

# CLARITY 8.0

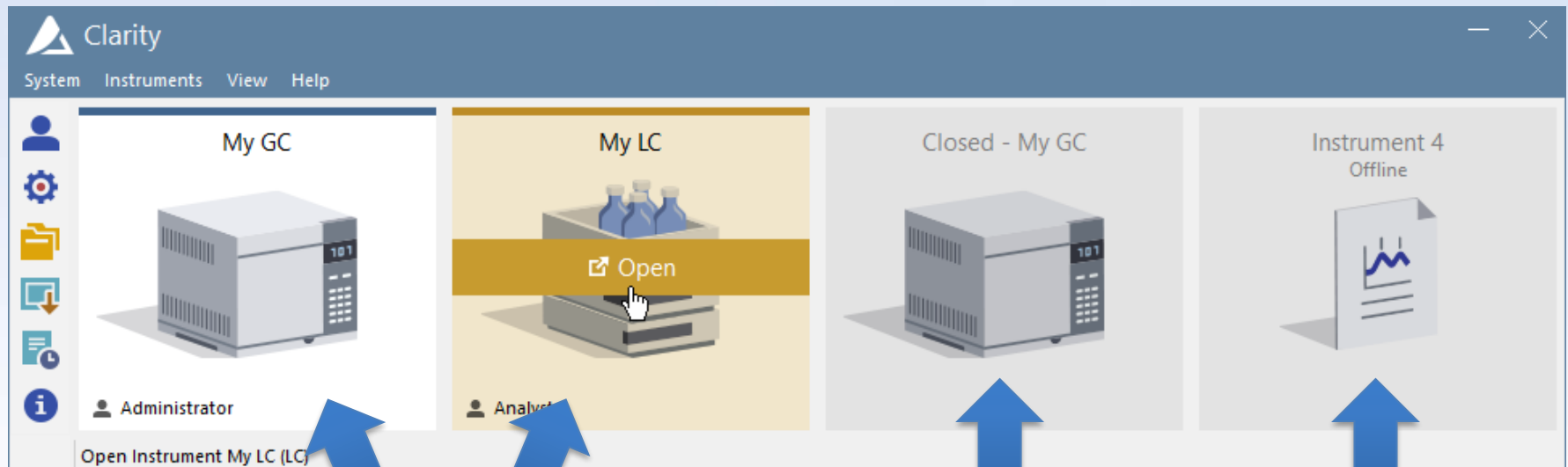
WHAT'S NEW

# What is new in Clarity 8.0

- ✓ Graphically enhanced **user interface**
- ✓ Improvements to **GLP** compliance
- ✓ Increased number of **ISTD's**
- ✓ Improvements in **MS** extension
- ✓ Various **changes** and **bug fixes**
- ✓ **New** and **updated** control modules

It's finally here, **Clarity 8.0** has undergone a major graphical change – completely new look and feel.

New Clarity Main window:



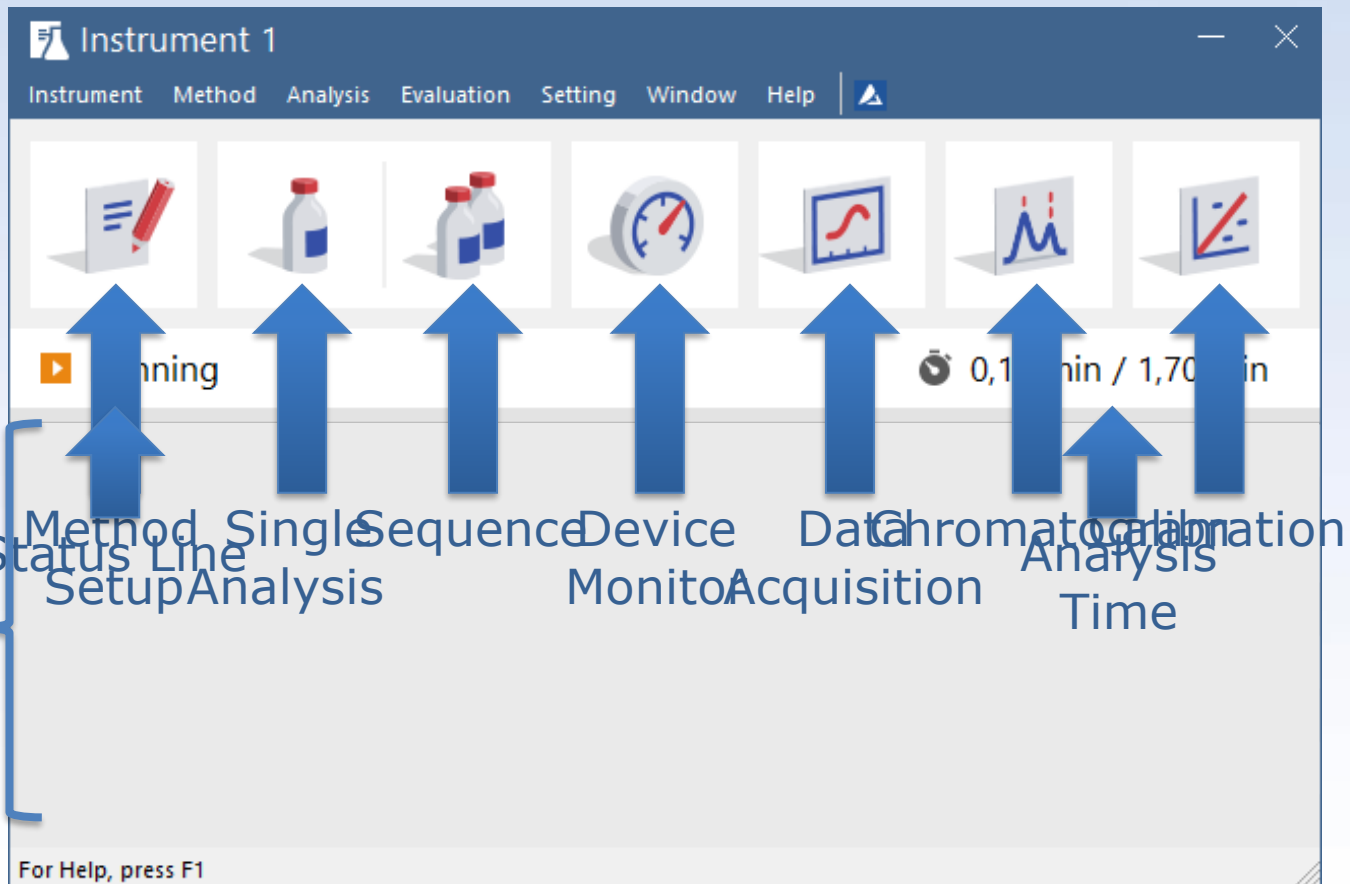
Opened Instruments

Closed  
Instrument

Offline  
Instrument

## New Instrument window:

- ✓ New user interface with proven workflow



# ✓ Fresh new icons:

The screenshot displays a multi-windowed software interface for chromatography control and data analysis. The windows shown are:

- Instrument 1 - Chromatogram "PERS01" 06.06.2018 14:24:24**: Shows a chromatogram plot with voltage on the y-axis (0 to 15 mV) and time on the x-axis. A prominent peak is visible at 2.30 minutes.
- Instrument 1 - Calibration Ethanol <-- ISTD**: Contains a "Calibration Summary Table (ISTD - Ethanol - Signal 1)".
- Instrument 1 - Device Monitor**: Shows a "Running" status and a "LC Monitor" section.
- Instrument 1 - Sequence Demo1**: Displays a sequence table with columns for Status, Run, SV, EV, I/V, Sample ID, Sample, Sample Amount, ISTD1 Amount, Sample Dilut., Inj. Vol. [μL], File Name, Sample Type, Lvl, Method Name, Report Style, Open, Open Calib., and Print.

The "Calibration Summary Table" data is as follows:

Used	Compound Name	Reten. Time	Left Window	Right Window	Peak Type	Named Groups	Is ISTD
<input checked="" type="checkbox"/>	ETHANOL	2,308	0,200 min	0,200 min	Ordnr		None
<input checked="" type="checkbox"/>	T-BUTANOL	2,862	0,200 min	0,200 min	Ordnr		ISTD1

The "Sequence Demo1" table data is as follows:

Status	Run	SV	EV	I/V	Sample ID	Sample	Sample Amount	ISTD1 Amount	Sample Dilut.	Inj. Vol. [μL]	File Name	Sample Type	Lvl	Method Name	Report Style	Open	Open Calib.	Print
	<input checked="" type="checkbox"/>	1	1	1	Halocarbons	Std_1	0,400	2,000	1,000	5,000	%Q	Standard	1	Demo 1	Calibration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	2	2	1	Halocarbons	Std_2	1,000	2,000	1,000	5,000	%Q	Standard	2	Demo 1	Calibration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	3	3	3	Halocarbons	Std_3	3,000	2,000	1,000	5,000	%Q	Standard	3	Demo 1	Calibration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	4	4	4	Halocarbons	Std_4	5,000	2,000	1,000	5,000	%Q	Standard	4	Demo 1	Calibration	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/>	5	8	2	Halocarbons	Sa...	5,000	2,000	1,000	5,000	%Q	Vial...	Unknown	Demo 1	Analysis	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The "Device Monitor" window shows a "Running" status and a "LC Monitor" section with buttons for "Stop Flow", "Set Flow...", "Resume Idle", "Hold", and "Modify Gradient...".

The "Sequence Demo1" window shows a "Running" status and a "For Help, press F1" message. The status bar indicates "0,40 min - Running - Acquisition running Vial: 3 / Inj.: 1".

The "Chromatogram" window shows a plot with peaks labeled at 1.19, 1.75, 2.30, and 2.55 minutes. The y-axis is labeled "Voltage" and ranges from 0 to 10 mV.

The "Device Monitor" window also shows a "Digital Input" and "Digital Output" section with 6 channels, each with a "Current State" indicator (green circle) and a "Descriptions" field.

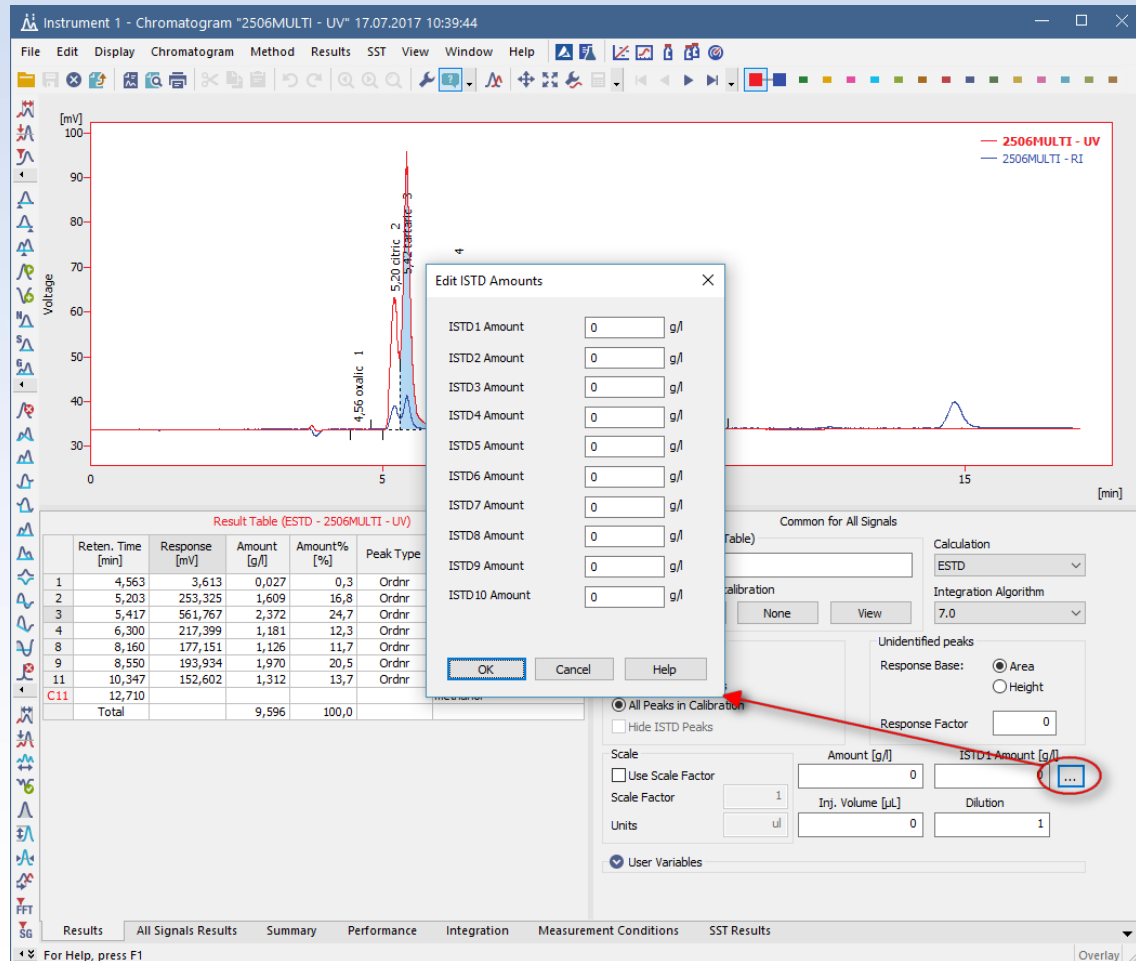
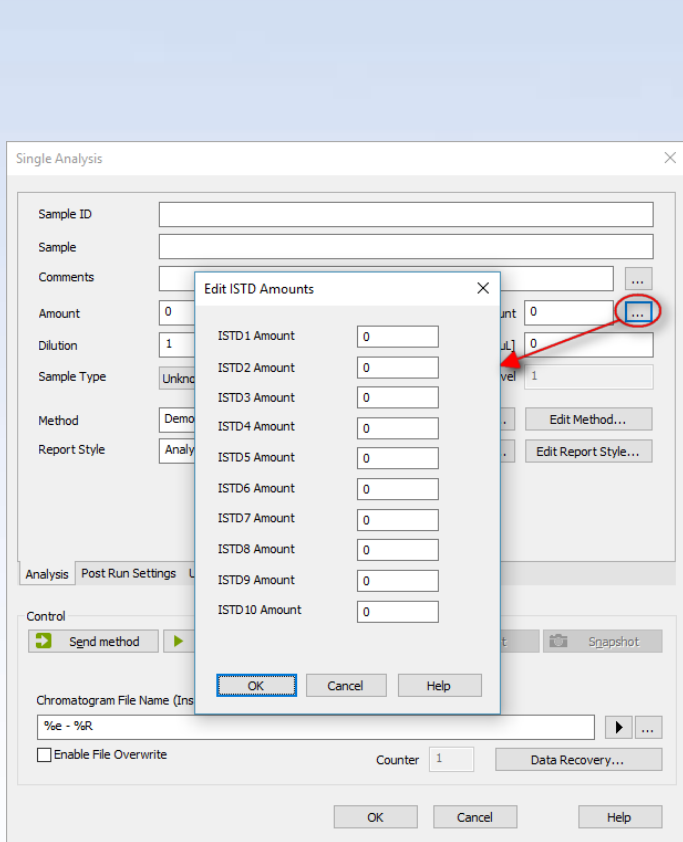
- ✓ New **Global Audit Trail** – located on a separate tab in the **Station Audit Trail** window
- ✓ Logs **critical** station operations

OK	Time	Type	Analyst	Instrument	Area	Description	User	Computer	Info
127	15.06.2018 9:36:49	Administr	Administr	Instrument 1	Instrument	Open Instrument	marekp	MAREXP	Clarity 8.0.0.115 FULL, SN: 088-000888
128	15.06.2018 9:36:39	System	System	System	System	Command line parameter(s): DataApex.ini parameter(s): dump_memory=1 enable_asserts=7	marekp	MAREXP	Clarity 8.0.0.115 FULL, SN: 088-000888
129	15.06.2018 9:36:39	System	System	System	System	Start System, Version: 8.0.0.115	marekp	MAREXP	Clarity 8.0.0.115 FULL, SN: 088-000888
130	15.06.2018 9:31:39	System	System	System	System	End System	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
131	15.06.2018 9:31:34	System	System	System	System	Command line parameter(s): DataApex.ini parameter(s): dump_memory=1 enable_asserts=7	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
132	15.06.2018 9:31:34	System	System	System	System	Start System, Version: 8.0.0.114	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
133	15.06.2018 9:31:20	System	System	System	System	End System	marekp	MAREXP	Clarity 8.0.0.114, SN: 088-000888
134	15.06.2018 9:30:55	System	System	System	System	Command line parameter(s): DataApex.ini parameter(s): dump_memory=1 enable_asserts=7	marekp	MAREXP	Clarity 8.0.0.114, SN: 088-000888
135	15.06.2018 9:30:55	System	System	System	System	Start System, Version: 8.0.0.114	marekp	MAREXP	Clarity 8.0.0.114, SN: 088-000888
136	15.06.2018 9:30:55	System	System	System	System	Daily audit trail 2018_06_15.audit created.	marekp	MAREXP	Clarity 8.0.0.114, SN: 088-000888
137	14.06.2018 16:24:00	System	System	System	System	End System	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
138	14.06.2018 16:23:53	Administr	Administr	Instrument 2	Instrument	Close Instrument	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
139	14.06.2018 15:57:48	Administr	Administr	Instrument 2	Instrument	Open Instrument	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
140	14.06.2018 15:57:45	Administr	Administr	Instrument 2	Instrument	Close Instrument	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
141	14.06.2018 15:56:44	Administr	Administr	Instrument 2	Instrument	Open Instrument	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
142	14.06.2018 15:56:41	Administr	System	Configuration	Configuration	System Configuration dialog has been closed.	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
143	14.06.2018 15:56:41	Administr	System	Configuration	Configuration	Device LC 1100 System Quart. Pump : HP 1100LC 4 added to Instrument 2.	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
144	14.06.2018 15:56:41	Administr	System	Configuration	Configuration	Device LC 1100 System Quart. Pump : HP 1100LC 3 added to Instrument 2.	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
145	14.06.2018 15:56:41	Administr	System	Configuration	Configuration	Device LC 1100 System Quart. Pump : HP 1100LC 2 added to Instrument 2.	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
146	14.06.2018 15:56:41	Administr	System	Configuration	Configuration	Device LC 1100 System Quart. Pump : HP 1100LC 1 added to Instrument 2.	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
147	14.06.2018 15:56:41	Administr	System	Configuration	Configuration	Device LC 1100 System Quart. Pump : HP 1100LC 4 removed from Instrument 2.	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
148	14.06.2018 15:56:41	Administr	System	Configuration	Configuration	Device LC 1100 System Quart. Pump : HP 1100LC 3 removed from Instrument 2.	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
149	14.06.2018 15:56:41	Administr	System	Configuration	Configuration	Device LC 1100 System Quart. Pump : HP 1100LC 2 removed from Instrument 2.	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
150	14.06.2018 15:56:41	Administr	System	Configuration	Configuration	Device LC 1100 System Quart. Pump : HP 1100LC 1 removed from Instrument 2.	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
151	14.06.2018 15:56:41	Administr	System	Configuration	Configuration	Device LC 1100 System AS : Sampler 1 added to Instrument 2.	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
152	14.06.2018 15:56:41	Administr	System	Configuration	Configuration	Device LC 1100 System DAD : Spectral Detector added to Instrument 2.	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
153	14.06.2018 15:56:41	Administr	System	Configuration	Configuration	Device LC 1100 System DAD : Detector 4 added to Instrument 2.	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
154	14.06.2018 15:56:41	Administr	System	Configuration	Configuration	Device LC 1100 System DAD : Detector 3 added to Instrument 2.	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
155	14.06.2018 15:56:41	Administr	System	Configuration	Configuration	Device LC 1100 System DAD : Detector 2 added to Instrument 2.	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
156	14.06.2018 15:56:41	Administr	System	Configuration	Configuration	Device LC 1100 System DAD : Detector 1 added to Instrument 2.	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
157	14.06.2018 15:56:41	Administr	System	Configuration	Configuration	Device LC 1100 System Quart. Pump : HP 1100LC 4 added to Instrument 2.	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
158	14.06.2018 15:56:41	Administr	System	Configuration	Configuration	Device LC 1100 System Quart. Pump : HP 1100LC 3 added to Instrument 2.	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
159	14.06.2018 15:56:41	Administr	System	Configuration	Configuration	Device LC 1100 System Quart. Pump : HP 1100LC 2 added to Instrument 2.	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
160	14.06.2018 15:56:41	Administr	System	Configuration	Configuration	Device LC 1100 System Quart. Pump : HP 1100LC 1 added to Instrument 2.	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
161	14.06.2018 15:56:41	Administr	System	Configuration	Configuration	Control module LC 1100 System added.	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
162	14.06.2018 15:56:41	Administr	System	Configuration	Configuration	Control module LC 1100 System added.	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
163	14.06.2018 15:56:41	Administr	System	Configuration	Configuration	Control module LC 1100 System added.	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
164	14.06.2018 15:54:36	Administr	System	Configuration	Configuration	System Configuration dialog has been opened.	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
165	14.06.2018 15:54:31	System	System	System	System	Command line parameter(s): control_demo_mode, DataApex.ini parameter(s): dump_memory=1 enable_asserts=7	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
166	14.06.2018 15:54:31	System	System	System	System	Start System, Version: 8.0.0.114	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
167	14.06.2018 15:54:13	System	System	System	System	End System	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
168	14.06.2018 15:53:44	System	System	System	System	Command line parameter(s): DataApex.ini parameter(s): dump_memory=1 enable_asserts=7	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
169	14.06.2018 15:53:44	System	System	System	System	Start System, Version: 8.0.0.114	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
170	14.06.2018 15:49:41	System	System	System	System	End System	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888
171	14.06.2018 15:49:40	Administr	Administr	Instrument 1	Instrument	Close Instrument	marekp	MAREXP	Clarity 8.0.0.114 FULL, SN: 088-000888

Session Daily Audit Trail: 2018\_06\_18 Global

For Help, press F1

- ✓ Number of ISTD's increased from 5 to 10
- ✓ Support added to all relevant places



- ✓ Redesigned **MS** search
- ✓ Unified *Search Options* group
  - ✓ Added support to *Search All But Selected* m/z range to omit m/z range from the search

MS Search

Single Compound Search Automatic Compound Search Target Compound Search

Search In Ret. Time [min]: from 4,591  to 5,124

Search Options

Min Match Factor:  (0 .. 1000) Max Hits:

Restrict m/z Range From:  To:

Use Selected m/z m/z 1..4:

Search Only Selected

Search All But Selected

Background Subtraction

Background 1 [min]: from  to

Background 2 [min]: from  to

Search Preview Spectrum in Library

MS Library Search

	Match	R. Match	Prob. [%]	Compound Name	Library	ID	Formula	MW	CAS No.
1 <input checked="" type="checkbox"/>	29	39	2,25	Furo[2,3-b]quinoline, 4,7,8-trimethoxy-	MAINLIB	2237	C <sub>14</sub> H <sub>13</sub> NO <sub>4</sub>	259	83-95-4
2 <input type="checkbox"/>	24	33	1,82	Mercury, diethyl-	MAINLIB	2232	C <sub>4</sub> H <sub>10</sub> Hg	260	627-44-1
3 <input type="checkbox"/>	23	31	1,75	Diisooctyl adipate	MAINLIB	1651	C <sub>22</sub> H <sub>42</sub> O <sub>4</sub>	370	1330-86-5

Add Selected to Method

Rel. Intensity [%]

40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 [m/z]

— 4,591 - 5,124 min (Spectral Data)

— Furo[2,3-b]quinoline, 4,7,8-trimethoxy-

Close Help



- ✓ Single Compound Search
  - ✓ Added support to **subtract background**
  - ✓ Detection of overlaps

MS Search

Single Compound Search Automatic Compound Search Target Compound Search

Search In Ret. Time [min]: from 4,591  to 5,124

Search Options

Min Match Factor:  (0 .. 1000) Max Hits:

Restrict m/z Range From:  To:

Use Selected m/z m/z 1..4:

Search Only Selected  
 Search All But Selected

Background Subtraction

Background 1 [min]: from  to

Background 2 [min]: from  to

⚠ Background overlaps with searched retention time!

MS Library Search

	Match	R. Match	Prob. [%]	Compound Name	Library	ID	Formula	MW	CAS No.
1	<input checked="" type="checkbox"/>	624	624	73,18 Hexanal	Demo_ms	10	C6H12O	100	66-25-1
2	<input type="checkbox"/>	589	589	18,37 3-Pentanone	Demo_ms	14	C5H10O	86	96-22-0
3	<input type="checkbox"/>	529	529	3,26 2-Butanone, 3-methyl-	Demo_ms	15	C5H10O	86	563-80-4

Rel. Intensity [%]

— 4,591 - 5,124 min (Spectral Data)  
— Hexanal

m/z

- ✓ Automatic Compound Search
  - ✓ Checkboxes for easier selection of **multiple** compounds
  - ✓ Improved labels for better understanding

MS Search

Single Compound Search Automatic Compound Search Target Compound Search

Use Signal: TIC m/z: 35

Search In Ret. Time [min]:  Whole Chromatogram from 3 to 14,307

Search Options

Min Match Factor: 500 (0 .. 1000)

Restrict m/z Range From: 40 To: 250

Use Selected m/z m/z 1..4:

Search Only Selected

Search All But Selected

Search

Search in Libraries:

- Demo\_ms
- MAINLIB

MS Library Search

	Chrom. RT	Match	R. Match	Prob. [%]	Compound Name	Library	ID	Formula	MW	CAS No.
1	4,815	747	804	93,05	Methylene Chloride	MAINLIB	775	0 84		75-09-2
2	5,762	696	767	59,77	Pentane, 3-methyl-	MAINLIB	1301	0 86		96-14-0
3	6,845	749	749	86,84	Ethyl Acetate	MAINLIB	2029	0 88		141-78-6
4	7,168	692	755	63,64	Trichloromethane	MAINLIB	726	0 118		67-66-3
5	7,733	806	817	75,05	Benzene	MAINLIB	96	0 78		71-43-2
6	7,857	868	868	80,83	Pentane, 2,2,4-trimethyl-	MAINLIB	1579	0 114		540-84-1

Select/Deselect All

Rel. Intensity [%]

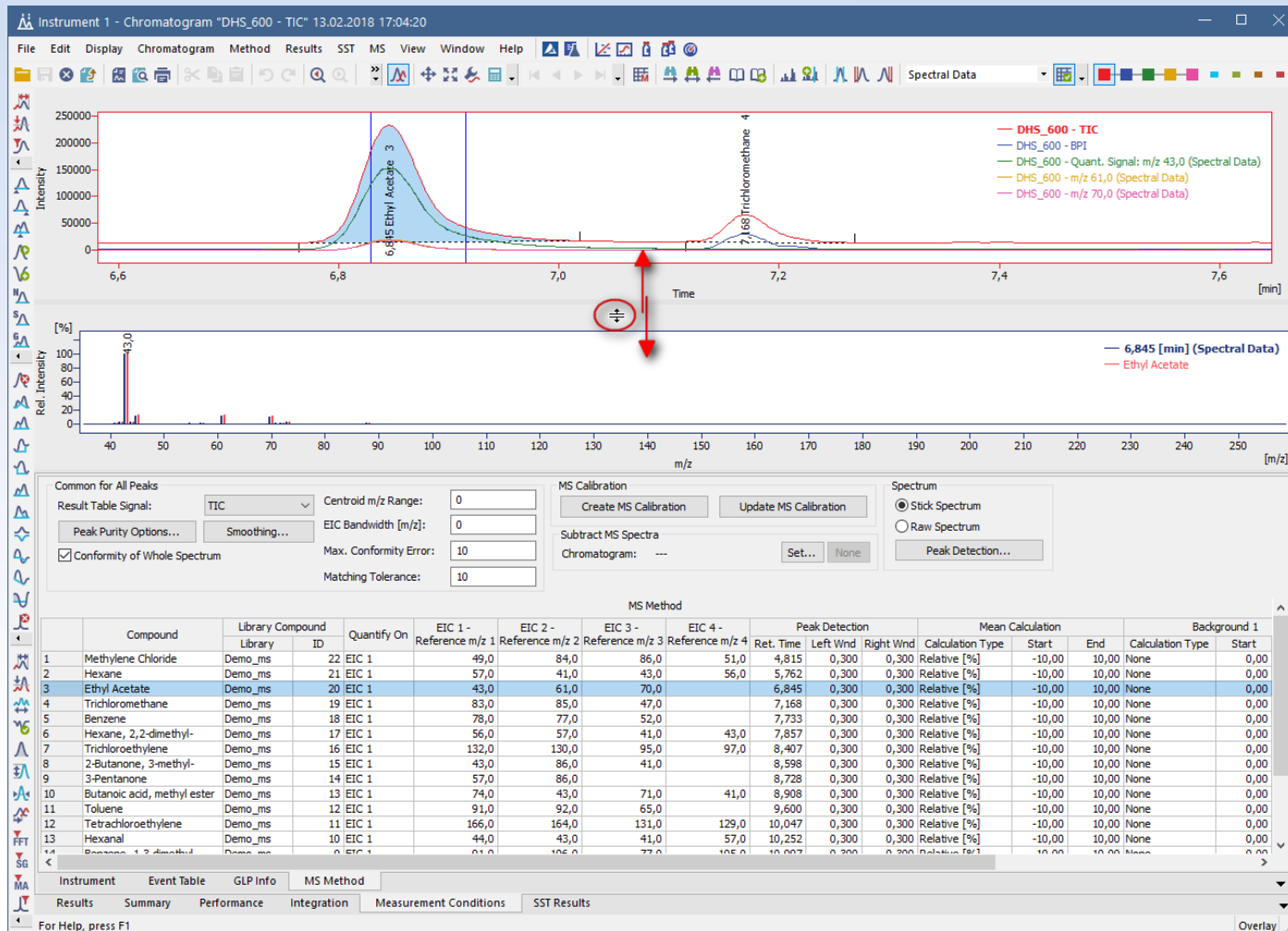
m/z

— 7,733 [min] (Spectral Data)

— Benzene

Close Help

- ✓ Chromatogram graph and spectrum graph can now be **resized independently**

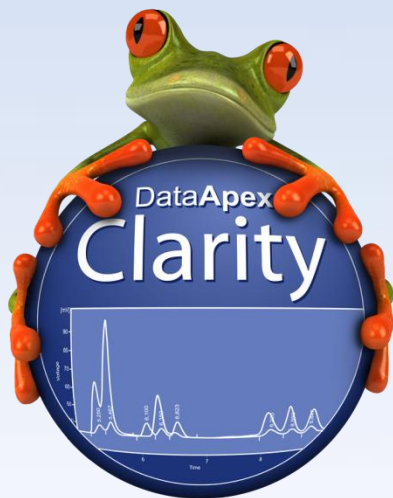


- ✓ **CTC** – CTC PAL3 System
- ✓ **YL Instruments** – ChroZen UHPLC System
- ✓ **CoruiTech** – RainbowC HPLC and Rainbow HPLC

... and many other control modules have been updated



Download **Clarity 8.0** directly from your station or from our website



More information about Clarity and DataApex at:

[www.dataapex.com](http://www.dataapex.com)

For technical support contact us at:

[support@dataapex.com](mailto:support@dataapex.com)

