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# Aviator<sup>®</sup> Administrator Guide

## Aviator Team<sup>™</sup> & Aviator Enterprise<sup>™</sup>

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## WELCOME TO AVIATOR

### Thank You

Thank you for choosing Aviator. We are confident you will be pleased with Aviator's ease of setup, ease of use, and powerful document management capabilities.

This Guide was developed to assist Aviator administrator(s) with the installation, setup and deployment of Aviator. Please take your time and be sure to read the introduction to become familiar with Aviator's structure – this will help your understanding of the application and clarify the steps as you install and deploy Aviator.

While getting started with Aviator, access on-line assistance by clicking the [Help](#) icon on your screen.

### Year 2000 Readiness

Please see Appendix A for Aviator Software's Year 2000 Readiness Statement.

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# INTRODUCTION TO AVIATOR

## What Is Aviator?

Aviator is an advanced document management solution for today's mobile and networked computing environments. Electronic documents are critical to every organizational process, but they are increasingly difficult to store, share and manage. Today's documents are received in a variety of ways (via shared drives, electronic faxes, email, from the Internet, etc.) and are subject to a variety of activities (duplicating, reviewing, editing, routing, and storing). Trying to perform the document management functions manually is time-consuming and expensive.

Aviator is designed to help people better manage electronic documents in today's work place. Aviator manages any type of electronic document, from word processing files to scanned images to video files, to e-mails. The intuitive desktop metaphor of Library, cabinets, folders, categories, files, and documents makes Aviator extremely easy to use.

Aviator is built on a distributed, scalable architecture that leverages Lotus Notes' messaging, security, and replication technology. Aviator runs on the Lotus Domino server and allows access to documents using a Web browser or Notes Workspace. Aviator also supports ODMA (Open Document Management API), which lets you create, retrieve and save into Aviator using ODMA-compliant office productivity applications (e.g., MS Word).

**NOTE:** Files and e-mails are managed in Aviator as Aviator documents. One Aviator document can contain one or multiple electronic files and/or e-mails. This guide uses reference to documents as Aviator documents.

## Aviator Features Overview

Aviator surpasses today's traditional document management systems by incorporating powerful functionality such as:

- Workflow – documents can be electronically routed for review and approval. Automatic email reminders ensure the documents get the attention required without manual intervention;
- Multi-level security – access to information can be controlled at the document level, cabinet level or library level to ensure proprietary information is kept proprietary, and general information is shared with everybody;
- Version control – changes to documents are tracked by revision numbers and activity logs which monitor document activity to ensure users always have access to the latest information;
- ODMA (Aviator Attach) – documents can be created, opened and saved into Aviator from standard office productivity applications, saving time and allowing users to stay in familiar work environments;
- Search – advanced keyword and attribute searches simplify access to documents that would not be accessible with traditional document management systems;
- E-mail integration – e-mails can be imported from user e-mail folders or captured directly from the e-mail server, and documents in the library can be shared as e-mails;

## Aviator Users

Aviator users vary from power users who are actively involved in Aviator's use throughout the organization to users who are only interested in reading and using a minimal number of documents.

Aviator makes use of your Notes/Domino Name and Address Book (NAB). In order to become an Aviator user, individuals must be registered in the NAB. In addition, use of groups is highly recommended throughout Aviator, so it is important that groups be created and managed in the NAB.

### General Administrators

General Administrators are Aviator 'power users'. They set up and configure Aviator's architecture and can perform virtually any action within the Aviator Library Configuration database. General Administrators monitor library agents, administer access to the cabinets, ensure the cabinets is properly indexed, and configure and maintain database replication between servers. They are assigned Manager access to the cabinet databases.

### Cabinet Administrators

Cabinet Administrators are Aviator 'power users' for one or more cabinets. They can perform virtually any action within the cabinets they are administering. Cabinet administrators maintain the integrity (e.g., replication, classification, access) of the documents in a cabinet. They are assigned Editor access to the cabinet databases.

### Cabinet Authors

Cabinet Authors are library users with write-access to one or more cabinets within the Library. They can create and edit documents.

### Cabinet Readers

Cabinet Readers are library users with read-only access to one or more cabinets within the Library. Some cabinet Readers may have access to all the documents in the cabinet, while others may only have access to a few documents.

### Document Users

Document users vary from owners of documents who can create and delete its content, to readers who can only view a document's content.

- Authors are the originators of documents. They have no rights to the document if they are not also one of the following members.
- Editors own documents and oversee the documents' lifecycles. An individual automatically becomes an Editor of any document he or she creates. Editors edit properties, assign editors and readers, delete documents, and perform many other actions to documents. Editors can check out and modify document content. Editors also have all the rights given to Readers.
- Readers can locate, view, and use documents. Readers have no impact on a document's content, but can submit comments to a document at any time.

### Document Reviewers

Document reviewers are individuals assigned to a document's review and approval workflow process. Reviewers can read, edit, or approve/reject a document, depending on the review action defined in the workflow process.

## Profile Creators and Editors

Profiles control Aviator's settings and drive Aviator's functionality. Profiles can be created and edited by administrators and library users who have been given profile creation and edit rights in the library configuration database:

- Cabinet Profiles define access to cabinets and control the size of cabinet databases.
- Document Profiles define default document properties, version control functionality, document security, document logging, and many more settings.
- Review Profiles define template review and approval workflow processes.

## Aviator's Document Management Architecture

Aviator's architecture uses the common storage metaphor of files and documents, organized inside cabinets that are managed in a library.

### Aviator Documents

Electronic files and e-mails are stored within Aviator as Aviator 'documents'. Individual documents can store multiple files, which can include data files (e.g. word processing documents, spreadsheets, OLE objects (for Notes clients only), scanned images, graphics, audio or video files), and formatted text.

Users access and read a document's files by opening the document, launching the files directly into an ODMA-compliant application, or downloading files to a local directory. The files can then be read and closed, or edited and saved as a new version of the original document or saved into a brand new document.

Each document has properties that facilitate document organization, management and retrieval. Some properties are standard to every document and may include the document author, creation date, date of last modification, document title, etc....

Access to document content and properties is limited to authorized Editors and Readers. A document's access control can be set automatically from a document type, or can be defined manually when the document is created.

The check out/check in feature of Aviator ensures that only one user can modify a document at a time. When the document is checked out, a copy of the document is created for editing. The checked out document is locked in the database and only an editor can edit its content. All other readers access the original read-only version. When the revised document is checked back in, the original document can be replaced or saved as an old version.

Documents are stored and managed in Aviator cabinets.

### Aviator Cabinets

Aviator cabinets organize and manage documents. Cabinets are created for users, so the cabinets must logically categorize documents – for example, cabinets can be created to manage documents by department, group of employees or project.

Cabinets organize documents in various ways for ease of retrieval. Documents can be sorted within cabinets by category, title, work in progress, or custom views. For Web browser users, Aviator provides the ability to group Favorite documents that are used regularly.

Access to cabinets is defined in the cabinet profile, and updated as required by profile editors.

Cabinets are managed in the Aviator Library.

### Aviator Library Configuration

The library configuration database is the entry point into Aviator. It is the “main view” or the “home page” where users navigate and open cabinets, perform searches, and access administrative functions.

The library configuration database is where the libraries are configured. Library profiles contain settings for the library, cabinet profiles contain settings for the cabinets, and document and review types contain settings for documents and reviews. To create profiles and types users need special access rights granted by the library administrator in the library configuration database.

The library configuration database also enables users to import files and Notes documents into cabinets to simplify the creation of multiple documents. Files can be imported from one or more directory systems and can be scheduled for regular imports. Notes documents can be cut and pasted from any notes database and automatically translated into the Aviator document format.

Aviator simplifies administration by providing easy-to-read logs of scheduled agents. The agents are managed in the library configuration database, and the logs are accessed from the Library navigator, providing one central location for administration.

The library provides advanced search capabilities.

### Aviator Search

Aviator Search is a powerful search engine that allows users to perform keyword or attribute searches in individual cabinets or across entire libraries.

Keyword searches allow users to find a document using words or sentences that appear in document properties or the document body (including file attachments). Advanced searches allow users to filter search results by cabinet, document status, release date, document name, id, or editor.

Search queries can be saved with their results for future reference. Auto-search allows users to refresh saved search results at predetermined intervals.

### Aviator Help

Aviator Help provides users with on-line assistance performing any task within Aviator. Help is location-specific to ensure users get help relevant to their situation – i.e. if a user is in a cabinet and accesses Help, Aviator provides information specific to cabinet functionality.

## Aviator’s Database Structure

Aviator is structured to maximize scalability while maintaining performance. The following databases must be installed in the same sub-directory of the server’s data directory:

- Aviator Library Configuration (avicfg.nsf)
- Aviator Log (avilog.nsf)
- Aviator Web Files (avifiles.nsf)
- Aviator Cabinet (avicab.ntf)

## Library Configuration Database

A central library configuration Notes database (avicfg.nsf) contains the library settings (stored in profiles) and provides access to the cabinets. One library configuration database per organization is sufficient to manage several terabytes of information. Multiple libraries within the configuration database will improve document organization and reduce complexity and administration.

## Cabinets

Aviator cabinets are Notes database files that reside on the Domino server. Cabinet databases contain document properties and the body of the document, including file attachments. Many cabinet databases can be created for each library.

The cabinet databases are created from the cabinet database template (avicab.ntf) that must be stored in the same directory as the library database.

## Other Notes Databases

Other Notes databases (i.e., non-Aviator cabinet databases) can be included in a library so they can be accessed by the Attach client that integrates Notes with Windows Office applications.

## Web Files

The Web files database (avifiles.nsf) contains the images and scripts used to create a rich user environment when users access Aviator using Web browsers. The Web files database also contains the interactive Help files.

## Aviator Log

The Aviator Log database (avilog.nsf) is the repository for all log entries created as a result of library-level, cabinet-level and document-level actions.

## Aviator's Source Code

Aviator is open source code software. Aviator ships with all Notes design elements open for editing. In addition, the complete Aviator LotusScript API and Aviator Attach OLE API is available for purchase.

Modification of the source code is encouraged if it makes Aviator easier to use and more suitable for specific applications. However, a careful log of changes must be maintained so that the customizations can be integrated into future releases of Aviator.

## Aviator and Lotus Notes Limitations

See the following appendices for evaluation and performance information:

- Appendix B - Lotus Notes and Aviator limitations

# AVIATOR INSTALLATION PLANNING

This section of the Administrator Guide addresses all the issues required to ensure a proper and efficient installation of Aviator.

## System Requirements

Aviator Team and Aviator Enterprise support all platforms supported by the Lotus/Domino R5 server and the Lotus Notes and Web browser clients.

See Appendix C for detailed system requirements.

## Installation Check List

Aviator integrates seamlessly with your existing Domino installation. There are minor modifications required to the Notes Public Name and Address Book that will be addressed during Aviator's installation. By answering the following questions and gathering the necessary information, your Aviator installation will proceed quickly and without incident.

### Upgrading to Aviator Team and Aviator Enterprise from Aviator Standard (Version 2.3)

If you are upgrading Aviator from an older version, and wish to keep the cabinets and documents you have created, see Appendix D for information about creating the new library and migrating information from the older version library.

### Considerations for Aviator Access

Do all potential Aviator users have Person documents in the server's Public Name and Address Book (NAB)?

- All Aviator users require a Person document in the NAB.

Will users be accessing Aviator with a Web browser?

- If yes, be sure that the Person records in the NAB for each of these users has an Internet password.
- Also make sure that you sign all the databases with the administrator or server id to avoid certificate authentication errors on the server.
- A realm document is also required to prevent users from logging in multiple times when using Web browser clients.

Will there be Aviator users from outside your organization?

- If yes, be sure a Person document is added to the NAB for each user, that an Internet password is assigned, and that the user has access to the server.

Who will be responsible for administering Aviator?

- Library Administrators should have permission to create databases on the server, and run restricted and unrestricted agents on the server. These permissions are granted in the server documents of the NAB. Aviator administrators are also responsible for troubleshooting so they should have a good grasp of the Lotus Notes architecture and topics such as replication, replication conflicts, scheduled agents, and database security.

Who will be responsible for administering cabinets?

- Cabinet Administrators have complete access to all the documents in a cabinet. They should have a good grasp of Lotus Notes database management and topics such as replication, replication conflicts, reader access, deleting documents, and database security.

Can databases be created on the server?

- Some organizations do not allow users to create databases on the server. If this is the case, special consideration will need to be taken during Aviator's installation. Aviator comes with a scheduled AutoUpdateCabinets agent that can create new cabinet databases using the server's id, even if a user creates the cabinet profile.

### Considerations for Setting Up and Using Aviator

Do you have enough disk space to handle the expected volume of files?

- See Appendix C for System requirements and Appendix E to calculate additional hardware resources needed to accommodate document volume growth.

Who will create Aviator cabinets?

- Assigned individuals can create cabinets. To prevent mass cabinet creation and administrative headaches, assign a controllable number of responsible accountable individuals to create cabinets. You may want to limit the cabinet creators to the library administrator(s) until users are more familiar with Aviator. Users will need to send the library administrator(s) a request for a new cabinet.

Who will create Aviator document types?

- Aviator document types are settings and default properties for the users' documents. For example, if your users create Quality Procedures, a user will need to create a Quality Procedures document type to be used for all Quality Procedure documents. You may want to limit the document type creators to the library administrator(s) until users are more familiar with Aviator. Users will need to send the library administrator(s) a request for a new document type.

Who will create review types?

- Review types are pre-defined review and approval workflow processes. For example, Quality Procedures may need to be approved by three (3) specific individuals prior to release. A Quality Procedure review type can be created with the three (3) approvers' names in the workflow, so that users who create Quality Procedures do not need to re-create the review workflow every time – they simply choose the pre-defined type.

Will you be using ODMA-compliant applications with Aviator?

- See the Aviator Attach Guide for a list of ODMA-compliant applications. With Aviator Attach, users can open and save files from and to Aviator while using commonly used office productivity applications. Aviator Attach requires installation of client software on each user's desktop/laptop.

### Using Groups

Aviator supports and highly recommends the use of groups. Groups simplify management and administration of Aviator.

The following locations support groups – begin writing down ideas for structuring group names and group members:

- General Administrators
- Cabinet Administrators
- Cabinet Authors
- Cabinet Readers
- Document Distribution Lists
- Document Editors
- Document Readers
- Assigned Review Users

The following locations DO NOT support groups:

- Servers on which Aviator runs (listed in the Cabinet/Database Profile)

### Gathering Information

The following information is helpful to speed up Aviator's installation:

- Library Names – what will you name the Libraries you will be setting up?
- Name of HTTP Hosts – you will need the Internet host name by which users access your Domino HTTP server if users will be accessing Aviator with Web browsers (this might be an IP address);
- Server(s) on which Aviator and its agents will run.

# INSTALLING AND SETTING UP AVIATOR

## Aviator Installation

You have two options to install Aviator:

1. Install Aviator's databases directly on the server, or
2. Install Aviator's databases on local Notes Client and copy the databases to the server.

The following instructions apply to the Aviator installation on a Windows system regardless of the install process chosen:

- Insert CD in CD-ROM drive
- Open the installation Zip file
- Extract the Notes databases to a Local Notes client's data directory
- Use the File – Database – New Copy command to copy the databases (including the design templates) from the Local Notes client to the target Domino server (this step is required to change the database replica lds)
- Open the Aviator Library Configuration database (avicfg.nsf) on the server
- Complete and save the General Settings
- Set the database ACLs for Web Files, Log and Library Configuration databases

## Sign the Aviator Databases

Signing the databases with one of your organization's IDs prevents server-based certificate authentication errors when running the scheduled Reader Log agent and when users access Aviator from a Web browser, and prevents the Notes cross-certification dialog box from appearing when users access Aviator from a Notes client. When you sign a database you replace the name of the last person to save a design element (e.g., Susan Ambercon/Aviator) with the current user's (or server's) name.

You must sign the Aviator databases with a user ID that has Manager access to all the databases and is allowed to run restricted and unrestricted LotusScript agents on the server, and is allowed to create new databases on the server.

## Aviator Setup Procedure

The Aviator Setup Procedure guides you through configuring the general settings of the Aviator Library Configuration Database. Access Help for more detailed information on Configuring Aviator.

### Configuration: General Settings

When you open the Aviator Configuration Database for the first time, or when selecting the General Settings option from the Administration section of the main navigator, you will use the General Settings screen described below.

In the following illustration, the on screen help comments have been turned off so more of the screen shot would fit.

Save Cancel Help

**General Settings - Apply to Aviator Cabinet Databases Only**

Instructions for setting up this database are provided below. Editing these settings requires editor access to the database.

<b>ACL Settings for This Database (Config)</b>	<ul style="list-style-type: none"> <li>Servers/System Administrators: Manager and [Administration] role</li> <li>General Administrators: Editor and [Administration] role</li> <li>Cabinet Administrators: Author and [Config] role</li> <li>All Other Users (including Anonymous): Author only</li> <li>Default: No Access</li> </ul>
<b>ACL Settings for Cabinet Databases</b>	<ul style="list-style-type: none"> <li>Servers/System Administrators: Manager and [Administration] role</li> <li>General Administrators: Manager and [Administration] role</li> <li>Cabinet Administrators: Editor and [Administration] role</li> <li>Cabinet Authors: Author and [Author] role</li> <li>Cabinet Readers (including Anonymous): Author only</li> <li>Default: No Access</li> </ul>
<b>Config Replica ID</b>	07256ACA00709BA6
<b>Log Replica ID</b>	072569EE007CDED4
<b>Web Files Replica ID</b>	07256ACA0072C030
<b>General Administrators</b>	Rick Wallat/Aviator
<b>E-Mail Notification Options for General Administrators</b>	<input checked="" type="checkbox"/> Include DocLinks (overridden by cabinet options) <input checked="" type="checkbox"/> Include URLs (overridden by cabinet options)
<b>HTTP Hosts for Notifying General Administrators</b>	
<b>Other Settings</b>	<input type="checkbox"/> Notify administrators of new cabinets so that replicas can be created <input checked="" type="checkbox"/> Turn off help text in profile documents

Agent Name	Runs on	Status	Modified by	Last ran
AutoMaintenance	Home/Aviator	<input checked="" type="checkbox"/> Enabled		n.a.
AutoUpdateCabinets	Home/Aviator	<input checked="" type="checkbox"/> Enabled		n.a.
AutoUpdateDocuments		<input type="checkbox"/> Enabled		n.a.
AutoSearch		<input type="checkbox"/> Enabled		n.a.
AutoImportFiles		<input type="checkbox"/> Enabled		n.a.
AutoImportMail		<input type="checkbox"/> Enabled		n.a.

### Minimum Configuration ACL

The configuration database ACL must be set manually to the minimum levels shown. The administrator doing the settings can define the names of the groups, though the default names are descriptive of their level of access. Failure to set these levels correctly might result in some users not being able to access Aviator documents correctly. Once the configuration database access has been set correctly, it will probably not have to be changed again.

### Cabinet Database ACL

The ACL for all cabinet databases is created automatically and should not be changed. The settings are included here for informational purposes and to show the access level for the different groups. A system administrator can define the names of the groups, though the default names are descriptive of the level of access. Failure to set these levels correctly might result in some users not being able to access Aviator documents correctly.

If changes are made to users, groups, or settings, which affect the Cabinet Database ACLs, open the Cabinet Profile document in the Configuration Database and resave it. This forces it to inherit all the changes that may have been made. Do not attempt to change the ACL directly.

### Configuration Database Replica ID

The Replica ID shown here is automatically generated when the General Settings document is opened. It shows the ID for the Aviator Configuration Database which contains this General Settings document and is included mainly as a cross check. It *should not* be changed under any circumstances or the system will not operate.

### Log Database Replica ID

The Log Database contains the audit trail for each document and cabinet in Aviator. This information is stored in an independent database, so that usage reports can be generated across all cabinets in a system. Usage within a cabinet can be generated as well, but this mechanism allows the possibility of system wide monitoring. It is recommended that you set the ACL for this database to Author (can create) for all users so the log information can be generated correctly.

The Replica ID shown here is also automatically generated when the General Settings document is opened. However, it is possible for an error to occur if the Log Database has been installed on a different directory than the Configuration Database. This is not recommended, but will function properly if the correct Replica ID is inserted here. Normally, if the system finds a Replica ID and places it here, it *should not* be changed or the system will not operate.

### Web Files Replica ID

The Web Files Database contains records, images, and scripts that Aviator uses when communicating through a web browser. Since security is an issue when accessing through the web, it is recommended that you set the ACL for this database to Reader for all users.

The Replica ID shown here is also automatically generated when the General Settings document is opened. However, it is possible for an error to occur if the Web Files Database has been installed on a different directory than the Configuration Database. This is not recommended, but will function properly if the correct Replica ID is inserted here. Normally, if the system finds a Replica ID and places it here, it *should not* be changed or the system will not operate.

### General Administrators

General Administrators are the users or groups responsible for managing the Configuration Database, which controls the entire Aviator system. This includes the definition and creation of all cabinet databases as well as document types, review templates, file templates and the like. They must be assigned administrator access to the Configuration Database so they have access to all documents, and they will be notified of any system level errors or important status messages.

General Administrators are automatically assigned Manager access to any cabinet database that is created and given the [Administration] role. In this way, General Administrators can make changes to Cabinet profiles and update them (and possibly their ACL) at any time.

When working in Aviator, general administrators can:

- Change settings in the library profile
- Create and change cabinet settings
- Delete cabinets
- Create document and review type profiles
- Administer all agent logs
- Perform all standard user functions

- View and edit all documents, regardless of document security settings
- Change any security settings
- View the saved search results from all the users

### Administrator E-Mail

The General Administrators are notified of system level actions that may require attention or should at least be brought to their attention. This includes system level errors, cabinet creation, and other notifications sent by agents. These two settings control whether this type of email will contain document links, URL style links for web access, both, or neither.

It is also the case that when a cabinet is created, these settings are the defaults inherited by the cabinet profile. So in a sense, these settings form a system wide default for how notification e-mail of any sort will be handled. However, each cabinet has its own settings for these values and this default behavior can be overridden in each cabinet.

### Administrator HTTP Hosts

When General Administrators are to be notified through e-mail of system level actions or errors, the domain name servers or IP addresses to be used for the notifications are entered here. Without accurate settings, administrators will not receive potentially critical e-mail about system activity.

It is also the case that when a cabinet is created, these settings are the defaults inherited by the cabinet profile. So in a sense, these settings form a system wide default e-mail notification of any sort. However, each cabinet has its own settings for these values and this default behavior can be overridden in each cabinet.

### Other Settings

The first check box controls a notification e-mail that is sent to General Administrators each time a new cabinet is created. This can be important in a widely distributed setting, which allows cabinets to be created by Cabinet Administrators who have been assigned the [Config] role. If your installation allows such cabinet creation to occur, this box should be checked so that the General Administrators are notified when new cabinets are created and can create replicas or take other administrative action. If your installation is such that only General Administrators are allowed to create new cabinets, this is not necessary.

The second box simply controls whether the helpful line or two of text will appear for each item in the General Settings document. We have turned off the switch for the purposes of illustrating this help file, but this setting is on by default when you enter this document.

## Enable the Scheduled Agents

Aviator has several scheduled agents that run in the background and automate tasks such as performing system checks, creating new link databases, escalating late reviews, running automated searches, creating new cabinet databases, and compiling document reader logs.

The general administrator should enable the scheduled agents as soon as possible.

### Maintenance Agent (AutoMaintenance)

All the agents shown here are enabled to run on the server shown by checking the box. Each has its own schedule. To alter the schedule at which the agents run, you must open them in the Agents View in the Designer. This is normally not necessary and should only be done after you thoroughly understand their action.

The Maintenance agent runs once daily in the early morning hours and performs a variety of tasks on the cabinet databases. This includes removing discarded documents, alarm notifications, review escalation notifications, and requesting new cabinet replicas when necessary. This agent is enabled by default since the notification functions are a normal part of an Aviator system.

#### Cabinet Update Agent (AutoUpdateCabinets)

The Cabinet Update Agent does not have a daily schedule, but it runs within five minutes of any change to a cabinet profile. This includes the creation of a new cabinet, or the modification of an existing one. If a new cabinet database is required and the creator does not have system rights sufficient to create a new database, this agent will carry out the creation process.

Similarly, if changes to the ACL of an existing cabinet are required, perhaps by adding users to a cabinet profile, this agent will propagate the changes to the actual database ACL even if the Cabinet Administrator making the profile changes does not have sufficient access for such changes.

This agent is enabled by default since this cabinet update process is such a necessary part of most Aviator systems.

#### Document Update Agent (AutoUpdateDocuments)

The Document Update Agent runs once daily in the early morning hours. It is responsible for purging and archiving documents that have been marked for these actions.

#### Automatic Searching Agent (AutoSearch)

This agent runs once daily and updates the searches that have been set up as scheduled. If there are results of the process that include notifications, they are sent by this agent.

#### File Importing Agent (AutoImportFiles)

The File Importing Agent also runs once a day and follows the definitions found in file import profiles which are set up in the configuration database. The import effectively creates document containers for each file found in a specified directory and attaches the files to these new documents. The original files can be optionally deleted.

It is possible to define several import profiles for each cabinet each of which is capable of importing from multiple directories. Note that a single profile can only import files into a single Aviator Cabinet. Since this agent will run once a day, it is best to define such profiles for directories in which new files destined for importation will appear and then to have them deleted after importing. Otherwise duplicate records would be created.

#### Mail Importing Agent (AutoImportMail)

The E-mail Importing Agent also functions according to the definition of an import profile. It is possible to define many profiles for different e-mail types and destinations based on the contents of the e-mail header information and the categorization of the cabinet it is destined for. Note that one e-mail profile can only import into one Aviator Cabinet. In this case the agent runs within five minutes of the receipt of an e-mail into the database.

#### Save

This commits any entries or changes that you have made to disk. If this is the first time in this settings document, you will be taken to the Main Navigator view where you continue the setup process by creating a Library and adding databases to it. If you are changing values in an existing configuration, you will return to your previous view.

## Cancel

This button or the ESC key will cancel the process and discard any changes you may have made to this document. If this is the first time in this General Settings document and you elect to cancel or escape without saving, you will not be allowed to add databases to any libraries you create.

Further, each time you enter the configuration database, this screen will reappear until you save it at least once. Note that the default values that are entered automatically for you are sufficient to continue the configuration process. Typically one adds some HTTP information for notification e-mail, and it is recommended to check the "Notify administrators..." checkbox.

## Help

This brings up the contents page of the help file system.

## Provide Sufficient Access to Library Administrators

Library administrators are responsible for maintaining the entire Aviator library. They have access to all the library settings and to all the documents (regardless of the cabinet's security). Library administrators also enable and disable the scheduled agents that run in the Aviator library database.

To enable the scheduled agents in Aviator, the library administrators must be allowed to run restricted and unrestricted LotusScript agents on the server on which the agents will run. If the administrators do not have this access, the agents will not run (even though they may appear as enabled). For Lotus Domino R5:

- Open the public address book
- Edit the appropriate server document (for the server on which the agents will run)
- Access the Security tab
- Enter the general administrators (as users or groups) in the "Run restricted LotusScript/Java agents" and "Run unrestricted LotusScript/Java agents" fields
- Save and Close the server document.

If the Cabinet Permissions in the library profile are set to create new cabinets immediately, the library administrators responsible for creating cabinets must have permission to create new databases on the server on which Aviator is installed. The same rule applies to library users who have been granted rights to create cabinet profiles. For Lotus Domino R5

- Open the public address book
- Edit the appropriate server document (for the server on which new databases will be created)
- Access the Security tab
- Enter the general administrators (as users or as groups) in the Create New Databases and Create Replica Databases fields
- Save and Close the server document

If administrators and users do not have permission to create databases on the server, you can set the Cabinet Permissions in the library profile to create cabinet databases using a scheduled agent.

## Set up Aviator for use with Web browsers

Aviator runs on a Domino server and can be accessed by Lotus Notes clients or Web browsers.

To provide access to Aviator using a Web browser:

- Set up the Domino server document in the public name and address book for Internet access
- Load the HTTP server on the Domino server by typing **load http** at the server console
- Enter the Internet host name of your Domino server in the library profile (this might be an IP address)
- Provide every user with an Internet password (defined in their Person document in the public name and address book)
- Sign the Aviator databases with a user or server id from your organization (see Sign the Databases above) - this prevents agent execution errors on the server

**Congratulations!!** You have completely installed Aviator on your system, and it is ready for use! The next steps are to plan Aviator's architectural configuration.

## CONFIGURATION PLANNING

This section of the Administrator Guide provides the information needed to thoroughly plan Aviator's configuration for use.

### Aviator Profiles

Advanced profiling is a powerful feature of Aviator's document management system. Aviator uses profiles to define its architecture as well as establish security settings. All profiles are stored in the library configuration database. The creation and management of profiles is restricted to select users.

Profiling provides control over the behavior of cabinets, documents and reviews from a central location. It also allows document properties to be populated by default settings to prevent accidental security breaches.

Open the Aviator library configuration database, and ensure the Library settings are displayed in the navigator. Then click on "Configure Libraries".

#### Library Profile

The library settings are defined in the library profile. Only the general administrators can edit these settings. Once a library profile is created, cabinet profiles can then be added.

#### Cabinet Profile

The cabinet settings are defined in the cabinet profile. Only the general administrators and select cabinet administrators can create and edit cabinet profiles. Creating a cabinet profile creates the cabinet database.

#### Database Profile

General Notes/Domino databases can be added to the library configuration database as non-Aviator databases. This is extremely helpful for managing documents and files in existing databases that do not necessarily need migrating into Aviator.

#### Document Type Profile

Document types define the behavior of documents. It is a good idea to have a different document type for each type of document created. The type profile name should be descriptive, but it is not used to classify the document in any way, so a single profile could be used for several different types of documents (e.g., Process, Procedures and Policies could share the same document type profile).

A document type profile contains several default settings that are automatically entered into documents created from this profile. Once a document has been created, the document author and/or editors can modify these settings. When default settings are changed in the document profile, existing documents are not affected.

Default settings include:

- Default Editors - users who can check out a document for editing
- Default Readers – users who can read document in a cabinet
- Default Distribution – users who are notified by e-mail when a document is modified

- Default Categories – categories under which documents of this type are categorized by default

Because changes to default settings in the document type profile are not automatically copied to existing documents, these settings should be defined carefully before creating any documents. However, editors and cabinet administrators can change the document type to update the default settings at a later date.

All other document type profile settings immediately affect the behavior of documents created with this profile. These include:

- Maximum document size
- Available file templates and review types
- Version control options
- Reader log specifications
- Document archiving or purging details
- All document properties (fields)

### Review Type Profile

Aviator's electronic review and approval workflow is one of the features that makes Aviator a truly powerful document management system. Review type profiles provide standard pre-defined workflow processes to simplify users' work when creating and reviewing documents.

A review type profile describes the behavior of a review. Review types are used to route documents through a review and approval cycle that might include editing, commenting, and approving a document. The document editor initiates reviews. A document can use different review types to serve different review needs. The name of each review type should describe its function.

Review types profiles contain mainly default settings that are automatically copied into the document when a review is created. The document editors can edit these default settings, or they can be protected from editing if the review workflow can be accurately pre-defined. Review type profile settings include:

- Required reviewers
- Ability to send the document back to the previous reviewer
- Ability to cancel the entire review upon a reviewers' rejection
- Checking in the document after the last phase
- Assigned user or users
- Action required of the assigned user (e.g., edit, read, approve)
- Number or percentage of users required to accomplish the action
- Duration of the action (in days)
- Escalation action if the action is not completed by the due date

If necessary, document editors and cabinet administrators can change the review types being used by the document.

You will create detailed review type profiles that contain reviewers and actions during the configuration of Aviator.

## Planning Aviator's Configuration

Planning prior to configuring Aviator is critical for yourself and your users. The following information will help ensure a smooth deployment of Aviator to your users, and eliminate your need to re-configure profiles or other settings after many documents have been created.

Have a thorough understanding of how your users will use Aviator. Be sure to involve users in the planning phase. This will make sure the library you create satisfactorily meets their needs and, more important, gets the users involved and feeling like they are contributing.

### The Library

By now you probably have a pretty good handle on the library configuration. The only major items to consider are servers, administrators, and which users will have the ability to create and edit profiles.

Due diligence should be given to deciding which users can create profiles. Too many individuals will cause a proliferation of profiles, however, too few profile creators will result in too few profiles and lack of system flexibility and ease of use. Making the general administrators the only profile creators means more work for the administrators.

### Segmenting the Library into Cabinets

Identify how the library will be logically divided into cabinets. Cabinets contain the documents and should represent a real-life, easily understandable grouping of documents.

Aviator cabinets have a size limit of about 250,000 documents or 5,000 GB, which provides plenty of space to work with. The system also allows documents to be moved from one cabinet to another, should a document ever need to be reorganized or archived.

Use the following guidelines to help define cabinets:

- Existing directory structures on shared drives used to organize common files. Create a cabinet for the top-level directory only. Sub-directories can be translated into categories for classifying documents within the cabinet.
- Databases that contain electronic documents. For large databases, consider creating a cabinet for each document category or type contained in the database.
- Classification structures used to organize paper folders, files and documents. Consider cabinets for these whether converting paper documents to electronic format or not.
- Geographical regions and organizational divisions. Consider classifying regions into logical groups.
- Departments, workgroups, and projects. Given the ease with which an Aviator cabinet can be created, smaller cabinets can be set up for small groups of workers who need to share information regularly.

As a rule of thumb, the same cabinet should be used for documents that:

- are accessed by the same group of people, and/or
- share a common classification, and/or
- need to be viewed or edited together.

## Planning For Classification

Aviator leverages the power of Lotus Notes views to offer several ways to classify (or categorize, in Notes parlance) cabinets and documents.

Classifying cabinets within the library database makes it easier for a user to find a cabinet (use a backslash \] to create a sub-category; e.g., Western Europe\France\Services). To classify a cabinet, open the cabinet profile, then enter or select a category. Typical cabinet classifications include:

- Geographical regions
- Organizational divisions
- Organizational functions

Documents can be classified in a cabinet database the same way. A single cabinet might contain hundreds of categories and thousands of sub-categories, so it is important to carefully plan and pre-define document categories.

Users can find documents by browsing well-classified cabinets faster than performing a keyword search. Therefore, the classification schema will directly affect user productivity and satisfaction. Document categories can be pre-defined in cabinet and document profiles.

Pre-defined categories are displayed in a pick list (or keyword list) in the document properties. Users can select one or more categories from the list or enter their own. Users should be encouraged to use the pre-defined categories. All the categories currently used in the cabinet can be displayed in the categories pick list.

## Security Considerations

Document security is a primary function of the Aviator document management system. Aviator makes use of the most powerful multi-level security implemented by Lotus Domino. Aviator's security features include:

- server access permissions and restrictions implemented through the standard Domino server document
- restricted library access implemented through the Notes database ACL (Access Control List) and automatically managed and maintained in the library configuration database
- -Default- access is No access
- server and general administrators get Manager access to all library and cabinet databases
- cabinet administrators get Editor access to the cabinets they are administering
- cabinet authors and readers get Author access to the library, but not necessarily to the cabinet databases

- restricted cabinet access implemented through the Notes database ACL are automatically managed and maintained in the cabinet profile document

Document security restrictions including:

- Editors - can edit the document properties (including security settings) and check out the document
- Readers - can read the document and its properties (users who do not have reader access to a document will not even see the document in the cabinet views).

## Importing files

If you plan to import existing files from your local system or shared drive, gather as much information as you can about the files, the location of the files, the structure of the files, how the files are used, etc. Aviator's import functionality allows you to import individual files or groups of files from system directories. You can even schedule daily imports to gather files from users who wish to store files in directories rather than in Aviator.

While batch file imports are a fast, easy way to create many Aviator documents from many existing files, there is some work required to make each document unique. Documents created from imported files inherit either the file name as the document name, or the same name entered upon import. Making each document unique (beyond the file attachment name) requires time to access and modify each document's properties.

## Importing Lotus Notes Documents

Aviator provides the ability to import Lotus Notes documents from Lotus Notes databases. This is a great way to get those out-of-control, non-searchable databases into a controlled environment. The Aviator document importing process can be performed by pasting Notes documents into the library, or by Emailing Notes documents to the library (a Mail-In Database document must be configured in the server's address book).

Begin planning the import of Lotus Notes documents by listing the databases requiring import, and gathering user feedback on how to structure the information in Aviator – this may require an entirely new way of thinking about your data.

## CONFIGURING AVIATOR

You are now ready to begin configuring Aviator for use.

We hope the previous section has provided you with enough information to do a sufficient job planning for your Aviator setup. Again, we cannot emphasize enough the importance of planning prior to setting up and configuring Aviator – take your time reviewing the planning you have done, and gathering additional user input before proceeding.

Appendix F contains several profile worksheets to aid Aviator's setup and configuration. Use these worksheets to manually gather the required information prior to creating the profiles in Aviator.

**NOTE:** The order of this section may not be appropriate for all organizations. You may feel it is more useful to create document profiles before finalizing the library profile. It is important to use your own judgment about the configuration while using this guide.

### Aviator Hierarchy

Appendix F-1 is a library organization chart. Use this chart to help conceive the library's hierarchical structure. Enter the library name, cabinets to be created, and types of documents to be used.

This information can be changed later. Use the chart to begin visualizing how your document management system will be constructed. Involve end users in brainstorming sessions to help develop the organizational chart. In addition, begin considering how the documents will be categorized within the cabinets.

Once you have a thorough understanding of the Aviator library structure, begin using the next worksheets to develop the actual library.

### Aviator Library

Appendix F-2 is the library profile worksheet. The required information is pretty self-explanatory, so we will skip to the Cabinet profiles.

### Aviator Cabinets

Appendix F-3 is the cabinet profile worksheet. You may be familiar with this information, so some of this may be review. We will skip over some of the self-explanatory items.

#### Profile Editors

This field contains the user(s) that can edit this profile. The default editor is the individual that created the profile.

#### Database Type

Databases in the Library can be Aviator cabinets or standard Lotus Notes/Domino databases.

#### Title and Description

The name of the cabinet should be simple yet clear enough to alert users of its content. The description will be viewed in the cabinet list to provide additional information about the cabinet.

## Cabinet Replica IDs and Servers

Replica IDs are generated automatically, and the servers listed on which replicas of the cabinet will be created.

## Cabinet Administrators

These users appear in the access control list (ACL) of specific cabinet databases as Manager. If you are one of the cabinet administrators, you can do anything within the cabinet.

When working in Aviator, cabinet administrators can:

- Create and change cabinet settings
- Delete cabinets
- Perform all standard user functions
- View and edit all documents, regardless of document security settings
- Change any security settings

## Cabinet Authors and Readers

Users who can edit or only read documents in the cabinet.

## Cabinet Update Methods

Aviator cabinets are Notes databases created on the Domino server. There are three options to create cabinets on the server:

- Databases are created/updated immediately – cabinet creators have the ability to create databases on the server, so cabinet databases are created and edited immediately.
- Databases are created/updated by a scheduled agent – Aviator comes with an agent called 'AutoUpdateCabinets'. If cabinet creators are not allowed to create databases on the server, when the user creates a cabinet, it submits a request to the server that the agent picks up. The agent will create the databases and notify the user that the cabinet has been created.
- Databases are created/updated by an external program – if your organization has already developed a program that creates databases on servers, this option allows you to integrate Aviator's cabinet creation process with your program. Aviator will submit a request to your program to process.

## Reset ACL

Aviator automates the updating process to the library's database access control list (ACL). By keeping the option selected, any time the library profile is modified, Aviator will automatically update the ACL.

## Document and Review Types

Cabinet usage can be restricted to only specific types of Aviator documents and reviews. Once you have created the document and review profiles, you can selectively allow documents of specific profiles to be created in the cabinet. You also have the option to allow all profiles to be used in a cabinet.

## E-mail Options

Depending on the user's email application (Notes or Web/other) DocLinks and URLs can be omitted from e-mails generated in Aviator.

## Access From ODMA-Compliant Applications

If users access database in Attach, View Profiles must be created for each cabinet.

## Aviator Documents

Appendix F-4 is the document type profile worksheet. You may be familiar with this information, so some of this may be review. We will skip over some of the self-explanatory items.

### Profile Editors

This field contains the user(s) that can edit this profile. The default editor is the individual that created the profile.

### Name and Description

The name of the document profile should be simple yet clear enough to alert users of its content. The description will appear in the document profile list to provide additional information about the document, and in the New Document dialog to ensure users are using the correct profile when creating documents.

### Maximum Size

A document's content size can be limited with this selection. This is helpful if you wish to prevent users from creating documents from inappropriately large video or sound files.

### Available Review Types

Documents to be reviewed or approved utilizing Aviator's workflow capabilities can be forced into one pre-defined process by selecting the required review profile. The option to use all review types is also available to offer users a choice of pre-defined types.

### Default Editors

When created, a document can inherit default editors from the profile, or editors can optionally select from an editors lookup list from the NAB. Editors can check out and edit documents.

### Default Readers

When created, a document can inherit default readers from the profile, or users can optionally select from a readers lookup list from the NAB.

Readers can only read documents – they cannot modify a document's content.

### Default Categories

Documents can be grouped, or categorized, within the cabinet. Documents created with this profile can be grouped in categories specified in the profile.

Enter a category or categories in this field. Use Notes' standard backslash [] to create sub-categories (i.e. Europe\France).

## Default Distribution

Distribution lists are used to notify users that a document with this profile has been created or modified. Use caution with distribution lists – some users may not be fond of receiving numbers of email notifications about non-relevant documents.

When created, a document can inherit a default distribution list from the profile, or users can optionally select from a distribution lookup list from the NAB.

## Version Control Options

Tracking versions:

- Keep all versions: the previous Released version and all the minor versions created since the document was checked out are saved as Earlier Versions.
- Keep only checked in versions: the previous Released version is saved as an Earlier Version, but all the minor versions created since the document was checked out are deleted.
- Keep only latest version: the previous Released version is saved as an Earlier Version, but all the minor versions created since the document was checked out are deleted.
- Replace previous version: the previous Released version and all the minor versions created since the document was checked out are deleted, and the version number is not incremented.
- Prompt user for choice: the user is prompted with a list of version control choices (those listed above), so they can select the most appropriate option for the current circumstance.

Versioning scheme:

- Documents can be tracked by numbers or letters

Document reviews and reader log:

- Documents can be forced into a review after being modified
- Choose the reader log option to track readers of documents created with this profile. The reader log lists all readers of the document, the number of times each reader has read the document, the last time each reader read the document, and the total number of readers.

## Reader Log Database Filepath

This filepath will specify the location of the database that logs reader activity.

## Document Maintenance & Archive Cabinet

Documents can be archived and/or purged after a specified number of days. Archived documents are moved to the Archive Cabinet.

## Custom Properties (Fields)

All of a document type's properties, or fields, can be customized:

- The Prompt is the name of the property (e.g. the Title of the document can be called Name, Heading, etc.)
- Specific properties can be required, and users will be prompted to enter a value or description in the field.

- Keyword lists can be generated for each of the custom property fields.
- New Values can be added in categories and selected custom property fields.

## Aviator Reviews

Aviator's review and approval workflow is a very powerful feature. Documents created in Aviator can be electronically routed to multiple users for their review and approval. Review actions include Edit, Comment, Read, or Approve, and review escalations can be used to remind reviewers they have missed their deadlines.

Appendix F-5 is the review type profile worksheet. You may be familiar with this information, so some of this may be review. We will skip over some of the self-explanatory items.

### Profile Editors

This field contains the user(s) that can edit this profile. The default editor is the individual that created the profile.

### Name and Description

The name of the review type should be simple yet clear enough to alert users of its content. The description will appear in the review type list and in the review dialog to ensure users are using the correct type when reviewing documents.

### Required Reviewers

If there are users that must in the review, enter them in this field. They do not have to be entered in the workflow table of the review type profile, but the users will have to add them to the workflow table before they can start the review.

### Review Options

There are three options for the review type:

- Allow send back to previous phase – if a reviewer makes changes and would like the previous reviewer to review them, the current reviewer can send it back.
- Reject cancels the review – if an approver rejects a document, the entire review is canceled and the review initiator is notified.
- Check in document after last phase – if a review is completed successfully, the document can be automatically checked in upon review completion. This saves the review initiator's time having to check in a completed and approved document.

### Document Review Workflow Table

The table can now be populated with users who will review documents prior to their release. Reviews can be series or parallel. For a parallel review, assign multiple users or groups in a phase, and specify the number of reviewers required to complete the assignment (in Quota field).

Now you can enter the information from the profile worksheets into Aviator. From the Aviator library configuration database, select the profile you wish to create.

Once you have created your profiles, you are ready to begin using Aviator. The next section describes your deployment options as the general administrator, as well as tips and recommendations to assist your use of Aviator.

## ADMINISTRATOR USAGE OF AVIATOR

This section of the Administrator guide provides additional information needed to ensure proper administration of Aviator. This information goes beyond the User Guide to include tasks specific to library general administrators. At any time throughout your use of Aviator, access on-line help for additional information not provided here.

### Deploying Aviator

This guide is not specifically designed to aid in the deployment of Aviator. This guide provides all the steps necessary to plan for, install, configure, and begin using Aviator. Deploying Aviator can be a long process of small group rollouts, training, larger rollouts, more training, etc. For purposes of this guide, deploying Aviator will be considered the rollout of Aviator to a small group of users (a pilot, department, team, etc.).

Before deploying Aviator to users, make sure the users' needs have been considered and addressed. The success of any new application resides in the speed with which the users adopt it. Aviator involves a change in work habits (i.e. saving files in a different application) and a change in culture (i.e. sharing information). It is worthwhile spending extra time presenting, clarifying, fine-tuning and training to ensure that all the user requirements and concerns have been addressed. This additional time (and cost) will be handsomely repaid by the increase in productivity obtained from a well-integrated document management system.

### Aviator Replication

#### Configuring and maintaining Aviator replicas

Aviator is a Domino application consisting of Notes databases, and as such benefits from Domino's robust replication functionality. To replicate Aviator to another server, follow the same steps as with any other Notes database:

- In the cabinet profile, make sure all the servers are listed in the Cabinet Servers field, which gives servers Manager access to all the databases in the library.
- In the library profile, enable the option to notify library administrators when a new cabinet or link database is created on one of the library servers. This ensures that a replica a new cabinet database or link database can be immediately created on other servers.
- Create a replica of all the library databases that will be replicated. At a minimum this includes:
  - Library configuration database (avicfg.nsf)
  - Web Files (avifiles.nsf) database
  - Log database (avilog.nsf) database
  - Cabinet template (avicab.ntf)
- Test the replication settings by forcing a replication between servers and monitoring the replication log events.

#### Replication Conflicts

Libraries that are replicated to multiple servers are subject to replication conflicts (this happens when the same document is checked out at the same time on two different servers). To minimize the occurrence of replication conflicts:

- Keep editors lists small and make sure that all editors will access the library on the same server.
- Use a review to assign editors sequentially (assign each editor to an edit action). Editors will be notified when the document is assigned to them and will only be able to check out the document at that time. No other editor can check out the document until the assigned editor completes the phase.

## Importing Files and Notes Documents

To speed up the deployment of Aviator, it is a good idea to populate cabinets with files imported from shared drives and Notes documents imported from other Notes databases.

All import functionality is available from the Import view of the library configuration database. Import profiles must be defined separately for importing files and Notes documents. File import profiles can be scheduled for periodic importing. Document import profiles can be set up to run when documents are pasted into the Import view and when documents are Emailed to the library database.

Follow these instructions to let users Email documents to the library:

- Enable the AutoImportMail agent in the library database
- Open the Import Documents section of the library
- Create one or more document import profiles to translate the imported Notes document into the Aviator document format: you can optionally enter @formulas that perform operations on one or more fields (the following @functions, which affect the user interface, do not work within an Evaluate statement: @Command, @DbManager, @DbName, @DbTitle, @DDEExecute, @DDEInitiate, @DDEPoke, @DDETerminate, @DialogBox, @PickList, @PostedCommand, @Prompt, and @ViewTitle)
- Enter the identifying criteria for the imported documents at the bottom of the import profile - this information is used to match the imported document to the import profile it should use
- Create a Mail-In Database document for the library database in the server's Address Book
- Distribute the Email address of the library database to users

## Managing Agent Logs

Agent logs contain the logs for the automatic administration agents that run daily. The library administrator is responsible for enabling and disabling the agents from the library profile.

The agent logs provide the library administrator one view with which to perform a 'health-check' of the Aviator library. The log documents all the actions taken by the agents, and will alert the administrator of problems.

## Appendix A – Year 2000 Readiness Statement

### Overview

Aviator Software has implemented a project to minimize the business and technology risks associated with the Year 2000. Software technology is an integral part of our business, and we are committed to delivering fully compliant products for the coming Millennium. Our Year 2000 readiness project entails analyzing the risks, identifying and prioritizing the work, addressing the most critical changes first, testing those changes, and communicating required and recommended changes to our customers.

### Readiness Definition

Aviator Software considers a product to be Year 2000 ready if, when used per its appropriate documentation, it can accurately process date data within and between the 20th and 21st centuries. This implies all associated products (e.g., hardware, software, and operating systems) used with the product can exchange correct date data with the product and properly process such date data.

### The Year 2000 Project

We have designated a Year 2000 Project team that will provide guidelines for the Year 2000 work. The team is responsible for certifying software programs and systems based around these guidelines. These include the Aviator Software application and the programs used in maintaining Aviator Software's online and internal systems.

### Custom Notes Applications Software

Aviator runs on the Notes and Domino platform, which stores the year portion of a date with 4 digits. Although only two digits are typically entered by the user and displayed in date fields on the screen, the year portion of the date is translated to the full four-digit year.

It is important to note that although the Notes APIs and infrastructures correctly handle dates, it is possible for custom Notes applications to incorrectly handle dates. In most cases, non-compliant Notes code is easily fixed once identified, and usually will have an impact only on usability of the application, and will not prevent the basic operation of the application.

### Lotus Notes Versions

It has always been possible to input 4-digit years in all versions of the Notes and Domino products thereby avoiding any possible 2-digit year date interpretation problems. However, many applications developed for the Notes environment have been designed to accept only 2-digit year input.

In Notes R4.1 and prior, 2-digit year dates are interpreted as the 20th century. For example, if a user were to enter "16", Notes would interpret the entry to be "1916".

Beginning with release 4.5 of Notes and Domino products, additional logic for the interpretation of 2-digit year dates was added. A pivot date of 1950 is used to interpret 2-digit year entry based on the following assumptions. If the 2-digit year is 50 or greater, it is assumed to be in the 20th century (19xx). If the 2-digit year is 49 or less, it is assumed to be in the 21st century (20xx).

In addition, there is a recently identified server console and log date display issue in release 4.1 of Notes and earlier versions. This issue does not affect the current Notes and Domino releases 4.5 and 4.6. While this date display problem is not expected to result in the loss of any data or the loss

of Notes software functionality (e.g. replication, mail routing, etc.), it prevents these older releases from meeting the Lotus and IBM Year 2000 ready definitions.

Lotus is strongly recommending that all customers using Notes release 4.1 or any earlier release, upgrade to one of the current releases of Notes and Domino (releases 4.5 and 4.6). These releases have been determined to meet the Lotus and IBM definition of Year 2000 ready. For these reasons Lotus is strongly recommending that we recommend that all Notes customers complete the upgrade of their Notes infrastructures to release 4.5 or higher, during 1999. Upgrading to these versions is necessary to assure full Year 2000 readiness of Aviator.

Lotus is providing a one-time, free upgrade of release 4.5.5 for those customer using Lotus Notes release 4.1 or earlier versions This software can be obtained at the Lotus Notes & Domino 4.5.5 download site or by contacting a local customer service office worldwide.

## The Method

Our method consists of the following phases:

**Awareness:** The first phase in our Year 2000 project involved appointing a Year 2000 project manager, and setting up the Year 2000 project initiative.

**Assessment:** We have surveyed Aviator, identified areas where date fields are used and where code changes are needed to ensure correct program functioning after December 31, 1999. We have prepared an inventory of internal systems, including hardware, commercially available software, operating systems, internally developed software, and services; and have identified all mission critical items. Those items requiring upgrades have been or are scheduled for modification.

**Prioritization:** The key factor for Year 2000 projects is an effective system of triage, or identifying the mission-critical tasks and moving them to the top of the list. We have prioritized our accounting systems, other internal applications, networks and telephone systems as mission critical. In addition, we are obtaining vendor statements and performing our own internal testing on all mission critical hardware and software systems.

**Modification/Upgrade/Replacement:** We have identified areas where systems must be upgraded, changed or replaced to achieve readiness. One important area is the upgrade of the applications and operating systems we use to support our business.

**Testing:** We achieved application-level readiness by the second quarter of 1999, but the test phase will continue to be used to identify necessary changes.

## Conclusion

Aviator Software's Year 2000 project is an ongoing effort, and information regarding Millennium readiness is changing rapidly. The information provided in this statement is intended for informational purposes only, and does not constitute a guarantee or warranty, expressed or implied, (including, without limitation, any implied warranty of merchantability or for a particular purpose) of any kind. This statement may contain forward-looking statements. All forward-looking statements involve risks and uncertainties. There can be no assurance that actual results will not differ materially from the results discussed in the forward-looking statements.

## Appendix B – Aviator Limitations

Aviator has a number of limits that are imposed by its profile settings. In addition, Aviator is a Lotus Notes application and has the same limits as Lotus Notes. The limits are listed below:

Feature test	Limit
What is the maximum size of a database?	The maximum OS file size limit - (up to 64GB)
What is the maximum size of text fields?	15KB (storage); 15KB displayed in a view's column
What is the maximum size of a rich text field?	Limited only by available disk space up to 1GB
What is the maximum size of a single paragraph in a rich text field?	64KB
How many levels of responses in a hierarchical view; how many documents at each level?	31 levels; 300,000 documents
How many characters are allowed in names for views, forms, and so on?	Database Title: 96 bytes Filenames: On Windows and Unix platforms minimum of 255 and/or OS limits; on local Macintosh workstation 31 Field names: 32 View names: 64 Form names: 32 Agent names: 32
How many fields in a database?	~ 3000 (limited to ~ 64K total length for all field names). You can enable the database property "Allow more fields in database" to get up to 64K uniquely-named fields in the database.
How many columns can be included in one table?	64
How many rows can be included in one table?	255
How many views can be added to a database?	No limit; however, as the number of views increases, the length of time to display other views also increases
How many forms can be added to a database?	Limited only by database size.
How many columns are allowed in a view?	289 ten-character columns; dependent upon # or characters per column
How many documents can be imported into a view?	Documents totaling at least 350K
How many cascading views are allowed in a database?	200
What is the maximum value (in inches) you can enter for margin size?	46
What is the maximum value (in inches) you can enter for page size cropping?	46

Feature test	Limit
What is the maximum point size you can select/print?	250
How many documents are allowed in one view?	Maximum of 130MB for a view index
What is the maximum number of documents that can be exported to Tabular Text?	Limited only by available disk space
What is the maximum number of entries in an Access Control List?	~950 names (ACL size is limited to 32767 bytes)
What is the maximum number of roles in an Access Control List?	75 Roles
What's the maximum password length allowed on an ID?	63 characters
What is the maximum number of users to have authorized passwords on a multiple password ID?	8 users
How many outline entries can an outline have?	~21,000 entries

## Appendix C - System Requirements

### Aviator Team and Aviator Enterprise Server

- Aviator Enterprise and Aviator Team require a Lotus Domino R5 server.
- Aviator supports the following platforms supported by the Lotus/Domino server, including IBM® OS/2®, Microsoft Window NT™, Microsoft Windows 2000™, Novell® Netware®, IBM AIX®, Sun™ Solaris® (SPARC and x86), HP-UX™, AS/400™ and LINUX.
- Memory: 64MB
- Hard disk space: 500 MB
- Additional disk space required for increased file storage. See Appendix E for server sizing.

### Aviator Client

- Aviator supports the Lotus Notes/Domino R5 client and web browsers from Netscape (R4.7 and higher) and Microsoft (R5.0 and higher).
- Aviator supports the following platforms supported by the Lotus Notes and/or Web browser clients, including Microsoft Windows 95/98, Microsoft Windows NT, Microsoft Windows 2000, Microsoft Windows XP, Apple® Macintosh® OS (PowerPC), Sun Solaris (SPARC and x86), and LINUX.

### Aviator Attach

- Aviator Attach supports Microsoft Windows 95/98, Microsoft Windows NT, Microsoft Windows 2000, Microsoft Windows XP, and requires an installed Lotus Notes R5 client.
- Memory: 32 MB
- Hard disk space: 150 MB
- 256 color display with minimum 800 x 600 resolution
- Office Productivity Applications - Microsoft Word, Excel and PowerPoint® 97 & 2000, MS Visio 2000, Corel® WordPerfect®, Quattro® Pro and Presentations™ 8 & 9 (2000), Lotus Word Pro® and Freelance Graphics® 9 (Millennium), Adobe® Capture®, ScanSoft PaperPort

## Appendix D – Upgrading to Aviator Team and Aviator Enterprise

An Aviator Upgrade database containing migration agents from R2.3b libraries to R3 libraries is available upon request.

## Appendix E – Sizing Server Hardware

The following information will help assess the server necessary to manage your organization's documents. The final results are only suggestive, and should be used in the context of your organization's technology needs.

1. Divide all users into 'usage' groups. 'Usage' is the number of documents generated per month. You may have low users (i.e. 10 new documents / month), medium users (i.e. 20 / month), or high users (i.e. 50 / month).
2. Determine the average document size generated by each group (in Mb).
3. Calculate the number of Mb generated per month by each group.
4. Total all of the Mb / month from all usage groups.
5. Select the recommended Processor and Memory based on your score (see chart).
6. To calculate the disk space necessary, multiply your final score by the number of months you are planning for (i.e. for 3 years, multiply the total by 36).

### Server Usage Calculation

Level of Usage	Number of users	Number of new documents created per month	Average document size (MB)	Total MB per month (Example: 275 users creating ten 0.5 MB documents per month = 1,375 MB per month)
Low Usage				
Medium Usage				
High Usage				
Other usage				
<b>Total Usage (Score):</b> Total MB per month (low + medium + high + other):				

### Server Processor and Memory Required

Level / Criteria	Score (MB per month)	Processor	Memory
A	100 – 1,000	300+ MHz	128 Mb – 256 Mb
B	1,001 – 10,000	2 x 300+ MHz	256 Mb – 1,024 Mb
C	10,001 – 100,000	4 x 300+ MHz	1,024 Mb – 2,048 Mb
D	100,001 – 1,000,000	8 x 300+ MHz	2,048 Mb – 4,096 Mb

### Server Disk Space Required

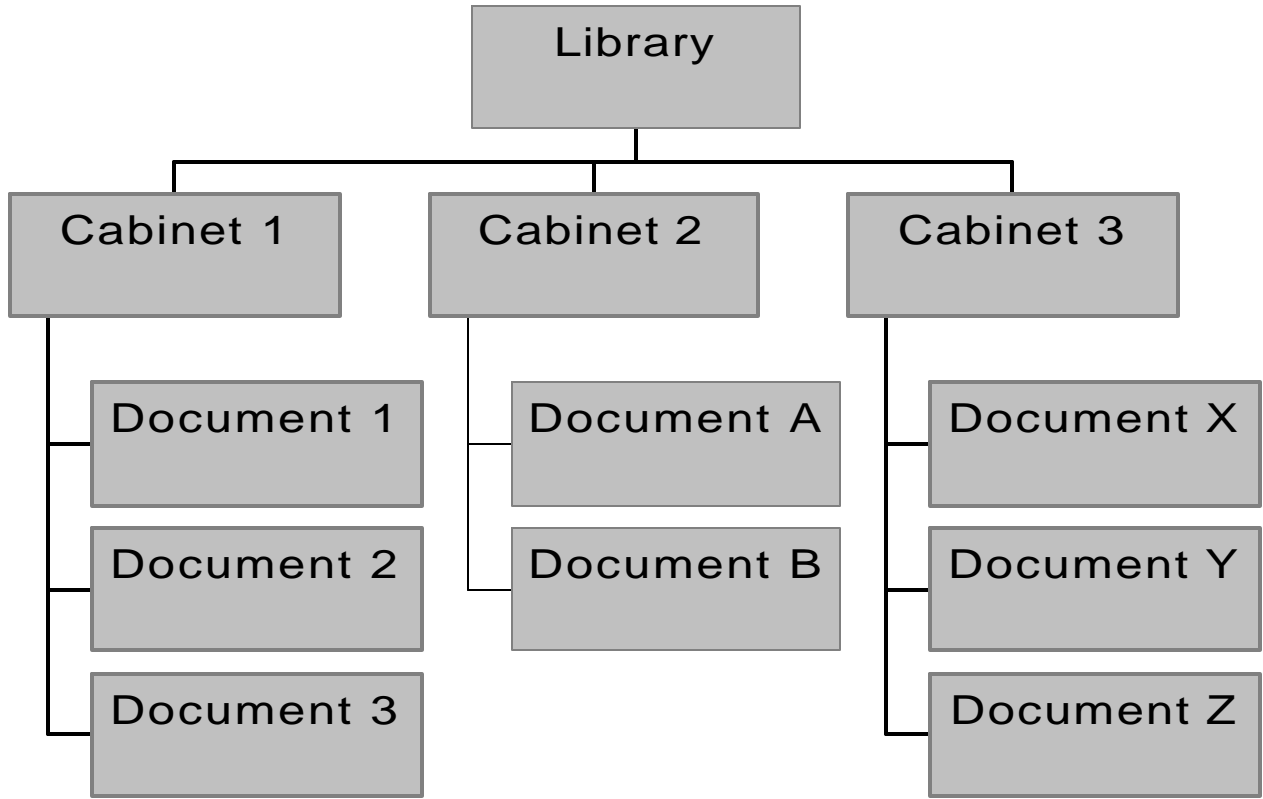
How many years do you want to plan for your server's disk space? \_\_\_\_\_

[Months = \_\_\_\_\_ ]

Multiply your score (MB per month) by the number of months above for your server disk space:

\_\_\_\_\_

Appendix F-1 – Library Organization Chart



Cabinets (profiles):

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Documents (profiles):

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## Appendix F-2 – Library Profile

### General Library Profile

<b>Profile Readers</b> <i>Individuals that can read the profile.</i>	
<b>Library Title</b> <i>Enter the name of the Library.</i>	
<b>Address Book Filepath</b> <i>Enter filepath to NAB used by Web browsers.</i>	
<b>Specify Weekends, Holidays and Vacations</b> <i>Days off used to calculate review due dates</i>	

## Appendix F-3 – Cabinet Profile

### General Cabinet Profile

<p><b>Profile Editors</b>  <i>Enter name(s) of administrators allowed to edit these settings – defaults to profile creator.</i></p>	
<p><b>Profile Readers</b>  <i>Enter name(s) of users allowed to read these settings – defaults to profile creator.</i></p>	
<p><b>Library</b>  <i>The name of the library in which the cabinet will be located.</i></p>	
<p><b>Database Type</b>  <i>The database can be an Aviator cabinet or a standard Notes database.</i></p>	
<p><b>Cabinet Groups</b>  <i>Groups under which the cabinet is categorized.</i></p>	
<p><b>Cabinet Title</b>  <i>Enter name of cabinet.</i></p>	
<p><b>Cabinet Description</b>  <i>Enter a description of the cabinet to be shown in the cabinet list of the library view.</i></p>	
<p><b>Cabinet Replica ID</b>  <i>Notes replica id of the cabinet database.</i></p>	
<p><b>Cabinet Servers</b>  <i>All servers on which replicas of the cabinet will be created.</i></p>	
<p><b>Cabinet Administrators</b>  <i>Select names of cabinet administrators</i></p>	
<p><b>Cabinet Authors</b>  <i>Users and groups who can create and edit documents in the cabinet.</i></p>	
<p><b>Cabinet Readers</b>  <i>Users and groups who can only read documents in the cabinet.</i></p>	
<p><b>Cabinet Filepath</b>  <i>Filepath of the cabinet database in the server's data directory.</i></p>	
<p><b>Cabinet Update Method</b>  <i>Cabinets can be updated immediately, by a scheduled agent, or by an external program.</i></p>	
<p><b>Other Maintenance Options</b>  <i>Optionally update the database ACL from the profile settings.</i></p>	
<p><b>Available Document Types</b>  <i>Select all document types that are appropriate for this cabinet.</i></p>	
<p><b>Available Categories</b>  <i>Default list of categories displayed in the cabinet.</i></p>	
<p><b>E-Mail Notification Options</b>  <i>E-mails can include DocLinks, URLs, and can notify administrators of errors.</i></p>	
<p><b>HTTP Hosts</b>  <i>Domain name servers and IP addresses used to access this email form e-mail and Web browsers.</i></p>	

## Appendix F-4 – Document Type Profile

### General Document Profile

<b>Profile Editors</b> <i>Enter name(s) of administrators allowed to edit these settings – defaults to profile creator.</i>	
<b>Name</b> <i>Enter name of document type.</i>	
<b>Description</b> <i>Enter a description to be shown in the profiles list of the library view, and when this profile is selected for use.</i>	
<b>Maximum Size</b> <i>Options: 10K, 100K, 1MB (default), 10MB, 100MB</i>	
<b>Available File Templates</b> <i>Select all applicable file templates for document.</i>	
<b>Available Review Types</b> <i>Select all applicable review types for document.</i>	

### Document Defaults

<b>Default Editors</b> <i>Default is the document author; at least one user must be listed as an editor.</i>	
<b>Default Readers</b> <i>Default is “Everyone”, meaning everyone listed in the cabinet containing this document type.</i>	
<b>Default Categories</b> <i>Category options for users creating documents.</i>	
<b>Default Distribution</b> <i>List all users who are part of the distribution list.</i>	

### Version Control Options

<b>Saving</b> <i>Select an option.</i>	Keep all versions Keep only checked in versions Keep only latest version Replace previous version Prompt user for choice
<b>Numeric or Alphanumeric</b>	Choose a version-tracking scheme.
<b>Modified Documents Reviewed?</b> <i>Yes, if you want all checked out documents to be reviewed before being checked in.</i>	Yes No
<b>Reader Log</b>	Log reader names when document is opened? Yes No
<b>Document Maintenance</b> <i>Documents can be archived or purged after a specified number of days.</i>	
<b>Archive Cabinet</b> <i>A cabinet must be specified to store archived documents.</i>	

Appendix F-4 – Document Type Profile (cont.)

**Customizing Properties**

<b>Property</b>	<b>Prompt (New Name)</b>	<b>Required?</b>	<b>Keywords</b>	<b>Allow New Values</b>
<b>Title</b>		n.a.	n.a.	n.a.
<b>Change Reason</b>		Y/N	n.a.	n.a.
<b>Abstract</b>		Y/N	n.a.	n.a.
<b>Version</b>		n.a.	n.a.	n.a.
<b>Owner</b>		n.a.	n.a.	n.a.
<b>Author</b>		Y/N	n.a.	n.a.
<b>Last Modified</b>		n.a.	n.a.	n.a.
<b>Profile</b>	Type	n.a.	n.a.	n.a.
<b>Editors</b>		n.a.	Address Books	n.a.
<b>Readers</b>		n.a.	Address Books	n.a.
<b>Categories</b>		Y/N	Cabinet Categories	Y/N
<b>Distribution</b>		Y/N	Address Books	n.a.
<b>Web Links</b>		n.a.	n.a.	n.a.
<b>Alarm</b>		n.a.	n.a.	n.a.
<b>Custom 1</b>		Y/N		Y/N
<b>Custom 2</b>		Y/N		Y/N
<b>Custom 3</b>		Y/N		Y/N
<b>Custom 4</b>		Y/N		Y/N
<b>Custom 5</b>		Y/N		Y/N
<b>Custom 6</b>		Y/N		Y/N
<b>Custom 7</b>		Y/N		Y/N
<b>Custom 8</b>		Y/N		Y/N
<b>Custom 9</b>		Y/N		Y/N
<b>Custom 10</b>		Y/N		Y/N

## Appendix F-5 – Review Type Profile

### General Review Profile

<b>Profile Editors</b> <i>Enter name(s) of administrators allowed to edit these settings – defaults to profile creator.</i>	
<b>Name</b> <i>Enter name of review profile.</i>	
<b>Description</b> <i>Enter a description to be shown in the profiles list of the library view, and when this review is selected for use.</i>	
<b>Required Reviewers</b> <i>Any individuals required to be in the review process.</i>	
<b>Review Options</b> <i>Allows the reviewer to send back to the previous phase, cancel a review for a Reject decision, and check in a document after the last review phase.</i>	Allow send back to previous phase Reject cancels the review Check in document after last phase

<b>Assigned Reviewer</b>	<b>Quota</b>	<b>Action</b>	<b>Days</b>	<b>Escalation</b>
Enter user name(s) (groups are supported here) <sup>1</sup>	Specify the number or percentage of reviewers required per assigned action. Default = 100%	Choose from: Edit Read Approve	Enter number of days allotted for review.	Choose from: <sup>2</sup> Nothing Remind Pass

- Assigned reviewer rows may be left blank to provide added flexibility to the review process. If a row is blank, the previous reviewer is given the ability to select the next reviewer and actions to be taken.
- “Nothing” allows user unlimited amount of time to review document (the owner receives notification of “No action”). “Remind” sends a daily email to the reviewer beginning the first day past the allotted duration. “Pass” sends the document to the next reviewer thereby skipping the current reviewer. Note that selecting “Pass” is not appropriate for controlled documents.