Application Note

The ROI of LIMS Standardization



Seeking a replacement for their internally developed Laboratory Information Management System (LIMS), ChevronTexaco (CVX) selected STARLIMS to standardize five domestic US refinery plants. The system is presently in production concurrently at all five sites, with 2,500 users. In the course of a STARLIMS User Group Conference, Jerry Telles, Global Downstream IT, STARLIMS Support Team Leader, presented the challenges and benefits of the standardization project.

ChevronTexaco Corporation (NYSE: CVX), one of the world's largest integrated energy companies, is involved in every aspect of the energy industry, from oil and gas exploration and production to refining, as well as chemicals manufacturing and power production. Active in more than 180 countries, CVX employs more than 51,000 people worldwide.

STARLIMS Implementations

As a large organization with multi-laboratory facilities, CVX recognized the potential benefits of adapting an integrated approach in selecting a LIMS. Completed in December 2003, the five sites across North America run the same version of STARLIMS, an essential component of the enterprises IT strategy. All sites are supported from a central location, with local administrators harmonizing processes throughout the US and increasing efficiency. Even with multiple upgrades standardization was maintained over a two year period. In the near future, the move will be into international ChevronTexaco sites.

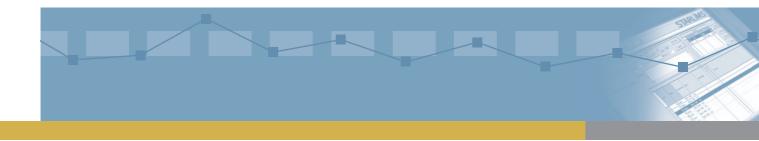
Standardization of STARLIMS

The CVX STARLIMS standardization and implementation project was completed by a team of members from the Global Downstream IT group and Global Refining, critical in ensuring the smooth and efficient transition. The project covered the development of consistent procedures, processes and methodologies. Terms such as material and test codes and analytes are now well defined.

Business rules and reports have been harmonized throughout the organization. A unified hardware system was established comprising one production and one batch processor server at each site, holding standard databases, all running the identical version of Oracle and containing uniform tables, views and procedures. The same interface and data feeds or queries to and from other applications were adapted. A standard STARLIMS version across all sites was implemented – with all upgrades occurring simultaneously.

"STARLIMS standardizes 5 US refinery plants with 2,500 users"





Challenges of Standardization

The implementation of a standardized LIMS contains many challenges. Ample time is spent building a consensus on terms and converting from old to new tables, with the data conversion from multiple to standard systems.

Developing universal Business Rules involves time and effort particularly to ensure all sites are covered and to unify each site behind the standards established.

During Implementations communication with each site is vital to ensure surprises are eliminated. A number of training sessions are necessary if STARLIMS will be used throughout the site and not just in the lab. Early removal of existing interfaces to legacy systems and preparation of new interfaces to STARLIMS allow for a smoother transition.

A central support team employing "Demand Management" methodologies must manage the change in order to Maintain Standardization.

Benefits to ChevronTexaco

Notwithstanding the challenges associated with establishing the standardized LIMS, the financial and operational benefits were valuable. The cost benefits will only grow as STARLIMS is deployed globally.

As more sites are implemented IT support and maintenance expertise are gained, decreasing costs and resulting in faster implementations after the initial one. Identical databases and reports become easier to maintain. Troubleshooting and testing is shared and therefore reduced. Upgrade procedures are similar and so are less time-consuming and easier to implement with less issues. With fewer reserves, access to a more resourceful system is a major benefit to small sites. Users moving from site to site already know the system and administrators can build and share calculations and other table information. Data can be extracted more efficiently by upper management from all sites.

All interfaces to the STARLIMS system are identical and any changes to the database views and procedures are applied to all sites. The DCU interface methods for Main or Field Lab implementation can be shared across all sites eliminating duplication of work.

Summary

Standardization throughout the life cycle of a LIMS project decreases costs by; reducing the overall price of the software, raising IT productivity and efficiency and increasing user productivity. The standardization of the CVX LIMS has greatly improved data access to all users providing them with information necessary to have a greater impact on the enterprise.

STARLIMS Corporation delivers cost effective, easy-to-use collaborative Laboratory Information Management Systems (LIMS) to organizations in the public health, pharmaceutical, petrochemical, forensics, food & beverage, environmental and chemical industries. Full featured and highly flexible our multilingual LIMS solution provides complete traceability leading to regulatory compliance, without compromising process versatility.

A 15 year track record has earned us recognition for "future proofing" our customers' investments and serving as a platform for new implementations and straightforward conversions of legacy systems.

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