OpenLAB CDS ChemStation Edition C.01.05
Tips and Tricks for GC Users

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ChemStation Edition
Problem / Solution

Problem
I need to be able to switch quickly between different Agilent data systems.

Solution
Enhanced drivers provide a standard layout for all Agilent Data Systems.
GC Instrument Driver

Support for 7890, 7820, 6850, and 6890 GC with enhanced Drivers to provide a standard layout for all Agilent Data Systems.

- OpenLAB CDS ChemStation Edition
  *Legacy-ChemStation B.04.03

- OpenLAB CDS EZChrom Edition
  *Legacy-EZChrom Elite 3.3.2

- GC/MS ChemStation

- GC/MS MassHunter

- One common GC Instrument Driver
Problem / Solution

Problem
• How can I optimize my maintenance schedule and reduce unplanned downtime?
• The lab personnel including myself forgets when the instrument maintenance was last performed.

Solution
Agilent Early Maintenance Feedback
Agilent Early Maintenance Feedback

- Set-up the counters within the Agilent Data System
- Based on the configuration of the GC
- User-defined early maintenance feedback counters
- Notification of the Warning and Service Due

OpenLAB CDS A.01.05 for GC Users
January 2013
Problem / Solution

Problem
I want to optimize my maintenance schedule, but I’m not sure where to set the EMF maintenance counters.

Solution
Agilent Early Maintenance Feedback
Agilent Early Maintenance Feedback

• Some EMF counters have default limits; however the maintenance required will be depended on the type of sample analyzed.

Another way to set them up:
• When you perform maintenance look at the settings of the counters.
• Set the warning limits to the amount.
• Check the counters next time when performing maintenance and adjust the limits.
Problem / Solution

Problem
I need to control cost in my laboratory with increasing cost for energy and helium.

Solution
Resource Conservation using the “Sleep/Wake” mode
Resource Conservation: Sleep/Wake Mode

- Schedule the time of the Wake and Sleep Methods either as “custom”, “7 days a week” or “Sat/Sun”
- Manually put the instrument to sleep by clicking on “Sleep” on the “Instrument” menu
- Instrument will still go to Sleep or Wake mode even if the data system is not connected for any reason.
Problem / Solution

Problem
I missed putting a vial in the autosampler or miscounted.

Solution
ALS Error-Retry, Abort or Skip
Handling of ALS Errors

![Image of ALS Error Handling Interface]

- **Enable barcode heater**
  - Heat Temperature: 50 °C
  - Actual: 29 °C
  - Heat time: 1 min
  - Mix speed: 1000 rpm

- **Enable barcode mixer**
  - Mix cycles: 2
  - Mix time: 10 sec

- **Enable Sample Overlap**
  - After previous injection is completed
  - Prepare sample: before end of GC run
  - Prepare sample: after end of GC run

- **ALS Errors**:
  - Pause for user interaction
  - Restart for user interaction
  - Skip to the next sample
  - Abort the sequence

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**Instrument Actuals**

- **ALS Error**:
  - Retry
  - Abort
  - Skip
Problem / Solution

Problem
I need to replace a part for the instrument. I need to find the correct part number quickly and re-order the part.

Solution
Agilent Parts Finder Tool
Agilent Parts Finder

- Quickly locate the part number and add to the parts list or favorites
- Print the parts list or save it to a file
- Links to the Agilent.com store for quick ordering through the Agilent website.
- Update file with up-to-date parts and part numbers available via the Agilent website for download.
Problem / Solution

Problem
I need to be able to keep track of columns, liners, and syringes installed in the GC

Solution
Agilent barcode scanning input and updated consumables inventory
Barcode Scanning Input

*Also syringes

Barcode in the columns, liners, and syringes right into the Agilent data system method

Inventory and full Agilent catalog

Periodic updates available

Liners
Problem / Solution

Problem
I need to review the Acquisition Method without downloading it to the instrument. I don’t want to trigger Method Resolution.

Solution
The Acquisition Method Viewer provides a way to view the Acquisition Method.
Acquisition Method Viewer
Problem / Solution

Problem
I want to start OpenLAB CDS ChemStation without downloading a CDS method to the instrument.

Solution
Method Load Options at software launch
Method Download

- Upon instrument startup, users are given a choice:
  - download the ChemStation method to the instrument
  - upload the instrument method to ChemStation
  - create a new method from instrument method
- A differences viewer highlights the differences between the ChemStation method and the instrument method.
Single Sample Workflow (1/2)

• The Navigation Table now shows the acquisition method as well as the data analysis method.

• A fly-over indicates the path to the data analysis method.
In the Last Result Mode it is now possible to save the data analysis parameters last used (from DA.M) to a master method.

Update any master method with the data analysis parameters last used (from DA.M).

Update the corresponding master method with the data analysis parameters last used (from DA.M).

Combine the data analysis parameters last used (from DA.M) with acquisition parameters from any master method and save as a new master method.

For more explanation on the DA.M, please refer to the Tips and Tricks for C.01.03
Problem / Solution

Problem

I want to add another sample to be analyzed without writing a sequence file.

Solution

Single Sample Method Queue
Single Sample Queue
Problem / Solution

Problem

• I need to get the final data/report before the shipment can go out.

• I need to process more samples in a day.

Solution

OpenLAB Data Analysis Package
OpenLAB Data Analysis

- Customized layouts: User selects which windows and items they want to view. They are persisted even if the software is closed.
- Use “up” and “down” arrows to review all the samples in the result set in a few minutes.
- Peak detail: View each peak in the sample in a zoom-in.
- 40 times faster than previous versions of MT ChemStation.
Problem / Solution

Problem

• I need to get the final report before the shipment can go out.
• I need to process more samples in a day and get the reports.

Solution

OpenLAB CDS Intelligent Reporting
OpenLAB CDS: Intelligent Reporting

Intuitive report template generation with drag & drop and interactive report preview functionality.

Pre-configured report items (tables, graphics, matrices) make it easy to generate custom reports.

New custom reporting application – embedded into OpenLAB CDS.

Easily include graphics such as your company logo.

Embedded custom calculation functionality to calculate final results – here %label claim.

Intelligent Reporting: Including limit checks into report.
Decision-based result representation (pass/fail).

All current reporting options in ChemStation and EZChrom remain available.

OpenLAB CDS: Intelligent Reporting

January 2013 OpenLAB CDS A.01.05 for GC Users

27
Problem / Solution

Problem

• I need to be able to easily create reports with statistical calculations.
• I want to highlight results that need a reviewer’s attention.

Solution

OpenLAB CDS Intelligent Reporting
OpenLAB CDS: Intelligent Reporting

- Intuitive Customized Reports
- Calculations
  - Statistical Calculations (Sum, RSD, Average)
  - Custom Calculations
- Set limits to flag data
- Save a copy of the single injection report to another location
Export report as DOC and TXT (ChemStation Edition only)

- Export report as Word (*.doc) and Text (*.txt) (ChemStation Edition only)
- Word format can be used to include reports in SOP’s or other publications
- Text format allows easy transfer of results into other systems
- Manual or automatic export
Problem / Solution

Problem
I want to easily adjust multipliers when creating the report.

Solution
OpenLAB CDS Intelligent Reporting: User-entered parameters
Intelligent Reporting: Report parameters

• Create/Edit report parameters as part of report properties
• Allow user to enter values during rendering
• Use of report parameters in expression editor (calculations, sorting, filtering etc.) allows to user to interact with the report content and change the behavior without changing the template

Display user-entered parameters

Use user-entered parameters in calculations
Problem / Solution

Problem
I need to control cost in my laboratory when printing out reports.

Solution
OpenLAB CDS Intelligent Reporting: Double-row tables allow you to create paper-saving reports.
Intelligent Reporting: Double Row Table

- Allow to design tables with two headers and two detail rows
- Summary calculations for both detail rows
- Especially useful for reports where you want to fit a lot of information onto one page

![Multiple Table Rows]

### Single Injection Report

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<th>Height</th>
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<th>Height %</th>
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In addition.....
OpenLAB CDS: Scalable in Storage, Lab Management and Administration

- Workstations
- Networked Workstations
- Distributed OpenLAB CDS with ECM Workgroup
- Enterprise OpenLAB CDS with ECM Enterprise

Increasing Users/Instruments

Increasing Functionality
OpenLAB CDS: Networked Workstation Configuration

OpenLAB CDS Configurations: Networked workstation

- **Instrument Control**: Local on each workstation
- **Administration**: Central in OpenLAB Core Server Software
- **Storage**: Local on each workstation
- **Benefits**:
  - Central administration for all users, licenses and all user privileges
  - Status information in lab-at-a-glance view from all instruments connected

**Fits well with**:
- Laboratories with many instruments and few users, budget-controlled
- Laboratories looking for central lab monitoring without putting their instruments on the network
OpenLAB CDS Networked Workstation with OpenLAB ECM configuration

OpenLAB CDS Configurations: Networked workstation with OpenLAB ECM

- Instrument Control: Local
- Administration: Central
- Storage: Central (OpenLAB ECM)
- Benefits:
  - Central administration (users, licenses, user privileges)
  - Instrument status information (lab-at-a-glance view)
  - Result data available from anywhere
  - Storage in central OpenLAB ECM with database storage

Fits well with:
- Laboratories who need GLP/GMP compliance and central storage
- Laboratories looking for central lab monitoring without putting their instruments on the network and have a need of database storage
Problem / Solution

Problem

• I cannot afford to duplicate work one of my colleagues has already done.
• I need to securely store my data for a set period of time.

Solution

OpenLAB Data Store allows you to centrally store your data, share it with colleagues, backup and archive.
OpenLAB Data Store – Central Data Storage for OpenLAB CDS

Efficient Data Storage and Retrieval
✓ Centralized Storage for OpenLAB CDS
✓ Project-based organization and user privileges (EZChrom)
✓ Efficient search and retrieval of files
✓ Local Language Support (Chinese & Japanese)

21 CFR Part 11 Compliant
✓ Built to support FDA regulations
  ✓ Data Integrity and Traceability
  ✓ Electronic Signatures
  ✓ Archival Capabilities
For more information, check the Agilent web site or contact your Agilent sales representative.