DataApex

Clarity™

CHROMATOGRAPHY SOFTWARE

8.8 VS 8.7

Clarity (Lite)   ENG

Sections of the manual connected only to the **Clarity Full** version are marked with the ✓Full version icon.

Contents

To facilitate the orientation in the **8.8 vs 8.7** manual and **Clarity** chromatography station, different fonts are used throughout the manual. Meanings of these fonts are:

Instrument (blue text) marks the name of the window to which the text refers.

Open File (italics) describes the commands and names of fields in **Clarity**, parameters that can be entered into them or a window or dialog name (when you already are in the topic describing the window).

WORK1 (capitals) indicates the name of the file and/or directory.

ACTIVE (capital italics) marks the state of the station or its part.

The bold text is sometimes also used for important parts of the text and the name of the **Clarity** station. Moreover, some sections are written in format other than normal text. These sections are formatted as follows:

Note: Notifies the reader of relevant information.

Caution: Warns the user of possibly dangerous or very important information.

▌**Marks the problem statement or trouble question.**

Description: Presents more detailed information on the problem, describes its causes, etc.

Solution: Marks the response to the question, presents a procedure how to remove it.

1 Preamble

This document will guide you through the news and improvements in the **Clarity** Chromatography Station version **8.8** compared to version **8.7**.

The most interesting features of version 8.8 include:

- Calibration – new function "Filter Not Used Compounds"
- Export Data – new export to text file with .csv suffix
- Colibrick – new option to offset data
- Colibrick, U-PAD2 and Zebrick – now use WinUSB driver from Microsoft
- UNI-Ruby control modules - support User Units settings
- Current units - new "nA" unit available
- Integration - Integration Algorithm updated to version 8.0 Rev.3.
- Chromatogram File Open dialog – new dynamic label on Open button indicating use of Overlay
- Chromatogram - new columns "Start Value (Signal)" and "End Value (Signal)" for Peak to Valey Ratio calculation available
- PDA Extension – new improved method of rescaling available for Peak Purity calculation
- New and updated control modules

The list of all changes is available in the What's New document accessible from the software.

2 Clarity

2.1 Filter Not Used Compounds

A new *Filter Not Used Compounds* functionality has been added to the Calibration Window . The function eases the work with multisignal chromatograms and calibrations in situations where compounds are only relevant to a particular signal (e.g. in speciation). It is accessible through the Calibration menu (ⓐ), the icon on Toolbar (ⓑ , or from local menu of the Calibration Summary table.
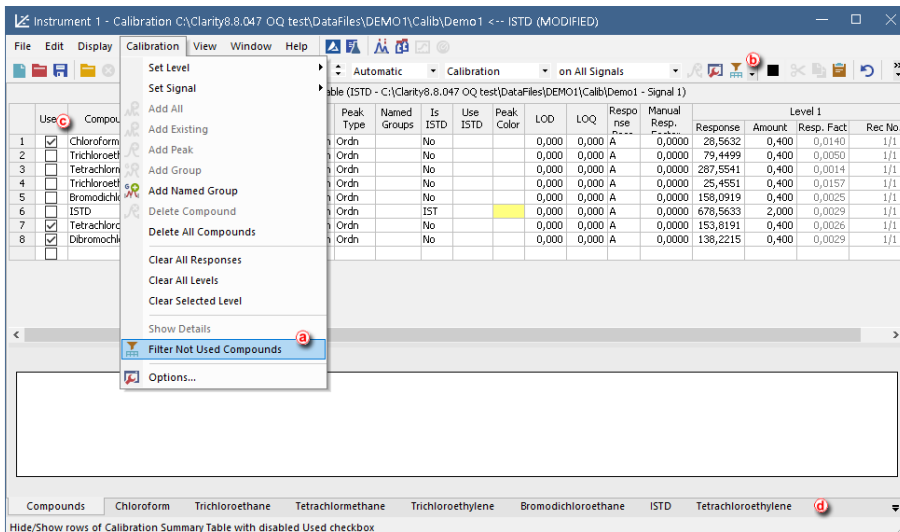

Fig 1: Filter Not Used Compounds

It allows to hide rows of Calibration Summary Table with disabled *Used* check-box (ⓒ) on the selected signal. Corresponding Compound tabs (ⓓ) are then also hidden.

The *Filter Not Used Compounds* helps to make the Calibration Summary Table clear and easy to read or present. Using of the filter is indicated in the Calibration Summary Table header (ⓔ) . Rows can be easily restored by pressing *Show all* button (ⓕ)

Fig 2: Filter Not Used Compounds indication

This function can be used also in the regulated environment, information about using the *Filter Not Used Compounds* is saved in *.dsk file and reported in the Print Report.

2.2 Export Data to *.csv

Since Clarity 8.8 it is possible to Export data to text file with .csv suffix. The data format corresponds to the settings in the Export Data dialog. The delimiters must be set by the user accordingly.
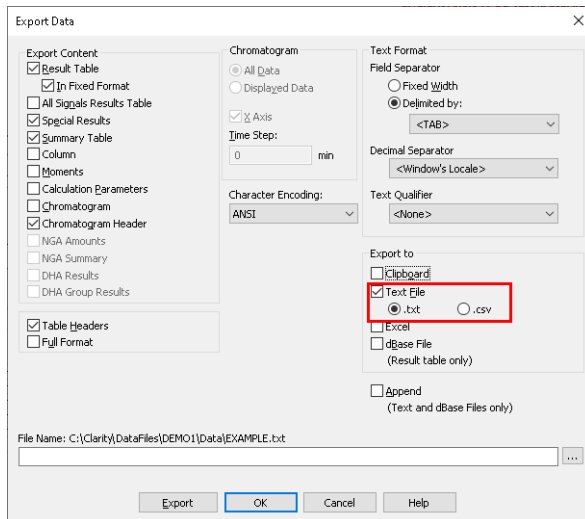
*Fig 3: Export Data to *.csv file*

2.3 Offset data in Colibrick

A new option to *Offset* ⓐ data has been added into Colibrick's Setup dialog. It allows to set zero signal different than 0 V. It describes what value should be deducted from the measured value to receive the real value. In other words, this value becomes the "new" zero.

The value itself can be changed in Set Units… dialog ⓑ . Default is 0 V.
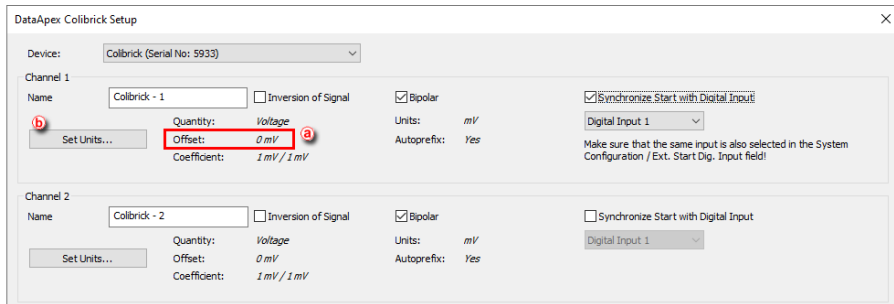
Fig 4: Colibrick Offset settings
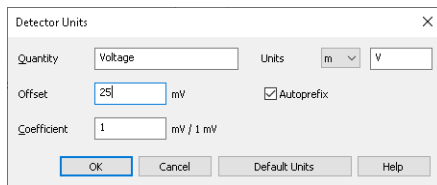
Fig 5: Detector Units

2.4 WinUSB driver

Since Clarity 8.8 our A/D and D/A converters (Colibrick, U-PAD2, Zebrick) use WinUSB driver from Microsoft instead of the driver from Silicon Laboratories Inc. It solves several minor issues with stability.

2.5 UNI-Ruby User Units

Control modules written in UNI-Ruby now support User Units setting as defined by the user.

2.6 New "nA" unit

Current units can be now displayed in nanoampers using the "nA". Current units can be set in Units Setup located in the System Configuration window.
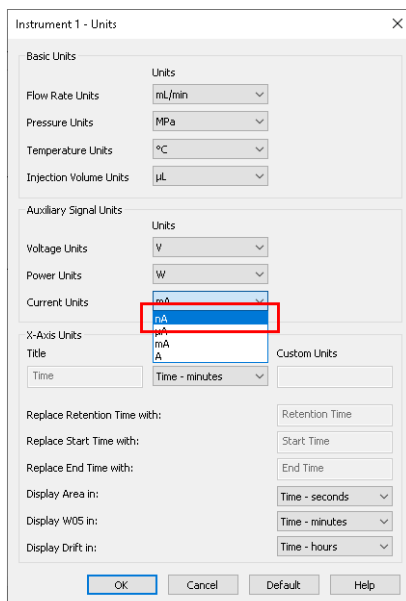
Fig 6: Current Unit "nA"

2.7 Dynamic Open chromatogram button

A new dynamic label has been added on *Open* button of Chromatogram file open dialog to easily indicate whether *Overlay mode* is on or off.
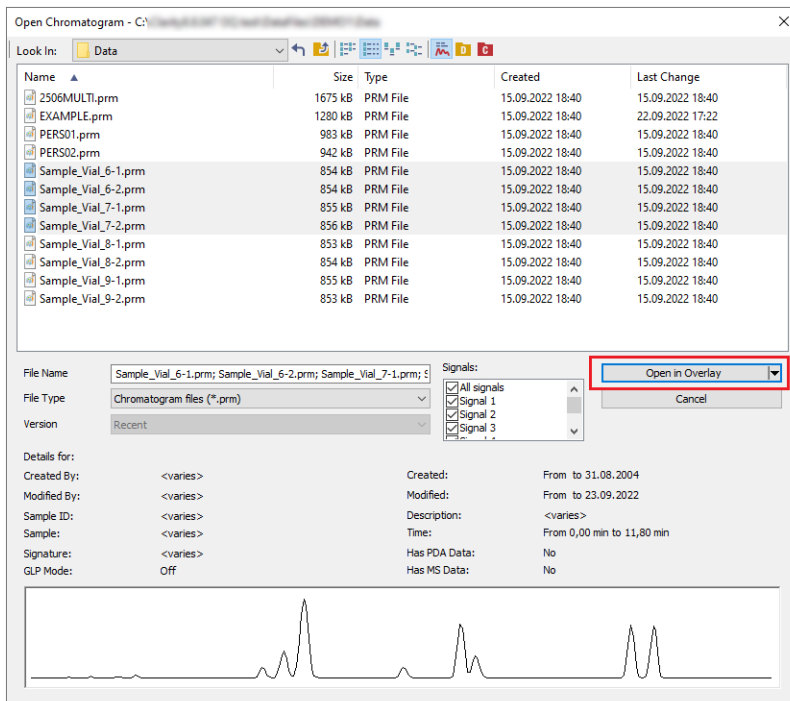
Fig 7: Open in Overlay label

Overlay mode indication has been also improved in File menu of Chromatogram Window.
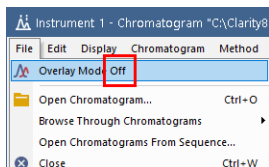
Fig 8: File menu Overlay indication

2.8 Start and End Value (Signal)

In Clarity 8.8 there are new columns "Start Value (Signal)" and "End Value (Signal)" present in the Result Tables. They are useful for calculating Peak to Valley Ratio. By default these columns are hidden.
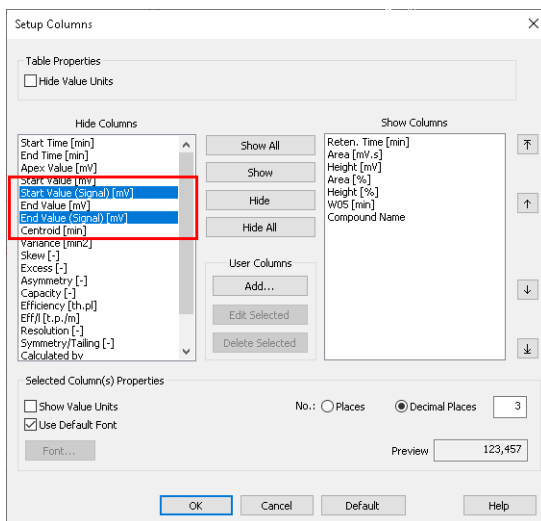
Fig 9: Start Value (Signal) and End Value (Signal)

To calculate Peak to Valley Ratio a new User Column has to be added into the Result table.
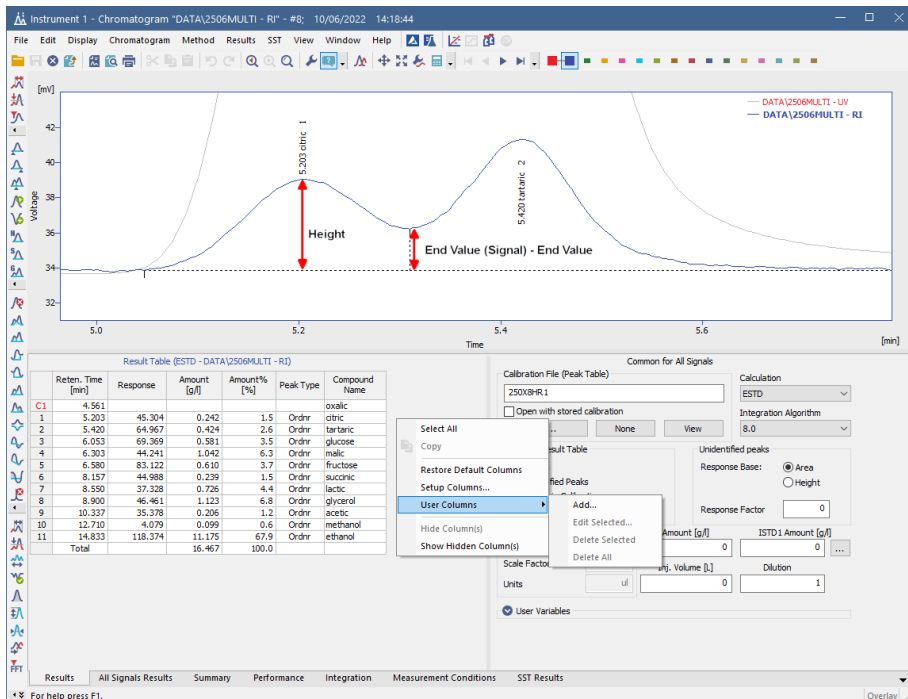
Fig 10: Add User Column

The Expression is set as following:
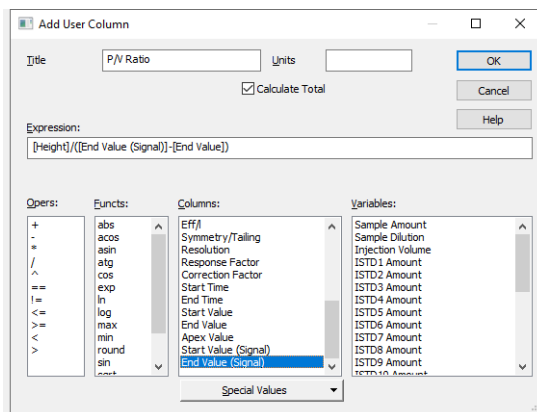
Fig 11: Peak to Valley Ratio calculation

Note: Value is only valid for peaks, where signal in the peak end is not on the baseline.

2.9 PDA correlation

The Pearson correlation coefficient (noted as Correlation in Clarity), that is always used for *Peak Purity* and can be used for *Match Factor* calculations, now uses an improved method of rescaling to the resulting 0-1000 interval.

3 New and updated control modules ☑Full version

This section contains new and updated control modules introduced in Clarity **8.7.1** and **8.8**.
The control modules in:
- Testing state are already functional and their development is in the stage of external testing.
- Ready state have been already tested and verified.

3.1 Clarity 8.7.01

3.1.1 Analytik Jena

New:

- Analytik Jena PQ LC PDA Detector control module is now in the Testing state.

3.1.2 Bischoff

New:

- Bischoff 2250 pump - Older versions of pump firmware can now be connected.

3.1.3 Chromophor

New:

- Chromophor PDA Detector control module is now in the Testing state.

3.1.4 CQS

New:

- CQS Climax S 3345 and S 3350 PDA Detectors control module are now in the Testing state.

3.1.5 Dionamix

Updated:

- Dionamix L-3320 control module updated to version 2.0.0.7 (previously developed by Rigol).

3.1.6 ECOM

New:

- Ecom ECV2010 control module is now available in the Ready state.

3.1.7 HTA

New:
- HTA 3000A, 3100A, and 3200A control modules are now available in the Ready state.

3.1.8 Knauer

New:
- Knauer P8.1L pump control module is now in the Testing state.

Updated:
- Knauer HPLC driver control module updated to version 8.5.0.6076.

3.1.9 Konik

New:
- Konik 580 ELSD and 580 PDA control modules are now available in the Ready state.

3.1.10 RotaChrom

New:
- RotaChrom rCPC control module is now in the Testing state.

3.1.11 Schambeck

New:
- Schambeck S 4345 and S 4350 control modules are now in the Testing state.

3.1.12 Sykam

New:
- Sykam S3345 and S3350 control modules are now in the Testing state.

Updated:
- Sykam S1130 control module updated to version 2.0.1.32.

3.1.13 Watrex

New:
- Watrex Streamline PDA control module is now in the Testing state.

3.1.14 Young In Chromass

New:
- Young In Chromass ChroZen3000A, ChroZen3100A and ChroZen3200A control modules are now available in the Ready state.

Updated:
- Young In Chromass YCChroZenAS control module updated to version 1.0.0.13.
- Young In Chromass YCChroZenColumn control module updated to version 1.0.0.9.
- Young In Chromass YCChroZenGC control module updated to version 1.0.1.27.
- Young In Chromass YCChroZenGCMS control module updated to version 1.0.1.13.
- Young In Chromass YCChroZenPump control module updated to version 1.0.0.16.
- Young In Chromass YCChroZenUVD control module updated to version 1.0.0.17.
- Young In Chromass YL9120 control module updated to version 4.0.4.25.
- Young In Chromass YL9130 control module updated to version 4.0.2.22.

3.2 Clarity 8.8

3.2.1 Agilent

Updated:
- Agilent ICF control module updated to version A.03.02.

3.2.2 Apix

Updated:
- Apix ChromPix2 control module updated to version 2.7.0.545.

3.2.3 Axcend

New:
- Axcend Focus LC control module is now in the Testing state.

3.2.4 CMP Scientific

New:
- ECE-001 control module is now in the Testing state.

3.2.5 Recipe

New:
- Recipe EC6000 control module is now available in the Ready state.

3.2.6 Sykam

Updated:
- Sykam S150 control module updated to version 3.0.0.7.

3.2.7 Vici Valco

Updated:
- Vici Valco TCD3 control module updated to version 1.0.0.12.
- Vici Valco FTP200 control module updated to version 1.2.0.6.

3.2.8 Young In Chromass

New:
- Young In Chromass ChroZen HPLC RID-E control module is now available in the Ready state.

Updated:
- Young In Chromass YL9110 Pump control module updated to version 4.0.4.18.