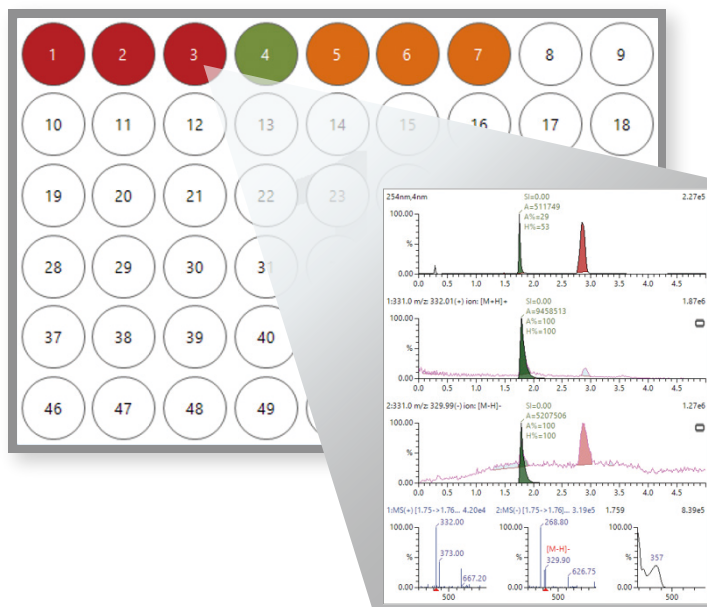


Support Software for Data Acquisition, Analysis, and Preparative Purification for LC and LC-MS Systems

# Open Solution



# Maximize the Efficiency of LC and LC-MS Data Acquisition and Analysis in an Open Access Environment\*

In labs where multiple analysts repeatedly perform a number of data acquisitions and analyses with set analysis conditions, the work must proceed simply and efficiently. In addition, reducing the time spent on the management and maintenance of routinely used instruments will improve productivity.

Furthermore, enhancing the preparative purification process will result in higher throughput.

Open Solution™ solves these issues efficiently.

\* Open access environment: An environment in which multiple people share an instrument, and qualitative analysis and preparation are performed under various analysis conditions

## Features of Open Solution

### Intuitive Interface for Easy Analysis

### Email Notifications and Remote Access

### Automatic Instrument Conditioning for Optimal Performance

### Enhanced Purification Throughput and a More Efficient Workflow

This software is particularly recommended for the following fields.



#### Medicinal Chemistry

- Purification of synthetic products
- Preparation of impurities in synthetic products
- Preparation of functional components in natural substances

Enables more efficient qualitative analysis and preparative/purification processes in the drug discovery workflow for the purification of synthetic products, the preparation of impurities from synthetic products, and the preparation of functional components from natural substances. Multiple UV and MS data sets can be displayed for comparison in a single window, enabling quick and reliable identification of impurities.



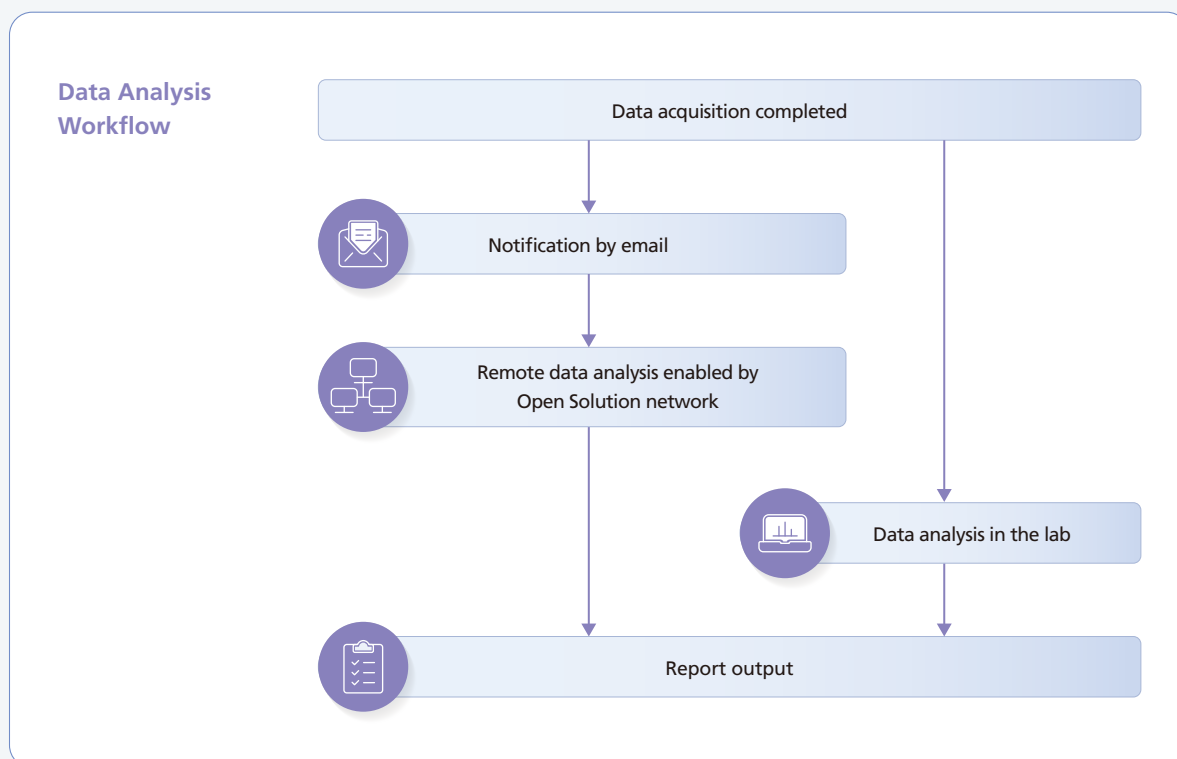
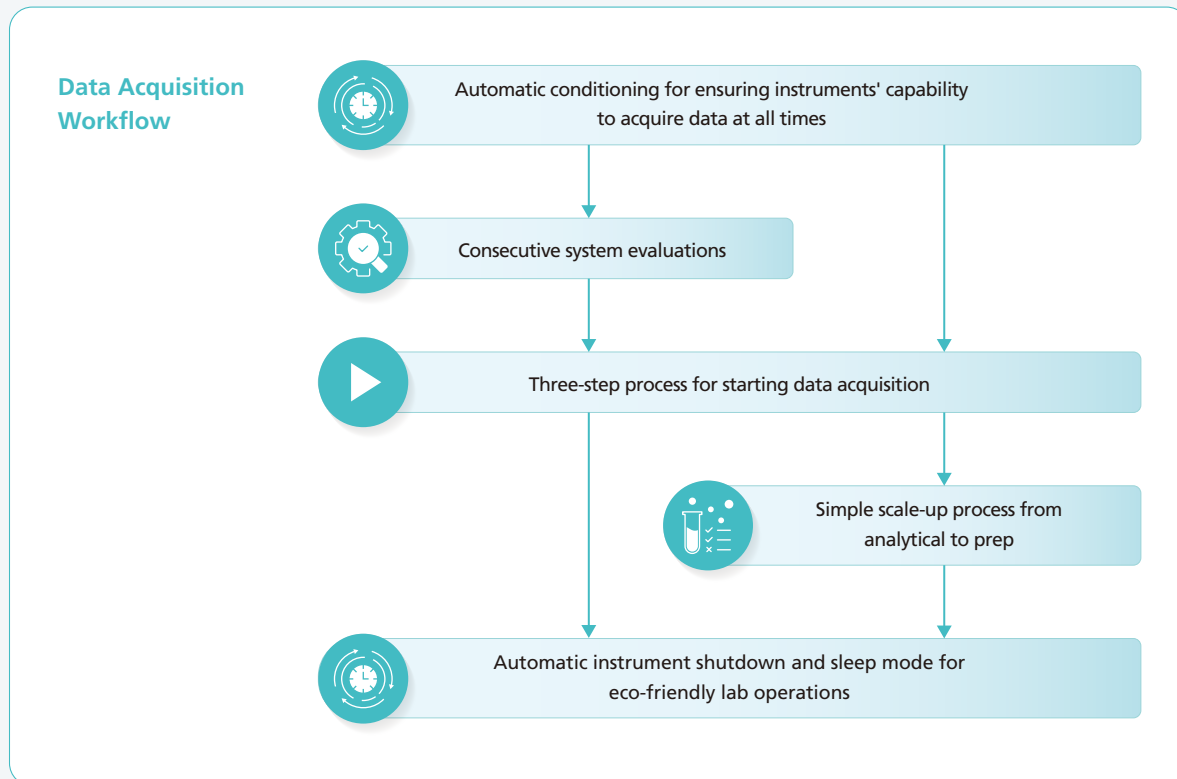
#### Chemistry

- Analysis of impurities
- Scaling-up to preparative work

In the analysis of impurities, multiple UV and MS data sets can be displayed in a single window, enabling easy comparison and identification of target compounds and additives.

In the preparative separation of synthetic products and additives, this software automatically determines whether scaling up from analytical to preparative conditions is feasible, enabling a more efficient preparative process.

## Open Solution supports efficient, flexible user workflows.

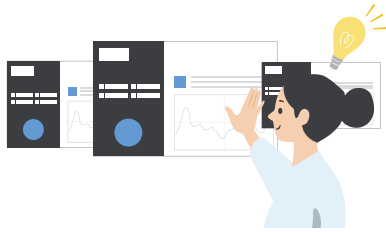


# Data Acquisition

With an intuitive user interface, anyone can easily master the software operations. Analysts are notified by email when data acquisition is completed and data analysis can be performed remotely, achieving an efficient from data acquisition to data analysis.



## Intuitive Data Acquisition



The series of operations from sample registration to selecting the method and acquiring data is performed using one window. The status of the instrument, progress of the data acquisition, and estimated completion time will also be displayed on a single screen. This user-friendly interface makes it easy for anyone to use the software.

Select the user and log in. Confirm instrument status at a glance.

Display the estimated acquisition time.

Acquisition progress is easy to determine from the vial colors.

Register the analysis easily in a tabular format.

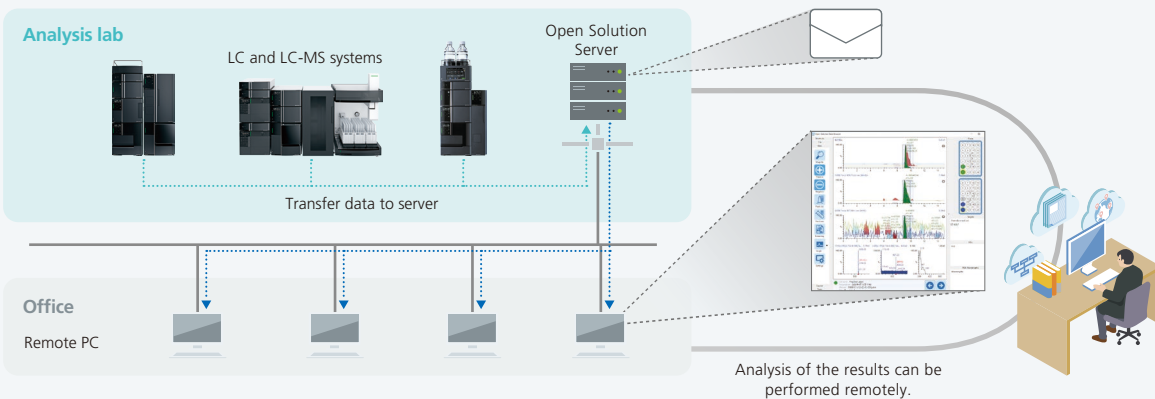
Start data acquisition with just a click of a button.



## Email Notifications Get Sent When Data Acquisition Has Been Completed and Analysts Can Perform Data Analysis Remotely



When Open Solution is run on a network, the user can receive an email notification when the data acquisition has been completed. The user can then simply click on the link in the email to access the data analysis window, thereby achieving a smooth data analysis workflow.



# Data Analysis

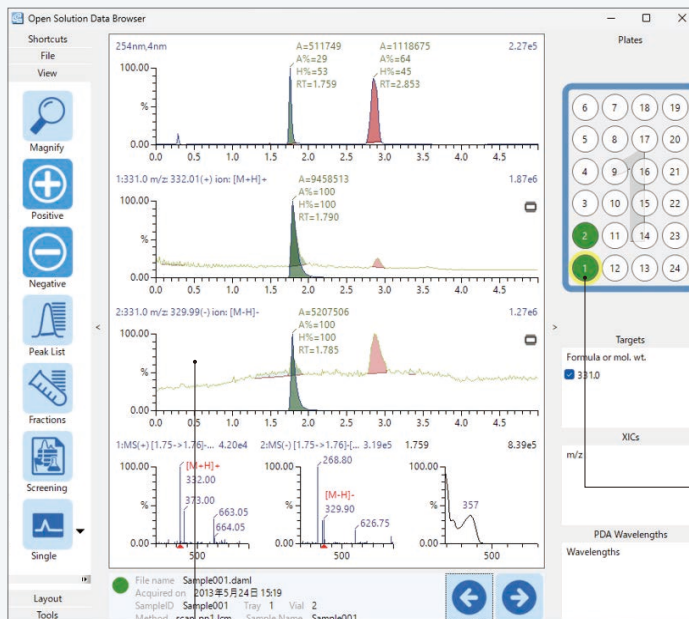
The Open Solution data analysis window displays the UV and MS chromatograms and spectra all in one window. Simply select the analyzed vials and the target peaks to switch the data displayed, simplifying comparisons of target substances and impurities.



## Easily Compare Data in a Single Window!

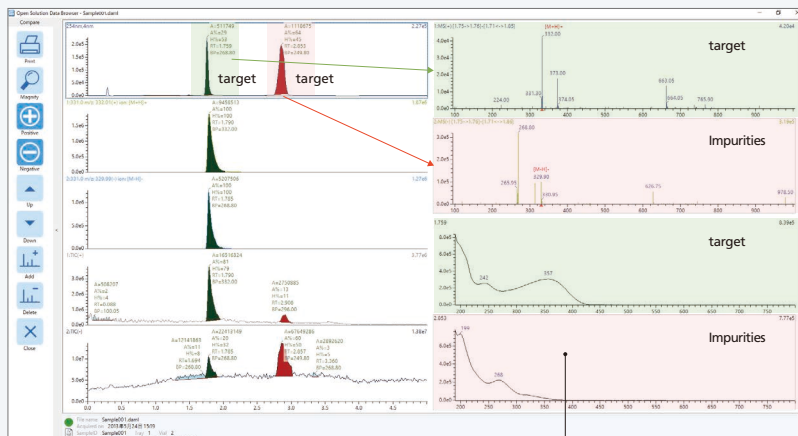


Simply select a vial to compare the spectra of the target compound and impurities in a single window. With no need to open multiple data analysis windows, it is easy to check whether the target compound has been successfully generated and identify the types and amounts of impurities.



Selecting a vial displays the corresponding data.

The displayed spectra and peaks are switched simply by selecting a chromatogram.



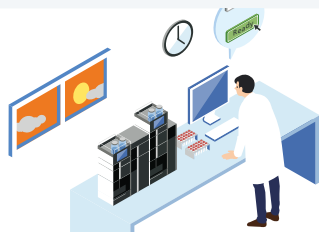
Comparison of the MS spectra for impurities and target compounds

# Maintenance

With the automatic conditioning function, instrument startup and shutdown can be configured to match the user's arrival and departure times. The system stability test (SST) function, which checks the instrument status, can be performed periodically, so column deterioration and instrument errors are detected at an early stage, preventing sample loss.

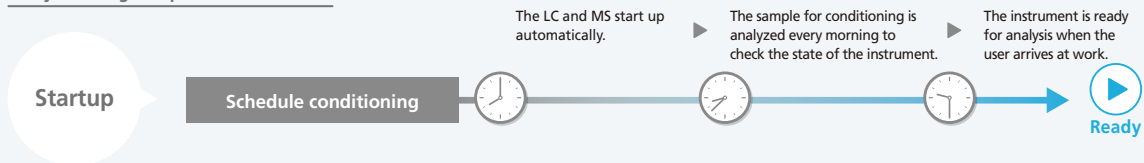


## Automatic Conditioning

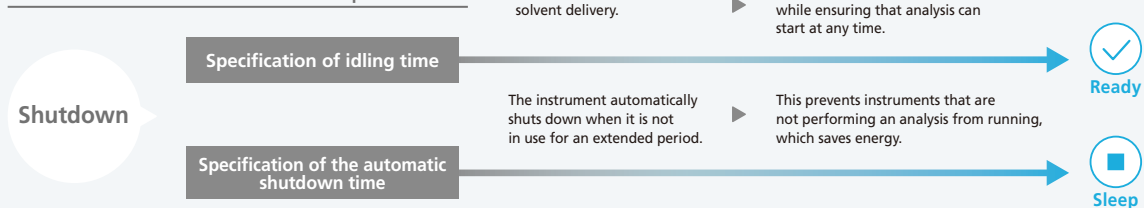


The instrument can be used in the appropriate state at the necessary time by configuring the settings, including startup, shutdown, and automatic conditioning, before analysis.

### Every morning at a predetermined time



### If the instrument is not used for a certain period of time

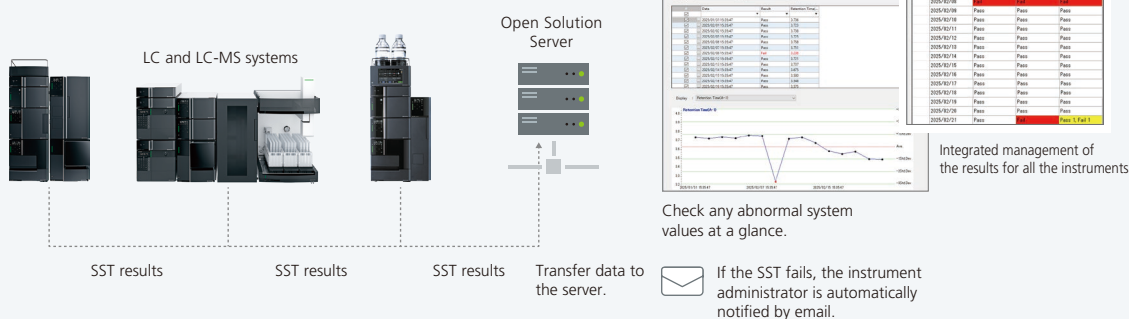


## Instruments and Columns Are Always Kept in Optimal Condition!



Checking the condition of the instrument is essential to ensure the reliability of analytical results. By regularly performing system stability tests, issues such as column wear, clogging, and system contamination can be detected at an early stage, helping to prevent instrument malfunctions.

### Analysis lab

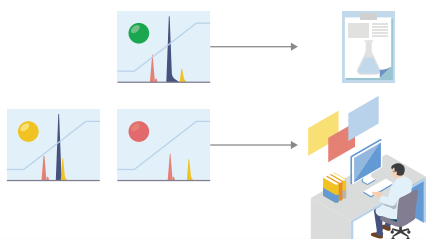


## Preparation and Purification

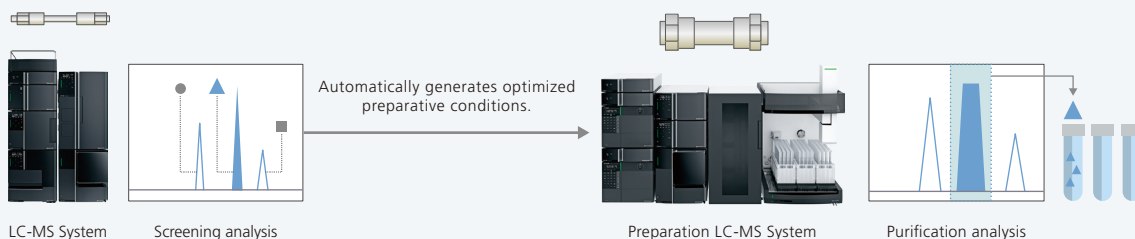
The ASAPrep™ algorithm, which is standard in Open Solution, helps to streamline the optimization and automation of methods from analysis conditions to preparative conditions. In addition, when combined with Purification Solution, software for the Nexera UFPLC, the entire workflow—from preparation and concentration to purification and recovery—is streamlined. Anyone can easily perform not only data acquisition and analysis but also the routine work of preparative purification, with a minimum of operations.



## Increase Throughput with the Scale-up Function!



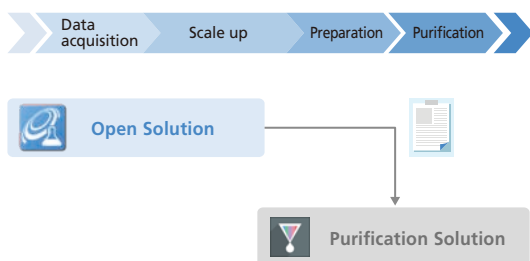
The standard ASAPrep algorithm supports the scaling-up of analysis conditions to preparative conditions for the preparative purification of compounds. Simultaneous analysis is performed using multiple mobile phase conditions, and the optimal preparative conditions are proposed. If separation is simple, preparation can be performed as is, resulting in an efficient preparation and purification process.



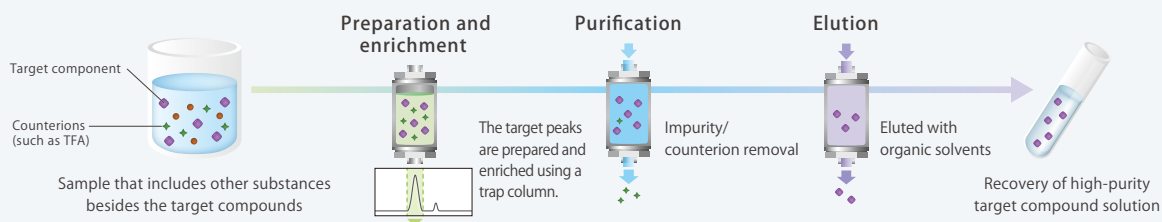
Using the Nexera ASAPrep analysis/preparative scale-up system improves throughput in the analysis and preparative process.



## Integration with Purification Solution/ Nexera UFPLC Heightens Powderization Efficiency!



In conjunction with Purification Solution, a software program for the Nexera UFPLC\*, Open Solution can streamline the workflow up to the purification process. By importing the automatically generated preparative parameters into Purification Solution, the entire workflow—from purification to powderization—can be automated, significantly improving the efficiency of the preparative purification process.



Nexera UFPLC is an ultra-fast preparation trap purification system that performs concentration, generation, and desalting of target components, significantly reducing the time required for powdering. For details on Purification Solution/Nexera UFPLC, refer to the Nexera UFPLC catalog (C193-E034D).

## License Types

- Open Solution License Package  
(contains the license for sample registration, and Open Solution Data Analysis 5 Users)
- Open Solution Additional Postrun Analysis License (5 users ~ )

## Related Product

Product Name	Type	Application
Nexera ASAPrep	A system that integrates software (Open Solution) and hardware.	Enhances the efficiency of scaling up from analysis to preparation. <a href="#">Product</a>
Purification Solution	Software *Used in combinaton with the Nexera UFPLC system	When combined with Open Solution, it improves the efficiency of the preparation to purification process.

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