

23.0331



Clarity™

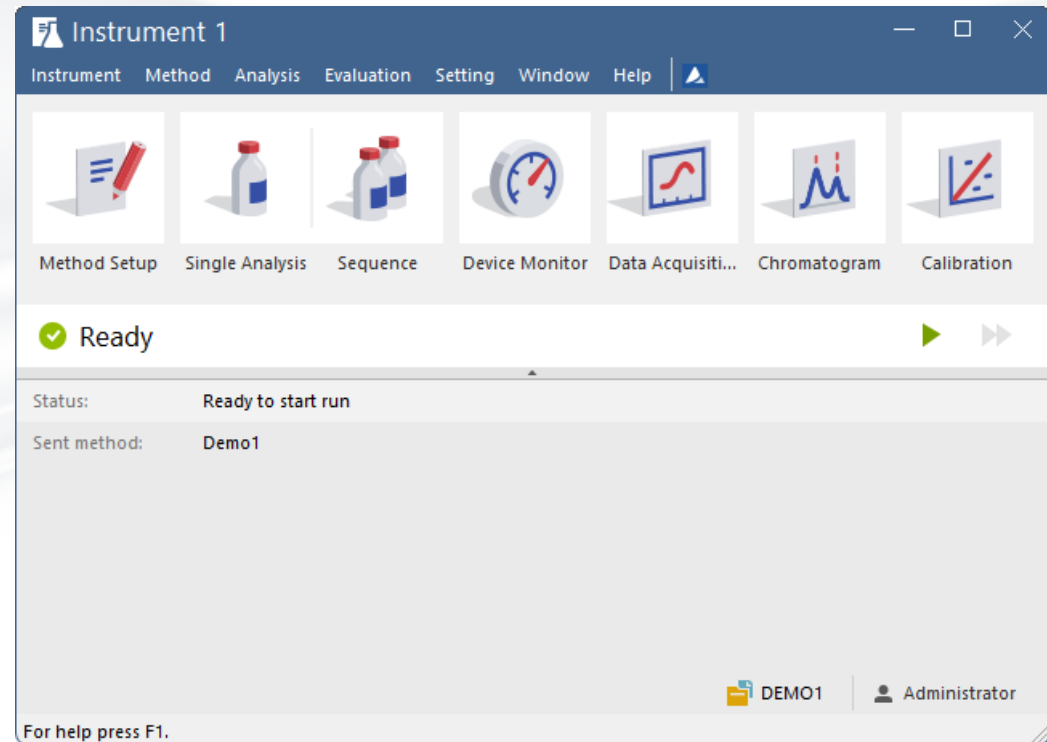
ADVANCED CHROMATOGRAPHY SOFTWARE

# CLARITY TRAINING

ADVANCED – PART 3

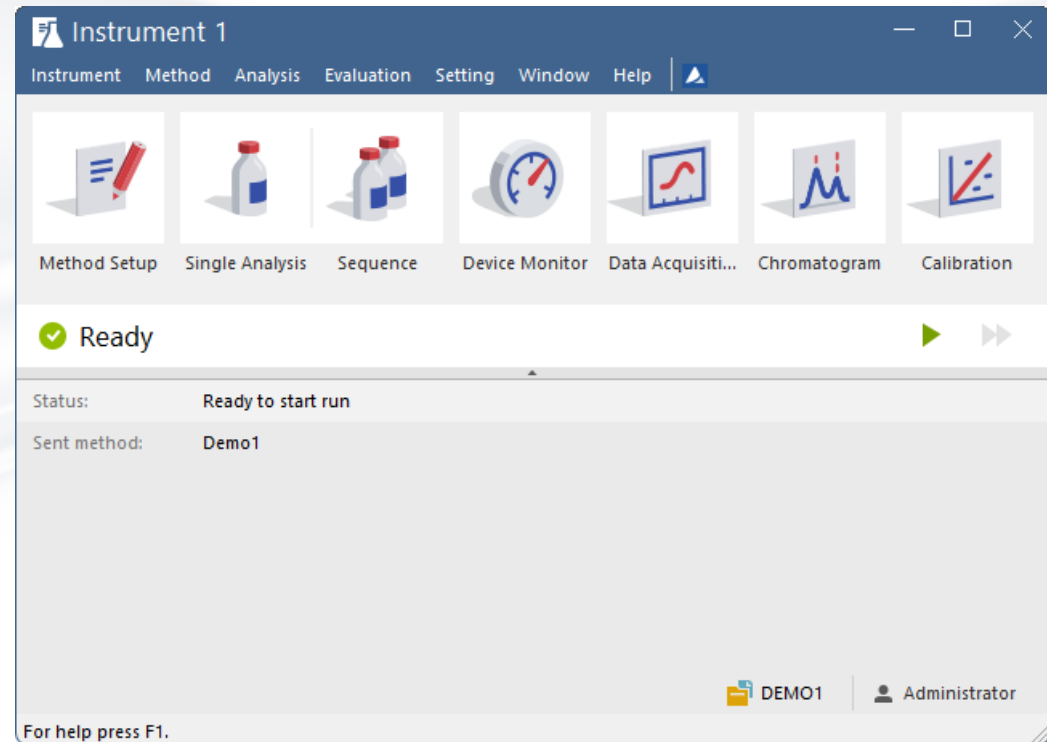
# AGENDA

- > Batch processing
- > Report Setup
  - Lab. header
  - Tiled signals
  - Order of sections
- > Export data
  - Available options
- > Archive & Backup
- > Tips & Tricks
  - Customization
  - Post-run options
  - Command Lock
  - Shortcuts



# AGENDA

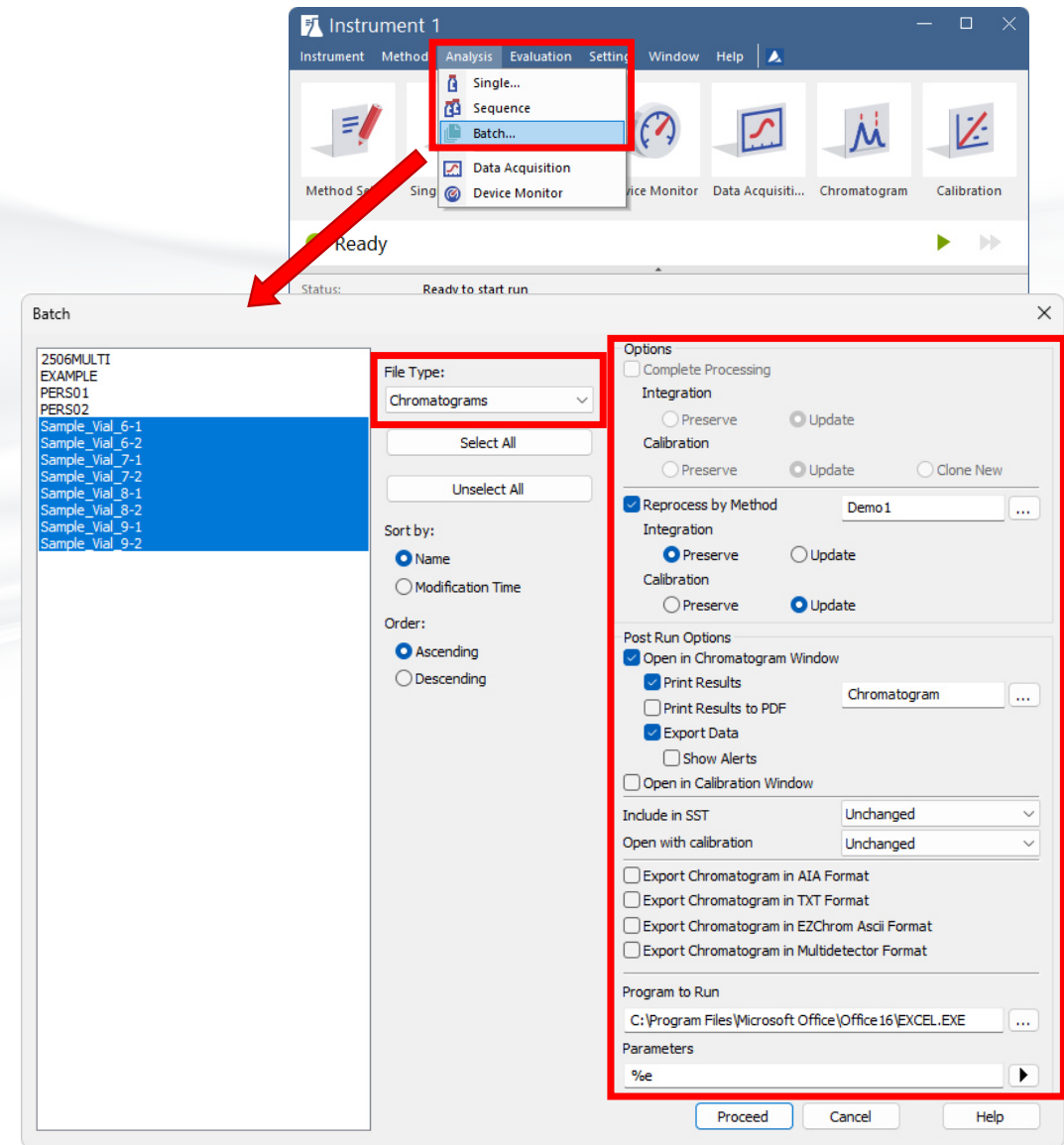
- > Batch processing
- > Report Setup
  - Lab. header
  - Tiled signals
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  - Command Lock
  - Shortcuts



# BATCH PROCESSING

## BATCH

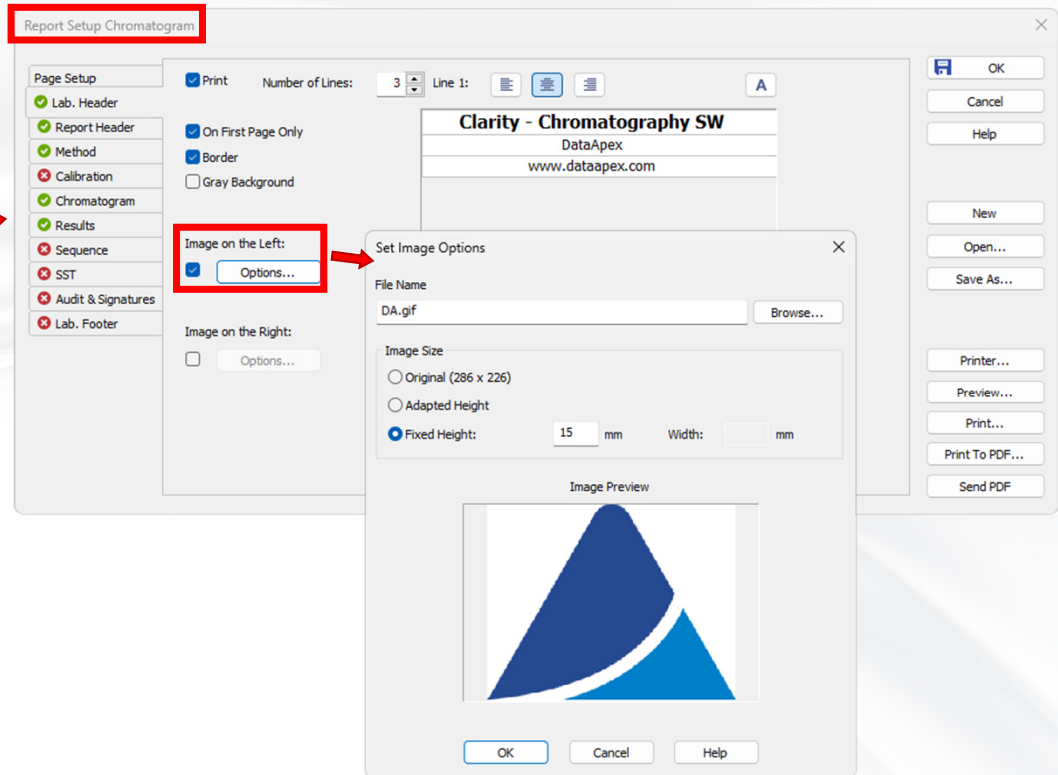
- File Types available for Batch: Chromatograms, Calibration Standards, Sequence Files
- **Reprocessing** chromatograms by selected method
- **Complete processing** of whole sequences
- Subsequent **printing** of results using a defined Report Style
- Opening via a program of choice or further processing of the exported data



# REPORT SETUP

## LAB. HEADER

- Window header contains the name of the current report style (depending on the window it was opened from)
- Tabs which are to be printed are marked by a tick
- Custom image/logo can be set in the Lab. Header of the report



# REPORT SETUP

## TILED SIGNALS

- Chromatogram – Tiled by

Report Setup Chromatogram

Page Setup

- ✓ Lab. Header
- ✓ Report Header
- ✓ Method
- ✗ Calibration
- ✓ Chromatogram
- ✓ Results
- ✗ Sequence
- ✗ SST
- ✗ Audit & Signatures
- ✗ Lab. Footer

Print

☒ Print

☐ On New Page

Signals

☐ All

☒ Active Chromatogram

☐ Only Active Signal

Orientation

☒ Portrait

☐ Landscape

Fixed Height: 100

No. of Pages: 1

Tiled by

☒ Signals

☐ Chromatograms

☐ not Tiled

Print Range

☒ As on Screen

☐ Whole Chromatogram

☐ Both

OK

Cancel

Help

New

Open...

Save As...

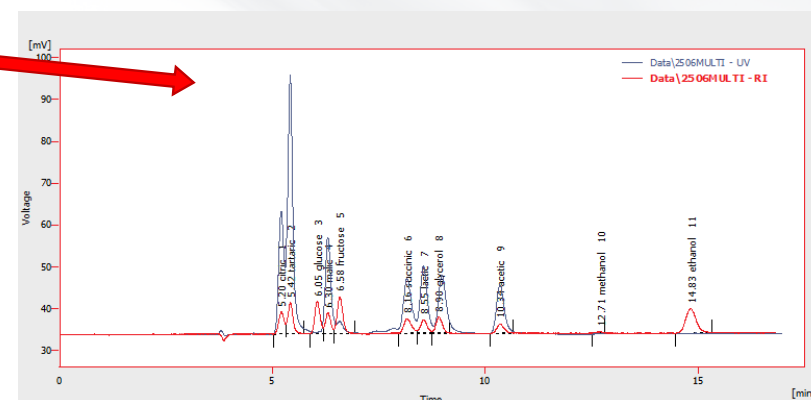
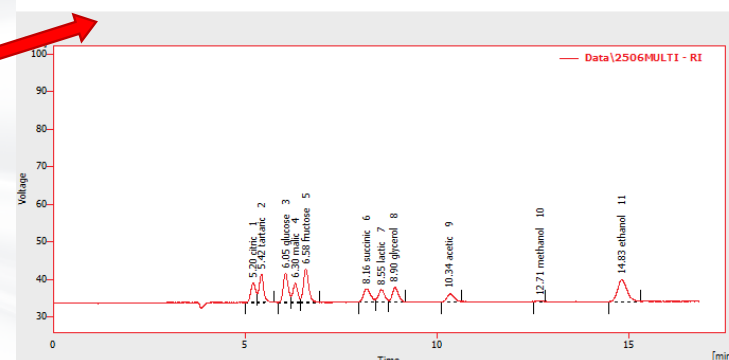
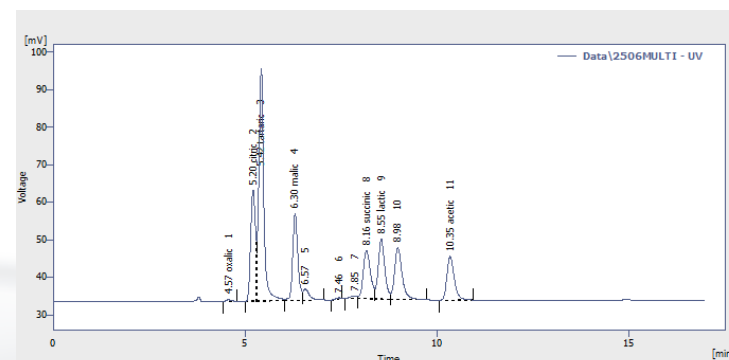
Printer...

Preview...

Print...

Print To PDF...

Send PDF





# REPORT SETUP

## ORDER OF SECTIONS

- Order of all tabs between Lab. Header and Audit & Signatures can be changed by left-clicking the tab and **dragging** it to the desired position or by right-clicking and selecting where to move the selected tab

### Report Setup Chromatogram

Page Setup

☒ Print  
☐ On New Page

☒ Lab. Header  
☐ Report Header  
☒ Method  
☒ Calibration  
☒ Chromatogram  
☒ Results  
☒ Sequence  
☒ SST  
☒ Audit & Signatures  
☒ Lab. Footer

☒ All  
☒ Active Chromatogram

Move to the Top  
 Move Up  
 Move Down  
 Move to the Bottom  
 Reset Default Order

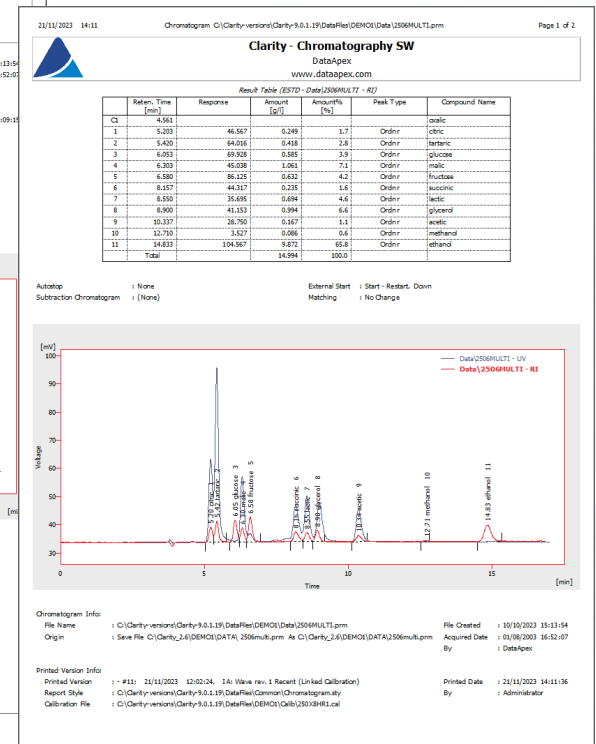
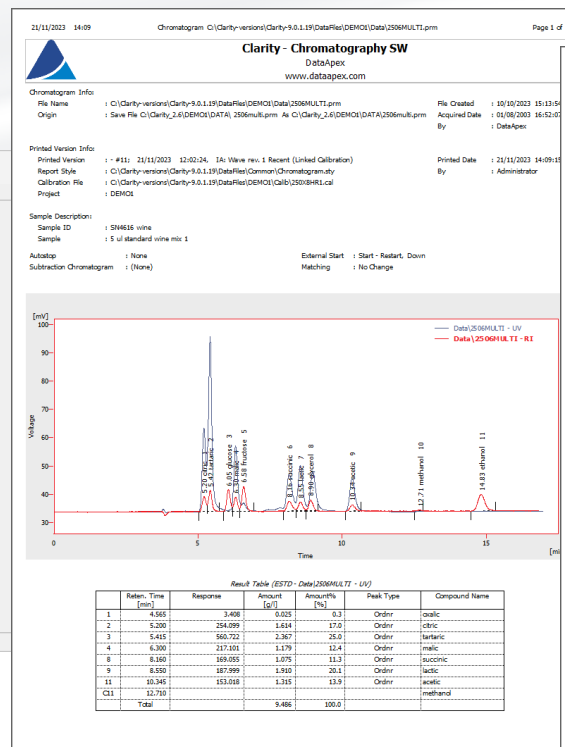
Orientation

☒ Portrait  
☐ Landscape

☒ Fixed Height: 100 [mm]  
 No. of Pages: 1

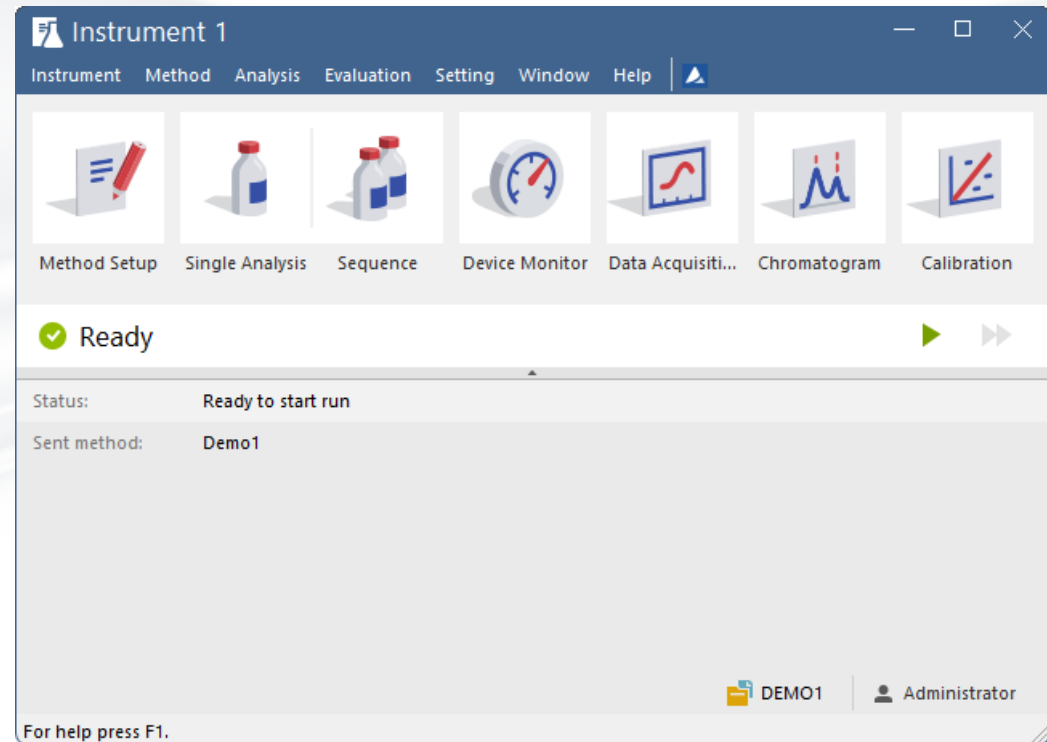
Tiled by  
☐ Signals  
☐ Chromatograms  
☒ not Tiled

Print Range  
☒ As on Screen  
☐ Whole Chromatogram  
☐ Both



# AGENDA

- > Batch processing
- > Report Setup
  - Lab. header
  - Tiled signals
  - Order of sections
- > Export data
  - Available options
- > Archive & Backup
- > Tips & Tricks
  - Customization
  - Post-run options
  - Command Lock
  - Shortcuts





# EXPORT DATA

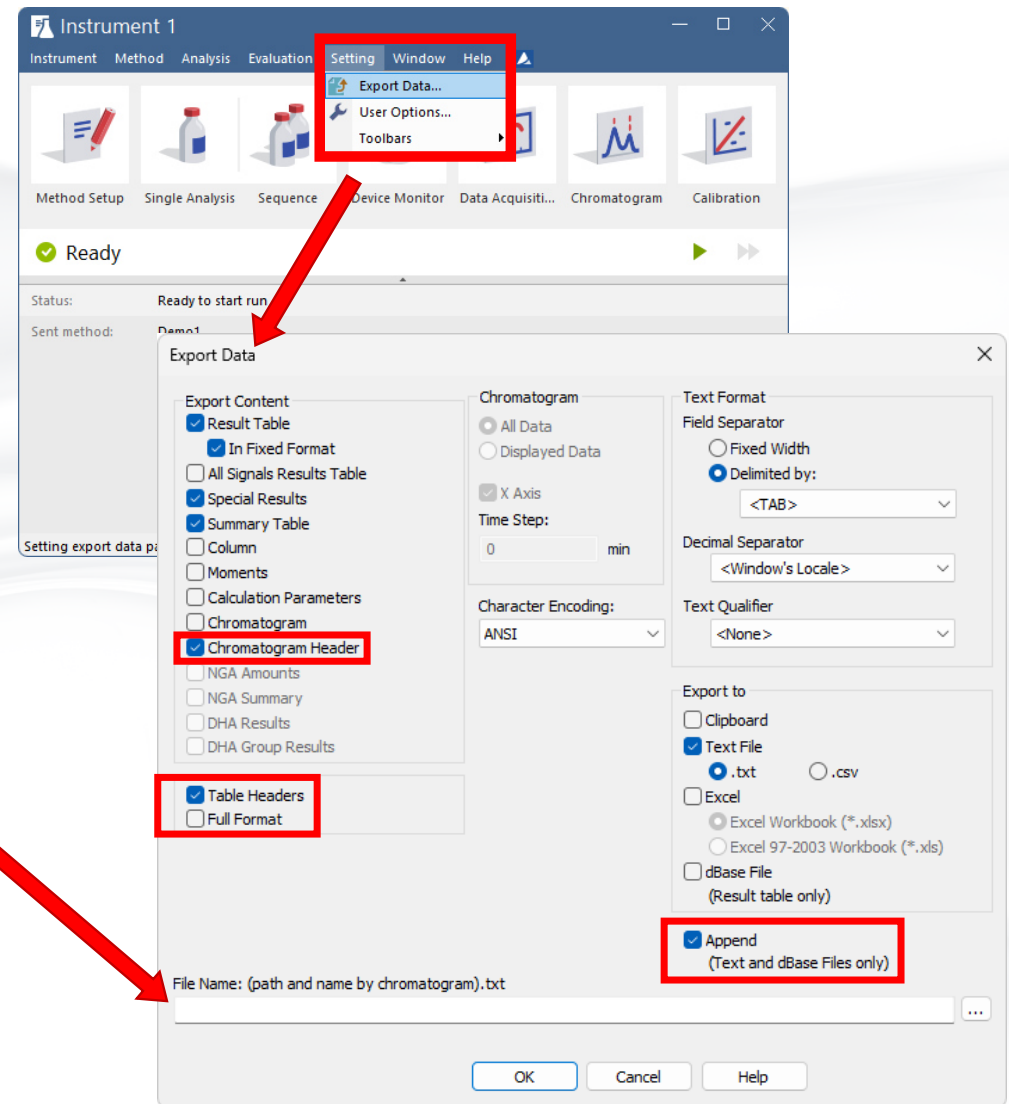
## OPTIONS

- Exporting data to other programs for further processing:
  - Straightforward way: Select, Copy & Paste (Ctrl+C, Ctrl+V)
  - Automatic exports
- Global settings applied in the Export Data dialog are common for:
  - **Manual** export from the chromatogram window
  - Automatic export via **post run** after each run end
  - Automatic export via **batch reprocessing** or chromatograms/sequences
- Export chromatograms is possible in various formats

# EXPORT DATA

## INSTRUMENT WINDOW

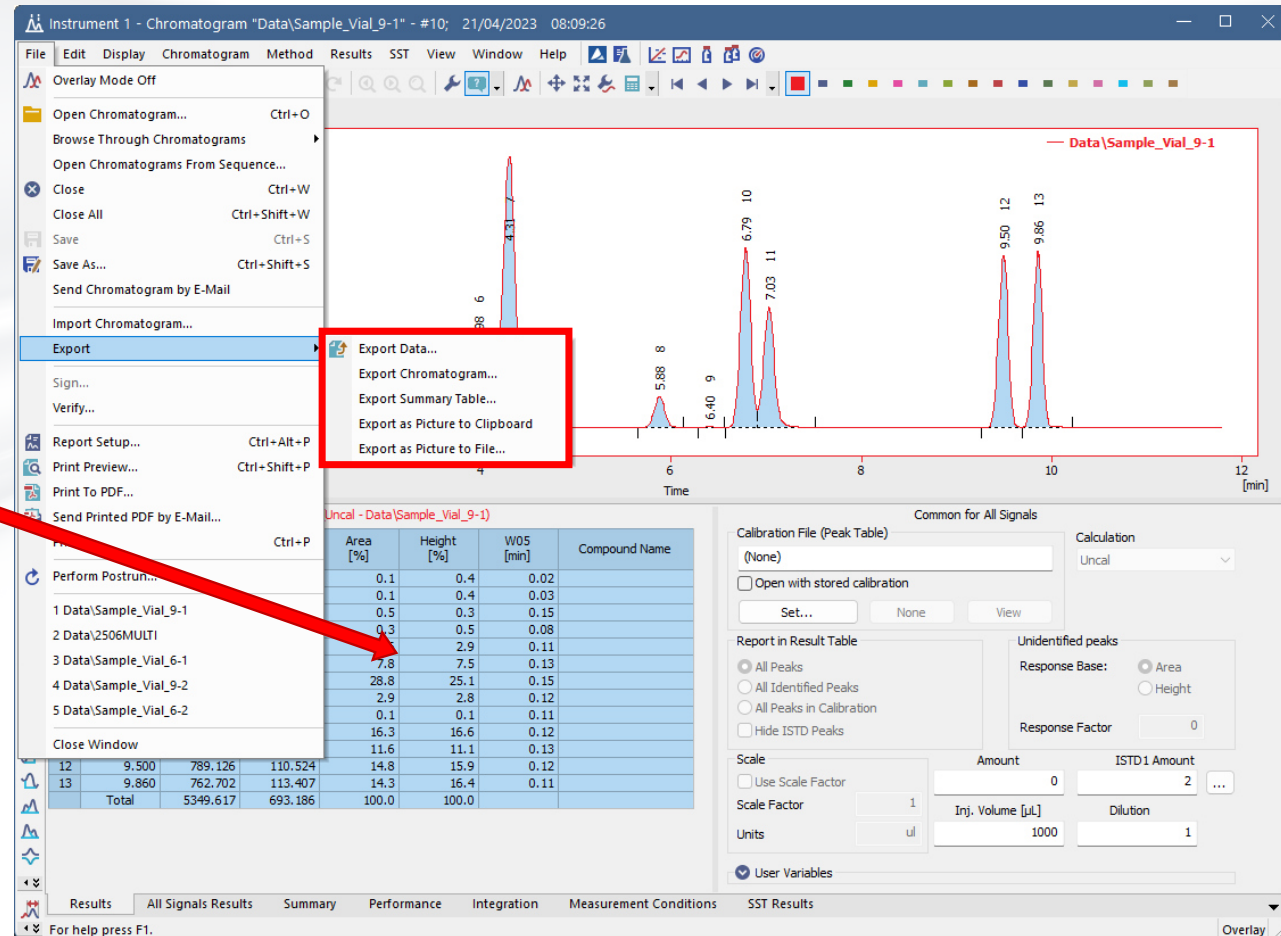
- Chromatogram Header = export basic chromatogram info (File Name, Sample ID, Sample, Instrument, Amount, Dilution)
- Table Headers = column headers of the Result Table
- Full format = filename, date, and time for each row of the Result Table
- Append = export into a single file
- Blank field in the File Name field indicates the use of the current chromatogram name + .txt



# EXPORT DATA

## CHROMATOGRAM WINDOW

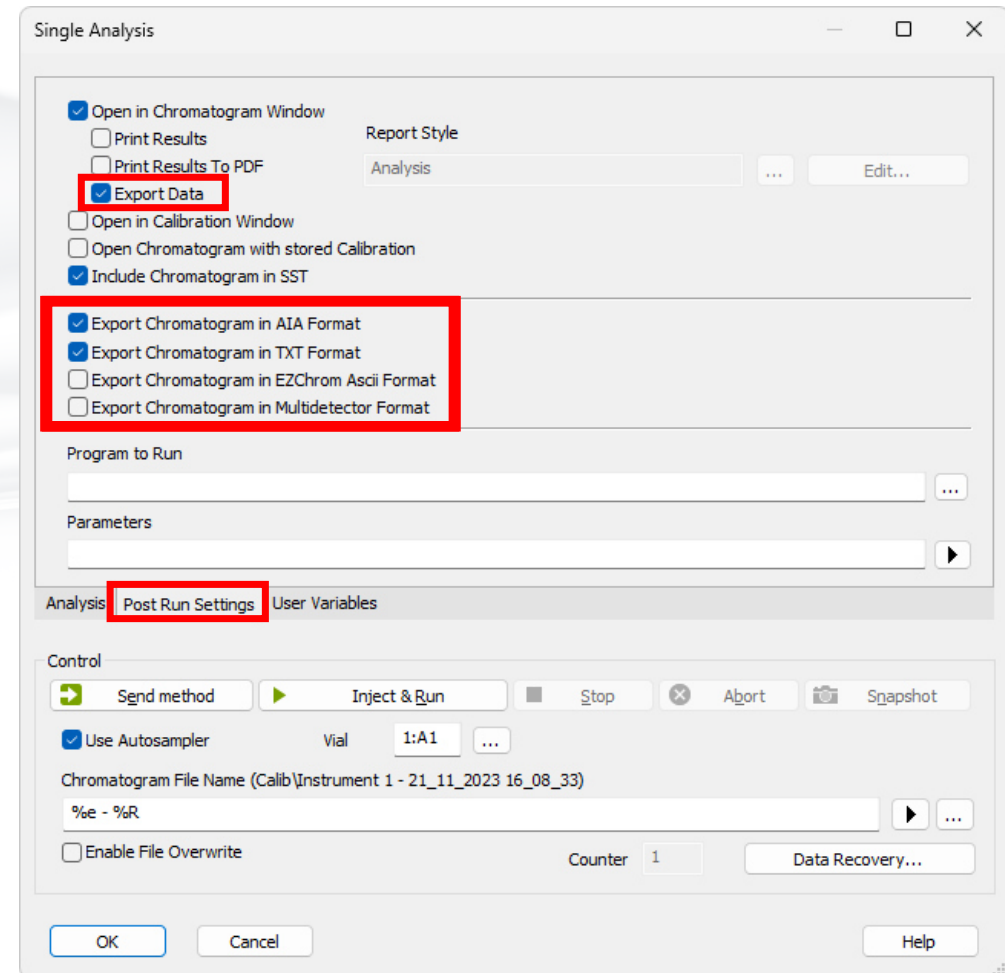
- Additional export options are available; the Export Data dialog can be opened from Chromatogram as well
- You can also select table content to Copy & Paste



# EXPORT DATA

## SINGLE ANALYSIS POST RUN SETTINGS

- When the Export Data option is enabled, the export is performed automatically post-run, according to the settings in the Export Data dialog
- Chromatogram can be exported in different formats



# EXPORT DATA

## SEQUENCE

- Export data automatically after the chromatogram in the row is measured
- The Export Data column can be added via Setup Columns
- The export is performed according to the settings in the Export Data dialog
- Together with the Export Data option, the Open option must be checked as well

Instrument 1 - Sequence Demo1 (MODIFIED)

File Edit Sequence View Window Help

|   | Status | Run                                 | SV | EV | I/V | Sample ID | Sample             | Sample Amount | ISTD1 Amount | Sample Dilut. | Inj.Vol. [μL] | My Variable 1 | My Variable 2 | My Variable 3 | File Name  | Sample Type | Lvl | Method Name | Report Style | Open                                | Open Calib.                         | Print                    | Export Data                         |
|---|--------|-------------------------------------|----|----|-----|-----------|--------------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|------------|-------------|-----|-------------|--------------|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| 1 |        | <input checked="" type="checkbox"/> |    | 1  | 1   | 1         | Halocarbons Std_1  | 0.400         | 2.000        | 1.000         | 5.000         | 10.000        | 20.000        | 0.000         | %Q         | Stan        | 1   | Demo1       | Calibration  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            |
| 2 |        | <input checked="" type="checkbox"/> |    | 2  | 2   | 1         | Halocarbons Std_2  | 1.000         | 2.000        | 1.000         | 5.000         | 10.000        | 20.000        | 0.000         | %Q         | Stan        | 2   | Demo1       | Calibration  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3 |        | <input checked="" type="checkbox"/> |    | 3  | 3   | 1         | Halocarbons Std_3  | 3.000         | 2.000        | 1.000         | 5.000         | 10.000        | 20.000        | 0.000         | %Q         | Stan        | 3   | Demo1       | Calibration  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            |
| 4 |        | <input checked="" type="checkbox"/> |    | 4  | 4   | 1         | Halocarbons Std_4  | 5.000         | 2.000        | 1.000         | 5.000         | 10.000        | 20.000        | 0.000         | %Q         | Stan        | 4   | Demo1       | Calibration  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5 |        | <input checked="" type="checkbox"/> |    | 5  | 8   | 2         | Halocarbons Sample | 5.000         | 2.000        | 1.000         | 5.000         | 10.000        | 20.000        | 0.000         | %Q Vial... | Unkn        |     | Demo1       | Analysis     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            |
| 6 |        | <input checked="" type="checkbox"/> |    | 9  | 9   | 2         | Halocarbons Sample | 5.000         | 2.000        | 1.000         | 5.000         | 10.000        | 20.000        | 0.000         | %Q Vial... | Unkn        |     | Demo1       | Analysis     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 7 |        | <input type="checkbox"/>            |    |    |     |           |                    |               |              |               |               |               |               |               |            |             |     |             |              | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            |

For help press F1.

Single Analysis: Ready - Ready to start run Vial: 2 / Inj.: 1

File Name:

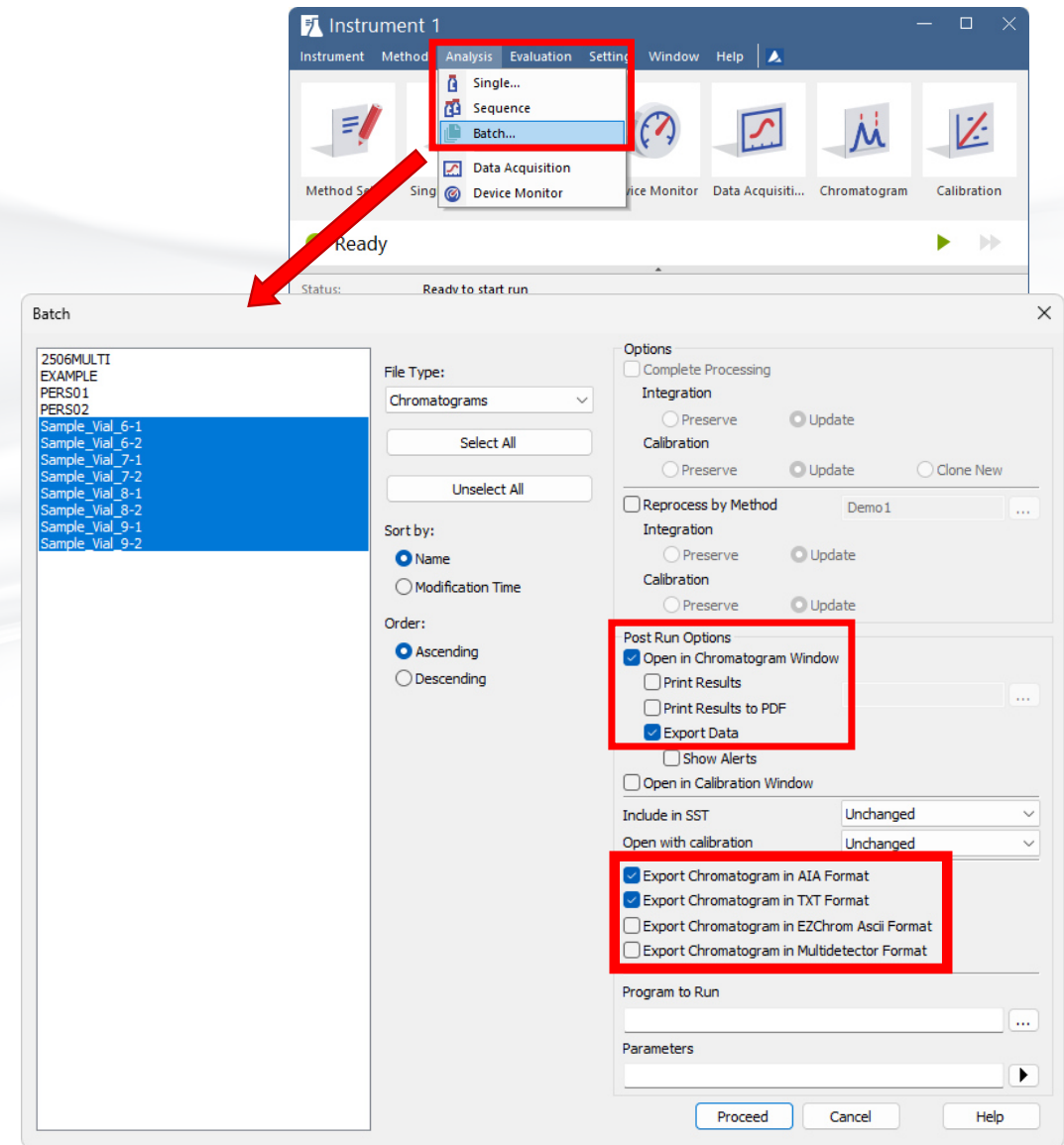
Active Au



# EXPORT DATA

## BATCH

- Export data for multiple chromatograms using the Batch dialog
- The export is performed according to the settings in the Export Data dialog
- Chromatograms can be exported in various formats





# EXPORT DATA

## TEXT FILE FORMAT

| Signal No.   | Signal Name | Peak No. | Reten. time [min] | Response                       | Response Base        | Amount [ul] | Amount% |
|--|-------------|----------|-------------------|--------------------------------|----------------------|-------------|---------|
| 1  | 4           | 3.660    | 61.116 A          | 1.2332 14.172 Ordnr (by ISTD1) | Chloroform           |             |         |
| 1  | 5           | 3.993    | 183.931 A         | 1.2101 13.906 Ordnr (by ISTD1) | Trichloroethane      |             |         |
| 1  | 6           | 4.317    | 686.924 A         | 1.2867 14.786 Ordnr (by ISTD1) | Tetrachloromethane   |             |         |
| 1  | 7           | 5.903    | 65.887 A          | 1.2037 13.833 Ordnr (by ISTD1) | Trichloroethylene    |             |         |
| 1  | 8           | 6.810    | 378.309 A         | 1.2214 14.036 Ordnr (by ISTD1) | Bromodichloroethane  |             |         |
| 1  | 9           | 7.060    | 632.612 A         | ISTD ISTD ISTD1 ISTD           |                      |             |         |
| 1  | 10          | 9.520    | 355.868 A         | 1.2998 14.938 Ordnr (by ISTD1) | Tetrachloroethylene  |             |         |
| 1  | 11          | 9.880    | 328.984 A         | 1.2469 14.330 Ordnr (by ISTD1) | Dibromochloromethane |             |         |
| 1  |             | Total    |                   | 8.7018 100.000                 |                      |             |         |
| Primary file : Sample_Vial_6-1 Analyst : Administrator                                 |             |          |                   |                                |                      |             |         |
| Sample ID : Halocarbons From : Tue, 31th Aug, 2004 00:00:00                            |             |          |                   |                                |                      |             |         |
| Sample : Sample  |             |          |                   |                                |                      |             |         |
| Instrument : <Unknown> Method : N/A  |             |          |                   |                                |                      |             |         |
| Sample Amount: 0.0 [ul] ISTD1 Am. : 2.0 [ul] ISTD2 Am. : 0.0 [ul] ISTD3 Am. : 0.0 [ul] |             |          |                   |                                |                      |             |         |
| ISTD6 Am. : 0.0 [ul] ISTD7 Am. : 0.0 [ul] ISTD8 Am. : 0.0 [ul] ISTD9 Am. : 0.0 [ul]    |             |          |                   |                                |                      |             |         |
| Sample Dilut.: 1.0 Inj. Vol. : 1000.0 [uL]   |             |          |                   |                                |                      |             |         |
| Peak width : 0.100 [min] Threshold : 1.000 [mV]  |             |          |                   |                                |                      |             |         |
| Slope : 1.500  |             |          |                   |                                |                      |             |         |

Export Data

Export Content

☒ Result Table

☒ In Fixed Format

☐ All Signals Results Table

☒ Special Results

☒ Summary Table

☐ Column

☐ Moments

☐ Calculation Parameters

☐ Chromatogram

☒ Chromatogram Header

☐ NGA Amounts

☐ NGA Summary

☐ DHA Results

☐ DHA Group Results

☒ Table Headers

☐ Full Format

Chromatogram

☒ All Data

☐ Displayed Data

☒ X Axis

Time Step:  
0 min

Character Encoding:  
ANSI

Text Format

Field Separator

☐ Fixed Width

☒ Delimited by:  
<TAB>

Decimal Separator  
<Window's Locale>

Text Qualifier  
<None>

Export to

☐ Clipboard

☒ Text File

☒ .txt

☐ .csv

☐ Excel

☒ Excel Workbook (\*.xlsx)

☐ Excel 97-2003 Workbook (\*.xls)

☐ dBase File  
(Result table only)

☒ Append  
(Text and dBase Files only)

File Name: (path and name by chromatogram).txt  

...

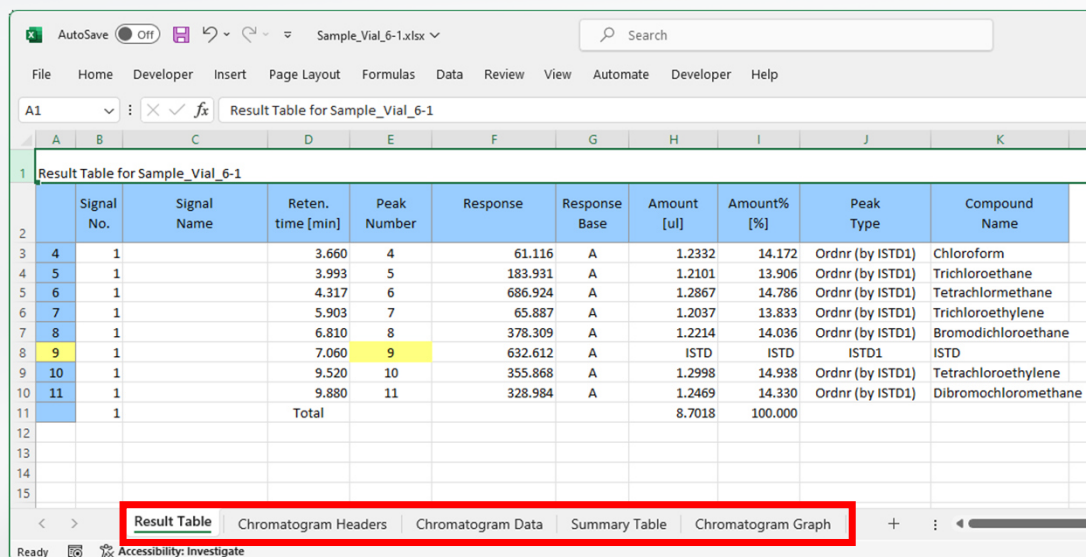
OK

Cancel

Help

# EXPORT DATA

## EXCEL (\*.XLSX) FORMAT



| Signal No. | Signal Name | Reten. time [min] | Peak Number | Response | Response Base | Amount [ul] | Amount% [%] | Peak Type        | Compound Name        |
|------------|-------------|-------------------|-------------|----------|---------------|-------------|-------------|------------------|----------------------|
| 4          | 1           | 3.660             | 4           | 61.116   | A             | 1.2332      | 14.172      | Ordnr (by ISTD1) | Chloroform           |
| 5          | 1           | 3.993             | 5           | 183.931  | A             | 1.2101      | 13.906      | Ordnr (by ISTD1) | Trichloroethane      |
| 6          | 1           | 4.317             | 6           | 686.924  | A             | 1.2867      | 14.786      | Ordnr (by ISTD1) | Tetrachloromethane   |
| 7          | 1           | 5.903             | 7           | 65.887   | A             | 1.2037      | 13.833      | Ordnr (by ISTD1) | Trichloroethylene    |
| 8          | 1           | 6.810             | 8           | 378.309  | A             | 1.2214      | 14.036      | Ordnr (by ISTD1) | Bromodichloroethane  |
| 9          | 1           | 7.060             | 9           | 632.612  | A             | ISTD        | ISTD        | ISTD1            | ISTD                 |
| 10         | 1           | 9.520             | 10          | 355.868  | A             | 1.2998      | 14.938      | Ordnr (by ISTD1) | Tetrachloroethylene  |
| 11         | 1           | 9.880             | 11          | 328.984  | A             | 1.2469      | 14.330      | Ordnr (by ISTD1) | Dibromochloromethane |
| Total      |             |                   |             |          |               | 8.7018      | 100.000     |                  |                      |

Export Data

Export Content

- ☒ Result Table
  - ☒ In Fixed Format
- ☐ All Signals Results Table
- ☒ Special Results
- ☒ Summary Table
- ☐ Column
- ☐ Moments
- ☐ Calculation Parameters
- ☐ Chromatogram
- ☒ Chromatogram Header
  - ☐ NGA Amounts
  - ☐ NGA Summary
  - ☐ DHA Results
  - ☐ DHA Group Results
- ☒ Table Headers
- ☐ Full Format

Chromatogram

☐ All Data  
☐ Displayed Data

☒ X Axis

Time Step: 0 min

Character Encoding: ANSI

Text Format

Field Separator

☐ Fixed Width  
☒ Delimited by: <TAB>

Decimal Separator: <Window's Locale>

Text Qualifier: <None>

Export to

☐ Clipboard

☐ Text File

☒ Excel

- ☒ Excel Workbook (\*.xlsx)
- ☐ Excel 97-2003 Workbook (\*.xls)

☐ dBase File (Result table only)

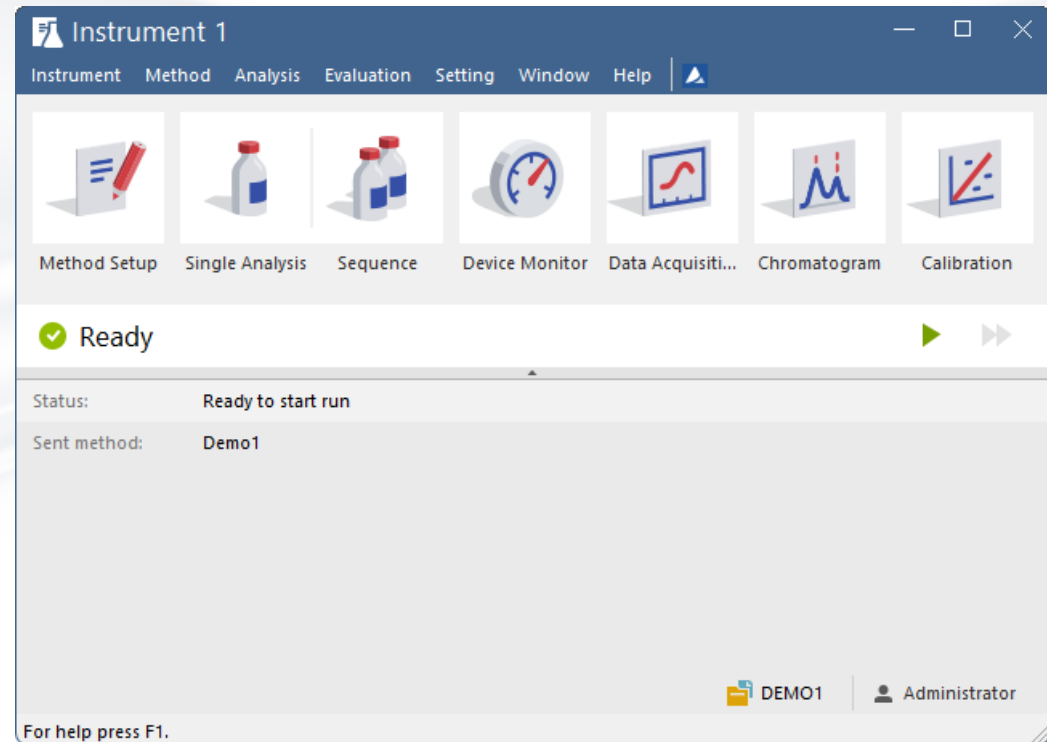
☐ Append (Text and dBase Files only)

File Name: (path and name by chromatogram).xlsx

OK Cancel Help

# AGENDA

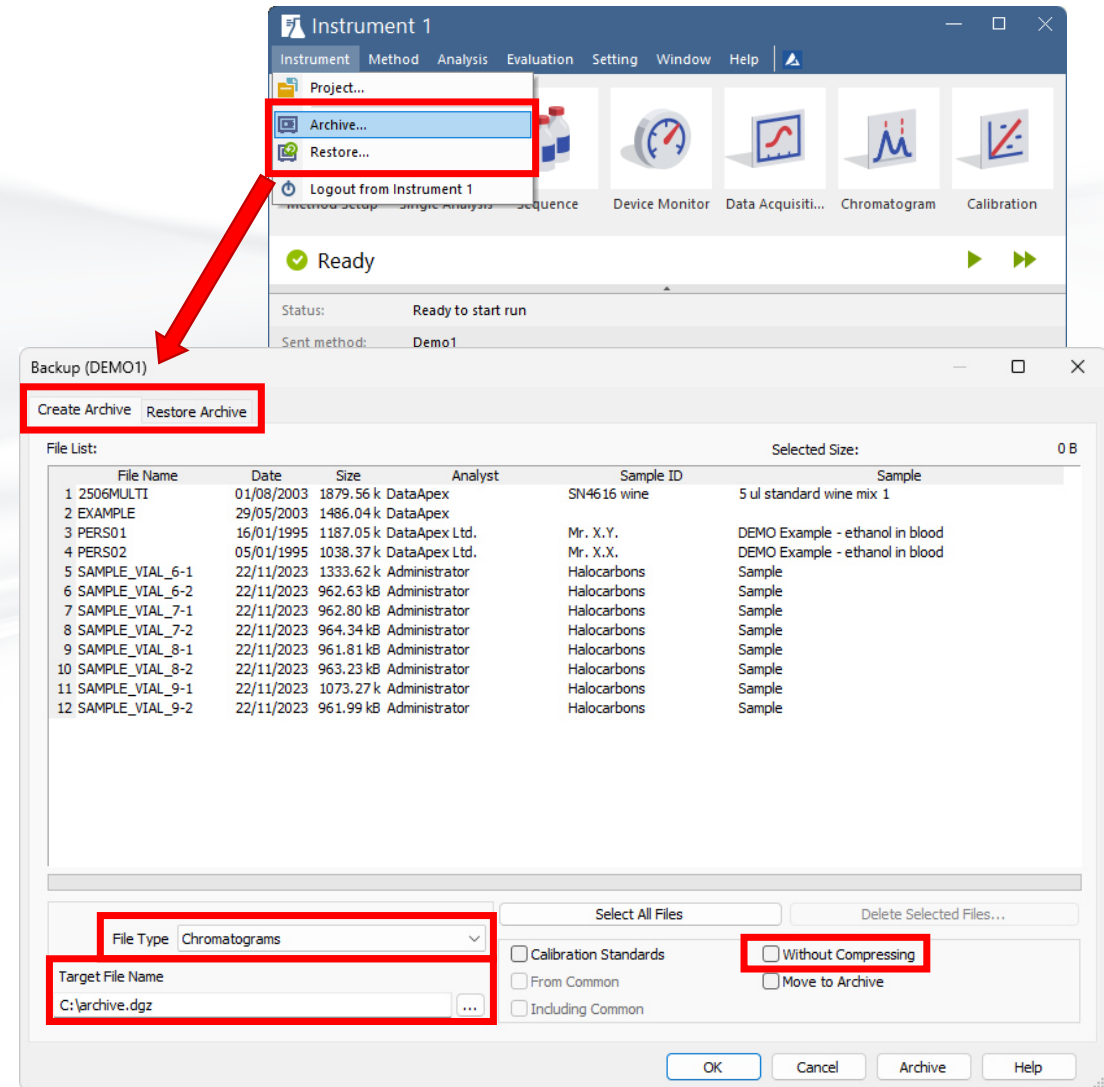
- > Batch processing
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# ARCHIVE & RESTORE

## OVERVIEW

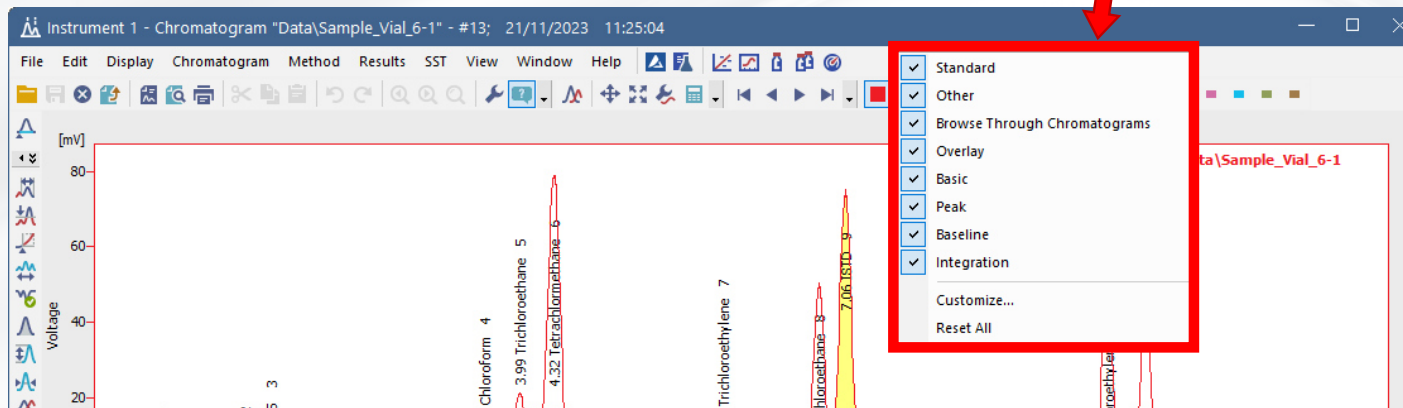
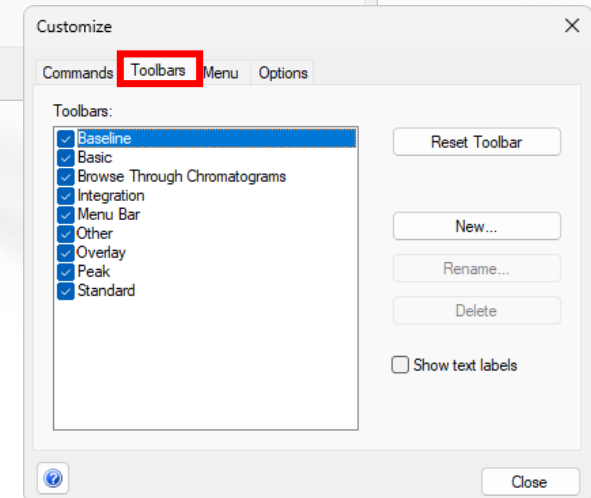
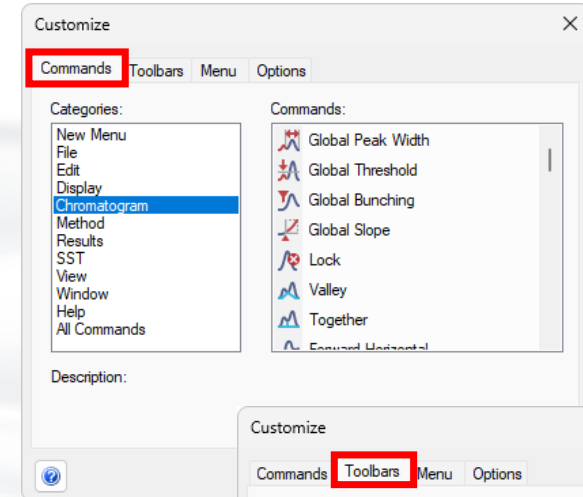
- Data can be **compressed to \*.dgg archive** files with reduced size
- Writing into an existing \*.dgg archive **replaces** all the preset data (appending is not possible)
- Plan ahead: the project structure should allow you to archive whole projects when necessary
- Access Create/Restore functions via **Instrument**
  - Choose which file type to archive
- Without compressing:
  - When checked, **no archive** is created; the selected files are copied/moved
  - When **not** checked, an **archive** containing selected files is **created**, located according to Target File Name



# TIPS & TRICKS

## CUSTOMIZATION

- You can customize Clarity to your preferred use in several ways
- Open the Customize dialog by right-clicking the toolbar and selecting **Customize...**
  - To add command icons to the toolbar, drag them from the menu in the **Commands** tab
  - To change the Toolbar options, use the **Toolbars** tab or (un)select the corresponding items in the context menu

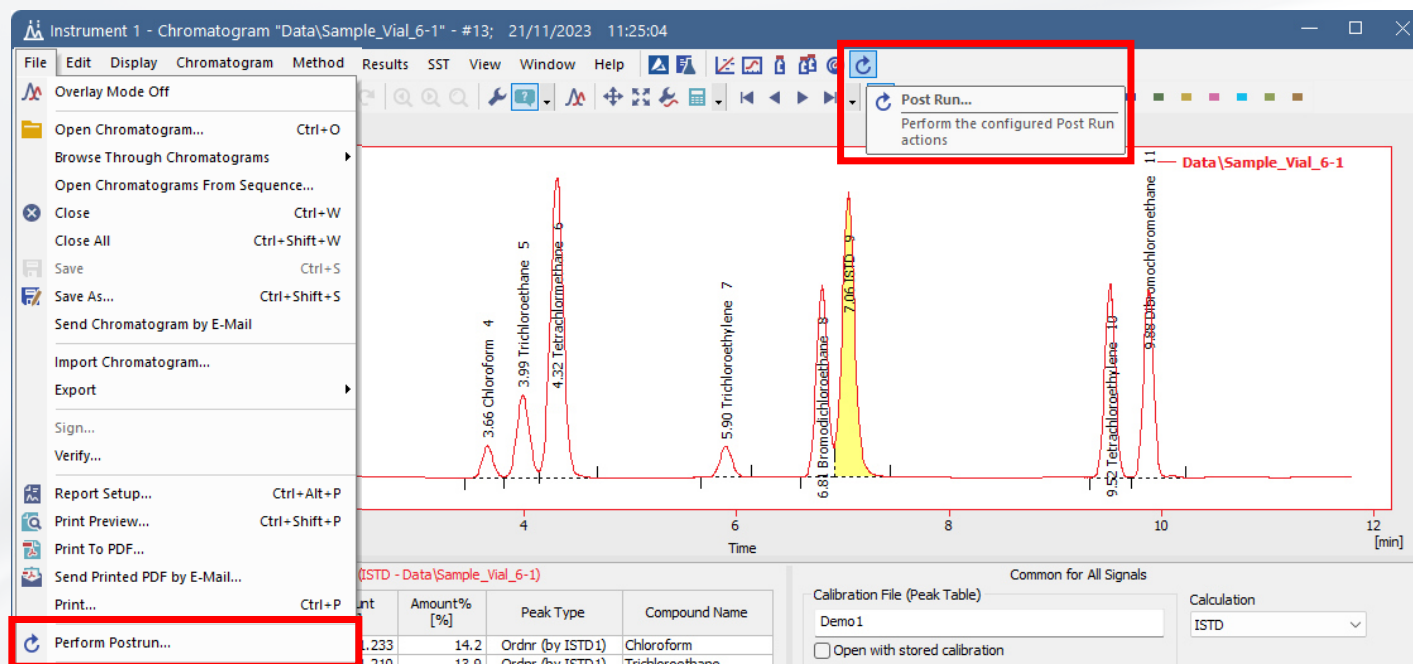




# TIPS & TRICKS

## PERFORM POST RUN ACTIONS

- PostRun Setting dialog is accessible from the menu File; the icon for Post Run can be added via Customize



PostRun Setting (From Chromatogram Window)

☐ Open in Calibration Window

☐ Print Results

☒ Print Results To PDF

☒ Export Data

☐ Export Chromatogram in AIA Format

☐ Export Chromatogram in TXT Format

☐ Export Chromatogram in EZChrom Ascii Format

☐ Export Chromatogram in Multidetector Format

Program to Run  
[Text Field] ...

Parameters  
[Text Field] ▶

☐ Sign

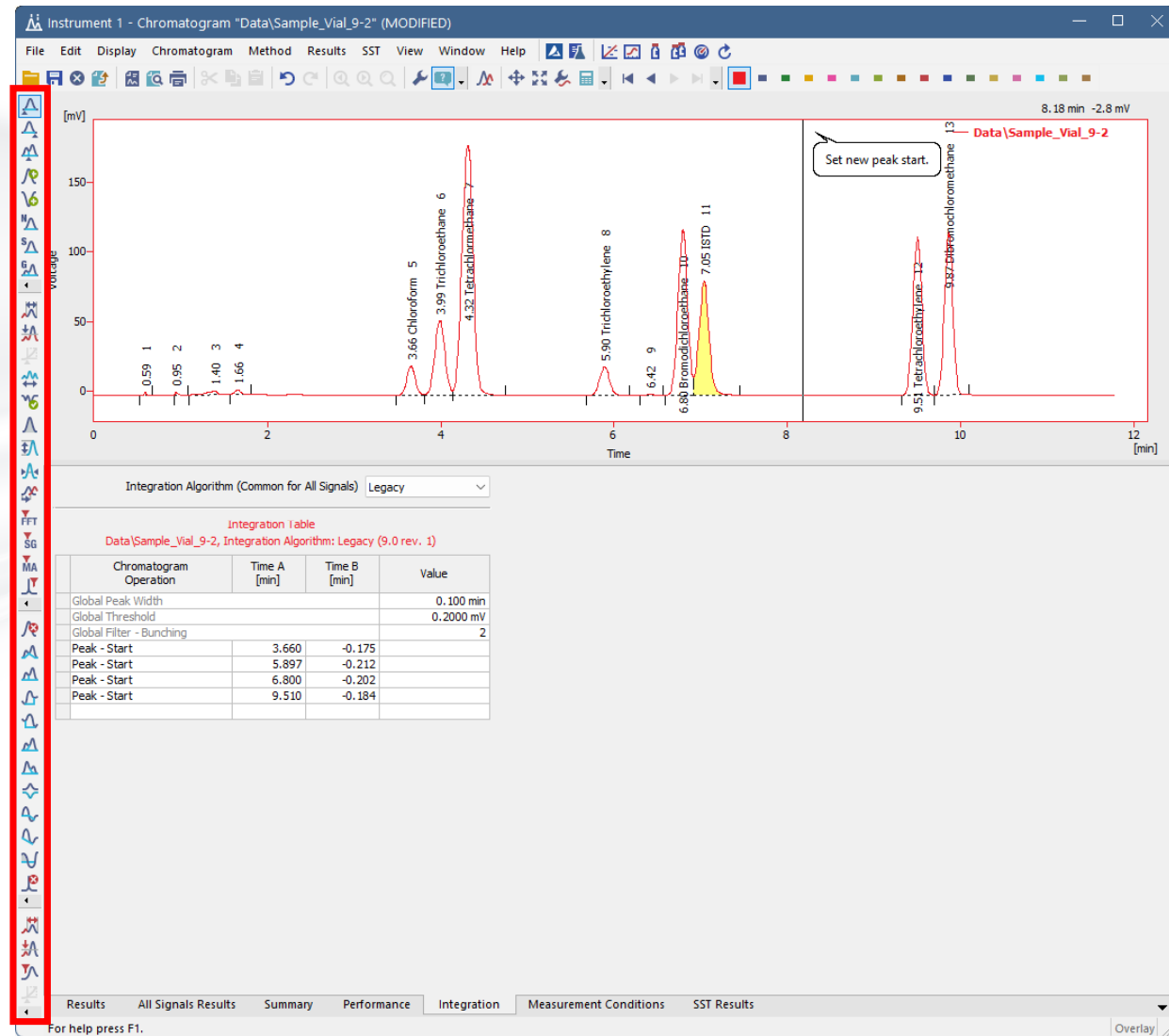
Perform OK Cancel Help



# TIPS & TRICKS

## COMMAND LOCK

- Pressing **Ctrl** when invoking a command will **lock** the command for **repeated use**
  - This is useful when changing start/end for multiple peaks etc.
- Terminate the command by **Esc**






# TIPS & TRICKS

## SHORTCUTS

- Most useful Clarity shortcuts

### Graphs

|                        |   |
|------------------------|---|
| Unzoom:                | <b>Ctrl</b> +    |
| Zoom In/Out:           |  /  or <b>Ctrl</b> + <b>MOUSE WHEEL</b> |
| Zoom Vertical:         | <b>Ctrl</b> + <b>Shift</b> + <b>MOUSE WHEEL</b>   |
| Move (all directions): | <b>Ctrl</b> + <b>LEFT MOUSE BUTTON</b>  |
| Move Left & Right:     | <b>Shift</b> + <b>MOUSE WHEEL</b>   |
| Move Up & Down:        | <b>MOUSE WHEEL</b>  |

### General & File

|               |                         |
|---------------|-------------------------|
| Open File:    | <b>Ctrl</b> + <b>O</b>  |
| Save File:    | <b>Ctrl</b> + <b>S</b>  |
| Close File:   | <b>Ctrl</b> + <b>W</b>  |
| Swap windows: | <b>Alt</b> + <b>Tab</b> |
| Copy:         | <b>Ctrl</b> + <b>C</b>  |
| Paste:        | <b>Ctrl</b> + <b>V</b>  |

23.0331



Clarity™

ADVANCED CHROMATOGRAPHY SOFTWARE

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# THANK YOU FOR YOUR ATTENTION

NEXT TRAINING COMING SOON