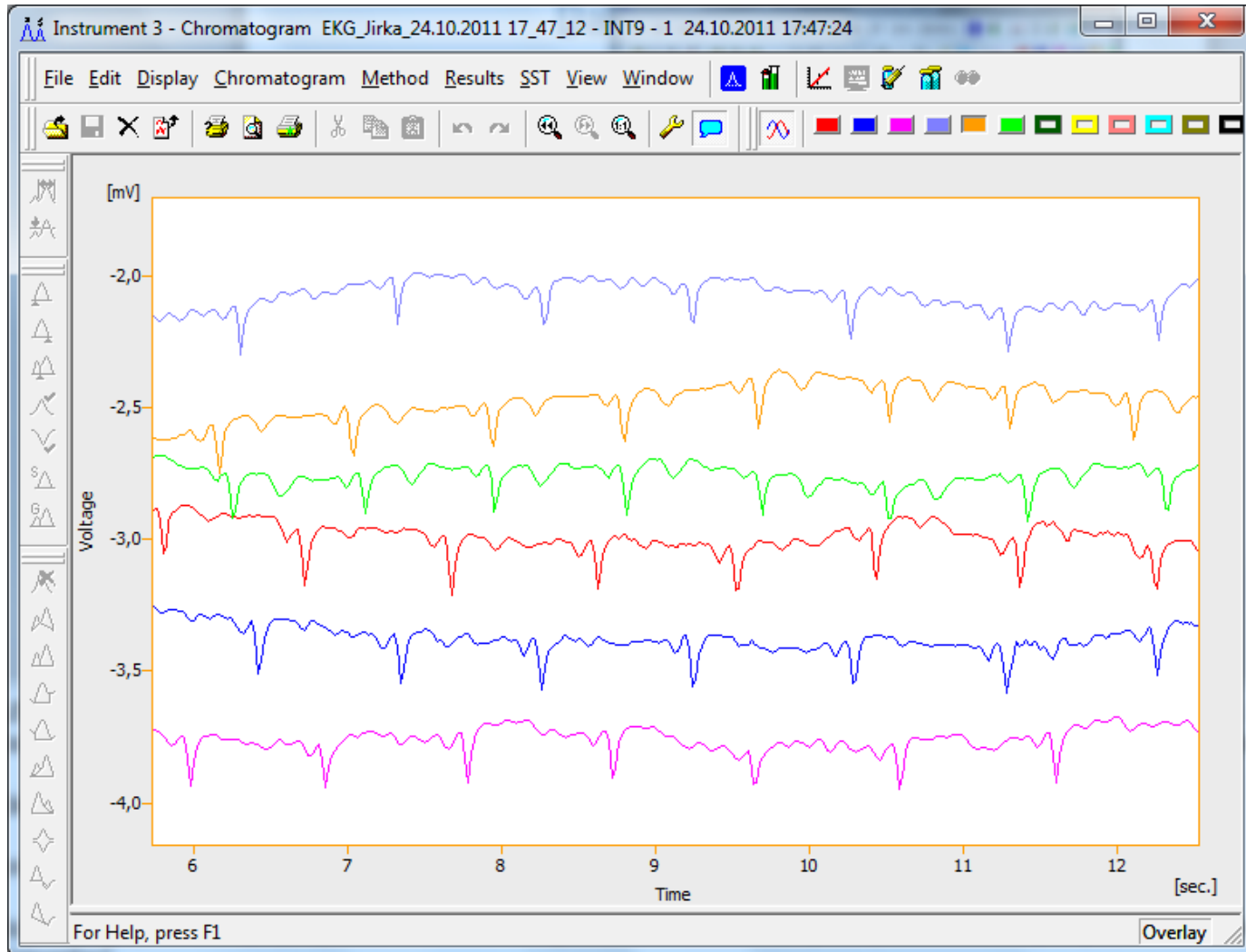


Vlastnosti pro pokročilé uživatele

- Vzdálený přístup



Další možná použití



Clarity – co se v ní změnilo

výroční setkání

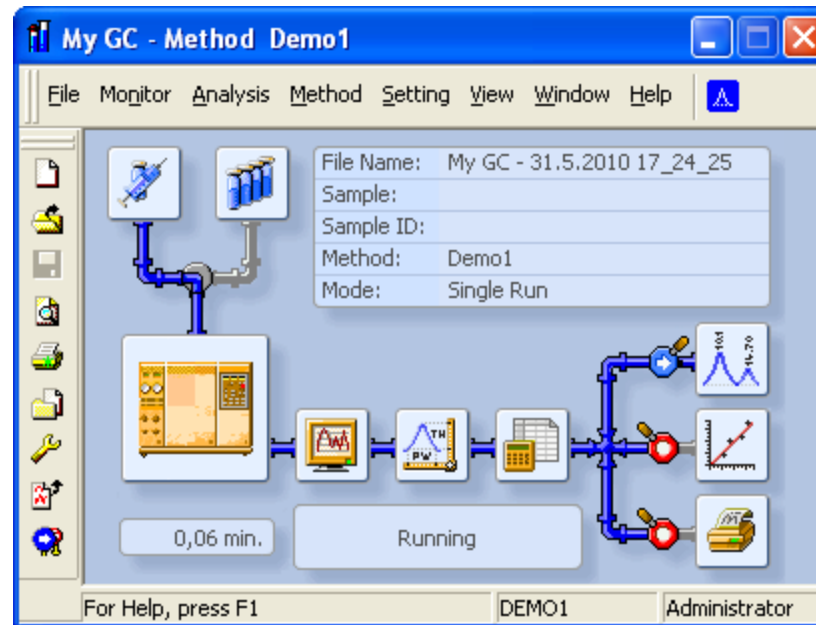
Část 2 – Dokumentace a podpora

Obsah

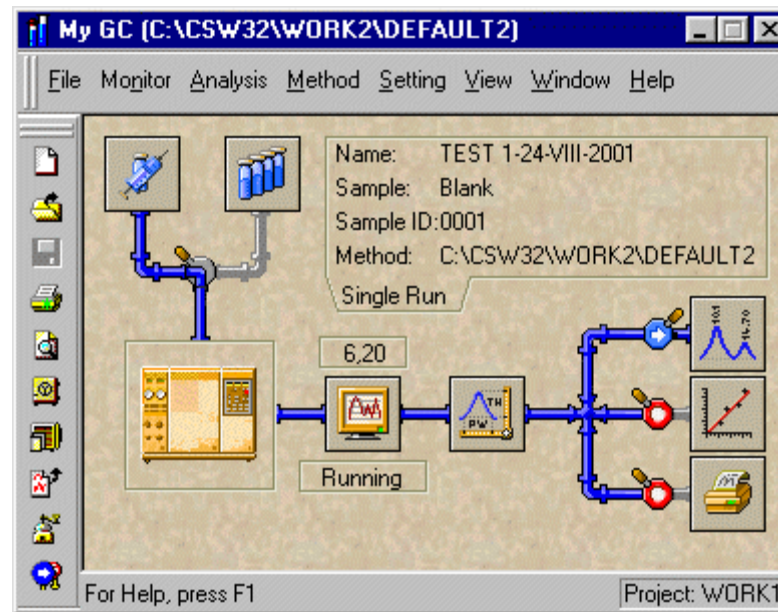
- Novinky v Clarity – jak se k nim dostat?
- Dokumentace Clarity
- Uživatelská podpora firmy DataApex

- ... ale nejdřív malý průzkum

Clarity a Clarity Lite



CSW32

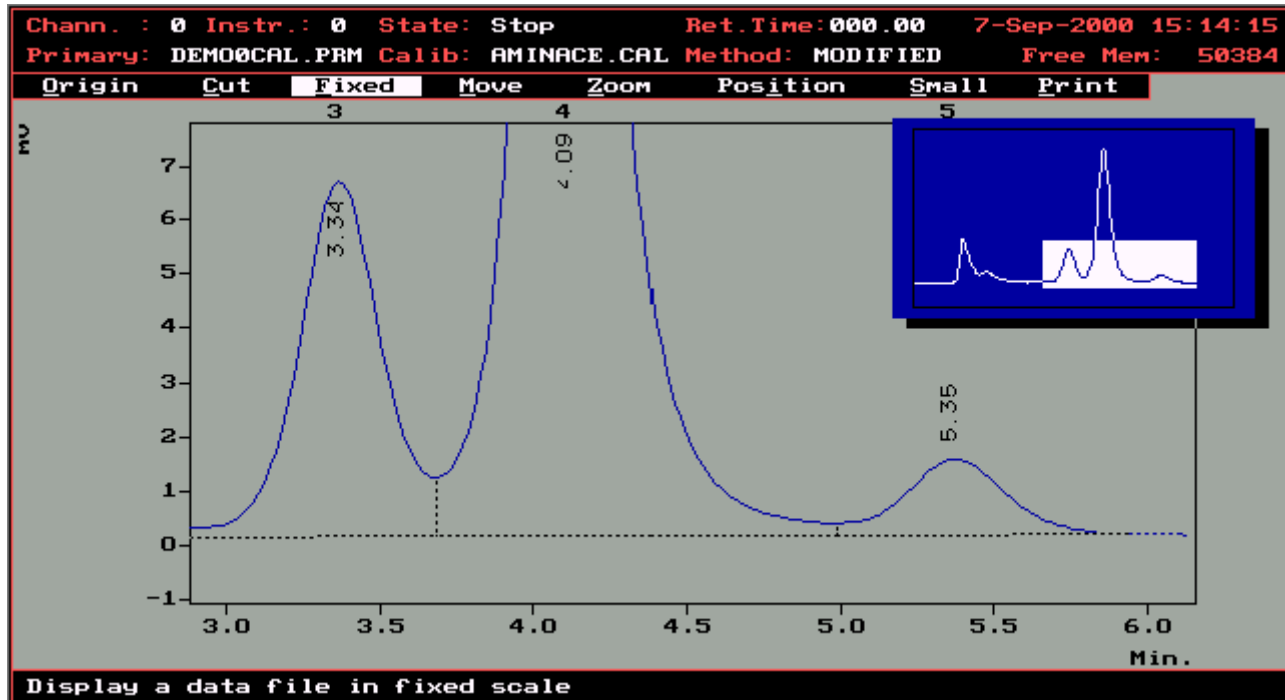


CSW17

The screenshot shows the GC FID (WORK1) software interface. The window title is "GC FID (WORK1)" and the menu bar includes "File", "View", "Setting", "Window", and "Help". The main area is divided into two sections. On the left, there is a schematic diagram of a gas chromatography system with a syringe, vials, and a detector. Below the diagram are three chromatograms: the top one shows two peaks at retention times 10.1 and 14.70; the middle one shows a calibration curve; the bottom one shows a noisy baseline with a red stop sign icon. On the right, there is a data table with the following content:

Sequence	
(None)	
Instrument	
DEFAULT1	
Method	
DEFAULT1	@
Analysis	
PCB	
Running	0.87

Apex

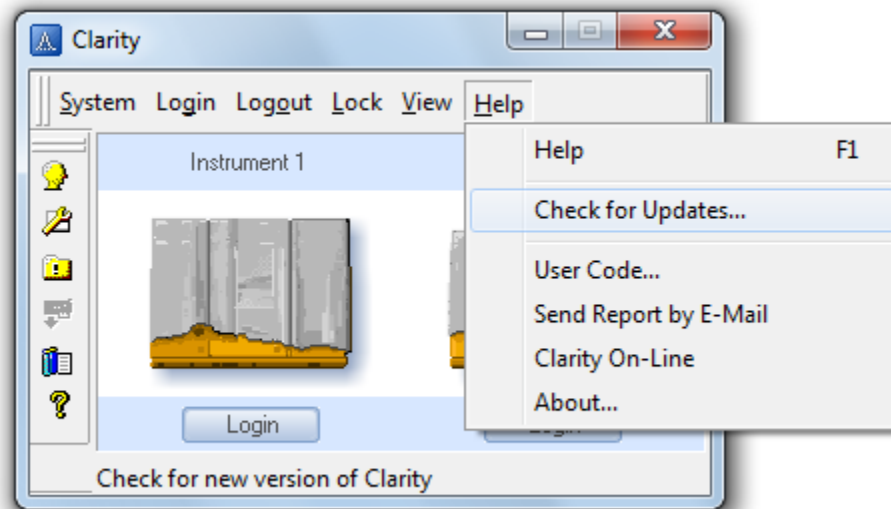


Každý rok nové funkce a schopnosti

- 1-2 nové „velké“ verze ročně
 - nosná témata
 - nové extenze
 - nové funkce
 - nové řídicí moduly
- nové updaty každé tři měsíce
 - opravy chyb
 - nové řídicí moduly nebo úpravy stávajících řídicích modulů
- možnost ovlivnit, co bude Clarity umět příště
- chybí vám něco? dejte nám vědět...

Jak se dostat k nové verzi Clarity?

- pro nové verze potřebujete hardwarový klíč
- Clarity na počítači s přístupem k internetu – přímo ze stanice



- Clarity na počítači bez přístupu na internet – naše webové stránky

You are here: [Home](#) ▶ Downloads

DOWNLOADS



Product line: Product: Category: Language: Sort by: Find: Linear: Public:

OK

Found 3 results.

SOFTWARE - FULL

Flag	Code	Description ▲	Download	View	Version	Size	Date
<i>new</i>	C5x-FULL	Clarity Hardware key (dongle) is necessary. Not supported on Windows 98/ME.	download	n/a	3.0.7.662	155MB	5.10.2011
	C5x-CHS	Clarity CHS Clarity Full in Chinese. Hardware key (dongle) is necessary. Not supported on Windows 98/ME.	download	n/a	3.0.5.505	144MB	18.7.2011
<i>new</i>	C40-FULL	Clarity Lite Hardware key (dongle) is necessary. Not supported on Windows 98/ME.	download	n/a	3.0.7.662	50MB	5.10.2011



You are here: [Home](#) ▶ SW registration

SW REGISTRATION

* Company:

* Street:

* City:

* ZIP:

* Country:

* Name:

* Your e-mail:

Phone:

Fax:

* Username:

* Password:

You may enter a privacy password below. This provides only mild security, but should prevent others from messing with your subscription. Do not use a valuable password as it will occasionally be emailed back to you in cleartext.:

* Re-password:

* S/N: -



DataApex

Clarity discussion forum

This is the place to discuss Clarity and other products of the DataApex company

[Advanced search](#)

[Board index](#) < [Clarity](#) < [Clarity Wishlist](#)



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[FAQ](#) [Members](#) [Logout \[DM \]](#)

Clarity data handling for spectrophotometers and titrators

[POST](#) [REPLY](#)

2 posts • Page 1 of 1

Do you need Clarity to handle other than chromatographic data?

You may select up to 3 options

No

Yes, the data from spectrophotometry

Yes, the titration data

Yes, some other type of the data (please specify in the topic)

[View results](#)



QUOTE

Clarity data handling for spectrophotometers and titrators

by [Lab-Comp](#) » 25 May 2010 10:01

[Lab-Comp](#)

It would be very good, if Clarity could handle measurement data from spectrophotometers and

Last updated: 2011-09-23 | [weomaster](#)

Dokumentace

- pravidelně aktualizovaná
- dokumentace ke každému řídicímu modulu, ke každé extenzi
 - online help – kontextový
 - příručky – tištěné a v pdf
- tutorialy
- datasheety
- vše na každém instalačním CD
- vše zdarma ke stažení





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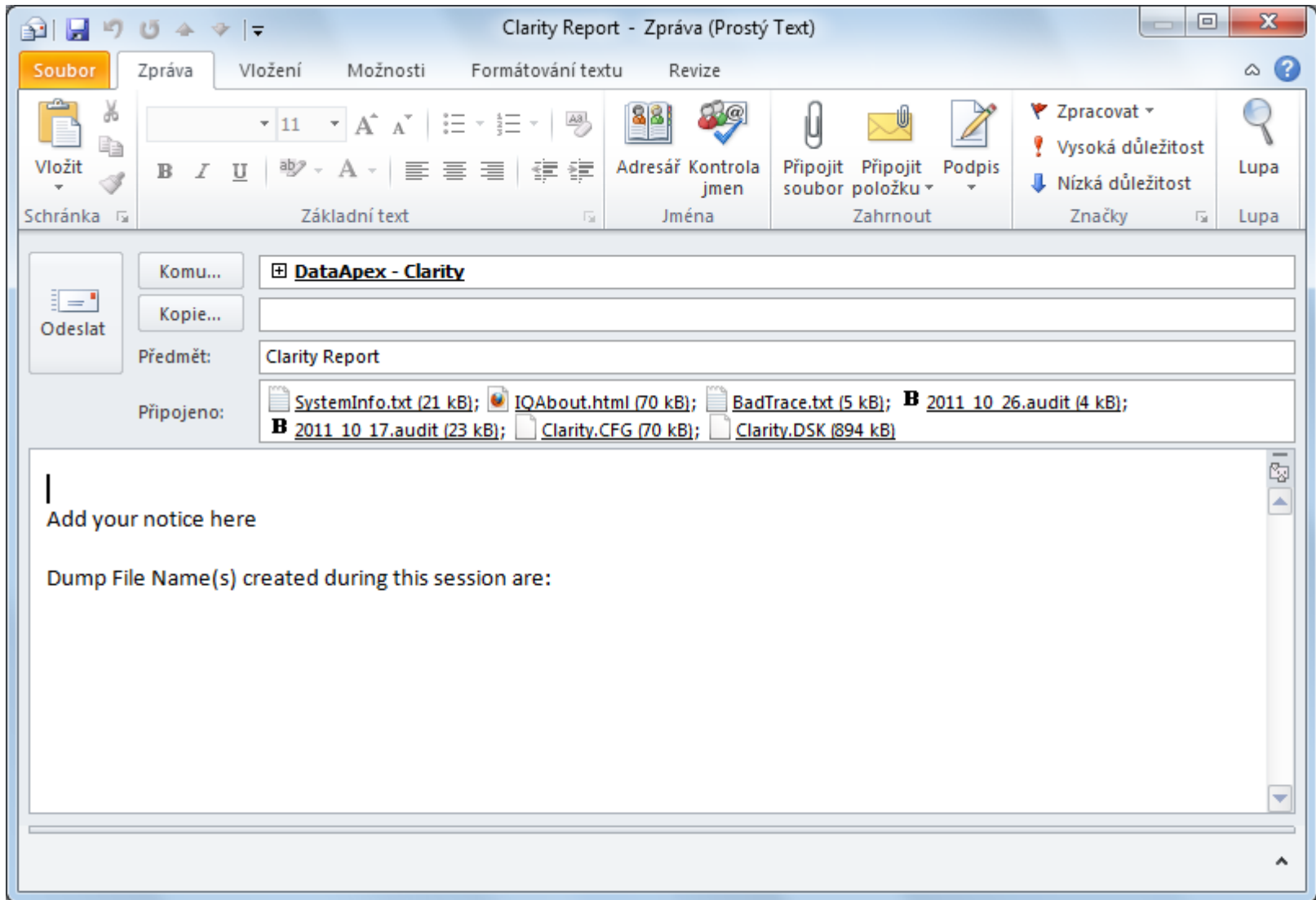
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Jak požádat efektivně o podporu?

- e-mail jako nejefektivnější možnost
 - support@dataapex.com
- telefonicky
 - +420 251 013 400
- vzdálená podpora
 - Teamviewer
- podpora přímo ze stanice Clarity



Závěrem

- vše, co budete kdy ke Clarity potřebovat, najdete na webu
- nebojte se na cokoliv zeptat, rádi vám odpovíme
- dejte nám vědět, co byste v Clarity rádi viděli

Děkujeme za pozornost!

