



Why LCSIS?

Compared to more visible business processes, configuration management (CM) is a relatively unknown, behind-the-scenes process. Although efforts to formalize and standardize the CM process were initiated in the early 1960s, the definition for CM is continuing to evolve. The Electronic Industries Association, in their Interim Standard EIA-649, refer to CM as "a management process for establishing and maintaining consistency of a product's physical and functional attributes with its design and operational information throughout its life, using disciplined change management."

On the international scene, the International Organization for Standardization (ISO) has released a guideline for CM (ISO 10007) that defines CM as "a management discipline that applies technical and administrative direction to the development, production, and support life cycle of a configuration item. The CM process comprises the following integrated activities:

- Configuration Identification
- Configuration Control
- Configuration Status Accounting
- Configuration Audits.

Other industry standards and directives refer to CM as the identification, control, accounting, technical review, and auditing of equipment/systems developed, produced, operated, and supported. These equipments/systems, known as configuration items (CIs) or computer software configuration items (CSCIs), include the prime product, test equipment, associated components, and both system and support computer software. No matter which of these definitions fits your organization, they all mandate an effective CM organization and program.

The objective of an effective CM program is to provide prompt and accurate management of a product. This effort includes detailed management of bills of material; as-planned, as-built, and as-modified baselines; and the control, implementation, accounting, storage, retrieval, and reproduction of baseline technical data and management reports.

Today's products are constantly being developed and upgraded within a sophisticated manufacturing environment to gain the competitive edge by enhancing performance, reducing cost, and increasing product life. Timely updates of documentation and databases are essential to this process to provide documentation support for product acquisition, to update and distribute configuration baselines and technical documentation, to account for modifications to existing baselines, and to add new equipment to the logistic support base. This includes the incorporation of engineering changes (ECs), waivers/deviations, notices of revision (NORs), and specification change notices (SCNs), all of which result from growth in technology, procurement and production activity, and, in many cases, customer feedback.

An effective CM program provides daily technical services including configuration identification, status accounting, change control, baseline management, technical review, auditing, master document accountability, and a data library.

In summation, LCSIS is uniquely structured to support and enhance CM objectives in a state-of-the-art product data management system complete with electronic vaulting capabilities.



What are the Benefits of Using LCSIS?

Reduced Time-to-Market. LCSIS speeds up the time it takes to perform tasks, such as engineering design and tooling, by making data instantly available when it is needed. It reduces time wasted between tasks, such as when a released design awaits its turn while sitting in a production engineer's in-tray, by supporting concurrent task management. LCSIS reduces time lost in rework because it allows authorized team members access to all the relevant data, all the time, with the assurance that it is always the latest version.

Improved Design Productivity. LCSIS can significantly increase the productivity of designers and engineers. Designers will spend more time actually designing. The engineer no longer has to search for released designs or other data because it is all there on demand. When using LCSIS, the identification, re-use, and modification of existing similar designs will become routine.

Improved Design and Manufacturing Accuracy. Everyone involved in a project is operating on the same data set, which is always up to date. If you are working on a master file, you know it is the only one; if you're viewing a reference copy, you know it is an image of the original. This leads to far fewer instances of design problems and rework that emerge at manufacturing or QA, fewer engineering changes, and, again, a faster path to the marketplace.

Better Use of Creative Team Skills. LCSIS opens up the creative process in the following important ways: it keeps track of all the documents and test results related to a given product change, minimizing design rework and potential design mistakes; it reduces the risk of failure by sharing the risk with others and by making the data available to the right people fast, and it encourages team problem-solving efforts by allowing individuals to bounce ideas off each other using the *Workbasket* function, knowing that all of them are looking at the same problem.

Comfortable to Use. LCSIS is user-friendly and designed to operate within the existing organizational structure of a product engineering operation without major disruption. When users wish to view information on LCSIS, the application is loaded automatically, and then the document is loaded.

Safeguard Data Integrity. The vault concept ensures that, while data are immediately accessible to those who need it, all master documents and records of historical change remain absolutely accurate and secure.

Better Control of Projects. LCSIS enables key players to control project development by ensuring that the data on which development is based is firmly controlled. Product structure, change management, configuration control, and traceability are key benefits. Control can be enhanced by automatic data release and electronic sign-off procedures, making it impossible for a scheduled task to be ignored or forgotten.

Better Management of Engineering Change. LCSIS allows you to create and maintain multiple revisions and versions of any design in the database. Every version and revision has to be signed and dated, removing any ambiguity about current designs and providing a complete audit trail of changes.

A Major Step toward Total Quality Management. By introducing a coherent set of audited processes to the product development cycle, LCSIS goes a long way towards establishing an environment for ISO 9000 compliance and total quality management (TQM). Many of the fundamental principles of TQM, such as "empowerment of the individual" to identify and solve problems are inherent in the structure of LCSIS.