



COMPASS CDS

CHROMATOGRAPHY DATA SYSTEM

CompassCDS is a powerful, user friendly and networked chromatography data system developed over 20 years according to customer requirements. It has been designed for instrument control, data acquisition, processing and reporting.

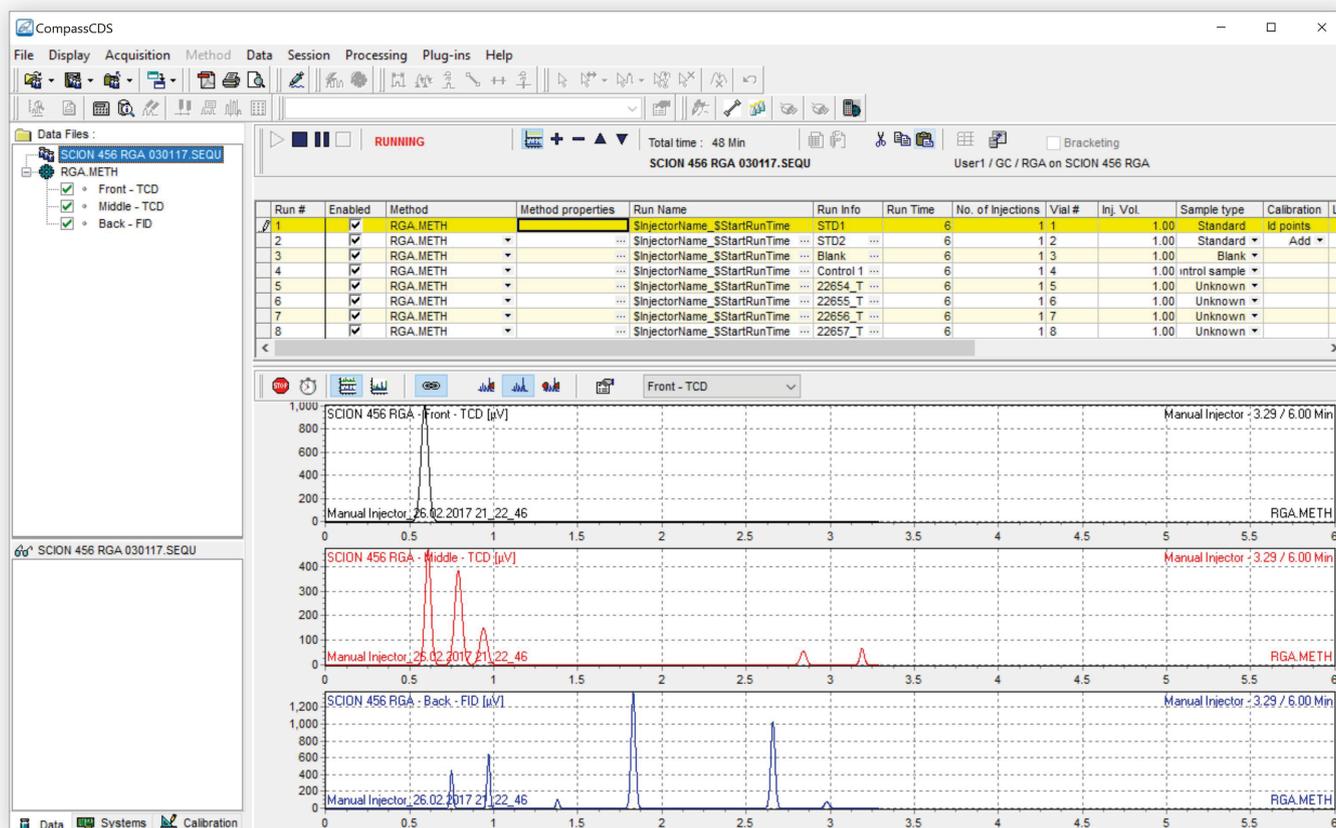


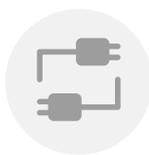
Single Platform, Simply Powerful

CompassCDS IS SCION INSTRUMENTS' UNIVERSAL CHROMATOGRAPHY DATA SYSTEM DESIGNED FOR INSTRUMENT CONTROL, DATA ACQUISITION, PROCESSING AND REPORTING.

With its unique capacity for customization, CompassCDS provides users with a powerful data analysis tool with comprehensive calibration and calculation options. Originating from the legacy Galaxie CDS, CompassCDS has evolved into the next generation CDS which easily integrates with LIMS, PCS/SCADA, ERP and other commonly used data management systems.

The CompassCDS operator-friendly and intuitive graphical user interface (GUI) has been designed to improve the operator experience by streamlining workflows thereby increasing sample throughput and overall productivity. The Dual View function, when used in conjunction with the InstantView option, enables users to run samples, view live data acquisition and review and report results from a single screen without the need to retrieve any data files. CompassCDS also comes standard with the feature set required to support laboratories that are required to comply with 21CFR11 and ISO/IEC 17025, and others.





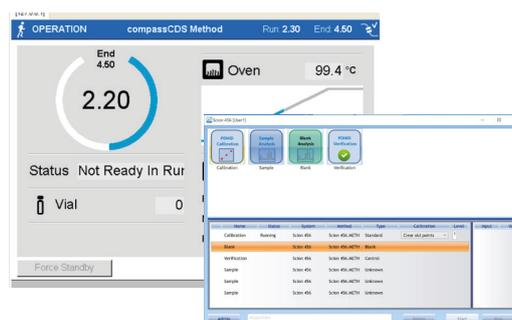
Plug-in Flexibility

CompassCDS PROVIDES USERS WITH ONE OF THE MOST POWERFUL CHROMATOGRAPHY DATA MANAGEMENT SOLUTIONS AVAILABLE.

However, there are often application-specific instances that require additional flexibility and for these, CompassCDS has a comprehensive and well documented API that enables the development of custom pre and post-run plug-ins. Examples of the many plug-ins currently available include:

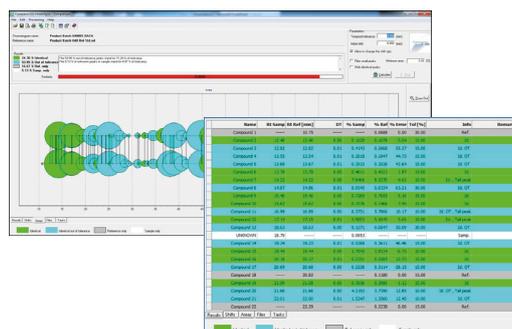
1-Button interface

The 1-Button interface, was developed for plant operators to be able to run samples and when necessary recalibrate as single icon clicks without having to access the CompassCDS application. This pre-run plug-in can also be set to continuously sample product streams 24/7 when not being used to run operator samples.



ChromSync

ChromSync is a post-run plug-in, initially developed for the flavor and fragrance industry, that automates the manual task of comparing complex chromatograms against reference standard runs. The ChromSync peak matching algorithm accommodates significant peak distortion and retention time shifts. Area % comparison of matched peaks are compared against predefined tolerance limits to provide an overall degree of similarity and color coded pass/fail reports are generated.



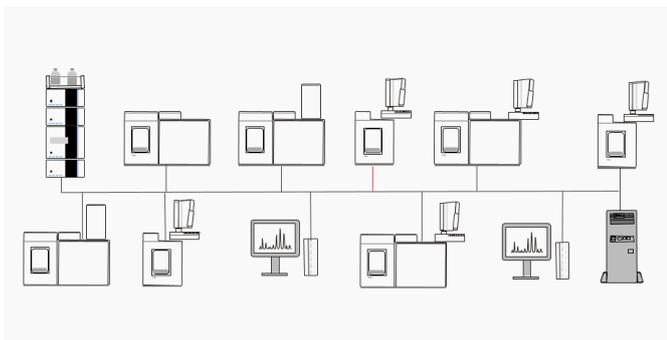


Scalable Solution

CompassCDS CAN BE INSTALLED AS A SIMPLE, SINGLE PC WORKSTATION APPLICATION CONTROLLING A COUPLE OF INSTRUMENTS THROUGH TO A MULTI-LAB, MULTI-VENDOR AND MULTI-INSTRUMENT NETWORKED ENTERPRISE CLIENT/SERVER SOLUTION AND ANYTHING IN BETWEEN.

When deployed as a client/server system, CompassCDS can be installed in a number of configurations that conform with the current networking and operating system architectures including classic "fat" client, metaframe "thin client" and virtualised environments, and in certain instances, combinations of these.

The CompassCDS unique acquisition and control architecture can be centralized on the main server or distributed among several acquisition servers/PCs and should a computer controlling the instruments fail, the ownership and subsequent control of those instruments can be quickly transferred to another PC with a few mouse clicks.

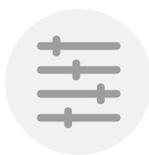


Secure, Centralized Administration

Using the separate and secure Configuration Manager, system administrators can build their own customized CompassCDS structure, in terms of groups, projects, data storage paths, users, user access profiles, instruments, regulatory compliance and overall system security policies, from any CompassCDS computer on the network.

Configuration Manager settings are invisible to CompassCDS users while all of their actions including logon/logoff, run starts and stops etc. are monitored and recorded in archivable audit logs in compliance with 21CFR11.

Time	Date	Event	Actor	Initial name	Initials
2/26/2008 10:20:27 (GMT)	2/26/2008 10:20:27 (GMT)	Administration profile Default admin profile modified	Administrator	DESKTOP-HP8952832	Compass
2/26/2008 10:20:28 (GMT)	2/26/2008 10:20:28 (GMT)	User profile Default profile modified	Administrator	DESKTOP-HP8952832	Compass
2/26/2008 10:20:49 (GMT)	2/26/2008 10:20:49 (GMT)	User profile Default profile modified	Administrator	DESKTOP-HP8952832	Compass
2/26/2008 10:20:51 (GMT)	2/26/2008 10:20:51 (GMT)	System SC user configuration edit	Administrator	DESKTOP-HP8952832	Compass
2/26/2008 10:20:54 (GMT)	2/26/2008 10:20:54 (GMT)	System SC user configuration edit	Administrator	DESKTOP-HP8952832	Compass
2/26/2008 10:21:11 (GMT)	2/26/2008 10:21:11 (GMT)	System SC user configuration edit	Administrator	DESKTOP-HP8952832	Compass
2/26/2008 10:21:42 (GMT)	2/26/2008 10:21:42 (GMT)	System SC user configuration edit	Administrator	DESKTOP-HP8952832	Compass
2/26/2008 10:22:07 (GMT)	2/26/2008 10:22:07 (GMT)	Detector 20: Ready (FFC) created on system SC user	Acquisition server	DESKTOP-HP8952832	Acquire
2/26/2008 10:22:07 (GMT)	2/26/2008 10:22:07 (GMT)	Detector 20: Made (IC2) created on system SC user	Acquisition server	DESKTOP-HP8952832	Acquire
2/26/2008 10:22:07 (GMT)	2/26/2008 10:22:07 (GMT)	Detector 20: Temp (FC2) created on system SC user	Acquisition server	DESKTOP-HP8952832	Acquire
2/26/2008 10:22:07 (GMT)	2/26/2008 10:22:07 (GMT)	Injector Position 7: created on system SC user	Acquisition server	DESKTOP-HP8952832	Acquire



Complete Control

CompassCDS HAS AN EVER-EXPANDING SUITE OF INSTRUMENT CONTROL DRIVERS THAT ENABLE USERS TO OPERATE ANY NUMBER OF CHROMATOGRAPHIC SYSTEMS FROM ANY COMPUTER. CURRENTLY THE COMPASSCDS CONTROL DRIVER SELECTION INCLUDES:

SCION

GC - 456, 436, 8300, 8500, 450, 430, 3800,

LC - LC6000

Varian - Legacy LC & GC

A/D - NI

Agilent

GC - Intuvo, 8990, 7890, 7820, 6890, 6850, 4900, 490

HS - 7697A

LC - 1100, 1200, 1260, ELSD

HTA

Sampler - HT3000

CTC

Sampler - Pal XT, Pal 3 II

EST

Sampler - Flex

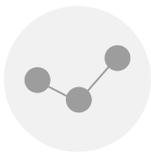
Galaxie instrument control drivers, and datafiles are supported in CompassCDS, making it straightforward to upgrade from Galaxie to CompassCDS.

Flexible Data Storage

CompassCDS makes use of an All-In-One flat file as the default data storage format. These .DATA files store all raw data points, a "live" copy of the method used to acquire and process the data, all results including any custom calculations and associated equations, all additional metadata (dates, users, calibrations etc.) as well as all audit trails, in a single encrypted file.

These files provide users with a single point of reference for all information pertaining to a single injection and importantly, provide easily transferrable data repositories for technical support.

The optional CompassDB application which can be installed on current versions of SQL or Oracle databases provides an inexpensive additional layer of redundancy. CompassDB automatically stores copies of entire .DATA and other CompassCDS file types as Binary Large Objects (BLOBs) and metadata in relational database tables, creating a searchable data archive, the contents of which can be used to rebuild and recover entire .DATA files should these have been lost or corrupted on the CompassCDS server. You can choose to keep data in file format, or have in a database which is searchable, indexable and can recover any lost or corrupt datafiles easily.



Chromatography Data Handling & More

BUILT-IN CAPABILITIES TO CONVERT DATA INTO INFORMATION:

Summary Reports

Summary Reports use results from any number of chromatograms, taken in a single sequence or over the past months or even years, and calculate averages and standard deviations. Summary Reports can also plot and evaluate trends in data, detecting and flagging changes in chromatographic systems before these changes can compromise operation.

System Suitability

System Suitability software determines the quality of a chromatographic analysis, calculating parameters such as peak asymmetry and column efficiency. The software can compare the results generated from injected control samples to their expected concentrations. Limits put on these results can then be used to determine the best action to take to correct potential problems and ensure the integrity of data and results.

The screenshot displays the CompassCDS software interface. The main window shows a chromatogram plot with a y-axis labeled 'pV' ranging from 750,000 to 1,000,000 and an x-axis labeled 'RT [min]' ranging from 0.8 to 1.5. A dialog box titled 'Edit Test : step 1 of 5' is open in the foreground. The dialog box contains the following sections:

- Test Subject:** Select the test subject from the list below.
 - Peak
 - Peak group
 - Chromatogram raw data
 - Global
- Sample Type:** Select the sample types on which the test will be applied.
 - Unknown
 - Blank
 - All standards
 - All control samples
 - Control sample
 - Control sample of level 0
 - Standard of level 0

Buttons at the bottom of the dialog include 'Cancel', '<< Previous', 'Next >>', and 'Finish'. Below the dialog box, there is a 'Suitability test list' section with buttons for 'Add...', 'Edit Test...', 'Edit Action...', and 'Delete'. A status bar at the bottom of the window shows 'Genny_03_06_2020 15_36_16 x = 1.10 y = -25.623 n = 901 User1 Group1 Project1 Genny 0 file(s) in queue'.

Column Tracker

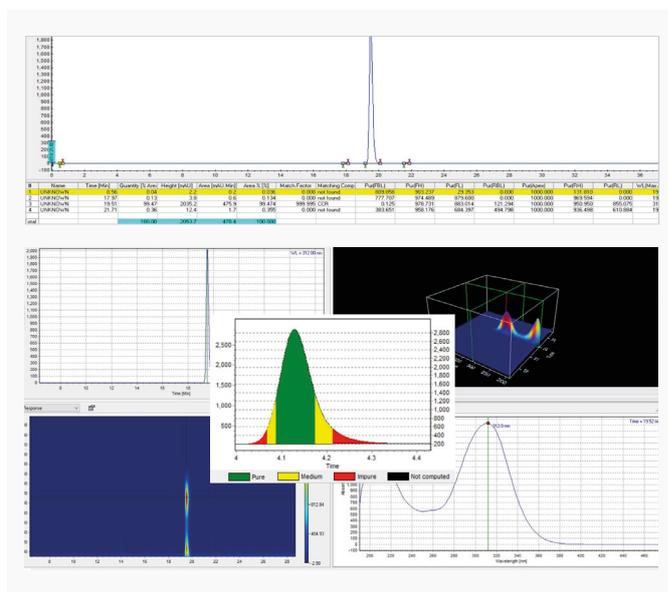
Column Tracker, an integrated database, keeps track of the identity and usage for all system columns. Every time an injection is made, Column Tracker records the injection - no matter which instrument or which column is being used. This information is stored in the database, as well as with each data file, providing a completely documented and traceable usage and performance history for every LC or GC column.

Print Manager

Print Manager allows users to conveniently export reports and chromatograms, in multiple formats to one or more network printers. CompassCDS can automatically convert chromatogram results to many different formats such as ASCII, Excel, or AIA, simplifying the ability to perform further calculations or modeling. Furthermore, it's easy to interface with other systems like LIMS, LES or ERP.

PDA and FLD

PDA and FLD spectral processing software determines the identity and purity of peaks, and displays the information both graphically and numerically for easy interpretation. Purity and identity information is integrated into standard chromatographic reports for a complete analysis of each sample.



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