

LabKey Data Repository Solutions

Data Repository Solutions FAQ

Q: WHO IS LABKEY?

LabKey is a privately held software and professional services company based in Seattle, WA. The company develops LabKey Server, a powerful open source platform for processing and analyzing biomedical research data. To address specialized research requirements and unique workflows, LabKey software developers work hand-in-hand with scientists and statisticians alike to make enhancements to the platform. These enhancements become freely available to the broader scientific community, providing an ever-more powerful foundation for future research. The company's primary customers are biomedical researchers who need to integrate information from observational studies with large volumes of experimental data from modern, high-throughput technologies (mass spectrometry, flow cytometry, microarray, microplate, ELISpot, Luminex, etc.).

Q: HOW COULD A LABKEY DATA REPOSITORY SOLUTION BENEFIT MY TEAM?

LabKey's data repository solutions help research organizations of all sizes centralize, retain and secure their biomedical research data, from high-throughput experimental results to plate-based assay data to study observations. Establishing a central data repository allows teams to link their results to a common framework of study observations while working on a range of biomedical research projects. Clients use LabKey solutions to quickly overcome bottlenecks in data handling and processing, while enabling their teams to work together more smoothly to accelerate R&D insights. Solutions developed by LabKey's expert technical team are custom-tailored to match the specific needs and workflows of client organizations while leveraging the substantial foundation of the LabKey Server open source platform. Designed to meet 21 CFR Part 11 requirements, LabKey solutions come with well-defined protocols that streamline deployment and reduce system management overhead. LabKey solutions enable IT departments to focus on providing strategic, value-added

services to the organizations they serve.

Q: CAN LABKEY DATA REPOSITORY SOLUTIONS ENHANCE COLLABORATION?

Absolutely. LabKey Server-based solutions are accessed through common web browsers on Windows, Macintosh and Linux devices. Authorized collaborators can securely access shared data and views whenever they want and wherever they are. This makes LabKey solutions ideal for multi-center studies or for core labs seeking to distribute data to customers in remote locations.

Q: WHAT TYPES OF ORGANIZATIONS BENEFIT THE MOST FROM LABKEY DATA REPOSITORY SOLUTIONS?

Research labs and institutes that particularly benefit from LabKey solutions seek to centralize and securely share terabytes of data from high-throughput experiments, plus integrate datasets from a wide range of sources. LabKey solutions allow researchers to accelerate progress in developing vaccines, discovering cancer biomarkers and identifying changes in HIV/AIDS over time. LabKey data repository solutions are particularly helpful to organizations that:

- ▶ Recognize the benefits of working with fully-supported commercial software
- ▶ Lack sufficient IT resources to deploy and maintain an open source code base
- ▶ Require the robustness and processing power afforded by commercial grade databases like Oracle and SQL Server and clustered systems
- ▶ Require 21 CFR Part 11 compliance and auditing capabilities

Q: WHO USES LABKEY DATA REPOSITORY SOLUTIONS?

LabKey data repository solutions power a wide range of biomedical research facilities. These vary from individual research labs within academic institutions, such as Harvard

University, Cedars-Sinai Medical Center, the University of Washington, the University of Michigan, and Duke University, to world-renowned institutes like the Seattle Biomedical Research Institute and the Fred Hutchinson Cancer Research Center.

Q: WHAT FUNCTIONAL AREAS ARE SUPPORTED IN LABKEY'S DATA REPOSITORY SOLUTIONS?

Components of LabKey Server included in LabKey's data repository solutions include:

- ▶ **Proteomics:** LabKey Server easily manages tandem mass spectrometry analyses using a variety of popular search engines, including Mascot™, Sequest™, and X-Tandem™. Proteomics components are certified as caBIG™ Silver-Level compliant.
- ▶ **Flow Cytometry:** LabKey Server provides analysis statistics and graphs for high-volume, highly-standardized flow cytometry experiments. The system also integrates with FlowJo™, BioTrue™ and R.
- ▶ **Plate-based Assays:** LabKey Server allows researchers to design customized, plate-based assays to describe structured experimental results, such as data gathered from microarray, Luminex™, TZM-bl Neutralization (NAb) or ELISpot experiments. Researchers can upload, share and analyze experimental results associated with defined assays.
- ▶ **Observational Studies:** LabKey Server supports researcher-designed assay tracking over time, including web publishing of spreadsheet-sourced results, sample chain of custody management, and DataFax™ integration
- ▶ **Collaboration Tools:** LabKey Server provides tools for sharing information and ideas on public and private webs. It includes a wiki for sharing dynamic content, a message board for online discussions and an issue tracker for workflow management.
- ▶ **Administration and Installation Tools:** LabKey Server provides fine-grained control over project structures and user permissions. Administrators can add specialized tools to customized projects and folders.

Q: WHAT TYPES OF EXPERIMENTAL DATA (I.E., ASSAYS) CAN LABKEY SOLUTIONS HANDLE?

LabKey data repository solutions allow you to bring together mass spectrometry, flow cytometry, microarray, microplate, ELiSpot and Luminex data into a central, secure data repository. We regularly add new data types to the system through our

collaborations with clients and via the efforts of our professional services team.

Q: DOES LABKEY OFFER PROFESSIONAL SERVICES IF WE NEED TO ENHANCE AND CUSTOMIZE THE SOLUTION?

Yes, LabKey's professional services team routinely engages with clients to add new features and capabilities to the software via custom development projects. LabKey also provides training, update assistance and software support and maintenance programs to help our clients get started rapidly with minimal disruption to their labs.

Q: HOW MUCH DO LABKEY'S DATA REPOSITORY SOLUTIONS COST?

It really depends on what you are looking for. We have clients who have invested hundreds of thousands of dollars over multiple years to build out feature-rich solutions optimized for their exact workflows. In contrast, we have clients who invest tens of thousands of dollars to optimize a single specific workflow and accompanying report.

Q: WHAT PROGRAMMING LANGUAGE IS USED TO CREATE LABKEY SOLUTIONS?

LabKey Server is written in Java and runs on most modern operating systems, including Windows, Linux, Solaris, and Mac OSX. It can be customized and extended by skilled Java programmers and has a Javascript API so that developers can quickly develop and deploy new functionality.

Q: WHERE CAN I GET MORE INFORMATION?

More information about LabKey's solutions and services are available on the LabKey web site at www.labkey.com, by emailing info@labkey.com or by calling a LabKey solutions specialist at **+1 (206) 701-9975**.

