



Helping you to achieve regulatory compliance...

Our product, InfoLibrarian™ was developed to help companies get their arms around their IT assets and information. The InfoLibrarian™ Enterprise Metadata Management Solution is the most robust of its kind. InfoLibrarian™ gives you the ability to define your IT infrastructure in the following ways.

1. **Scan** your systems for metadata (self-descriptive information that already exists within various tools and applications across you enterprise.)
2. **Import** metadata, definitions, inventories and lists you may already have or wish to define using other tools such as spreadsheets.
3. **Define** what is missing and attach non-technical descriptions to things that are typically described technically (the ability to fill in the blanks and permanently add meaning by defining Business Rules and Business Terms.)
4. **Map** the inter-relationships between data and applications within your system. Or semantically map differing things having the same meanings or one thing having many meanings.
5. **Link** to documents anywhere on your network.

InfoLibrarian™ has over 70 available scanners that scour your entire IT infrastructure for metadata, automatically indexing and placing a point in time snapshot of the metadata into a Universal Metamart™ - "master index". The search engine/portal plugs into the "master index" and presents all of this captured information as valuable knowledge. The portal allows you visualize as follows:

- Keyword searching (Easy search ability)
- Impact Analysis reports (Shows all points of impact)
- Occurrences reports (Identify redundancies)
- Change reports (What changed)
- Full Audit reports (Who made the changes)
- Data Lineage Analysis (Where did it come from)
- Historical views (Beyond the current view see changes over time)

Once complete Auto-Scanning can occur at predetermined intervals capturing only the changes as they occur over time.

Our base solution package is complete and ready for you to use today. It can be fully deployed in days. We also offer numerous additional source scanners that you can acquire to meet your future needs. The entire solution can be scaled out to support the most demanding environments.

Please visit www.infolibcorp.com for more information about the InfoLibrarian™ product



Preface

Few public companies today are completely prepared for the new requirements of Sarbanes-Oxley legislation, which brings unprecedented scrutiny of enterprise IT systems by independent auditors. To ensure (certify and prove) information quality, one must examine and manage the underlying data structures and terminology that comprise IT based Accounting systems. Alarming, roughly half of the affected corporations do not have a compliant internal control environment for their information systems, which include metadata at the core. This document outlines how the InfoLibrarian™ Solution (built on advanced metadata technologies) pertains to, and can help you to achieve Sarbanes-Oxley compliance.

Sarbanes-Oxley Requirements

Sarbanes-Oxley (S-OX) includes among its many requirements, "Internal controls and procedures for financial reporting," which require CEO's and CFO's to:

- Certify the contents of their corporate reports.
- Provide an assessment of internal controls for all systems used to generate and deliver financial reports.
- Not only document internal procedures, but demonstrate adherence.
- SEC rules mandate "policies and procedures in addition to the control environment...including
 - adequate safeguards over access to programs and data files." Auditors will tell you that rules that apply to data also apply to metadata (information about information) and Business Rules making a controlled, auditable process for metadata management a critical business imperative for public companies.

Little Compliance Exists

The current state of internal controls around metadata is surprisingly lax. Few companies have installed systems that can reconcile differences and track changes made to metadata and Business Rules. In a recent market study by AMR Research, 85% of respondents indicated Sarbanes-Oxley will require changes to their IT and application infrastructure. Metadata plays a central role in gathering, organizing, consolidating and delivering information. Therefore, while enterprise metadata management is the working domain of data architects and application managers, the outcome – information integrity – affects the CEO and CFO of every public company. But the fact is, corporate America is largely unprepared today.

How does this relate to computer IT Systems

S-OX compliance requires review of all systems that contribute to financial reporting, which often span functional, geographic and technology boundaries. Solving these problems is more than a "Finance Department" issue, since virtually all reported information relies on IT, spanning data warehouses, reporting applications and enterprise content management systems.



Compliance and Metadata

When it comes to data quality and information integrity, information *about* the data (metadata) is as important as the data itself. Metadata plays a key role in how people generate, store, track, retrieve, report and deliver information, including information within financial statements.

Metadata provides the underlying definition and audit ability that defines how information flows within systems and across systems. As such, metadata touches the complete family of sources (documents, spreadsheets, databases and applications) that are used when compiling financial reports and accompanying statements. Inconsistency, ambiguity and uncoordinated change processes for metadata flow of information contributing to financial reports. Therefore, centralized enterprise metadata oversight represents a best-practice and critical-to-quality element, which should be reviewed during an IT system audit.

One urgent, aspect of Sarbanes-Oxley compliance involves enterprise-level control of metadata.

Inconsistency produces comparison problems or errors in reported data. If you think of structural and business metadata as the underlying definition of the information structures themselves, then what's needed is a metadata repository that supports reconciling metadata across heterogeneous environments and helps resolve interoperability problems, which can consume 30-50% of integration time and effort.

**Research data indicates only half of surveyed companies have S-OX Compliant internal controls.*

Enterprise Metadata Management

InfoLibrarian™ captures metadata in a centralized catalog in a consistent manner from your IT Systems that can be scheduled to occur automatically and presents this Documentation about your IT Subsystems via a Single Search Engine Portal.

Tracing root-cause issues

Information access and data consolidation problems are often triggered by a root-cause: lack of centralized control over metadata, resulting in inconsistent or incomplete results. With increasing reliance on metadata-driven processes such as enterprise search and business activity monitoring, a controlled process to coordinate metadata across applications is necessary. Converging on standards that span multiple sites or applications is a goal for enterprise information architecture teams. This starts with a shared, central registry or repository of metadata

InfoLibrarian™ can formalize and document relationships between information sources, while working toward reference data shared by all interconnected applications. While financial reporting applications capture much attention for S-OX planning, All IT subsystems are a large part of the picture. Therefore, consistent metadata across applications and information sources are underpinnings of S-OX compliance.



Beyond Numerical Data Auditing

Failure to disclose materially adverse information that is known, or should reasonably be known, has sparked the downfall of many now-infamous companies and their executives. If material information is collected, but not found and reported, the negative consequences are tremendous. Ask any executive who works with independent auditors and you'll discover that scrutiny extends well beyond the numerical data detailed in accounting statements. Today's audit includes a review of the information production process, including controls and procedures designed to float material information up to the executive level as rapidly as possible.

Therefore, the database systems used to report structured and unstructured information can not go unexamined.

Does your metadata management system pass muster or do you need to make changes? Is there a strong internal governance framework for metadata? What are the control procedures? Where is the documentation?

Answers to these questions will be needed for your executives to certify compliance and minimize exposure to information risk.

At the heart of the database is the schema, where the rules, logic and terminology for business systems are defined. If the schema is outdated, inconsistent or changed without comprehensive impact analysis, the failures ripple across the IT infrastructure all the way to the reports that guide decision-making. Therefore, flaws in the schema that are the result of inconsistency, misunderstanding or intentional modification directly impact data quality and information integrity. From a content management viewpoint, enterprise metadata management helps ensure that people and automated processes can locate and understand appropriate information. Consistent metadata models, and common business Terms that span multiple installations are the necessary foundation of any information architecture, stimulated by the mandate of Sarbanes-Oxley.

Conclusion

The continuously changing nature of metadata and business terminology illustrates the need for solutions that can ensure compliance, control and documentation for purposes of Sarbanes-Oxley. Previously CIO's or IT directors may have believed enterprise metadata management is too low-level to be of direct concern, yet nothing is further from the truth. Directors and Executives at public companies are being compelled to take Sarbanes-Oxley seriously given the ramifications of non-compliance. Indeed, sometime soon, your CFO may be asked by your company's auditors to review the metadata management compliance processes, documentation, workflow and reporting information as a part of their assessment of your internal controls. Now is the time to develop and execute a plan, including processes and supporting technology, to make enterprise metadata management a core component of your audit-ready information architecture.

Let the InfoLibrarian team show you how.