



# STARLIMS™

TECHNICAL NOTE

## Empower/STARLIMS

Certified Interface



COMPATIBLE

**A premier partnership agreement exists between STARLIMS and Waters® whereby the companies offer an interface between**

**Waters' CDS software, Empower and STARLIMS.**

A typical analytical laboratory generates hundreds or even thousands of test results daily which must be securely stored for long periods. A laboratory information management system (LIMS) is a software solution for tracking individual samples and the information obtained on them with balances, pH meters, HPLC, LC-MS, and other analytical tools. Labs often use LIMS products as final report and release tools. Only after the results of all analytical techniques have been compiled and reviewed in a LIMS, is a product released or rejected.

A Chromatography Data System (CDS) creates chromatographic methods of analysis, controls chromatography instrumentation, acquires raw data and processes it into results, archives the results, or imports and/or exports results (e.g., sample name, compound name, area and amount) to and from information systems such as a LIMS. Liquid and gas chromatography are ubiquitous techniques in research and development and quality control laboratories.

Waters Corporation (NYSE:WAT) is the world's largest provider of HPLC instrumentation, chromatography chemistries, results management software, and related support services. Empower Software is Waters flagship chromatography product. The software, built on an embedded relational database that traces its roots in Waters' 14-

year-old Millennium<sup>32</sup> software solution. Empower Software represents a fundamental shift in chromatography data system (CDS) usability by replacing cumbersome add-ins (i.e., system components that provide added functionality through distinct installations) to a more scalable switch-on approach. A single window construct allows the user to remain within the application, instead of accessing a range of applications using cascaded windows.

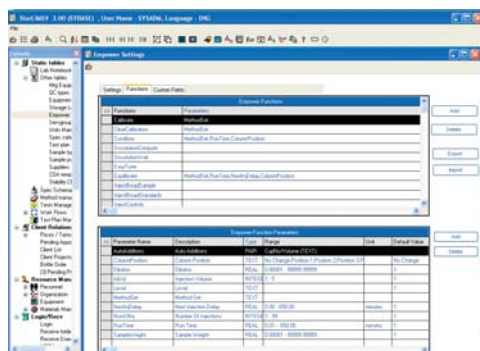
For more than 15 years, STARLIMS has been serving the information needs of laboratories across the globe. Whether it's a R&D team developing new drugs, a QC lab supporting manufacturing in a regulated setting (GMP, GLP), a process control unit situated in the world's largest refineries, or a global inspection or an environmental monitoring organization - STARLIMS' flexible Multiple-Tier architecture and functionally-rich out-of-the-box components enables each operation to control its unique workflow and work style with ease.

STARLIMS provides complete traceability and regulatory compliance. The system is delivered with extensive features to aid in this process and afford labs auditable and defensible results. These attributes include maintaining versions of test methods, training certifications for analysts, logbooks for instrument maintenance, instrument standards and control charts, dynamic monitoring of chain-of-custody, raw data files, and general material management and tracking. All these elements are seamlessly integrated into the workflow process. For instance, when a test is assigned to an analyst the certifications of the analyst are checked to correspond with the certifications required.

**“We were very impressed with this new interface, which exposes to users the functional benefits of industry-leading solutions for both chromatography data software and LIMS, without the need to switch applications.”**  
**Said Patrick Martell,**  
**Director of Data Product Marketing at Waters.**

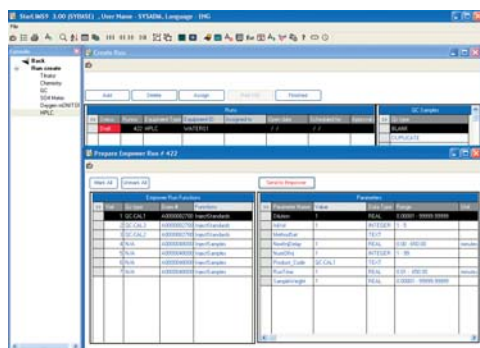
## One Stop Scientific Data Management

The interface established between STARLIMS and Empower through the Empower Toolkit, enables the applications to meaningfully share actionable information without tedious intervening steps.



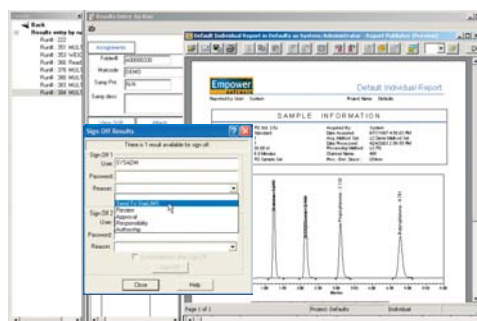
*Set up of Empower functions within STARLIMS*

Scientists performing chromatographic separations are now able to create a run in STARLIMS and send it with all the relevant data to the Empower as a sample set method.



*Run Creation in STARLIMS*

Once chromatographic data is collected in Empower software, scientists can evaluate and approve results by invoking Empower applications within the STARLIMS environment. The integration significantly reduces errors, improves accuracy, and greatly simplifies the process of sharing scientific data between Empower and STARLIMS software products.



*STARLIMS/Empower Sample Data sign off*

After the results are approved, they can be retrieved into STARLIMS. The Results table contains the retrieved results. Any of the values: amount retention time, area, height and so forth, can be recorded in STARLIMS and reviewed from STARLIMS using Empower Review application.

The critical role of an evolved CDS/LIMS interface accomplished by the joint effort of Waters and STARLIMS is to enable scientists and technical staff to seamlessly move electronic records between Empower and STARLIMS without generating any non-controlled files. This is a superior enhancement for labs complying with 21 CFR Part 11 requirements encompassing security, data integrity, traceability, and audit trail generation.

**STARLIMS Corporation delivers cost effective, easy-to-use collaborative LIMS solutions to organizations in the public health, pharmaceutical, petrochemical, forensics, food & beverage, environmental and chemical industries. The STARLIMS full featured, flexible, multilingual laboratory information management system provides complete traceability leading to regulatory compliance.**

**STARLIMS™**

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