Automated Method Development in accordance with QbD principles
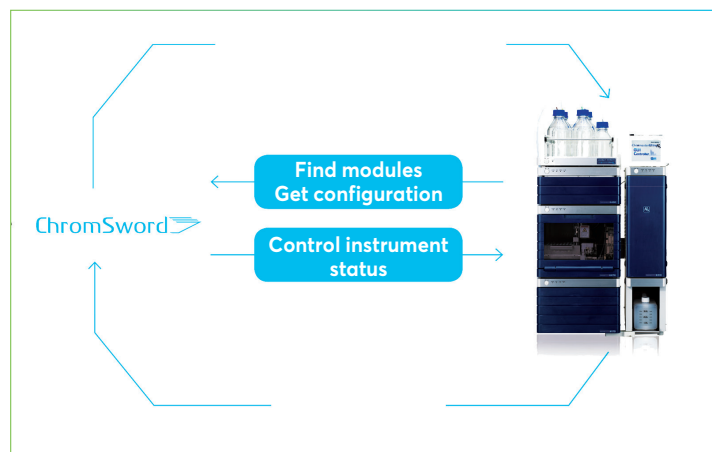
ChromSword Auto® software communicates directly with the HPLC instrument to create a fully automated HPLC or UHPLC method development station.

The ChromSword Auto® software package is capable of developing and optimising HPLC methods automatically within just a few hours. Methods already in use can also be optimised, thus reducing analysis time considerably. Plan your experiment in 8 simple steps, set up the mobile phases as required, place your sample in the autosampler and click start. ChromSword Auto® then works to predict the method conditions by fully controlling the HPLC system connected. The acquired data are analysed by the software and optimal conditions determined.

The rapid optimisation mode can be used to provide an overview of the performance of the column/solvent system selected, or to rapidly screen columns and eluents considered for use. The fine optimisation mode additionally collects and evaluates further ancillary data and produces up to 10 sets of alternative optimal HPLC conditions.

Both operating modes can be applied in combination with column and solving switching procedures in order to try a variety of column/solvent combinations, or to establish optimal pH conditions. It is thus fully automated.

– Automatic optimisation of isocratic conditions, linear and multi-step gradients
– Automated methods screening with different column/solvent/buffer/temperature combinations
– Works with 1 to 10 different columns, 1 to 3 organic solvents, 1 to 16 buffers, different temperature and flow rates
– Automatic search for impurities (0,01 area %) and maximum number of peaks

– Automatic optimisation of separation of only target compounds or only the main peak from others
– Automated peak tracking using UV, DAD or MS data
– Automated reporting results

ChromSword Auto® is a modular software package that can be used as one package or purchased separately as needed.

CHROMSWORD® DATA SYSTEM

A fully functioning chromatography data software package which directly controls the HPLC or UHPLC system using integrated drivers. All main HPLC manufacturers are supported. This means that you do not need an extra CDS licence to work with ChromSword®, just let your chosen instrument communicate directly with the software.
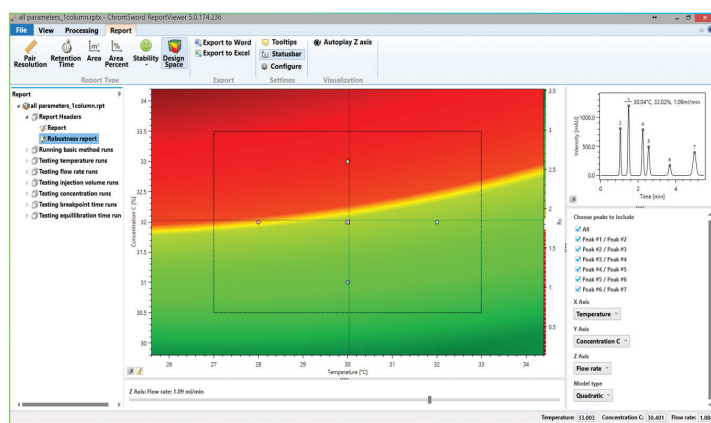
CHROMSWORD® SCOUT

Easy tool to create scouting plans in seconds. Automatic generation of scouting methods with different parameters. The first step to find the best method for your application.

Changeable parameters:

– Solvent
– pH buffer
– Gradient
– Column
– Flow rate
– Temperature
– And many more…

Convenient way to develop scouting plan for all variables.

REPORTVIEWER

Use ReportViewer to make your work easier and faster and to see more.

– Universal reporting for all data systems
– Unique features for spectral analysis
– Support to QbD process
– Advanced data export and report preparation

ChromSword® ReportViewer 5 makes it easier to navigate through different data files. You can compare chromatograms and spectra, integrate and re-integrate chromatograms, estimate peak spectral purity, build 1-D, 2-D and 3-D plots, plus generate Microsoft office reports. ChromSword® ReportViewer is now a data analysis platform, not only for ChromSword® products, including

ChromSword Auto® and AutoRobust, but also able to open results from multiple data systems including ChemStation, OpenLab, Chromeleon and Empower CDS.

CHROMSWORD® DEVELOPER

Using artificial intelligence decision making processes after each run, this is the main module that automatically provides optimal separation conditions.

ChromSword Auto® is your assistant for all project stages from impurity profiling to development of QC methods. Working with all samples, from simple to difficult, ChromSword® works effectively with peak areas of less than 0,01% of the total area.

– Automatic optimisation of isocratic conditions, linear and multi-step gradients
– Automated method screening with different column/ solvent/buffer/temperature combinations. Works with 1 to 10 different columns, 1 to 3 organic solvents, 1 to 16 buffers, different temperature and flow rates
– Automatic search for impurities (> = 0,01 area %)
– Automatic search for maximum number of peaks
– Automatic optimised separation of only target compounds
– Automatic optimised separation of only the main ingredient from other compounds
– Automated peak tracking using UV, DAD or MS data
– Automated reporting results

ChromSword® AutoRobust 5: ChromSword® AutoRobust enables you to explore stability of HPLC methods automatically. After finishing method development with ChromSword®, you can start AutoRobust with all method parameters automatically specified. It is only necessary to specify variables to be tested, range of a level and a procedure to test one parameter at a time, or several, and choose a design of experiment method.

INTRODUCTORY METHOD DEVELOPMENT STATIONS

– Each package combines the outstanding performance of our Chromaster HPLC or ChromasterUltra RS UHPLC system with ChromSword Scout Hitachi edition, which will allow set up and method scouting routines to be easily set up Hitachi edition.
– There are four packages so you can choose the one that perfectly fits your needs

Package	Description	Cat. No.
Economic method development package	Chromaster 600, Chromsword Data System & ChromSword Scout Hitachi Edition	903-0370
Standard method development package	Chromaster 600, Chromsword Data System, ChromSword Scout Hitachi Edition & 3-column valve	903-0371
Professional method development package	Chromaster 600, Chromsword Data System, ChromSword Scout Hitachi Edition & 6-column valve	903-0372
Ultra-Professional method development package	ChromasterUltra, Chromsword Data System, ChromSword Scout Hitachi Edition & 6-column valve	903-0373
CSA5 upgrade from CDS/Scout to CSA5 Hitachi Edition	Upgrade from ChromSword Scout Hitachi Edition to fully automated package. Additional Developer module with a selection of algorithms for artificially intelligent automated method development.	908-0096
AutoRobust add-on module for ChromSword Auto Hitachi Edition	Additional module for automated robustness testing of all key HPLC parameters with full factorial and Plakett-Burman DoE	908-0095