Database Attender®

Version 2.0x

White Paper

Database Attender is a member of the Attender Utilities family

1. Introduction

Database Attender is a Lotus Notes Database Administration product that manages Lotus Notes databases. The management is carried out automatically by Database Attender's enforcement of Database Restrictions created by Lotus Notes Administrators. These Database Restrictions can manage databases in one of these five ways: Access Control List, Content, Deployment, Design, and Properties.

Database Attender can be used to perform many different tasks, with each providing a unique return on investment. The ACL process will report on possible security issues, the Content process will locate documents that can be either legally or infrastructurally damaging, the Deployment process will help automate procedures and reduce post-deployment issues, the Design process will identify possible security issues or incorrect design configurations, and the Properties process will identify database exception conditions.

Most administrators live in a very reactionary world, meaning that they fix a problem after it has occurred. Typically, the problem itself is easy to resolve, but it's the effect the problem had, that is the nightmare. Cleaning up the results from the problem sometimes is very difficult, if not impossible. Knowing the full effect is sometimes hard to get a grasp on.

Database Attender provides administrators with the ability to automatically be notified when a condition is met, so that the administrators can take action prior to the problem occurring. This will then allow the administrators to focus on other tasks, instead of being in constant clean-up mode.

2. Benefits

Expose the problems

With every department within every division of your company creating more and more databases, database management is becoming more and more complex each day. There are quite a few tools that will help the administrators with problem resolution, but Database Attender takes a different spin on administration. Database Attender allows administrators to locate pre-exception conditions, so that they are in tune with their infrastructure, and are kept in the loop regarding possible problems down the road. Database Attender can also alert the administrators of things that aren't happening, but should be, such as scheduled enabled agents not running because of agent restriction issues. There are also features of Database Attender that will fix existing problems, and locate possible security problems.

By using Database Attender's Database Restrictions, the administrators will be privy to information that will empower them in their decision-making process. In addition, instead of spending countless hours cleaning up database issues, the administrators can configure Database Attender to automate their tasks. Nobody likes doing needless repetitive work, especially when there are other issues that require their attention.

Return on Investment

There are three types of return on investment for Database Attender. The first two types are clear because they reduce expense. The third type is not as easy to pinpoint because it is the prevention of expense and exposure.

- The first type of return on investment is the reduction of hardware. With Database Attender's ability to report on databases, the administrators will be able to easily identify all of the applications that are deployed on a server, and them most likely be able to eliminate some of them. No offense intended to administrators, but sometimes they have no idea of all the databases that exist on a server, and why they are there. With Database Attender providing extremely detailed information regarding each database, the administrators can then reclaim space by deleting unwanted/non-needed databases.

- The second type of return on investment reduces the number of hours administrators spend fixing problems. Once again, Database Attender can help identify 'issues' before they become 'problems'. It sure is easier to prevent a problem from happening than it is to clean up after it has happened. Keep in mind, that there are two types of

problems; 1. Problems that affect data integrity because of what they did, and 2. Problems that affect data integrity by what they didn't do.

- The third type of return on investment is the location of possible security issues. Lotus Notes is a highly-secured software, but it is only as good as the administrators' configuration. Database Attender can determine all of the possible problems within your Access Control List and Design elements, and notify the administrators of its findings. This will give the administrators a jump start in fixing the problems. Nobody wants to find out they have a security issue, by it becoming an issue.

3. Product Summary

The primary reason Database Attender was created was to give administrators the ability to automate their management, and spend their valuable time tending to other issues. This is not to say that database management is not important, because it is. The point is that you should allow automation to be an ally, not an enemy. Configure Database Attender to provide the results that you specified, and you will only be alerted when an exception condition is about or has occurred. No more looking to see if there are problems! Does your alarm clock go off to tell you that it's not time to wake up? Do you wake up each hour to see if it's time to get up? No, you set your alarm, and when the exception condition occurs (in this case, the clock time has elapsed the alarm time), the alarm sounds. Database Attender works very similar to an alarm clock. If Database Attender is configured to alert you when any application is larger than 500 MB or when the database exceeds 20,000 documents, you don't have to look each day to check the database statistics, simply configure Database Attender to tell you when the condition has been met, and you receive an email detailing the condition. The reason automation exists is to remove the redundancy and duplication of manual labor. Use database Attender to take away these time-consuming chores, and allow your attention to be on other issues.

Release Information/Schedule

The first release of Database Attender was in June of 2000. The initial version of the product is somewhat different than this version. It was very focused on ACL management/reporting, whereas this version is much more comprehensive. In fact, wait until you see what's in the works for future versions! Database Attender is going to manage every aspect of your Lotus Notes databases! In addition, intermediate releases of the product will occur for bug fixes that are required immediately.

A new version of Database Attender is planned for release every three months. Currently, we have 100+ new features detailed, and the list is growing. We also encourage you to provide us with your ideas on new feature/functionality. We can't think of everything ourselves, and who has better real-world issues than current Lotus Notes users!

Customer Profiles

Any company using Lotus Notes can use Database Attender! It's really not the size of the company that dictates a need for Database Attender, but more importantly, the amount of work the administrators are doing trying to fight fires that they had no idea were smoldering. So truly, it's the number of hours that an administrator is spending manually performing Database Attender's automated tasks.

Supported Versions

Database Attender was written in 5.0x of Lotus Notes, and is compatible only with 5.0x+ versions of Lotus Notes. Currently, Database Attender is only available with a Lotus Notes R5 interface, which takes advantage of the new R5 design feature set.

Supported Platforms

Since Database Attender is NOT written with the API, it is non-platform independent, meaning that if the server platform can run Lotus Notes, it can run Database Attender, so in essence Database Attender can run on the following platforms: Windows/NT, Sun Solaris, HP/UX, AIX, AS/400, Linux, and S/390. There is only one Database Attender code-stream, meaning that a platform-specific Database Attender does not need to be installed. This means that if you have a mixed-platform environment, you will only need one version of Database Attender.

Server Impact

Database Attender is very non-intrusive to your Lotus Notes infrastructure. It can be a little I/O intensive depending on the process being performed. The ACL and Design processes can cause Database Attender to perform checks against the Name and Address Book, which can result in some I/O activity, but nothing of major implications. There really is no process within Database Attender that should be avoided due to server impact. In addition, there should be no concern regarding scheduling multiple Database Attender processes in the same execution. If multiple processes are scheduled for the same execution, the only impact will be that the Database Attender agent takes longer to execute.

4. Product Features

Within Database Attender, administrators create Database Restrictions that will be enforced by the Database Attender agent. The administrators can either process all databases with a restriction, or can limit it to a subset of the databases. Within each Database Restriction, the administrators can specify the priority of that restriction. The higher the priority, the more it supersedes any other restriction of the same type with a lower priority. A good example of this is ACL Management. The administrators could create an ACL Restriction with a priority of '1', that assigns 'LocalDomainServers' as 'Editor' for all databases. A second ACL Restriction could be created with a priority of '2', that assigns 'LocalDomainServers' as 'Manager' to a particular directory. Upon Database Attender processing the ACL, any database that exists within the directory specified in the priority '2' restriction will have 'LocalDomainServers' assigned as 'Manager', while all other databases will have 'LocalDomainServers' as 'Editor' (priority '1' restriction).

ACL Management

Database Attender can be used to process the Access Control List using three different methods. Each of these methods described below, can be used in conjunction with one or all of the others, giving you the ability to have all three methods active at once.

ACL Alerts

This process allows administrators to specify conditions, that when met, send the administrators an email detailing what was found. This is very useful when monitoring database ACLs. There are three different types of alerts that can be requested, and all three can be configured within the same ACL restriction. The first is ACL changes alerts, which will notify the administrators when an ACL change has been detected. The second will notify the administrators when an Invalid ACL entry is located. An Invalid ACL entry is any ACL entry that does not have a corresponding Group, Person, or Server document in the Name and Address Book. The last notification is for Terminated ACL entries. A Terminated ACL entry happens when an ACL entry is present with a database, and the entry is present within a 'Deny Access' group in the Name and Address Book.

ACL Changes

This process allows administrators to specify the ACL entries that should always be present within the Access Control List. This is very useful when administrators want to ensure that certain ACL entries are ALWAYS present within a list of databases, and that the appropriate access level, user type, etc…, is also constant. The administrators would simply specify all properties for each ACL entry, and upon the database ACL being processed Database Attender will ensure that the specified entries are present and correct. The administrators can also use this restriction to specify the enabling of ACL roles. Database Attender can enable existing roles for ACL entries, and it can also create new roles and enable ACL entries. This is very useful for applications that are role-based, and demand role enablement for proper functionality.

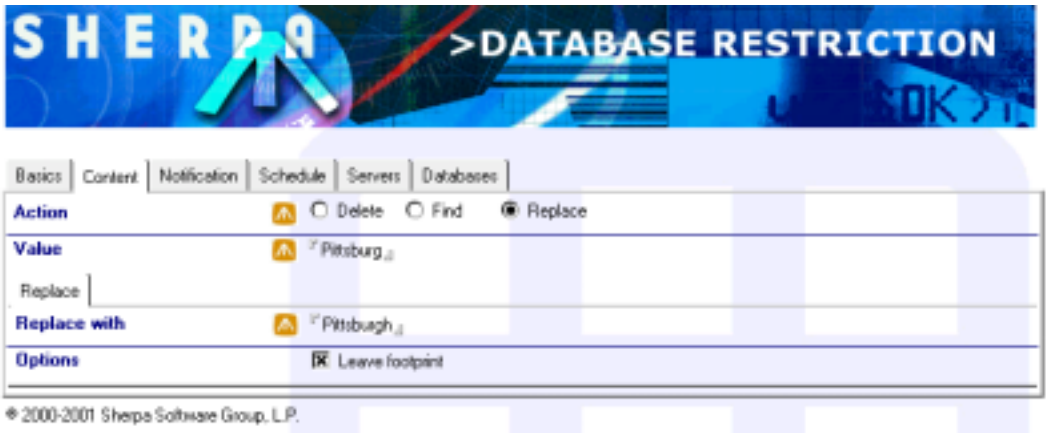
This ACL 'Changes' Restriction will ensure that the specified ACL entries are present within the specified databases, and that the access level and rights are also correct. Notice that the last ACL entry is for 'OtherDomainServers' with an Access of 'Remove'. When this restriction is processed, Database Attender will remove 'OtherDomainServers' from the ACL of the specified databases.

ACL Properties

This process allows administrators to manage additional properties of the databases. Using this restriction, the administrators can manage the Administration Server, Internet Level, and Uniform ACL properties.

Content Management

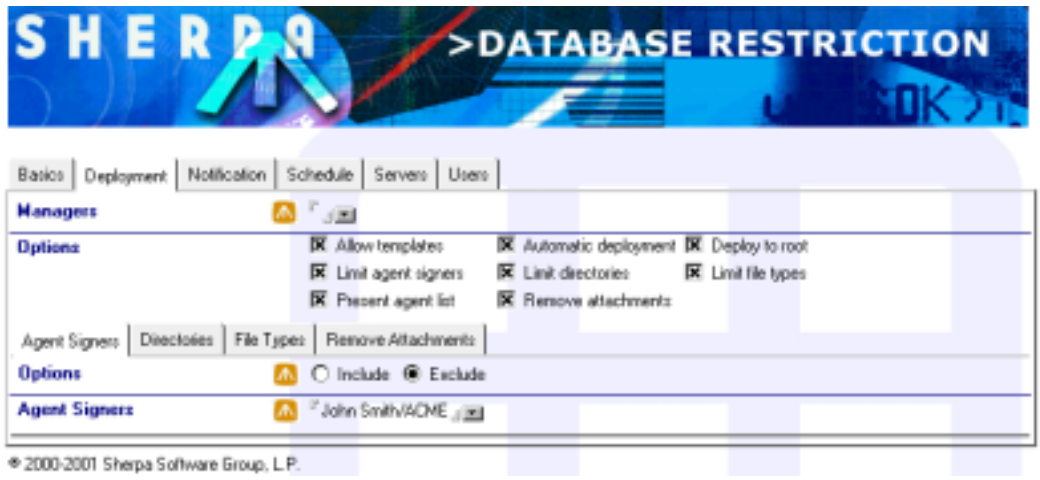
Database Attender can manage the content within your Lotus Notes applications. This is useful in two ways. First, Database Attender can be used to locate documents that have specified keywords or phrases within them. Database Attender can then be used to delete these documents, if desired. The second thing Database Attender can do with content, is to not only locate documents that have a particular keyword/phrase, but it can also replace all occurrences of the keyword/phrase with another keyword/phrase, and also leave a footprint within the documents that it changed.



This Content Restriction will replace all occurrences of ‘Pittsburg’ with ‘Pittsburgh’, and leave a footprint within each document that it changed.

Deployment Management

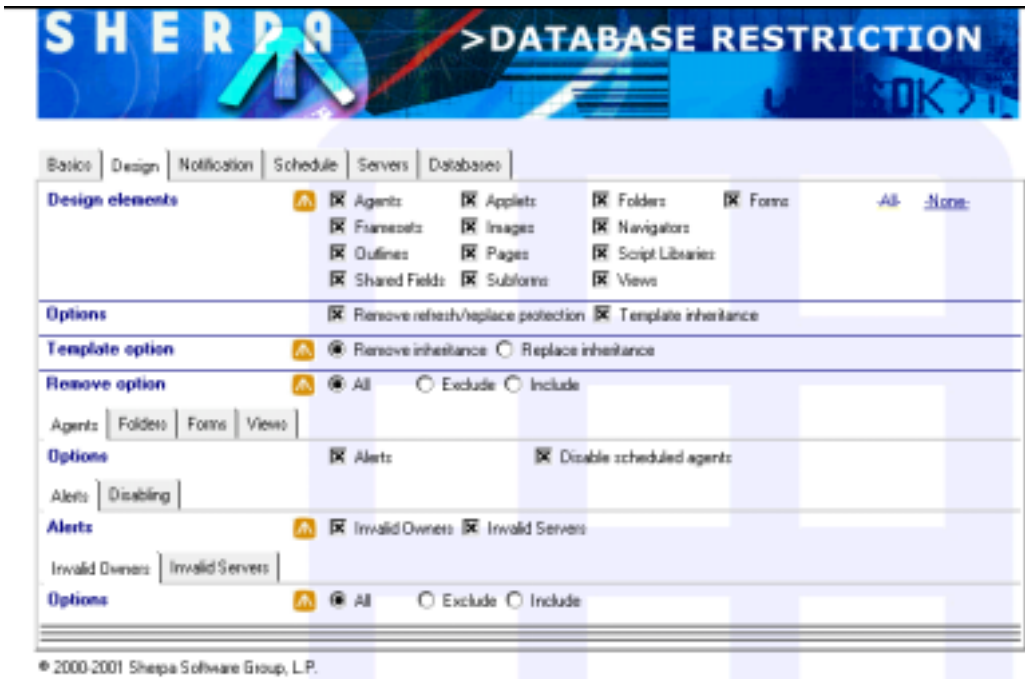
Database Attender can enforce database standards/methodologies upon developers when they attempt to deploy a database. This can be invaluable to administrators, because instead of cleaning up issues that were created when a database is deployed, Database Attender will allow the administrators to set the standards and when a developer attempts to deploy a database that does not comply, either the database deployment will not be permitted or the database will be changed to become compliant. The Restriction can enforce many different aspects of a database deployment, including, but not limited to, the target directory, agent signers, and workflow.



This Deployment restriction is configured to manage all deployment options.

Design Management

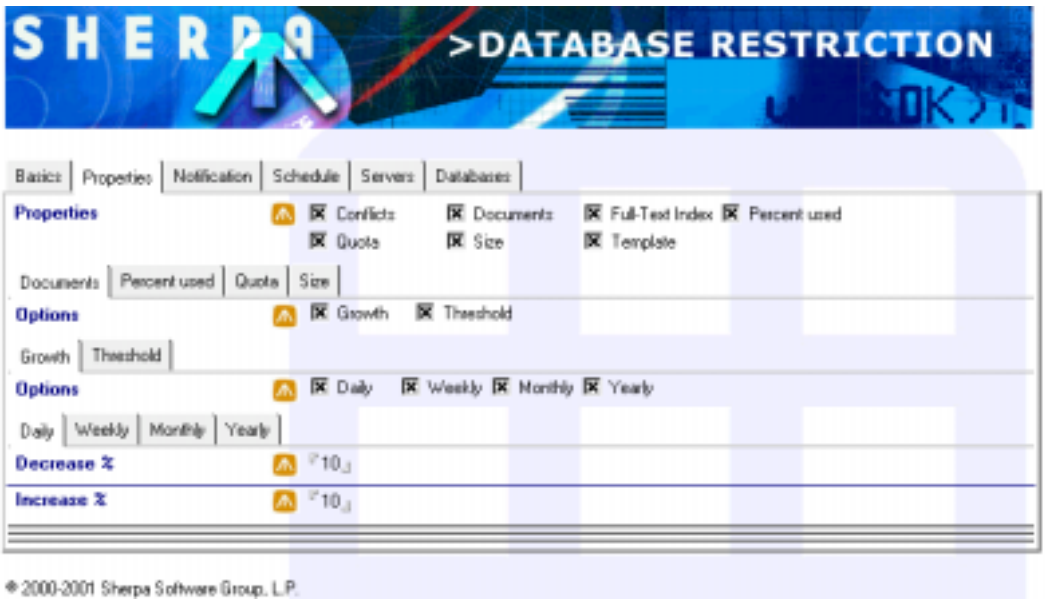
Database Attender provides the ability to manage the Design elements within your applications. This can be very beneficial when needing to locate potential problems, and to correct current ones. Database Attender can perform many functions with one Design Restriction. For instance, in the example below, the Design Restriction has been configured to manage the design element template inheritance, remove all refresh/replace protection and alert the administrators regarding invalid agents and incorrect folder/form/view security. This effort would be nearly impossible to do manually, but Database Attender can do it easily and quickly.



This Design Restriction will manage every aspect of the database design.

Properties Management

Database Attender provides a very comprehensive methodology for managing specific properties of the databases. These properties include, but are not limited to, replication/save conflicts existence, document count growth/thresholds, full-text index existence, percent used thresholds, quota thresholds, database size growth/thresholds and template inheritance. This will allow the administrators to create a Properties Restriction that will alert them when any of these conditions occur. For instance, if 'Conflicts' is selected as an option, the administrators will be alerted regarding any database that contains at least one replication/save conflict.



This Properties Restriction will manage every aspect of the database properties.

5. Summary

Database Attender is a very comprehensive product that can manage almost every aspect of a database. Since there are typically no methods for finding the issues that Database Attender addresses, a lot of companies are unintentionally ignoring many issues within their Lotus Notes infrastructure.

Database Attender is in a perpetual development cycle. As soon as a version is released, the next version is being planned. Currently there are enough requests for features that will allow Database Attender to continue to evolve. We also encourage prospects/customers to provide feedback on features that would be helpful in their database management.

6. Contact Information

If you need additional information regarding Database Attender, please contact the following:

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