

Laboratory information management system (LIMS)

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LIMSs have been around for over twenty years, but still remain difficult to implement successfully. Here generalized approach is given for the development of a successful LIMS implementation.

The modern laboratory exists in an environment that produces a large amount of data. This increase of data can cause significant problems and methods are needed to manage it. One such method used is a LIMS. A LIMS provides a way of automating part of the laboratory system. Most important aims of a LIMS is the integration of many different sub processes, bringing together and consolidating the efforts of potentially many individuals and consequently speeding up the whole process. LIMSs can save considerable amounts of time and dramatically improve the level of data access for all stakeholders of any given project. This is where a LIMS can become extremely beneficial.

Main benefits identified and realized from current users of LIMS are

- Information can be obtained with the click of a button rather than having to dig through files.
- Years of data can be kept easily without the need for traditional archiving.
- The improvement of business efficiency, Improvement of data quality (all the instruments are integrated).
- Automated log-in, tracking and management, Automated customer reports (Turnaround Time, Work Load).
- Automated Integration of Hand-held LIMS devices, Automated Quality Control.
- Daily Quality Reports, Easily accessible data via the web.

Basic points of development, such as: development languages, XML (extensible Markup Language), ASPs (Application Service Provider) and web services. There are three principle protagonists involved in the development of a LIMS: the project sponsor, the project owner and the project manager. The project sponsor can be thought of the investor of the project, usually a section of higher management. The project owner represents the actual customer, responsible for formulating the requirements of the system based on the end users. The project owner is also responsible for the overall delivery of the LIMS. Finally, the project manager has the responsibility of the implementing the LIMS project, within the time and cost restraints supplied. A thorough set of patterns, for use with a LIMS, could significantly increase productivity, speed up implementation, and help reduce the amount of innovation required when developing a LIMS.

Biography

Palleti Lakshmi Prathusha is a student of JSS College of Pharmacy, JSS University, Mysore, Karnataka, India. She has completed her B. Pharm from JSS College of Pharmacy Mysore during the year 2012. Presently she is pursuing M. Pharm in Pharmaceutical Quality assurance in JSS College of Pharmacy Mysore. She has attended various national and international conferences. Her current areas of interest are Quality Management System, Regulatory affairs, GMP audits.

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