
Aviator[®] Training Guide

INTRODUCTION	2
Why use a Document Management System (DMS)?.....	2
What is a DMS?.....	3
What Types of Systems Are Out There?	4
Basic Functions of a DMS.....	4
AVIATOR	5
Lotus Notes.....	5
Attachments.....	6
Is it a File or a Document???	6
Accessing Aviator	7
Navigating Aviator	7
Accessing Information in Aviator	7
Is it a Folder or a Category???	8
Aviator Documents	8
Version Control.....	8
Document Security.....	8
Document Collaboration	9
Document Search.....	10
Advanced Features	10

INTRODUCTION

Businesses generate millions of electronic documents every day in a wide variety of unstructured formats, such as word processing documents, spreadsheets, scanned document images, graphics, slide presentations, CAD drawings, email messages, and even audio and video. Document Management Systems allow companies to centrally organize, control, find, share and store documents. In addition, DM systems track revisions made to documents, provide added security and access control, and utilize email systems for electronic workflow applications.

Document Management products have been around since the early 1980s when they were primarily viewed as workgroup solutions for specialized applications such as engineering drawings or legal documentation. By the mid 1990s, the volume of electronic information had exploded, creating a terrific need to manage and control this information company-wide.

Why use a Document Management System (DMS)?

A DMS provides a more effective way to manage documents. Organizational knowledge is predominantly embodied in documents, so it is imperative that this knowledge is controlled and used in a manner that best utilizes its content. As you will read, there are many ways to manage documents, but most of today's systems are not capable of properly managing corporate knowledge. A properly implemented and used DMS will dramatically improve the way organizations manage documents, and use that knowledge as a true competitive advantage.

The following are common document management problems that claim huge amounts of office workers' time and cost companies millions of dollars every year:

- hunting for lost documents
- using documents with out-of-date information
- recreating files that already exist or have been deleted
- duplicating documents in different locations
- insufficient collaboration and poor coordination of review and approval cycles

Now here are some commonly cited advantages of Document Management Systems:

- control over the document creation and distribution process
- improved user productivity
- improved accessibility to information
- improved collaboration and information sharing throughout the company
- faster customer response
- assurance of accessing the most current information available
- reuse of existing work

There are 2 major types of DMS currently at use in every organization around the world:

Archaic DMS (paper):

- Paper documents, perhaps with a cover page, are manually routed through the company for review and approval (snail mail), multiple copies are made for distribution, each copy is filed in a specified location. When updates are made, the paper copy is routed again for review and approval, and the old distributed copies must be replaced with the new version. Hopefully the documents were filed properly so you can find them when you need them. Hopefully the earlier versions were replaced so you are not using an old version. Hopefully someone doesn't spill coffee on your copy.

Basic DMS (local file manager or Explorer, shared network drive, email and public folders):

- Electronic files are created and stored on a local PC or a networked shared drive, reviewed and approved via electronic mail (or even worse, by printing and reviewing a paper copy - see above), then distributed via email. Hopefully the copy in your local system or email folder is the latest version. Hopefully the document on the shared network drive is named and filed in a way that is easy to find, or hasn't been deleted.

What is a DMS?

Document management means different things to different people. We tend to use the term document management loosely. It has been used to describe anything from paper on a desk to files in a secured electronic vault. For our purposes, document management is defined as a systematic method for storing, locating, and keeping track of information that is valuable to a business. The key characteristics of a Document Management System are the ability to manage information, to collaborate when creating information, to distribute the information, and to allow secure access to the greatest number of people.

And what goes into a DMS? Just about anything. For ease here, I refer to documents as being in a Document Management System. But what is a document? A document can be a word processing file, a spreadsheet, an email message, a project management schedule, a graphics file, a CAD or engineering drawing, paper scanned as an image, a slideshow presentation, audio and even video, or any similar item (use your imagination) that can be contained in an electronic format.

Document Management Systems even allow you to manage external items that aren't electronic files. For example, you could manage and track a shared overhead projector or laptop computer, the physical copies of a book or magazine, and so forth, just by keeping key information on it.

Think of a DMS as a super efficient electronic secretary and librarian. Wouldn't we all love to have our own efficient secretary? You could concentrate on doing your job; you could build and improve on existing work; you wouldn't have to reinvent the wheel. Important papers would seldom be misplaced. Your worth would be obvious to the company.

One key function a secretary would provide is to figure out how to classify and file a document. In effect, he would attach to it key information that described the document. This could be information about who wrote it, was it regarding billing or sales, who the client is, and so forth. Today, this same type of information, or meta-data, needs to be associated with every document a company produces. Meta-data is information (data) that describes other data. One example of meta-data is the content of Summary Info or Properties dialog boxes in Microsoft Office applications. These dialog boxes let the user add meta-data about the documents, presentations, or spreadsheets.

Meta-data describes the data in a document, but it is not part of the text of the document. For instance, what is written on the tab of a manila file folder or on the tab of a hanging folder is meta-data.

In some Document Management Systems, meta-data is referred to as properties, attributes, or custom variables. If the information describes the document, then it is meta-data.

The importance of meta-data cannot be overemphasized. If meta-data is available for documents, it provides an easy way to search for the document because the search can be narrowed down. Meta-data is the online way of classifying information, of putting documents into folders. But the best part is you don't have to make difficult choices: Should this go in my correspondence folder or my ABC Company folder? You can identify it both ways with meta-data because you're not limited to putting one piece of paper in one manila file folder.

Meta-data, however, has a potential problem of its own. If no corporate standards for meta-data exist, there might arise as many different approaches to classifying information as there are users. When groups share documents, basic standards will help users find information quickly. Allowing one leader to define meta-data for a group will keep things consistent.

What Types of Systems Are Out There?

If we take the basic functions of a Document Management System, we can compare various systems that provide these functions. You may be surprised to find that you probably already have and use some form of document management.

Basic Functions of a DMS

A DMS allows you to put in, take out, and keep versions; view status; keep secure, ensure accuracy, obtain approval; work together when scattered throughout an office or anywhere in the world; and distribute the information by sending it out or by letting people come in and get it. Table 1 below classifies Document Management Systems into general categories.

Table 1 - Comparing Document Management Systems and Functions

Basic Function	Local File Manager or Explorer	Shared Network Drive	Email and Public Folders	DMS (Aviator)
Manage in / out and versions	Manually	Manually	Manually	Yes
Share files	Manually	Yes	Yes (multiple copies are often created)	Yes
Find it / search	Limited	Limited	Depends on application	Yes
Add descriptive meta-data	Depends on application	Depends on application	Some built-in	Yes
Keep secure and limit access	Depends on individual security, password protection, etc.	Limited, can password protect a file but cannot prevent deletion or overwriting	Depends on application	Yes
Distribute with workflow	Manually	Manually	Yes, may be an add-on	Yes
Collaborate and manage easily	Manually	Manually	Depends on application	Yes

AVIATOR

Aviator Software is a DMS or Advanced File Management System. It has all the functions of a document management system, but also provides the flexibility and ease-of-use of a basic file management system.

One of the greatest benefits of Aviator is its seamless integration with Lotus Notes. This environment provides the foundation for Aviator and the management of your organization's documents. Aviator is an application that runs within Lotus Notes to control the access, review cycles, versions, storage, and distribution of documents. The following section provides a basic understanding of Lotus Notes technology and how Aviator integrates.

Lotus Notes

Lotus Notes is based on client/server technology, which enables you to access, share, and manage information over a network. The network can consist of 5 or 10 computers in your office building cabled together, or it can consist of 30,000 computers across the world, connected to one another in various ways.

Your PC is the Lotus Notes client. It requests and receives information from the server, called the "Domino" server. You communicate with the Domino server through a series of wires and cables (hardware) and networking software. The information you request is in Lotus Notes applications, or databases. Aviator is an application consisting of many Lotus Notes databases. The Domino server usually stores these databases so that many clients can access them at one time. In most cases, when you click on a database bookmark (like a shortcut on a PC desktop), you are actually opening a database that is stored on the server. Your client (your PC) requests that database from the server, and when the database opens, the information that resides on the server appears.

This is similar to the connection you might have at work to your shared drive. Often, you store work that you have created in other software programs (other than Lotus Notes) on the shared drive on your network at the office. For example, you might create a MS Word document and save it on your F: drive, which is actually space that is dedicated to you for storage on the file server. With Aviator, you will be storing those documents in Lotus Notes databases.

Note: (This section assumes you are familiar with your Lotus Notes client Workspace or R5's Welcome Page, and opening and closing databases.)

Lotus Notes applications typically support or automate business functions by helping you create, collect, share, and manage almost any kind of information. Notes applications can incorporate information from external sources, export data to external databases, or contain documents. Notes applications are a collection of one or more databases that are designed to perform a specific function or work process (workflow). It is not unusual for people to use the terms application and database interchangeably. Again, Aviator is an application consisting of many Lotus Notes databases.

Notes uses the term database to refer to compartmentalized information in a single area of interest that you might want to share. This concept is really important, because Notes databases are not like traditional databases. For purposes of understanding databases in Notes, you can think of databases as containers that hold similar information.

Notes databases store information in documents that are based on forms that contain fields. A form is a customizable screen that is the basis of every document. A field is the basic unit to store information in Notes. You'll find various types of fields in forms for text, dates, numbers, and graphics. Aviator has its own forms designed specifically for managing documents, containing fields specifically for managing information about those documents.

Everything that is stored in Lotus Notes is stored in a database - for example, your mail is contained in a mail database, and when you click on Help, you open the Help database. Lotus Notes is much more than email, however, and its real purpose and function is as a groupware tool - a place for you and your co-workers to come together for discussions, sharing and editing of documents and information, and communication through email.

When you open a database, Notes displays the contents of the database in a list, called a view. Views summarize Notes documents in an easy-to-read format. Each entry in the view represents one document. Databases often contain more than one view or more than one way of listing information. Some views can be sorted.

Often, you can expand or collapse entries in a view. A green triangle next to the view name (called a twistie) indicates that you can expand or collapse the view. A black triangle next to the column title (above the view columns) indicates that you can sort the view.

To open a document, double-click the document in the view pane. To close a document and return to the database list of views, press the Esc key.

Attachments

In Lotus Notes, you can attach entire files (a spreadsheet, word processing document, graphics files, etc.) within special fields of a document. Similar to attaching a file to an email, files attached to Lotus Notes documents are copies, so your original remains intact on your computer. Attachments are placed in rich text fields, or in Aviator there is a specific file attachment field.

To summarize, Aviator is an application developed specifically to run on the Domino server. It consists of many Lotus Notes databases linked together to perform document management functions.

Is it a File or a Document???

Understanding the use of "document" and "file" is critically important when using Aviator...and it can be confusing at first.

In the introduction, a document was defined as a word processing file, a spreadsheet, an email message, a project management schedule, a graphics file, a CAD or engineering drawing, paper scanned as an image, a slideshow presentation, audio and even video, or any similar item that can be contained in an electronic format. In Lotus Notes terminology, a "document" consists of a Lotus Notes form containing fields. What is considered a document to non-Lotus Notes users is actually a "file" that is attached to a Lotus Notes "document" for Lotus Notes users ...see what I mean?

A rich text field in a Lotus Notes form can be used as a word processor, which is why it is called a "document" in Lotus Notes terminology.

Hopefully this will help:

- Aviator is a "document" management system
- Aviator consists of Lotus Notes databases containing "documents"
- A "document" in Aviator consists of meta-data (that describes the "document") and "file" attachment(s), such as MS Word documents, Excel spreadsheets, etc.

This concept will become clearer as you use Aviator.

Accessing Aviator

Aviator can be accessed from a Lotus Notes client or a standard Web browser. There are minor differences between the two interfaces, but all of the functionality is available to both.

Navigating Aviator

Let's begin using Aviator! First, we will become familiar with getting around in Aviator. As with any Lotus Notes database, there is a navigator on the left of the screen and a view on the right that lists the documents in the database. Column titles directly above the views describe the column's content, and a triangle next to the title indicates you can sort the column.

A mouse is necessary to perform actions in the navigator. A mouse or the keyboard can be used in the view to browse and access documents. In the navigator, single-clicking an action will perform the selected action. In the column titles, single-clicking on the arrows next to a title will sort and un-sort the column. In the views, double-clicking on a document or hitting <enter> while a document is selected will open the document. Single-clicking a twistie (green triangle) in a view will expand or collapse the view.

As described earlier, Aviator is a Lotus Notes application consisting of many linked databases. The central access point of Aviator is through the Library, a Notes database. When you enter the Library, note the navigator and the view. The navigator allows you to perform actions in the Library, and the view is a list of the cabinets. Cabinets are also Notes databases that contain your documents. Each cabinet contains documents specific to a topic, as described in the cabinet's name and description. The list of cabinets in the view are actually links to these cabinets (databases), not documents.

To access a cabinet, double-click on the cabinet's name or select the cabinet and hit <enter>. Once inside a cabinet, note the navigator and the view. The navigator allows you to perform actions in the cabinet, and the view provides a list of the cabinet's documents. Also note the action buttons above the view - these also perform various actions when clicked. We will access documents in upcoming sections.

Spend a few minutes becoming familiar with the Aviator Library and cabinets. Browse the Library, exit and re-enter the Library, access the Library's About document or Help database in the navigator. Access cabinets, return back to the Library, and access the cabinets' About documents and Help. Browse the cabinet's documents. The Esc key will take you back to the previous screen.

Accessing Information in Aviator

When you are familiar with getting around Aviator, let's go into more detail about accessing the vast amount of information within Aviator.

As you have read and experienced, you can easily access and browse the Aviator Library and cabinets. You may have found there is only one way to view the list of cabinets in the Library view - by clicking the All Cabinets action in the Library navigator. Cabinets can be categorized in the view. These categories can be expanded or collapsed by clicking on the twisties.

However, there are many ways to view the documents in a cabinet's view. Open a cabinet and note the navigator. The top 7 actions are different ways of viewing the documents in the view. Feel free to click on these actions and note the corresponding view of the documents. Some views may contain documents and some may not. As you use Aviator, you will become more familiar with these views. For now, suffice it to say there are many ways to browse and find a document in a cabinet.

Is it a Folder or a Category???

In addition to the confusion over "documents" and "files", there is another pair of terms that may cause temporary confusion - "folders" and "categories". You are probably familiar with putting files into folders on your local file manager or Explorer and your file server's shared network drive. You may also be familiar with your Lotus Notes email database navigator that contains folders.

However, in Lotus Notes terminology, the way that documents are grouped in database views are by "categories". For example, in an Aviator cabinet, the Categorized view shows the documents grouped in categories. The categories are expanded and collapsed with twisties. In one view, there can be multiple categories with sub-categories and sub- sub-categories. In most of the other cabinet views, categories are also used to group documents. The only view close to a folder is the Favorites view which has a folder icon, but the documents are still categorized in that view!

If you absolutely need to see folders, the Switch Navigator button above the view switches Aviator's cabinet navigator to the standard Lotus Notes navigator. Click the button again to get back to Aviator's navigator.

Aviator Documents

Aviator documents consist of files (yes, here we go again) attached to a customized Lotus Notes document, meta-data that describes the document and its files, and rich text fields that can be used to enter large portions of text (similar to a word processor, or writing a Lotus Notes email). The file attachments and accompanying rich text is called the "content" of the document. The meta-data that describes the document's content is called the "attributes".

While the file attachment is the meat of the document, the attributes (meta-data) are critical to maximizing Aviator's use. The attributes provide a full descriptive name of the document instead of the file's sometimes confusing name, and a summary of the document so other users can understand the document's content before opening the file. In addition, the attributes provide a host of information about the document's security, revision history, categorization requirements, and custom criteria specific to the type of document it is and how it is to be used by your company.

Version Control

Most documents get changed during their lifetime. It may not be important to know when or why some of your documents were changed, but for most corporate documents that will be stored in a DMS to be shared with the rest of the company, it will be helpful to know you and your colleagues are accessing the latest, most up-to-date version. Many of your corporate documents need to maintain a revision history, but few computer systems provide the tools to easily and properly manage the history.

Aviator allows you to track documents through their "life-cycle" - from creation to archive or deletion. Any document you access in Aviator will have the date it was created, who created it, the date it was last changed, by whom, and why. In addition, Aviator allows you to keep past revisions in the database. They are displayed in the cabinet views under the latest version so you can access them if required. An automatically generated document log is maintained in each document's attributes which shows every action that was taken on a document, by whom, and when.

You will find that Aviator provides an amazing amount of flexibility while ensuring a thorough document audit trail. Aviator ensures you will always be accessing the latest, most up-to-date information from its databases.

Document Security

Security is a critical part of any DMS. If your Aviator Library is going to be used corporate-wide, you will have many people accessing various types of information. It is very important that Aviator's security is

clearly understood. The Library may have critical corporate information in a cabinet that only a select number of people may access. Likewise, there may be cabinets that all employees may access. The multiple levels and flexibility of Aviator's security ensure the information in Aviator is for intended users only.

Aviator provides three levels of security, or access control:

- First, Library access - you must be entered in the Library user group in order to access the Aviator Library or any of its cabinets;
- Second, cabinet access - each cabinet has its own user group, relevant to the information stored and managed in the cabinet. You must be entered in a cabinet's user group in order to see it in the Library view of cabinets, and access the documents in the cabinet;
- Third, document access - even if you have access to a cabinet, you may not have access to all the documents in the cabinet. Of course, any documents you create in a cabinet, you have the ability to access. However, each document has a reader list that can include everyone or a selection of people. If you are not in the reader field of a document in a cabinet to which you have access, you will not see the document in the cabinet's view.

As you get more familiar with Aviator, you will further understand the complexity and importance of its security architecture.

Document Collaboration

Collaboration is another key component of any DMS. Aviator seamlessly integrates with your Lotus Notes environment to take advantage of all its collaborative functionality:

- Sharing - by virtue of being a Lotus Notes database, all users with access to cabinets can read and share any documents to which they have access. Unless there is special access control on a document, the information is shared.
- Comments - any person that has access to a document can create a comment that links to the document. Furthermore, any other person with access to that document can provide a response to the comment, and so on. Comments are an easy way of providing feedback or input to a document without actually modifying its content.
- Email notification - Aviator's tight integration with Lotus Notes email enables you to notify other Aviator users about just about anything. An email notification can be sent when a comment is made to a document, when you want to alert others of changes to a document, when you want to simply notify others that a document exists, or when a document needs to be updated. And because of Aviator's Lotus Notes integration, the email notification provides a link (doclink in Notes terminology) to the relevant document - no more emailing large file attachments around the office.
- Review and approval workflow - Aviator provides the ability to send or route documents for review by other users. Some documents may require a review by specific individuals, or you may have a document on which you would like some friendly feedback. Either way, Aviator allows users to quickly and easily set up a review of a document by multiple individuals. The review can be performed in series or parallel. An email notification with a link to the document is sent to each person as they become the current reviewer. You are also notified via email if a person has not completed his / her task. Workflow is a very useful and powerful tool.

Aviator provides a truly collaborative environment around your organization's documents.

Document Search

In addition to providing an easy way to browse, categorize and view documents, Aviator provides the ability to search for documents. As Aviator's use grows within the organization, cabinets will become full of documents, making it more difficult to browse for information you need. Unless a specific document is located in your [Favorites](#) view, you will want to perform a search for the document.

Aviator's search database allows you to perform keyword searches across the entire Library or inside specific cabinets. Advanced search features allow you to narrow your search results by date, document identification, document name, document manager (owner), or by the document's status. The flexibility of Aviator's search criteria ensures quick access to exactly the information for which you are searching.

The list of relevant documents retrieved by a search provides the name of the document, the document's summary, revision, cabinet location, and, of course, a link directly to the document's content. In addition, your searches in Aviator can be saved and reused again in the future.

Advanced Features

There are many more features in Aviator that are covered in more depth in the user guide. For the purposes of beginner user training, the above content is hopefully enough to get you started. The Aviator Administrator Guide, User Guide and ODMA Guide provide additional details on the following features:

- Profiles - the information that defines characteristics of the Library, each cabinet, document type and review type
- Import / Export - the ability to import files or documents from a directory or other Lotus Notes database, and export Aviator documents to a directory system
- Support for Mobile Users - the ability to download documents from the Aviator Library to your local PC that is disconnected from the server while traveling
- Sending Emails to the Library - the ability to send an email directly to an Aviator cabinet
- Folders - the ability to use the standard Lotus Notes navigator in Aviator cabinets
- File Links - the ability to link files within documents to other files in the Library
- Deleting Documents - the ability to delete documents from cabinets
- Manager and Global Actions - advanced actions to manage documents

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