

ClarityChrom®

KNAUER ClarityChrom® is a powerful, yet easy-to-use chromatography software (or chromatography data system, CDS) 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 still offering FDA 21 CFR Part 11 compliance.

ClarityChrom comes as a complete package with LC control and including autosampler control. It is scalable from 1 up to 4 systems; depending on the desired instruments. The built-in fractionation option as well as the optional extensions as SST for automated system tests, PDA for 3D (UV spectra) data handling, GPC analysis, MS and GC control cover a wide range of the requirements for a CDS on a modern lab. KNAUER additionally offers more advanced fractionation with the KNAUER FRC control module.

ClarityChrom supports all KNAUER devices that can be controlled by software. Please refer to the instrument support list in the Support section of our website, the download link can be found below. Beside this, 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.

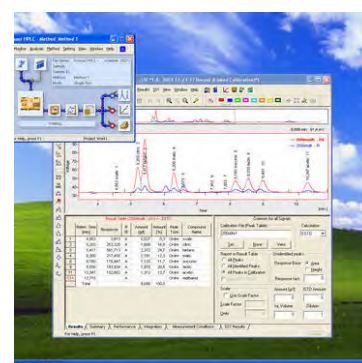
The system suitability (SST) extension automates the calculation of system suitability parameters for system validation and calculates up to 12 parameters and compares the results with the limits the user has set.

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.

The SEC/GPC extension provides interactive and automated gel permeation chromatography analysis, including re-calibration and GPC reporting, as well as simplifies the retrieval of GPC data. The GPC extension allows flow rate and multi-detector delay corrections and includes Narrow, Broad and Broad on Narrow calibrations.

ClarityChrom comes with some basic fractionation functionality. The KNAUER-exclusive Knauser FRC control module for ClarityChrom adds more drivers of several fraction collectors and supports the peak recognition by level and/or slope as well as fractionation by time. Also more advanced functionality as solvent recycling, manual fractionation and rack view with detailed fraction information and chromatogram links are available. The functionality corresponds exactly to the KNAUER preparative functionality of discontinued ClarityChromPrep.

ClarityChrom offers all the necessary operations for an analytical lab. Moreover, the preparative version adds fractionation options to this feature list and allows more flexibility in the lab. 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.



This software supports a wide range of instruments:
www.knauer.net/en/supp_cc



For PC hardware & periphery
see p. 67

Specifications

Software

Software name	ClarityChrom
Extensions / Licenses	PDA / 3D UV, System suitability, Fraction collection, SEC/GPC, Mass spectrometry
System architecture	32-bit CDS
Operating system	Windows 10, Windows 8.1, Windows 7, all 32- and 64-bit

Expandability

Stand-alone	Workstation version, max. 4 systems controlled by one computer, max. 3 LC systems, max. 2 systems with PDA or 1 system with MS or special devices per computer
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 and preparative HPLC, GPC/SEC, GC, MS
Supported instruments	All Knauer devices are supported, driver for devices from many other manufacturers are available
Instrument connection	Supports RS-232, Ethernet, PCI interface card, A/D-D/A interface
Recommended PC hardware	Pentium 2 GHz, 4 GB RAM, 80 GB free hard disk space, separate graphics card if one PC should control more than one system, USB for dongle, connectors as LAN, RS-232 etc. for device control
Graphics capabilities	Multiple chromatogram view and overlay, PDA view

Expandability

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
Data import and export	ASCII, AIA, dBase

Additional options/extensions

MS option	separate license option; control and data acquisition from supported QUAD-MS
FRC option	separate license option; Control of fraction collectors and KNAUER valve drives as fraction collector, fractionation per time/Level/Slope, rack info with filling level and chromatogram link
PDA option	separate license option; 3D chromatogram, peak purity analysis, spectrum search in self-made or commercial spectra library
GPC/SEC option	separate license option; molecular weight determination in size exclusion chromatography with various calibration methods
System suitability test	separate license option; automates the calculation of system suitability parameters for system validation
Note	Autosampler control included beside Educational license

Ordering details:

A1670	ClarityChrom® single instrument license for one time base
A1674	ClarityChrom® offline license for data evaluation
A1671	ClarityChrom® additional instrument license on additional time base
A1676	ClarityChrom® option for PDA data processing
A1677	ClarityChrom® system suitability option
A1678	ClarityChrom® option for GPC data processing
A1679	ClarityChrom® option for MS data processing
A1682	ClarityChrom® KNAUER FRC control module for preparative HPLC
A1681	Upgrade for one system from former version to ClarityChrom®
A1687	Upgrade for former ClarityChrom® Prep to latest ClarityChrom® with KNAUER FRC control module
A1690	30-day trial version of ClarityChrom
A1675	ClarityChrom® university package one offline license