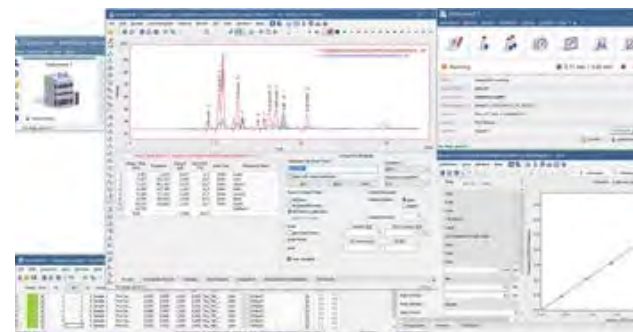




ClarityChrom chromatography data system software (CDS)

ClarityChrom is an easy-to-use chromatography data system for workstations. The optional GC-, MS and KNAUER FRC control modules and extensions for PDA, SST, and SEC/GPC allow using the software for a wide range of applications.

The KNAUER FRC control module enables the drivers for several fraction collectors and supports the peak fractionation by time, level and/or slope. The manual fraction control, the option to use the KNAUER electrical valves for fractionation and, with a supported mass spectrometer, mass-triggered fractionation offers an astonishing flexibility. The rack view gives detailed information about all collected fractions and direct links to open the matching chromatograms. The functionality corresponds to the former ClarityChrom*Prep*; this separate preparative software is discontinued.



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Free Demo version of ClarityChrom

Download the free Demo version of ClarityChrom®. The Demo version allows for configuration of an HPLC system, creating methods and sequences, data analysis of Demo chromatograms and reporting. You cannot control devices, acquire data or analyze self-acquired chromatograms with the Demo version.

The download file is provided via Microsoft OneDrive. The download archive includes the installer of ClarityChrom® Demo, the Demo manual and the KNAUER ClarityChrom® instructions.

If you like the demo, you can request a free 30-day-trial as full version, including device control and data acquisition. Please contact us!

[Download Demo](#)

ClarityChrom® Features

KNAUER ClarityChrom® is a powerful, yet easy-to-use chromatography software for instrument control, data acquisition and data processing. ClarityChrom is designed for smaller laboratories. It is an economical solution compared to other more complex chromatography software while offering the full functionality of a full-featured CDS and comes also with FDA 21 CFR Part 11 compliance. ClarityChrom includes the following functionality:

- complete LC control and autosampler control package
- support for a wide range of instruments,
- scalable from 1 to 4 LC systems (instruments),
- up to 12 detectors (channels) for a system can be configured
- optional extensions, e.g. for PDA data handling, GPC analysis, SST for automated system tests, LC/MS or GC control
- included preparative functionality
- advanced, flexible preparative functionality from KNAUER with Knauer FRC control module

Please refer to the [instrument support list](#) for a detailed list of supported instruments. Beside all KNAUER instruments, devices and systems from more than 45 manufacturers can be controlled. Additionally, data acquisition can also be performed with any detector providing a voltage output by simply connecting a KNAUER IFU 2.1 interface box or any other supported A/D converter.

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The system suitability test (SST) extension offers specific calculated parameters of the separation to be monitored and compared to user set limit values to evaluate the reproducibility of the results of the entire chromatography system. The parameters, available for check, are retention time, area, height, amount, width at half peak height, asymmetry,

symmetry/tailing, capacity, efficiency, efficiency/column length, HETP, resolution and response. Calculations are possible from all or just selected validated (calibrated) components.

The PDA extension allows to acquire and process 3D data from a photo diode array detector (KNAUER PDA detectors are fully supported). The PDA extension provides peak purity analysis and peak identification by spectral library search in self-made or commercial spectra libraries. Signals from a desired wave length can be easily added from the 3D data.

The SEC/GPC option provides interactive and automated gel permeation chromatography analysis, including re-calibration and GPC reporting, as well as simplifies the retrieval of GPC data. Narrow or broad standard calibration methods are supported combined with flow rate correction and universal calibration. In chromatogram view the molecular weight and cumulative molecular weight distribution can be easily compared by chromatogram overlay. The GPC results table displays molecular weight averages together with peak details for active signal.

Clarity Chrom offers all the necessary operations for an analytical lab. The fractionation functionality along with drivers for some fraction collectors allow for simple fractionation tasks.

Moreover, the KNAUER-exclusive Knauer FRC control module adds more fractionation options to this feature list and more drivers for fraction collectors; this allows more flexibility in the lab. During the run, fractions can be collected manually via software; this includes the information about the collected peaks from the chromatogram. The KNAUER MultiValve fraction collector supports KNAUER electrical valves as fraction collector. This allows a practical unlimited fraction volume because there is no defined vial volume, depending from the used rack, as for other fraction collectors. Up to 32 KNAUER electrical valves can be cascaded as a fraction collector. With a supported mass spectrometer, mass-triggered fractionation is possible. The rack view shows the volume and retentions time of all collected fractions. Due to the included links, the matching chromatogram for each fraction can be easily opened directly from the rack view.

ClarityChrom is the best solution for all laboratories searching for an up-to-date and robust software with support of devices from many manufacturers to be flexible in instrumentation but also meet the requirements for modern laboratories.

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Do you want to see more tutorials?

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ClarityChrom® Expandability

| | |
|--------------------------------|---|
| Stand-alone | Workstation version, max. 4 systems controlled by one computer, max. 3 complete systems recommended, max. 2 systems with PDA detector |
| Client/server | No Client/Server functionality |
| Multi-user environment | Selectable system of user accounts with independently customizable behavior and appearance for individual users |
| Network environment | Easy offline data sharing (at the file level) among all stations in a local network |
| Fields of application | Analytical HPLC, GPC/SEC, GC, MS, preparative HPLC |
| Supported instruments | All KNAUER devices are supported, driver for devices from many other manufacturers are available, refer the list of supported instruments |
| Instrument connection | Supports RS-232, Ethernet, PCI interface card, A/D-D/A interface |
| Recommended PC hardware | Pentium 2 GHz, 2 GB RAM, 10 GB free hard disk space, separate graphics card if one PC should control more than one system; 4 GB RAM recommended for PDA detectors |

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| | |
|--------------------------------|--|
| Graphics capabilities | Multiple chromatogram view and overlay, PDA view |
| Integration | 27 integration parameters (peak width, threshold, tangent slope ratio etc.) integration parameters programmable in time, automatic re-integration |
| Calculation types | with/without calibration (int./ext. standard method) |
| Security and GLP | Installation qualification test of the software; FDA 21 CFR Part 11 conformance, validation with virtual detector |
| Instrument control | method-based instrument control, Instrument status display and Direct-Control mode, |
| Calibration | 6 types of calibration curves, up to 20 levels, reference peaks, groups, unlimited number of standards (peaks), LOD, LOQ |
| Chromatogram operations | Overlay view, custom labels and settings, also applying mathematical operations to chromatograms |
| Automation | Sequences, automatic launch of selected commands or applications immediately following chromatogram acquisition – Post run, Batch |
| Presentation of results | Integrated customizable table of results, columns with userdefined calculation, summary table, and export in text or database format |
| Calculations | Custom: 12 predefined mathematical operators, 15 basic and 4 summary functions, special: Kovats indexes for GC, determination of noise/drift, performance calculations |

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**Data import
and export**

ASCII, AIA, dBase

Additional extensions / control modules of ClarityChrom®

**Knauer
FRC**

Drivers for fraction collectors, KNAUER MultiValve FC, signal-based and manual fractionation, mass-triggered fractionation (requiring MS license), rack view with fraction information and direct links to matching chromatograms, solvent recycling

**PDA
extension**

3D chromatogram, peak purity analysis, spectrum search in self-made or commercial spectra library, adding signals from 3D data

**GPC /
SEC
extension**

Molecular weight determination in size exclusion chromatography with various calibration methods

**System
suitability
test**

Automates the calculation of system suitability parameters for system validation

LC / MS

Control of HPLC and mass spectrometer, mass-triggered fractionation with Knauer FRC

GC

Control of GC system of several manufacturers; refer list of supported instruments

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INSTRUMENT AND OFFLINE LICENSES



**ClarityChrom 8.5 - Workstation,
autosampler control included**
ClarityChrom® single instrument
license for one time base

Article No.: A1670



**ClarityChrom 8.5 - Educational
license**
Educational system license for one
system

Article No.: A1672



**ClarityChrom 8.5 - Additional
instrument**
ClarityChrom® additional
instrument license on additional
time base

Article No.: A1671

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**ClarityChrom 8.5 - Offline license
for data evaluation**

ClarityChrom® offline license for
data evaluation

Article No.: A1674



**ClarityChrom 8.5 - university
package**

ClarityChrom® university package
one offline license

Article No.: A1675

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CLARITYCHROM EXTENSIONS AND CONTROL MODULES



ClarityChrom 8.5 - Knauer FRC control module for preparative chromatography

ClarityChrom® KNAUER FRC
control module for preparative
HPLC

Article No.: A1682



ClarityChrom 8.5 - PDA extension ClarityChrom® option for PDA data processing

Article No.: A1676



ClarityChrom 8.5 - System suitability extension (SST) ClarityChrom® system suitability option

Article No.: A1677

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**ClarityChrom 8.5 - SEC/GPC
extension**
ClarityChrom® option for GPC data
processing
Article No.: A1678



**ClarityChrom 8.5 - LC-MS
extension for QUAD-MS**
ClarityChrom® option for MS data
processing
Article No.: A1679



ClarityChrom 8.5 - GC extension
License for GC control
Article No.: A1680

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UPGRADE OPTIONS



ClarityChrom 8.5 Upgrade
Upgrade for one system from
former version to ClarityChrom®

Article No.: A1681



**Upgrade ClarityChromPrep to
ClarityChrom 8.5 with included
Knauer FRC control module**
Upgrade for former ClarityChrom®
Prep to latest ClarityChrom® with
KNAUER FRC control module

Article No.: A1687

ClarityChrom 8.2.3 Software Manual EN (V1670)

Manual English

ClarityChrom Extensions SST User Manual EN

Manual English

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ClarityChrom Extensions PDA User Manual EN

Manual English

ClarityChrom Extensions MS User Manual EN

Manual English

ClarityChrom Extensions GPC User Manual EN

Manual English



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