

The “F1000” Requirements

Recordkeeping Requirements for F1000 Firms

Version 1.0

RIMtech Inc.

Where Software Meets Recordkeeping

www.rimtech.ca

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RIMtech

RIMtech is a vendor-neutral consulting services firm specializing in Enterprise Content Management and electronic recordkeeping technology implementation. In business since 2002, we help clients ***understand, select*** and ***implement*** Enterprise Content Management software for managing electronic records. RIMtech Principal Bruce Miller is widely regarded as the inventor of modern electronic recordkeeping software. Find out more at <http://www.rimtech.ca>.

Introduction

The [US DoD 5015.2-STD](#) standard defines a very clear set of software capabilities that an RMA (Records Management Application) must meet in order to be certified compliant against the standard. There are many software products on the market that meet this standard, and some that do not. The standard covers not just general-purpose recordkeeping capabilities, but it also specifies some capabilities rather specific to the US federal government. This implies that if you are not a federal government organization, you very well may not need all of the capabilities mandated by the standard.

The standard is very comprehensive – it spans a broad base of all the basic formal recordkeeping infrastructure (file plan, declaration and classification, disposition, etc.) that any organization would typically require. However it calls for more – it adds on a layer of capabilities specific to the US government (supplemental markings for example). It does not stop there. It has two sets of optional capabilities (security, and FOIA) that are not necessary for all government agencies, and certainly would not likely be required for non-government organization. The standard also adds in some useful generic capabilities that are mandatory for compliance, but may not be needed by many non-governmental organizations. The biggest example of this would be Transfer – the ability to exchange stored electronic records among different RMAs.

If you are a US federal government organization and are obliged to be compliant with the standard, you have no choice but to purchase or build solutions that are 100% compliant with it. But what about other organizations? Do you need all of the DoD 5015.2 capabilities? This is a moot question if you intend to buy a 5015.2 compliant product (many organizations have adopted the standard as a minimum mandatory requirement for product purchase). However if you are not mandated to be compliant, then which 5015.2 capabilities do you need?

In this report RIMtech attempts to define a subset of the 5015.2 requirements that we believe define the minimum necessary for a “typical” organization. Hypothetically, these requirements will suffice for “most” organizations, without regard to their size or any government-specific requirements. RIMtech will refer to this subset as the **F1000 Requirements List**, We do not in any way mean to imply the requirements are only for the Fortune 1000 firms. We use this moniker only as means of implying broad-based potential application.

Obviously we cannot state with any certainty that this requirements list will be suitable for any specific organization. Our proposed F1000 requirements is really just the 5015.2 requirements, stripped of the things we believe many organizations can do without. To arrive at this list, we eliminated from the 168 5015.2 requirements all those that were obviously unique to the US government, as well as those that we felt were needed by only a small portion of organizations (perhaps 5% or less of the market).

5015.2 Certification

Software Products must be formally tested compliant against the standard by [JITC](#), a branch of the US Department of Defense. These tests are very rigorous, and compliance is technically very difficult and costly to achieve. Once the product passes the tests, JITC officially certifies the product compliant, and lists it on the [registry of certified products](#). This certification remains in place as long as the vendor maintains it by submitting new product revisions to JITC for regular certification re-testing. It is important to understand that there are three “levels” of certifications granted by JITC:

Baseline	Tested to meet all requirements of Chapter 2 (minimum mandatory) and Chapter 5 (Transfers, or Import/Export).
Classified	Tested to meet Baseline requirements plus all requirements of Chapter 3 (Classified Records).

FOIA and PA

Tested to meet Baseline requirements, Classified requirements (chapter 3), plus all requirements of Chapter 4 (Freedom of Information Act and Privacy Act).

All vendors must meet baseline certification to be certified compliant. Some are additionally certified to Classified Records, and a few have achieved all three levels of certification. Note that a baseline-certified product may well have some Classified and/or FOIA features, but they may not necessarily have enough to meet JITC compliance to that particular level. Many vendors achieve baseline compliance first, then work towards additional compliance levels in future releases.

Assessing Recordkeeping Requirements

To manage electronic records with any software product, you have the following three options:

(Out-Of-Box)

Use the built-in recordkeeping features the product and live with any recordkeeping limitations the product may have.

Customize Product

Extend the product's OOB (Out Of Box) recordkeeping features by customizing it to compensate for the gap between what it delivers OOB, and your recordkeeping requirements.

5015.2 Compliant

Buy a 5015.2-compliant product. You will then have a comprehensive recordkeeping capability fully compliant with 5015.2.

For some organizations you do not have these choices – you **must** comply with US DoD 5015.2. This is the case with US Department of Defense organizations, as well as many larger US Government organizations, and even some state governments. Some corporations have also adopted compliance as a matter of policy.

Assuming you are not obliged to comply with 5015.2, which option is right for your organization? To make the right choice, you need to compare your requirements with the capabilities of all three options above. Because 5015.2 is well documented, it can serve as a benchmark against which we can assess the other two options. RIMtech has summarized the 5015.2 requirements later in this document. We have listed all the mandatory 5015.2 requirements for a baseline certification, which consists of all requirements in 5015.2 chapter 2 and chapter 5.

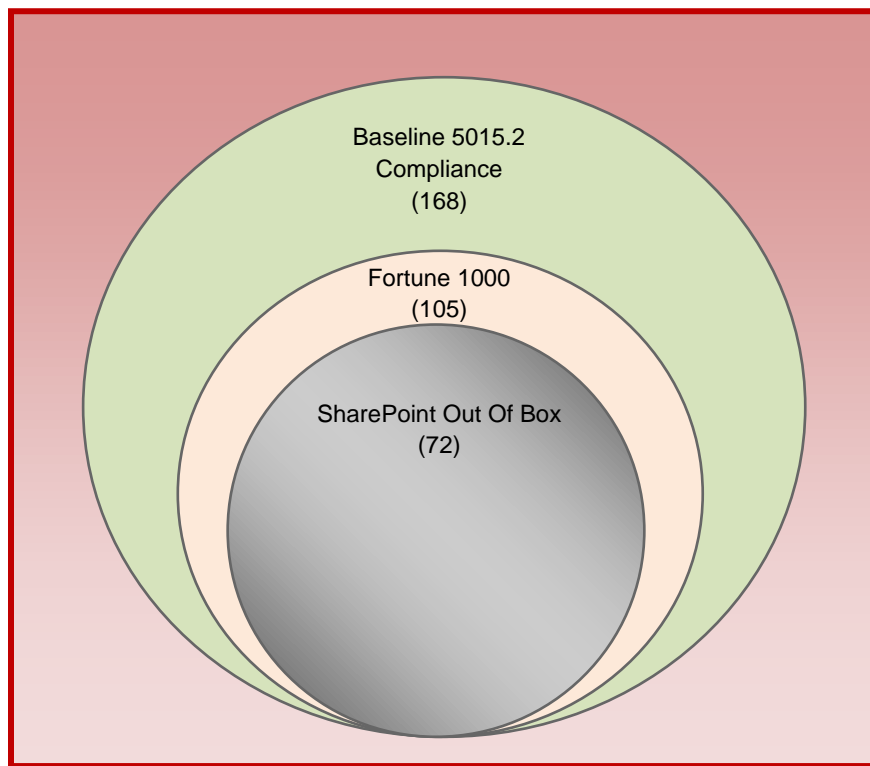
There are 168 baseline requirements in 5015.2. We arrived at this number by consolidating the individual numbered requirements in certain tables into a single requirement (we assume compliance with all the table requirements or none). Obviously, all 5015.2 compliant products deliver all 168, as they are fully baseline compliant.

Now we need to understand the OOB capabilities of the product. The table also shows the OOB (Out Of Box) capabilities of Microsoft SharePoint 2010™ as an example, with 72 out of the 168 5015.2 requirements.

The relationship between the three sets of requirements is shown below. To meet F1000 requirements, we need to deliver 33 more capabilities than Microsoft delivers out of the box. 5015.2-compliant products deliver 63 more capabilities than the F1000 set (more if they are compliant with non-mandatory 5015.2 requirements).

Note

See RIMtech's Report "*Managing Records in SharePoint 2010*" at www.rimtech.ca for details on SharePoint OOB capabilities and gap analysis.



Requirements Analysis

Given the product’s OOB capabilities, any of the following requirements would mean you have to close the gap between OOB capabilities and your requirements by customizing the product. All of these capabilities define the F1000 requirements:

- 1) **Case file handling.** You need proper handling of case file types. Each category in the file plan is a *Case* (person, place, event, or thing), or a *Subject* (ongoing activity). The product does not appropriately apply disposition to records classified against a category of type *Case*.
- 2) **File Plan Structure.** You need a hierarchical, enumerated and ordered file plan/retention schedule that can be managed independently of the records.
- 3) **Expunge.** You need to destroy eligible records such that they cannot possibly be reconstructed within the system.
- 4) **Container (Folder) structure.** You require the concept of a “container” to contain physical records or groups of electronic records, such as a set of records within a case file.
- 5) **Formal Disposition.** You require a formal 3-stage process to destroy records (qualify, review, dispose), and cannot tolerate the product destroying records on its own without a formal review.
- 6) **Transfer.** For some records, you need to move them to another location or state, before the end of their life. Or, move them to another organization at the end of their retention period.
- 7) **Basic Cutoff.** You need to determine destruction eligibility dates based on dates other than the triggering event date, such as end of calendar year.
- 8) **Email Integration.** You need a means whereby users can easily declare email from within Microsoft Outlook (or similar email client).
- 9) **Classification Accuracy Measurement.** You need a way to measure and track the classification accuracy of all declared records. RIMtech deems this to be essential.
- 10) **Records Security Model.** You need access control of declared records to act independently of the document security within the product.

The following capabilities take you from the F1000 requirements to full 5015.2 compliance:

- 1) **Supplemental Markings.** Field-level metadata control or advanced security.
- 2) **Classified Records.** You require management of security-classified records to the level of Chapter 3 in 5015.2.
- 3) **NARA Transfer.** You need to transfer electronic records to [NARA](#) (National Archives and Records Administration).
- 4) **Container Open/Close.** You need to manage the open/close state of containers to prohibit contributing additional records.
- 5) **Advanced Disposition.** Multiple triggering event dates on retention rules. Parallel lifecycle phases.
- 6) **Multi-Record Linking.** You need to record and track bi-directional links between related or unrelated records.
- 7) **Import/Export.** You need to transfer all or some of your records from one system to/from another.
- 8) **Advanced Cutoff.** You need to manage cutoff of both transfer and destructions in accordance with any arbitrary cutoff date.
- 9) **Audit Analysis.** You need to analyse audit trails to investigate possible unauthorized attempts at records access.
- 10) **Vital Records.** You need to track and record which records are vital, and manage the vital status by reviewing and cycling the status regularly.
- 11) **Backup/Rebuild.** You need to perform backups and rebuilds of specified records data, independently from overall system backup.

There is always an option to use just the OOB capabilities. This would be suitable for what RIMtech will refer to as “informal records management”, also known more generally as “Retention Management”. This option would only be suitable if all of the following were true:

- 1) Machine-Driven Destruction is acceptable. You do not require human-driven disposition.
- 2) No formal File Plan Structure. You do not have a need for a hierarchical, enumerated, structured file plan/retention schedule.
- 3) No need for Case Files. You are not concerned with applying retention rules to case files, i.e. collections of documents with the same retention rules.
- 4) You do not intend to track the accuracy of classification of declared records.
- 5) Existing document/record security control is adequate
- 6) You do not need a way to declare from inside an email client.

Retention Management means that you can use the product to destroy records at the end of their assigned retention period, however the degree of recordkeeping accountability does not rise to that of “formal” recordkeeping:

- 1) You cannot be assured that the retention rules have been applied correctly. You may not have a basis to proceed with disposition
- 2) The product will destroy many records without any oversight or intervention

In short, it is difficult to be truly accountable to the retention schedule without at least the F1000 capabilities.

The obvious safest route would be to simply a 5015.2-compliant product, which ensures you have all 168 capabilities. If you have formal recordkeeping requirements but are not a candidate for 5015.2, then you have to either purchase a compliant product or bridge the gap with the OOB capabilities by customizing it. How big an effort is this customization? The greater the number of requirements, and the greater the sophistication of these requirements, the greater will be the build effort. This is highly variable depending on such factors as the requirements, skill level, records knowledge, etc.

Consider the customization route if:

- 1) Your IT department has the capacity to develop and maintain product customizations
- 2) You have a well-defined set of requirements that do not approach the 168 5015.2 requirements
- 3) You wish to have a highly customized solution tailored to your particular organization.
- 4) You are practicing recordkeeping in a manner unique from most standard practices

You should consider deploying a compliant product if:

- 1) You do not have an appetite to customize
- 2) You have advanced recordkeeping requirements that go beyond the F1000

Here are some factors to consider on any decision as to the (3) options:

- 1) A compliant product likely delivers all the recordkeeping capabilities you need, and more
- 2) A compliant product means that you have to pay for a product and its annual maintenance
- 3) With customization, you have to maintain it over time

5015.2 Detailed Requirements Assessment

The table that follows shows the following comparative analysis of DoD 5015.2 requirements:

Requirement	Enumerated requirement from 5015.2 Standard
Description	Brief description of the requirement, from the 5015.2 standard
F1000 Requirements	RIMtech's F1000 (Fortune 1000) estimated electronic recordkeeping requirements for most organizations
SharePoint 2010 Out-Of -Box	5015.2 requirements met by SharePoint 2010 out of the box, with no customization.

US DoD 5015.2 - STD Requirements Analysis			
Requirement	Description	F1000 Requirement	SharePoint 2010 Out-of-the-Box
2.2.1 - Implementing File Plans			
2.2.1.1	File Plan Structure	✓	
Table 1 Fields 1-8	Cat name	✓	✓
T1.9	Definable Fields	✓	✓
2.2.1.2	Selection Lists	✓	✓
2.2.1.3	Metadata Edit	✓	✓
2.2.1.4	Mandatory fields	✓	✓
2.2.1.5	Container Structure	✓	
T2.1	Folder Name	✓	
T2.2	Folder ID	✓	
T2.3	Location	✓	✓
T2.4	Vital		
T2.5	Vital Review Period		
T2.6	Supplemental Marking		
T2.7	Definable Fields	✓	✓
2.2.1.6	Edit Metadata	✓	✓
2.2.1.7	Data Integrity	✓	✓
2.2.1.8	Category Linking	✓	
2.2.1.9	Metadata Alerts		
2.2.1.10	Reporting Capability	✓	✓
2.2.2 - Scheduling Records			
2.2.2.1	Edit Components	✓	
2.2.2.2	Multi-Phase	✓	✓
2.2.2.3	Parallel Phases		
2.2.2.4	Cutoff Trigger	✓	
2.2.2.5	Interim Phases	✓	✓
2.2.2.6.1	Retention Period	✓	
2.2.2.6.2	Disposition Action	✓	
2.2.2.6.3	Interim Transfer		
2.2.2.7.1	Time	✓	✓
2.2.2.7.2	Event	✓	✓
2.2.2.7.3	Time-Event	✓	✓
2.2.2.8	Multiple recurring Events		
2.2.2.9	Calculate Life Cycle	✓	
2.2.2.10	Reschedule	✓	
2.2.2.11	Recalculate Lifecycle	✓	
2.2.3 - Declaring and Filing Records			
2.2.3.1	Folder Structure	✓	✓
Table 3 Fields 1 - 13	ID	✓	✓
T3.14	Definable Fields	✓	✓
2.2.3.3	Pick Lists	✓	✓
2.2.3.4	Mandatory Fields	✓	✓
2.2.3.5	Record ID	✓	✓
2.2.3.6	Reporting Capability	✓	✓
2.2.3.7	Read-Only Record	✓	✓
2.2.3.8	Read-Only fields	✓	✓
2.2.3.9	Metadata Creation	✓	✓
2.2.3.10	Metadata Edit	✓	✓
2.2.3.11	Date Validation	✓	✓
2.2.3.12	Definable Fields	✓	✓
2.2.3.13	Reporting Capability	✓	✓
2.2.3.14	Constrain Categories	✓	
2.2.3.15	Constrain Metadata	✓	✓
2.2.3.16	Re-Classify	✓	✓
2.2.3.17	Record Linking		
2.2.3.18	Link Labelling		
2.2.3.19	Un-Link		
2.2.3.20	Link Permissions		
2.2.3.21	Renditions	✓	✓
2.2.3.22	Version Management	✓	✓

US DoD 5015.2 - STD Requirements Analysis			
Requirement	Description	F1000 Requirement	SharePoint 2010 Out-of-the-Box
2.2.3.23	Metadata Structure	✓	✓
2.2.3.24	Edit Metadata	✓	✓
2.2.3.25	Referential Integrity	✓	✓
2.2.3.26	Database Sync	✓	✓
2.2.4 - Filing Email Messages			
2.2.4.1	Manage as Records	✓	
2.2.4.2	Transmission and receipt Data	✓	
2.2.4.3	Multi-Mode	✓	
2.2.4.4	Include OLE Objects		
2.2.4.5	No external Save		
2.2.4.6	Link attachments		
2.2.4.7	DMS Header Fields		
2.2.5 - Filing Records to Transfer to NARA			
Table 5 Fields 1 -25	NARA Transfer Fields		
2.2.5.2	Font Alert		
2.2.6 - Storing Records			
2.2.6.1	DDMS compliant Portal		
2.2.6.2	Secure Access	✓	✓
2.2.6.3	Preserve Format	✓	✓
2.2.6.4	Arbitrary Delete	✓	✓
2.2.6.5	Removal Alert		
2.2.7 - Retention and Vital Records Management			
2.2.7.1 - Screening Records			
2.2.7.1.1	Reporting Capability	✓	✓
2.2.7.1.2	Qualification List	✓	
2.2.7.1.3	Re-order Display List	✓	
2.2.7.1.4	Event Recording	✓	
2.2.7.1.5	Interim Transfer List	✓	
2.2.7.1.6	Retention Reference Date	✓	
2.2.7.2 - Closing Record Folders			
2.2.7.2.1	Close Folder		
2.2.7.2.2	Reopen Folder		
2.2.7.3 - Cutting Off Record Folders			
2.2.7.3.1	Folder Cutoff		
2.2.7.3.2	Add to Cutoff Folders		
2.2.7.4 - Freezing/Unfreezing Records			
2.2.7.4.1	Freeze pre-qualified records	✓	✓
2.2.7.4.2	Freeze Reason	✓	✓
2.2.7.4.3	Unfreeze	✓	✓
2.2.7.4.4	Reporting Capability	✓	✓
2.2.7.5 - Transferring Records			
2.2.7.5.1	Transfer Qualification List	✓	
2.2.7.5.2	Transfer Records	✓	
2.2.7.5.3	Transfer Non-Electronic Documents	✓	
2.2.7.5.4	Post-Transfer deletion	✓	
2.2.7.5.5	Transfer Audit trail	✓	
2.2.7.5.6	Post-transfer bulk update	✓	
2.2.7.6 - Destroying Records			
2.2.7.6.1	Qualification List + Link	✓	
2.2.7.6.2	Double Confirmation	✓	
2.2.7.6.3	Expunge	✓	
2.2.7.6.4	Metadata Retention	✓	
2.2.7.6.5	Restricted Access	✓	✓
2.2.7.6.6	Store Audit as a record	✓	✓
2.2.7.7 - Cycling Vital Records			
2.2.7.7.1	Vital Records Review		
2.2.7.7.2	Review Date		

US DoD 5015.2 - STD Requirements Analysis			
Requirement	Description	F1000 Requirement	SharePoint 2010 Out-of-the-Box
2.2.7.7.3	Cycling Qualification List		
2.2.7.7.4	Report on Prior Cycle Date		
2.2.7.7.5	Cycle Reference Date		
2.2.7.8 - Searching for and Retrieving Records			
2.2.7.8.1	File Plan View	✓	
2.2.7.8.2	Metadata Search	✓	✓
2.2.7.8.3	Partial String Matches	✓	✓
2.2.7.8.4	Boolean Operators	✓	✓
2.2.7.8.5	Order Result List	✓	✓
2.2.7.8.6	Retrieve Record Copy	✓	✓
2.2.7.8.7	Launch Email	✓	✓
2.2.7.8.8	Launch Application	✓	✓
2.2.7.8.9	Version Display	✓	✓
2.2.7.8.10	Multi-record selection	✓	✓
2.2.7.8.11	Abort Search	✓	✓
2.2.8 - Access Controls			
2.2.8.1	Edit Roles	✓	✓
2.2.8.2	Password Default		
2.2.8.3.1	User ID	✓	✓
2.2.8.3.2	Password Default	✓	✓
2.2.8.3.3	Alternative Control		
2.2.8.4	Create Role	✓	✓
2.2.8.5	Group Access Control	✓	✓
2.2.8.6	128-bit PK Web interface	✓	✓
2.2.8.7	Multi-User Access	✓	✓
2.2.9 - System Audits			
2.2.9.1.1	User Account	✓	✓
2.2.9.1.2	Group	✓	✓
2.2.9.1.3	Record Folder	✓	✓
2.2.9.1.4	Metadata	✓	✓
2.2.9.1.5	File Plan Components	✓	
2.2.9.2	Audit Reporting	✓	✓
2.2.9.3.1	Track by User/Time		
2.2.9.3.2	Track by record handling		
2.2.9.4	File audit as record	✓	✓
2.2.9.5	Export Audit Files	✓	✓
2.2.9.6	Edit Audit Log	✓	✓
2.2.11 - System Management			
2.2.11.1	Backup		
2.2.11.2	Backup Storage		
2.2.11.3.1	Data Integrity Checks		
2.2.11.3.2	Failure Recovery		
2.2.11.4	Rebuild Capability		
2.2.11.5	Storage Monitoring		
2.2.11.6	Safeguarding		
5.1 - RMA to RMA Transfer			
5.1.1.1	Export Context		
5.1.1.2	Import Context		
5.1.2	Import/Export Custom Fields		
5.1.3.1	JITC Transfer Schema		
5.1.3.2	Custom Fields Schema		
5.1.4.1	Matadata Mapping		
5.1.4.2	Custom Field Mapping		
5.1.5	Custom Field Schema		
5.1.6	Record Elements		
Table C5.T1	Core metadata		
Table C5.T2	Email metadata		
Table C5.T3	Scanned Documents		
Table C5.T4	PDF documents		

F1000 Recordkeeping Requirements

US DoD 5015.2 - STD Requirements Analysis			
Requirement	Description	F1000 Requirement	SharePoint 2010 Out-of-the-Box
Table C5.T5	Photo documents		
Table C5.T6	Web Records		
Table C5.T11	Core Record Fields		
Table C5.T14	Lifecycle Data		
Table C5.T16	Folder Metadata		
Table C5.T17	Folder Lifecycle Metadata		
Table C5.T18	Folder Data		
Table C5.T20	Custom Folder Fields		
5.1.7.1	Document Grouping		
5.1.7.2	Read Documents		
5.1.7.3	Record Metadata		
TOTAL		168	105
			72