



Clarity™

ADVANCED CHROMATOGRAPHY SOFTWARE

CLARITY 10.1

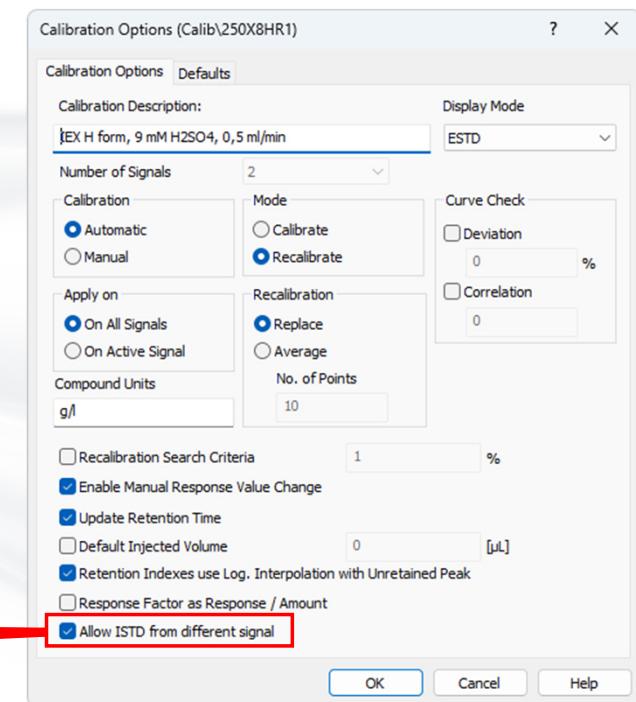
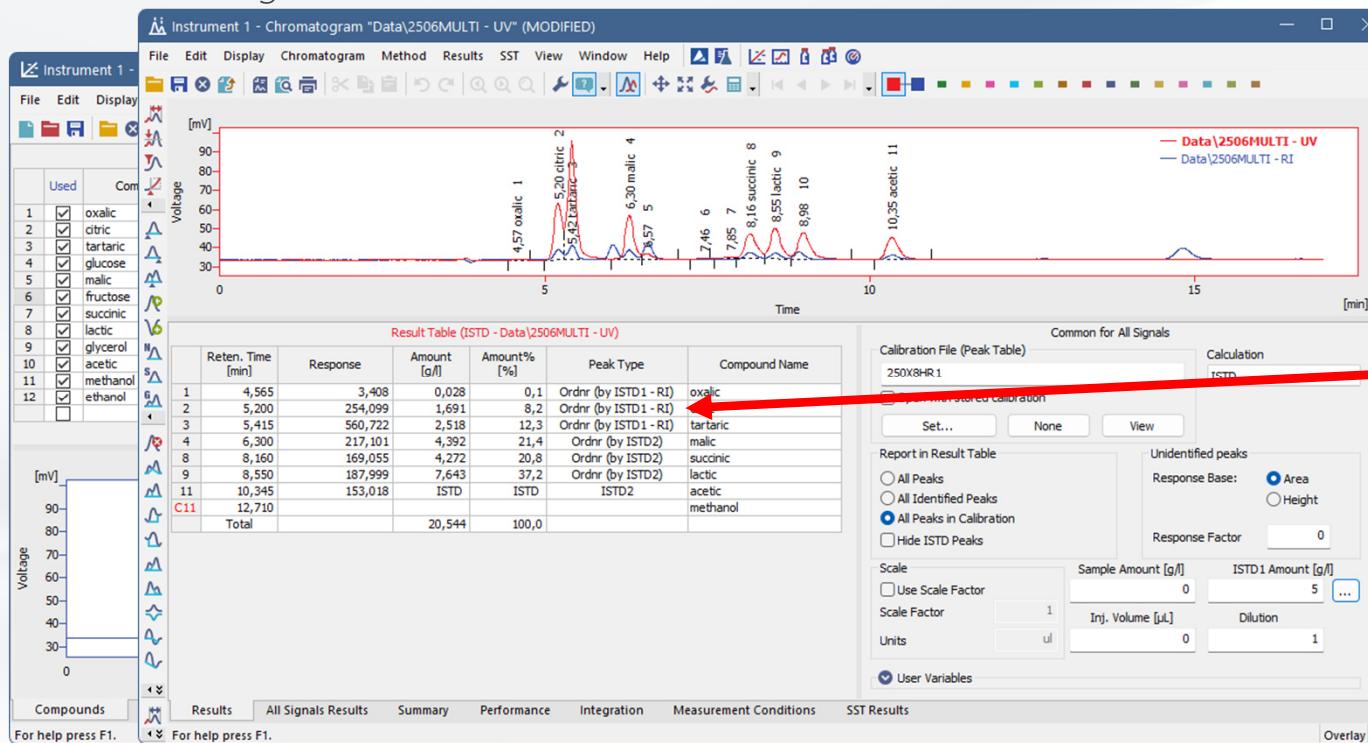
WHAT'S NEW

WHAT IS NEW IN CLARITY 10.1

- Use of ISTD from a different signal
- Determination Coefficient (R^2) for calibration
- Signature handling improvements
- Run IQ directly from the main window
- New and updated control modules

ISTD FROM A DIFFERENT SIGNAL

- New Calibration Option allow using ISTD peaks from other signals.
- This enables flexibility in applications like ICP-MS.
- Result Table and Calibration Summary Table show signal-specific ISTD usage.

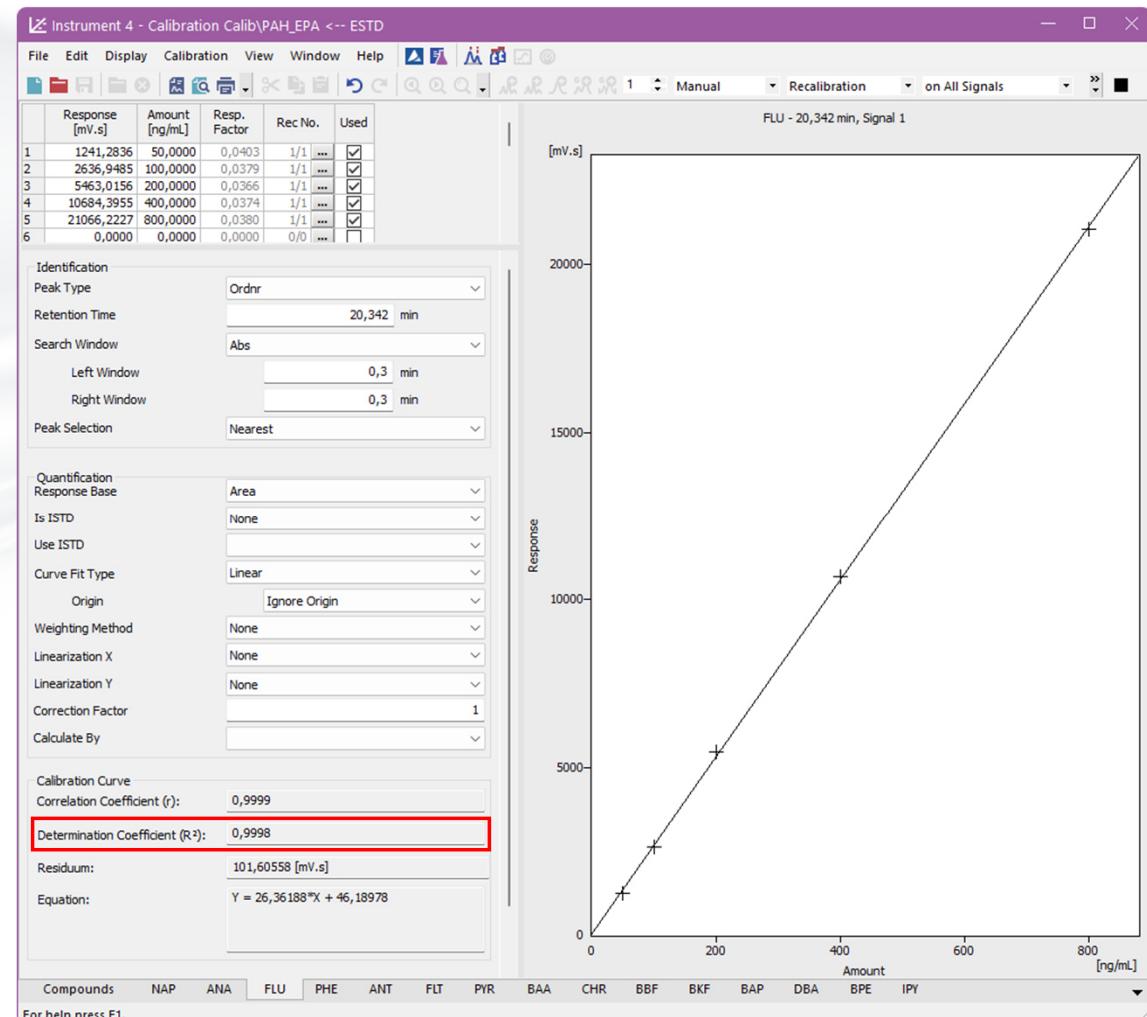


DETERMINATION COEFFICIENT (R^2)

- New coefficient describes how well the calibration curve fits.
- Complements correlation coefficient for clearer data interpretation.
- Helpful for validation and method development.

$$R^2 = 1 - \frac{\sum(x_i - y_i)^2}{\sum(x_i - X)^2}$$

- x_i - The actual (measured) response at level i.
- y_i - The calculated (predicted) response at level i.
- X - The mean of all actual responses (including the zero point if Compute with Origin or Curve passes through Origin is selected).



CALIBRATION WARNINGS AND BLANK HANDLING

More detailed warning messages in Calibration Summary and Result Table.

- If all warning messages don't fit above the table, they can be viewed in a tooltip.

Instrument 1 - Calibration Calib\250X8HR1 <-- ISTD (MODIFIED)

File Edit Display Calibration View Window Help

Calibration Summary Table (ISTD - Calib\250X8HR1 - Signal 1)
Mismatched Amounts of used ISTD Peaks in Calibration, fill all or none.
Compound lactic is enabled on signal 1 and uses ISTD 3 which is disabled there.

Used	Compound Name	Reten. Time	Left Window	Right Window	Peak Type	Named Groups	Is ISTD	Use ISTD	Peak Color	LOD	LOQ	Response	Manual Resp. Factor	Level 1			
														Response	Amount	Resp. Fact	Rec No.
1	✓ oxalic	4,561	0,100 min	0,100 min	Ordn		None	glucose - Signal 2		0,000	0,000 A	0,000	3,6130	0,101	0,0280	1/1 ...	
2	✓ citric	5,203	0,100 min	0,100 min	Ordn		None	glucose - Signal 2		0,000	0,000 A	0,000	36,2510	0,210	0,0058	1/1 ...	
3	✓ tartaric	5,423	0,100 min	0,100 min	Ordn		None	glucose - Signal 2		0,000	0,000 A	0,000	98,5410	0,441	0,0045	1/1 ...	
4	✓ glucose	6,053	0,100 min	0,100 min	Ordn		ISTD1	—		0,000	0,000 A	0,000	0,000	5,000	0,0000	1/1 ...	
5	✓ malic	6,303	0,100 min	0,100 min	Ordn		None	acetic		0,000	0,000 A	0,000	217,4548	1,003	0,0046	1/1 ...	
6	✓ fructose	6,577	0,100 min	0,100 min	Ordn		None	glucose - Signal 2		0,000	0,000 A	0,000	0,000	0,600	0,0000	1/1 ...	
7	✓ succinic	8,177	0,100 min	0,100 min	Ordn		None	acetic		0,000	0,000 A	0,000	31,5600	0,239	0,0076	1/1 ...	
8	✓ lactic	8,550	0,100 min	0,100 min	Ordn		None	glycerol		0,000	0,000 A	0,000	51,3650	0,600	0,0117	1/1 ...	
9	✓ glycerol	8,900	0,100 min	0,060 min	Ordn		ISTD3	—		0,000	0,000 A	0,000	0,0000	0,000	0,0000	1/1 ...	
10	✓ acetic	10,337	0,100 min	0,100 min	Ordn		ISTD2	—		0,000	0,000 A	0,000	24,9850	0,202	0,0081	1/1 ...	
11	✓ methanol	12,710	0,100 min	0,100 min	Ordn		None	acetic		0,000	0,000 A	0,000	0,0000	0,104	0,0000	1/1 ...	
12	✓ ethanol	14,833	0,100 min	0,100 min	Ordn		None	acetic		0,000	0,000 A	0,000	0,0000	10,847	0,0000	1/1 ...	

Result Table (Uncal - Data\2506MULTI - UV)
!!! No valid level in ISTD3 compound !!!
!!! Calibration curve could not be constructed for multiple compounds !!!...

Reten. Time [min]	Compound Name
4,565	oxalic
5,200	citric
5,415	tartaric
6,300	malic
8,160	succinic
8,550	lactic
10,345	acetic
12,710	methanol
Total	

CALIBRATION WARNINGS AND BLANK HANDLING

▪ Blanks ignored with "Compute with Origin" or "Curve passes through Origin" options.

Instrument 4 - Calibration Calib\PAH_EPA <- ESTD (MODIFIED)

File Edit Display Calibration View Window Help

Calibration Summary Table (ESTD - Calib\PAH_EPA - Signal 1)

Blank for compound FLU will not be applied since "Ignore Origin" is not selected.

Used	Compound Name	Reten. Time	Left Window	Right Window	Peak Type	Is ISTD	LOD	LOQ	Level 1			Rec
									Response [mV.s]	Amount [ng/mL]	Resp. Factor	
1	<input checked="" type="checkbox"/> NAP	14,955	0,300 min	0,200 min	Ordnr	None	0,000	0,000	A	1667,879	50,000	0,0300
2	<input checked="" type="checkbox"/> ANA	19,778	0,300 min	0,300 min	Ordnr	None	0,000	0,000	A	433,4798	50,000	0,1153
3	<input checked="" type="checkbox"/> FLU	20,342	0,300 min	0,300 min	Ordnr	None	0,000	0,000	A	1241,283	50,000	0,0403
4	<input checked="" type="checkbox"/> PHE	22,230	0,300 min	0,300 min	Ordnr	None	0,000	0,000	A	589,1113	50,000	0,0849
5	<input checked="" type="checkbox"/> ANT	24,012	0,350 min	0,350 min	Ordnr	None	0,000	0,000	A	2260,720	50,000	0,0221
									BL	500,000	Blank	
										0,0000	1/1	<input checked="" type="checkbox"/>

Instrument 4 - Calibration Calib\PAH_EPA <- ESTD (MODIFIED)

File Edit Display Calibration View Window Help

Calibration

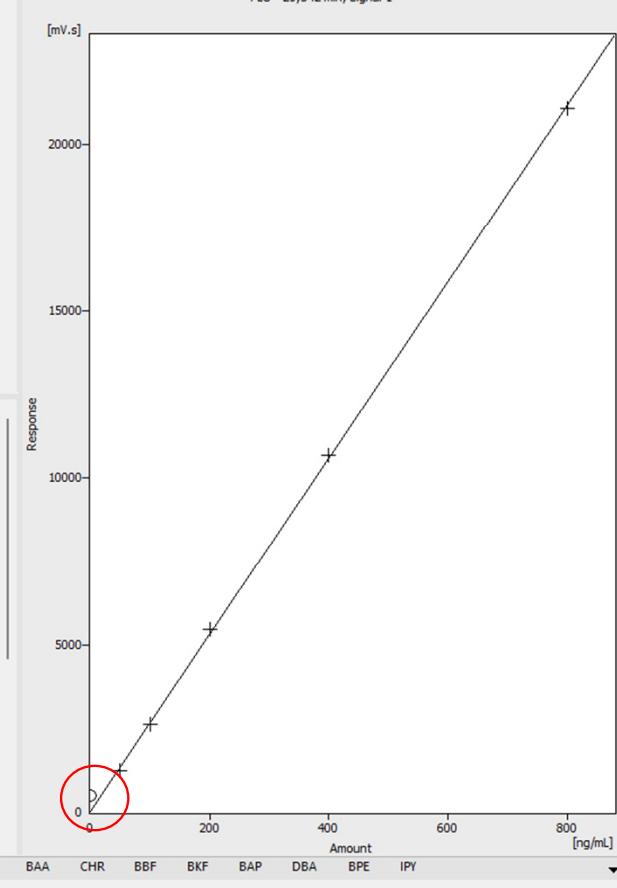
Recalibration

1 Manual

Recalibration

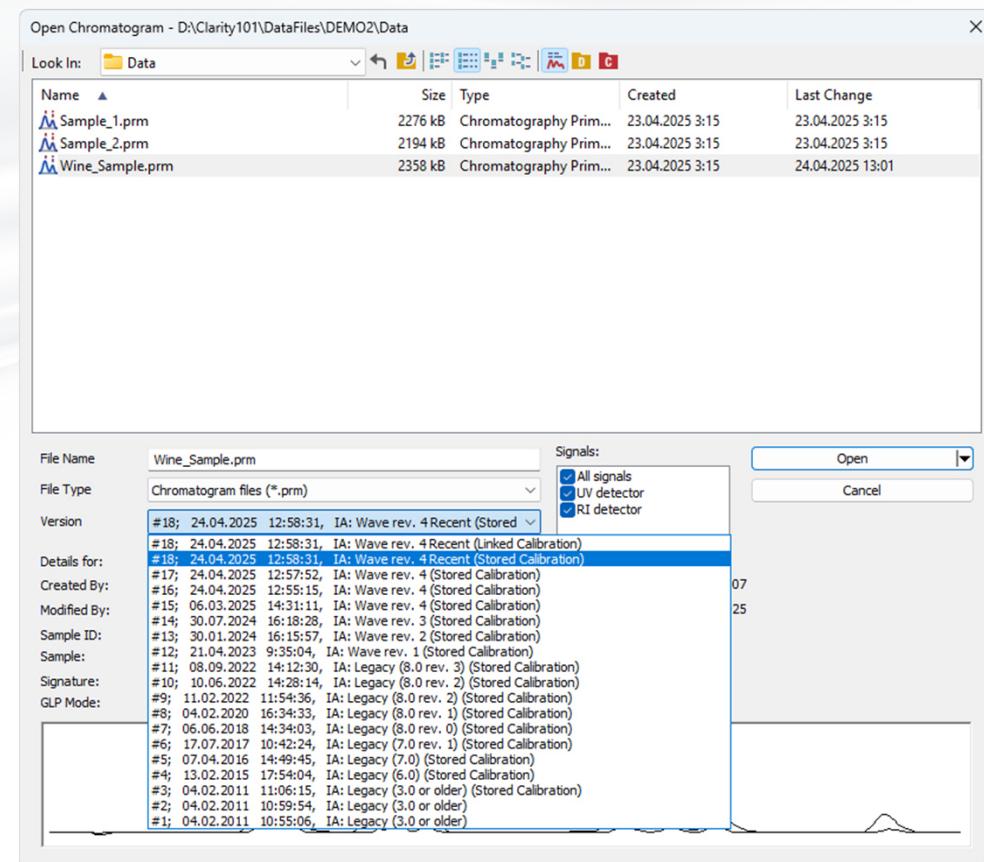
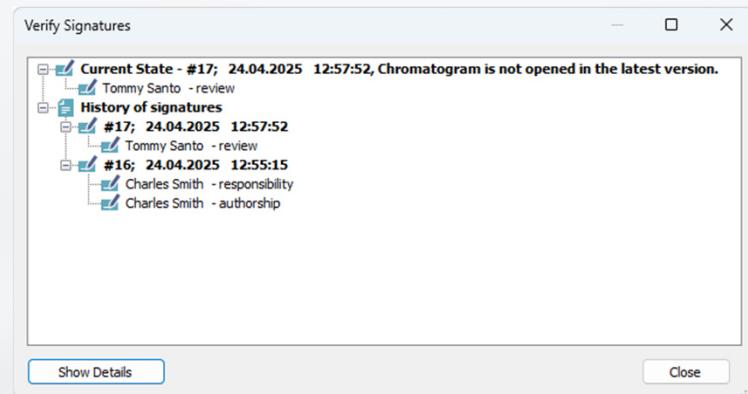
R

Calibration



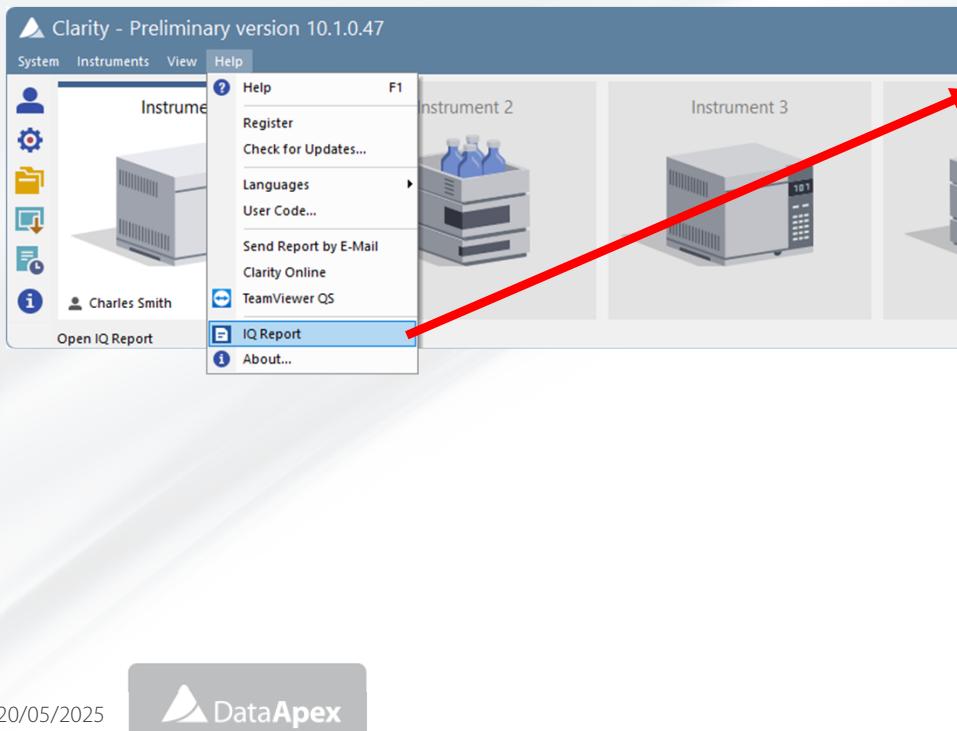
SIGNATURE IMPROVEMENTS

- Chromatograms with linked calibration always open as "Not Signed".
- After signing, default open mode is "Stored Calibration".
- Historical versions reflect correct signature states.



IQ FROM MAIN WINDOW

- IQ can now be launched directly from Help menu in Clarity main window.
- Simplifies qualification and ensures proper setup after first run.
- IQ link removed from installer to improve reliability.



Installation Qualification Report												
Serial number of application												
User Code												
Version of application	Clarity version 10.1.0.47											
Build date of application	23.04.2025, 02:03											
Instruments	4											
Extensions	SST; GPC; PDA; EA; CE; MS; NGA; DHA; GCxGC; MS-TOF; MS-MS											
Controls	GC; LC; AS											
Certification file	D:\Clarity101\Bin\iq.chk											
Checksum of cert. file	2C8A0304C2238A63											
Date of cert. file	23.04.2025, 03:32											
User												
System	Microsoft Windows 11 Professional version 10.0 (Build 28100)											
Acquisition and hardware devices	Key Rockey 4ND Key Rockey 4ND Colbrick											
Core Files, Embedded Components: Passed												
Files												
Hide files list «												
File	Path	Version	Size	File date	Status							
advantechf122scfc.rb	d:\clarity101\bin\utils\uni_drivers\advantec	-	37892	23.04.2025, 01:53	Passed							
advioncms.dll	d:\clarity101\bin	6.9.44.1	525824	23.04.2025, 03:15	Passed							
advioncommon.dll	d:\clarity101\bin	6.9.44.1	28672	23.04.2025, 03:15	Passed							
AdionData.dll	D:\Clarity101\Bin	6.9.44.1	315904	23.04.2025, 03:15	Passed							
AdionObjects.dll	D:\Clarity101\Bin	6.9.44.1	1119744	23.04.2025, 03:15	Passed							
apix_sdi.dll	d:\clarity101\bin\apix\chrompix2	2.8.0.1538	3526656	23.04.2025, 03:15	Passed							
as500pump.rb	d:\clarity101\bin\utils\uni_drivers\asi	-	46535	23.04.2025, 01:53	Passed							
beep.exe	d:\clarity101\bin\utils	-	37376	23.04.2025, 01:58	Passed							
chromophor2010pump.rb	d:\clarity101\bin\utils\uni_drivers\chromophor	-	42382	23.04.2025, 01:53	Passed							
clicrococloiven.rb	d:\clarity101\bin\utils\uni_drivers\cluzeau	-	36431	23.04.2025, 01:53	Passed							
cilecko2000iven.rb	d:\clarity101\bin\utils\uni_drivers\cluzeau	-	36678	23.04.2025, 01:53	Passed							
ciligloocloiven.rb	d:\clarity101\bin\utils\uni_drivers\cluzeau	-	36408	23.04.2025, 01:53	Passed							
clarity.exe	d:\clarity101\bin	10.1.0.47	30170112	23.04.2025, 02:03	Passed							
cmail.exe	d:\clarity101\bin	1.0.0.1	40960	23.04.2025, 03:15	Passed							
cmu4.btl	d:\clarity101\bin	-	12869	23.04.2025, 03:15	Passed							
columnusagemonitor.rb	d:\clarity101\bin\utils\uni_drivers	-	49566	23.04.2025, 01:53	Passed							
commandline.dll	d:\clarity101\bin\package\manager	2.6.0.0	199660	31.07.2019, 20:24	Passed							
copyfiles.exe	d:\clarity101\bin\utils	-	127468	23.04.2025, 03:15	Passed							
csvhelper.dll	d:\clarity101\bin\package\manager	12.2.2.0	147968	12.20.2019, 16:25	Passed							
CswAdionMS.dll	D:\Clarity101\Bin	10.1.0.47	1274368	23.04.2025, 02:17	Passed							
CswAgilent1200.dll	D:\Clarity101\Bin	10.1.0.47	1708032	23.04.2025, 01:58	Passed							
CswAgilentGC7890.dll	D:\Clarity101\Bin	10.1.0.47	2286672	23.04.2025, 01:58	Passed							
cswaliases.bin	d:\clarity101\bin	-	374881	23.04.2025, 02:25	Passed							
CswAlttech3300.dll	D:\Clarity101\Bin	10.1.0.47	969216	23.04.2025, 02:15	Passed							
CswAlttestAnalyzer.dll	D:\Clarity101\Bin	1.1.2.0	1953280	23.04.2025, 03:15	Passed							
CswAnalytikJenaPlasmaQuantICPMS.dll	D:\Clarity101\Bin	1.0.0.57	902656	23.04.2025, 03:15	Passed							
CswAntecLeydenDecadel.dll	D:\Clarity101\Bin	10.1.0.47	812032	23.04.2025, 01:58	Passed							
CswAntecLeydenElite.dll	D:\Clarity101\Bin	10.1.0.47	1371648	23.04.2025, 02:18	Passed							

NEW AND UPDATED CONTROL MODULES

- New Axcend FocusArray and updated Axcend Focus LC
- New Ecom ECLM2000, FRC ECVA2000 and LED20
- New Testa Analytical Flowmeter
- Updated Agilent ICF
- Updated Sykam S1130, S4120, S5300 and S6510
- Updated Young In Chromass ChroZen Pump and GC
- ... and more

For a complete list of changes, see **What's New** in the Help - About... menu of the Clarity main window.



Clarity™

ADVANCED CHROMATOGRAPHY SOFTWARE

... THANK YOU FOR YOUR INTEREST IN CLARITY