

IBM Tivoli Storage Manager for Mail 5.1.5



# Data Protection for Lotus Domino for Windows

## Installation and User's Guide



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**Note**

Before using this information and the product it supports, read the general information under "Notices" on page 143.

**First Edition (September 2002)**

This edition applies to Version 5 Release 1.5 of IBM Tivoli Storage Manager for Mail 5.1.5 Data Protection for Lotus Domino for Windows NT or Windows 2000, 5698-APE, and to any subsequent releases until otherwise indicated in new editions or technical newsletters. Make sure you are using the correct edition for the level of the product.

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## Summary of Changes

Changes for this publication are summarized below.

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### September 2002, Version 5 Release 1.5

This release contains the following changes:

- This publication contains revisions that meet IBM globalization requirements.
- The **language** option specifies locale information for your environment. This option is specified in the Data Protection for Domino preferences file (domdsm.cfg). See 92 for more information.
- Data Protection for Domino supports Domino 6 and the alternate restore path feature for transaction logs in a Domino 6 environment.
  - See Appendix E, “Migration Scenarios” on page 119 for migration information.
  - See “Domdsmc Activatedbs” on page 25 for alternate restore path information.
- The **resetdatabase** command resets a Domino server database that is in an incomplete state as a result of an unexpected termination during a Data Protection for Domino backup. See “Domdsmc Resetdatabase” on page 72 for more information.
- The **statistics** option provides backup and restore information to assist in performance measurement. This option is specified in the Data Protection for Domino preferences file (domdsm.cfg). See 94 for more information.

These changes are identified by vertical revision bars ( | ) along the left margin.



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## Preface

*IBM Tivoli Storage Manager for Mail 5.1.5 Data Protection for Lotus Domino* is referred to as *Data Protection for Domino* throughout this book.

*Tivoli Storage Manager* and *Tivoli Storage Manager Server* are referred to as *Storage Manager* and *Storage Manager Server* respectively throughout this book.

Data Protection for Domino is a comprehensive storage management software product. This book explains how to install, configure, and administrate Data Protection for Domino.

Storage Manager is a separate client-server licensed product that provides storage management services in a multi-platform computer environment.

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## Who should read this book

The target audience for this book are system installers, system users, and system administrators.

In this book, it is assumed that you have an understanding of the following applications:

- Lotus Domino Server
- Storage Manager Server
- Storage Manager Backup-Archive Client
- Storage Manager Application Program Interface

It is also assumed that you have an understanding of one of the following operating systems:

- Windows NT
- Windows 2000

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## What this book contains

The book contains the following sections:

- Chapter 1, “Introducing Data Protection for Domino” on page 1  
This section provides an overview of Data Protection for Domino.
- Chapter 2, “Installing Data Protection for Domino” on page 9  
This section explains the environment requirements and steps necessary to install Data Protection for Domino.
- Chapter 3, “Configuring Data Protection for Domino” on page 11  
This section explains registering and configuring Data Protection for Domino and provides policy recommendations.
- Chapter 4, “Using the Graphical User Interface” on page 17  
This section explains how to perform Data Protection for Domino functions from a graphical user interface.
- Chapter 5, “Using the command-line interface” on page 23  
This section explains how to perform Data Protection for Domino functions from a command line interface, specifically using the command line syntax.

- Appendix A, “Using the Storage Manager scheduler” on page 97  
This section explains how to use the Data Protection for Domino central scheduler service with Data Protection for Domino to automate backups of Domino Server data.
- Appendix B, “Silent installation” on page 103  
This section explains how to install Data Protection for Domino on multiple machines.
- Appendix C, “Advanced restore procedures” on page 109  
Describes steps to recover a lost Domino database and how to restore to an alternate server.
- Appendix D, “Problem determination aids” on page 117  
This section provides information on how to determine the cause of a problem should an error condition occur while using Data Protection for Domino.
- Appendix E, “Migration Scenarios” on page 119  
Describes migration information for Domino R4.x users.
- Appendix F, “Include/exclude processing” on page 121  
Describes how to include or exclude data during Data Protection for Domino backups.
- Appendix G, “Multiple Domino Server partitions on Storage Manager Servers” on page 123  
Describes how to use Data Protection for Domino with multiple Domino server partitions on a single machine.
- Appendix H, “Data Protection for Domino messages” on page 125  
This section lists the messages that can appear in Data Protection for Domino.
- “Glossary” on page 147  
The glossary contains terms and definitions relevant to Data Protection for Domino.

## Prerequisite and related information

The following table indicates which Web site to access for additional information.

*Table 1. Product related web sites*

Description	URL
Tivoli Web site	<a href="http://www.tivoli.com">www.tivoli.com</a>
Tivoli Storage Management Solutions	<a href="http://www.tivoli.com/products/solutions/storage/news.html">www.tivoli.com/products/solutions/storage/news.html</a>
Storage Manager	<a href="http://www.tivoli.com/products/index/storage_mgr">www.tivoli.com/products/index/storage_mgr</a>
Data Protection for Domino	<a href="http://www.tivoli.com/products/index/data_protect_domino">www.tivoli.com/products/index/data_protect_domino</a>
Data Protection for Domino requirements	<a href="http://www.tivoli.com/products/index/data_protect_domino/">www.tivoli.com/products/index/data_protect_domino/</a>
Storage Manager product requirements and devices supported	<a href="http://www.tivoli.com/support/storage_mgr/requirements.html">www.tivoli.com/support/storage_mgr/requirements.html</a>
Storage Manager Downloads	<a href="http://ftp.software.ibm.com">ftp://ftp.software.ibm.com</a>
Storage Manager Discussion List	<a href="http://vm.marist.edu:80/htbin/wlvinde?ADSM-L">vm.marist.edu:80/htbin/wlvinde?ADSM-L</a>

*Table 1. Product related web sites (continued)*

Description	URL
IBM Redbooks	<a href="http://www.redbooks.ibm.com">www.redbooks.ibm.com</a>
InstallShield Support	<a href="http://support.installshield.com/default.asp">support.installshield.com/default.asp</a>

*Table 2. Related Storage Manager publications*

Title	Order Number
<i>IBM Tivoli Storage Manager for Windows Backup-Archive Client Installation and User's Guide</i>	GC32-0788
<i>IBM Tivoli Storage Manager for Windows Administrator's Guide</i>	GC32-0782
<i>IBM Tivoli Storage Manager for Windows Administrator's Reference</i>	GC32-0783
<i>IBM Tivoli Storage Manager Messages</i>	GC32-0767
<i>IBM Tivoli Storage Manager Using the Application Program Interface</i>	GC32-0793

## Contacting customer support

If you have a problem with any Tivoli product, you can contact Tivoli Customer Support. See the *Tivoli Customer Support Handbook* at the following Web site: [www.tivoli.com/support/handbook](http://www.tivoli.com/support/handbook)

The handbook provides information about how to contact Tivoli Customer Support, depending on the severity of your problem, and the following information:

- Registration and eligibility
- Telephone numbers and e-mail addresses, depending on the country you are in
- What information you should gather before contacting support

## Accessing books online

You can access many Tivoli books online at the Tivoli Customer Support Web site: [www.tivoli.com/support/public/Prodman/public\\_manuals/td/TD\\_PROD\\_LIST.html](http://www.tivoli.com/support/public/Prodman/public_manuals/td/TD_PROD_LIST.html)

These books are available in PDF or HTML format, or both. Translated documents are also available for some products.

## Ordering books

You can order many Tivoli books online at the following Web site: [www.ibm.com/shop/publications/order](http://www.ibm.com/shop/publications/order)

You can also order by telephone by calling one of these numbers:

- In the United States: 800-879-2755
- In Canada: 800-426-4968
- In other countries, for a list of telephone numbers, see the following Web site: [www.tivoli.com/inside/store/lit\\_order.html](http://www.tivoli.com/inside/store/lit_order.html)

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## Providing feedback about books

We are very interested in hearing about your experience with Tivoli products and documentation, and we welcome your suggestions for improvements. If you have comments or suggestions about our products and documentation, contact us in one of the following ways:

- Send an e-mail to [pubs@tivoli.com](mailto:pubs@tivoli.com)
- Complete our customer feedback survey at the following Web site:  
[www.tivoli.com/support/survey](http://www.tivoli.com/support/survey)

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## Conventions used in this book

This document uses several typeface conventions for special terms and actions. These conventions have the following meaning:

*Table 3. Typeface conventions*

Example	Description
<b>bold</b>	Commands, keywords, authorization roles, or other information that you must use appear in <b>bold</b> . <u>Example:</u> Log on to the server as <b>root</b> user.
<i>italics</i>	Values or variables that you must provide appear in <i>italics</i> . Emphasized words and phrases also appear in <i>italics</i> . <u>Example:</u> The node name of the <i>production node</i> and <i>backup node</i> must not be the same.
<b><i>bold italics</i></b>	Options and parameters appear in <b><i>italics</i></b> . <u>Example:</u> Specify the value for the <b><i>compression</i></b> option.
<code>monospace</code>	Directories, parameters, URLs, and output examples appear in <code>monospace</code> . <u>Example:</u> The product is installed in the <code>/usr/tivoli/tsm/client/ba/bin</code> directory.
<code>UPPER CASE</code>	Environment variables associated with Storage Manager, operating systems, or Domino Server appear in <code>UPPER CASE</code> . <u>Example:</u> Make sure the <code>DSM_DIR</code> environment variable is set correctly.

---

## Reading syntax diagrams

This section describes how to read the syntax diagrams used in this book. To read a syntax diagram, follow the path of the line. Read from left to right, and top to bottom.

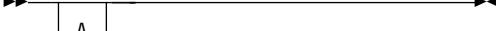
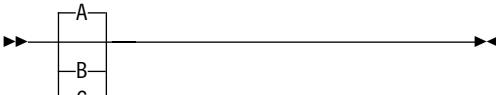
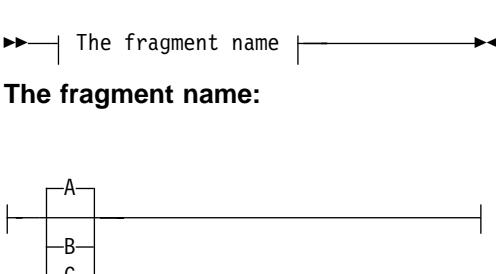
- The ►— symbol indicates the beginning of a syntax diagram.
- The —► symbol at the end of a line indicates the syntax diagram continues on the next line.
- The ►— symbol at the beginning of a line indicates a syntax diagram continues from the previous line.
- The —►◀ symbol indicates the end of a syntax diagram.

Syntax items, such as a keyword or variable, can be:

- On the line (required element)

- Above the line (default element)
- Below the line (optional element).

Syntax Diagram Description	Example																		
<b>Abbreviations:</b>																			
Uppercase letters denote the shortest acceptable truncation. If an item appears entirely in uppercase letters, it cannot be truncated.	►—KEYWOrd—►																		
You can type the item in any combination of uppercase or lowercase letters.																			
In this example, you can enter KEYWO, KEYWORD, or KEYWOrd.																			
<b>Symbols:</b>																			
Enter these symbols exactly as they appear in the syntax diagram.	<table> <tr><td>*</td><td>Asterisk</td></tr> <tr><td>{ }</td><td>Braces</td></tr> <tr><td>:</td><td>Colon</td></tr> <tr><td>,</td><td>Comma</td></tr> <tr><td>=</td><td>Equal Sign</td></tr> <tr><td>-</td><td>Hyphen</td></tr> <tr><td>( )</td><td>Parentheses</td></tr> <tr><td>.</td><td>Period</td></tr> <tr><td> </td><td>Space</td></tr> </table>	*	Asterisk	{ }	Braces	:	Colon	,	Comma	=	Equal Sign	-	Hyphen	( )	Parentheses	.	Period		Space
*	Asterisk																		
{ }	Braces																		
:	Colon																		
,	Comma																		
=	Equal Sign																		
-	Hyphen																		
( )	Parentheses																		
.	Period																		
	Space																		
<b>Variables:</b>																			
Italicized lowercase items ( <i>var_name</i> ) denote variables.	►—KEYWOrd— <i>var_name</i> —►																		
In this example, you can specify a <i>var_name</i> when you enter the KEYWORD command.																			
<b>Repetition:</b>																			
An arrow returning to the left means you can repeat the item.	►—repeat—►																		
A character or space within the arrow means you must separate repeated items with that character or space.	►—repeat—, —►																		
A footnote by the arrow references the number of times you can repeat the item.	►—repeat— <sup>(1)</sup> —►																		
<b>Notes:</b>																			
1      Specify <i>repeat</i> as many as 5 times.																			

Syntax Diagram Description	Example
<b>Required Choices:</b>	
When two or more items are in a stack and one of them is on the line, you <i>must</i> specify one item.	
In this example, you <i>must</i> choose A, B, or C.	
<b>Optional Choice:</b>	
When an item is below the line, that item is optional. In the first example, you can choose A or nothing at all.	
When two or more items are in a stack below the line, all of them are optional. In the second example, you can choose A, B, C, or nothing at all.	
<b>Defaults:</b>	
Defaults are above the line. The default is selected unless you override it. You can override the default by including an option from the stack below the line.	
In this example, A is the default. You can override A by choosing B or C. You can also specify the default explicitly.	
<b>Repeatable Choices:</b>	
A stack of items followed by an arrow returning to the left means you can select more than one item or, in some cases, repeat a single item.	
In this example, you can choose any combination of A, B, or C.	
<b>Syntax Fragments:</b>	
Some diagrams, because of their length, must fragment the syntax. The fragment name appears between vertical bars in the diagram. The expanded fragment appears between vertical bars in the diagram after a heading with the same fragment name.	





---

# Chapter 1. Introducing Data Protection for Domino

Data Protection for Domino for Windows NT/2000 is an application that backs up and restores Lotus Domino databases and transaction logs. When archival logging is used on the Domino server, it archives transaction log files and retrieves them as required for a database recovery. Database backups and archived transaction log files are stored on Storage Manager storage. Data Protection for Domino helps protect and manage Lotus Domino Server data by allowing you to perform the following actions:

- Back up online Lotus Domino databases.
- Maintain multiple backup versions of Domino databases.
- Archive Lotus Domino transaction log files when archival logging is in effect.
- Restore backup versions of a Lotus Domino database and apply changes since the last backup from the transaction log.
- Restore Domino databases to a specific point in time.
- Restore one or more archived transaction log files.
- Expire database backups automatically based on version limit and retention period.
- Expire archived transaction log files when no longer needed.
- Obtain online context-sensitive, task, and conceptual help.
- View online documentation for Data Protection for Domino.
- Automate scheduled backups.
- Restore Domino databases to an alternate server or partition.

Data Protection for Domino communicates with a Storage Manager Server using the Storage Manager application program interface (API). Data Protection for Domino communicates with a Domino Server using the Lotus Domino API.

**Note:** References to procedures performed using command line commands can also be performed using the graphical user interface (GUI).

---

## Function

This section provides an overview of Data Protection for Domino functions:

- Domino Database Backup and Transaction Log Archive
- Domino Database Restore and Activation
- Restore of Archived Transaction Logs
- Expiration of Archived Transaction Log Files
- Security
- Performance

### Domino database backup and transaction log archive

The backup and recovery API in Domino R5 provides the capability to perform online full backups of individual databases and archives of the transaction log when archival logging is in effect. A transaction log captures database changes for logged databases so full database backups are not required as frequently. Updates to a logged database are recorded in the Domino server transaction log. Changes to a database since the last full backup can be applied from the transaction log after the backup is restored from the last full backup. Enabling transaction logging for all databases on a Domino server is not required, so the backup process must handle both logged and unlogged databases.

Domino Server 5.04 (or later) allows the active transaction log to be backed up as well.

**Note:** Transactions recorded in the transaction log are keyed by a Database Instance Identifier (DBIID) which is unique for each database on a Domino server. The DBIID must match that of a restored database for transactions in the log to be applied to the database. The most common reason for a DBIID to change is compaction of the database to reduce file size. Therefore, whenever the DBIID of a database changes, a full backup must be taken so that subsequent updates (which are recorded in the transaction log) can be applied to a restored backup of that database. Transactions recorded since the DBIID change cannot be applied to prior backups of that database because the DBIID won't match. See your Domino server documentation for more information on the DBIID and when it can change.

Data Protection for Domino provides two types of database backups and an archive log function:

#### **Incremental Backup**

An incremental backup provides a conditional backup function that performs a full online backup of Domino databases under the following conditions:

- The database is within the Domino data path or symbolically linked to the Domino data path by directory or database links.
- The database is not excluded from backup by exclude statements within the Storage Manager options file.
- If the database is logged, the DBIID has changed.
- If the database is not logged, it has been modified since the last backup occurred (data and non-data modification dates are checked).
- The database is new or newly included in the backup.

The **incremental** command also includes a function that determines if active backup database copies exist on the Storage Manager Server that are deleted from the Domino server or excluded from backup. If so, they are marked inactive so that automatic expiration of these backup copies can occur according to defined management class parameters for backup files.

#### **Selective Backup**

A selective backup unconditionally backs up the specified databases, unless they are excluded from backup through exclude statements within the Storage Manager options file.

#### **Archive Log**

An archive log stores filled transaction log files on the Storage Manager Server so that space allocated to these files can be reused by the Domino logger. The **archivelog** command is available when transaction logging on the Domino server is enabled in archival mode. Filled transaction log files must be archived frequently enough to ensure the transaction log never fills completely and stops the Domino server.

Domino Server 5.04 (or later) allows the active transaction log to be backed up as well.

Transaction log files stored on the Storage Manager Server are automatically restored as needed for a database recovery.

Archived transaction log files are retained on the Storage Manager Server as long as a database backup exists that needs these log files for a complete recovery. See "Expiration of archived transaction log files" on page 4 for further details.

**Note:** When circular logging is used on the Domino server (or when logging is disabled on the Domino server), transaction log files are not archived. See “Backup strategy considerations” on page 5 for more information.

## Domino database restore and activation

A Domino database recovery can involve restoring several transaction log files in addition to the database backup file from the Storage Manager Server, depending on the backup strategy you choose. The function to restore database files is separate from the function that applies updates from the transaction log. This allows you to restore database files separately while transaction logs are processed for all restored databases. This avoids restoring the same transaction log files multiple times. Restoring and updating a database with current changes from the transaction log is a two-step process implemented by the **restore** and **activatedbs** commands.

See “Backup strategy considerations” on page 5 for additional information on backup and restore strategies.

### Restore

Restore is the first step of a two-stage recovery process. This function restores a single database or group of databases from Storage Manager storage to the Domino server. You can restore the database to a different database file name or to a different Domino server. You can also restore a group of databases to a different directory and preserve existing file names. In addition, if you specify a point in time on the **restore** command, the most recent backup version prior to that time is restored. To restore a database without applying updates from the transaction log, the two steps can be combined into one step by specifying **/activate=yes** during the **restore** command.

### Activation

This is the second step of the two stage recovery process. This function brings restored databases online for use by the Domino Server. You can optionally apply transactions from the transaction log to update the database. Transactions can be applied up to a specific point in time or up through the most recent changes recorded in the transaction log. If archival logging is in effect, Data Protection for Domino automatically restores archived transaction log files as needed.

Domino 6 Server provides an alternate restore path feature that allows you to specify the directory where transaction logs are restored. You can use this feature with the **activatedbs** command. See “Domdsmc Activatedbs” on page 25 for details on performing this procedure.

The **query pending dbs** command retrieves a list of restored databases not yet activated. Databases pending activation are assigned a temporary file name to avoid recognition as database files on the Domino Server.

## Restore at document level

Data Protection for Domino restores Domino databases at the database level. To restore a document in a database, the entire database must first be restored and the document copied.

A database can be restored to the production server under a temporary name and the desired document can be copied to the appropriate database. If for performance reasons, the production server cannot be used in the restore process,

the database can be restored to an alternate server and copied to the production server. It is recommended that you perform alternate server restores when possible to reduce demands on the production Domino Server. See “Alternate server and alternate partition restores” on page 110 for details on performing this procedure.

## Restore of archived transaction logs

This function allows a single, archived transaction log file to be restored independently of a routine database restore. Restoring a single, archived transaction log file assists with disaster recovery operations. By retrieving the most recent archived log file, it is possible to rebuild the Domino transaction log control file. This allows archived transaction log files to be used to recover restored database backups to a more current state, even after a loss of the active transaction log.

See “Recovery from loss of domino transaction log” on page 109 for more information about disaster recovery procedures using an archived transaction log.

## Expiration of archived transaction log files

An archived transaction log file on a Domino Server can contain transactions for multiple databases. An archived transaction log file will not expire until all database backups on the Storage Manager Server that require that log file are expired. The **inactivatelog**s command automates expiration of such archived log files.

The **inactivatelog**s function identifies nonessential transaction log files stored on the Storage Manager Server and inactivates them. Transaction log file backups are not inactivated until all the database backups that need them are inactivated. Thus, *archived* transaction log files become inactive only after every database backup that needs it become inactive. Transaction log files assigned to the same management class as database backup files are available as long as database backups are available.

**Note:** Because transaction log file names are unique, they will not expire because of version limit.

## Security

Data Protection for Domino must be registered to the Storage Manager Server and use the appropriate node name and password when connecting to the Storage Manager Server.

Data Protection for Domino must run from the same system user ID the Domino server is running under.

## Performance

Many factors can affect the backup and restore performance of your Domino Server databases. Some of these, such as hardware configuration, network type, and capacity are beyond the control of Data Protection for Domino. However, some parameters that are related to Data Protection for Domino can be tuned for optimum performance.

Data Protection for Domino uses multiple data buffers when transferring data between the Domino and Storage Manager Servers. The number and size of the buffers can be specified using the **/buffers** parameter. The number and size of buffers that are allocated by default can be configured through the **set** command or

by selecting the **Preferences** item from the **Edit** menu on the Data Protection for Domino GUI. The default number of buffers is 3 and the default buffer size is 1024 KB.

To improve throughput for backup and restore operations, run multiple sessions in parallel. This is most effective when work is partitioned by physical volume. For example, one Data Protection for Domino session backs up all databases on one physical volume while a second Data Protection for Domino session backs up all databases on another volume.

The **statistics** option logs performance information about an individual database at the backup or restore level. See 94 for more information.

## Backup strategy considerations

You can choose different backup strategies depending on your specific requirements regarding network traffic, backup window, and acceptable restore times. Your choice of strategy will include selecting the type of backup commands to use and the type of transaction logging to be done on the Domino server. Archival logging will allow transaction log data to be *archived* on the Storage Manager Server so that changes to logged databases can be stored on the Storage Manager Server without having to perform a full backup. This allows a strategy with less frequent full database backups because changes to logged databases are available for restore in the archived transaction log files. Circular logging keeps the transaction log data on the Domino server and once the log wraps, the oldest log data is overwritten. Thus, when using circular logging, it may not be possible to apply updates to a restored database if the log has wrapped since the backup was taken. In this case, you should perform more frequent full backups so the possibility of losing database updates when restoring is minimized.

Some strategies you can employ are described below.

### Full backups only

The following backup option can be implemented if your network capacity and backup window support regular full database backups:

- Select circular transaction logging.
- Perform regular Selective backups.
- Perform occasional Incremental backups to inactivate backup copies of databases that have been deleted from the domino server.

Each backup takes longer to perform, but the restore process is most efficient because only the most recent (or other appropriate) full backup needs to be restored.

**Note:** You can apply updates to the restored database from the transaction log if the log has not wrapped since the backup was performed. If the log has wrapped, the attempt to apply logs will fail.

### Full backup plus transaction log archives

It is often not practical to back up entire databases with each regular backup for large Domino installations. Archival logging captures changes to all logged databases in the archived transaction log files. This enables you to perform full database backups less frequently and reduce burdens on network and storage resources. To implement this strategy:

- Select archival transaction logging.

- Perform regular log archives using the **archivelog** command. This ensures the log does not fill and captures changes to logged databases.
- Perform regular Incremental backups. This will not back up logged databases unless the DBIID has changed.
- Perform occasional Selective backups of all logged databases. This reduces the number of transaction log files to be processed during a restore.
- Issue the **inactivatelog**s command (following Selective backups) to allow nonessential transaction log files to expire.

The **archivelog** command captures changes to all logged databases in between full backups of selected databases. To restore a database to its most recent state, restore the most recent database backup and specify **/applylogs** when activating the restored database. This automatically restores the necessary archived transaction log files so that updates for the database can be applied.

## Additional considerations for backup strategy selection

Consider the following information when choosing a backup strategy:

- When using archival transaction logging, the frequency of **archivelog** command use depends on the size of your log and the rate of change for logged databases. Perform archival transaction logging several times per day if you generate a large volume of changes at a rapid rate.
- When a DBIID for a logged database changes, the database cannot be recovered until another backup of that database is performed. The **incremental** command detects the changed DBIID. Any changes recorded in the log between the DBIID change and backup are not restored if the original database is lost. The Domino server sends a message to the server console when a DBIID change occurs. It is useful to monitor the server console and perform a backup when a DBIID change occurs.
- When restoring a group of logged databases for which transactions need to be applied, activate them together when possible. This avoids restoring the same transaction log files multiple times. Restored transaction log files are deleted during a database recover by the Domino server. Activating and applying logs to the database separately requires retransmitting log files for each database.
- Data Protection for Domino provides backup and restore functions for the Domino databases (including template files) and associated transaction logs. However, Data Protection for Domino does not provide a complete disaster recovery solution for a Domino Server by itself. There are many other files that are part of the Domino Server installation, such as executable and configuration files. For example, database link files have an *nsf* extension but are not considered databases and are not backed up by Data Protection for Domino. These files must be recovered in a disaster recovery situation. A comprehensive disaster recovery plan can be achieved using the normal Storage Manager backup-archive client for your server platform together with Data Protection for Domino.
- Personal copies (replicas) of Domino databases that are stored on Notes clients (not on the Domino Server) are not protected by Data Protection for Domino. You can use the Storage Manager backup-archive client on the Notes client platform to back up and restore these files or rely on Domino server replication if you need to recover them.
- To restore an individual Notes document, you must restore the entire database to an alternate name. Choose a time when the document existed for both the

**restore /pit** and **activate /applylogs** commands but before the document was deleted, and then copy the desired document using the Notes client.

---

## Online help

Data Protection for Domino provides online help you can view from the GUI. Select **Help ->Contents** in the GUI Toolbar to launch the online help. The online help includes information about:

- How to configure Data Protection for Domino.
- How to back up, restore, and activate a database.
- Conceptual information about Data Protection for Domino.

**Note:** Data Protection for Domino Version 5.1.5 online help does not support word searches for double-byte character sets (DBCS).



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## Chapter 2. Installing Data Protection for Domino

### Attention

For current information concerning the installation and configuration of Data Protection for Domino, refer to the *readme* files shipped on the product installation media.

This section provides information on the client environment that must exist before you install Data Protection for Domino. This section also provides detailed instructions for installing Data Protection for Domino on a Windows NT/2000 server.

Data Protection for Domino is available in the following packages:

#### Paid in Full

This package contains a license component and is a complete stand alone release of the product.

#### Program Temporary Fix (PTF)

This package does not contain a license component. It is created to install over a previously installed version of Data Protection for Domino.

#### Try and Buy

This package contains a license component that allows installation and use for sixty days.

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## Installation requirements

This section contains hardware and software requirements for the installation of Data Protection for Domino.

### Hardware requirements

The following hardware is required:

- Disk space: 13 MB
- Memory: 64 MB (128 MB or more recommended)

### Software requirements

The following software is required:

- Windows NT Server 4.0 SP 5 (or later).
- Windows 2000 Server SP 2 (or later).
- Lotus Domino Server R5.01 (or later) installed on the same machine as Data Protection for Domino.
- Storage Manager API Version 5.1.1

The Storage Manager backup-archive client must reside on the same machine as Data Protection for Domino to use the central scheduler service, see Appendix A, "Using the Storage Manager scheduler" on page 97.

A Storage Manager Server can reside on a different machine than Data Protection for Domino. Data Protection for Domino can connect to a Storage Manager Server running on any supported operating system. These systems include Windows NT/2000, AIX, HP-UX, Linux, Solaris, MVS, OS/390 and OS/400.

## Installation instructions

These instructions guide you through the installation of Data Protection for Domino and assume that Windows NT/2000 (or later) is the operating system on the Domino Server workstation.

**Note:** Data Protection for Domino must be installed from an account with administrator privileges to the local system.

1. Insert the Data Protection for Domino CD-ROM into the CD-ROM drive.  
If autostart is enabled, the installation program starts automatically.  
If autostart is not enabled, then perform the following steps:
  - a. Select Run from the Start Menu.
  - b. Enter `x:\setup` where `x` is your CD-ROM drive letter.
  - c. Click OK to start the installation program.
2. Follow the instructions displayed on your screen.

You can install the following program features:

- a. Data Protection for Domino code
- b. Language Support for the following languages:
  - Chinese (Simplified)
  - Chinese (Traditional)
  - German
  - Spanish
  - French
  - Italian
  - Japanese
  - Korean
  - Portuguese (Brazilian)

You can select one of the following setup types:

### Complete

This installs both program features. If a Storage Manager product exists on your machine, the path to that product becomes the Data Protection for Domino default installation directory.

### Custom

This allows you to choose which Language Support you want to install. You can also view the required disk space for selected program features and the available space on your drive.

3. Click **Finish** to complete the setup.

# Chapter 3. Configuring Data Protection for Domino

## Attention

For current information concerning the installation and configuration of Data Protection for Domino, refer to the *readme* file that is shipped on the product installation media.

This section guides you through the setup of Data Protection for Domino on a Windows NT/2000 server. Some steps require you, the Domino Database Administrator, and the Storage Manager Administrator, to exchange information.

The steps are:

- Step 1 - Communicating with the Storage Manager Server
- Step 2 - Register the Data Protection for Domino Workstation with a Storage Manager Server
- Step 3 - Create Policy
- Step 4 - Update the Options and Preferences File
- Step 5 - Schedule Data Protection for Domino Operations

## Step 1: Communicating with the Storage Manager Server

Data Protection for Domino communicates with the Storage Manager Server using the Storage Manager API. The communication protocols and option parameters are specified in the *dsm.opt* options file. See *IBM Tivoli Storage Manager for Windows Backup-Archive Client Installation and User's Guide* for additional information on specifying the communication method.

## Step 2: Register the Data Protection for Domino workstation with a Storage Manager Server

Before backing up to and recovering from a Storage Manager Server, you must have a Storage Manager registered node name and a password. The process of setting up a node name and password is called *registration*. Once Data Protection for Domino is registered with a Storage Manager Server, you can begin using Data Protection for Domino to back up and restore your Domino databases and transaction logs.

If your system has a node name assigned to the Storage Manager backup-archive client, we recommend you have a different node name for Data Protection for Domino.

For information on performing the registration process, see *IBM Tivoli Storage Manager for Windows Backup-Archive Client Installation and User's Guide*.

## Step 3: Create policy

### Storage Manager policy requirements and recommendations

Although Data Protection for Domino operates in ways similar to other Storage Manager clients, it is unlike regular Storage Manager clients in that it does not always store complete replacements for objects on the Storage Manager Server.

When a database file is backed up, it is a complete backup of the entire database and becomes a new backup version of that database. However, if archival logging is being used on the domino server, then each archived transaction log file contains changes to one or more logged databases over a period of time. Each of these transaction log files has a unique name so there will never be multiple versions of the same transaction log file. Because of this difference, Data Protection for Domino requires special Storage Manager policy settings. These are listed below:

- You should use default values for the following Backup Copy Group parameters because they are not applicable to Data Protection for Domino:
  - FREQUENCY
  - MODE
  - SERIALIZATION
- We recommended that you define a separate policy domain where the default management class has the settings required for your Domino backup data and then just register all Domino Storage Manager nodes to that domain. If you choose to define a new management class within an existing policy domain (which is not the default management class for that domain), then you must add an **include** statement to the Data Protection for Domino options file to bind all objects to that management class. For example:

```
include * mcnname
```

See your Storage Manager administrator or the appropriate Storage Manager Administrator's Guide for your server platform for more information on defining or updating policy domains and copy groups.

- Data Protection for Domino stores all objects as backup objects on Storage Manager so an Archive Copy Group is not required, although it can exist.
- All database backup objects are complete file backups so normal version controls available through Storage Manager Server policies apply. Set the VERDELETED, VEREXISTS, RETONLY and RETEXTRA parameters of the Backup Copy Group according to your needs for the number of backup versions to be kept and the retention period of these backup versions.
- Regular use of the **inactivatelog** command inactivates the archived transaction log files when all databases that would require that file for a complete recovery are inactive. Therefore, **be sure to set the retention period for inactive transaction log files to be equal to or greater than that of the database backup objects**. This ensures the files are available as long as any inactive database file that may need them is available so that a point in time recovery of an inactive database backup version can be accomplished. This can be done by using the same management class for the transaction log files that is used for the database files.
- It is possible to have multiple versions of the same transaction log file under certain circumstances. Data Protection for Domino 1.1.1.0 and Lotus Domino R5.04 Server provide the capability to archive the currently filling transaction log. Thus, the same transaction log file can be backed up multiple times (while it is filling and again when it is full). Also, if the Domino server is stopped abnormally after transaction log files have been archived but not yet reused by the Domino server, those transaction log files can be archived again (even though they are unchanged). As a result, version limit parameters for the management class used for transaction log files should be set to ensure that extra versions of a transaction log file are purged from the backup storage pools.
- To optimize the recovery process, use collocation for the file space containing the transaction log files if they are stored on sequential media on the Storage Manager Server. The transaction log files are stored in a separate file space from the database files on the Storage Manager Server.

## Step 4: Update the options and preferences file

Data Protection for Domino uses two files to store configuration information:

### **domdsm.cfg**

The Data Protection for Domino preferences file.

The domdsm.cfg preferences file contains parameters specific to Data Protection for Domino. Use the **set** command to set values for these parameters. You can display the current values in domdsm.cfg by issuing the **query preferences** command. You can also use the Preferences dialog from the Edit menu in the GUI. If the preferences file is corrupt and contains invalid values, the default values for the preferences are used. See "Domdsmc Set" on page 92 for parameters stored in this file.

### **dsm.opt**

The Storage Manager client options file.

The client options file, dsm.opt, identifies the Storage Manager Server to contact and the node name by which Data Protection for Domino is known to the Storage Manager Server. This file also contains some options related to backup and restore processing. Use the sample options file, dsm.opt.smp, to create the dsm.opt file. The dsm.opt.smp file is located in the Data Protection for Domino installation directory.

See *IBM Tivoli Storage Manager for Windows Backup-Archive Client Installation and User's Guide* for detailed information on parameters contained within dsm.sys and dsm.opt files.

**Note:** If you have a Storage Manager backup-archive client, on the same system with Data Protection for Domino, it is recommended that you use different node names for the two clients.

## Precedence of option resolution

The same option can derive from more than one configuration source. When this happens, the source with the highest priority takes precedence, in the sequence shown as follows:

1. Data Protection for Domino command line option (highest precedence).
2. Data Protection for Domino preferences file, domdsm.cfg.
3. Storage Manager client options file, dsm.opt.

## Option file configuration information

After Data Protection for Domino is registered to a Storage Manager Server, several Storage Manager parameters must be configured. The Storage Manager administrator should have provided you with the node name, password, and the communications method with the appropriate parameters for connecting to the Storage Manager Server.

These values, together with other parameters, are stored in an options file in the Data Protection for Domino installation directory. The default options file name is dsm.opt.

Other parameters that can be specified in the options file are:

### **passwordaccess**

When **passwordaccess** is set to *prompt*, you are prompted for your password. When **passwordaccess** is set to *generate*, the Storage Manager API saves the current password (encrypted) in the Windows NT/2000

registry and automatically generates a new one when the current one expires. This method of password management is useful (and recommended) when running scheduled, unattended backups. This ensures that the backup never fails due to an expired password.

A utility program named dsmcutil.exe allows you to manage (update or display) the password as stored in the registry. The utility program is distributed with the Storage Manager Backup-Archive Client for Windows package. For more information on using dsmcutil.exe, see the dsmcutil.txt file which is distributed with the Storage Manager Backup-Archive Client for Windows package.

#### **compression**

Specifying **compression yes** causes Data Protection for Domino to compress data before sending it to the Storage Manager Server. If you enable compression, it affects performance in two ways:

- CPU utilization is higher on the machine on which Data Protection for Domino is running
- Network bandwidth utilization is lower because fewer bytes go over the wire

If the computer running Data Protection for Domino has a CPU overload, specify **compression no** because additional CPU usage can impact other applications including the Domino server. It is better to specify **compression yes** when any of the following conditions exist:

- The network adapter has a data overload
- Communications between Data Protection for Domino and the Storage Manager Server are over a low bandwidth connection
- There is heavy network traffic

Specifying **compression yes** results in reduced storage usage on the Storage Manager Server.

**Note:** The Storage Manager administrator can restrict use of the compression option by specifying, on the Storage Manager Server side, that a particular node:

- Always uses compression
- Never uses compression
- Leaves the decision up to the node to decide

The value of the compression option for Data Protection for Domino is honored only if the Storage Manager administrator leaves the compression decision to the node. The default is to let the node decide.

Exclude databases that increase in size during compression (**compression yes**) by using the client option, **exclude.compression**. See *IBM Tivoli Storage Manager for Windows Backup-Archive Client Installation and User's Guide* for information about this option. See Appendix F, "Include/exclude processing" on page 121 for examples of include/exclude statements.

#### **tapeprompt**

This option controls whether Data Protection for Domino waits for tape mount requests to be resolved on the Storage Manager Server or terminates the current operation when the Storage Manager Server indicates it is waiting for a tape mount. During a backup operation, Storage Manager might issue a prompt to place a tape volume in a drive. Also, during a restore operation, the data you want to recover might be on a tape not currently mounted by the server. In either case, a Storage

Manager operator or autochanger must take time to mount the particular tape. During that time, Data Protection for Domino continues to show activity and wait for a Storage Manager Server operation to complete. If this option is selected (**tapeprompt yes**), Data Protection for Domino waits for a tape to be mounted before it continues. If this option is not selected (**tapeprompt no**), the operation ends.

For additional information on creating the dsm.opt file and the options that can be defined in it, see *IBM Tivoli Storage Manager for Windows Backup-Archive Client Installation and User's Guide*.

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## Step 5: Schedule Data Protection for Domino operations

For information about automating backup processing, see Appendix A, “Using the Storage Manager scheduler” on page 97.



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## Chapter 4. Using the Graphical User Interface

This section provides information on how to use the Data Protection for Domino graphical user interface (GUI) to perform the following tasks:

- Locating additional information
- Modifying Data Protection for Domino configuration
- Backing up Domino databases
- Restoring Domino databases
- Activating Domino databases
- Archiving Domino transaction logs
- Viewing and restoring archived transaction logs
- Inactivating archived log files

For information about performing these tasks with the command line interface, see Chapter 5, "Using the command-line interface" on page 23.

---

### Locating Additional Information

Within the interface, additional information is available through the help system. You can easily access this information by performing the following actions:

1. Click the Help drop-down menu located in the menu bar. A menu is displayed.
2. Click the Contents menu entry. The Data Protection for Domino help system is displayed.
3. Click any help topic of interest or select the search facility to assist you with locating a specific topic.

**Note:** Data Protection for Domino Version 5.1.5 online help does not support word searches for double-byte character sets (DBCS).

---

### Modifying Data Protection for Domino Configuration

Several configuration parameters can be adjusted for Data Protection for Domino. To access these parameters through the GUI:

1. Click the Edit menu bar item to display the pulldown menu.
2. Select Preferences from the Edit pulldown menu.

The available parameters are organized into four groups. Each group can be accessed by selecting the tab for that group. The groups and related parameters are listed below:

- General
  - Wait for Tape Mounts
  - Include Subdirectories
  - Notes.INI Path
  - Replace Existing Files on Restore
- Activity Logging
  - Log File Name
  - Prune Old Entries
  - Retention period for activity log entries
  - Prune Now
- Performance
  - Number of Buffers to Use
  - Buffer Size

- Statistics
- Regional
  - Date Format
  - Time Format
  - Number Format
  - Language Format

Refer to the online help for the Data Protection for Domino settings for an explanation of each of these parameters.

---

## Backing up Domino Databases Using Incremental Backup

Incremental backup provides conditional back up function. To use incremental backup, perform the following steps:

1. Start the Data Protection for Domino GUI.
2. Click the Backup tab in the Data Protection for Domino interface.
3. Click the Incremental option button.
4. Click the plus sign in the tree view, to the left of a Domino Server.
5. Click the plus sign in the tree view to the left of the Data Directory to expand the view.
6. Click a folder to display Domino databases and other subfolders within that folder.
7. Click the grey selection box in the tree view or in the list view to select the directory you want to back up. After your selection, the selection box changes color and contains a check mark. (Note that for incremental backups, only one directory can be selected at a time)
8. Click the Backup button. The progress animation indicates that the Domino Application Client is backing up the data.
9. Click OK.

---

## Backing up Domino Databases Using Selective Backup

Selective backup provides the ability to unconditionally back up specified databases. To use selective backup, perform the following steps:

1. Start the Data Protection for Domino GUI.
2. Click the Backup tab in the Data Protection for Domino interface.
3. Click the Selective option button (this is the default).
4. Click the plus sign in the tree view, to the left of a Domino Server.
5. Click the plus sign in the tree view to the left of the Data Directory to expand the view.
6. Click a folder to display Domino databases and other subfolders within that folder.
7. Click the grey selection box in the tree view or in the list view to select the directory or individual database you want to back up. After your selection, the selection box changes color and contains a check mark.
8. Click the Backup button. The progress animation indicates that the Domino Application Client is backing up the data.
9. Click OK.

---

## Restoring Domino Databases

Restore is the first step in the two step recovery process (activation is the second step). Domino databases may need to be restored after a device failure or after a database has been corrupted. Domino databases are restored by reloading a database backup and optionally applying updates (from the transaction logs) that occurred after the backup was taken. Database backups can be restored over

corrupted databases or to a different database file. When you restore a database to an existing file, keep in mind that data which exists in the database is overwritten and replaced by the data in the backup version. To restore a database, perform the following steps.

1. Start the Data Protection for Domino GUI.
2. Click the Restore tab in the Data Protection for Domino interface.
3. Click the plus sign to the left of Backups on TSM Node in the tree view. The tree expands displaying backups from different servers.
4. Click the plus sign to the left of the desired server. The tree expands displaying the Domino data directory.
5. Click the plus sign to the left of the Data Directory to expand the view.
6. Click a folder to display Domino Databases
7. Click the grey selection box to the left of the databases you want to restore. After you select a database, the selection box changes color and contains a check mark.
8. The following steps are optional, depending on the list items you wish to restore:
  - a. If you want to restore to a different destination, enter the filepath in the Restore Into Path field within the tabbed pane.
    - **Example 1** This will restore all selected databases to physical path (e:\temp):  
e:\temp\=
    - **Example 2** This will restore all selected databases to the temp directory within the Notes data directory:  
temp\=

See “Domdsmc Restore” on page 74 for more information on the */into* parameter of the **restore** command.

- b. Check the Activate checkbox if you also want to activate the database.
- c. Click the Set Point in Time button if you want to restore information from a particular point in time. The Point in Time Restore dialog appears.
- d. Check the Use Point in Time Date When Getting the List of Databases checkbox in the Point in Time Restore dialog.
- e. Select the Date and Time and click OK in the Point in Time Restore dialog.
- f. Select Replace Existing Files to replace an existing database on the target machine with a restored database having the same path and name. This selection overrides settings in the Preferences file.
9. Click the Restore button. The progress animation indicates that the Data Protection for Domino is restoring Domino databases.
10. Click OK.

---

## Activating Domino Databases

The second and final step to the recovery process is to activate the databases. Activation brings the restored databases online for use by the Domino server. To activate a database, perform the following steps:

1. Start the Data Protection for Domino GUI.
2. Click the Activate tab in the Data Protection for Domino interface.
3. Click the plus sign to the left of Activation to... . The tree expands showing the Pending dbs, local or other Domino Servers.
4. Click the plus sign to the left of either Pending dbs, local or other Domino Servers.
5. Click the plus sign to the left of the Domino server name.
6. Click the plus sign to the left of the Domino data directory.
7. Click a folder to display Domino Databases

8. Click the grey selection box to the left of the databases you want to activate.  
After you select a database, the selection box changes color and contains a check mark.
  9. Check Apply Logs if you want to apply the transaction logs to the database.
  10. Click Point in Time if you want to activate the data from a specific point in time. This is only enabled if Apply Logs is selected.
  11. Click the Activate button. The progress animation indicates that the Data Protection for Domino is activating Domino databases.
  12. Click OK.
- 

## Archiving Domino Transaction Logs

The Archive log function allows you to back up the Domino transaction log files when archival logging is in effect on the Domino server. To use archive logs, perform the following steps:

1. Start the Data Protection for Domino GUI.
  2. Click the Utilities menu item.
  3. Select Archive Logs....
  4. The progress animation indicates that the Domino Application Client is backing up the transaction logs.
- 

## Viewing and Restoring Archived Transaction Logs

To view archived transaction log files stored on the Tivoli Storage Manager server:

1. Click the Utilities menu item.
2. Select View/Restore Log Archive.
3. The list of active transaction log file archives for the local Domino server is displayed.
4. Click the Active and Inactive radio button to view active and inactive log file archives.
5. To view log files archived from a different Domino server, select the appropriate Domino server from the drop down list.

To restore a single, archived transaction log file from Tivoli Storage Manager storage to the Domino server, perform these steps:

1. Click the Utilities menu item.
  2. Select View/Restore Log Archive.
  3. The list of active transaction log file archives for the local Domino server is displayed.
  4. Click the Active and Inactive radio button to view active and inactive log file archives.
  5. To view log files archived from a different Domino server, select the appropriate Domino server from the drop down list.
  6. Select the log file to be restored.
  7. Click the Restore button. The progress animation indicates that the log file is being restored.
- 

## Inactivating Domino Logs

Inactivating Domino logs allows for expiration of the transaction log files from the Tivoli Storage Manager server. To inactivate the logs, perform the following steps:

1. Start the Data Protection for Domino GUI.
2. Click the Utilities menu item.
3. Select Inactivate Log Archives .
4. The progress animation indicates that the Domino Application Client is inactivating the logs.

---

## Selection Techniques and Shortcuts

Within the tree views of the Domino Application Client, the following selection techniques can be used:

1. Clicking on a top-level tree icon item affects the selection for all subordinate items in the tree as follows:
  - If all subordinate objects are unchecked, they are selected.
  - If only some of the subordinate objects are checked, they are all selected.
  - If all subordinate objects are checked, they become unchecked.
2. Clicking on the selection icon for an individual database simply toggles the selection.
3. Double-clicking on the selection icon in an upper level of the tree expands and collapses the tree.
4. The list view in the right pane is a reflection of the item that is currently highlighted in the tree.
5. Right-clicking on an item in the backup, restore, and activate list views displays pop-up menus for shortcut selections. Items in the menu are enabled according to what actions are available for the currently displayed list.



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## Chapter 5. Using the command-line interface

This chapter describes how to use the Data Protection for Domino command-line interface, **domdsmc**. It is installed in the Data Protection for Domino installation directory. The commands are presented in alphabetical order.

The Query commands are as follows:

Command	Description	See
domdsmc query adsmserver	Displays general information about the Storage Manager Server	"Domdsmc Query Adsmserver" on page 53
domdsmc query dbbackup	Displays a list of Domino database backups stored on the Storage Manager Server	"Domdsmc Query Dbbackup" on page 56
domdsmc query domino	Displays general information about the Domino server and optionally lists databases on the Domino server	"Domdsmc Query Domino" on page 61
domdsmc query logarchive	Displays a list of the archived transaction log extents stored on the Storage Manager Server	"Domdsmc Query Logarchive" on page 65
domdsmc query pendingdbs	Displays a list of databases that have been restored but not yet activated	"Domdsmc Query Pendingdbs" on page 68
domdsmc query preferences	Displays the current values for Data Protection for Domino	"Domdsmc Query Preferences" on page 70

The Backup commands are as follows:

Command	Description	See
domdsmc archivelog	Backs up Domino transaction log files when archival logging is in effect on the Domino server	"Domdsmc Archivelog" on page 32
domdsmc incremental	Backs up Domino databases that meet certain criteria to Storage Manager Server storage	"Domdsmc Incremental" on page 48
domdsmc selective	Backs up specified databases unconditionally, unless excluded from backup services	"Domdsmc Selective" on page 87

Other commands are as follows:

Command	Description	See
domdsmc activatedbs	Brings restored database backups online	"Domdsmc Activatedbs" on page 25
domdsmc changeadsmpwd	Changes the Storage Manager password used by the registered Storage Manager nodename	"Domdsmc Changeadsmpwd" on page 36
domdsmc help	Displays online help for the domdsmc commands	"Domdsmc Help" on page 39
domdsmc inactivatelog	Allows for expiration of transaction log files from backup storage	"Domdsmc Inactivatelog" on page 45
domdsmc resetdatabase	Resets a Domino server database that is in an incomplete state as a result of an unexpected termination during a Data Protection for Domino backup.	"Domdsmc Resetdatabase" on page 72
domdsmc restore	Restores database backups from Storage Manager storage to the Domino server and optionally activates the databases	"Domdsmc Restore" on page 74
domdsmc restorelogarchive	Restores archived transaction logs from Storage Manager storage to the Domino server	"Domdsmc Restorelogarchive" on page 82
domdsmc set	Sets the Data Protection for Domino configuration parameters and saves for future use	"Domdsmc Set" on page 92

---

## About the commands

The Data Protection for Domino command-line syntax is as follows:

```
domdsmc command required_parameters 0_or_more_optional_parameters
```

For additional help with syntax diagrams, see "Reading syntax diagrams" on page x.

The commands shown in this chapter have the following characteristics:

- Required parameters are positional and do not include a forward slash(/).
- Optional parameters begin with a forward slash (/).
- Upper case letters indicate the minimum abbreviations for parameter keywords. For example, the **/LOGPrune** parameter has a minimum abbreviation of **/logp**.
- For parameters that require a value, an equal sign (=) separates the value from the parameter. In the following example,

```
/logprune=60
```

an equal sign separates the parameter, **/logprune**, from the value, **60**.

- If a parameter requires more than one value after the equal sign, the values are separated with a comma. For example:

```
domdsmc activatedbs /buffers=3,1024
```

- One or more blank spaces separate each parameter from the other parameters.  
For example:  
`domdsmc activatedbs /buffers=3,1024 /configfile=test.cfg`
- If the value of a parameter includes spaces , the value must be enclosed in single or double quotes. For example:  
`domdsmc incremental "*"`

---

## About options and preferences files

Select Preferences from the GUI Edit menu to define options and assigned values in the Data Protection for Domino preferences file, by default, domdsm.cfg.

Use the Data Protection for Domino **set** command to specify Data Protection for Domino options and assigned values in the Data Protection for Domino preferences file, by default, domdsm.cfg.

You can enter options with appropriate Data Protection for Domino commands to override the options set in your Data Protection for Domino preferences file, domdsm.cfg. When an option is a parameter on a Data Protection for Domino command but is not specified, then the value in the Data Protection for Domino preferences file is used.

---

## Domdsmc Activatedbs

**Domdsmc activatedbs** brings restored database backups online. If the database is logged, you can apply all applicable transactions from the transaction logs or apply transactions up to a specific point in time to update the database.

**Note:** You can put databases in a corrupt state if you press CTRL-C (or cancel the job) in the middle of an activate. This prevents the databases from being activated. Also, any databases activated before the CTRL-C (or cancel) was pressed, can be corrupted and should be restored and activated again.

This command acts on restored database backups that are pending activation (that is, they have been restored with the **/activate=no** parameter). The Storage Manager Server is not contacted unless archived transaction logs are needed when using the **/applylogs** parameter.

Data Protection for Domino will use an alternate restore path for the transaction logs on a Domino 6 environment when the TRANSLOG\_RECOVER\_PATH variable is specified in the NOTES.INI file. If the alternate log restore path specified in the NOTES.INI file is *not* a fully qualified path, Data Protection for Domino will not use the alternate restore path.

If you receive the Domino message Recovery Manager: Database is not latest copy. when you issue the **domdsmc activatedbs** command with the **/applylogs** parameter, a problem may exist with your Domino Logger ID. Consult your Domino documentation to determine why you received this error message. You can also run the **domdsmc query logarchive** command to view archived transaction log extents for more information. If two Logger IDs display as in the following example:

IBM Tivoli Storage Manager for Mail  
Data Protection for Lotus Domino  
Version 5, Release 1, Level 5.0  
(C) Copyright IBM Corporation 1999, 2002. All rights reserved.

```

Domino Server: restroan01
-----
Logger Id: 0F88256BC1:005F8602-0N00000365:0136DCCF
-----
          Transaction
Log Archive Date    Log Filename   A/I    Size
-----              -----        ---    -----
05/22/2002 10:27:26  S0000000.TXN   A     64.00MB

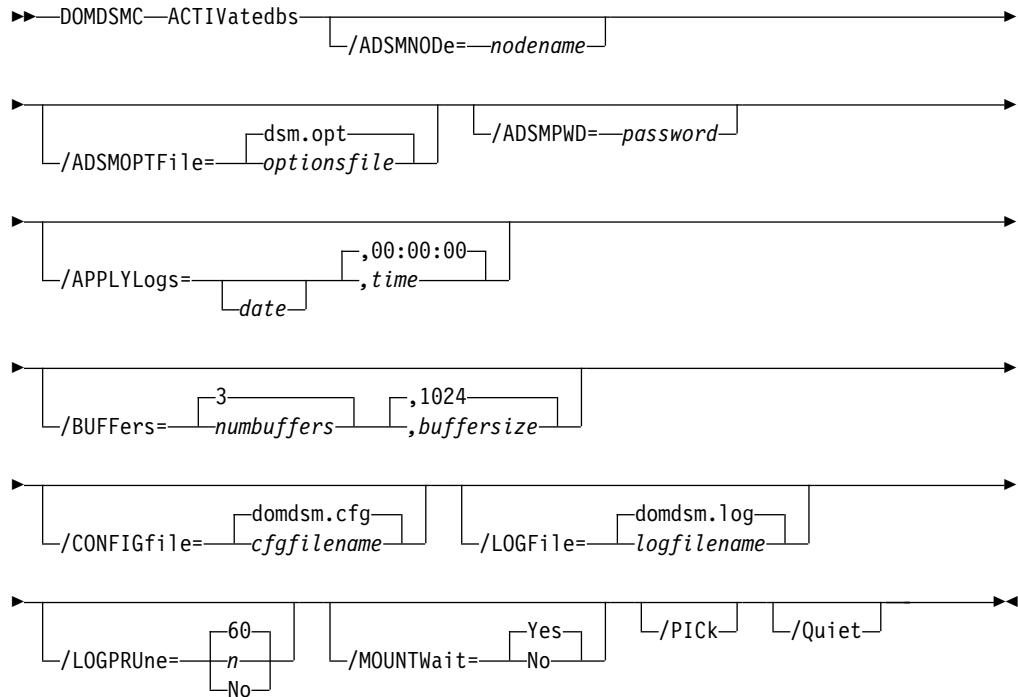
Domino Server: restroan01
-----
Logger Id: 0F88256BC1:005EDBA5-0N00000365:0136DCCF
-----
          Transaction
Log Archive Date    Log Filename   A/I    Size
-----              -----        ---    -----
05/22/2002 10:20:23  S0000000.TXN   A     64.00MB

```

contact Lotus support to determine why your Logger ID has changed.

You can use any of the displayed Logger IDs to restore logged databases. In order to use any of the Logger IDs other than the current one, you need to use an alternate server to restore logged databases. See “Alternate server and alternate partition restores” on page 110 for detailed instructions on how to perform this procedure.

## Syntax



## Parameters

### /ADSMNODE=nodename

Specifies the Tivoli Storage Manager node name Data Protection for Domino uses to logon to the Tivoli Storage Manager Server. The command-line value overrides the value in the Tivoli Storage Manager options file.

### /ADSMOPTFile=optionsfile

Specifies the Tivoli Storage Manager options file name.

The file name can include a fully qualified path name. If you do not specify a path, the installation directory and then the current directory are searched for the specified file. The default is dsm.opt.

For additional information on the Tivoli Storage Manager options file, available options, and their syntax see the *IBM Tivoli Storage Manager for Windows Backup-Archive Client Installation and User's Guide*.

### /ADSMPWD=password

Specifies the Tivoli Storage Manager password Data Protection for Domino uses to logon to the Tivoli Storage Manager Server. If you specify **passwordaccess generate** in the Tivoli Storage Manager options file, then the password is not required. In this case, Data Protection for Domino uses the password that is stored by the Tivoli Storage Manager API.

If **passwordaccess** is set to *generate* and you specify a password, the value is ignored unless a password for this node has not been stored. In this case, the specified password is stored and used for the current command execution.

If **passwordaccess** is set to *prompt* and you specify a password on the command line, you are not prompted for a password. The command line value overrides the need to prompt.

If **passwordaccess** is set to *prompt* and you do not specify a password on the command line, then you are prompted for a password.

### /APPLYLogs=date,time

Specifies that transaction log recovery for the restored databases is performed if they are logged. The *date* and *time* values must be specified in the same date and time format defined in the Data Protection for Domino preferences file. The transaction logs are applied to a specified point in time or to the current date and time if no *date* and *time* values are specified.

**date**      Specify a date string in the active date format. When specified, transactions that are completed and committed before the specified date are applied to the restored database. The date specified should be after the backup date of the backup image that is being restored. The **/pit** option can be used with the **restore** command to automatically restore the most recent full backup image that is performed before the desired point in time.

Because there is one transaction log for all logged databases, all the databases should be activated together (in one command). This situation applies when restoring multiple databases that need to have transactions applied from the log. This prevents the fetching of the same transaction logs multiple times from the Storage Manager Server. The databases can be restored separately (if necessary) with the **/activate=no** parameter and then activated together with a single **activatedbs** command.

If you are restoring a database that is backed up from a different Domino server, logged transactions cannot be applied. In this case, you can only activate a full backup image. You must also use the Notes *fixup* utility to reset the internal sequence numbers of the restored and activated database.

**Note:** If circular logging is in effect, it might not be possible to properly apply transactions if the log has wrapped. If an attempt to apply transaction logs fails, the database or databases being processed are marked as corrupted. The database or databases will have to be restored again.

The date must be specified using the same date format defined in the Data Protection for Domino preferences file. See “Domdsmc Set” on page 92 for a list of available date formats.

*time* Specify a time string in the active time format. If you specify a date without the time, 00:00:00 on a 24-hour clock is used.

The time must be specified using the same time format defined in the Data Protection for Domino preferences file. See “Domdsmc Set” on page 92 for a list of available time formats.

**/BUFFers=***numbuffers,buffersize*

Specifies the number and size of data buffers that transfer data between the Domino server and the Tivoli Storage Manager API. Increasing the number or size (or both) of the data buffers can improve throughput.

You can specify from 2 to 8 buffers, the default value is 3. The size of the buffers can be from 64 to 8192 kilobytes, the default value is 1024.

If the **/buffers** parameter is not specified on the command line or defined in the preferences file, Data Protection for Domino uses the default values.

**/CONFIGfile=***cfgfilename*

Specifies the name of the Data Protection for Domino preferences file. The file name can include a fully-qualified path. If you do not specify a path, it is assumed the preferences file resides in the directory where Data Protection for Domino is installed.

The default preferences file is domdsm.cfg.

**/LOGFile=***logfilename*

Specifies the name of the activity log that is generated by Data Protection for Domino. The log file name is used for the current command and does not update the default log file that is stored in the preferences file. You can use the **set** command to change the default log file name that is stored in the preferences file. The command-line parameter can be used to override the default for one command run. If the specified file does not exist, it is created. If it does exist, new log entries are appended to the file. The file name can include a fully-qualified path. If you do not specify a path, the file is written to the directory where Data Protection for Domino is installed.

The default log file is domdsm.log.

**/LOGPRUne=***60|n|No*

Specifies whether to prune log entries. By default, log pruning is enabled and performed once per day. You can use the **set** command to:

- Change the defaults so that log pruning is disabled
- Change the number of days log entries are saved

You can use the **/logprune** option to override these defaults for one command run. Note that when the value of **/logprune** is a number, the prune is performed even if one has already been performed for the day.

You can specify:

- 60** Specifies that log entries are saved for 60 days before pruning. This is the default.
- n** Specifies the number of days to save log entries. The range of values is 0 to 9999. A value of 0 deletes all entries in the log except for the current command run entries.
- No** Do not prune the log.

**/MOUNTWait=Yes|No**

If the Tivoli Storage Manager Server is configured to store transaction log backup data on removable media, then the Tivoli Storage Manager Server can indicate to Data Protection for Domino that it is waiting for a required storage volume to be mounted. If this occurs, this option allows you to specify whether Data Protection for Domino waits for the media mount or stops the current operation. Removable media is media such as tapes.

You can specify:

- Yes** Wait for tape mounts. This is the default.
- No** Do not wait for tape mounts.

**/PICK** Displays a list of the restored databases that are waiting for activation. The databases listed are those that match the *dbname* pattern specified. Databases to be activated can be selected from the list.

The *pick list* is presented as a scrollable list with the same manipulation functions as offered in the base Tivoli Storage Manager client PICK function.

**/Quiet** Specifies that status information does not display. However, the information is written to the activity log.

## Examples

**Example 1:** The following example brings all the restored database backups online and applies transactions from the transaction log to update the database to the date specified:

```
domdsmc activatedbs /applylogs=07/23/2002
```

### Output example:

```
IBM Tivoli Storage Manager for Mail:  
Data Protection for Lotus Domino  
Version 5, Release 1, Level 5.0  
(C) Copyright IBM Corporation 1999, 2002. All rights reserved.
```

```
Starting Domino database activation...
```

```
Initializing Domino connection...  
Logging on to the Tivoli Storage Manager server, please wait...
```

```
Starting archivelog recovery...
```

```
Media Recovery Replay: 100%  
07/22/02 04:32:25 PM Recovery Manager: Media Recovery complete for  
i:\Lotus\Domino\Data\datadir3\yyyy.nsf.dad, last update applied 07/22/02  
03:51:12 PM.
```

```
Archivelog recovery completed successfully.
```

```
Activating database datadir3\yyyy.nsf, 1 of 1,  
Activate of datadir3\yyyy.nsf completed successfully.
```

```
Total pending databases inspected: 1  
Total pending databases requested for activation: 1  
Total pending databases activated: 1
```

```
Throughput rate: 0.00 Kb/Sec  
Total bytes transferred: 0  
Elapsed processing time: 0.00 Secs
```

**Example 2:** The following example brings all the restored database backups online:  
domdsmc activatedbs

**Output example:**

```
IBM Tivoli Storage Manager for Mail:  
Data Protection for Lotus Domino  
Version 5, Release 1, Level 5.0  
(C) Copyright IBM Corporation 1999, 2002. All rights reserved.
```

```
Starting Domino database activation...
```

```
Initializing Domino connection...  
Logging on to the Tivoli Storage Manager server, please wait...
```

```
Activating database datadir3\db8.nsf, 1 of 1,  
Activate of datadir3\db8.nsf completed successfully.
```

```
Total pending databases inspected: 1  
Total pending databases requested for activation: 1  
Total pending databases activated: 1
```

```
Throughput rate: 0.00 Kb/Sec  
Total bytes transferred: 0  
Elapsed processing time: 0.00 Secs
```

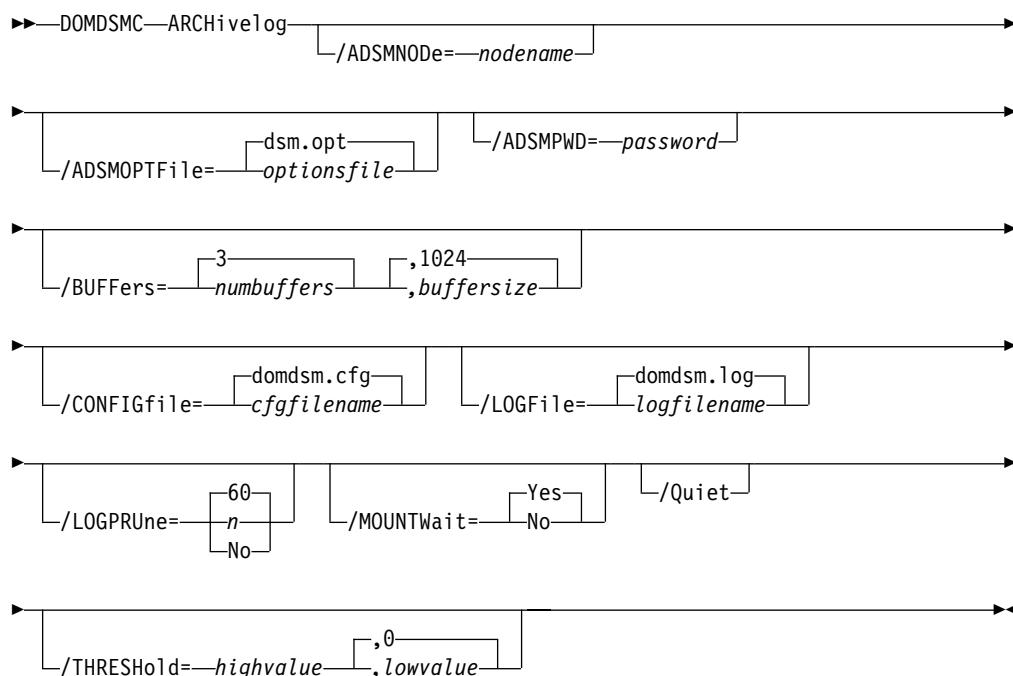
## Domdsmc Archivelog

**Domdsmc archivelog** backs up Domino transaction log files when archival logging is in effect on the Domino server. This command queries the Domino server to determine if any log extents are ready for archiving. If so, the log files are backed up to Storage Manager Server storage, and the Domino server is notified of their availability for reuse. In addition, high and low threshold values can be specified as a percentage of the log capacity to control whether or not log files should be archived when the command is run. This allows the command to be scheduled regularly to protect against a log full condition but to actually do the archive only if the log is getting close to being full. Thus, if enough log space is allocated to contain an average day's worth of updates, it is possible to establish a strategy where log files are normally archived daily during low usage time (e.g. a daily schedule without threshold values) but unusually high volumes of change can also be handled on an exception basis. For example, an hourly schedule of the **archivelog** command with appropriate specified threshold values performs the archive only if necessary.

You should run this command frequently to ensure that allocated transaction log space is freed.

The active transaction log is also backed up with Domino Server 5.04 (or higher).

### Syntax



### Parameters

#### /ADSMNODE=nodename

Specifies the Tivoli Storage Manager node name Data Protection for Domino uses to logon to the Tivoli Storage Manager Server. The command-line value overrides the value in the Tivoli Storage Manager options file.

**/ADSMOPTFile=optionfile**

Specifies the Tivoli Storage Manager options file name.

The file name can include a fully qualified path name. If you do not specify a path, the installation directory and then the current directory are searched for the specified file. The default is dsm.opt.

For additional information on the Tivoli Storage Manager options file, available options, and their syntax see the *IBM Tivoli Storage Manager for Windows Backup-Archive Client Installation and User's Guide*.

**/ADSMPWD=password**

Specifies the Tivoli Storage Manager password Data Protection for Domino uses to logon to the Tivoli Storage Manager Server. If you specify **passwordaccess generate** in the Tivoli Storage Manager options file, then the password is not required. In this case, Data Protection for Domino uses the password that is stored by the Tivoli Storage Manager API.

If **passwordaccess** is set to *generate* and you specify a password, the value is ignored unless a password for this node has not been stored. In this case, the specified password is stored and used for the current command execution.

If **passwordaccess** is set to *prompt* and you specify a password on the command line, you are not prompted for a password. The command line value overrides the need to prompt.

If **passwordaccess** is set to *prompt* and you do not specify a password on the command line, then you are prompted for a password.

**/BUFFers=numbuffers,buffersize**

Specifies the number and size of data buffers that transfer data between the Domino server and the Tivoli Storage Manager API. Increasing the number or size (or both) of the data buffers can improve throughput.

You can specify from 2 to 8 buffers, the default value is 3. The size of the buffers can be from 64 to 8192 kilobytes, the default value is 1024.

If the **/buffers** parameter is not specified on the command line or defined in the preferences file, Data Protection for Domino uses the default values.

**/CONFIGfile=cfgfilename**

Specifies the name of the Data Protection for Domino preferences file. The file name can include a fully-qualified path. If you do not specify a path, it is assumed the preferences file resides in the directory where Data Protection for Domino is installed.

The default preferences file is domdsm.cfg.

**/LOGFile=logfilename**

Specifies the name of the activity log that is generated by Data Protection for Domino. The log file name is used for the current command and does not update the default log file that is stored in the preferences file. You can use the **set** command to change the default log file name that is stored in the preferences file. The command-line parameter can be used to override the default for one command run. If the specified file does not exist, it is created. If it does exist, new log entries are appended to the file. The file name can include a fully-qualified path. If you do not specify a path, the file is written to the directory where Data Protection for Domino is installed.

The default log file is domdsm.log.

**/LOGPRUNE=60|n|No**

Specifies whether to prune log entries. By default, log pruning is enabled and performed once per day. You can use the **set** command to:

- Change the defaults so that log pruning is disabled
- Change the number of days log entries are saved

You can use the **/logprune** option to override these defaults for one command run. Note that when the value of **/logprune** is a number, the prune is performed even if one has already been performed for the day.

You can specify:

- 60** Specifies that log entries are saved for 60 days before pruning. This is the default.
- n** Specifies the number of days to save log entries. The range of values is 0 to 9999. A value of 0 deletes all entries in the log except for the current command run entries.
- No** Do not prune the log.

**/MOUNTWAIT=Yes|No**

If the Tivoli Storage Manager Server is configured to store transaction log backup data on removable media, then the Tivoli Storage Manager Server can indicate to Data Protection for Domino that it is waiting for a required storage volume to be mounted. If this occurs, this option allows you to specify whether Data Protection for Domino waits for the media mount or stops the current operation. Removable media is media such as tapes.

You can specify:

- Yes** Wait for tape mounts. This is the default.
- No** Do not wait for tape mounts.

**/QUIET** Specifies that status information does not display. However, the information is written to the activity log.

**/THRESHOLD=highvalue, lowvalue**

Use this option to specify when the **archivelog** command should start and stop archiving eligible transaction log files. The **highvalue**, specified as a percentage of the transaction log capacity, identifies the point at which log archiving should begin. If the current occupancy of the transaction log equals or exceeds the value for this parameter, eligible log files are archived until the occupancy falls to or below the **lowvalue** which is also specified as a percentage of the log capacity.

**highvalue** is an integer in the range from 1 to 99.

**lowvalue** is an integer in the range from 0 to 98 but it must be less than the high value. The default is 0 which means that all log files eligible for archive will be archived. Specify a low threshold value (greater than 0) to prevent the active transaction log from being backed up.

If the **/threshold** option is not specified, then all eligible transaction log files are archived. The active transaction log is an eligible transaction log file.

For example, specifying

**/threshold=90,50**

will cause transaction log files to be archived only after the log is at or more than 90% full and the archive process will stop once sufficient space has been reclaimed to make the log less than or equal to 50% full.

It is important to note that the **/threshold** option is impacted by the total size of the transaction log. The total size of the transaction log is determined on the Domino server by the value of the TRANSLOG\_UseAll and TRANSLOG\_MaxSize options in the notes.ini file.

## Example

**Example:** The following example backs up the current archive log:

```
domdsmc archivelog
```

### Output example:

```
IBM Tivoli Storage Manager for Mail:  
Data Protection for Lotus Domino  
Version 5, Release 1, Level 5.0  
(C) Copyright IBM Corporation 1999, 2002. All rights reserved.
```

```
Starting Domino transaction log backup...
Initializing Domino connection...
Logging on to the Tivoli Storage Manager server, please wait...

Backing up archivelog file i:\lotus\domino\logs\S0000001.TXN
Full: 0   Read: 67109888   Written: 67109888   Rate: 559.85 Kb/Sec

Backup of i:\lotus\domino\logs\S0000001.TXN completed successfully.

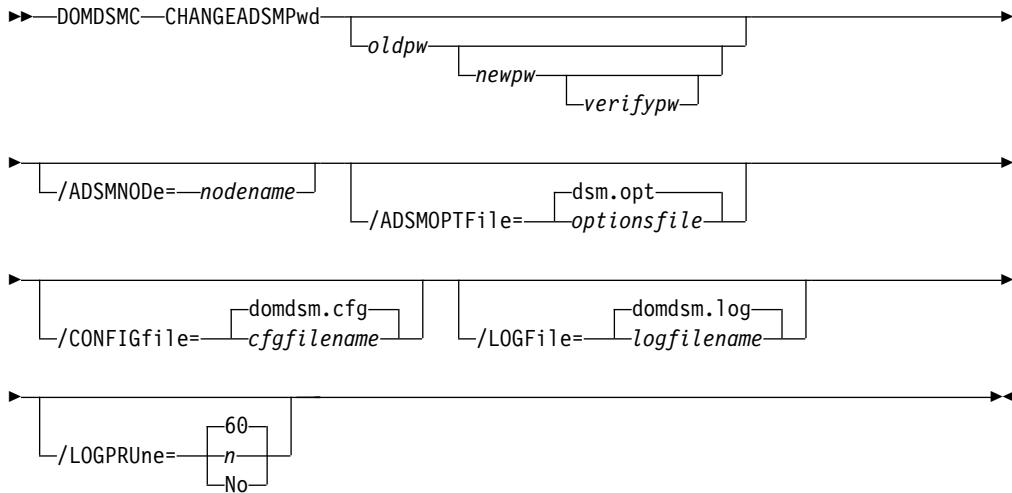
Total Domino log files ready for backup: 1
Total Domino log files backed up: 1

Throughput rate: 559.84 Kb/Sec
Total bytes transferred: 67109888
Elapsed processing time: 117.06 Secs
```

## Domdsmc Changeadsmpwd

**Domdsmc changeadsmpwd** changes the Storage Manager password that is used by Data Protection for Domino. If you do not enter the old and new passwords on the command, you are prompted for them. When Data Protection for Domino prompts you for the passwords, the password is not displayed on the screen.

### Syntax



### Parameters

**oldpw** The current password to change. You are prompted for this value if omitted.

**newpw** The new password. You are prompted for this value if omitted. When choosing a new password, you can use from 1 to 64 characters.

Valid password characters are as follows:

<b>A-Z</b>	Any letter, A through Z, uppercase or lowercase
<b>0-9</b>	Any number, 0 through 9
+	Plus
.	Period
-	Underscore
-	Hyphen
&	Ampersand

A password is not case-sensitive.

**verifypw**

The verify password is used to validate the password entered for newpw. You are prompted for this value if omitted.

**/ADSMNODE=nodename**

Specifies the Tivoli Storage Manager node name Data Protection for Domino uses to logon to the Tivoli Storage Manager Server. The command-line value overrides the value in the Tivoli Storage Manager options file.

**/ADSMOPTFILE=optionsfile**

Specifies the Tivoli Storage Manager options file name.

The file name can include a fully qualified path name. If you do not specify a path, the installation directory and then the current directory are searched for the specified file. The default is dsm.opt.

For additional information on the Tivoli Storage Manager options file, available options, and their syntax see the *IBM Tivoli Storage Manager for Windows Backup-Archive Client Installation and User's Guide*.

**/CONFIGfile=cfgfilename**

Specifies the name of the Data Protection for Domino preferences file. The file name can include a fully-qualified path. If you do not specify a path, it is assumed the preferences file resides in the directory where Data Protection for Domino is installed.

The default preferences file is domdsm.cfg.

**/LOGFile=logfilename**

Specifies the name of the activity log that is generated by Data Protection for Domino. The log file name is used for the current command and does not update the default log file that is stored in the preferences file. You can use the **set** command to change the default log file name that is stored in the preferences file. The command-line parameter can be used to override the default for one command run. If the specified file does not exist, it is created. If it does exist, new log entries are appended to the file. The file name can include a fully-qualified path. If you do not specify a path, the file is written to the directory where Data Protection for Domino is installed.

The default log file is domdsm.log.

**/LOGPRUNE=60|n|No**

Specifies whether to prune log entries. By default, log pruning is enabled and performed once per day. You can use the **set** command to:

- Change the defaults so that log pruning is disabled
- Change the number of days log entries are saved

You can use the **/logprune** option to override these defaults for one command run. Note that when the value of **/logprune** is a number, the prune is performed even if one has already been performed for the day.

You can specify:

- |           |                                                                                                                                                                             |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>60</b> | Specifies that log entries are saved for 60 days before pruning. This is the default.                                                                                       |
| <b>n</b>  | Specifies the number of days to save log entries. The range of values is 0 to 9999. A value of 0 deletes all entries in the log except for the current command run entries. |
| <b>No</b> | Do not prune the log.                                                                                                                                                       |

## **Example**

**Example:** The following example changes the Storage Manager password to **secret**:

```
domdsmc changeadsmpwd oldpassword secret secret
```

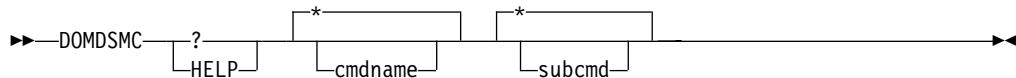
### **Output example:**

```
IBM Tivoli Storage Manager for Mail:  
Data Protection for Lotus Domino  
Version 5, Release 1, Level 5.0  
(C) Copyright IBM Corporation 1999, 2002. All rights reserved.  
  
ACD0260I Password successfully changed.
```

## Domdsmc Help

**Domdsmc help** provides online help for the **domdsmc** commands. This command lists one or more commands and their parameters.

### Syntax



### Parameters

\* | *cmdname*

Identifies the specific Data Protection for Domino command that is to be displayed. If the wildcard character \* is used, help for all Data Protection for Domino commands is displayed. If you do not specify a command name, asterisk (\*) is the default.

The valid command names are shown below:

- ACTIVatedbs
- ARCHivelog
- CHANGEADSMPPwd
- HELP
- INACTivatelogs
- Incremental
- Query
- RESETdatabase
- RESTore
- RESTORELOGArchive
- SElective
- SET

\* | *subcmd*

Help can be displayed for commands that have several subcommands, for example, the **query** commands. If you do not specify a subcommand or the wildcard character asterisk (\*), then help for all Data Protection for Domino **query** commands is displayed.

The valid subcommand names for the **query** commands are shown below:

- Adsmserver
- DBBackup
- DOMino
- LOGArchive
- PENDing dbs
- PREFerences

## Examples

**Example 1:** The command **domdsmc ?** or **domdsmc help \*** provides information on the syntax of all the commands.

### Output example:

```
IBM Tivoli Storage Manager for Mail:  
Data Protection for Lotus Domino  
Version 5, Release 1, Level 5.0  
(C) Copyright IBM Corporation 1999, 2002. All rights reserved.
```

Choose from the following commands:

```
DOMDSMC ACTIVatedbs  
[/ADSMNODE=nodename]  
[/ADSMOPTFile=dsm.opt|filename] (default: dsm.opt)  
[/ADSMPWD=password]  
[/APPLYLogs=date[,time]] (default: currentdate,currenttime)  
[/BUFFers=numbuffers[,buffersize]] (default: 3,1024)  
[/CONFIGfile=domdsm.cfg|filename] (default: domdsm.cfg)  
[/LOGFile=domdsm.log|logfilename] (default: domdsm.log)  
[/LOGPRUne=60|n|No] (default: 60)  
[/MOUNTWait=Yes|No] (default: Yes)  
[/PICK]  
[/Quiet]  
  
DOMDSMC ARCHivelog  
[/ADSMNODE=nodename]  
[/ADSMOPTFile=dsm.opt|filename] (default: dsm.opt)  
[/ADSMPWD=password]  
[/BUFFers=numbuffers[,buffersize]] (default: 3,1024)  
[/CONFIGfile=domdsm.cfg|filename] (default: domdsm.cfg)  
[/LOGFile=domdsm.log|logfilename] (default: domdsm.log)  
[/LOGPRUne=60|n|No] (default: 60)  
[/MOUNTWait=Yes|No] (default: Yes)  
[/Quiet]  
[/THRESHold=highvalue[,lowvalue]]  
  
DOMDSMC CHANGEADSMPwd [oldpw [newpw [verifypw]]]  
[/ADSMNODE=nodename]  
[/ADSMOPTFile=dsm.opt|filename] (default: dsm.opt)  
[/CONFIGfile=domdsm.cfg|filename] (default: domdsm.cfg)  
[/LOGFile=domdsm.log|logfilename] (default: domdsm.log)  
[/LOGPRUne=60|n|No] (default: 60)  
  
DOMDSMC HELP|? [*|command] [*|subcmd]  
Valid command names : Valid subcmds :  
ACTIVatedbs Adsmserver  
ARCHivelog DBBackup  
CHANGEADSMPwd DOMino  
HELP LOGArchive  
INACTivatelogs PENDINGdbs  
Incremental PREferences  
Query  
RESTore  
RESTORELOGArchive  
Selective  
SET  
  
DOMDSMC INACTivatelogs  
[/ADSMNODE=nodename]  
[/ADSMOPTFile=dsm.opt|filename] (default: dsm.opt)  
[/ADSMPWD=password]  
[/CONFIGfile=domdsm.cfg|filename] (default: domdsm.cfg)  
[/LOGFile=domdsm.log|logfilename] (default: domdsm.log)  
[/LOGPRUne=60|n|No] (default: 60)
```

```

[ /Quiet]
[ /SERVer=currentserver|servername]

DOMDSMC Incremental dbname[,dbname,...]
[ /ADSMNODE=nodename]
[ /ADSMOPTFile=dsm.opt|filename] (default: dsm.opt)
[ /ADSMPWD=password]
[ /BUFFers=numbuffers[,buffersize]] (default: 3,1024)
[ /CONFIGfile=domdsm.cfg|filename] (default: domdsm.cfg)
[ /LOGFile=domdsm.log|logfilename] (default: domdsm.log)
[ /LOGPRUne=60|n|No] (default: 60)
[ /MOUNTWait=Yes|No] (default: Yes)
[ /Quiet]
[ /SUBDir=No|Yes] (default: No)

DOMDSMC Query Adsmserver
[ /ADSMNODE=nodename]
[ /ADSMOPTFile=dsm.opt|filename] (default: dsm.opt)
[ /ADSMPWD=password]
[ /CONFIGfile=domdsm.cfg|filename] (default: domdsm.cfg)
[ /LOGFile=domdsm.log|logfilename] (default: domdsm.log)
[ /LOGPRUne=60|n|No] (default: 60)

DOMDSMC Query DBBackup *|dbname
[ /ADSMNODE=nodename]
[ /ADSMOPTFile=dsm.opt|filename] (default: dsm.opt)
[ /ADSMPWD=password]
[ /CONFIGfile=domdsm.cfg|filename] (default: domdsm.cfg)
[ /INACTIVE]
[ /LogFile=domdsm.log|logfilename] (default: domdsm.log)
[ /LOGPRUne=60|n|No] (default: 60)
[ /SERVer=currentserver|servername]
[ /SUBDir=No|Yes] (default: No)

DOMDSMC Query DOMino [*|dbname]
[ /CONFIGfile=domdsm.cfg|filename] (default: domdsm.cfg)
[ /LogFile=domdsm.log|logfilename] (default: domdsm.log)
[ /LOGPRUne=60|n|No] (default: 60)
[ /SUBDir=No|Yes] (default: No)

DOMDSMC Query LOGArchive
[ /ADSMNODE=nodename]
[ /ADSMOPTFile=dsm.opt|filename] (default: dsm.opt)
[ /ADSMPWD=password]
[ /CONFIGfile=domdsm.cfg|filename] (default: domdsm.cfg)
[ /INACTIVE]
[ /LogFile=domdsm.log|logfilename] (default: domdsm.log)
[ /LOGPRUne=60|n|No] (default: 60)
[ /SERVer=currentserver|servername]

DOMDSMC Query PENDING dbs
[ /CONFIGfile=domdsm.cfg|filename] (default: domdsm.cfg)
[ /LogFile=domdsm.log|logfilename] (default: domdsm.log)
[ /LOGPRUne=60|n|No] (default: 60)

DOMDSMC Query PREFERENCES
[ /CONFIGfile=domdsm.cfg|filename] (default: domdsm.cfg)
[ /LogFile=domdsm.log|logfilename] (default: domdsm.log)
[ /LOGPRUne=60|n|No] (default: 60)

DOMDSMC RESETdatabase [dbname|dbname,...]
[ /CONFIGfile=domdsm.cfg|filename] (default: domdsm.cfg)
[ /LogFile=domdsm.log|logfilename] (default: domdsm.log)
[ /LOGPRUne=60|n|No] (default: 60)

DOMDSMC RESTORE dbname[,dbname,...]
[ /ACTIVate=No|Yes] (default: No)

```

```

[ADSMDNODE=nodename]
[ADSMOPTFile=dsm.opt|filename] (default: dsm.opt)
[ADSMPWD=password]
[BUFFers=numbuffers[,buffersize]] (default: 3,1024)
[CONFIGfile=domdsm.cfg|filename] (default: domdsm.cfg)
[INTO=filename]
[LOGFile=domdsm.log|logfilename] (default: domdsm.log)
[LOGPRUNE=60|n|No] (default: 60)
[MOUNTWait=Yes|No] (default: Yes)
[PICK=SHOWActive|SHOWAll] (default: SHOWActive)
[PIT=date[,time]] (default: currentdate,currenttime)
[Quiet]
[REPlace=Yes|No] (default: Yes)
[SERVer=currentserver|servername]
[SUBDir=No|Yes] (default: No)

DOMDSMC RESTORELOGArchive [logname[,logname,...]] (default: 'last')
[ADSMDNODE=nodename]
[ADSMOPTFile=dsm.opt|filename] (default: dsm.opt)
[ADSMPWD=password]
[BUFFers=numbuffers[,buffersize]] (default: 3,1024)
[CONFIGfile=domdsm.cfg|filename] (default: domdsm.cfg)
[INTOPATH=pathname]
[LOGFile=domdsm.log|logfilename] (default: domdsm.log)
[LOGPRUNE=60|n|No] (default: 60)
[MOUNTWait=Yes|No] (default: Yes)
[PICK=SHOWActive|SHOWAll] (default: SHOWActive)
[Quiet]
[REPlace=Yes|No] (default: Yes)
[SERVer=currentserver|servername]

DOMDSMC Selective dbname[,dbname,...]
[ADSMDNODE=nodename]
[ADSMOPTFile=dsm.opt|filename] (default: dsm.opt)
[ADSMPWD=password]
[BUFFers=numbuffers[,buffersize]] (default: 3,1024)
[CONFIGfile=domdsm.cfg|filename] (default: domdsm.cfg)
[LOGFile=domdsm.log|logfilename] (default: domdsm.log)
[LOGGEDonly]
[LOGPRUNE=60|n|No] (default: 60)
[MOUNTWait=Yes|No] (default: Yes)
[Quiet]
[SUBDir=No|Yes] (default: No)

DOMDSMC SET PARMname=value
[CONFIGfile=domdsm.cfg|filename] (default: domdsm.cfg)

where PARMname and default values are:
    BUFFers=3 (2..8)
    BUFFERSIZE=1024 (64..8192)
    DATEformat=
        1 MM/DD/YYYY
        2 DD-MM-YYYY
        3 YYYY-MM-DD
        4 DD.MM.YYYY
        5 YYYY.MM.DD
    LANGueage=
        AMENG American English
        BPORTUGUESE Brazilian Portuguese
        SCHINESE Chinese, Simplified
        TCHINESE Chinese, Traditional
        FRENCH Standard French
        GERMAN Standard German
        ITALIAN Standard Italian
        JAPANESE Japanese
        KOREAN Korean
        SPANISH Standard Spanish

```

```

LOGFile=domdsm.log
LOGPRUne=60 (0..9999 | No)
MOUNTWait=Yes (Yes|No)
NOTESInipath=
NUMBERformat=
  1 n,nnn.dd
  2 n,nnn,dd
  3 n nnn,dd
  4 n nnn.dd
  5 n.nnn,dd
  6 n'nnn,dd
REPLace=Yes (Yes|No)
STATistics=No (No|Yes)
SUBDir=No (No|Yes)
TIMEformat=
  1 HH:MM:SS
  2 HH,MM,SS
  3 HH.MM.SS
  4 HH:MM:SSA/P

```

**EXAMPLES:**

```

DOMDSMC Selective adb.nsf
DOMDSMC Query Domino

```

**Example 2:** To display help for all the **query** commands, enter the following:

```
domdsmc help query *
```

**Output example:**

```

IBM Tivoli Storage Manager for Mail:
Data Protection for Lotus Domino
Version 5, Release 1, Level 5.0
(C) Copyright IBM Corporation 1999, 2002. All rights reserved.

```

```

DOMDSMC Query Adsmserver
  [/ADSMNODE=nodename]
  [/ADSMOPTFile=dsm.opt|filename] (default: dsm.opt)
  [/ADSMPWD=password]
  [/CONFIGfile=domdsm.cfg|filename] (default: domdsm.cfg)
  [/LOGFile=domdsm.log|logfilename] (default: domdsm.log)
  [/LOGPRUne=60|n|No] (default: 60)

DOMDSMC Query DBBackup *|dbname
  [/ADSMNODE=nodename]
  [/ADSMOPTFile=dsm.opt|filename] (default: dsm.opt)
  [/ADSMPWD=password]
  [/CONFIGfile=domdsm.cfg|filename] (default: domdsm.cfg)
  [/INACTive]
  [/LOGFile=domdsm.log|logfilename] (default: domdsm.log)
  [/LOGPRUne=60|n|No] (default: 60)
  [/SERVer=currentserver|servername]
  [/SUBDir=No|Yes] (default: No)

DOMDSMC Query DOMino [*|dbname]
  [/CONFIGfile=domdsm.cfg|filename] (default: domdsm.cfg)
  [/LOGFile=domdsm.log|logfilename] (default: domdsm.log)
  [/LOGPRUne=60|n|No] (default: 60)
  [/SUBDir=No|Yes] (default: No)

DOMDSMC Query LOGArchive
  [/ADSMNODE=nodename]
  [/ADSMOPTFile=dsm.opt|filename] (default: dsm.opt)
  [/ADSMPWD=password]
  [/CONFIGfile=domdsm.cfg|filename] (default: domdsm.cfg)
  [/INACTive]

```

```
[/LOGFile=domdsm.log|logfilename] (default: domdsm.log)
[/LOGPRUne=60|n|No] (default: 60)
[/SERVer=currentserver|servername]

DOMDSMC Query PENDingdbs
[/CONFIGfile=domdsm.cfg|filename] (default: domdsm.cfg)
[/LOGFile=domdsm.log|logfilename] (default: domdsm.log)
[/LOGPRUne=60|n|No] (default: 60)

DOMDSMC Query PREFerences
[/CONFIGfile=domdsm.cfg|filename] (default: domdsm.cfg)
[/LOGFile=domdsm.log|logfilename] (default: domdsm.log)
[/LOGPRUne=60|n|No] (default: 60)
```

**Example 3:** To display help for the **query domino** command, enter the following:  
domdsmc help query domino

**Output example:**

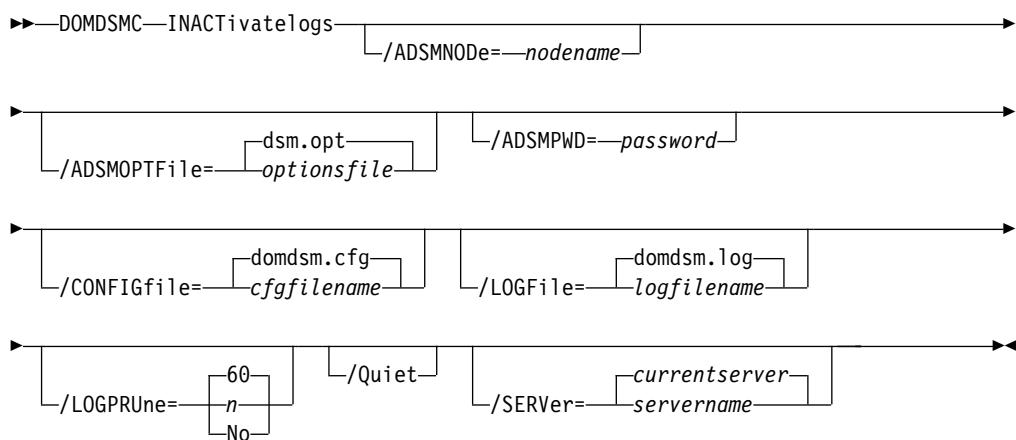
```
IBM Tivoli Storage Manager for Mail:
Data Protection for Lotus Domino
Version 5, Release 1, Level 5.0
(C) Copyright IBM Corporation 1999, 2002. All rights reserved.
```

```
DOMDSMC Query DOMino [*|dbname]
[/CONFIGfile=domdsm.cfg|filename] (default: domdsm.cfg)
[/LOGFile=domdsm.log|logfilename] (default: domdsm.log)
[/LOGPRUne=60|n|No] (default: 60)
[/SUBDir=No|Yes] (default: No)
```

## **Domdsmc Inactivatelogs**

**Domdsmc inactivatelogs** expires transaction log files from backup storage. Because there is a single shared transaction log for all logged databases on a Domino server, log files cannot be inactivated (and allowed to expire) until all databases that require that log file for recovery are inactive. This command queries the database backups on the Storage Manager Server to determine which log files are required by any active database backup. This command also inactivates log files that are no longer required (because the database backups were inactivated). This command should be run after full database backups are completed, to deactivate the transaction logs at the same time the database backups requiring them are inactivated.

## Syntax



## Parameters

**/ADSMNODe=nodename**

Specifies the Tivoli Storage Manager node name Data Protection for Domino uses to logon to the Tivoli Storage Manager Server. The command-line value overrides the value in the Tivoli Storage Manager options file.

**/ADSMOPTFile=***optionsfile*

Specifies the Tivoli Storage Manager options file name.

The file name can include a fully qualified path name. If you do not specify a path, the installation directory and then the current directory are searched for the specified file. The default is dsm.opt.

For additional information on the Tivoli Storage Manager options file, available options, and their syntax see the *IBM Tivoli Storage Manager for Windows Backup-Archive Client Installation and User's Guide*.

**/ADSMPWD=password**

Specifies the Tivoli Storage Manager password Data Protection for Domino uses to logon to the Tivoli Storage Manager Server. If you specify ***passwordaccess generate*** in the Tivoli Storage Manager options file, then the password is not required. In this case, Data Protection for Domino uses the password that is stored by the Tivoli Storage Manager API.

If **passwordaccess** is set to *generate* and you specify a password, the value is ignored unless a password for this node has not been stored. In this case, the specified password is stored and used for the current command execution.

If **passwordaccess** is set to *prompt* and you specify a password on the command line, you are not prompted for a password. The command line value overrides the need to prompt.

If **passwordaccess** is set to *prompt* and you do not specify a password on the command line, then you are prompted for a password.

**/CONFIGfile=cfgfilename**

Specifies the name of the Data Protection for Domino preferences file. The file name can include a fully-qualified path. If you do not specify a path, it is assumed the preferences file resides in the directory where Data Protection for Domino is installed.

The default preferences file is domdsm.cfg.

**/LOGFile=logfilename**

Specifies the name of the activity log that is generated by Data Protection for Domino. The log file name is used for the current command and does not update the default log file that is stored in the preferences file. You can use the **set** command to change the default log file name that is stored in the preferences file. The command-line parameter can be used to override the default for one command run. If the specified file does not exist, it is created. If it does exist, new log entries are appended to the file. The file name can include a fully-qualified path. If you do not specify a path, the file is written to the directory where Data Protection for Domino is installed.

The default log file is domdsm.log.

**/LOGPRUNE=60|n|No**

Specifies whether to prune log entries. By default, log pruning is enabled and performed once per day. You can use the **set** command to:

- Change the defaults so that log pruning is disabled
- Change the number of days log entries are saved

You can use the **/logprune** option to override these defaults for one command run. Note that when the value of **/logprune** is a number, the prune is performed even if one has already been performed for the day.

You can specify:

**60** Specifies that log entries are saved for 60 days before pruning. This is the default.

**n** Specifies the number of days to save log entries. The range of values is 0 to 9999. A value of 0 deletes all entries in the log except for the current command run entries.

**No** Do not prune the log.

**/Quiet** Specifies that status information does not display. However, the information is written to the activity log.

**/SERVer=currentserver|servername**

Specifies the Domino server name. If not specified, Data Protection for Domino uses the current Domino server.

## **Example**

**Example:** This example causes the archive log extents that are no longer needed to expire:

```
domdsmc inactivatelogs
```

### **Output example:**

```
IBM Tivoli Storage Manager for Mail:  
Data Protection for Lotus Domino  
Version 5, Release 1, Level 5.0  
(C) Copyright IBM Corporation 1999, 2002. All rights reserved.
```

```
Number of Logs Inactivated: 1
```

## Domdsmc Incremental

**Domdsmc incremental** performs the following functions:

- Backs up new databases since the last backup (or newly included ones)
- Backs up any unlogged databases that changed since the last backup (based on modification dates of both data and meta data)
- Backs up any logged databases with a DBIID that changed (if archival logging is in effect)
- Inactivates any active database backups on the Storage Manager Server that are excluded from backup or no longer exist on the Domino server

A query of the current backup objects from the Storage Manager Server is required before any actions take place.

This command backs up a database by matching the *dbname* pattern with the following conditions:

- The database is not excluded in the Storage Manager options file (standard include and exclude processing is supported).
- The database is not logged, and was modified since the last active backup image for that database. Both data and non-data modification dates are checked. If either is different from that of the active backup, the database is backed up.
- Archival logging is in effect, and the DBIID of a logged database changed. If the DBIID has not changed, then logged databases are not backed up (the changes are captured in the transaction log backups). In this case, periodic selective backups of all logged databases should be done to refresh the active backup images. This reduces the number of transaction logs to be applied during a recovery.

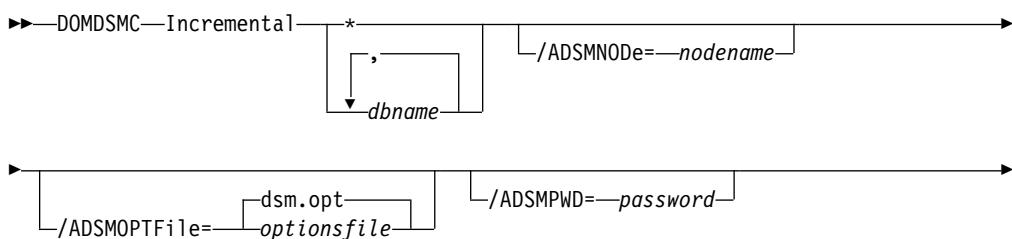
**Note:** When circular logging is used on the Domino server (or when logging is disabled on the Domino server), transaction log files are not archived. See “Backup strategy considerations” on page 5 for more information.

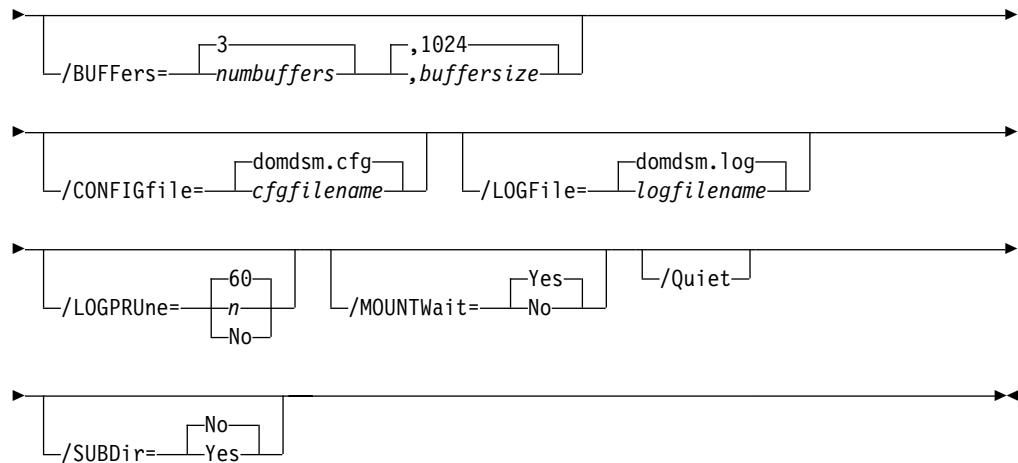
- The database is new or newly included in the backup (an active backup image does not exist on the Storage Manager Server).

The incremental command can also inactivate active backup images for databases that are deleted from the Domino server or excluded from backup. Backups can automatically be expired according to the retention parameters that are defined in the Storage Manager management class.

Use the incremental command to back up a single directory or all databases within the Notes data path by specifying an appropriate *dbname* pattern.

## Syntax





## Parameters

\* | *dbname,dbname,...*

Specifies the file path of a database or file path pattern for a group of databases. The file path pattern can represent a group of databases to be conditionally backed up. The wildcard character asterisk (\*) is used to specify a group of databases when used in the *dbname*. Multiple *dbnames* can be specified as long as they are separated with commas.

The file path must be relative to the Notes data directory.

Symbolic links are referred to by their symbolic names. To reference a database in a directory outside of the Notes data directory and any subsequent directories pointed to by a directory link in the data path, use the directory link name as the directory name. For example, if database xyz.nsf is in a directory, and pointed to by the link vol1.dir, refer to it as vol1\xyz.nsf. If a symbolic directory link is created with the same name as a physical directory in the Notes data path, only the physical directory is searched.

The wildcard character (\*) is used to represent any number of any characters when used in the file name portion of the file path. The wildcard character is not supported within directory names. The following example backs up all databases within the dir\_A directory beginning with the characters **ter**:

```
domdsmc incremental dir_A\ter*
```

The following example backs up all databases on the server that meet the criteria of the incremental back up:

```
domdsmc incremental * /subdir=yes
```

The following example backs up all databases whose file name ends in **acct**:

```
domdsmc incremental *acct.n* /subdir=yes
```

**Note:** Standard include and exclude processing applies to Domino database names. Wildcards can be used on the backup command, and specific databases can be excluded from the backup with the include-exclude list in the Storage Manager options file. For

example, to exclude all databases on a volume pointed to by the symbolic directory link *temp.dir*, use the following statement:

```
exclude \temp\*
```

Note that the exclude statement refers to the relative file name including symbolics and not the physical file path. For additional information on include and exclude options, see Appendix F, “Include/exclude processing” on page 121 and *IBM Tivoli Storage Manager for Windows Backup-Archive Client Installation and User’s Guide*.

**/ADSMNODE=nodename**

Specifies the Tivoli Storage Manager node name Data Protection for Domino uses to logon to the Tivoli Storage Manager Server. The command-line value overrides the value in the Tivoli Storage Manager options file.

**/ADSMOPTFile=optionsfile**

Specifies the Tivoli Storage Manager options file name.

The file name can include a fully qualified path name. If you do not specify a path, the installation directory and then the current directory are searched for the specified file. The default is dsm.opt.

For additional information on the Tivoli Storage Manager options file, available options, and their syntax see the *IBM Tivoli Storage Manager for Windows Backup-Archive Client Installation and User’s Guide*.

**/ADSMPWD=password**

Specifies the Tivoli Storage Manager password Data Protection for Domino uses to logon to the Tivoli Storage Manager Server. If you specify **passwordaccess generate** in the Tivoli Storage Manager options file, then the password is not required. In this case, Data Protection for Domino uses the password that is stored by the Tivoli Storage Manager API.

If **passwordaccess** is set to *generate* and you specify a password, the value is ignored unless a password for this node has not been stored. In this case, the specified password is stored and used for the current command execution.

If **passwordaccess** is set to *prompt* and you specify a password on the command line, you are not prompted for a password. The command line value overrides the need to prompt.

If **passwordaccess** is set to *prompt* and you do not specify a password on the command line, then you are prompted for a password.

**/BUFFers=numbuffers,buffersize**

Specifies the number and size of data buffers that transfer data between the Domino server and the Tivoli Storage Manager API. Increasing the number or size (or both) of the data buffers can improve throughput.

You can specify from 2 to 8 buffers, the default value is 3. The size of the buffers can be from 64 to 8192 kilobytes, the default value is 1024.

If the **/buffers** parameter is not specified on the command line or defined in the preferences file, Data Protection for Domino uses the default values.

**/CONFIGfile=cfgfilename**

Specifies the name of the Data Protection for Domino preferences file. The

file name can include a fully-qualified path. If you do not specify a path, it is assumed the preferences file resides in the directory where Data Protection for Domino is installed.

The default preferences file is domdsm.cfg.

**/LOGFile=filename**

Specifies the name of the activity log that is generated by Data Protection for Domino. The log file name is used for the current command and does not update the default log file that is stored in the preferences file. You can use the **set** command to change the default log file name that is stored in the preferences file. The command-line parameter can be used to override the default for one command run. If the specified file does not exist, it is created. If it does exist, new log entries are appended to the file. The file name can include a fully-qualified path. If you do not specify a path, the file is written to the directory where Data Protection for Domino is installed.

The default log file is domdsm.log.

**/LOGPRUNE=60|n|No**

Specifies whether to prune log entries. By default, log pruning is enabled and performed once per day. You can use the **set** command to:

- Change the defaults so that log pruning is disabled
- Change the number of days log entries are saved

You can use the **/logprune** option to override these defaults for one command run. Note that when the value of **/logprune** is a number, the prune is performed even if one has already been performed for the day.

You can specify:

**60** Specifies that log entries are saved for 60 days before pruning. This is the default.

**n** Specifies the number of days to save log entries. The range of values is 0 to 9999. A value of 0 deletes all entries in the log except for the current command run entries.

**No** Do not prune the log.

**/MOUNTWait=Yes|No**

If the Tivoli Storage Manager Server is configured to store transaction log backup data on removable media, then the Tivoli Storage Manager Server can indicate to Data Protection for Domino that it is waiting for a required storage volume to be mounted. If this occurs, this option allows you to specify whether Data Protection for Domino waits for the media mount or stops the current operation. Removable media is media such as tapes.

You can specify:

**Yes** Wait for tape mounts. This is the default.

**No** Do not wait for tape mounts.

**/Quiet** Specifies that status information does not display. However, the information is written to the activity log.

**/SUBDir=No|Yes**

Specifies whether subdirectories within the specified file path are searched for databases that match the file pattern. If this option is not specified, Data Protection for Domino uses the value of the **/subdir** parameter in the Data Protection for Domino preferences file.

You can specify:

**No** Do not search the subdirectories within the specified file path for

databases that match the file pattern. This is the default unless reset in the Data Protection for Domino preferences file.

- Yes     Search the subdirectories within the specified file path for databases that match the file pattern.

## Example

**Example:** The following example backs up all databases that need to be backed up using the conditions outlined at the beginning of this section (any database ID changed for logged databases or data changed for unlogged databases). This inactivates any database backups that refer to databases that no longer exist on the Domino server or is specifically excluded.

```
domdsmc incremental * /subdir=yes
```

### Output example:

```
IBM Tivoli Storage Manager for Mail:  
Data Protection for Lotus Domino  
Version 5, Release 1, Level 5.0  
(C) Copyright IBM Corporation 1999, 2002. All rights reserved.
```

```
Starting Domino database backup...  
Initializing Domino connection...  
Querying Domino for a list of databases, please wait...  
Logging on to the Tivoli Storage Manager server, please wait...  
Querying Tivoli Storage Manager server for a list of database backups,  
please wait...
```

```
Backing up database datadir3\db2.nsf, 1 of 2.  
Full: 0 Read: 917504 Written: 917504 Rate: 425.86 Kb/Sec  
Backup of datadir3\db2.nsf completed successfully.
```

```
Backing up database datadir3\db8.nsf, 2 of 2.  
Full: 0 Read: 917504 Written: 917504 Rate: 422.44 Kb/Sec  
Backup of datadir3\db8.nsf completed successfully.
```

```
Expiring database backup 'datadir3\db1.nsf'...
```

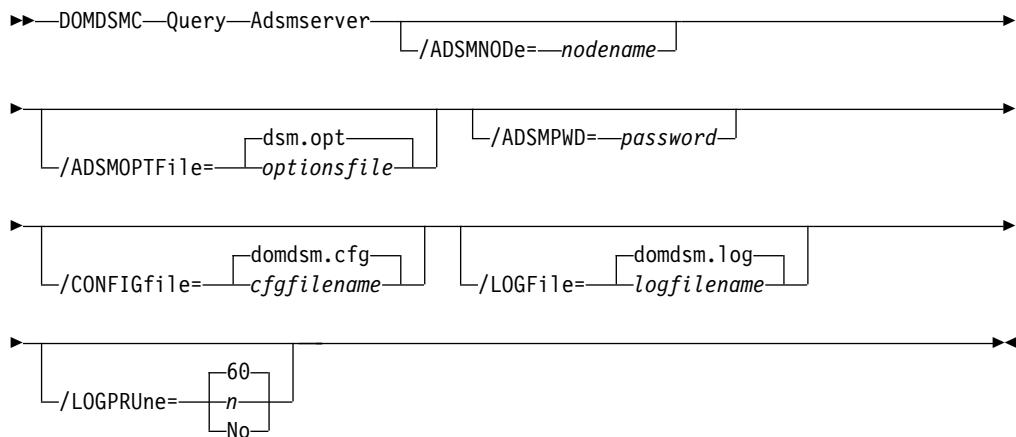
Total Domino databases inspected:	85
Total Domino databases backed up:	2
Total Domino databases excluded:	2
Total Domino backup objects expired:	1
Throughput rate:	414.53 Kb/Sec
Total bytes transferred:	1835008
Elapsed processing time:	4.32 Secs

## Domdsmc Query Adsmserver

Use this command to provide the following information about the Storage Manager Server:

- Storage Manager server name
- Storage Manager server level
- Storage Manager server platform
- Storage Manager nodename of the server
- NetWork Host name of the server
- Options in effect at the server that affects this node (for example, management class information)

## Syntax



## Parameters

### /ADSMNODE=nodename

Specifies the Tivoli Storage Manager node name Data Protection for Domino uses to logon to the Tivoli Storage Manager Server. The command-line value overrides the value in the Tivoli Storage Manager options file.

### /ADSMOPTFile=optionsfile

Specifies the Tivoli Storage Manager options file name.

The file name can include a fully qualified path name. If you do not specify a path, the installation directory and then the current directory are searched for the specified file. The default is dsm.opt.

For additional information on the Tivoli Storage Manager options file, available options, and their syntax see the *IBM Tivoli Storage Manager for Windows Backup-Archive Client Installation and User's Guide*.

### /ADSMPWD=password

Specifies the Tivoli Storage Manager password Data Protection for Domino uses to logon to the Tivoli Storage Manager Server. If you specify **passwordaccess** generate in the Tivoli Storage Manager options file, then the password is not required. In this case, Data Protection for Domino uses the password that is stored by the Tivoli Storage Manager API.

If **passwordaccess** is set to *generate* and you specify a password, the value is ignored unless a password for this node has not been stored. In this case, the specified password is stored and used for the current command execution.

If **passwordaccess** is set to *prompt* and you specify a password on the command line, you are not prompted for a password. The command line value overrides the need to prompt.

If **passwordaccess** is set to *prompt* and you do not specify a password on the command line, then you are prompted for a password.

#### **/CONFIGfile=cfgfilename**

Specifies the name of the Data Protection for Domino preferences file. The file name can include a fully-qualified path. If you do not specify a path, it is assumed the preferences file resides in the directory where Data Protection for Domino is installed.

The default preferences file is domdsm.cfg.

#### **/LOGFile=logfilename**

Specifies the name of the activity log that is generated by Data Protection for Domino. The log file name is used for the current command and does not update the default log file that is stored in the preferences file. You can use the **set** command to change the default log file name that is stored in the preferences file. The command-line parameter can be used to override the default for one command run. If the specified file does not exist, it is created. If it does exist, new log entries are appended to the file. The file name can include a fully-qualified path. If you do not specify a path, the file is written to the directory where Data Protection for Domino is installed.

The default log file is domdsm.log.

#### **/LOGPRUNE=60|n|No**

Specifies whether to prune log entries. By default, log pruning is enabled and performed once per day. You can use the **set** command to:

- Change the defaults so that log pruning is disabled
- Change the number of days log entries are saved

You can use the **/logprune** option to override these defaults for one command run. Note that when the value of **/logprune** is a number, the prune is performed even if one has already been performed for the day.

You can specify:

**60**      Specifies that log entries are saved for 60 days before pruning. This is the default.

**n**      Specifies the number of days to save log entries. The range of values is 0 to 9999. A value of 0 deletes all entries in the log except for the current command run entries.

**No**     Do not prune the log.

## Example

**Example:** The following example queries your Storage Manager Server:  
domdsmc query adsmserver

### Output example:

```
IBM Tivoli Storage Manager for Mail:  
Data Protection for Lotus Domino  
Version 5, Release 1, Level 5.0  
(C) Copyright IBM Corporation 1999, 2002. All rights reserved.  
  
Tivoli Storage Manager Server Connection Information  
-----  
  
Nodename ..... ADMIN  
Network Host Name of Server ..... 9.43.239.18  
TSM API Version ..... Version 5, Release 1, Level 0  
  
Server Name ..... GRANDCOULEE  
Server Type ..... AIX-RS/6000  
Server Version ..... Version 5, Release 1, Level 5.0  
Compression Mode ..... Client Determined  
Domain Name ..... STANDARD  
Active Policy Set ..... STANDARD  
Default Management Class ..... STANDARD
```

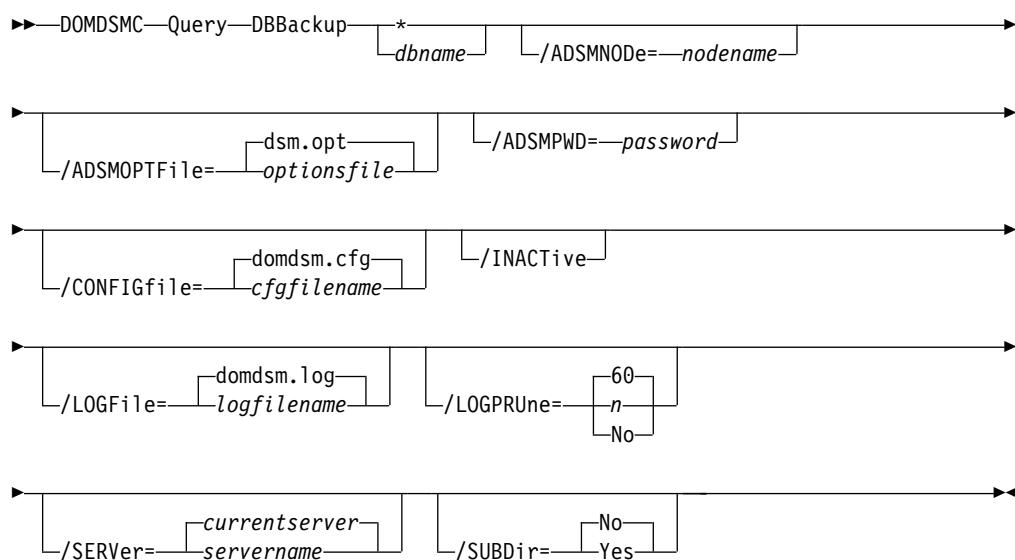
## Domdsmc Query Dbbackup

This command displays a list of database backups that are stored on the Storage Manager Server that match the *dbname* pattern. Active and inactive objects can be displayed. By default, only the active backup objects are displayed. To include inactive backup versions in the list, use the **/inactive** parameter.

The following information is provided:

- Database title
- Database relative path name
- Database size
- Database backup date and time
- Domino server name
- Whether the backup is active or inactive
- Whether the database is logged or not

## Syntax



## Parameters

\* | *dbname*

Specifies the file path of a database or file path pattern. The file path pattern can represent a group of databases. You can also specify a group of databases by using the wildcard character asterisk (\*).

The file path must be relative to the Notes data directory.

Symbolic links are referred to by their symbolic names. To reference a database in a directory pointed to by a directory link in the data path, use the directory link name as the directory name. For example, if database xyz.nsf is in a directory, pointed to by the link vol1.dir, refer to it as vol1\xyz.nsf. If a symbolic directory link is created with the same name as a physical directory in the Notes data path, only the physical directory is searched.

The wildcard character (\*) is used to represent any number of any characters. For example:

```
domdsmc query dbbackup abc*
```

This example lists all databases that begin with the characters *abc*. When used with the **/subdir** parameter, all databases within all subdirectories are listed.

**/ADSMNODe=nodename**

Specifies the Tivoli Storage Manager node name Data Protection for Domino uses to logon to the Tivoli Storage Manager Server. The command-line value overrides the value in the Tivoli Storage Manager options file.

**/ADSMOPTFile=optionsfile**

Specifies the Tivoli Storage Manager options file name.

The file name can include a fully qualified path name. If you do not specify a path, the installation directory and then the current directory are searched for the specified file. The default is *dsm.opt*.

For additional information on the Tivoli Storage Manager options file, available options, and their syntax see the *IBM Tivoli Storage Manager for Windows Backup-Archive Client Installation and User's Guide*.

**/ADSMPWD=password**

Specifies the Tivoli Storage Manager password Data Protection for Domino uses to logon to the Tivoli Storage Manager Server. If you specify **passwordaccess generate** in the Tivoli Storage Manager options file, then the password is not required. In this case, Data Protection for Domino uses the password that is stored by the Tivoli Storage Manager API.

If **passwordaccess** is set to *generate* and you specify a password, the value is ignored unless a password for this node has not been stored. In this case, the specified password is stored and used for the current command execution.

If **passwordaccess** is set to *prompt* and you specify a password on the command line, you are not prompted for a password. The command line value overrides the need to prompt.

If **passwordaccess** is set to *prompt* and you do not specify a password on the command line, then you are prompted for a password.

**/CONFIGfile=cfgfilename**

Specifies the name of the Data Protection for Domino preferences file. The file name can include a fully-qualified path. If you do not specify a path, it is assumed the preferences file resides in the directory where Data Protection for Domino is installed.

The default preferences file is *domdsm.cfg*.

**/INACTive**

Specifies that both active and inactive backup objects are displayed. The default is to display only the active backup objects.

**/LOGFile=logfilename**

Specifies the name of the activity log that is generated by Data Protection for Domino. The log file name is used for the current command and does not update the default log file that is stored in the preferences file. You can use the **set** command to change the default log file name that is stored in the preferences file. The command-line parameter can be used to override the default for one command run. If the specified file does not exist, it is created. If it does exist, new log entries are appended to the file. The file

name can include a fully-qualified path. If you do not specify a path, the file is written to the directory where Data Protection for Domino is installed.

The default log file is domdsm.log.

***/LOGPRUNE=60|n|No***

Specifies whether to prune log entries. By default, log pruning is enabled and performed once per day. You can use the **set** command to:

- Change the defaults so that log pruning is disabled
- Change the number of days log entries are saved

You can use the **/logprune** option to override these defaults for one command run. Note that when the value of **/logprune** is a number, the prune is performed even if one has already been performed for the day.

You can specify:

- 60** Specifies that log entries are saved for 60 days before pruning. This is the default.
- n** Specifies the number of days to save log entries. The range of values is 0 to 9999. A value of 0 deletes all entries in the log except for the current command run entries.
- No** Do not prune the log.

***/SERVer=currentserver|servername***

Specifies the Domino server name. If not specified, Data Protection for Domino uses the current Domino server.

***/SUBDir=No|Yes***

Specifies whether subdirectories within the specified file path are searched for databases that match the file pattern. If this option is not specified, Data Protection for Domino uses the value of the **/subdir** parameter in the Data Protection for Domino preferences file.

You can specify:

- No** Do not search the subdirectories within the specified file path for databases that match the file pattern. This is the default unless reset in the Data Protection for Domino preferences file.
- Yes** Search the subdirectories within the specified file path for databases that match the file pattern.

## Examples

**Example 1:** This example displays information for all the active database backups that are stored on the local Storage Manager Server.

```
domdsmc query dbbackup *
```

**Output example (only a portion of the actual output is shown):**

```
IBM Tivoli Storage Manager for Mail:  
Data Protection for Lotus Domino  
Version 5, Release 1, Level 5.0  
(C) Copyright IBM Corporation 1999, 2002. All rights reserved.
```

### Database Backup List

Domino Server: chilly

DB Backup Date	Size	A/I	Logged	Database Title	Database File
07/22/2002 14:29:42	819.00KB	A	Yes	Administration	admin4.nsf
07/22/2002 14:29:44	503.50KB	A	No	Administration	admin4.ntf
07/22/2002 14:29:46	384.00KB	A	Yes	Ja AgeRun	AgeRun.nsf
07/22/2002 14:29:47	153.50KB	A	No	Agent Log	alog4.ntf
07/22/2002 14:29:48	246.50KB	A	No	Archive Log (R5)	archlg50.ntf
07/22/2002 14:29:49	226.00KB	A	No	Billing	billing.ntf
07/22/2002 14:29:54	1226.50KB	A	No	Bookmarks	bookmark.ntf
07/22/2002 14:29:56	320.00KB	A	Yes	Local free time	busystime.nsf
07/22/2002 14:29:58	143.00KB	A	No	Local free time	busystime.ntf
07/22/2002 14:29:58	140.50KB	A	No	Local Document	cache.ntf
07/22/2002 14:29:59	1170.00KB	A	Yes	Catalog (5.0)	catalog.nsf
07/22/2002 14:30:02	799.00KB	A	No	Catalog (5.0)	catalog.ntf
07/22/2002 14:30:04	1896.00KB	A	No	Domino R5 Certi	cca50.ntf
07/22/2002 14:30:08	159.00KB	A	No	Certification L	certlog.ntf

**Example 2:** This example displays information for all the database backups that are stored on the local Storage Manager Server. The information includes inactive backup objects and subdirectories within the file path.

```
domdsmc query dbbackup * /inactive /subdir=yes
```

**Output example (only a portion of the actual output is shown):**

```
IBM Tivoli Storage Manager for Mail:  
Data Protection for Lotus Domino  
Version 5, Release 1, Level 5.0  
(C) Copyright IBM Corporation 1999, 2002. All rights reserved.
```

### Database Backup List

Domino Server: chilly

DB Backup Date	Size	A/I	Logged	Database Title	Database File
07/22/2002 14:29:42	819.00KB	A	Yes	Administration	admin4.nsf
07/07/2002 12:11:07	729.00KB	I	Yes	Administration	admin4.nsf
07/07/2002 12:29:04	729.00KB	I	Yes	Administration	admin4.nsf
07/07/2002 12:46:21	729.00KB	I	Yes	Administration	admin4.nsf
07/19/2002 13:50:27	819.00KB	I	Yes	Administration	admin4.nsf
07/22/2002 14:29:44	503.50KB	A	No	Administration	admin4.ntf
07/07/2002 12:29:06	389.50KB	I	No	Administration	admin4.ntf
07/07/2002 12:46:23	389.50KB	I	No	Administration	admin4.ntf
07/19/2002 13:50:33	503.50KB	I	No	Administration	admin4.ntf

```

07/19/2002 13:56:48 503.50KB I No Administration admin4.ntf
07/22/2002 14:30:24 300.75MB A Yes A new database data2\db1.nsf
07/07/2002 11:51:39 300.75MB I Yes A new database data2\db1.nsf
07/07/2002 12:11:42 300.75MB I Yes A new database data2\db1.nsf
07/07/2002 12:29:42 300.75MB I Yes A new database data2\db1.nsf
07/07/2002 12:47:04 300.75MB I Yes A new database data2\db1.nsf

```

**Example 3:** The following example queried the Storage Manager Server and included the **/adsmpwd** parameter:

```
domdsmc q dbb * /adsmpwd=neil
```

#### **Output example:**

```

IBM Tivoli Storage Manager for Mail:
Data Protection for Lotus Domino
Version 5, Release 1, Level 5.0
(C) Copyright IBM Corporation 1999, 2002. All rights reserved.
Database Backup List
-----
```

```
Domino Server: Server1
-----
```

DB	Backup Date	Size	A/I	Logged	Database	Title	Database	File
07/16/2002	11:14:19	1039.50KB	A	Yes	db1		db1.nsf	
07/16/2002	10:56:28	1039.50KB	A	Yes	db2		db2.nsf	
07/16/2002	10:56:29	1039.50KB	A	Yes	db3		db3.nsf	
07/16/2002	10:56:30	1170.00KB	A	Yes	newdb		dblink.nsf	
07/16/2002	10:56:31	1039.50KB	A	Yes	SERVER1	Mailbox	mail.box	

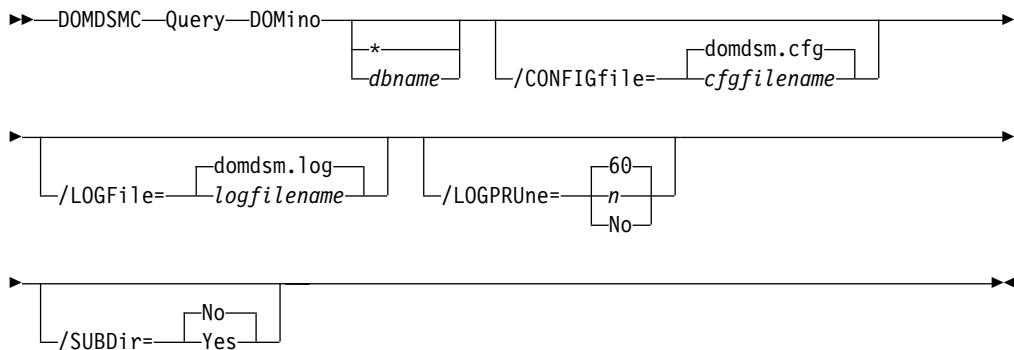
## Domdsmc Query Domino

This command displays general information and an optional list of databases on the local Domino server. If you do not specify a *dbname* pattern, then only general server information is displayed. If you specify a *dbname* pattern, then a list of databases on the Domino server that match the *dbname* pattern is displayed.

The information provided includes the following:

- Domino server name
- Domino server level
- Domino server build
- Logging type in effect
- Optionally lists current databases with their specific details (for example: database title and relative path name)

## Syntax



## Parameters

\* | *dbname*

Specifies the file path of a database or file path pattern. The file path pattern can represent a group of databases.

The file path must be relative to the Notes data directory.

Symbolic links are referred to by their symbolic names. To reference a database in a directory pointed to by a directory link in the data path, use the directory link name as the directory name. For example, if database xyz.nsf is in a directory, pointed to by the link vol1.dir, refer to it as vol1\xyz.nsf. If a symbolic directory link is created with the same name as a physical directory in the Notes data path, only the physical directory is searched.

The wildcard character (\*) is used to represent any number of any characters. For example, the following command reveals domino server information and lists all databases:

```
domdsmc query domino abc*
```

This command lists all databases that begin with the characters *abc* in the Notes data directory. When used with the **query dbbackup** command, this can provide a list of all database backups that are stored on the Storage Manager Server. When used with the **/subdir** parameter, all databases within all subdirectories are listed.

**Note:** "All" databases on a Domino server are defined to mean all databases within the Notes data directory or symbolically linked to the Notes data directory. This means that databases with nonstandard file extensions are not included. (Databases with a file extension of .nsf are standard file extensions. Templates have a standard file extension of .ntf and are included.)

**/CONFIGfile=cfgfilename**

Specifies the name of the Data Protection for Domino preferences file. The file name can include a fully-qualified path. If you do not specify a path, it is assumed the preferences file resides in the directory where Data Protection for Domino is installed.

The default preferences file is domdsm.cfg.

**/LOGFile=logfilename**

Specifies the name of the activity log that is generated by Data Protection for Domino. The log file name is used for the current command and does not update the default log file that is stored in the preferences file. You can use the **set** command to change the default log file name that is stored in the preferences file. The command-line parameter can be used to override the default for one command run. If the specified file does not exist, it is created. If it does exist, new log entries are appended to the file. The file name can include a fully-qualified path. If you do not specify a path, the file is written to the directory where Data Protection for Domino is installed.

The default log file is domdsm.log.

**/LOGPRUNE=60|n|No**

Specifies whether to prune log entries. By default, log pruning is enabled and performed once per day. You can use the **set** command to:

- Change the defaults so that log pruning is disabled
- Change the number of days log entries are saved

You can use the **/logprune** option to override these defaults for one command run. Note that when the value of **/logprune** is a number, the prune is performed even if one has already been performed for the day.

You can specify:

- |           |                                                                                                                                                                             |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>60</b> | Specifies that log entries are saved for 60 days before pruning. This is the default.                                                                                       |
| <b>n</b>  | Specifies the number of days to save log entries. The range of values is 0 to 9999. A value of 0 deletes all entries in the log except for the current command run entries. |
| <b>No</b> | Do not prune the log.                                                                                                                                                       |

#### /SUBDir=No | Yes

Specifies whether subdirectories within the specified file path are searched for databases that match the file pattern. If this option is not specified, Data Protection for Domino uses the value of the */subdir* parameter in the Data Protection for Domino preferences file.

You can specify:

- No Do not search the subdirectories within the specified file path for databases that match the file pattern. This is the default unless reset in the Data Protection for Domino preferences file.
- Yes Search the subdirectories within the specified file path for databases that match the file pattern.

## Example

**Example 1:** The command below shows how to list all the databases in the Notes data directory on the Domino server that match the *dbname* pattern *xyz*.

```
domdsmc query domino xyz*
```

**Example 2:** The following example queried the Storage Manager Server and listed databases on the Domino server with the wildcard character \*.

```
domdsmc q dom *
```

#### Output example (only a portion of the actual output is shown):

```
IBM Tivoli Storage Manager for Mail:  
Data Protection for Lotus Domino  
Version 5, Release 1, Level 5.0  
(C) Copyright IBM Corporation 1999, 2002. All rights reserved.
```

#### Domino Server Information

---

```
Domino Server Name: abraxis  
Domino Server Level: 5.0  
Domino Server Build: 166  
Logging: No Logging
```

#### Domino Database Information

---

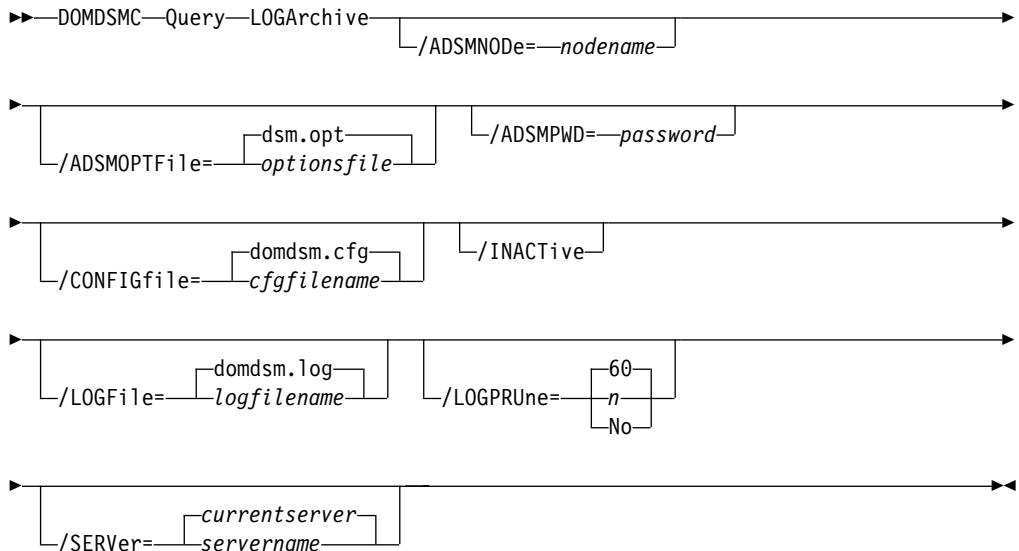
Last Modified Date	Size	Logged	Database Title	Database
09/09/1999 12:18:12	320.00KB	No	Java AgentRunner	AgentRunner.nsf
10/13/1999 13:34:38	75.00KB	No	Agent Log	alog4.ntf
04/19/2000 07:08:51	144.00KB	No	Archive Log (R5.0)	archlg50.ntf
06/19/2002 00:00:18	1,876.00KB	No		bookmark.nsf
04/04/2000 05:37:10	1,250.00KB	No	Bookmarks	bookmark.ntf
10/13/1999 13:35:06	64.00KB	No	Local free time info	busystime.ntf
05/21/1999 07:06:16	61.00KB	No	Local Document Cache	cache.ntf
06/07/1999 10:00:55	1,750.00KB	No	Domino R5 Certificat	cca50.ntf
05/21/1999 06:58:22	91.00KB	No	Cluster Analysis	clusta4.ntf
05/31/2000 11:19:28	821.00KB	No	Server Certificate A	csrv50.ntf
03/06/1999 07:52:11	111.00KB	No	Database Analysis	dba4.ntf
10/13/1999 13:34:49	95.00KB	No	Database Library	dblib4.ntf
03/19/1999 05:23:05	130.00KB	No	Decommission Server	decomsrv.ntf
01/17/2001 09:49:12	867.00KB	No	Discussion - Notes &	discsw50.ntf
06/19/1998 11:43:08	455.00KB	No	Microsoft Office Lib	doclbt46.ntf
12/29/1999 06:20:07	506.00KB	No	Microsoft Office Lib	doclbt50.ntf
01/04/2000 08:40:47	503.00KB	No	Lotus SmartSuite Lib	doclbt55.ntf
12/13/1999 07:51:50	550.00KB	No	Doc Library - Notes	doclbtw50.ntf
08/31/1998 14:06:25	400.00KB	No	Document Library (R4	doclib4.ntf
08/08/1997 07:41:46	440.00KB	No	Lotus SmartSuite 96	doclib14.ntf
02/12/2002 08:43:13	2,816.00KB	No	Domino Administrator	domadmin.nsf

09/20/1999 08:13:27	2,372.00KB	No	Domino Administrator	domadmin.ntf
03/06/1999 07:56:52	61.00KB	No	Design Synopsis Temp	dsgnsyn.ntf
02/12/2002 08:43:32	5,376.00KB	No	Statistics & Events	events4.nsf
12/06/2000 06:12:16	4,913.00KB	No	Statistics and Event	events4.ntf

## Domdsmc Query Logarchive

This command displays a list of the archived transaction log extents that are stored on the Storage Manager Server. By default, only the active log extents are listed. To display inactive extents, use the **/inactive** parameter.

### Syntax



### Parameters

#### /ADSMNODE=nodename

Specifies the Tivoli Storage Manager node name Data Protection for Domino uses to logon to the Tivoli Storage Manager Server. The command-line value overrides the value in the Tivoli Storage Manager options file.

#### /ADSMOPTFile=optionsfile

Specifies the Tivoli Storage Manager options file name.

The file name can include a fully qualified path name. If you do not specify a path, the installation directory and then the current directory are searched for the specified file. The default is dsm.opt.

For additional information on the Tivoli Storage Manager options file, available options, and their syntax see the *IBM Tivoli Storage Manager for Windows Backup-Archive Client Installation and User's Guide*.

#### /ADSMPWD=password

Specifies the Tivoli Storage Manager password Data Protection for Domino uses to logon to the Tivoli Storage Manager Server. If you specify **passwordaccess generate** in the Tivoli Storage Manager options file, then the password is not required. In this case, Data Protection for Domino uses the password that is stored by the Tivoli Storage Manager API.

If **passwordaccess** is set to *generate* and you specify a password, the value is ignored unless a password for this node has not been stored. In this case, the specified password is stored and used for the current command execution.

If **passwordaccess** is set to *prompt* and you specify a password on the command line, you are not prompted for a password. The command line value overrides the need to prompt.

If **passwordaccess** is set to *prompt* and you do not specify a password on the command line, then you are prompted for a password.

#### **/CONFIGfile=cfgfilename**

Specifies the name of the Data Protection for Domino preferences file. The file name can include a fully-qualified path. If you do not specify a path, it is assumed the preferences file resides in the directory where Data Protection for Domino is installed.

The default preferences file is domdsm.cfg.

#### **/INACTIVE**

Specifies that both active and inactive backup objects are displayed. The default is to display only the active backup objects.

#### **/LOGFile=logfilename**

Specifies the name of the activity log that is generated by Data Protection for Domino. The log file name is used for the current command and does not update the default log file that is stored in the preferences file. You can use the **set** command to change the default log file name that is stored in the preferences file. The command-line parameter can be used to override the default for one command run. If the specified file does not exist, it is created. If it does exist, new log entries are appended to the file. The file name can include a fully-qualified path. If you do not specify a path, the file is written to the directory where Data Protection for Domino is installed.

The default log file is domdsm.log.

#### **/LOGPRUNE=60|n|No**

Specifies whether to prune log entries. By default, log pruning is enabled and performed once per day. You can use the **set** command to:

- Change the defaults so that log pruning is disabled
- Change the number of days log entries are saved

You can use the **/logprune** option to override these defaults for one command run. Note that when the value of **/logprune** is a number, the prune is performed even if one has already been performed for the day.

You can specify:

- 60      Specifies that log entries are saved for 60 days before pruning. This is the default.
- n      Specifies the number of days to save log entries. The range of values is 0 to 9999. A value of 0 deletes all entries in the log except for the current command run entries.
- No     Do not prune the log.

#### **/SERVer=currentserver|servername**

Specifies the Domino server name. If not specified, Data Protection for Domino uses the current Domino server.

## **Examples**

**Example 1:** The following example displays the list of archived log extents that are stored on the Storage Manager Server.

```
domdsmc query logarchive
```

**Output example:**

```
IBM Tivoli Storage Manager for Mail:  
Data Protection for Lotus Domino  
Version 5, Release 1, Level 5.0  
(C) Copyright IBM Corporation 1999, 2002. All rights reserved.
```

```
Domino Server: chilly
```

```
-----
```

```
Logger Id: 0F8525679F:004266F1-0N000003EC:BD9D27DB
```

```
-----
```

Log Archive Date	Transaction Log Filename	A/I	Size
07/22/2002 16:52:15	S0000001.TXN	A	64MB

**Example 2:** The following example displays the list of archived log extents that are stored on the Storage Manager Server, including inactive backup objects. This example uses a Storage Manager options file named aserver.opt.

```
domdsmc query logarchive /inactive /adsmoptfile=aserver.opt
```

**Output example:**

```
IBM Tivoli Storage Manager for Mail:  
Data Protection for Lotus Domino  
Version 5, Release 1, Level 5.0  
(C) Copyright IBM Corporation 1999, 2002. All rights reserved.
```

```
Domino Server: chilly
```

```
-----
```

```
Logger Id: 0F8525679F:004266F1-0N000003EC:BD9D27DB
```

```
-----
```

Log Archive Date	Transaction Log Filename	A/I	Size
07/23/2002 09:43:16	S0000003.TXN	A	64MB
07/23/2002 09:41:22	S0000002.TXN	A	64MB
07/22/2002 16:52:15	S0000001.TXN	I	64MB

**Example 3:** The following example queried the Storage Manager Server and included the **/adsmpwd** parameter:

```
domdsmc q loga /adsmpwd=neil
```

**Output example:**

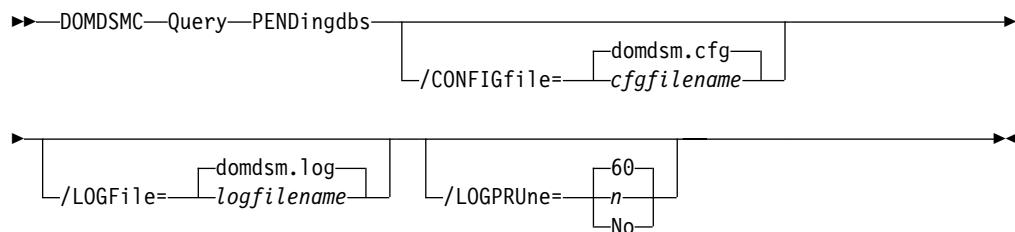
```
IBM Tivoli Storage Manager for Mail:  
Data Protection for Lotus Domino  
Version 5, Release 1, Level 5.0  
(C) Copyright IBM Corporation 1999, 2002. All rights reserved.
```

```
ACD5819I There are no archived logs for the server named SnailTrail.
```

## Domdsmc Query Pendingdbs

This command displays a list of all the databases that have been restored but not yet activated.

### Syntax



### Parameters

#### /CONFIGfile=cfgfilename

Specifies the name of the Data Protection for Domino preferences file. The file name can include a fully-qualified path. If you do not specify a path, it is assumed the preferences file resides in the directory where Data Protection for Domino is installed.

The default preferences file is domdsm.cfg.

#### /LOGFile=logfilename

Specifies the name of the activity log that is generated by Data Protection for Domino. The log file name is used for the current command and does not update the default log file that is stored in the preferences file. You can use the **set** command to change the default log file name that is stored in the preferences file. The command-line parameter can be used to override the default for one command run. If the specified file does not exist, it is created. If it does exist, new log entries are appended to the file. The file name can include a fully-qualified path. If you do not specify a path, the file is written to the directory where Data Protection for Domino is installed.

The default log file is domdsm.log.

#### /LOGPRUNE=60|n|No

Specifies whether to prune log entries. By default, log pruning is enabled and performed once per day. You can use the **set** command to:

- Change the defaults so that log pruning is disabled
- Change the number of days log entries are saved

You can use the **/logprune** option to override these defaults for one command run. Note that when the value of **/logprune** is a number, the prune is performed even if one has already been performed for the day.

You can specify:

- 60      Specifies that log entries are saved for 60 days before pruning. This is the default.
- n      Specifies the number of days to save log entries. The range of values is 0 to 9999. A value of 0 deletes all entries in the log except for the current command run entries.
- No     Do not prune the log.

## Example

**Example:** The command below shows how to list all the pending databases on the Domino server.

```
domdsmc query pendingdbs
```

### Output example:

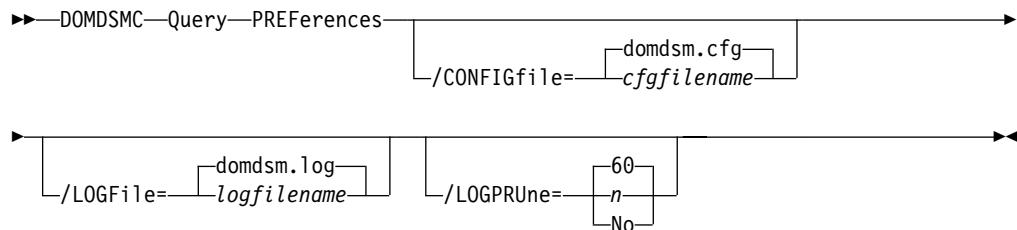
```
IBM Tivoli Storage Manager for Mail:  
Data Protection for Lotus Domino  
Version 5, Release 1, Level 5.0  
(C) Copyright IBM Corporation 1999, 2002. All rights reserved.
```

```
Pending Database List  
-----  
  
Domino Server: chilly  
-----  
  
Backup Time Stamp  Size      A/I Logged Database Title Database File  
-----  -----  
07/22/2002 14:36:50 896.00KB A    No     Vacat    Plan   datar3\db8.nsf
```

## Domdsmc Query Preferences

This command displays a list of the current values set in the preferences file for Data Protection for Domino.

### Syntax



### Parameters

#### /CONFIGfile=cfgfilename

Specifies the name of the Data Protection for Domino preferences file. The file name can include a fully-qualified path. If you do not specify a path, it is assumed the preferences file resides in the directory where Data Protection for Domino is installed.

The default preferences file is domdsm.cfg.

#### /LOGFile=logfilename

Specifies the name of the activity log that is generated by Data Protection for Domino. The log file name is used for the current command and does not update the default log file that is stored in the preferences file. You can use the **set** command to change the default log file name that is stored in the preferences file. The command-line parameter can be used to override the default for one command run. If the specified file does not exist, it is created. If it does exist, new log entries are appended to the file. The file name can include a fully-qualified path. If you do not specify a path, the file is written to the directory where Data Protection for Domino is installed.

The default log file is domdsm.log.

#### /LOGPRUne=60|n|No

Specifies whether to prune log entries. By default, log pruning is enabled and performed once per day. You can use the **set** command to:

- Change the defaults so that log pruning is disabled
- Change the number of days log entries are saved

You can use the **/logprune** option to override these defaults for one command run. Note that when the value of **/logprune** is a number, the prune is performed even if one has already been performed for the day.

You can specify:

- 60      Specifies that log entries are saved for 60 days before pruning. This is the default.
- n      Specifies the number of days to save log entries. The range of values is 0 to 9999. A value of 0 deletes all entries in the log except for the current command run entries.
- No     Do not prune the log.

## Example

**Example:** The command below shows the current values stored in the default preferences file for Data Protection for Domino.

```
domdsmc query preferences
```

### Output example:

```
IBM Tivoli Storage Manager for Mail:  
Data Protection for Lotus Domino  
Version 5, Release 1, Level 5.0  
(C) Copyright IBM Corporation 1999, 2002. All rights reserved.
```

```
Data Protection for Domino Preferences
```

```
-----  
BUFFers ..... 8  
BUFFERSize ..... 1024  
DATEformat ..... 1  
LANGUAGE ..... AMENG  
LOGFile ..... domdsm.log  
LOGPRUne ..... 60  
MOUNTWait ..... Yes  
NOTESInipath .....  
NUMBERformat ..... 1  
REPlace ..... Yes  
STATistics ..... No  
SUBDir ..... No  
TIMEformat ..... 1
```

## Domdsmc Resetdatabase

**Domdsmc resetdatabase** resets a Domino server database that is in an incomplete state as a result of an unexpected termination occurring during a Data Protection for Domino backup. An unexpected termination during a Data Protection for Domino backup can be caused by the following:

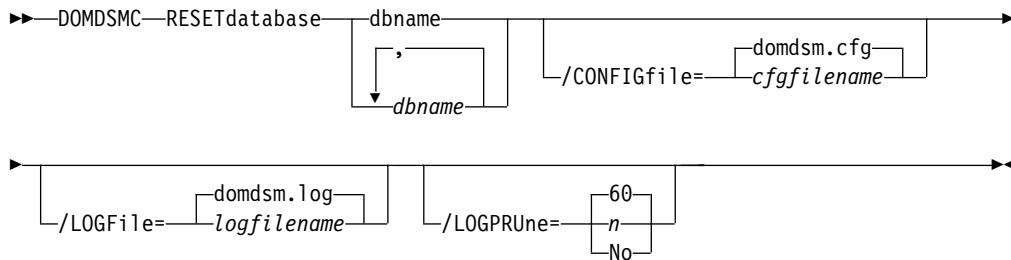
- A program check or segment violation.
- A command to end the process entered through the task manager window.
- Exiting a debugging program.

Subsequent attempts to back up such a database will fail until the **resetdatabase** command is issued.

You can specify one or more Domino databases to be reset. You must specify the database name. The **resetdatabase** command does not accept wildcard characters.

For more information on disaster recovery procedures, see “Recovery from loss of domino transaction log” on page 109.

## Syntax



## Parameters

### **dbname** *dbname,dbname,...,*

Specifies the database to be reset. Multiple *dbnames* can be specified as long as they are separated with commas.

### **/CONFIGfile=cfgfilename**

Specifies the name of the Data Protection for Domino preferences file. The file name can include a fully-qualified path. If you do not specify a path, it is assumed the preferences file resides in the directory where Data Protection for Domino is installed.

The default preferences file is **domdsm.cfg**.

### **/LOGFile=logfilename**

Specifies the name of the activity log that is generated by Data Protection for Domino. The log file name is used for the current command and does not update the default log file that is stored in the preferences file. You can use the **set** command to change the default log file name that is stored in the preferences file. The command-line parameter can be used to override the default for one command run. If the specified file does not exist, it is created. If it does exist, new log entries are appended to the file. The file name can include a fully-qualified path. If you do not specify a path, the file is written to the directory where Data Protection for Domino is installed.

The default log file is domdsm.log.

**/LOGPRUNE=60|n|No**

Specifies whether to prune log entries. By default, log pruning is enabled and performed once per day. You can use the **set** command to:

- Change the defaults so that log pruning is disabled
- Change the number of days log entries are saved

You can use the **/logprune** option to override these defaults for one command run. Note that when the value of **/logprune** is a number, the prune is performed even if one has already been performed for the day.

You can specify:

- 60** Specifies that log entries are saved for 60 days before pruning. This is the default.
- n** Specifies the number of days to save log entries. The range of values is 0 to 9999. A value of 0 deletes all entries in the log except for the current command run entries.
- No** Do not prune the log.

## Example

**Example:** The following example resets the database *testdata.nsf*.

```
domdsmc resetdatabase testdata.nsf
```

### Output Example:

```
IBM Tivoli Storage Manager for Mail:  
Data Protection for Lotus Domino  
Version 5, Release 1, Level 5.0  
(C) Copyright IBM Corporation 1999, 2002. All rights reserved.
```

```
Database testdata.nsf successfully reset.
```

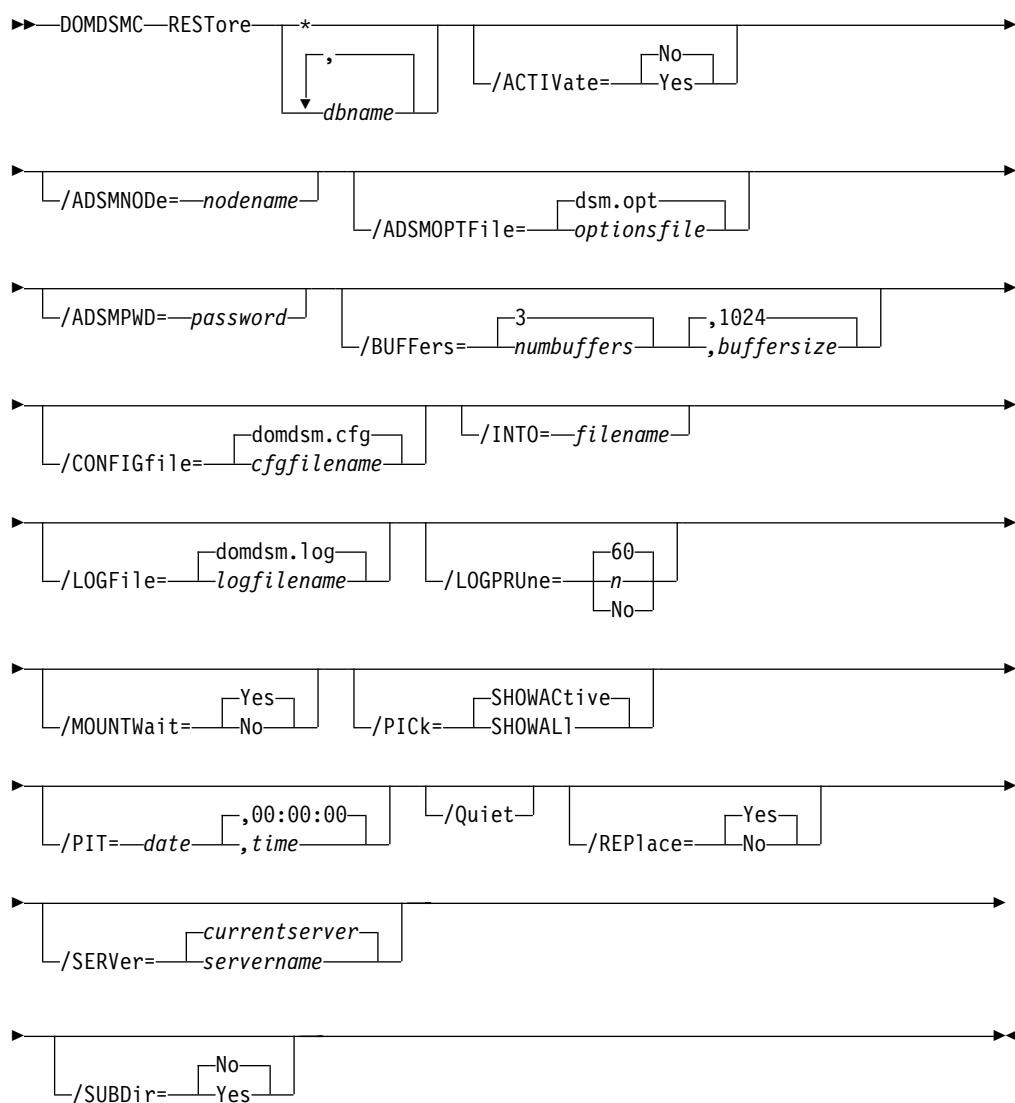
## Domdsmc Restore

**Domdsmc restore** restores a single database or a group of databases from Storage Manager storage to the Domino server. If you are planning to apply transaction logs to the restored database or databases to get a more current state, then use the **/activate=no** parameter. This allows you to apply transaction logs once using the **activatedbs** command.

**Note:** If you receive the error message ACD5223E, it is recommended that you check the permissions of the directory where the *<name of the Storage Manager Server>.pdb* file will be created.

The .pdb file is created in the directory indicated by the value of the following registry entry: HKEY\_LOCAL\_MACHINE SOFTWARE IBM ADSM CurrentVersion domclient Path

### Syntax



## Parameters

\* | *dbname*,...,*dbname*

Specifies the file path of a database or file path pattern for a group of databases. The file path pattern can represent a group of databases to be restored from the Storage Manager Server. The wildcard character asterisk (\*) is used to specify a group of databases when used in the *dbname*. Multiple *dbnames* can be specified as long as they are separated with commas.

The file path must be relative to the Notes data directory.

Symbolic links are referred to by their symbolic names. For example, if *mydata.dir* is a directory link in the Notes data directory that points to *x:\data*, database *mydb.nsf* in the *x:\data* directory would be named *mydata\mydb.nsf*. The physical file path for the relative name is resolved according to the symbolic values at the time of the restore.

If a symbolic link used in the name of a database backup image does not exist, the restore must be done using the */into* parameter. This parameter specifies where the database should be placed.

The wildcard character (\*) can be used in the file name portion of the file path. The wildcard character is not supported within directory names. The \* is used to represent any number of any characters. For example:

```
domdsmc restore ter*
```

restores the active backup of all databases beginning with the characters *ter*

```
domdsmc restore * /pick
```

lists all active database backups on the Storage Manager Server so that the desired ones can be selected for restore

**Note:** The value of the */subdir* parameter determines whether only the specified directory or all subdirectories are searched for databases that match the file pattern.

There is no default for *dbname*.

**/ACTIVe=No | Yes**

Specifies whether the databases being restored are to be brought online. If the restored database is to be rolled forward to a more current state by applying transaction logs, then */activate=no* should be specified so that transaction logs can be applied with the **activatedbs** command.

Because there is a single transaction log for all logged databases, all databases should be activated together (in one command). This prevents the fetching of the same transaction logs multiple times from the Storage Manager Server. The databases can be restored separately (if necessary) by specifying */activate=no*. Then the databases can be activated together with a single **activatedbs** command.

If the */activate* parameter is not specified, */activate=no* is the default value.

No      Do not activate the database. This is the default.

Yes      Activate the database.

**/ADSMNODe=nodename**

Specifies the Tivoli Storage Manager node name Data Protection for

Domino uses to logon to the Tivoli Storage Manager Server. The command-line value overrides the value in the Tivoli Storage Manager options file.

**/ADSMOPTFile=optionsfile**

Specifies the Tivoli Storage Manager options file name.

The file name can include a fully qualified path name. If you do not specify a path, the installation directory and then the current directory are searched for the specified file. The default is dsm.opt.

For additional information on the Tivoli Storage Manager options file, available options, and their syntax see the *IBM Tivoli Storage Manager for Windows Backup-Archive Client Installation and User's Guide*.

**/ADSMPWD=password**

Specifies the Tivoli Storage Manager password Data Protection for Domino uses to logon to the Tivoli Storage Manager Server. If you specify **passwordaccess generate** in the Tivoli Storage Manager options file, then the password is not required. In this case, Data Protection for Domino uses the password that is stored by the Tivoli Storage Manager API.

If **passwordaccess** is set to *generate* and you specify a password, the value is ignored unless a password for this node has not been stored. In this case, the specified password is stored and used for the current command execution.

If **passwordaccess** is set to *prompt* and you specify a password on the command line, you are not prompted for a password. The command line value overrides the need to prompt.

If **passwordaccess** is set to *prompt* and you do not specify a password on the command line, then you are prompted for a password.

**/BUFFers=numbuffers,buffersize**

Specifies the number and size of data buffers that transfer data between the Domino server and the Tivoli Storage Manager API. Increasing the number or size (or both) of the data buffers can improve throughput.

You can specify from 2 to 8 buffers, the default value is 3. The size of the buffers can be from 64 to 8192 kilobytes, the default value is 1024.

If the **/buffers** parameter is not specified on the command line or defined in the preferences file, Data Protection for Domino uses the default values.

**/CONFIGfile=cfgfilename**

Specifies the name of the Data Protection for Domino preferences file. The file name can include a fully-qualified path. If you do not specify a path, it is assumed the preferences file resides in the directory where Data Protection for Domino is installed.

The default preferences file is domdsm.cfg.

**/INTO=filepath**

Specifies the file path and file name to be used for the restored database. The file path specified must be relative to the Notes data directory or can be a fully qualified physical path. If a relative file path is specified, symbolic names can be included as long as the symbolic links exist to resolve the names. The specified path is considered a physical file path if it begins with a directory delimiter or a drive letter that is followed by a colon.

If multiple databases are being restored at once, the file name must be specified as a pattern with a single equal sign, =, represents the entire file name and extension of the database backup. For example:

```
domdsmc restore vola\* /into=tempvol\=
```

Restores all backups from the **vola** directory into the **tempvol** directory using the same file names.

```
domdsmc restore vola\* /into=vola\t=
```

Restores all backups from the **vola** directory into the **vola** directory using the file names from the backup version prefixed with a t.

If you entered **domdsmc restore vola\\* /into=vola\=xyz /activate=yes**, xyz is appended to the database suffix. For example, a database called **abc.nsf** is restored as **abc.nsfxyz**.

If you perform a restore without doing an **activatedbs**, .dad is appended to the suffix of the database name. When you perform an **activatedbs** from the command line or select the ACTIVATE tab within the GUI, the .dad append is removed from the suffix of the database name.

If multiple databases in a subdirectory branch are being restored and you need to preserve the directory structure, the file name must be specified as a pattern with two equal signs, ==, representing the filepath of the database backup. For example:

```
domdsmc restore vola\* /subdir=yes /into=tempvol\==
```

Restores all backups from the **vola** directory and its subdirectories into the **tempvol** directory using the same file names and directory structure. The == is replaced by the full relative path for each database file restored, including the **vola** directory.

**Note:**

- When the **/into** parameter is used on the **restore** command, replication will be disabled for the restored database(s).
- If the **/into** parameter is not used, replication settings will remain as they were in the backup version that is restored.

**/LOGFile=filename**

Specifies the name of the activity log that is generated by Data Protection for Domino. The log file name is used for the current command and does not update the default log file that is stored in the preferences file. You can use the **set** command to change the default log file name that is stored in the preferences file. The command-line parameter can be used to override the default for one command run. If the specified file does not exist, it is created. If it does exist, new log entries are appended to the file. The file name can include a fully-qualified path. If you do not specify a path, the file is written to the directory where Data Protection for Domino is installed.

The default log file is **domdsm.log**.

**/LOGPRUn=60 | No**

Specifies whether to prune log entries. By default, log pruning is enabled and performed once per day. You can use the **set** command to:

- Change the defaults so that log pruning is disabled
- Change the number of days log entries are saved

You can use the **/logprune** option to override these defaults for one command run. Note that when the value of **/logprune** is a number, the prune is performed even if one has already been performed for the day.

You can specify:

- 60** Specifies that log entries are saved for 60 days before pruning. This is the default.
- n** Specifies the number of days to save log entries. The range of values is 0 to 9999. A value of 0 deletes all entries in the log except for the current command run entries.
- No** Do not prune the log.

**/MOUNTWait=Yes|No**

If the Tivoli Storage Manager Server is configured to store transaction log backup data on removable media, then the Tivoli Storage Manager Server can indicate to Data Protection for Domino that it is waiting for a required storage volume to be mounted. If this occurs, this option allows you to specify whether Data Protection for Domino waits for the media mount or stops the current operation. Removable media is media such as tapes.

You can specify:

- Yes** Wait for tape mounts. This is the default.
- No** Do not wait for tape mounts.

**/PICK=SHOWActive|SHOWAll**

Displays a list of database backups matching the *dbname* pattern that can be selected for restore. The pick list is displayed as a scrollable list from which you can select the database backups for restore.

You can specify:

**SHOWActive**

Displays a list of active database backup versions. This is the default.

**SHOWAll**

Displays a list of both active and inactive database backup versions. This shows all the backup versions that match the *dbname* pattern.

**/PIT=currentdate,currenttime|date,time**

Specifies a point in time when the specified databases are restored. The *date* and *time* values must be specified in the same date and time format defined in the Data Protection for Domino preferences file. The most recent database backup images taken before the specified point in time are restored. Deleted backup images are not restored. Logged databases can then be rolled forward to that point by specifying the same date and time values on the **/applylogs** option of the **activatedbs** command.

**date** Specify a date string in the active date format. If you do not specify a date, the specified databases are restored unless the **/pick** parameter was used to select inactive backup versions.

The date must be specified using the same date format defined in the Data Protection for Domino preferences file. See “Domdsmc Set” on page 92 for a list of available date formats.

**time** Specify a time string in the active time format. If you specify a date without the time, HH:MM:SS on a 24-hour clock is used.

The time must be specified using the same time format defined in the Data Protection for Domino preferences file. See “Domdsmc Set” on page 92 for a list of available time formats.

**Note:** If this parameter is used with the **/pick** parameter, the *showactive* and *showall* variables for the **/pick** parameter are ignored. The pick list will contain the database backup images that meet the **/pit** criteria.

**/Quiet** Specifies that status information does not display. However, the information is written to the activity log.

**/REPlace=Yes|No**

Specifies whether to replace existing databases on the target machine.

You can specify:

- |     |                                                                                                                   |
|-----|-------------------------------------------------------------------------------------------------------------------|
| Yes | Allows an existing database on the target machine to be replaced during the restore process. This is the default. |
| No  | Prevents an existing database on the target machine from being overwritten during the restore process.            |

**/SERVer=currentserver|servername**

Specifies the Domino server name. If not specified, Data Protection for Domino uses the current Domino server.

**/SUBDir=No|Yes**

Specifies whether subdirectories within the specified file path are searched for databases that match the file pattern. If this option is not specified, Data Protection for Domino uses the value of the **/subdir** parameter in the Data Protection for Domino preferences file.

You can specify:

- |     |                                                                                                                                                                                                 |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| No  | Do not search the subdirectories within the specified file path for databases that match the file pattern. This is the default unless reset in the Data Protection for Domino preferences file. |
| Yes | Search the subdirectories within the specified file path for databases that match the file pattern.                                                                                             |

## Examples

**Example 1:** This example restores all your databases and subdirectories.

```
domdsmc restore * /subdir=yes
```

**Example 2:** The following example restores a database to the specified date and time.

```
domdsmc restore datadir3\yyy.nsf /subdir=yes /pit=01/11/2002,10:00:00
```

### Output example:

```
IBM Tivoli Storage Manager for Mail:  
Data Protection for Lotus Domino  
Version 5, Release 1, Level 5.0  
(C) Copyright IBM Corporation 1999, 2002. All rights reserved.
```

```
Starting Domino database restore...
```

```
Initializing Domino connection...  
Logging on to the Tivoli Storage Manager server, please wait...  
Querying Tivoli Storage Manager server for a list of database backups,  
please wait...
```

```
Restoring database datadir3\yyyy.nsf, 1 of 1,  
to i:\Lotus\Domino\Data\datadir3\yyyy.nsf.dad  
Full: 0 Read: 944640 Written: 944640 Rate: 289.64 Kb/Sec  
Restore of datadir3\yyyy.nsf completed successfully.
```

```
Total database backups inspected: 1  
Total database backups requested for restore: 1  
Total database backups restored: 1  
Total database activated: 0  
  
Throughput rate: 289.46 Kb/Sec  
Total bytes transferred: 944640  
Elapsed processing time: 3.19 Secs
```

**Example 3:** The following example restores a database into the same directory but with a different name.

```
domdsmc restore a_dir\db1.nsf /into=a_dir\db8.nsf
```

**Output example:**

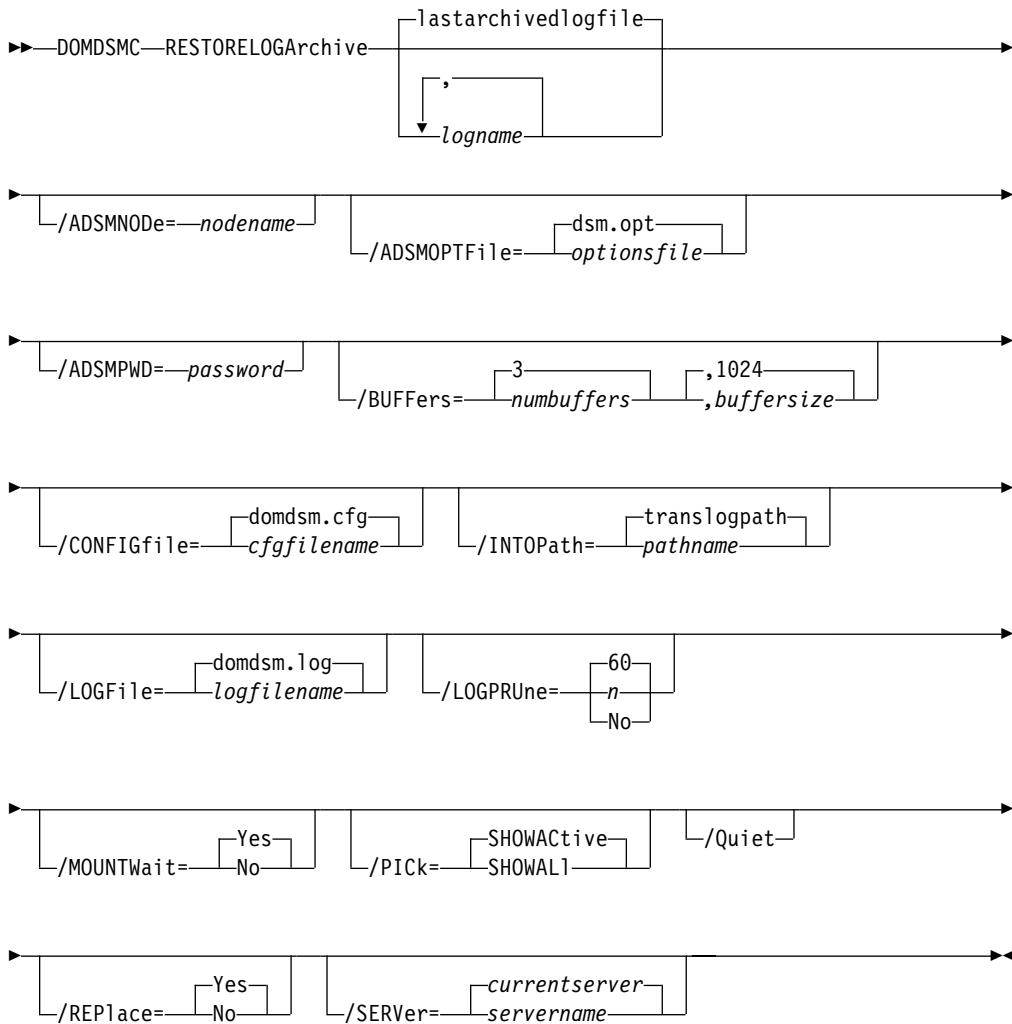
```
IBM Tivoli Storage Manager for Mail:  
Data Protection for Lotus Domino  
Version 5, Release 1, Level 5.0  
(C) Copyright IBM Corporation 1999, 2002. All rights reserved.  
  
Starting Domino database restore...  
  
Initializing Domino connection...  
Logging on to the Tivoli Storage Manager server, please wait...  
Querying Tivoli Storage Manager server for list of database backups,  
please wait...  
  
Restoring database a_dir\db1.nsf, 1 of 1,  
    to i:\Lotus\Domino\Data\a_dir\db8.nsf.dad  
Full: 0  Read: 917504  Written: 917504  Rate: 111.44 Kb/Sec  
Restore of a_dir\db1.nsf completed successfully.  
  
Total database backups inspected: 1  
Total database backups requested for restore: 1  
Total database backups restored: 1  
Total database activated: 0  
  
Throughput rate: 111.43 Kb/Sec  
Total bytes transferred: 917504  
Elapsed processing time: 8.04 Secs
```

## Domdsmc Restorelogarchive

**Domdsmc restorelogarchive** restores archived transaction logs from Storage Manager storage to the Domino server. This command assists with disaster recovery operations. By retrieving the most recent archived log file, it is possible to rebuild the Domino transaction log control file. This allows archived transaction log files to be used to recover restored database backups to a more current state, even after a loss of the active transaction log.

For more information on disaster recovery procedures, see “Recovery from loss of domino transaction log” on page 109.

### Syntax



## Parameters

### *logname,...,logname*

The *logname* variable is an optional parameter that specifies the logname of the archived transaction log to be restored. Multiple *lognames* can be specified as long as they are separated with commas. Use the wildcard character (\*) to specify a group of files when used in *logname*.

When a logname is not specified with the **restorelogarchive** command, the last transaction log archived to the Storage Manager Server (that is still active on the Storage Manager Server) is restored. The *lastarchivedlogfile* variable shown in the syntax diagram represents the default behavior and is not a keyword that can be specified on the command line.

To restore an inactive transaction log file from the Storage Manager Server, use the **/pick=showall** parameter and select the desired file from the list.

### **/ADSMNODe=nodename**

Specifies the Tivoli Storage Manager node name Data Protection for Domino uses to logon to the Tivoli Storage Manager Server. The command-line value overrides the value in the Tivoli Storage Manager options file.

### **/ADSMOPTFile=optionsfile**

Specifies the Tivoli Storage Manager options file name.

The file name can include a fully qualified path name. If you do not specify a path, the installation directory and then the current directory are searched for the specified file. The default is dsm.opt.

For additional information on the Tivoli Storage Manager options file, available options, and their syntax see the *IBM Tivoli Storage Manager for Windows Backup-Archive Client Installation and User's Guide*.

### **/ADSMPWD=password**

Specifies the Tivoli Storage Manager password Data Protection for Domino uses to logon to the Tivoli Storage Manager Server. If you specify **passwordaccess** *generate* in the Tivoli Storage Manager options file, then the password is not required. In this case, Data Protection for Domino uses the password that is stored by the Tivoli Storage Manager API.

If **passwordaccess** is set to *generate* and you specify a password, the value is ignored unless a password for this node has not been stored. In this case, the specified password is stored and used for the current command execution.

If **passwordaccess** is set to *prompt* and you specify a password on the command line, you are not prompted for a password. The command line value overrides the need to prompt.

If **passwordaccess** is set to *prompt* and you do not specify a password on the command line, then you are prompted for a password.

### **/BUFFers=numbuffers,buffersize**

Specifies the number and size of data buffers that transfer data between the Domino server and the Tivoli Storage Manager API. Increasing the number or size (or both) of the data buffers can improve throughput.

You can specify from 2 to 8 buffers, the default value is 3. The size of the buffers can be from 64 to 8192 kilobytes, the default value is 1024.

If the **/buffers** parameter is not specified on the command line or defined in the preferences file, Data Protection for Domino uses the default values.

**/CONFIGfile=cfgfilename**

Specifies the name of the Data Protection for Domino preferences file. The file name can include a fully-qualified path. If you do not specify a path, it is assumed the preferences file resides in the directory where Data Protection for Domino is installed.

The default preferences file is domdsm.cfg.

**/INTOPPath=translogpath | pathname**

Specifies the file path used for the restored transaction log(s). The file path must be a fully qualified physical path. The *translogpath* variable shown in the syntax diagram represents the default location of the Domino server transaction log files and is not a keyword that can be specified on the command line. The default location of the Domino server transaction log files is defined by the TRANSLOG\_Path variable in the notes.ini file.

**/LOGFile=logfilename**

Specifies the name of the activity log that is generated by Data Protection for Domino. The log file name is used for the current command and does not update the default log file that is stored in the preferences file. You can use the **set** command to change the default log file name that is stored in the preferences file. The command-line parameter can be used to override the default for one command run. If the specified file does not exist, it is created. If it does exist, new log entries are appended to the file. The file name can include a fully-qualified path. If you do not specify a path, the file is written to the directory where Data Protection for Domino is installed.

The default log file is domdsm.log.

**/LOGPRUNE=60 | n | No**

Specifies whether to prune log entries. By default, log pruning is enabled and performed once per day. You can use the **set** command to:

- Change the defaults so that log pruning is disabled
- Change the number of days log entries are saved

You can use the */logprune* option to override these defaults for one command run. Note that when the value of */logprune* is a number, the prune is performed even if one has already been performed for the day.

You can specify:

- 60*      Specifies that log entries are saved for 60 days before pruning. This is the default.
- n*      Specifies the number of days to save log entries. The range of values is 0 to 9999. A value of 0 deletes all entries in the log except for the current command run entries.
- No*     Do not prune the log.

**/MOUNTWait=Yes | No**

If the Tivoli Storage Manager Server is configured to store transaction log backup data on removable media, then the Tivoli Storage Manager Server can indicate to Data Protection for Domino that it is waiting for a required storage volume to be mounted. If this occurs, this option allows you to specify whether Data Protection for Domino waits for the media mount or stops the current operation. Removable media is media such as tapes.

You can specify:

- Yes*     Wait for tape mounts. This is the default.
- No*     Do not wait for tape mounts.

**/PICK=SHOWActive | SHOWAll**

Displays a list of transaction log backups matching the *logname* pattern that can be selected for restore. The pick list is displayed as a scrollable list from which you can select the transaction log backups for restore.

You can specify:

**SHOWActive**

Displays a list of active transaction log backup versions. This is the default.

**SHOWAll**

Displays a list of both active and inactive transaction log backup versions. This shows all the backup versions that match the *logname* pattern.

**/Quiet** Specifies that status information does not display. However, the information is written to the activity log.

**/REPlace=Yes | No**

Specifies whether to replace existing log files on the target machine. This parameter overrides the **replace** value in the preferences file.

If the target path name for a log file to be restored already exists, you can specify:

**Yes** A *Yes* value activates the restore procedure and replaces the existing log file on the target machine. This is the default.

**No** A *No* value will not allow the existing log file to be replaced so the restore of that log file will be skipped.

**/SERVer=currentserver | servername**

Specifies the Domino server name. If not specified, Data Protection for Domino uses the current Domino server.

## **Example**

**Example:** The following example restores the last transaction log archived to the Storage Manager Server.

```
domdsmc restorelogarchive
```

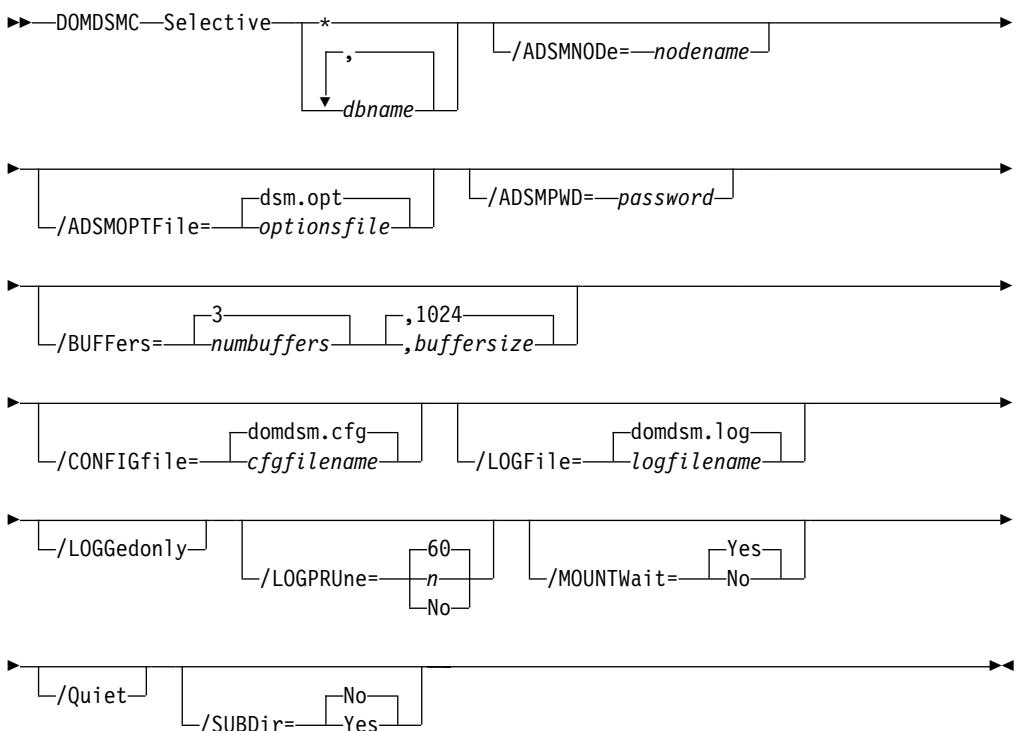
### **Output Example:**

```
IBM Tivoli Storage Manager for Mail:  
Data Protection for Lotus Domino  
Version 5, Release 1, Level 5.0  
(C) Copyright IBM Corporation 1999, 2002. All rights reserved.  
  
License file exists and contains valid license data.  
  
Starting transaction log file restore...  
  
Initializing Domino connection...  
Restart Analysis (0 MB): 100%  
03/01/2000 01:04:24 PM Recovery Manager: Restart Recovery complete.  
(0/0 databases needed full/partial recovery)  
Logging on to the Tivoli Storage Manager server, please wait...  
Querying Tivoli Storage Manager server for a list of transaction  
log file archives, please wait...  
  
Restoring transaction log file S0000006.TXN  
to D:\Lotus\Domino\Data\logdir\S0000006.TXN  
Full: 0 Read: 67109888 Written: 67109888 Rate: 998.54 Kb/Sec  
  
Restore of S0000006.TXN completed successfully.  
  
Total transaction log file archives inspected: 6  
Total transaction log file archives requested for restore: 1  
Total transaction log file archives restored: 1  
Throughput rate: 998.52 Kb/Sec  
Total bytes transferred: 67,109,888  
Elapsed processing time: 65.63 Secs
```

## Domdsmc Selective

**Domdsmc selective** backs up the databases you specify. You can exclude databases from backup with the exclude statement in the options file. This command does not do comparisons of attributes with the active backup images as does the incremental command. It simply backs up all databases that match the *dbname* pattern and passes the include-exclude filter.

### Syntax



### Parameters

\* | *dbname,dbname,...*

Specifies the file path of a database or file path pattern for a group of databases. The file path pattern can represent a group of databases to be restored from the Storage Manager Server. The wildcard character asterisk (\*) is used to specify a group of databases when used in the *dbname*. Multiple *dbnames* can be specified as long as they are separated with commas.

The file path must be relative to the Notes data directory.

Symbolic links are referred to by their symbolic names. To reference a database in a directory pointed to by a directory link in the data path, use the directory link name as the directory name. For example, if database xyz.nsf is in a directory, pointed to by the link vol1.dir, refer to it as vol1\xyz.nsf. If a symbolic directory link is created with the same name as a physical directory in the Notes data path, only the physical directory is searched.

The wildcard character (\*) is used to represent any number of any characters when used in the file name portion of the file path. The

wildcard character is not supported within directory names. The following example backs up all databases within the dir\_A directory beginning with the characters *ter*:

```
domdsmc selective dir_A\ter*
```

The following example backs up all databases on the server:

```
domdsmc selective * /subdir=yes
```

The following example backs up all databases whose file name ends in *acct*:

```
domdsmc selective *acct.n* /subdir=yes
```

**Note:** Standard include and exclude processing applies to Domino database names. Wildcards can be used on the backup command, and specific databases can be excluded from the backup with the include-exclude list in the Storage Manager options file. For example, to exclude all databases on a volume pointed to by the symbolic directory link temp.dir, use the following statement:

```
exclude \temp\*
```

Note that the exclude statement refers to the relative file name including symbolics and not the physical file path. For additional information on include and exclude options, see Appendix F, “Include/exclude processing” on page 121 and *IBM Tivoli Storage Manager for Windows Backup-Archive Client Installation and User’s Guide*.

#### /ADSMNODE=nodename

Specifies the Tivoli Storage Manager node name Data Protection for Domino uses to logon to the Tivoli Storage Manager Server. The command-line value overrides the value in the Tivoli Storage Manager options file.

#### /ADSMOPTFile=optionsfile

Specifies the Tivoli Storage Manager options file name.

The file name can include a fully qualified path name. If you do not specify a path, the installation directory and then the current directory are searched for the specified file. The default is dsm.opt.

For additional information on the Tivoli Storage Manager options file, available options, and their syntax see the *IBM Tivoli Storage Manager for Windows Backup-Archive Client Installation and User’s Guide*.

#### /ADSMPWD=password

Specifies the Tivoli Storage Manager password Data Protection for Domino uses to logon to the Tivoli Storage Manager Server. If you specify **passwordaccess generate** in the Tivoli Storage Manager options file, then the password is not required. In this case, Data Protection for Domino uses the password that is stored by the Tivoli Storage Manager API.

If **passwordaccess** is set to *generate* and you specify a password, the value is ignored unless a password for this node has not been stored. In this case, the specified password is stored and used for the current command execution.

If **passwordaccess** is set to *prompt* and you specify a password on the command line, you are not prompted for a password. The command line value overrides the need to prompt.

If **passwordaccess** is set to *prompt* and you do not specify a password on the command line, then you are prompted for a password.

**/BUFFers=numbuffers,buffersize**

Specifies the number and size of data buffers that transfer data between the Domino server and the Tivoli Storage Manager API. Increasing the number or size (or both) of the data buffers can improve throughput.

You can specify from 2 to 8 buffers, the default value is 3. The size of the buffers can be from 64 to 8192 kilobytes, the default value is 1024.

If the **/buffers** parameter is not specified on the command line or defined in the preferences file, Data Protection for Domino uses the default values.

**/CONFIGfile=cfgfilename**

Specifies the name of the Data Protection for Domino preferences file. The file name can include a fully-qualified path. If you do not specify a path, it is assumed the preferences file resides in the directory where Data Protection for Domino is installed.

The default preferences file is domdsm.cfg.

**/LOGFile=logfilename**

Specifies the name of the activity log that is generated by Data Protection for Domino. The log file name is used for the current command and does not update the default log file that is stored in the preferences file. You can use the **set** command to change the default log file name that is stored in the preferences file. The command-line parameter can be used to override the default for one command run. If the specified file does not exist, it is created. If it does exist, new log entries are appended to the file. The file name can include a fully-qualified path. If you do not specify a path, the file is written to the directory where Data Protection for Domino is installed.

The default log file is domdsm.log.

**/LOGGedonly**

Specifies that only logged databases matching the *dbname* pattern should be backed up. This option is used to force periodic refreshes of the backup for logged databases. Without this refresh these databases are not backed up by the Incremental command on a Domino server when archival logging is in effect.

**/LOGPRUne=60|n|No**

Specifies whether to prune log entries. By default, log pruning is enabled and performed once per day. You can use the **set** command to:

- Change the defaults so that log pruning is disabled
- Change the number of days log entries are saved

You can use the **/logprune** option to override these defaults for one command run. Note that when the value of **/logprune** is a number, the prune is performed even if one has already been performed for the day.

You can specify:

- |    |                                                                                                                                                                             |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 60 | Specifies that log entries are saved for 60 days before pruning. This is the default.                                                                                       |
| n  | Specifies the number of days to save log entries. The range of values is 0 to 9999. A value of 0 deletes all entries in the log except for the current command run entries. |
| No | Do not prune the log.                                                                                                                                                       |

**/MOUNTWait=Yes | No**

If the Tivoli Storage Manager Server is configured to store transaction log backup data on removable media, then the Tivoli Storage Manager Server can indicate to Data Protection for Domino that it is waiting for a required storage volume to be mounted. If this occurs, this option allows you to specify whether Data Protection for Domino waits for the media mount or stops the current operation. Removable media is media such as tapes.

You can specify:

- Yes** Wait for tape mounts. This is the default.
- No** Do not wait for tape mounts.

**/Quiet** Specifies that status information does not display. However, the information is written to the activity log.

**/SUBDir=No | Yes**

Specifies whether subdirectories within the specified file path are searched for databases that match the file pattern. If this option is not specified, Data Protection for Domino uses the value of the **/subdir** parameter in the Data Protection for Domino preferences file.

You can specify:

- No** Do not search the subdirectories within the specified file path for databases that match the file pattern. This is the default unless reset in the Data Protection for Domino preferences file.
- Yes** Search the subdirectories within the specified file path for databases that match the file pattern.

## Examples

**Example 1:** The following example backs up all databases contained in the `a_dir` directory and its subdirectories:

```
domdsmc selective a_dir\* /subdir=yes
```

### Output example:

```
IBM Tivoli Storage Manager for Mail:  
Data Protection for Lotus Domino  
Version 5, Release 1, Level 5.0  
(C) Copyright IBM Corporation 1999, 2002. All rights reserved.
```

```
Starting Domino database backup...  
Initializing Domino connection...  
Querying Domino for a list of databases, please wait...  
Logging on to the Tivoli Storage Manager server, please wait...  
  
Backing up database a_dir\datasub1\tdb1.nsf, 1 of 7.  
Full: 0 Read: 3588096 Written: 3588096 Rate: 496.39 Kb/Sec  
Backup of a_dir\datasub1\tdb1.nsf completed successfully.  
  
Backing up database a_dir\datasub1\tdb2.nsf, 2 of 7.  
Full: 0 Read: 917504 Written: 917504 Rate: 416.55 Kb/Sec  
Backup of a_dir\datasub1\tdb2.nsf completed successfully.  
  
Backing up database a_dir\datasub2\xdb1.nsf, 3 of 7.  
Full: 0 Read: 3588096 Written: 3588096 Rate: 510.04 Kb/Sec  
Backup of a_dir\datasub2\xdb1.nsf completed successfully.  
  
Backing up database a_dir\datasub2\xdb2.nsf, 4 of 7.  
Full: 0 Read: 917504 Written: 917504 Rate: 418.11 Kb/Sec  
Backup of a_dir\datasub2\xdb2.nsf completed successfully.  
  
Backing up database a_dir\db2.nsf, 5 of 7.  
Full: 0 Read: 917504 Written: 917504 Rate: 414.43 Kb/Sec  
Backup of a_dir\db2.nsf completed successfully.  
  
Backing up database a_dir\db8.nsf, 6 of 7.  
Full: 0 Read: 917504 Written: 917504 Rate: 413.67 Kb/Sec  
Backup of a_dir\db8.nsf completed successfully.  
  
Backing up database a_dir\yyyy.nsf, 7 of 7.  
Full: 0 Read: 944640 Written: 944640 Rate: 428.67 Kb/Sec  
Backup of a_dir\yyyy.nsf completed successfully.  
  
Total Domino databases inspected: 7  
Total Domino databases backed up: 7  
Total Domino databases excluded: 0  
  
Throughput rate: 454.01 Kb/Sec  
Total bytes transferred: 11790848  
Elapsed processing time: 25.36 Secs
```

**Example 2:** This example assumes that the Storage Manager options file contains the following statements:

```
exclude c_dir\*
```

With this exclude statement, the following example backs up all databases, including those contained in subdirectories, with the exception of databases contained in the `c_dir` directory:

```
domdsmc selective * /subdir=yes
```

---

## Domdsmc Set

**Domdsmc set** sets the configuration options and values in the Data Protection for Domino preferences file. The value saved in the preferences file is used as the default value when a parameter is not specified on a command invocation that permits the use of the parameter.

### Syntax

```
►►DOMDSMC—SET—parmname==value
          /CONFIGfile= domdsm.cfg
                           | cfgfilename
```

### Parameters

**parmname=value**

Specifies the parameter and value to save in the preferences file. You can only set one value per **domdsmc set** command run.

The **parmname=value** is one of the following:

**BUFFers=numbuffers**

Specifies the number of data buffers that are used for moving data between the Domino server and the Storage Manager API. Separate, asynchronous execution threads are used by Data Protection for Domino for communicating with the Domino server and the Storage Manager APIs. Increasing the number or size (or both) of the data buffers can reduce the possibility of one thread having to wait for another thread. This can improve throughput.

You can specify from 2 to 8 buffers. The default is 3.

**BUFFERSIze=size**

Specifies the size of the buffers. The size can be from 64 to 8192 kilobytes. The default is 1024.

**DATEformat=formatnumber**

Specifies the format you want to use to display dates.

The default value is defined in the message file. As a result, each language has a different default value.

The *formatnumber* variable displays the date in one of the formats listed below. Select the format number that corresponds to the format you want to use.

- 1      The format is MM/DD/YYYY.
- 2      The format is DD-MM-YYYY.
- 3      The format is YYYY-MM-DD.
- 4      The format is DD.MM.YYYY.
- 5      The format is YYYY.MM.DD.

**LANGage=language**

Specifies the language you want to use to display messages.

The *language* variable displays messages in one of the languages listed below. Select the entry that corresponds to the language you want to use.

**AMENG**

American English (This is the default.)

**SCHINESE**

Simplified Chinese

**TCHINESE**  
Traditional Chinese  
**FRENCH**  
Standard French  
**GERMAN**  
Standard German  
**ITALIAN**  
Standard Italian  
**JAPANESE**  
Japanese  
**KOREAN**  
Korean  
**BPORTUGUESE**  
Brazilian Portuguese  
**SPANISH**  
Standard Spanish

**LOGFile=filename**

Specifies the name of the activity log that is generated by Data Protection for Domino. If the specified file does not exist, it is created. If it does exist, new log entries are appended to the file. If there are spaces in the name, then the name must be enclosed in double quotes (for example, "log file".) The file name can include a fully-qualified path. However, if you do not specify a path, the file is written to the directory where Data Protection for Domino is installed.

The default log file is domdsm.log.

**LOGPRUNE=60|n|No**

Specifies whether to disable or request log pruning. By default, log pruning is enabled and performed once per day. You can specify the **logprune** parameter to do the following:

- Change the defaults so that log pruning is disabled
- Change the number of days log entries are saved

When the value of **logprune** is a number, the prune is performed even if one has already been performed for the day.

You can specify:

- 60** Specifies that log entries are saved for 60 days before pruning. This is the default.  
**n** Specifies the number of days to save log entries. The range of values is 0 to 9999.  
**No** Do not prune the log.

**MOUNTWait=Yes|No**

If the Storage Manager Server is configured to store transaction log backup data on removable media, then the Storage Manager Server can indicate to Data Protection for Domino that it is waiting for a required storage volume to be mounted. If this occurs, this option allows you to specify whether Data Protection for Domino waits for the media mount or stops the current operation. Removable media is media such as tapes.

You can specify:

- Yes** Wait for tape mounts. This is the default.  
**No** Do not wait for tape mounts.

**NOTESInipath=dirpath**

Specifies the directory path where the notes.ini file resides for the

target Domino server. When specified for a partitioned Domino server, this option identifies the server that the Data Protection for Domino interacts with.

**NUMberformat=fmtnum**

The **numberformat** parameter specifies the format you want to use to display numbers.

The default value is defined in the message file. As a result, each language has a different default value.

The *fmtnum* variable displays numbers by using one of the formats listed below. Select the format number that corresponds to the format you want to use.

- 1      The format is *n,nnn.dd*.
- 2      The format is *n,nnn,dd*.
- 3      The format is *n nnn,dd*.
- 4      The format is *n nnn.dd*.
- 5      The format is *n.nnn,dd*.
- 6      The format is *n'nnn,dd*.

**REPlace=Yes|No**

Specifies whether to replace existing databases (or log files) on the target machine when performing a restore. This parameter defines the default behavior if the **/replace** parameter is not specified on the restore command.

If the target path name for a database (or log file) to be restored already exists, you can specify:

- Yes     A *Yes* value activates the restore procedure and replaces the existing database (or log file) on the target machine. This is the default.
- No      A *No* value will not allow the existing database (or log file) to be replaced so the restore of that database (or log file) will be skipped.

**STATistics=No|Yes**

Specifies whether to log backup and restore performance statistics about an individual database at the backup or restore level.

Statistics are logged to the Data Protection for Domino log file (*domdsm.log* by default).

You can specify:

- No      A *No* value will not log backup and restore performance statistics about an individual database. This is the default.
- Yes     A *Yes* value will log backup and restore performance statistics about an individual database.

**SUBDir=No|Yes**

Specifies whether subdirectories within the specified file path are searched for databases that match the file pattern.

You can specify:

- No      Do not search the subdirectories within the specified file path for databases that match the file pattern. This is the default unless reset in the Data Protection for Domino preferences file.
- Yes     Search the subdirectories within the specified file path for databases that match the file pattern.

**TIMEformat=formatnumber**

Specifies the format in which you want system time displayed.

The default value is defined in the message file. As a result, each language has a different default value.

The *formatnumber* variable displays time in one of the formats that are listed below. Select the format number that corresponds to the format you want to use.

- 1      The format is HH:MM:SS.
- 2      The format is HH,MM,SS.
- 3      The format is HH.MM.SS.
- 4      The format is HH:MM:SSA/P.

**/CONFIGfile=cfgfilename**

Specifies the name of the Data Protection for Domino preferences file. The file name can include a fully-qualified path. If you do not specify a path, it is assumed the preferences file resides in the directory where Data Protection for Domino is installed.

The default preferences file is domdsm.cfg.

## Example

**Example:** The following example sets the number of buffers to 8.

```
domdsmc set buffers=8
```

### Output example:

```
IBM Tivoli Storage Manager for Mail:  
Data Protection for Lotus Domino  
Version 5, Release 1, Level 5.0  
(C) Copyright IBM Corporation 1999, 2002. All rights reserved.
```

```
ACD5217I The preference has been set successfully.
```



---

## Appendix A. Using the Storage Manager scheduler

This section describes how to use the Storage Manager scheduler with Data Protection for Domino to automate online backups of Domino Server databases.

To ensure that this example works, we recommend that you install the latest Storage Manager Backup-Archive Client. The Backup-Archive Client must reside on the same machine as Data Protection for Domino to use the scheduler service.

After Data Protection for Domino is registered to a Storage Manager Server and installed and configured on the Domino Server, perform the following steps:

1. **On the Storage Manager Server:**
  - a. Define a schedule in the policy domain to which Data Protection for Domino is registered.
  - b. Associate the Data Protection for Domino node to the defined schedule.
2. **On the Domino Server where Data Protection for Domino is installed:**
  - a. Install the Storage Manager scheduler client as a Windows NT/2000 service. If a scheduler already exists for the regular Storage Manager backup-archive client, install and configure another scheduler for Data Protection for Domino. The Storage Manager scheduler should have a different node name from the regular Storage Manager backup-archive client.
  - b. Define a command file that contains the Data Protection for Domino commands to perform the desired backup.
  - c. Start the scheduler installed for Data Protection for Domino.

---

### Example procedure

The example below assumes the following:

- Data Protection for Domino is registered to a Storage Manager Server with a node name of *mars* and a password of *marspswd* in policy domain *domagents*.
- There are several events that can be scheduled. For this example we are going to assume the Domino Server is running archival logging and we are using the backup strategy of full backups plus transaction log archives. For this backup strategy, it is suggested you do periodic archival of the transaction logs, incremental backups, selective backups of the logged databases and inactivation of transaction logs. Each of these tasks should have its own schedule as they need to be done at various times.
- This example shows how to schedule hourly archiving of the transaction logs. From this example and the sample files that are installed, you should be able to schedule the remaining tasks that need to be done.

This method is flexible because you can define a command file with any set of commands you choose. This allows you to use the same method to schedule other back ups on Windows NT/2000.

### On the Storage Manager Server

1. Enter the following command to define the schedule to do an hourly archival of the transaction logs. You can enter this command on the server console or from an administrative client. The administrative client does not have to be running on the same system as the Storage Manager Server.

```
def sched domagents dom_hourly_archive desc="Domino Hourly Archive"
action=command objects="c:\domarc.cmd" priority=2 starttime=5:00
duration=15 dura=minutes period=1 perunits=hours dayofweek=any
```

Storage Manager displays this message:

```
ANR2500I Schedule DOM_HOURLY_ARCHIVE
defined in policy domain DOMAGENTS.
```

2. To associate Data Protection for Domino to this schedule, issue the following command:

```
define association domagents dom_hourly_archive mars
```

Storage Manager displays this message:

```
ANR2510I Node MARS associated with schedule
DOM_HOURLY_ARCHIVE in policy domain DOMAGENTS.
```

At this point, a schedule is defined on the Storage Manager Server that runs a command file called c:\domarc.cmd. The schedule starts around 5:00 am. The schedule is re-executed every hour and can start on any day of the week.

**Note:** If you want to confirm that the schedule and association is set correctly, you can use the Storage Manager administrative commands **query schedule** and **query association**. See the appropriate Storage Manager Administrator's Guide for your server platform for more information.

## On the Domino Server

This example assumes that you have installed the Storage Manager backup-archive client on the Domino Server in the c:\program files\tivoli\tsm\baclient directory and Data Protection for Domino for the Domino Server in the c:\program files\tivoli\tsm\domino directory. It is also assumed that the options files in each of these directories has been updated so that the communication parameters point to the Storage Manager Server.

1. Login using a Windows NT/2000 account that has administrative privileges.
2. Open a Windows NT/2000 command prompt window and issue the following command:

```
cd /d "c:\program files\tivoli\tsm\baclient"
```

If the path contains a space, enclose the name in double quotes.

3. In the window, issue the following command:

```
dsmcutil inst /name:"Storage Manager Data Protection for Domino Archive Schedule"
/node:mars /password:marspwd /autostart:yes
/clientdir:"c:\Program Files\tivoli\tsm\baclient"
/optfile:"c:\Program Files\tivoli\tsm\domino\dsm.opt"
```

An example of the output is shown below:

```
TSM Windows NT Client Service Configuration Utility
Command Line Interface Version 3.00.a
Last Updated Jan 26 2000
TSM Api Version 3.7.2
```

```
Command: Install TSM Client Service
Machine: CHILLY (Local Machine)
```

Installing TSM Client Service:

```
Machine : CHILLY
```

```
Service Name      : TSM TDP for Lotus Domino Selective Schedule
Client Directory : c:\Program Files\tivoli\tsm\bclient
Automatic Start  : Yes
Logon Account    : LocalSystem
```

The service was successfully installed.

Creating Registry Keys ...

```
Updated registry value 'ImagePath' .
Updated registry value 'EventMessageFile' .
Updated registry value 'TypesSupported' .
Updated registry value 'OptionsFile' .
Updated registry value 'EventLogging' .
Updated registry value 'ClientNodeName' .
Updated registry value 'ADSMClientKey' .
Updated registry value 'TSM TDP for Lotus
Domino Selective Schedule' .
Authenticating TSM password for node MARS ...
```

Connecting to TSM Server via client options
file 'c:\Program Files\tivoli\tsm\domino\dsm.opt' ...

Password authentication successful.

The registry password for TSM node MARS has been updated.

Starting the 'TSM TDP for Lotus Domino Selective Schedule' service ...

The service was successfully started.

Generating registry password ...

4. The options file that is defined by Data Protection for Domino is used by the scheduler when validating the node and password. The options file is also used when contacting the Storage Manager Server for schedule information. This example assumes that the dsm.opt file is updated so that the communication parameters point to the Storage Manager Server to which the Domino databases are to be backed up.

If you see the following message:

A communications error occurred connecting to the Storage Manager Server

You should ensure that the options file contains entries that point to the correct Storage Manager Server. You should also ensure that the Storage Manager Server is running. If you have to correct one of these, issue the following command:

```
dsmutil remove /name:"Storage Manager Data Protection for Domino Archive Schedule"
```

Then reissue the **dsmutil inst** command.

5. Now you need to create a batch file that is called c:\domarc.cmd. In the directory where Data Protection for Domino was installed, there is a sample command file, domarc.smp. You can use this sample as a starting point to coding this command file.

When using the Storage Manager scheduler to execute the commands in a command file, you must use the *complete path names* for all file names and non-system commands. This is because the scheduler runs from the Windows NT/2000 system directory. This system directory is where the scheduler service looks for input and produces its output by default.

6. At this point the scheduler is installed and configured, but has not started.

To start the service, issue the following command in the Windows NT/2000 console window:

```
net start "Storage Manager Data Protection for Domino Archive Schedule"
```

The following output is displayed:

```
The Storage Manager Data Protection for Domino Archive Schedule service is starting.  
The Storage Manager Data Protection for Domino Archive Schedule service was started  
successfully.
```

Note that because the **/autostart:yes** option is used, the Storage Manager scheduler is automatically started each time the Windows NT/2000 system is rebooted.

Your system is now ready to run automatic hourly archivals of the transactions logs.

---

## Scheduler considerations

Consider the following characteristics when defining a Storage Manager schedule:

1. To use the Storage Manager Server prompted scheduling mode, ensure the dsm.opt options file has the **tcpclientaddress** and **tcpclientport** options specified. If you want to run more than one scheduler service, use the same **tcpclientaddress**. However, you must use different values for **tcpclientport** (in addition to the different node names). An example of running more than one scheduler service is when you are scheduling Data Protection for Domino as well as the regular backup-archive client.

Server-prompted scheduling is supported only when TCP/IP communication is being used. By default, Storage Manager uses the client polling schedule mode.

2. If any changes that affect the scheduler are made to the Data Protection for Domino options file, the scheduler has to be restarted in order to pick up the changes. An example of this is the Storage Manager Server address, the schedule mode, or the client TCP address or port. This can be done by issuing the following commands:

```
net stop "Storage Manager Data Protection for Domino Archive Schedule"  
net start "Storage Manager Data Protection for Domino Archive Schedule"
```

3. The domsched.log file contains status information for the Storage Manager scheduler. In this example, the file is located in this path:

```
c:\program files\tivoli\tsm\baclient\domsched.log
```

You can override this file name by specifying the **schedlogname** option in the Storage Manager options file.

4. Output from scheduled commands is sent to the log file. After scheduled work is performed, check the log to ensure the work completed successfully.

When a scheduled command is processed the schedule log may contain the following entry:

```
Scheduled event eventname completed successfully
```

This indicates that Storage Manager successfully issued the scheduled command associated with the *eventname*. No attempt is made to determine the success or failure of the command. If you look in the dmsched.log file, you will see a log entry with the following text:

```
Finished command. Return code is: 0
```

This indicates that the command file started successfully. The return code is no indication as to the outcome of the scheduled command. You need to view the Data Protection for Domino log file to determine the success or failure of the scheduled command.

5. Data Protection for Domino creates its own log file with statistics about the archived transaction log objects when the **/logfile** parameter is specified during the **domdsmc** command. In the **domarc.smp** file, the log file is **domsarc.log**. This file is different from the Storage Manager scheduler log file and must also be different from the file to which the **domdsmc** command output is redirected. In the example above, **domarc.smp**, this file is **domasch.log**.
6. If Data Protection for Domino is not configured to automatically generate the Storage Manager password when it expires, then the Storage Manager password needs to be specified on the **domdsmc** command. To specify the password, use the **/adsmpwd** option in the command file being run by the scheduler (**domarc.cmd**).

---

## Setting up other schedules

It is recommended that you also run several other schedules for Data Protection for Domino as part of a complete backup strategy for Lotus Domino databases and transaction logs. In order to setup these other schedules, you just need to follow the above procedures with a few modifications. The modifications are centered around when the events should take place. Below lists an example of when the remaining tasks could be scheduled.

1. Incremental Backup of all databases
  - a. Frequency - once a day
  - b. Sample command file, **dominc.smp**, exists in the Domino Application Client installation directory
  - c. Domdsmc log file created - **dominc.log**
  - d. Output redirected - **domisch.log**
2. Selective Backup of All Logged Databases
  - a. Frequency - once a week, maybe Saturday
  - b. Sample command file, **domsel.smp**, exists in the Domino Application Client installation directory
  - c. Domdsmc log file created - **domsel.log**
  - d. Output redirected - **domssch.log**
3. Inactive Logs
  - a. Frequency - once a week, maybe Sunday, this is to ensure that the selective backup has completed
  - b. Sample command file, **domina.smp**, exists in the Domino Application Client installation directory
  - c. Domdsmc log file created - **domina.log**
  - d. Output redirected - **domiasch.log**

**Note:** To help with the time it takes to run an incremental and selective backup, it is possible to setup your command files to start multiple **domdsmc** sessions in parallel. All you need to do is specify different database names. A good way to do this may be to start multiple sessions for different volumes of database information.

---

## Sample command file

This is an example of the **domarc.smp** file.

```

@ECHO OFF
rem =====
rem Sample Command File - domarc.smp
rem
rem Sample command file containing commands to do a scheduled archive
rem of transaction logs to TSM storage.
rem
rem This file is meant to be executed by the TSM central scheduler
rem in response to a defined schedule on the TSM server.
rem
rem Complete paths must be given for all file names and non-system
rem commands.
rem
rem Copy this file to domarc.cmd and edit it to match your
rem local environment.
rem =====
rem =====
rem Replace "X:" with the drive where the Domino Application Client
rem is installed.
rem =====

set dom_dir="X:\Program Files\Tivoli\TSM\domino"
cd /d %dom_dir%
rem =====
rem The 2 lines below put a date and time stamp in a log file for
rem you.
rem
rem Note: You can change "domarc.log" to whatever you prefer.
rem =====
echo Current date is: >> domarc.log
date /t < NUL >> domarc.log
echo Current time is: >> domarc.log
time /t < NUL >> domarc.log

rem =====
rem Now call the command line to do the archive of the logs:
rem
rem Note: You can change "domasch.log" to whatever you prefer.
rem =====
start /B domdsmc archivelog /adsmoptfile=dsm.opt /logfile=domasch.log >>
domarc.log

```

**Note:** The **domdsmc archivelog** command example in the above sample command file is divided to accommodate page formatting. The actual command in the sample command file is on one line.

---

## Appendix B. Silent installation

Administrators can install Data Protection for Domino using silent installation. A silent installation runs on its own without any intervention so that administrators are freed from the task of monitoring the installation and providing input to dialog boxes. This method is especially useful when Data Protection for Domino must be installed on a number of different computers with identical hardware. For example, a company may have 25 Domino Servers spread out across 25 different sites. To ensure a consistent configuration and to avoid having 25 different people enter Data Protection for Domino parameters, an administrator may choose to produce an unattended install and make it available to the 25 sites by cutting and sending out 25 CDs or by placing the unattended install package on a file server.

You can perform a silent installation using one of the following methods:

### Setup Program

Use the **setup** command with the command-line invocation and special silent installation options.

### Microsoft Installer (MSI)

If you are running Windows 2000 (or later) or if **msiexec.exe** is installed on your Windows NT system, you can bypass the **setup.exe** method and directly install the MSI package.

The following options are used in this procedure:

*Table 4. Silent installation options*

Option	Description
<b>/i</b>	Specifies the program is to install the product.
<b>/I*v</b>	Specifies verbose logging.
<b>/qn</b>	Runs the installation without running the external user interface sequence.
<b>/s</b>	Specifies silent mode.
<b>/v</b>	Specifies the Setup Program to pass the parameter string to the call it makes to the MSI executable ( <b>msiexec.exe</b> ). Note the following syntax requirements when invoking the <b>/v</b> option: <ul style="list-style-type: none"><li>• A backslash (\) must be placed in front of any quotation marks (" ") that reside within existing quotation marks.</li><li>• Do not include a space between the <b>/v</b> command line option and its arguments.</li><li>• Multiple parameters entered with the <b>/v</b> command line option must be separated with a space.</li></ul>
<b>/x</b>	Specifies the program is to uninstall the product.
<b>addlocal</b>	Specifies features to install.
<b>allusers</b>	Specifies which users can use the installation package.
<b>installdir</b>	Specifies the directory where Data Protection for Domino is to be installed.

*Table 4. Silent installation options (continued)*

Option	Description
<b>reboot</b>	Specifies whether or not to prompt the user to reboot the system after silent installation. <ul style="list-style-type: none"> <li>• <i>Force</i> Always prompts user to reboot after silent installation.</li> <li>• <i>Suppress</i> Suppress prompt to reboot after silent installation.</li> <li>• <i>ReallySuppress</i> Suppress all reboots and prompts to reboot after silent installation.</li> </ul>
<b>rebootyesno</b>	Specifies whether or not to reboot the system after silent installation. Specify <i>Yes</i> to reboot the system after silent installation. Specify <i>No</i> not to reboot the system after silent installation.
<b>transforms</b>	Specifies language to install.

The following features are used in this procedure:

*Table 5. Silent installation features*

Feature	Description
TDP_Dom_Client	Main Data Protection for Domino client.
Paid_License	Paid license (Paid version only)
TryBuy_License	Try and Buy license (Try and Buy version only)
PTF_License	PTF license (PTF version only)
OnLine_Main	HTML books and readme files
OnLine_TDP_Domino_Docs	HTML books and readme files
Books_PDF	PDF book
chs	Chinese (Simplified) language files
cht	Chinese (Traditional) language files
deu	German language files
esp	Spanish language files
fra	French language files
ita	Italian language files
jpn	Japanese language files
kor	Korean language files
ptb	Brazilian (Portuguese) language files

The following transforms are used in this procedure:

*Table 6. Silent installation transforms*

Transform	Language
1028.mst	CHT Chinese (Traditional)
1031.mst	DEU German
1033.mst	ENG English
1034.mst	ESP Spanish
1036.mst	FRA French

Table 6. Silent installation transforms (continued)

Transform	Language
1040.mst	ITA Italian
1041.mst	JPN Japanese
1042.mst	KOR Korean
1046.mst	PTB Portuguese
2052.mst	CHS Chinese (Simplified)

## Installing with the Setup Program (setup.exe)

Run the following command to silently install Data Protection for Domino to the default installation directory:

```
setup /s /v/qn
```

This example silently installs Data Protection for Domino to a directory other than the default installation directory and includes custom features:

```
setup /s /v"INSTALLDIR=\"c:\program files\tivoli\tsm\"  
ADDLOCAL=\"TDP_Dom_Client,Paid_License,OnLine_Main,  
OnLine_TDP_Domino_Docs,Books_PDF,jpn\" TRANSFORMS=1033.mst  
/qn /l*v \"e:\log.txt\""
```

### Notes:

1. You must place a backslash (\) before each quotation mark that is within an outer set of quotation marks ("").
2. You must place quotation marks (") around the following:
  - A directory path that contains spaces.
  - An argument that specifies multiple features. Although quotation marks are needed around the complete argument, you must still place a backslash before each internal quotation mark.
3. All features listed in a custom installation must be listed after the **addlocal** option.

## Creating batch files

A batch file can be created to begin silent install with desired parameters.

- c:\setup.bat — sample script to demonstrate unattended installation.

```
@echo off  
rem ======  
rem sample silent install script  
rem  
setup /s /v"INSTALLDIR=\"X:\Desired Install Path\" /qn"  
rem ======  
rem code could be added after the  
rem installation completes to  
rem customize the dsm.opt files  
rem if desired  
rem ======
```

## Installing with MSI (msiexec.exe)

This example silently installs Data Protection for Domino to a directory other than the default installation directory and includes custom features:

```
msiexec /i  
"IBM Tivoli Storage Manager for Mail - Lotus Domino.msi"  
RebootYesNo="No" Reboot="Suppress" ALLUSERS=1  
"INSTALLDIR=\"c:\program files\tivoli\tsm\"  
ADDLOCAL=\"TDP_Dom_Client,Paid_License,OnLine_Main,  
OnLine_TDP_Domino_Docs,Books_PDF,jpn" TRANSFORMS=1033.mst  
/qn /l*v "e:\log.txt"
```

**Notes:**

1. You must place a backslash (\) before each quotation mark that is within an outer set of quotation marks (").
2. You must place quotation marks ("") around the following:
  - A directory path that contains spaces.
  - An argument that specifies multiple features. Although quotation marks are needed around the complete argument, you must still place a backslash before each internal quotation mark.
3. All features listed in a custom installation must be specified after the **addlocal** option.

---

## Install problems—capturing a log of the installation

In the event of an installation failure, please record symptoms and environment information for the failing install and contact customer support with that information. The following environmental information may be helpful:

- Operating system level
- Service pack
- Hardware description
- Install package (CD-ROM or electronic download) and level
- Any Windows event log that is relevant to the failed install
- Other Windows services active at the time of the install (e.g. anti-virus software)

Before contacting support, you can check for the following:

- You are logged on to the local machine console (not via terminal server).
- You are logged on as a local administrator, not a domain administrator.  
Cross-domain installs are not supported by Tivoli.

Assuming that all looks correct, gather a detailed log of the failing install into a file called setup.log. To do this, run the setup program as follows:

```
setup /v"/l*v setup.log"
```

---

## Creating the package on a cd or a file server

The administrator has a choice of making the package available in different ways including burning a CD or placing the package in a shared directory on a file server. Typically, the package contains the Data Protection for Domino code distribution files and a batch file for silent install.

## Creating a silent install package

First you will need to choose a location for the package. If you are burning a CD it is convenient to use a staging directory. If you are placing the package on a file server you can use a staging directory or you can build the package directly on the file server. The following example uses *c:\tdpdpkg* as a staging directory. It is recommended you have a minimum of 14 MB of free space in the staging directory. The following commands can be executed to create the package.

<pre>mkdir c:\tdpdpk cd /d c:\tdpdpk xcopy g:\*.* . /s copy c:\setup.bat</pre>	<ul style="list-style-type: none"> <li>- Create a staging directory for the silent install package</li> <li>- Go to the staging directory</li> <li>- Copy the Data Protection for Domino CD distribution files to the staging directory</li> <li>- Replace the existing setup.bat with the one created in the previous step</li> </ul>
--------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

At this point the silent install should be tested. When testing is complete the package can be placed on CD or it can be made available from a shared directory.

---

## Playing back the silent installation

Once the package is available on CD or from a shared directory it can be played back (run) on another machine. Allow enough time for the unattended setup to complete. No visual cues exist to inform you when the installation has finished, although this could be added in the batch file.

- **From a silent install package on CD:**

If autostart is enabled, the silent install begins as soon as the CD is inserted into the drive. If autostart is not enabled, the silent install can be run by executing the setup.bat file from the root of the CD.

```
cd /d g:\
setup.bat
```

- **From a distribution directory:**

If the package was placed in a shared directory called tdpdpkg located at \\machine1\d\$, another computer could execute the command: net use x \\machine1\d\$ to share the drive as drive x. The following command could then be issued:

```
cd /d x:\tdpdpk
setup.bat
```

In either case the silent install begins.

---

## Setup error messages

The setup.exe program may produce error messages if it cannot start properly. In most cases you will encounter these messages when a severe error occurs. Rarely will your end users see these messages. When you get an error message, it appears in a message box. Every error message has a number. These are system error messages and there is no way to suppress them in your script.

If you encounter an error you can go to the InstallShield support Web site at URL: <http://support.installshield.com/default.asp>, and use the Search facility to obtain information on the error.



---

## Appendix C. Advanced restore procedures

### Recovery from loss of domino transaction log

When using archival transaction logging, archived transaction log files contain updates to logged databases that may not yet be captured in a full database backup. Recovery of a database to the most current available backup requires restoring the last full backup plus applying updates to that backup from the archived transaction log files. However, in order for archived transaction log files to be used for database recovery, the current transaction log ID must match that of the archived log files. If the current transaction log is lost, creating a new one will result in a new log ID and thus the archived log files would not be usable for database recovery.

The following procedure describes how to recover from a loss of the Domino server (including the transaction log) so that archived transaction log files can still be used for database recovery.

1. Recover the non database Domino server files. If necessary, reinstall (but do not configure) the server and restore the non database Domino files (including notes.ini, cert.id, and server.id) using your file backup solution (such as the Backup-Archive Client). Make sure the new installation is configured in the same manner as the damaged one (for example, the same directory structure, directory location, and logdir path). DO NOT LAUNCH THE NEW SERVER!
2. Using a text editor, modify the notes.ini file for the Domino server with this setting:  
`TRANSLOG_Status=0`
3. Using Data Protection for Domino, restore the transaction log file to be used in the log recovery procedure. This should be the last transaction log file archived prior to the loss of the active transaction log.
4. Close the Data Protection for Domino GUI (if in use).
5. Delete the contents of the Domino transaction log directory except for the log file restored in Step 3.
6. Modify the notes.ini file for the Domino server with these settings:  
`TRANSLOG_Recreate_Logctrl=1`  
`TRANSLOG_Status=1`
7. Restore (but do not activate) the databases you want to recover to the latest state within the archived log extents using Data Protection for Domino.
8. Use Data Protection for Domino to activate the databases you are recovering and apply transaction logs. (The TRANSLOG\_Recreate\_Logctrl parameter in the notes.ini file will be automatically reset to 0).
9. Launch the Domino server. With the disaster recovery complete, it is now safe to start the Domino server and execute server tasks and functions.
10. Use the Selective backup function in Data Protection for Domino to perform full backups of all databases. (This is recommended to ensure proper recoverability using subsequent transaction log files).
11. Use Data Protection for Domino to archive the transaction log. The transaction log file used in the recovery procedure will be modified and available for archiving. This transaction log will also have the ID of the current logger.

## Alternate server and alternate partition restores

Data Protection for Domino uses the backup and recovery functionality of the Lotus C API to provide backup and restore services for Domino databases. These APIs operate at the database level. To restore a particular document in a database, the entire database must first be restored and the desired document copied.

A database can be restored to the production server under a temporary name and the desired document can be copied to the appropriate database. If for performance reasons, the production server cannot be used in the restore process, the database can be restored to an alternate server and copied to the production server.

**Note:** It is recommended that you perform alternate server restores when possible to reduce demands on the production Domino Server.

A restore operation involves two steps. First, the backup copies of the databases are retrieved for the Storage Manager Server. Second, the recorded transactions in the log files are applied to the databases. If the transaction log files required to recover the databases have been archived, they will be retrieved from the Storage Manager Server. These steps can impact performance in the CPU (application of transactions) and in disk input and output (retrieval of the database backup copies and the archived transaction logs).

Domino highly recommends that the transaction log directory reside on a dedicated physical disk drive for optimal performance. When a dedicated physical disk drive is used, the Domino Server can write transactions sequentially to the log, which is faster than writing transactions to random nonsequential parts of a disk. If the restore operation is performed on a production Domino Server, the restore of the transaction log and application of the transactions will interfere with the normal Domino Server sequential writing of transactions to the log. This will affect the performance of the Domino Server and increase the time required to perform the restore operation. The application of the transaction logs will also compete for CPU cycles with the Domino Server.

It is recommended that restore operations be performed on an alternate server or on an alternate partition for these reasons.

An alternate server restore is the preferred method since the restore operation has no impact on the performance of the production Domino Server. However, the production Domino Server and the server on the alternate partition can use separate disk drives for their transaction log directory. If the separate disk drives are used, the production Domino Server access to the transaction log will not be affected by the restore operation on the alternate partition.

**Note:** Domino 6 allows the user to specify an alternate path where to restore the archived transaction logs. If a separate disk drive is used by the alternate path, the alternate path feature can be used to minimize the cost of a restore operation on the production Domino Server.

The following sections describe how to perform an alternate server restore and an alternate partition restore.

## How to perform an alternate server restore

The following procedure describes how to use an alternate server to restore logged databases. This procedure requires Domino Server 5.03 (or later).

This procedure assumes the following environment:

### Production Server Domino Environment

- Installation directory: D:\Lotus\Domino
- Data Directory: D:\Lotus\Domino\Data
- Database to be restored: restoredb.nsf

### Alternate Server Domino Environment

- Installation directory: E:\Lotus\Domino
- Data Directory: E:\Lotus\Domino\Data

1. Install Domino Server on a separate machine.
  - a. This must be the same level of Domino Server as used on the production server. Do not configure this Domino Server.
  - b. If using an existing Domino Server, make sure the server is stopped.
  - c. Install Data Protection for Domino on this machine and perform the following:
    - 1) Update the dsm.opt file so it contains the same settings as the dsm.opt file on the production server.
    - 2) Verify that you can successfully run the **domdsmc q adsm** command.
2. Create the following directories on the alternate server:
  - A directory to contain the restored databases. For example:  
E:\Lotus\Domino\Data\restoredb
  - A directory to contain the restored log files. For example:  
F:\alternatelog
3. Create a notes.ini file on the alternate server with the following values:

```
[Notes]
Directory=<directory for restored databases>
KeyFilename=<directory for restored databases>\server.id
TRANSLOG_Status=0
TRANSLOG_Style=1
TRANSLOG_Path=<directory for restored databases>
TRANSLOG_MEDIAONLY=1
```

This notes.ini file can be located in any directory of your choice.

- a. If you place the notes.ini file in the alternate server data directory, save a copy of the existing notes.ini file. For example:  
rename notes.ini notes.save
- b. If you place the notes.ini file in a directory other than the alternate server data directory, update the Data Protection for Domino preferences file (domdsm.cfg by default) to point to the location of this notes.ini file:  
DOMDSMC SET Notesinipath=<directory for restored databases>
- c. This notes.ini file is used only during this alternate server restore process. Note that transaction logging is disabled at this point. For example, in the file E:\Lotus\Domino\notes.ini:

```
[Notes]
Directory=E:\Lotus\Domino\Data\restoredb
KeyFilename=E:\Lotus\Domino\Data\restoredb\server.id
TRANSLOG_Status=0
TRANSLOG_Style=1
TRANSLOG_Path=\alternatelog
TRANSLOG_MEDIAONLY=1
```

4. Place a copy of the server.id file (from the production Domino Server) on the alternate server in the directory created for restored databases.

5. Perform an archive of the transaction log on the production server. For example:

```
domdsmc archivelog
```

To use the Data Protection for Domino GUI: run the **domdsm** command, archive the transaction log, then close the GUI.

6. Restore one of the following on the alternate server:

- a. The last archived transaction log file. This is the transaction log file to be used in the log recovery procedure. For example:

```
domdsmc restorelogarchive
```

To use the Data Protection for Domino GUI: run the **domdsm** command, restore the transaction log, then close the GUI.

- b. A transaction log file to be restored from an old Logger ID. This may be necessary if you are trying to restore and apply transactions for a logged database that used an old Logger ID. See “**Domdsmc Activatedbs**” on page 25 for a description of when this type of restore may be necessary.

7. On the alternate server, modify the notes.ini file to enable transaction logging:

```
TRANSLOG_Status=1
```

- a. This is the notes.ini file created in Step 3 for the alternate server restore process only.

8. On the alternate server, restore but do not activate the databases you want to recover to their latest state.

- a. Warning! Activation at this step triggers the Domino transaction log recovery process which requires considerable processing time.

For example:

```
domdsmc restore restoredb.nsf
```

To use the Data Protection for Domino GUI: run the **domdsm** command, restore the *restoredb.nsf* database, then close the GUI.

9. On the alternate server, activate the databases you are recovering and apply transaction logs. For example:

```
domdsmc activate /applylogs
```

To use the Data Protection for Domino GUI: run the **domdsm** command, activate and apply logs to the *restoredb.nsf* database, then close the GUI.

10. At this point you can perform the following:

- a. copy the recovered databases to the production Domino server, or
- b. access the recovered databases through a remote Notes client to copy individual documents.

**Note:** Do not attempt to open or access the restored databases with the alternate Domino Server if the databases are to be copied to the production Domino Server. If you access them with the alternate Domino server, they will require corrections to resolve inconsistencies on the production Domino Server.

11. If the Domino Server used for the recovery is a configured server and you saved the notes.ini file in Step 3, copy that notes.save file back to notes.ini to be able to launch the server.

## How to perform an alternate partition restore

The following procedure describes how to use an alternate partition to restore logged databases. This procedure requires Domino Server 5.03 (or later).

This procedure assumes the following environment:

### Domino Environment

- Installation directory: D:\Lotus\Domino
- Production Partition Data Directory: D:\production
- Alternate Partition Data Directory: E:\alternate
- Database to be restored: restoredb.nsf

### Data Protection for Domino

- Production Server Preferences File: production.cfg
  - The **notesinipath** option in the production.cfg file specifies *D:\production*.
- Alternate Partition Preferences File: alternate.cfg
  - The **notesinipath** option in the production.cfg file specifies *E:\alternate*.

1. Install an alternate partition if one is not available. See your Domino Server documentation for information on how to install an alternate partition.
  - a. You do not need to configure this alternate partition.
  - b. If using an existing alternate partition, make sure the server on that partition is stopped.
2. Create the following directories :
  - A directory to contain the restored databases. For example:  
E:\alternate\restoredb
  - A directory to contain the restored log files. For example:  
F:\alternatelog

If using an existing directory, make sure the directory is empty.

3. Create a notes.ini file with the following values:

```
[Notes]
Directory=<directory for restored databases>
KeyFilename=<directory for restored databases>\server.id
TRANSLOG_Status=0
TRANSLOG_Style=1
TRANSLOG_Path=<directory for restored databases>
TRANSLOG_MEDIAONLY=1
```

This notes.ini file can be located in any directory of your choice.

- a. If you place the notes.ini file in the alternate partition data directory, save a copy of the existing notes.ini file. For example:  
rename notes.ini notes.save
- b. If you place the notes.ini file in a directory other than the alternate partition data directory, update the Data Protection for Domino preferences file (domdsm.cfg by default) to point to the location of this notes.ini file:  
domdsmc set notesinipath=E:/restoredir /config=alternate.cfg
- c. This notes.ini file is used only during this alternate partition restore process. Note that transaction logging is disabled at this point. For example, in the file C:\alternate\notes.ini:

```
[Notes]
Directory=E:\alternate\restoredb
KeyFilename=E:\alternate\restoredb\server.id
```

```
TRANSLOG_Status=0  
TRANSLOG_Style=1  
TRANSLOG_Path=\alternatelog  
TRANSLOG_MEDIAONLY=1
```

4. Place a copy of the server.id file (from the production Domino Server) in the directory created for restored databases.
5. Perform an archive of the transaction log on the production server. This allows you to apply the latest updates from the transaction log to the restored database. For example:  
`domdsmc archivelog /config=production.cfg`

To use the Data Protection for Domino GUI: run the **domdsm** command with the **/config=production.cfg** parameter, archive the transaction logs, then close the GUI.

6. Restore one of the following on the alternate partition:
  - a. The last archived transaction log file. This is the transaction log file to be used in the log recovery procedure. For example:  
`domdsmc restorelogarchive /config=alternate.cfg`
- To use the Data Protection for Domino GUI: run the **domdsm** command with the **/config=alternate.cfg** parameter, restore the transaction logs, then close the GUI.
- b. A transaction log file to be restored from an old Logger ID. This may be necessary if you are trying to restore and apply transactions for a logged database that used an old Logger ID. See “Domdsmc Activatedbs” on page 25 for a description of when this type of restore may be necessary.
7. On the alternate partition, modify the notes.ini file to enable transaction logging:  
`TRANSLOG_Status=1`
- a. This is the notes.ini file created in Step 3 for the alternate partition restore process only.

8. On the alternate partition, restore (but do not activate) the databases you want to recover to their latest state.
  - a. Warning! Activation at this step triggers the Domino transaction log recovery process which requires considerable processing time.

For example:

```
domdsmc restore restoredb.nsf /config=alternate.cfg
```

To use the Data Protection for Domino GUI: run the **domdsm** command with the **/config=alternate.cfg** parameter, restore the *restoredb.nsf* database, then close the GUI.

9. On the alternate partition, activate the databases you are recovering and apply transaction logs. For example:  
`domdsmc activate /applylogs /config=alternate.cfg`

To use the Data Protection for Domino GUI: run the **domdsm** command with the **/config=alternate.cfg** parameter, activate and apply logs to the *restoredb.nsf* database, then close the GUI.

10. At this point you can perform the following:
  - a. copy the recovered databases to the production Domino server, or
  - b. access the recovered databases through a remote Notes client to copy individual documents.

**Note:** Do not attempt to open or access the restored databases with the alternate Domino Server if the databases are to be copied to the production Domino Server. If you access them with the alternate Domino server, they will require corrections to resolve inconsistencies on the production Domino Server.

11. If the alternate partition has been configured and you saved the notes.ini file in Step 3, copy that notes.save file back to notes.ini to be able to launch the server.



---

## Appendix D. Problem determination aids

If an error condition occurs during a Data Protection for Domino event, there are several sources of information you can view to help determine what the problem might be. The sources of information are listed below:

- Data Protection for Domino logs information, by default, to the domdsm.log file in the directory where Data Protection for Domino is installed. This file indicates the date and time of a backup, data backed up, and any error messages or completion codes. This file is very important and should be monitored daily.
- The Storage Manager API logs API error information, by default, to the dserror.log file in the directory where Data Protection for Domino is installed. This file does not contain backup statistics.
- The Domino Server logs information to the Windows NT/2000 Domino Event Log. Domino Server error information can be obtained by viewing the Windows NT/2000 Domino Event Log.
- The Storage Manager scheduler logs information to both the dsmsched.log and the dsmerror.log files. By default, these files are located in the directory where the Storage Manager backup-archive client is installed.

When a scheduled command is processed the schedule log may contain the following entry:

Scheduled event *eventname* completed successfully

This indicates that Storage Manager successfully issued the scheduled command associated with the *eventname*. No attempt is made to determine the success or failure of the command. You should assess the success or failure of the command by evaluating the return code from the scheduled command in the schedule log. The schedule log entry for the command's return code is prefaced with the following text:

Finished command. Return code is:

- The **statistics** option provides performance information at the individual database backup or restore level. Statistics are logged to the Data Protection for Domino log file (domdsm.log by default). Make sure this option is specified in the Data Protection for Domino preferences file (domdsm.cfg by default) during backup and restore processing.

If the sources of information listed above do not provide an answer to your problem, contact your IBM service representative. The IBM service representative can provide additional ways to gather diagnostic information.



---

## Appendix E. Migration Scenarios

Backups performed by Data Protection for Domino on a Domino R5.01 (or later) Server can be restored using Data Protection for Domino on a Domino 6 Server. However, backups performed by Data Protection for Domino on a Domino 6 Server or on a Domino R5.01 (or later) Server that has been upgraded to the Domino 6 Server On Disk Structure feature *can only be restored* by a Domino 6 Server.

Customers using the existing ADSMConnect Agent for Lotus Notes must migrate their backup solution as they update from Domino R4.x to Domino R5 for the following reasons:

- ADSMConnect Agent for Lotus Notes does not support Lotus Domino R5.
- Data Protection for Domino does not handle backup data stored by the current ADSMConnect Agent for Lotus Notes.

The following provides two possible migration scenarios. The scenario you choose depends on whether your database environment is utilizing replicated servers. For migration replicated servers are recommended. This environment allows for a smooth transition from Domino 4.x to R5 servers keeping existing backup data available until you determine that it is no longer required.

**Note:** *Replicated servers* means that your environment contains two or more servers with replicated databases.

---

### Migration in a replicated server environment

With replicated servers perform the following:

1. Install Domino R5 on *one* of the replicated Notes servers.
2. On the same server install Data Protection for Domino.
3. Stop taking backups on the 4.x server and begin with full backups using Data Protection for Domino (or if desired, continue backups in parallel on both servers until full R5 production environment is in place).

**Note:** Because Domino supports replication between R4.x and R5 servers, restores of backup data taken with the current Notes Storage Manager can be done using the current Notes Storage Manager on the 4.x server and replication will propagate it to the R5 server. Similarly, if a restore is done to the R5 server using the new Data Protection for Domino, that restored database can be replicated to the 4.x server.

4. Once you are satisfied with the stability of Domino R5 and the new backup scheme the other replicated server or servers can be upgraded with Domino R5 and Data Protection for Domino.

---

### Migration in a nonreplicated server environment

When a second server is not available for replication carefully perform the following:

1. Before upgrading the server to Domino R5, take a full offline backup of the databases using the regular Storage Manager client.
2. Install Domino R5 on the server.
3. Install Data Protection for Domino.
4. Begin with full backups using Data Protection for Domino

**Note:** If necessary, the R4.x level of the databases can be recovered using the regular Storage Manager Backup-Archive client.

---

## Appendix F. Include/exclude processing

Data Protection for Domino deals only with Domino databases and transaction log files (if archival logging is in effect on the Domino server). Other files that may exist on the server are not backed up by Data Protection for Domino so they need not be excluded. However, if you want to limit the backups to a subset of the databases on your Domino server, the standard include/exclude syntax can be used.

Read the documentation about include/exclude processing included in the base Storage Manager backup-archive client as a thorough introduction to processing concepts. Then, review the Special Notes section below regarding Data Protection for Domino.

---

### Special notes

1. Domino databases are stored by their relative names on the Storage Manager Server so relative names must be used on include/exclude statements. That means the notes data directory should not be specified and databases linked to the notes data directory by database or directory links must be referenced by the symbolic name. Do not use fully qualified physical file names.
2. A single database backup is stored as two objects on the Storage Manager Server. The objects created are the relative database name and the relative database name plus a *.DATA* extension. For example, a backup of database mail6\user1.nsf would result in the following two objects:
  - a. The relative name of the database:  
mail6\user1.nsf
  - b. The relative name of the database plus *.DATA*:  
mail6\user1.nsf.DATA

As a result, when excluding a group of databases (for example, all databases in a directory) and then including a specific subset of that group, you must be sure to include both objects. For example, to exclude all databases in directory mail6 except for database *user1.nsf*, code the following statements:

```
EXCLUDE mail6\*  
INCLUDE mail6\user1.nsf  
INCLUDE mail6\user1.nsf.DATA
```

**Note:** When excluding a specific database, the *.DATA* object need not be excluded explicitly because the *.DATA* object will not be created unless the database is included.

When assigning a group of databases to a management class, you must assign both objects. For example, to assign all databases that match \*.nsf in the mail6 subdirectory to the DOMINO management class, code the following statement:

```
INCLUDE mail6\*.nsf* DOMINO
```

3. If archival logging is in effect on the domino server, you must be sure not to exclude the transaction log files from backup. The transaction logs have a base object name of *S#####.TXN* (the "#" character represents a number). If you code a broad exclude statement, make sure you include the transaction log files by coding a statement as follows:  
  

```
INCLUDE S*.TXN
```

- Exclude databases that increase in size during compression (**compression yes**) by using the client option, **exclude.compression**. You must specify the .DATA object to exclude a database from compression.

For example, to exclude the database mail6\user1.nsf from compression, enter:

```
EXCLUDE.COMPRESSION mail6\user1.nsf.*
```

See *IBM Tivoli Storage Manager for Windows Backup-Archive Client Installation and User's Guide* for more information about the **exclude.compression** option.

#### Additional Examples

- Exclude all databases named *db1.nsf* regardless of where they appear:  
`EXCLUDE db1.nsf`
- Exclude all databases that match *help5\_\** in the *help* subdirectory:  
`EXCLUDE help\help5_*`
- Include all databases in the *mail6* directory:  
`INCLUDE mail6\...\*`
- Assign all databases that match *\*.nsf* in the *mail* subdirectory to the **MAILDB** management class:  
`INCLUDE mail\*.nsf* MAILDB`
- Exclude all databases in the *mail6* subdirectory from compression:  
`EXCLUDE.COMPRESSION mail6\...\*`
- The default INCLUDE/EXCLUDE lists.  
`EXCLUDE mail.box`  
`EXCLUDE log.nsf`

**Note:** You can back up the *log.nsf* database but you can only restore it to an alternate name.

- Include all transaction logs:

```
INCLUDE S*.TXN
```

---

## Appendix G. Multiple Domino Server partitions on Storage Manager Servers

### Multiple Domino Server partitions

To use Data Protection for Domino with multiple Domino server partitions on a single machine, you must specify which partition you want to work with by identifying the location of the notes.ini file for that partition. In addition, when working with multiple Domino partitions, you should have separate Data Protection for Domino log files for each server instance. Since the log file to be used is also specified in the Data Protection for Domino preferences (by the **logfile** option), the method to support multiple Domino partitions is to create multiple preference files as follows:

1. Use the **set** command with the **configfile** option to define a preferences file for each Domino partition to be supported. Be sure to set the **notesinipath** and **logfile** values appropriately. For example:

```
domdsmc set notesinipath=c:\notes\data1\ /configfile=domino1.cfg  
domdsmc set logfile=domdsm1.log /configfile=domino1.cfg  
domdsmc set notesinipath=c:\notes\data2\ /configfile=domino2.cfg  
domdsmc set logfile=domdsm2.log /configfile=domino2.cfg
```

**Note:** Other Domino application client preferences can be set as desired for each partition.

2. Use the **configfile** option when invoking the Data Protection for Domino executables to identify which preferences file is used for the command execution and thus which Domino partition will be accessed. For example:

```
domdsmc selective * /configfile=domino1.cfg  
domdsm /configfile=domino2.cfg  
domdsm /configfile=domino1.cfg
```

**Note:** For use of the GUI, it is recommended that separate shortcuts be created with the appropriate **configfile** value to make it easy to launch the Data Protection for Domino GUI from an icon or the Windows start menu.

---

### Multiple Storage Manager Servers

To use Data Protection for Domino with multiple Storage Manager Servers, create multiple Data Protection for Domino option files (one for each Storage Manager Server) and then use the **/adsmoptfile** parameter with the Data Protection for Domino executables to identify the desired server. For example, assuming you have created dsmerv1.opt and dsmerv2.opt to identify the address and communication parameters necessary to access two Storage Manager Servers, you can access the two servers as follows:

```
domdsmc selective * /adsmoptfile=dsmerv1.opt  
domdsmc selective * /adsmoptfile=dsmerv2.opt  
domdsm /adsmoptfile=dsmerv2.opt  
domdsm /adsmoptfile=dsmerv1.opt
```

**Note:** For use of the GUI, it is recommended that separate shortcuts be created with the appropriate **/adsmoptfile** value to make it easy to launch the Data Protection for Domino GUI from an icon or the windows start menu.



---

## Appendix H. Data Protection for Domino messages

This chapter lists Data Protection for Domino messages. For information on other Storage Manager product messages, refer to the *IBM Tivoli Storage Manager Messages*.

### Logging Messages to the Storage Manager Server

Several of the Data Protection for Domino messages are sent to the Storage Manager Server so that execution of the Data Protection for Domino can be centrally monitored. Specifically, those messages labeled **Centrally logged** can be sent to the Storage Manager Server. The centrally logged messages are in the range ACD5200 through ACD5299 but not all messages in that range are sent to the server. The Storage Manager Server then has the ability to route these messages to several different "receivers" which include the server activity log, the server console and other external monitoring facilities such as SNMP and the Tivoli/Enterprise Console (T/EC). The Storage Manager Server command **enable events** is used to control which receivers get the Data Protection for Domino messages. Also, the receivers provide an ability to filter which messages are actually processed. Some receivers provide filtering based on message severity while others (such as the T/EC receiver) allow filtering on individual message numbers.

Refer to the description of the **enable events** command in the following Storage Manager publication for details on the available receivers and the filtering supported by each: *IBM Tivoli Storage Manager for Windows Administrator's Guide*

---

<b>ACD0003S</b> <b>An internal processing error has occurred.</b>	<b>ACD0053E</b> <b>License file (licensefile) could not be opened.</b>
-------------------------------------------------------------------	------------------------------------------------------------------------

**Explanation:** An internal processing error has occurred.

**System Action:** Processing ends.

**User Response:** Retry the operation. If this error persists, contact your service representative.

**Explanation:** An attempt to read from the license file failed.

**System Action:** Processing ends.

**User Response:** Install the product again. This ensures that the correct license file is installed.

---

<b>ACD0004E</b> <b>An unknown error has been detected.</b>	<b>ACD0054E</b> <b>Read failure on license file (licensefile).</b>
------------------------------------------------------------	--------------------------------------------------------------------

**Explanation:** An internal processing error has occurred that prevents the generation of a message for a return code.

**System Action:** Processing continues.

**User Response:** Retry the operation. If this error persists, contact your service representative.

**Explanation:** An attempt was made to read from the license file. This attempt failed.

**System Action:** Processing ends.

**User Response:** Reinstall the product. This will ensure that the correct license file is installed.

---

<b>ACD0005E</b> <b>Out of memory. Stop other processes and try the operation again.</b>	<b>ACD0055E</b> <b>Write failure on license file (licensefile).</b>
-----------------------------------------------------------------------------------------	---------------------------------------------------------------------

**Explanation:** The machine has run out of memory.

**System Action:** Processing continues.

**User Response:** Close unnecessary processes and try the operation again.

**Explanation:** An attempt to write to the license file failed.

**System Action:** Processing ends.

**User Response:** Make sure enough space exists on the workstation to write to the license file. If enough space exists, run the command again.

---

**ACD0056E Data in the license file (licensefile) is not in a valid format.**

**Explanation:** An attempt to read information from the license file failed.

**System Action:** Processing ends.

**User Response:** Install the product again.

---

**ACD0057E The checksum in the license file (licensefile) does not match the license string text.**

**Explanation:** An attempt was made to read information from the license file. The checksum was not valid so it appears that the license file is not at the correct level.

**System Action:** Processing ends.

**User Response:** Reinstall the product.

---

**ACD0058E The 'Try and Buy' license has expired.**

**Explanation:** This 'Try and Buy' license that was detected has expired.

**System Action:** Processing ends.

**User Response:** This product is no longer valid for use. A valid license must be obtained before running the product.

---

**ACD0100E Incomplete command:**

**Explanation:** This message displays the incomplete command that was entered.

**System Action:** Processing ends.

**User Response:** Re-enter the complete command.

---

**ACD0101E Invalid argument:**

**Explanation:** This message displays the command that was entered, up to and including the invalid command or option argument that was detected.

**System Action:** Processing ends.

**User Response:** Re-enter the command specifying a valid argument for the command or option.

---

**ACD0102E Invalid command:**

**Explanation:** This message displays the invalid command that was entered.

**System Action:** Processing ends.

**User Response:** Re-enter a valid command.

---

**ACD0103E Invalid option for the specified command:**

**Explanation:** This message displays the command that was entered, up to and including the option that was detected as invalid for the command.

**System Action:** Processing ends.

**User Response:** Re-enter the command specifying valid command options.

---

---

**ACD0104E Invalid option:**

**Explanation:** This message displays the command that was entered, up to and including the invalid option that was detected.

**System Action:** Processing ends.

**User Response:** Re-enter the command specifying valid command options.

---

**ACD0105E Missing argument:**

**Explanation:** This message displays the command that was entered, up to and including the command or option whose required argument is missing.

**System Action:** Processing ends.

**User Response:** Re-enter the command specifying a valid argument for the command or option.

---

**ACD0132W Tracing could not be started. Processing will continue.**

**Explanation:** A problem prevented tracing from beginning.

**System Action:** Processing will continue with the command entered.

**User Response:** Refer to the other messages that display with this message to determine the problem.

---

**ACD0133W Could not locate installation directory. Attempting to continue...**

**Explanation:** An attempt was made to read the registry to determine where the Tivoli Data Protection application client was installed. This attempt failed.

**System Action:** Processing will continue with the command entered.

**User Response:** There should be other messages along with this one. Refer to the other messages to determine the problem. If the problem can not be determined, it may be necessary to reinstall the application client code. This will ensure that the registry entries are set up correctly.

---

**ACD0134W Could not locate log directory. Processing will continue...**

**Explanation:** An attempt was made to read the registry to determine where the Tivoli Data Protection application client log is located. This attempt failed.

**System Action:** Processing will continue with the command entered.

**User Response:** There should be other messages along with this one. Refer to the other messages to determine the problem. If the problem can not be determined, it may be necessary to reinstall the application client code. This will ensure that the registry entries are set up correctly.

---

<b>ACD0150I</b>	<b>Operation canceled by user.</b>
<b>Explanation:</b>	The user has requested that the Data Protection for Lotus Domino application client end by entering ctrl-C.
<b>System Action:</b>	Processing ends.
<b>User Response:</b>	None
<b>ACD0151E</b>	<b>Errors occurred while processing the request.</b>
<b>Explanation:</b>	Attempting to process the request entered, an error occurred.
<b>System Action:</b>	Processing ends.
<b>User Response:</b>	Attempt to determine the source of the errors from viewing the log file. Correct the problems and try running the command again.
<b>ACD0152I</b>	<b>Performance stats: seconds seconds spent in apicall API calls</b>
<b>Explanation:</b>	The indicated number of seconds were spent making API calls for the indicated system.
<b>System Action:</b>	Processing continues.
<b>User Response:</b>	None
<b>ACD0153I</b>	<b>Performance stats: seconds seconds spent in function</b>
<b>Explanation:</b>	The indicated number of seconds were spent the named function.
<b>System Action:</b>	Processing continues.
<b>User Response:</b>	None
<b>ACD0154E</b>	<b>The Data Protection for Lotus Domino application client cannot work with the version of the Tivoli Storage Manager API you have installed. Please install version <i>version.release.level</i> or greater.</b>
<b>Explanation:</b>	The version of the Tivoli Storage Manager API currently installed on the system is older than the version used to build the Data Protection for Lotus Domino application client.
<b>System Action:</b>	Processing ends.
<b>User Response:</b>	Install a version of the Tivoli Storage Manager API at or later than the indicated level. A copy is distributed with the Data Protection for Lotus Domino application client.
<b>ACD0155E</b>	<b>The Data Protection for Lotus Domino application client cannot work with the release of Tivoli Storage Manager API you have installed. Please install release <i>version.release.level</i> or greater.</b>
<b>Explanation:</b>	The release of the Tivoli Storage Manager API currently installed on the system is older than the release used to build the Data Protection for Lotus Domino application client.
<b>System Action:</b>	Processing ends.
<b>User Response:</b>	Install a release of the Tivoli Storage Manager API at or later than the indicated level. A

copy is distributed with the Data Protection for Lotus Domino application client.

<b>ACD0156E</b>	<b>Could not load the Tivoli Storage Manager API.</b>
<b>Explanation:</b>	The Tivoli Storage Manager API could not be loaded.
<b>System Action:</b>	Processing ends.
<b>User Response:</b>	Ensure the Tivoli Storage Manager API is correctly installed. Run the longprod; application client with the /TRACEFLAGS=API /TRACEFILE=filename options and view the tracefile to determine why it could not be loaded. Another possible cause is that the TSMAPI.DLL does not exist in the system directory. Re-install the Tivoli Storage Manager API, if this is the case.
<b>ACD0160E</b>	<b>An authentication error occurred with your stored Tivoli Storage Manager password.</b>
<b>Explanation:</b>	You were unable to log on to the Tivoli Storage Manager server due an authentication error.
<b>System Action:</b>	Processing stops.
<b>User Response:</b>	The stored Tivoli Storage Manager password may have become corrupted. Contact your Tivoli Storage Manager server administrator.
<b>ACD0161E</b>	<b>Authentication error. The password entered is not valid. You are not logged on to the Tivoli Storage Manager server.</b>
<b>Explanation:</b>	An incorrect password was entered.
<b>System Action:</b>	Processing stops.
<b>User Response:</b>	Enter the correct Tivoli Storage Manager password and try again.
<b>ACD0162E</b>	<b>The passwords entered do not match. Please enter them again.</b>
<b>Explanation:</b>	An incorrect password was entered.
<b>System Action:</b>	Processing stops.
<b>User Response:</b>	Enter the passwords again.
<b>ACD0163E</b>	<b>The directory path needs to be fully-qualified.</b>
<b>Explanation:</b>	The /intopath option was specified without a fully-qualified path.
<b>System Action:</b>	Processing stops.
<b>User Response:</b>	Enter the command again and specify a fully-qualified path in the /intopath option.
<b>ACD0167E</b>	<b>The fully-qualified file name is too long.</b>
<b>Explanation:</b>	An attempt was made to use a fully-qualified file name that was too long. This attempt failed.
<b>System Action:</b>	Processing ends.
<b>User Response:</b>	None

---

**ACD0200E File (filename) could not be opened for reading.**

**Explanation:** An attempt was made to open a file for reading. This attempt failed.

**System Action:** Processing ends.

**User Response:** None

---

**ACD0201E File (filename) could not be opened for writing.**

**Explanation:** An attempt was made to open a file for writing. This attempt failed.

**System Action:** Processing ends.

**User Response:** None

---

**ACD0202E Read failure on file (filename).**

**Explanation:** An attempt was made to read from a file. This attempt failed.

**System Action:** Processing ends.

**User Response:** None

---

**ACD0203E Write failure on file (filename).**

**Explanation:** An attempt was made to write to a file. This attempt failed.

**System Action:** Processing ends.

**User Response:** None

---

**ACD0204E File (filename) could not be closed.**

**Explanation:** An attempt was made to close a file. This attempt failed.

**System Action:** Processing ends.

**User Response:** None

---

**ACD0205E File (filename) statistics could not be obtained.**

**Explanation:** An attempt was made to obtain file statistics. This attempt failed.

**System Action:** Processing ends.

**User Response:** None

---

**ACD0206E Directory (directory) could not be created.**

**Explanation:** An attempt was made to create a directory. This attempt failed.

**System Action:** Processing ends.

**User Response:** None

---

**ACD0207E Directory path (directorypath) is too long.**

**Explanation:** An attempt was made to use a directory path that was too long. This attempt failed.

**System Action:** Processing ends.

**User Response:** None

---

**ACD0208E There is not enough disk space for the operation attempted.**

**Explanation:** An attempted operation required more disk space than was available. The attempt failed.

**System Action:** Processing ends.

**User Response:** None

---

**ACD0209E The rename of file (filename1) to (filename2) failed.**

**Explanation:** An attempt was made to rename a file. This attempt failed.

**System Action:** Processing ends.

**User Response:** None

---

**ACD0210E The Tivoli Storage Manager high level qualifier is too long.**

**Explanation:** An attempt was made to use a Tivoli Storage Manager high level qualifier that was too long. This attempt failed.

**System Action:** Processing ends.

**User Response:** None

---

**ACD0211E The Tivoli Storage Manager low level qualifier is too long.**

**Explanation:** An attempt was made to use a Tivoli Storage Manager low level qualifier that was too long. This attempt failed.

**System Action:** Processing ends.

**User Response:** None

---

**ACD0212E The Tivoli Storage Manager filespace name is too long.**

**Explanation:** An attempt was made to use a Tivoli Storage Manager filespace name that was too long. This attempt failed.

**System Action:** Processing ends.

**User Response:** None

---

**ACD0213E The maximum number of objects allowed per Tivoli Storage Manager transaction is too small.**

**Explanation:** In order to maintain backup data integrity, multiple backup objects are sent to the Tivoli Storage Manager server in a single transaction. The Tivoli Storage Manager server has indicated that the maximum number of objects allowed per transaction is less than the minimum required by the Data Protection for Lotus Domino application client.

**System Action:** Processing ends.

**User Response:** Increase the maximum number of objects allowed per transaction on the Tivoli Storage Manager server and retry the operation.

---

**ACD0214E The backup object's management class backup copy group does not exist.**

**Explanation:** The Tivoli Storage Manager server has indicated that the backup object's management class backup copy group does not exist.

**System Action:** Processing ends.

**User Response:** Contact your Tivoli Storage Manager server administrator.

---

**ACD0215E All backup objects do not have the same management class backup copy destination.**

**Explanation:** In order to maintain backup data integrity, multiple backup objects are sent to the Tivoli Storage Manager server within a single transaction. All backup objects within a single transaction are required to have the same management class backup copy destinations.

**System Action:** Processing ends.

**User Response:** Contact your Tivoli Storage Manager server administrator.

---

**ACD0216E Unable to obtain space information for volume (*volumename*).**

**Explanation:** An attempt was made to obtain space information for a volume. This attempt failed.

**System Action:** Processing ends.

**User Response:** None

---

**ACD0217E The Tivoli Storage Manager filesystem name is invalid.**

**System Action:** Processing ends.

**User Response:** Contact your service representative.

---

**ACD0218E The Tivoli Storage Manager high level qualifier is invalid.**

**System Action:** Processing ends.

**User Response:** Contact your service representative.

---

**ACD0219E The Tivoli Storage Manager low level qualifier is invalid.**

**System Action:** Processing ends.

**User Response:** Contact your service representative.

---

**ACD0256E The password in your Tivoli Storage Manager options file has expired. Please change your password on the Tivoli Storage Manager server using the 'change password' command and then either change or remove the password value in your options file.**

**Explanation:** Your Tivoli Storage Manager password has expired. You need to change your password.

**System Action:** Processing ends.

**User Response:** Obtain a new password for your Tivoli Storage Manager server; node using the change password command or by asking your Tivoli Storage Manager Administrator to change your password.

---

**ACD0257E Your password has expired.**

**Explanation:** Your Tivoli Storage Manager password has expired. A new password needs to be obtained.

**System Action:** Processing ends.

**User Response:** Obtain a new password for your Tivoli Storage Manager node using the change password command or by asking your Tivoli Storage

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Manager Administrator to change your password.

---

**ACD0258E You did not enter a valid password. Processing ends.**

**Explanation:** The password that was entered was not a valid password.

**System Action:** Processing ends.

**User Response:** Re-enter the command specifying a valid password.

---

**ACD0259E The password you entered for verification does not match the password you entered for your new password. Your password will not be changed.**

**Explanation:** The password you entered for verification of your new password does not match the new password that was entered.

**System Action:** Processing ends.

**User Response:** Try again to change your password being sure to enter the same password for the new password and for the verification password.

---

**ACD0260I Password successfully changed.**

**Explanation:** The change password command completed successfully

**System Action:** Processing ends.

**User Response:** None

---

**ACD0261I There are no backups for the server named *servername*.**

**Explanation:** There are no backups on the Tivoli Storage Manager server for the specified server name.

**System Action:** Processing ends.

**User Response:** None

---

**ACD0263E Failed to start Web browser with a return code of *returncode*.**

**Explanation:** An attempt was made to start the web browser to view the Storage Manager HTML book. This attempt failed.

**System Action:** Processing ends.

**User Response:** Start your web browser manually and point it to bookfrm.htm in the agent htm directory.

---

**ACD0264I Could not find the default browser defined. An attempt will be made to use Microsoft Internet Explorer.**

**Explanation:** An attempt was made to read the registry to determine the default browser. However, a default browser is not defined. A determination will be made where Microsoft Internet Explorer is installed.

**System Action:** Processing continues.

**User Response:** It is possible that a default browser is not defined for the system. This is okay. An attempt will be made to use Microsoft Internet Explorer.

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**ACD0265E Could not find Internet Explorer.**

**Explanation:** An attempt was made to read the registry to determine where Microsoft's Internet Explorer was installed. This attempt failed.

**System Action:** Processing ends.

**User Response:** Make sure that the registry is set up correctly for Internet Explorer.

---

**ACD0266E Could not find the Tivoli Storage Manager HTML books.**

**Explanation:** An attempt was made to read the registry to determine where the Tivoli Storage Manager books were installed. This attempt failed.

**System Action:** Processing ends.

**User Response:** It may be necessary to reinstall the application client code. This will ensure that the registry entries are set up correctly.

---

**ACD0267E The verify password entered does not match the new password entered.**

**Explanation:** The verify password does not match the new password.

**System Action:** Processing ends.

**User Response:** Retry the command with a matching verify password.

---

**ACD0300E Invalid restore type.**

**Explanation:** The type of restore requested is invalid.

**System Action:** Processing ends.

**User Response:** Re-enter the command specifying a valid restore type.

---

**ACD0301E Invalid backup type.**

**Explanation:** The type of backup requested is invalid.

**System Action:** Processing ends.

**User Response:** Re-enter the command specifying a valid backup type.

---

**ACD351E Invalid trace keyword - 'keyword'**

**Explanation:** A TRACEFLAG option in the user configuration file or on the command line is incorrect.

**System Action:** Client program did not initialize or tracing was not enabled in the applet.

**User Response:** Correct the value.

---

**ACD357E Unable to open trace output file *file-name*.**

**Explanation:** A TRACEFILE option in the user configuration file or on the command line used a directory path and *file-name* combination to which you do not have write access.

**System Action:** Client program did not initialize.

**User Response:** Change the TRACEFILE value so that it is a location to which you have write access.

---

**ACD366E Unable to close trace output file *file-name*.**

**Explanation:** An error occurred during the closing of a trace output *file-name* (for example, not enough disk space).

**System Action:** Processing continues.

**User Response:** Check the options.doc file for a description of possible causes of the error, or see your system administrator.

---

**ACD367E Unable to write to trace file *tracefile*. Tracing disabled.**

**Explanation:** An error occurred when writing to the specified *tracefile*.

**System Action:** Tracing is disabled. Processing continues.

**User Response:** Ensure the device that the *tracefile* access is available and has sufficient space for the tracefile. Retry the command.

---

**ACD368E Invalid trace file name (name too long).**

**Explanation:** A TRACEFILE option in the preferences files used a file name that is too long.

**System Action:** Client program did not initialize.

**User Response:** Change the file name used as the TRACEFILE so that it is equal to or less than 255 characters in length.

---

**ACD383E Specifying the trace file '*link*' as a symbolic link is not allowed.**

**Explanation:** Trace file '*linkname*' cannot be a symbolic link.

**System Action:** The symbolic link '*linkname*' is deleted, the trace file is recreated, and processing stops.

**User Response:** Specify the trace file location with the 'tracefile' option.

---

**ACD384E Symbolic link '*linkname*' to '*target*' was successfully deleted.**

**Explanation:** Log '*linkname*' cannot be a symbolic link.

**System Action:** The symbolic link '*linkname*' is deleted, the log is recreated, and processing stops.

**User Response:** Check the location of the new file. To specify the location of log files, refer to the user's manual for the 'errorlogname' option, the 'schedlogname' option, and the 'DSM\_LOG' environmental variable.

---

**ACD385E Unable to delete symbolic link '*link*'.**

**Explanation:** Log '*linkname*' cannot be a symbolic link.

**System Action:** Processing stops.

**User Response:** Delete the symbolic link '*linkname*'.

---

---

**ACD476E** *program-name: cannot open file file-spec error.*

**Explanation:** TDP cannot open the file.

**System Action:** TDP cannot complete the requested operation.

**User Response:** Retry the operation. If the problem continues, check with your system administrator.

---

**ACD5022I** *A new configuration file has been created.*

**Explanation:** The /configfile value specified a file name that does not exist. A new file was created.

**System Action:** Processing continues.

**User Response:** None.

---

**ACD5023W** *The configuration file cannot be found, using default settings.*

**Explanation:** The /configfile value specified a file that cannot be found. Default settings are used.

**System Action:** Processing continues.

**User Response:** Ensure the correct file name is specified, then enter the command again.

---

**ACD5025E** *PASSWORDACCESS is Generate. Either the stored password is incorrect or there is no stored password. If you do not have a stored password, use of the -ADSMPWD=xxx option will set and store your password.*

**Explanation:** The PASSWORDACCESS option specifies generate in the client options files. There is currently no stored password. An initial password needs to be stored.

**System Action:** Processing ends.

**User Response:** Invoke the command again using the -ADSMPWD option. Subsequent commands should now complete without specifying a password.

---

**ACD5110E** *Could not locate the Domino server configuration file (notes.ini).*

**Explanation:** The Data Protection for Lotus Domino application client could not find the Domino server configuration file (notes.ini) file.

**System Action:** Processing ends.

**User Response:** Ensure that either the 'notes.ini' file is specified in the PATH statement or that the 'NOTESInipath' configuration parameter is correct.

---

**ACD5111E** *Error getting the name of the Domino data directory.*

**Explanation:** The Lotus Domino API could not return the name of the Domino data directory.

**System Action:** Processing ends.

**User Response:** Ensure the Lotus Domino server is correctly installed.

---

---

**ACD5115E** *No databases were found that match the file specification entered.*

**Explanation:** The Lotus Domino Server was searched for databases that matched the entered file specification. No databases were found.

**System Action:** Processing ends.

**User Response:** Correct the file specification and try the operation again.

---

**ACD5128E** *The user specified NotesIniPath does not exist. Verify that the path setup for the NotesIniPath preference really exists.*

**Explanation:** The IBM Tivoli Storage Manager for Mail 5.1.5 application client could not find the specified NotesIniPath.

**System Action:** Processing ends.

**User Response:** Issue the 'DOMDSMC QUERY PREFERENCES' command to ensure that the NotesIniPath is correctly specified in the preferences file.

---

**ACD5129E** *The Lotus Domino Server program executable directory was not found.*

**Explanation:** The Data Protection for Lotus Domino application client could not find the Lotus Domino Server program executable directory.

**System Action:** Processing ends.

**User Response:** Ensure that the PATH statement contains the Lotus Domino Server program executable directory, then retry the operation.

---

**ACD5130E** *Could not initialize the connection to Lotus Domino properly. error=errorcode*

**Explanation:** The Data Protection for Lotus Domino application client could not initialize Lotus Domino properly. The error code is given.

**System Action:** Processing ends.

**User Response:** Ensure that Data Protection for Lotus Domino and the Lotus Domino Server are properly installed, then try the operation again.

---

**ACD5200I** *Data Protection for Domino: Starting backup of database database from server servername.*

**Explanation:** This informational message is written to the Tivoli Storage Manager Server activity log when a database backup begins.

**System Action:** None

**User Response:** None Centrally logged

---

**ACD5201I** *Data Protection for Domino: Backup of database database from server servername completed successfully.*

**Explanation:** This informational message is written to the Tivoli Storage Manager Server activity log when a database backup completes successfully.

**System Action:** None

**User Response:** None Centrally logged

**ACD5202E Data Protection for Domino: Backup of database *database* from server *servername* failed.**

**Explanation:** This informational message is written to the Tivoli Storage Manager Server activity log when a database backup fails.

**System Action:** None

**User Response:** None Centrally logged

**ACD5203I Data Protection for Domino: Starting archive of transaction log file *transactionlog* from server *servername*.**

**Explanation:** This informational message is written to the Tivoli Storage Manager Server activity log when a transaction log file archive begins.

**System Action:** None

**User Response:** None Centrally logged

**ACD5204I Data Protection for Domino: Archive of transaction log file *transactionlog* from server *servername* completed successfully.**

**Explanation:** This informational message is written to the Tivoli Storage Manager Server activity log when a transaction log file archive completes successfully.

**System Action:** None

**User Response:** None Centrally logged

**ACD5205E Data Protection for Domino: Archive of transaction log file *transactionlog* from server *servername* failed.**

**Explanation:** This informational message is written to the Tivoli Storage Manager Server activity log when a transaction log file archive fails.

**System Action:** None

**User Response:** None Centrally logged

**ACD5206I Data Protection for Domino: Starting incremental database backup from server *servername*.**

**Explanation:** This informational message is written to the Tivoli Storage Manager Server activity log when an incremental backup begins.

**System Action:** None

**User Response:** None Centrally logged

**ACD5207I Data Protection for Domino: Incremental database backup from server *servername* complete. Total Domino databases backed up: *numberdbs* Total bytes transferred: *bytes* Elapsed processing time: *time* Secs Throughput rate: *rate* Kb/Sec**

**Explanation:** This informational message is written to the Tivoli Storage Manager Server activity log when an incremental backup ends.

**System Action:** None

**User Response:** None Centrally logged

**ACD5208I Data Protection for Domino: Starting selective database backup from server *servername*.**

**Explanation:** This is an informational message that is written to the Tivoli Storage Manager Server activity log when a selective backup is started.

**System Action:** None

**User Response:** None Centrally logged

**ACD5209I Data Protection for Domino: Selective database backup from server *servername* complete. Total Domino databases backed up: *numberdbs* Total bytes transferred: *bytes* Elapsed processing time: *time* Secs Throughput rate: *rate* Kb/Sec**

**Explanation:** This is informational message is written to the Tivoli Storage Manager Server activity log when a selective backup ends.

**System Action:** None

**User Response:** None Centrally logged

**ACD5210I Data Protection for Domino: Starting transaction log archive from server *servername*.**

**Explanation:** This informational message is written to the Tivoli Storage Manager Server activity log when a transaction log archive begins.

**System Action:** None

**User Response:** None Centrally logged

**ACD5211I Transaction log archive from server *servername* complete. Total transaction log files archived: *transactionlogs* Total bytes transferred: *bytes* Elapsed processing time: *time* Secs Throughput rate: *rate* Kb/Sec**

**Explanation:** This informational message is written to the Tivoli Storage Manager Server activity log when a transaction log archive ends.

**System Action:** None

**User Response:** None Centrally logged

**ACD5212I Data Protection for Domino: Starting restore for server *servername*.**

**Explanation:** This informational message is written to the Tivoli Storage Manager Server activity log when a restore begins.

**System Action:** None

**User Response:** None Centrally logged

<b>ACD5213I</b>	<b>Data Protection for Domino: Restore database from server <i>servername</i> to server <i>servername</i> complete. Total Domino databases restored: <i>number dbs</i> Total bytes transferred: <i>bytes</i> Elapsed processing time: <i>time Secs</i> Throughput rate: <i>rate Kb/Sec</i></b>	<p><b>Explanation:</b> This informational message is written to the Tivoli Storage Manager Server activity log when a restore ends.</p> <p><b>System Action:</b> None</p> <p><b>User Response:</b> None Centrally logged</p>
<b>ACD5215E</b>	<b>An error occurred trying to set the requested preference.</b>  <b>Explanation:</b> An error occurred while writing to the preferences file. <b>System Action:</b> Processing ends. <b>User Response:</b> View other messages that display. Perform actions described in those messages, then run the command again.	
<b>ACD5216E</b>	<b>The value for the <i>preference</i> preference is not valid. See the DOMDSMC HELP SET output or the User's Guide for valid SET command parameters.</b>  <b>Explanation:</b> The preference being set is not valid. <b>System Action:</b> Processing ends. <b>User Response:</b> You can either run the command "domdsmc help set" or view the User's Guide for valid SET command parameters.	
<b>ACD5217I</b>	<b>The preference has been set successfully.</b>  <b>Explanation:</b> The preference was set successfully. <b>System Action:</b> Processing ends. <b>User Response:</b> None	
<b>ACD5218E</b>	<b>The Lotus Domino API could not be loaded. Could not load the nnotes.dll</b>  <b>Explanation:</b> The Lotus Domino API, nnotes.dll, could not be loaded. <b>System Action:</b> Processing ends. <b>User Response:</b> Ensure the Lotus Domino Server is installed correctly.	
<b>ACD5220I</b>	<b>The <i>logfile</i> log file could not be pruned. Processing will continue.</b>  <b>Explanation:</b> An attempt to prune the log was unsuccessful. <b>System Action:</b> Processing continues. <b>User Response:</b> The log file may not exist. If the log file does exist, view the log file for indications of what may be the problem.	
<b>ACD5221I</b>	<b>The <i>logfile</i> log file has been pruned successfully.</b>	<p><b>Explanation:</b> The log mentioned pruned successfully.</p> <p><b>System Action:</b> Processing continues.</p> <p><b>User Response:</b> None.</p>
<b>ACD5222W</b>	<b>The logfile name is greater than the maximum allowed. Processing will continue using a logfile name of <i>logfile</i> in the current directory.</b>	<p><b>Explanation:</b> The logfile name entered was not fully qualified. When the fully qualified logfile name was created, it was longer than the possible length of a logfile.</p> <p><b>System Action:</b> Processing continues creating and using a logfile in the current directory.</p> <p><b>User Response:</b> You may want to consider updating the logfile name using a fully qualified path.</p>
<b>ACD5223E</b>	<b>The database could not be placed into pending state. The pending database list was in use.</b>	<p><b>Explanation:</b> The database was not placed into pending state because the pending database list was in use at the time or the permissions did not allow access.</p> <p><b>System Action:</b> The database was not restored correctly and is unusable.</p> <p><b>User Response:</b> Try to restore the database again. Contact your service representative if the error persists.</p>
<b>ACD5224E</b>	<b>Could not obtain the current pending database list. The pending database list was not available.</b>	<p><b>Explanation:</b> The pending database list could not be read because the pending database list was in use at the time or the permissions did not allow access.</p> <p><b>System Action:</b> None.</p> <p><b>User Response:</b> Try the operation again. Contact your service representative if the error persists.</p>
<b>ACD5225E</b>	<b>Unknown Domino API error code received: <i>returncode</i></b>	<p><b>Explanation:</b> An unknown Domino API error code was received. The error code is specified in the text of the message.</p> <p><b>System Action:</b> Processing ends.</p> <p><b>User Response:</b> Try the operation again. Contact your service representative if the error persists.</p>
<b>ACD5226W</b>	<b>The <i>logfile</i> log file cannot be opened for writing. There will be no logging of events.</b>	<p><b>Explanation:</b> The log file mentioned could not be opened for appends. No logging is performed.</p> <p><b>System Action:</b> Processing continues without logging.</p> <p><b>User Response:</b> Determine why the log file could not be opened. The log file is either referring to a</p>

non-existent drive or partition, or the file is designated read-only.

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**ACD5227W The *logfile* log file cannot be opened for writing. The log was not pruned and there will be no logging of events.**

**Explanation:** The log file mentioned could not be opened for appends. No logging is performed and the request to prune now was ignored.

**System Action:** Processing continues without logging and without pruning.

**User Response:** Determine why the log file could not be opened. The log file is either referring to a non-existent drive or partition, or the log file is designated read-only.

---

**ACD5228I Data Protection for Domino: Starting restore of database *database* to *database* on server *servername*.**

**Explanation:** This is an informational message that is written to the Tivoli Storage Manager Server activity log when a database restore is started.

**System Action:** None

**User Response:** None Centrally logged

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**ACD5229I Data Protection for Domino: Restore of database *database* to server *servername* completed successfully.**

**Explanation:** This informational message is written to the Tivoli Storage Manager Server activity log when a database restore completes successfully.

**System Action:** None

**User Response:** None Centrally logged

---

**ACD5230E Data Protection for Domino: Restore of database *database* to server *servername* failed.**

**Explanation:** This informational message is written to the Tivoli Storage Manager Server activity log when a database restore fails.

**System Action:** None

**User Response:** None Centrally logged

---

**ACD5231I Data Protection for Domino: Starting inactivation of transaction log archives for server *servername*.**

**Explanation:** This informational message is written to the Tivoli Storage Manager Server activity log when an inactivation of transaction log file archives begins.

**System Action:** None

**User Response:** None Centrally logged

---

**ACD5232I Data Protection for Domino: Ending inactivation of transaction log archives for server *servername*. There were *numberlogs* transaction log archives inactivated.**

**Explanation:** This informational message is written to the Tivoli Storage Manager Server activity log when an inactivation of transaction log file archives ends.

**System Action:** None

**User Response:** None Centrally logged

---

**ACD5233E Data Protection for Domino: Inactivation of *transactionlog* transaction log archive failed.**

**Explanation:** This informational message is written to the Tivoli Storage Manager Server activity log when an inactivation of a transaction log file archive fails.

**System Action:** None

**User Response:** None Centrally logged

---

**ACD5234I Data Protection for Domino: Inactivation of *transactionlog* transaction log archive succeeded.**

**Explanation:** This informational message is written to the Tivoli Storage Manager Server activity log when an inactivation of a transaction log file archive succeeds.

**System Action:** None

**User Response:** None Centrally logged

---

**ACD5235I Data Protection for Domino: Starting inactivation of transaction log archive *transactionlog*.**

**Explanation:** This informational message is written to the Tivoli Storage Manager Server activity log when an inactivation of a transaction log file archive begins.

**System Action:** None

**User Response:** None Centrally logged

---

**ACD5236I Data Protection for Domino: Starting restore of transaction log files for server *servername*.**

**Explanation:** This informational message is written to the Tivoli Storage Manager Server activity log when a restore of transaction log files begins.

**System Action:** None

**User Response:** None Centrally logged

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**ACD5237I Data Protection for Domino: Restore of log files for server *servername* complete. Total Domino log files restored: *numberlogs* Total bytes transferred: *bytes* Elapsed processing time: *time Secs***

**Explanation:** This informational message is written to the Tivoli Storage Manager Server activity log when a restore of transaction log files ends.

**System Action:** None

**User Response:** None Centrally logged

<p><b>ACD5238I Data Protection for Domino: Starting restore of transaction log file <i>transactionlog</i> for server <i>servername</i>.</b></p> <p><b>Explanation:</b> This informational message is written to the Tivoli Storage Manager Server activity log when a restore of a transaction log file begins.</p> <p><b>System Action:</b> None</p> <p><b>User Response:</b> None Centrally logged</p>	<p><b>ACD5332E No transaction log file archives were found that match the file specification entered.</b></p> <p><b>Explanation:</b> The Tivoli Storage Manager Server was searched for transaction log file archives that match the entered file specification. No transaction log file archives were found.</p> <p><b>System Action:</b> Processing ends.</p> <p><b>User Response:</b> Correct the file specification and retry the operation.</p>
<p><b>ACD5239E Data Protection for DominoRestore of transaction log file <i>transactionlog</i> failed.</b></p> <p><b>Explanation:</b> This informational message is written to the Tivoli Storage Manager Server activity log when a restore of a transaction log file fails.</p> <p><b>System Action:</b> None</p> <p><b>User Response:</b> None Centrally logged</p>	<p><b>ACD5335I No Transaction Log Files match the following file spec(s): <i>filespec</i></b></p> <p><b>Explanation:</b> The Storage Manager API could not find any transaction log extents that match the entered file specification.</p> <p><b>System Action:</b> The file specification is ignored.</p> <p><b>User Response:</b> Check for a misspelled file specification, then enter the command again.</p>
<p><b>ACD5240I Data Protection for Domino: Restore of log file <i>transactionlog</i> succeeded.</b></p> <p><b>Explanation:</b> This informational message is written to the Tivoli Storage Manager Server activity log when a restore of a transaction log file succeeds.</p> <p><b>System Action:</b> None</p> <p><b>User Response:</b> None Centrally logged</p>	<p><b>ACD5404E There is no keyfilename or serverKeyfilename entry in the notes.ini file</b></p> <p><b>Explanation:</b> The name of the Lotus Domino Server ID file was not found in the notes.ini file</p> <p><b>System Action:</b> Processing ends.</p> <p><b>User Response:</b> Ensure the Lotus Domino Server is correctly installed.</p>
<p><b>ACD5242I Data Protection for Domino: Restore of transaction log files for server <i>servername</i> complete. Total Domino transaction log files restored: <i>numberlogs</i> Total bytes transferred: <i>bytes</i> Elapsed processing time: <i>time</i> Secs Throughput rate: <i>rate</i> Kb/Sec</b></p> <p><b>Explanation:</b> This informational message is written to the Tivoli Storage Manager Server activity log when a restore of transaction log files ends.</p> <p><b>System Action:</b> None</p> <p><b>User Response:</b> None Centrally logged</p>	<p><b>ACD5405E There is no server name in the Lotus Domino Server id file</b></p> <p><b>Explanation:</b> The name of the Lotus Domino Server was not found in the ID file.</p> <p><b>System Action:</b> Processing ends.</p> <p><b>User Response:</b> Ensure the Lotus Domino Server is correctly installed.</p>
<p><b>ACD5243E Transaction log files to be restored span multiple log identifiers.</b></p> <p><b>Explanation:</b> All transaction log files to be restored must have the same log identifier.</p> <p><b>System Action:</b> Processing ends.</p> <p><b>User Response:</b> Enter a separate command for each set of transaction log files that correspond to a unique log identifier.</p>	<p><b>ACD5406E The directory <i>directory</i> does not exist</b></p> <p><b>Explanation:</b> The specified directory was not found.</p> <p><b>System Action:</b> Processing ends.</p> <p><b>User Response:</b> Ensure the directory exists, then try the command again.</p>
<p><b>ACD5327I No databases match the following file spec(s): <i>filespec</i></b></p> <p><b>Explanation:</b> The Domino API could not find databases that match this file specification.</p> <p><b>System Action:</b> The file specification is ignored.</p> <p><b>User Response:</b> Check for a misspelled file specification, then enter command again.</p>	<p><b>ACD5407E The database <i>database</i> does not exist</b></p> <p><b>Explanation:</b> The specified database was not found.</p> <p><b>System Action:</b> Processing ends.</p> <p><b>User Response:</b> Ensure the database exists, then try the command again.</p>
<p><b>ACD5408E The NotesInitExtended api failed with a return code of <i>returncode</i>. The error message text for this is not available.</b></p> <p><b>Explanation:</b> Notes initialization failed with the indicated return code.</p> <p><b>System Action:</b> Processing ends.</p> <p><b>User Response:</b> Ensure the Lotus Domino Server is installed correctly.</p>	

<b>ACD5412W</b> An error was encountered with Tivoli Storage Manager API initialization, <code>rc = returncode</code> . Examine the <code>dsierror.log</code> for more information or determine if the Storage Manager API is installed properly.	<b>ACD5613E</b> You can only archive logs on a Domino Server with archival logging on. <b>Domino return code:</b> <code>returncode</code> . <b>Explanation:</b> An attempt was made to archive logs on a Domino Server that is not running archival logging. <b>System Action:</b> Processing ends. <b>User Response:</b> This operation cannot be performed until archival logging is turned on for the Domino server.
<b>Explanation:</b> Errors were encountered during an attempt to run setup for the Tivoli Storage Manager API. <b>System Action:</b> Processing continues. <b>User Response:</b> Examine the <code>dsierror.log</code> file to determine the problem. If this file does not exist, the Storage Manager API may not be correctly installed. If this is the case, install the Storage Manager API again and then run the command.	
<b>ACD5418I</b> There are no databases pending activation. <b>Explanation:</b> A query was issued to look at databases that are pending activation. There are no databases pending activation. <b>System Action:</b> Processing ends. <b>User Response:</b> None	<b>ACD5614E</b> The Domino Server is not running with logging on. You cannot applylogs. <b>Domino return code:</b> <code>returncode</code> . <b>Explanation:</b> An attempt was made to restore a database and applylogs to this database. However, logging has not been turned on for your Domino server. <b>System Action:</b> Processing ends. <b>User Response:</b> This operation cannot be performed until logging is turned on for your Domino server.
<b>ACD5420E</b> File <code>filename</code> is not a database. <b>Explanation:</b> The specified file is not a database. <b>System Action:</b> Processing ends. <b>User Response:</b> Specify a valid database name, then try the operation again.	<b>ACD5615E</b> You cannot archive a Domino Log file when logging is turned off. Domino return code: <code>returncode</code> . <b>Explanation:</b> An attempt was made to archive a Domino Log file for a Domino server that is not running archival logging. <b>System Action:</b> Processing ends. <b>User Response:</b> This operation cannot be performed until logging is turned on for your Domino server.
<b>ACD5421I</b> There are no backups matching the filespec <code>directorypathfilename</code> and the server name <code>servername</code> . <b>Explanation:</b> There are no database backups on the Tivoli Storage Manager Server for the specified server name. <b>System Action:</b> Processing ends. <b>User Response:</b> None	<b>ACD5700E</b> The database file name is to be generated from path ( <code>path</code> ) and filename ( <code>filename</code> ) is too long. <b>Explanation:</b> The database file name to be generated is too long. <b>System Action:</b> Processing ends. <b>User Response:</b> Use the INTO option to specify an alternate destination file name, then enter the command again
<b>ACD5551E</b> Screen size is too small for using the PICK option. <b>Explanation:</b> You cannot use the PICK option on a workstation that has a screen smaller than 20 characters horizontally and 10 lines vertically. <b>System Action:</b> The operation was not completed. <b>User Response:</b> You can either try the operation again using a workstation with the minimum screen size or do not use the PICK option.	<b>ACD5701E</b> A Tivoli Storage Manager API error has occurred. <b>Explanation:</b> A Tivoli Storage Manager API error has occurred. <b>System Action:</b> Processing ends. <b>User Response:</b> Try the operation again. Contact your service representative if the error persists.
<b>ACD5612E</b> Unable to create or write to the file. Domino return code: <code>returncode</code> . <b>Explanation:</b> An attempt to create a file on the Domino server failed. <b>System Action:</b> Processing ends. <b>User Response:</b> Determine and fix the problem.	<b>ACD5702E</b> A Domino API error has occurred. <b>Explanation:</b> A Domino API error has occurred. <b>System Action:</b> Processing ends. <b>User Response:</b> Try the operation again. Contact your service representative if the error persists.

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<b>ACD5703E</b>	<b>The specified point-in-time is invalid.</b>
<b>Explanation:</b>	The specified point-in-time is invalid.
<b>System Action:</b>	Processing ends.
<b>User Response:</b>	Specifying a properly formatted point-in-time value, then try the operation again.
<b>ACD5704E</b>	<b>The requested transaction log file archive was not found: Destination: destination Logger Id : OFlogid1:logid2-ONlogid3:logid4 Log Number : lognumber</b>
<b>Explanation:</b>	The Lotus Domino API that recovers databases from the transaction log has requested a transaction log file archive that was not found on the Tivoli Storage Manager Server.
<b>System Action:</b>	Processing ends.
<b>User Response:</b>	Verify that the transaction log file archive is on the Tivoli Storage Manager Server. If transaction log file archive is not on the Tivoli Storage Manager Server you may need to activate your databases without applying logs.
<b>ACD5707E</b>	<b>The high level qualifier of the transaction log file archive is invalid.</b>
<b>Explanation:</b>	The high level qualifier of a transaction log file archive is invalid.
<b>System Action:</b>	Processing ends.
<b>User Response:</b>	Contact your service representative.
<b>ACD5708I</b>	<b>The applylogs option is ignored when activating databases restored from an alternate Domino server.</b>
<b>Explanation:</b>	An attempt to apply transaction log files to a database that was restored from an alternate Domino server failed.
<b>System Action:</b>	The applylogs option is ignored and the database is activated without applying any transaction log file or files.
<b>User Response:</b>	None.
<b>ACD5709E</b>	<b>The Domino environment variable (environmentvariable) is missing or invalid. Threshold criteria will be based upon all available disk space on the log volume.</b>
<b>Explanation:</b>	An attempt to obtain the value of the mentioned Domino environment variable from the notes.ini file failed.
<b>System Action:</b>	Processing continues with thresholds based upon all available transaction log disk space.
<b>User Response:</b>	Define the mentioned Domino environment variable correctly, then try the operation again.

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<b>ACD5710E</b>	<b>The domino environment variable (environmentvariable) is missing or invalid. The destination path can not be determined.</b>
<b>Explanation:</b>	An attempt to obtain the value of the Domino environment variable TRANSLOG_Path from the notes.ini file failed.
<b>System Action:</b>	Processing ends.
<b>User Response:</b>	You can either define the Domino environment variable with a valid value or use the /INTOPATH option to specify the destination path. Try the operation again.
<b>ACD5711I</b>	<b>The alternate restore path, alt_restore_path, is not a fully qualified path name. The transaction logs will be restored to the default path.</b>
<b>Explanation:</b>	The alternate restore path specified by the notes.ini variable TRANSLOG_RECOVER_PATH is not a fully qualified path name.
<b>System Action:</b>	The transaction logs are restored to the default path.
<b>User Response:</b>	Modify the value of TRANSLOG_RECOVER_PATH to point to a fully qualified path name.
<b>ACD5740E</b>	<b>Unable to load the IBM Tivoli Storage Manager for Mail 5.1.5 DLL, dll_name.</b>
<b>Explanation:</b>	Unable to load the DLL containing the resources for the IBM Tivoli Storage Manager for Mail 5.1.5 GUI.
<b>System Action:</b>	Processing ends.
<b>User Response:</b>	Ensure that IBM Tivoli Storage Manager for Mail 5.1.5 is correctly installed.
<b>ACD5741E</b>	<b>Error writing option_name preference to the configuration file.</b>
<b>Explanation:</b>	The specified preference could not write to the configuration file.
<b>System Action:</b>	Preferences processing ends.
<b>User Response:</b>	Make sure you have a valid configuration file, then try to update the preference again.
<b>ACD5742I</b>	<b>The logfile_name log file did not need pruning.</b>
<b>Explanation:</b>	The log file specified did not need to be pruned.
<b>System Action:</b>	Processing continues.
<b>User Response:</b>	The log file will automatically be pruned at a later date. If the log file is currently too large, reduce the number of days the log entries are retained.

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<p><b>ACD5743W</b> <b>Changing from Selective Backup to Incremental Backup will erase all current selections for the Selective Backup! You can only select ONE directory at a time for the Incremental Backup. Do you wish to continue?</b></p> <p><b>Explanation:</b> Incremental backup allows only one directory to be backup each time.</p> <p><b>System Action:</b> Processing continues once either "Yes" or "No" is pressed.</p> <p><b>User Response:</b> User needs to understand how the incremental and selective backup works.</p>	<p><b>ACD5768I</b> <b>There are no databases pending activation.</b></p> <p><b>Explanation:</b> The user has selected the Active button but the list of pending databases is empty.</p> <p><b>System Action:</b> Processing ends.</p> <p><b>User Response:</b> None</p>
<p><b>ACD5764I</b> <b>Changing this setting (to active only) will refresh the view. All selections will be lost. Do you want to continue?</b></p> <p><b>Explanation:</b> The user has selected the Active Only toolbar button or pulldown menu item. The view must be refreshed to activate this setting.</p> <p><b>System Action:</b> Continues or ends processing as requested.</p> <p><b>User Response:</b> Select Yes to refresh the view or select No to leave the current view unchanged.</p>	<p><b>ACD5769I</b> <b>Logs cannot be applied to databases backed up from another Domino server. Do you wish to continue?</b></p> <p><b>Explanation:</b> The user has selected databases pending from a Domino Server other than the local Domino Server and the Apply Logs box has been checked.</p> <p><b>System Action:</b> Continues or ends processing as requested.</p> <p><b>User Response:</b> Press Yes to continue or press No to terminate the request.</p>
<p><b>ACD5765I</b> <b>Changing this setting (to active/inactive) will refresh the view. All selections will be lost. Do you want to continue?</b></p> <p><b>Explanation:</b> The user has selected the Active/Inactive toolbar button or pulldown menu item. The view must be refreshed to activate this setting.</p> <p><b>System Action:</b> Continues or ends processing as requested.</p> <p><b>User Response:</b> Select Yes to refresh the view or select No to leave the current view unchanged.</p>	<p><b>ACD5770I</b> <b>You have not selected any databases to restore.</b></p> <p><b>Explanation:</b> The user has pressed the Restore button but has not selected any databases to restore.</p> <p><b>System Action:</b> Processing ends.</p> <p><b>User Response:</b> Do not press the Restore button until databases have been selected to restore.</p>
<p><b>ACD5766I</b> <b>When the view is refreshed all selections will be lost and an attempt will be made to expand the new tree to the currently highlighted item. Do you want to continue?</b></p> <p><b>Explanation:</b> The user has selected the refresh toolbar button or pulldown menu item.</p> <p><b>System Action:</b> Continues or ends processing as requested.</p> <p><b>User Response:</b> Select Yes to refresh the view or select No to leave the current view unchanged.</p>	<p><b>ACD5771I</b> <b>There are no databases to restore.</b></p> <p><b>Explanation:</b> The user has selected the Restore button but there are no backed up databases.</p> <p><b>System Action:</b> Processing ends.</p> <p><b>User Response:</b> None</p>
<p><b>ACD5767I</b> <b>You have not selected any pending databases to activate.</b></p> <p><b>Explanation:</b> The user pressed the Activate button but has not selected any pending databases to activate.</p> <p><b>System Action:</b> Processing ends.</p> <p><b>User Response:</b> Do not press the Activate button until pending databases have been selected for activation.</p>	<p><b>ACD5772E</b> <b>More than one database has been selected but only one restore location has been specified. When more than one database is selected the 'Restore Into' specification must contain an '='.</b></p> <p><b>Explanation:</b> More than one database has been selected and the Restore Into specification does not contain an equal sign (=).</p> <p><b>System Action:</b> Processing ends.</p> <p><b>User Response:</b> Provide a valid Restore Into value and try the operation again.</p>
	<p><b>ACD5773I</b> <b>You have selected multiple backups of some databases to be restored. For these databases, only the ones with the latest backup dates will be restored. Do you want to continue?</b></p> <p><b>Explanation:</b> More than one backup of at least one database has been selected for restore. We will restore the backup with the latest date.</p> <p><b>System Action:</b> Continues or ends processing as requested.</p> <p><b>User Response:</b> Press Yes to continue. Press No to terminate the request.</p>

<p><b>ACD5774I</b> <b>Changing the Point in Time setting will cause the tree to be refreshed. All selections will be lost. Do you want to continue?</b></p> <p><b>Explanation:</b> The user has exited the Point in Time dialog by pressing OK.</p> <p><b>System Action:</b> Continues or ends processing as requested.</p> <p><b>User Response:</b> Press Yes to continue or press No to terminate the request.</p>	<p><b>ACD5812I</b> <b>There are no transaction log file archives matching the filespec <i>filespec</i> and the server name <i>servername</i>.</b></p> <p><b>Explanation:</b> There are no database backups on the Tivoli Storage Manager Server for the specified server name.</p> <p><b>System Action:</b> Processing ends.</p> <p><b>User Response:</b> None</p>
<p><b>ACD5806W</b> <b>The path specified does not contain a notes.ini file. Do you still want to save this?</b></p> <p><b>Explanation:</b> A notes.ini file could not be found in the specified directory path.</p> <p><b>System Action:</b> Continues or ends processing as requested.</p> <p><b>User Response:</b> Ensure the correct directory path is specified.</p>	<p><b>ACD5813I</b> <b>You have not selected any databases for Selective backup.</b></p> <p><b>Explanation:</b> The user has pressed the Backup button but has not selected any databases for a Selective backup.</p> <p><b>System Action:</b> Processing ends.</p> <p><b>User Response:</b> Do not press the Backup button until one or more databases have been selected for Selective backup.</p>
<p><b>ACD5807W</b> <b>The preference has been set successfully, however, the path specified does not currently contain a notes.ini file.</b></p> <p><b>Explanation:</b> A notes.ini file could not be found in the specified directory path.</p> <p><b>System Action:</b> The preference has been set with the specified directory path.</p> <p><b>User Response:</b> Ensure the correct directory path is specified.</p>	<p><b>ACD5814E</b> <b>Invalid incremental backup list was created.</b></p> <p><b>Explanation:</b> An invalid incremental backup list was created or found.</p> <p><b>System Action:</b> Processing ends.</p> <p><b>User Response:</b> Try the operation again. Contact your service representative if the error persists.</p>
<p><b>ACD5809I</b> <b>There are no database backups for the server named <i>servername</i>.</b></p> <p><b>Explanation:</b> There are no backups on the Tivoli Storage Manager Server for the specified server name.</p> <p><b>System Action:</b> Processing ends.</p> <p><b>User Response:</b> None</p>	<p><b>ACD5815I</b> <b>You have not selected any databases for Incremental backup.</b></p> <p><b>Explanation:</b> The user has pressed the Backup button but has not selected a directory for Incremental backup.</p> <p><b>System Action:</b> Processing ends.</p> <p><b>User Response:</b> Do not press the Backup button until a directory has been selected for Incremental backup.</p>
<p><b>ACD5810I</b> <b>There are no transaction log file archives for the server named <i>servername</i>.</b></p> <p><b>Explanation:</b> There are no transaction log file archives on the Tivoli Storage Manager Server for the specified server name.</p> <p><b>System Action:</b> Processing ends.</p> <p><b>User Response:</b> None</p>	<p><b>ACD5816I</b> <b>You can only select ONE directory at a time for Incremental backup.</b></p> <p><b>Explanation:</b> The user cannot select more than one directory at a time for Incremental backup.</p> <p><b>System Action:</b> Processing ends.</p> <p><b>User Response:</b> Do not press the Backup button until only a directory has been selected for Incremental backup.</p>
<p><b>ACD5811I</b> <b>There are no database backups matching the filespec <i>filespec</i> and the server name <i>servername</i>.</b></p> <p><b>Explanation:</b> There are no database backups on the Tivoli Storage Manager Server for the specified server name.</p> <p><b>System Action:</b> Processing ends.</p> <p><b>User Response:</b> None</p>	<p><b>ACD5817E</b> <b>Invalid selective backup list was created.</b></p> <p><b>Explanation:</b> An invalid selective backup list was created or found.</p> <p><b>System Action:</b> Processing ends.</p> <p><b>User Response:</b> Try the operation again. Contact your service representative if the error persists.</p>
	<p><b>ACD5818E</b> <b>Insert to the Backup List failed.</b></p> <p><b>Explanation:</b> Cannot insert the database to the Backup List.</p> <p><b>System Action:</b> Processing ends.</p> <p><b>User Response:</b> Try the operation again. Contact your</p>

service representative if the error persists.

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**ACD5819E Invalid Domino server name is selected.**

**Explanation:** An invalid Domino server name is selected.

**System Action:** Processing ends.

**User Response:** Try the operation again. Contact your service representative if the error persists.

---

**ACD5820I No transaction log file archives can be found.**

**Explanation:** There are no transaction log file archives. The transaction log may not have been previously archived.

**System Action:** Processing ends.

**User Response:** Ensure archival transaction logging is in effect and archive some transaction log files before re-attempting this operation.

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**ACD5821E Invalid date. Please re-enter.**

**Explanation:** An invalid date was entered.

**System Action:** The current dialog remains active and the focus is set to the invalid date.

**User Response:** Enter a valid date.

---

**ACD5822I You have selected multiple archives of some transaction log files to be restored. For these log files, only the ones with the latest archive dates will be restored. Do you want to continue?**

**Explanation:** More than one archive of at least one log file has been selected for restore. The log file archive with the latest date will be restored.

**System Action:** Continues or ends processing as requested.

**User Response:** Press Yes to continue or press No to terminate the request.

---

**ACD5823I A query for the transaction log file archives failed.**

**Explanation:** A query of the transaction log file archives failed with an error.

**System Action:** Processing ends.

**User Response:** Try the operation again. Contact your service representative if the error persists.

---

**ACD5827E The Restore Into name you entered is too long. Please enter a name no longer than *numberofchars*.**

**Explanation:** The specified Restore Into name entered is too long.

**System Action:** Processing ends.

**User Response:** Provide a valid Restore Into name, then try the operation again.

---

**ACD5830E The 'Restore Into:' field requires a complete file name. Please enter the field again with a complete filename or an '=' (equals sign) representing the complete file name.**

**Explanation:** The Restore Into field requires a complete filename. Directory names are not allowed.

**System Action:** Processing ends.

**User Response:** Provide a valid Restore Into name, then try the operation again.

---

**ACD5901E The '-INTO=filename' parameter requires a complete filename. Please enter the parameter again with a complete filename or an '=' (equals sign) representing the complete filename.**

**Explanation:** The -INTO=filename parameter requires a complete filename. Directory names are not allowed.

**System Action:** Processing ends.

**User Response:** Provide a valid value for the -INTO=filename parameter, then try the operation again.

---

**ACD5981I Using the *product*, *file*, installed in *directory*. Is that correct? Reply Y or N.**

**Explanation:** The domininstall program located the file in the indicated directory.

**System Action:** Processing continues.

**User Response:** Specify Y if this is the correct version of the file or specify N if the install program should continue searching for another version of the file.

---

**ACD5982W Unable to locate *filename*. Please specify the directory where *filename* is installed. The default is *filename*.**

**Explanation:** The domininstall program could not find the indicated file.

**System Action:** Processing continues.

**User Response:** Specify the full path name of the directory that contains the specified file or reply NULL (enter the enter key) to skip the file.

---

**ACD5983W Unable to locate *filename*. Please specify the directory where *filename* is installed.**

**Explanation:** The domininstall program could not find the indicated file.

**System Action:** Processing continues.

**User Response:** Specify the full path name of the directory containing the specified file or reply NULL (press the enter key) to skip the file.

---

**ACD5984E Can not find symbolic link *linkname*. Check if the Storage Manager API has been properly installed.**

**Explanation:** The domininstall program could not find the symbolic link in /usr/lib directory that points to the Storage Manager API library.

**System Action:** Processing terminates.  
**User Response:** Complete the installation of the Storage Manager API, including updating the symbolic link in /usr/lib and rerun the domininstall program.

---

**ACD5985E Unable to read the symbolic link *linkname*. error text.**  
**Explanation:** The domininstall program encountered an error while trying to read the symbolic link in the /usr/lib directory that points to the Storage Manager API library.  
**System Action:** Processing terminates.  
**User Response:** Correct the error in the symbolic link to the Storage Manager API library in /usr/lib and run the domininstall program again.

---

**ACD5986W Symbolic link /usr/lib/filename does not point to installed file *filename*. Check if the Storage Manager API has been properly installed.**  
**Explanation:** The symbolic link to the Storage Manager API library does not point to the Storage Manager API library that the domininstall program expects to use.  
**System Action:** Processing continues.  
**User Response:** This message does not indicate an error. The domininstall program will continue install processing. However, the installation should ensure that the symbolic link in the /usr/lib directory points to the correct version of the Storage Manager API library.

---

**ACD5987W The Program Control attribute has not been set for dsmc. This should be set if you plan to use the Storage Manager scheduler, and the BPX.DAEMON facility has been defined.**  
**Explanation:** The Program Control attribute has not been set for dsmc.  
**System Action:** Processing continues.  
**User Response:** Set the Program Control attribute for dsmc in order to use the scheduler

---

**ACD5988W The Program Control attribute has not been set for dsmswitch. This should be set if you plan to use the Storage Manager scheduler, and the BPX.DAEMON facility has been defined.**  
**Explanation:** The Program Control attribute has not been set for dsmswitch.  
**System Action:** Processing continues.  
**User Response:** Set the Program Control attribute for dsmswitch in order to use the scheduler.

---

**ACD5989W Setting user name as owner for the Data Protection for Domino executables.**

**Explanation:** The Notes Domino Server ID is set as the owner of the Data Protection for Domino executables.

**System Action:** Processing continues.  
**User Response:** None

---

**ACD5990E Change owner error for *filename*.**

**Explanation:** An error occurred while trying to change the owner of a file.

**System Action:** Processing terminates.  
**User Response:** Ensure the program has the proper authorization to change the owner of the file, then run the program again.

---

**ACD5991E Change permissions error for *filename*.**

**Explanation:** An error occurred while trying to change the permissions of a file.

**System Action:** Processing terminates.  
**User Response:** Ensure the program has the proper authorization to change the permissions of the file, then run the program again.

---

**ACD5994W Unable locate notes.ini in the specified notesdata directory. Please specify the notesdata directory where notes.ini is installed.**

**Explanation:** The domininstall program is setting up separate Data Protection for Domino executables for each Lotus Domino server in the system. The Data Protection for Domino executable that is owned by the appropriate Lotus Domino server should be used when backing up and restoring the Notes databases.

**System Action:** Processing continues.  
**User Response:** You can either reply with the full path name of the next notesdata directory or enter a NULL line to complete the install process.

---

**ACD5996E The Data Protection for Domino installation process did not complete successfully. Please correct the error and run this domininstall program again.**

**Explanation:** The installation program completed unsuccessfully.

**System Action:** Processing terminates.  
**User Response:** Correct the error and run the domininstall program again.

---

**ACD5997E getpwuid() error for *filename*.**

**Explanation:** The getpwuid() syscall could not find an entry for the owner of the specified file.

**System Action:** Processing terminates.  
**User Response:** Correct the error and run the domininstall program again.

---

**ACD5998E Symbolic link *linkname* points to a directory.**

**Explanation:** The specified symbolic link points to a directory. This is not a valid symbolic link and should be removed before continuing.

**System Action:** Processing terminates.

**User Response:** Correct the error and run the dominstall program again.

---

**ACD5999E Symbolic link *linkname* points to an unsupported file type.**

**Explanation:** The specified symbolic link points to an unsupported file type. This is not a valid symbolic link and should be removed before continuing.

**System Action:** Processing terminates.

**User Response:** Correct the error and run the dominstall program again.

---

**ACD6000E Error reading symbolic link *linkname*.**

**Explanation:** An attempt to read the contents of the symbolic link failed.

**System Action:** Processing terminates.

**User Response:** Correct the error and run the dominstall program again.

---

**ACD6001E A zero length symbolic link was encountered for *linkname*.**

**Explanation:** An attempt to read the contents of the symbolic link failed.

**System Action:** Processing terminates.

**User Response:** Correct the error and run the dominstall program again.

---

**ACD6002E Unable to follow symbolic link *linkname*.**

**Explanation:** The symbolic link points to a file that does not exist.

**System Action:** Processing terminates.

**User Response:** Correct the error and run the dominstall program again.

---

**ACD6003E An error was encountered opening directory *directory name*.**

**Explanation:** An attempt to open a directory failed.

**System Action:** Processing terminates.

**User Response:** Correct the error and run the dominstall program again.

---

**ACD6005E Error removing file *filename*.**

**Explanation:** An attempt to remove the file failed.

**System Action:** Processing terminates.

**User Response:** Correct the error and run the dominstall program again.

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**ACD6006E Error creating symbolic link *linkname* to *filename*.**

**Explanation:** An attempt to create a symbolic link failed.

**System Action:** Processing terminates.

**User Response:** Correct the error and run the dominstall program again.

---

**ACD6007E A directory exists with the same name as symbolic link to be created. Remove or rename the directory *directory name* before proceeding.**

**Explanation:** An attempt to create a symbolic link failed.

**System Action:** Processing terminates.

**User Response:** Correct the error and run the dominstall program again.

---

**ACD6008I Symbolic link *symoblic link to file name* already exists.**

**Explanation:** A symlink to the file to be linked already exists.

**System Action:** Processing continues.

**User Response:** None.

---

**ACD6010E An unknown file type was encountered when creating symlink *linkname*.**

**Explanation:** An attempt to create a symbolic link failed.

**System Action:** Processing terminates.

**User Response:** Correct the error by either renaming the file or removing the file, then run the program again.

---

**ACD6011E Error on lstat to file *filename*.**

**Explanation:** An attempt to obtain file information from the system failed.

**System Action:** Processing terminates.

**User Response:** Correct the error by removing the file, then run the program again.

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## Glossary

The terms in this glossary are defined as they pertain to the Storage Manager library. If you do not find a term you are looking for, you can refer to the *IBM Dictionary of Computing*, at URL:

<http://www.networking.ibm.com/nsg/nsgmain.htm>

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- The *Information Technology Vocabulary*, developed by Subcommittee 1, Joint Technical Committee 1, of the International Organization for Standardization and the International Electrotechnical Commission (ISO/IEC JTC2/SC1).

### A

**administrative client.** A program that runs on a file server, workstation, or mainframe that allows administrators to control and monitor the server through administrator commands. Contrast with *backup-archive client*.

**administrator.** A user who has been registered to the server. Administrators can be authorized to one or more of the following administrative privilege classes: system, policy, storage, operator, or analyst. Administrators can use the administrative client to enter server commands and queries in accordance with their privileges.

**application program interface (API).** A set of functions that applications running on a client platform can call to store, query, and retrieve objects from Storage Manager storage.

### B

**backup-archive client.** A program that runs on a workstation or file server and provides a means for users to back up, archive, restore, and retrieve files. Contrast with *administrative client*.

**backup copy group.** A policy object containing attributes that control the generation, destination, and expiration of backup files. A backup copy group belongs to a management class.

### C

**central scheduler.** A function that allows an administrator to schedule client operations and administrative commands. The operations can be scheduled to occur periodically or on an explicit date.

**client options file.** A file that a Storage Manager backup-archive client can edit, containing a default set of processing options that identify the server, communication method, backup and restore options, space management options, and scheduling options.

**client/server.** A system architecture in which one or more programs (clients) request computing or data services from another program (server).

**closed registration.** A registration process in which an administrator must register workstations as client nodes with the server.

**commit.** To make changes permanent in the databases files. Changes made to the database files are not permanent until they are committed.

**command line interface.** A type of user interface where commands are specified on the command line. Contrast with *graphical user interface*.

**communication protocol.** A set of defined interfaces that allow computers to communicate with each other.

**compression.** The process of saving storage space by eliminating empty fields or unnecessary data to shorten the length of the file. In Storage Manager, compression can occur at a workstation before files are backed up or archived to server storage. On some types of tape drives, hardware compression can be used.

**copy group.** A Storage Manager policy object that determines how Storage Manager backs up or archives files. Copy groups belong to management classes. There are two copy groups:

- Backup copy group—determines how Storage Manager backs up or archives files.
- Archive copy group—determines how Storage Manager archives files.

## G

**graphical user interface (GUI).** A type of user interface that takes advantage of a high-resolution monitor, includes a combination of graphics, the object-action paradigm, and the use of pointing devices, menu bars, overlapping windows, and icons. Contrast with *command line interface*.

## I

**incremental backups.** An incremental backup only backs up the transaction logs and then clears them. Restoration of a Data Protection for Domino database from an incremental backup requires a:

- Restore of the last full backup.
- Restore of any other incremental backups performed between the full backup and this incremental backup.
- Restore of this incremental backup.

## M

**management class.** A Storage Manager policy object that associates specific policies for backups, archives, and space management with client files. A management class can contain both a backup and archive copy group, only a copy group, or only an archive copy group. Management classes can also include space management policy for Hierarchical Storage Management (HSM) clients.

## P

**policy domain.** A Storage Manager policy object that lets Storage Manager group client nodes by the policies that govern their files and by the administrator who manages the policies. The policy domain contains one or more policy sets.

**policy set.** A Storage Manager policy object that specifies the management classes that are available to groups of users. More than one policy set can exist. However, only one policy set at a time can be active.

## T

**TCP/IP.** Transmission Control Protocol/Internet Protocol.

**Transmission Control Protocol/Internet Protocol (TCP/IP).** A set of communication protocols that support peer-to-peer connectivity functions for both local and wide area networks.

**Tivoli Storage Manager.** (referred to as Storage Manager) A client/server program that provides storage management to customers in a multivendor computer environment.

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