Teamcenter's Records Management Application

White Paper

Providing a framework for regulatory compliance

Teamcenter® software's Records Management Application enables enterprises to comply with a wide range of regulations that govern the auditing and retention of business data. By managing the records and data lifecycle that pertains to product-related information, Teamcenter lets organizations systematically and repeatedly define what kind of compliance data needs to be retained, in what form and for how long. Equally important, Teamcenter can be leveraged to enable entitled users to access this information in a timely manner, as well as to ensure data authenticity and proper disposition.

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Executive summary

The challenge of complying with today's data retention regulations is crucial for everyone who runs a business. The explosion of network computing has generated a flood of business data and documents that must be managed by your company for numerous reasons. New laws and regulations make it imperative that you make certain your business activities have been properly captured, retained and managed in a way that satisfies today's courts and regulators.

Failure to comply with regulatory requirements, corporate governance and litigation demands carries high risks and the imposition of potentially heavy fines and penalties. The process of legal discovery and the need to support it with data management is costly in its own right. The scope of business data is geometrically expanding with today's focus on email and instant messaging and tomorrow's extensions are expected to include voice, video, unstructured data and database transactions.

Streamlining the way you handle your business information has never been more important.

To help you address these concerns, Siemens PLM Software provides a standards-based records management application (RMA) that facilitates compliance-related data lifecycle management. Teamcenter's Records Management Application allows your enterprise to define what data you need to retain for regulatory compliance, what format this information will take and how long the information is to be kept.

Based on the U.S. Department of Defense (DoD) 5015.2 records management standard, Teamcenter's Record Management Application enables you to logically organize your data records into folders, classify the information you retain to facilitate rapid access, and define file plans that you can use – and re-use – to control record retention, implement automatic notification procedures and determine online, archival and final disposition. Teamcenter is especially adept at managing Microsoft Outlook email as records.

Record management's value	Advantage
Reduces risk	Protects against future litigation by enabling enterprises to deliver proof of regulatory compliance; reduces potentially costly penalties by allowing enterprises to properly respond to legal discovery motions.
Increases productivity	Enables entitled users to easily and quickly find needed compliance data; reduces time wasted using outdated, inappropriate or irrelevant data.
Improves quality	Minimizes errors and the possibility of lost data, malicious destruction and accidental disposal by organizing and classifying data on the basis of its business value.
Reduces cost	Minimizes the cost of auditing and storing unneeded data by allowing enterprises to standardize their record formats and move these records to the most cost-effective data repository based on their business value at any given point in time.
Improves security	Manages an enterprise's most important data more effectively by enabling administrators to define file plans for different kinds of data, including highly secure plans with rigorous retention and disposition controls for highly valued information.

Business challenges

Industry estimates suggest that more than 35,000 regulations govern the auditing and retention of business information produced around the world. Some of the most well known regulations include:

- Sarbanes-Oxley Act

- U.S. DoD 5015.2 Document Retentions Management

- Security Exchange Commission Regulation 240.17-a-4

- Health Insurance Portability and Accountability Act (HIPAA)

- U.S. Patriot Act

- Gramm-Leach-Bliley Act

- U.K. Anti-Terrorism, Crime and Security Act

- Canada's Personal Information Protection and Electronic Documents Act

- Basel II

- European Union's Restriction of Hazardous Substances (RoHS) Directive

- European Union's Waste of Electronic and Electrical Equipment (WEEE) Directive

- Electronic Signatures in Global and National Commerce Act (E-Sign)

- End of Life Vehicle (ELV) Directive

- Extended Producer Responsibility (EPR) legislation

These and other compliance requirements make it abundantly clear that today's businesses cannot afford the risks associated with failing to abide by the laws and regulations that affect data protection, auditing, retention and privacy. Just as importantly, companies need to consider these compliance requirements in conjunction with a wide variety of technology issues related to storing data over time in an enterprise repository whose cost, performance and responsiveness can vary widely.

At another level, compliance-related data retention requires an active partnership between core business units and the enterprise's IT organization. The business side of a company – including its compliance personnel – need to play an ongoing role in determining the value of each business document, as well as defining appropriate data retention and disposition policies. The IT side uses these definitions to build a data retention solution and manage/sustain its operation.

As organizations build these solutions, they are expected to resolve numerous data and database related issues, including online response time performance, batch performance, disaster recovery, system upgrade requirements, system availability specifications and ease-of-use issues that directly affect end user satisfaction.

While data retention solutions can be approached from a variety of perspectives, Siemens PLM Software believes that the concept of data lifecycle management offers today's businesses the best opportunity to address their combined need for regulatory compliance, legal discovery, effective storage utilization and maximized return on investment.

In essence, data lifecycle management enables companies to manage compliance data as it progresses from data creation to end of life. This flexible level of management enables companies to establish data retention, access and disposition policies that can be automatically and seamlessly changed as the business value of a document increases or decreases.

Siemens PLM Software's approach to data lifecycle management closes the gap between an enterprise's compliance and legal objectives and its operational need to reduce IT spending while delivering better performance. The accompanying table summarizes major advantages that you can expect from a compliance-related data retention solution.

Basic compliance-related data retention concepts

Requirement	Basic concept
Data classification	All compliance-related data retention solutions should enable you to define what data has to be retained, how this data should be formatted and how long it must be kept. You should be able to quickly and easily organize your company's data into classifications that allow you to account for all of your enterprise's different data types and automatically implement retention and disposition controls appropriate to each classification.
Rapid access	Specific laws, industry regulations and business practices mandate that certain kinds of data remain available for quick and easy access. All compliance-related data retention solutions should be able to support on-demand information access, thereby reducing expensive and tedious discovery efforts.
Lifecycle management	Like most information assets, compliance-related data goes through a lifecycle that extends from data creation to deletion. Compliance-related data retention should be able to account for data as it evolves across its lifecycle – as well as enable you to view and leverage this data in each of its lifecycle states.
Business context	Laws and regulations sometimes require that companies maintain compliance data in its original business context. If historical data is moved to a form of alternate storage, your data retention solution must be able to maintain your data's referential integrity (e.g., if an email references an attachment, your solution must preserve the links that enable you to restore both the email and its related attachment).
Value-driven retention	While some companies retain inactive data (such as historical records) in online production databases, industry studies indicate that 90 percent of stored data is never accessed after 90 days. Compliance-related data retention solutions should be able to account for the business value of your data as it ages. In tangible terms, your solution should automatically and transparently move data to your most cost-effective storage repository on the basis of your information's business value at any given time.

Teamcenter's Records Management Application (RMA) solution

Teamcenter's robust knowledge and process management capabilities enable companies to capture, manage, track and distribute information created by multiple authoring systems on an enterprise basis. In the world of international standards, the information assets that Teamcenter manages are called documents (defined by ISO 15489 as "information that can be treated as a unit"). Typically, product-related documents include drawings, contracts, specifications, notes, test plans, emails, manufacturing instructions and technical publications.

By enabling enterprises to leverage these documents as records (defined by ISO 15485.1), Teamcenter's Records Management Application (RMA) solution provides a standards-based form of evidence about a company's organization, function, policies, decisions, procedures, operations and other activities that confirms conformance to a legal obligation or verifies that a business transaction has actually taken place.
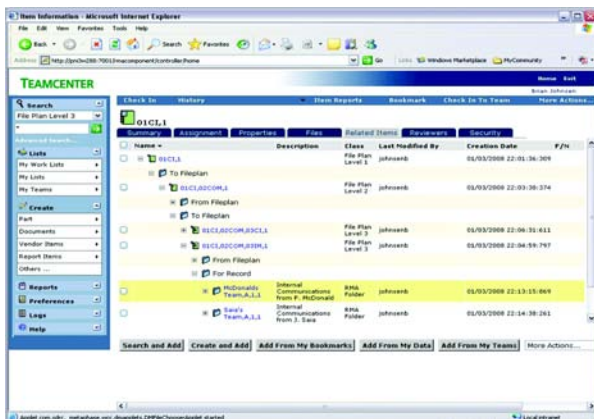
File plan with folders. Records organized in folders and managed by file plans enable you to efficiently disposition business-critical information.

From a functional perspective, Teamcenter enables companies to create, maintain, control, audit and dispose of records that reflect what a document communicates, what the document decides, or what action has been taken. In turn, Teamcenter-managed records extend the business value of documents by providing accountability controls that companies can leverage for regulatory compliance and legal discovery.

In IT terms, Teamcenter facilitates:

- Data archival and retention management
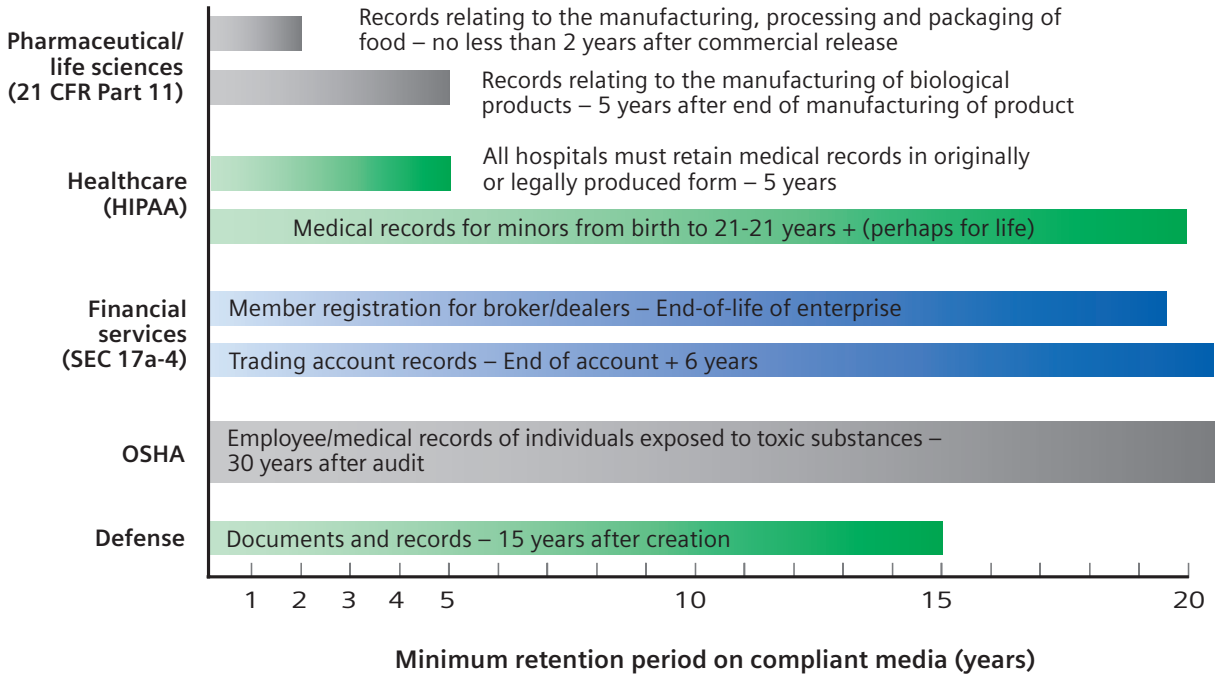
- Lifecycle-based auditing and reporting

Teamcenter's RMA solution is based on the DoD 5015.2 standard for records management, including the ability to implement file plans, declare and file records, maintain scheduling records, file electronic mail messages, facilitate retention and vital records management, implement access controls and support system audits.

With respect to meeting regulatory compliance and legal discovery requirements, Teamcenter's RMA solution enables companies to:

- Adhere to a consistent schedule of data retention and disposal

- Properly identify, handle and monitor vital documents, including information essential to the continuation of a business in the event of a disaster

- Rapidly provide required documents at the time when they are needed

- Identify documents that require formal certification before they can be destroyed.

The accompanying diagram illustrates a variety of examples that indicate how different industries can leverage Teamcenter to meet their record retention requirements.

**Industry compliance solutions
Document and record management examples**

Pharmaceutical/ life sciences (21 CFR Part 11)	Records relating to the manufacturing, processing and packaging of food – no less than 2 years after commercial release
	Records relating to the manufacturing of biological products – 5 years after end of manufacturing of product
Healthcare (HIPAA)	All hospitals must retain medical records in originally or legally produced form – 5 years
	Medical records for minors from birth to 21-21 years + (perhaps for life)
Financial services (SEC 17a-4)	Member registration for broker/dealers – End-of-life of enterprise
	Trading account records – End of account + 6 years
OSHA	Employee/medical records of individuals exposed to toxic substances – 30 years after audit
Defense	Documents and records – 15 years after creation

Axis: 1 2 3 4 5 10 15 20

Minimum retention period on compliant media (years)

Source: Enterprise Storage Group

While the implementation of Teamcenter-driven RMA solutions varies according to company-specific business requirements, the following basic steps apply in many instances.

- Creating RMA records

- Creating file plans and their related disposition schedules, phases and schema

- Creating record folders to logically organize your records

Authorized users create the documents they want to manage as RMA records by either authoring these documents in Teamcenter or capturing them from an external source. Teamcenter-managed RMA records are business items that have been associated with a document, which in turn details a business transaction or activity. RMA records apply to all forms of documents, including files that apply to drawings, photographs, books, maps, word processing documents, hard copy documents, email messages, email attachments and machine-readable materials.

When authoring is complete, authorized users can establish file plans that define how all of the RMA records – and record folders – associated with the plan are to be disposed. The file plan includes a related disposition schedule that indicates when and how the plan's related records are supposed to be disposed. The schedule's details are defined in terms of disposition phases (each phase having its own duration) and a disposition schema that defines the actual processes that will be performed. Teamcenter can issue email notices to entitled users when manual action is required by a particular phase (e.g., when a file should be moved to archive, transferred another organization or destroyed).

At another level, enterprises can establish file folders to organize their RMA records on a more usable and convenient basis. More specifically, folders let companies group RMA records that share a common disposition process. Folders can include both records and embedded folders. Each folder carries open/closed status to indicate that new RMA records can be added to the folder or that only authorized users are allowed to add more records.
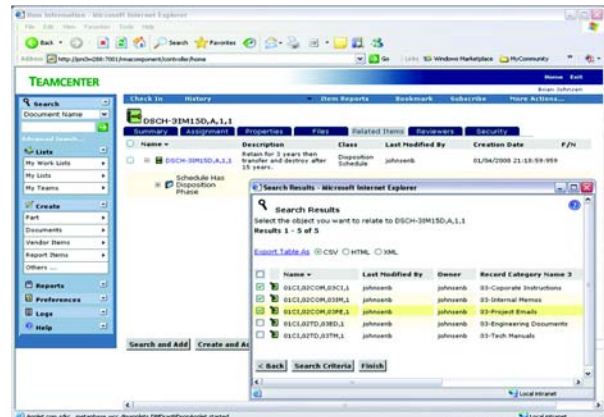
Creating a relationship between a disposition schedule and and a file plan. You can leverage the Teamcenter search tool and existing objects to quickly define new relationships (for example, using a disposition schedule on multiple file plans).
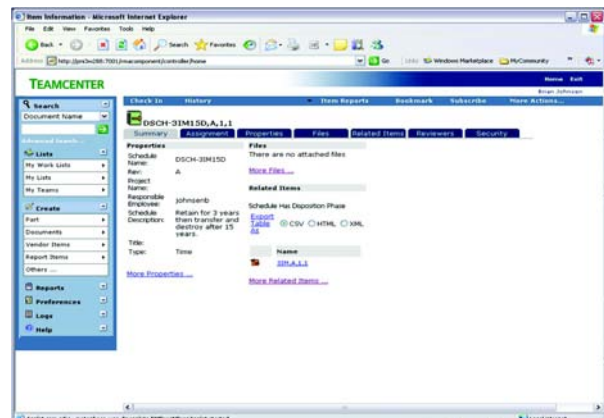
Disposition schedule summary. Teamcenter provides a set of objects to help you manage other objects. This screen shows a summary view of a disposition schedule, as well as multiple tabs that you can use to find other information (such as related items).

Conclusion

The implementation of Teamcenter's RMA solution enables your company to establish a validated state of document retention and control based on DoD 5015.2 and other government/commercial require- ments. Teamcenter lets your company implement a unified record retention and management solution that integrates disparate compliance activities, facilitates enterprise status reporting and ensures comprehensive adherence to corporate governance and business rules.

Teamcenter's RMA solution improves organizational productivity by organizing and storing records that entitled users can easily and quickly find and retrieve. In addition, your company can minimize storage cost by automatically notifying appropriate parties about expiring documents and records. Teamcenter enables you to retire these documents/records to cost effective repositories on the basis of their business value at any point in time – or to destroy them when their legal lifetime expires.

At the highest level, deploying Teamcenter's record management capabilities reduces the risk and cost associated with litigation and non-compliance by enabling your company to deliver proof of regulatory compliance. Your company can comprehensively track actions taken by individual users, as well as track their role in the document/record retention and disposition process.

Teamcenter improves security by enabling administrators to define highly secure file plans that establish rigorous retention and disposition controls over your most important records.

Standards-based glossary

Document – Recorded information or objects that can be treated as a unit (ISO 15489)

Document management – The management of documents (which enables users) to manage, control, locate and retrieve information in a system (AIIM TR48)

Records – Information created, received and maintained as evidence and pursuance of legal obligations and in the transaction of business (ISO 15485)

Records management – Field of management responsible for the efficient and systematic control of the creation, receipt and disposition of records, including processes for capturing and maintaining evidence of business activities and transactions in the form of records (ISO 15485)

Records system – Information system (that) captures, manages and provides access to records through time (ISO 15485)

About Siemens PLM Software

Siemens PLM Software, a business unit of the Siemens Industry Automation Division, is a leading global provider of product lifecycle management (PLM) software and services with nearly 6.7 million licensed seats and 63,000 customers worldwide. Headquartered in Plano, Texas, Siemens PLM Software works collaboratively with companies to deliver open solutions that help them turn more ideas into successful products. For more information on Siemens PLM Software products and services, visit *www.siemens.com/plm*.