

# **Client Commands and Utilities Reference**

## **Dynamic File Services 2.2**

September 2014

## Legal Notices

Novell, Inc., makes no representations or warranties with respect to the contents or use of this documentation, and specifically disclaims any express or implied warranties of merchantability or fitness for any particular purpose. Further, Novell, Inc., reserves the right to revise this publication and to make changes to its content, at any time, without obligation to notify any person or entity of such revisions or changes.

Further, Novell, Inc., makes no representations or warranties with respect to any software, and specifically disclaims any express or implied warranties of merchantability or fitness for any particular purpose. Further, Novell, Inc., reserves the right to make changes to any and all parts of Novell software, at any time, without any obligation to notify any person or entity of such changes.

Any products or technical information provided under this Agreement may be subject to U.S. export controls and the trade laws of other countries. You agree to comply with all export control regulations and to obtain any required licenses or classification to export, re-export or import deliverables. You agree not to export or re-export to entities on the current U.S. export exclusion lists or to any embargoed or terrorist countries as specified in the U.S. export laws. You agree to not use deliverables for prohibited nuclear, missile, or chemical biological weaponry end uses. See the [Novell International Trade Services Web page \(http://www.novell.com/info/exports/\)](http://www.novell.com/info/exports/) for more information on exporting Novell software. Novell assumes no responsibility for your failure to obtain any necessary export approvals.

Copyright © 2009–2014 Novell, Inc. All rights reserved. No part of this publication may be reproduced, photocopied, stored on a retrieval system, or transmitted without the express written consent of the publisher.

Novell, Inc.  
1800 South Novell Place  
Provo, UT 84606  
U.S.A.  
[www.novell.com](http://www.novell.com)

*Online Documentation:* To access the latest online documentation for this and other Novell products, see the [Novell Documentation Web page \(http://www.novell.com/documentation/\)](http://www.novell.com/documentation/).

## Novell Trademarks

For Novell trademarks, see the [Novell Trademark and Service Mark list \(http://www.novell.com/company/legal/trademarks/tmlist.html\)](http://www.novell.com/company/legal/trademarks/tmlist.html).

## Third-Party Materials

All third-party trademarks are the property of their respective owners.

This product includes Amazon Web Services (AWS) Software Developers Kit (SDK) for Microsoft .NET open source software that is developed by AWS. For information, see [Amazon Web Services \(http://aws.amazon.com/sdkfornet/\)](http://aws.amazon.com/sdkfornet/).

This product includes Apache Tika toolkit open source software that is developed by the Apache Tika project. For information, see [Apache Tika \(http://tika.apache.org/\)](http://tika.apache.org/) on The Apache Software Foundation Web site at [Apache.org \(http://www.apache.org\)](http://www.apache.org).

This product includes DotNetZip open source software that is developed by the DotNetZip Library open source project. For information, see [DotNetZip Library \(http://dotnetzip.codeplex.com/\)](http://dotnetzip.codeplex.com/) on CodePlex.com.

This product includes Glacial ListView open source software that is developed by Glacial Components Software and the C# ListView open source project. For information, see [C# ListView \(http://www.codeproject.com/KB/list/aa\\_listview.aspx\)](http://www.codeproject.com/KB/list/aa_listview.aspx) on CodeProject.com.

This product includes Hammock open source software that is developed by the Hammock open source project. For information, see [Hammock \(https://github.com/danielcrenna/hammock\)](https://github.com/danielcrenna/hammock) on GitHub.com.

This product includes IKVM.NET open source software that is developed by the IKVM.NET open source project. For information, see the [IKVM.NET Wiki \(http://sourceforge.net/apps/mediawiki/ikvm/index.php?title=Main\\_Page\)](http://sourceforge.net/apps/mediawiki/ikvm/index.php?title=Main_Page) on SourceForge.net.

This product includes the Newtonsoft.Json.dll library in the Json.NET open source software that is developed by the Json.NET open source project. For information, see [Json.NET \(http://json.codeplex.com\)](http://json.codeplex.com) on CodePlex.com.

This product includes log4net open source software that is developed as part of the Apache Logging Services open source project. For information, see [log4net \(http://logging.apache.org/log4net/\)](http://logging.apache.org/log4net/) on Apache.org.

This product includes Plossum open source software that is developed by the Plossum open source project. For information, see [Plossum \(http://sourceforge.net/projects/plossum\)](http://sourceforge.net/projects/plossum) on SourceForge.net.

This product includes SharpBox open source software that is developed by SharpBox open source project. For information, see [SharpBox \(http://sharpbox.codeplex.com/\)](http://sharpbox.codeplex.com/) on CodePlex.com.

This product includes TweetSharp open source software that is developed by Aplitize and the TweetSharp open source project. For information, see [TweetSharp \(https://github.com/danielcrennna/tweetsharp\)](https://github.com/danielcrennna/tweetsharp) on GitHub.com.

This product includes ZedGraph open source software that is developed by the ZedGraph open source project. For information, see [ZedGraph \(http://sourceforge.net/projects/zedgraph/\)](http://sourceforge.net/projects/zedgraph/) on SourceForge.net.



---

# Contents

|  |           |
|--|-----------|
| <b>About This Guide</b>  | <b>9</b>  |
| <b>1 Overview of the Dynamic File Services Client Commands and Utilities</b> | <b>11</b> |
| 1.1 Client CLI and Utilities   | 11        |
| 1.2 Command Line Syntax  | 12        |
| <b>2 What's New for the Dynamic File Services Client CLI and Utilities</b>   | <b>13</b> |
| 2.1 What's New for Dynamic File Services 2.2                                 | 13        |
| 2.2 What's New for Dynamic File Services 2.1                                 | 13        |
| 2.2.1 Service Actions  | 13        |
| 2.2.2 Registration Actions   | 13        |
| 2.2.3 Pair Actions   | 14        |
| 2.2.4 Policy Actions   | 14        |
| 2.2.5 Cloud Provider Actions   | 15        |
| 2.2.6 Cloud Actions  | 15        |
| 2.2.7 Pair Check Utility   | 15        |
| 2.3 What's New for Dynamic File Services 2.0                                 | 15        |
| 2.3.1 Registration Actions   | 15        |
| 2.3.2 Pair Actions   | 15        |
| 2.3.3 Policy Actions   | 16        |
| 2.3.4 Schedule Actions   | 18        |
| <b>3 Using Client Commands for Pair and Policy Management</b>                | <b>19</b> |
| 3.1 DswCli.exe Syntax Overview   | 20        |
| 3.2 Help Command   | 25        |
| 3.3 Authentication Parameters  | 25        |
| 3.3.1 Setting Authentication Parameters in Commands                          | 26        |
| 3.3.2 Setting Authentication Parameters as Environment Variables             | 28        |
| 3.4 Common Parameters  | 30        |
| 3.4.1 Description  | 30        |
| 3.4.2 Direction to Move Files  | 31        |
| 3.4.3 Name   | 31        |
| 3.4.4 Pair ID  | 31        |
| 3.4.5 Policy ID  | 32        |
| 3.4.6 Policy ID List   | 32        |
| 3.4.7 Schedule ID  | 32        |
| 3.4.8 Schedule Type  | 33        |
| 3.4.9 Cloud ID   | 33        |
| 3.5 Common Options   | 33        |
| 3.5.1 Debug  | 33        |
| 3.5.2 Output to a File   | 34        |
| 3.5.3 Silent   | 34        |
| 3.6 System Actions   | 34        |
| 3.6.1 Display Active Directory Computers                                     | 34        |
| 3.6.2 Display Active Directory Shares  | 35        |
| 3.6.3 Display the File Types Information                                     | 35        |
| 3.6.4 Display Local Drives   | 35        |
| 3.6.5 Display Network Shares   | 35        |

|         |  |    |
|---------|--|----|
| 3.6.6   | Display Server System Information                                | 35 |
| 3.6.7   | Display or Set the Logging Level for the Service and Engines     | 36 |
| 3.6.8   | Query for File Types or Extensions (for Novell Support Use Only) | 37 |
| 3.7     | Registration Actions   | 38 |
| 3.7.1   | Display the Registration Status                                  | 38 |
| 3.7.2   | Register a Product License Key                                   | 38 |
| 3.7.3   | Dump the Contents of the License If the Product Is Registered    | 39 |
| 3.8     | Pair Actions   | 40 |
| 3.8.1   | Pair Parameters  | 40 |
| 3.8.2   | Add a Pair   | 41 |
| 3.8.3   | Modify a Pair  | 46 |
| 3.8.4   | Unlink a Pair  | 47 |
| 3.8.5   | Add Exclude/Include Paths to a Pair                              | 48 |
| 3.8.6   | Delete Exclude/Include Paths from a Pair                         | 49 |
| 3.8.7   | Associate a Pair and Policy                                      | 50 |
| 3.8.8   | Disassociate a Pair and Policy                                   | 50 |
| 3.8.9   | Associate a Review Schedule to a Retention Pair                  | 51 |
| 3.8.10  | Disassociate a Review Schedule from a Retention Pair             | 51 |
| 3.8.11  | List Pairs   | 52 |
| 3.8.12  | List Details for a Pair  | 52 |
| 3.8.13  | Execute a List of Policies on a Pair                             | 52 |
| 3.8.14  | Move a List of Files or Folders in a Pair                        | 53 |
| 3.9     | Policy Actions   | 55 |
| 3.9.1   | Policy Parameters  | 55 |
| 3.9.2   | Add a Policy   | 56 |
| 3.9.3   | Modify a Policy  | 62 |
| 3.9.4   | Delete a Policy  | 63 |
| 3.9.5   | List All Policies  | 63 |
| 3.9.6   | List Details for a Policy  | 64 |
| 3.9.7   | Associate a Policy Schedule to a Policy                          | 64 |
| 3.9.8   | Disassociate a Policy Schedule from a Policy                     | 64 |
| 3.9.9   | Associate a Policy and a Pair                                    | 65 |
| 3.9.10  | Disassociate a Policy and a Pair                                 | 65 |
| 3.9.11  | List Policies Associated with a Pair                             | 65 |
| 3.10    | Schedule Actions   | 65 |
| 3.10.1  | Schedule Parameters  | 66 |
| 3.10.2  | Add a Review Schedule  | 66 |
| 3.10.3  | Add a Policy Schedule  | 69 |
| 3.10.4  | Delete a Schedule  | 75 |
| 3.10.5  | Modify a Review Schedule   | 76 |
| 3.10.6  | Modify a Policy Schedule   | 77 |
| 3.10.7  | List All Schedules   | 78 |
| 3.10.8  | List Details for a Schedule                                      | 78 |
| 3.10.9  | Associate a Review Schedule to a Retention Pair                  | 79 |
| 3.10.10 | Disassociate a Review Schedule from a Retention Pair             | 79 |
| 3.10.11 | Associate a Policy Schedule to a Policy                          | 79 |
| 3.10.12 | Disassociate a Policy Schedule from a Policy                     | 79 |
| 3.11    | Cloud Providers Action   | 79 |
| 3.12    | Cloud Actions  | 80 |
| 3.12.1  | Cloud Parameters   | 80 |
| 3.12.2  | Add a Cloud Account  | 81 |
| 3.12.3  | Modify a Cloud Account   | 85 |
| 3.12.4  | Delete a Cloud Account   | 86 |
| 3.12.5  | List All Cloud Accounts  | 86 |
| 3.12.6  | List Details about a Cloud Account                               | 87 |
| 3.13    | Using CLI Commands in Scripts                                    | 87 |
| 3.14    | Example Scripts Using CLI Commands                               | 88 |
| 3.14.1  | Creating a Pair and Policy                                       | 88 |
| 3.14.2  | Running the Policies Manually                                    | 89 |

|        |  |    |
|--------|--|----|
| 3.14.3 | Deleting the Policies . . . . .          | 89 |
| 3.14.4 | Deleting the Pair Relationship . . . . . | 90 |

**4 Dynamic File Services File System Inventory Utility 91**

|       |  |     |
|-------|--|-----|
| 4.1   | DswInventory . . . . .   | 91  |
| 4.1.1 | Description . . . . .  | 91  |
| 4.1.2 | Syntax . . . . .   | 91  |
| 4.2   | Preparing a Command File for a File System Inventory . . . . . | 92  |
| 4.2.1 | Inventory Path . . . . .                                       | 92  |
| 4.2.2 | Report Types and Filenames . . . . .                           | 92  |
| 4.2.3 | Action List Filename . . . . .                                 | 93  |
| 4.2.4 | Inventory Options . . . . .                                    | 93  |
| 4.3   | Example of a General Inventory . . . . .                       | 94  |
| 4.3.1 | Create a Command File . . . . .                                | 94  |
| 4.3.2 | Run the File System Inventory Utility . . . . .                | 95  |
| 4.3.3 | View the Summary Report . . . . .                              | 95  |
| 4.3.4 | View the Detailed Report . . . . .                             | 96  |
| 4.4   | Example of a Filtered Inventory . . . . .                      | 99  |
| 4.4.1 | Create a Command File . . . . .                                | 99  |
| 4.4.2 | Run the File System Inventory Utility . . . . .                | 99  |
| 4.4.3 | View the Summary Report . . . . .                              | 100 |
| 4.4.4 | View the Detailed Report . . . . .                             | 100 |
| 4.5   | Additional Information . . . . .                               | 101 |

**5 Dynamic File Services Pair Check Utility 103**

|       |                                  |     |
|-------|----------------------------------|-----|
| 5.1   | DswPairCheck . . . . .           | 103 |
| 5.1.1 | Description . . . . .            | 103 |
| 5.1.2 | Syntax . . . . .                 | 103 |
| 5.1.3 | Using the Utility . . . . .      | 104 |
| 5.1.4 | Check Action Options . . . . .   | 105 |
| 5.1.5 | Control Options . . . . .        | 105 |
| 5.1.6 | Report Options . . . . .         | 106 |
| 5.1.7 | Examples . . . . .               | 106 |
| 5.2   | Additional Information . . . . . | 107 |

**6 Dynamic File Services Configuration Dump Utility 109**

|       |                             |     |
|-------|-----------------------------|-----|
| 6.1   | DswDump . . . . .           | 109 |
| 6.1.1 | Description . . . . .       | 109 |
| 6.1.2 | Syntax . . . . .            | 110 |
| 6.1.3 | Options . . . . .           | 110 |
| 6.1.4 | Examples . . . . .          | 111 |
| 6.2   | Config.txt Output . . . . . | 111 |





---

# About This Guide

This guide provides essential information for the client command line interface (CLI) and utilities for Novell Dynamic File Services (DynamicFS) 2.2.

- ♦ [Chapter 1, “Overview of the Dynamic File Services Client Commands and Utilities,”](#) on page 11
- ♦ [Chapter 2, “What’s New for the Dynamic File Services Client CLI and Utilities,”](#) on page 13
- ♦ [Chapter 3, “Using Client Commands for Pair and Policy Management,”](#) on page 19
- ♦ [Chapter 4, “Dynamic File Services File System Inventory Utility,”](#) on page 91
- ♦ [Chapter 5, “Dynamic File Services Pair Check Utility,”](#) on page 103
- ♦ [Chapter 6, “Dynamic File Services Configuration Dump Utility,”](#) on page 109

## Audience

This guide is designed to help storage solutions administrators use commands and utilities to create and manage Dynamic File Services pairs and policies.

## Feedback

We want to hear your comments and suggestions about this manual and the other documentation included with this product. Please use the User Comments feature at the bottom of each page of the online documentation.

## Documentation Updates

For the most recent version of the *Novell Dynamic File Services 2.2 Client Commands and Utilities Reference*, visit the [Dynamic File Services 2.2 Documentation Web site](http://www.novell.com/documentation/dynamic_file_services/) ([http://www.novell.com/documentation/dynamic\\_file\\_services/](http://www.novell.com/documentation/dynamic_file_services/)).

## Additional Documentation

Additional documentation is available on the [Dynamic File Services 2.2 Documentation Web site](http://www.novell.com/documentation/dynamic_file_services/) ([http://www.novell.com/documentation/dynamic\\_file\\_services/](http://www.novell.com/documentation/dynamic_file_services/)):

- ♦ *Readme*
- ♦ *Installation Guide*
- ♦ *Administration Guide*



---

# 1 Overview of the Dynamic File Services Client Commands and Utilities

Novell Dynamic File Services (DynamicFS) 2.2 provides a client command line interface (CLI) and utilities for the Windows environment. The commands allow you to create and manage pairs and policies. The CLI is a text interface that also allows scripting of the commands instead of using the graphical user interface (GUI) tools.

For information about using the GUI tools to create and manage Dynamic File Services, see the [Dynamic File Services 2.2 Administration Guide](#).

- ♦ [Section 1.1, “Client CLI and Utilities,”](#) on page 11
- ♦ [Section 1.2, “Command Line Syntax,”](#) on page 12

## 1.1 Client CLI and Utilities

The following table describes the commands and utilities that you can use to create and manage Dynamic File Services pairs and policies.

| Component          | Description   |
|--------------------|---|
| CLI                | <p>The DynamicFS CLI application allows you to create and manage pairs and policies on the server by issuing commands in the Administrator Command Prompt console. The application runs only when you issue a command.</p> <p>For information, see <a href="#">Chapter 3, “Using Client Commands for Pair and Policy Management,”</a> on page 19.</p> <p>The application is <code>DswCli.exe</code>.</p>  |
| Configuration Dump | <p>The DynamicFS Configuration Dump utility aggregates information about the current DynamicFS server settings for pairs, policies, and logs, and puts it an output file in XML format. This tool is available to help with troubleshooting when working with Novell Support.</p> <p>For information, see <a href="#">Chapter 6, “Dynamic File Services Configuration Dump Utility,”</a> on page 109.</p> <p>The application is <code>DswDump.exe</code>.</p> |

| Component             | Description   |
|-----------------------|---|
| File System Inventory | <p>The DynamicFS File System Inventory utility automatically runs a Pair History Scan on a pair each day at 4:00 a.m. by default. It scans the pairs to gather metadata information about the data stored on the primary and secondary locations, such as the file sizes, number of files, and file types.</p> <p>The time and frequency of pair history scanning is configurable. For information, see <a href="#">“Scheduling the Pair History Scan”</a> in the <i>Dynamic File Services 2.2 Administration Guide</i>.</p> <p>The DynamicFS Service controls when the File System Inventory runs. The application is <code>DswInventory.exe</code>.</p> |
| Pair Check            | <p>The DynamicFS Pair Check utility is used to detect duplicate files in the pair structure or to detect folders with attribute or ACL permission differences. It can generate reports in CSV and XML format.</p> <p>The primary and secondary locations are rarely out of synchronization. Such conditions might occur, for example, after recovering files in the two locations from backup media.</p> <p>For information, see <a href="#">Chapter 5, “Dynamic File Services Pair Check Utility,”</a> on <a href="#">page 103</a>.</p> <p>The application is <code>DswPairCheck.exe</code>.</p>   |

## 1.2 Command Line Syntax

The following notation is used in the Dynamic File Services command line syntax:

| Notation   | Description   |
|--|---|
| Text without brackets or braces                      | Command, action, parameter, or option that you must type as shown.                                      |
| <i>&lt;Italicized text inside angle brackets&gt;</i> | Variable that you must replace with a value.  |
| <i>Italicized text</i>                               | Values in DynamicFS commands are read as character strings and should be surrounded by quotation marks. |
| [Text inside square brackets]                        | Optional parameters or options.   |
| {Text inside braces}                                 | A set of mutually exclusive items separated by a vertical bar ( ). Choose only one.                     |

---

# 2 What's New for the Dynamic File Services Client CLI and Utilities

This section describes the new features and changes for the client command line interface (CLI) commands and utilities in each release of Novell Dynamic File Services since version 2.0.

- ♦ [Section 2.1, "What's New for Dynamic File Services 2.2," on page 13](#)
- ♦ [Section 2.2, "What's New for Dynamic File Services 2.1," on page 13](#)
- ♦ [Section 2.3, "What's New for Dynamic File Services 2.0," on page 15](#)

## 2.1 What's New for Dynamic File Services 2.2

There are no new command line interface commands or utilities in the 2.2 release.

## 2.2 What's New for Dynamic File Services 2.1

In addition to bug fixes, Novell Dynamic File Services 2.1 provides the following new features and changes for the client commands and utilities:

- ♦ [Section 2.2.1, "Service Actions," on page 13](#)
- ♦ [Section 2.2.2, "Registration Actions," on page 13](#)
- ♦ [Section 2.2.3, "Pair Actions," on page 14](#)
- ♦ [Section 2.2.4, "Policy Actions," on page 14](#)
- ♦ [Section 2.2.5, "Cloud Provider Actions," on page 15](#)
- ♦ [Section 2.2.6, "Cloud Actions," on page 15](#)
- ♦ [Section 2.2.7, "Pair Check Utility," on page 15](#)

### 2.2.1 Service Actions

The `-logFileName` option has been enhanced to include the log files for the standard pair engine, retention pair engine, and cloud engine. See [Section 3.6.7, "Display or Set the Logging Level for the Service and Engines," on page 36](#).

### 2.2.2 Registration Actions

You can use the `-dumpLicense` option to dump the contents of the license if the product is registered. See [Section 3.7.3, "Dump the Contents of the License If the Product Is Registered," on page 39](#).

## 2.2.3 Pair Actions

The following changes and enhancements were made for pair actions in the command line interface:

- ♦ [“Pair Tiering on the Same Server” on page 14](#)
- ♦ [“Retention Pair Reviewers” on page 14](#)
- ♦ [“Add or Remove Retention Pair Reviewers” on page 14](#)
- ♦ [“Modify a Pair” on page 14](#)

### Pair Tiering on the Same Server

Dynamic File Services allows you to tier your storage solution by using the secondary path of a standard pair as the primary path of a retention pair. The standard pair and retention pair can reside on the same or different server. Previously, tiering was allowed only if the standard pair and retention pair were on different Dynamic File Services servers.

Pair tiering can be used to move files from local storage to filers to cloud storage at different stages of the data life cycle. See [“Tier Data across Local Storage, Filers, and Cloud Storage”](#) in the *Dynamic File Services 2.2 Administration Guide*.

### Retention Pair Reviewers

You can specify users and groups as reviewers for a retention pair when you create it. See the following options in [Section 3.8.2, “Add a Pair,” on page 41](#):

- ♦ [-reviewGroups](#)
- ♦ [-reviewUsers](#)

### Add or Remove Retention Pair Reviewers

You can modify a retention pair to add or remove users and groups as reviewers. See the following options in [“Modify a Pair” on page 20](#):

- ♦ [-addReviewGroups](#)
- ♦ [-addReviewUsers](#)
- ♦ [-deleteReviewGroups](#)
- ♦ [-deleteReviewUsers](#)

### Modify a Pair

Use this option in combination with the options to add or remove reviewers for a retention pair. You can also modify the description for a pair. See [“Modify a Pair” on page 20](#).

## 2.2.4 Policy Actions

The following changes and enhancements were made for policy actions in the command line interface:

- ♦ [“File Content” on page 15](#)
- ♦ [“No Owner” on page 15](#)

## File Content

The `-fileContent` option can be used with the `-fileTypes` option to additionally use the file content to determine which files to move. See [“-fileContent” on page 60](#).

## No Owner

The `-noOwner` option can be used to move ownerless files. See [“-noOwner” on page 61](#).

## 2.2.5 Cloud Provider Actions

View a list of supported cloud providers and the types of credentials that each one requires. See [Section 3.11, “Cloud Providers Action,” on page 79](#).

## 2.2.6 Cloud Actions

Create, modify, delete, or list cloud accounts. See [Section 3.12, “Cloud Actions,” on page 80](#).

## 2.2.7 Pair Check Utility

The Synchronize Pair utility was renamed as the Pair Check utility. See [Chapter 5, “Dynamic File Services Pair Check Utility,” on page 103](#).

## 2.3 What’s New for Dynamic File Services 2.0

In addition to bug fixes, Novell Dynamic File Services 2.0 provides the following new features and changes for the client commands and utilities since Dynamic File Services 1.6:

- ♦ [Section 2.3.1, “Registration Actions,” on page 15](#)
- ♦ [Section 2.3.2, “Pair Actions,” on page 15](#)
- ♦ [Section 2.3.3, “Policy Actions,” on page 16](#)
- ♦ [Section 2.3.4, “Schedule Actions,” on page 18](#)

### 2.3.1 Registration Actions

Registration is required to create multiple pairs and policies on the Dynamic File Services server. The registration action allows you to register a product key and check its status. See [Section 3.7, “Registration Actions,” on page 38](#).

### 2.3.2 Pair Actions

Dynamic File Services now supports two types of pairs: standard and retention. The following changes and enhancements were made to provide this support in the command line interface:

- ♦ [“Standard Pair” on page 16](#)
- ♦ [“Retention Pair” on page 16](#)
- ♦ [“Upgrade Changes for Existing Pairs” on page 16](#)

- ♦ [“Pair Type Option” on page 16](#)
- ♦ [“Exclude/Include Option” on page 16](#)

## Standard Pair

The standard pair supports the merged view of two paths for users. Only local primary paths are supported for standard pairs. The secondary path can be a local path, a remote share on a network filer (like NetApp or EMC), or a remote share on a supported Windows platform. Standard is the default pair type.

## Retention Pair

The retention pair provides a retention repository on the secondary path. Users see files only on the primary path. Primary path and secondary path for a retention pair can be any combination of a local path, a remote share on a network filer (like NetApp or EMC), or a remote share on a supported Windows platform.

You can perform the following actions on a retention pair:

- ♦ Create a retention pair. See [Section 3.8.2, “Add a Pair,” on page 41](#).
- ♦ Unlink a retention pair. See [Section 3.8.4, “Unlink a Pair,” on page 47](#).

A review schedule indicates when review notifications are sent to designated reviewers. This works only if the Notifications Service is configured, and if reviewers are configured to receive notifications about the retention review events. You can associate one review schedule with a retention pair.

- ♦ Associate a review schedule to a retention pair. See [Section 3.8.9, “Associate a Review Schedule to a Retention Pair,” on page 51](#).
- ♦ Disassociate a review schedule from a retention pair. See [Section 3.8.10, “Disassociate a Review Schedule from a Retention Pair,” on page 51](#).

## Upgrade Changes for Existing Pairs

If you upgrade to version 2.0 and have existing pairs, each pair’s definition is modified to add the pair type “standard” in the pair database.

## Pair Type Option

The `-pairType` option allows you to specify the type of pair to create. See [“-pairType” on page 42](#).

## Exclude/Include Option

The `-exclude` and `-include` options for a pair are not supported for pairs with remote primary paths. Only retention pairs allow remote primary paths. See [Section 3.8.5, “Add Exclude/Include Paths to a Pair,” on page 48](#).

### 2.3.3 Policy Actions

The following changes and enhancements were made to policy actions:

- ♦ [“Policy Schedules” on page 17](#)
- ♦ [“Upgrade Changes for Existing Policies” on page 17](#)



- ♦ [“Renaming a Policy” on page 17](#)
- ♦ [“Policy Action Options” on page 17](#)
- ♦ [“Filter Options” on page 17](#)

## Policy Schedules

Dynamic File Services now manages a policy separately from its policy. For information, see [Section 2.3.4, “Schedule Actions,” on page 18](#).

## Upgrade Changes for Existing Policies

Schedules are now managed separately from policies. If you upgrade to version 2.0 and have existing policies, each policy’s schedule is extracted from the policy, and saved as a schedule with the same name as the policy. You can associate one policy schedule with a policy.

## Renaming a Policy

You can now modify a policy name. See [Section 3.9.3, “Modify a Policy,” on page 62](#).

## Policy Action Options

The following changes and enhancements were made for policy actions:

| Policy Action Option | Change Description   |
|----------------------|--|
| -execute             | This option replaces the <code>-run</code> option. See <a href="#">“Execute a List of Policies on a Pair” on page 52</a> .                       |
| -run                 | This filter option is now an alias for the <code>-execute</code> option. See <a href="#">“Execute a List of Policies on a Pair” on page 52</a> . |

## Filter Options

The following changes and enhancements were made for policy filter options:

| Filter Option | Change Description  |
|---------------|---|
| -execute      | This option is new for policies. It replaces the <code>-run</code> option. See <a href="#">“Execute a List of Policies on a Pair” on page 52</a> .  |
| -fileTypes    | This filter option was expanded to use the perceived types defined in the <code>Dynamic File Services\DswFileTypes.cfg</code> file in addition to the MIME and perceived types found in the server’s Windows Registry. See <a href="#">“-fileTypes [-fileContent]” on page 59</a> . |
| -groups       | This filter option is new for policy filters. It allows you to move files based on a group identity. See <a href="#">“-groups” on page 60</a> .   |
| -run          | This filter option is replaced by the <code>-execute</code> option. It is still supported as an alias. See <a href="#">“Execute a List of Policies on a Pair” on page 52</a> .  |

## 2.3.4 Schedule Actions

Schedules are now managed separately from policies. For the command line, you can create a schedule for policies and retention reviews. See [Section 3.10, “Schedule Actions,”](#) on page 65.

- ◆ [Add a review schedule](#)
- ◆ [Add a policy schedule](#)
- ◆ [Delete a schedule](#)
- ◆ [Modify a review schedule](#), including its name
- ◆ [Modify a policy schedule](#), including its name
- ◆ [List schedules](#)
- ◆ [List details of a schedule](#)
- ◆ [Associate a review schedule to a retention pair](#)
- ◆ [Disassociate a review schedule from a retention pair](#)
- ◆ [Associate a policy schedule to a policy](#)
- ◆ [Disassociate a policy schedule from a policy](#)

The following enhancements were added for policy schedules:

| Filter Option | Change Description  |
|---------------|---|
| -custom       | This filter option is new for policy schedules. See <a href="#">Section 3.10.3, “Add a Policy Schedule,”</a> on page 69.  |
| -quarterly    | This filter option is new for policy schedules. See <a href="#">Section 3.10.3, “Add a Policy Schedule,”</a> on page 69.  |
| last          | When specifying the schedule dates option, use the “last” option to specify that the policy runs on the last day of every month. The policy runs on day 28, 29, 30, or 31, according to how many days are in the month. |

The notification review schedule for retention pairs supports only monthly, quarterly, yearly, and custom frequencies.

---

# 3 Using Client Commands for Pair and Policy Management

The Novell Dynamic File Services (DynamicFS) client command line interface (`DswCli.exe`) provides the ability to manage pairs and policies at the command line or in a script. The Dynamic File Service must be running on the server you want to manage in order to use the utility.

The Dynamic File Services client CLI utility provides the following basic functionality of the GUI interface:

- ◆ Register a product license key
- ◆ Add and remove standard pairs and retention pairs.
- ◆ Add, modify, and remove policies.
- ◆ Add, modify, and remove review schedules and policy schedules.
- ◆ Add, modify, and remove cloud providers.
- ◆ Associate and disassociate a pair with a policy.
- ◆ Associate and disassociate a policy schedule with a policy.
- ◆ Associate and disassociate a review schedule with a retention pair.
- ◆ Add and remove users and groups as reviewers of the retained data for a retention pair.
- ◆ Execute a list of policies for a pair.
- ◆ Move a list of files or folders for a pair.
- ◆ Set the logging levels for the Service, standard pair engine, retention pair engine, and cloud engine.
- ◆ Perform system queries.

The `DswCli` utility is found in the `C:\Program Files\Dynamic File Services` directory (or the directory where you installed Dynamic File Services).

See the following sections for command actions and options:

- ◆ [Section 3.1, “DswCli.exe Syntax Overview,” on page 20](#)
- ◆ [Section 3.2, “Help Command,” on page 25](#)
- ◆ [Section 3.3, “Authentication Parameters,” on page 25](#)
- ◆ [Section 3.4, “Common Parameters,” on page 30](#)
- ◆ [Section 3.5, “Common Options,” on page 33](#)
- ◆ [Section 3.6, “System Actions,” on page 34](#)
- ◆ [Section 3.7, “Registration Actions,” on page 38](#)
- ◆ [Section 3.8, “Pair Actions,” on page 40](#)
- ◆ [Section 3.9, “Policy Actions,” on page 55](#)
- ◆ [Section 3.10, “Schedule Actions,” on page 65](#)

- ♦ Section 3.11, “Cloud Providers Action,” on page 79
- ♦ Section 3.12, “Cloud Actions,” on page 80
- ♦ Section 3.13, “Using CLI Commands in Scripts,” on page 87
- ♦ Section 3.14, “Example Scripts Using CLI Commands,” on page 88

## 3.1 DswCli.exe Syntax Overview

### AUTHENTICATION PARAMETERS

#### Authentication Parameters for Each Command

```
[-servername [-port [-username [-password]]]]
```

### PAIR ACTIONS

#### Add a Pair

```
DswCli.exe -PAIR -ADD
    -name=<pairname>
    -primarypath=<path>
    -secondaryPath=<path>
    [-description=<"text">]
    [-pairType=<"standard"|"retention">]
    [-secondaryCloud=<cloudId>] ; use with retention pairs only
    [-reviewUsers=<See FORMAT>] ; use with retention pairs only
    [-reviewGroups=<See FORMAT>] ; use with retention pairs only
    [authentication_parameters]
    If pairType is not specified,the default is "standard".
```

#### Modify a Pair

```
DswCli.exe -PAIR -MODIFY
    -pairId=<pairname|GUID>
    [-description=<"text">]
    [-addReviewUsers=<See FORMAT>] ; use with retention pairs only
    [-addReviewGroups=<See FORMAT>] ; use with retention pairs only
    [-deleteReviewUsers=<See FORMAT>] ; use with retention pairs only
    [-deleteReviewGroups=<See FORMAT>] ; use with retention pairs only
    [authentication_parameters]
```

#### Unlink a Pair

```
DswCli.exe -PAIR -DELETE
    -pairId=<pairname|GUID>
    [authentication_parameters]
```

#### List All Pairs

```
DswCli.exe -PAIR
    [authentication_parameters]
```

#### List Details for a Pair

```
DswCli.exe -PAIR -DETAIL
    -pairId=<pairname|GUID>
    [authentication_parameters]
```

#### Add Exclude/Include Paths for a Pair

```
DswCli.exe -PAIR -ADDEXCLUDEINCLUDEPATHS
    -pairId=<pairname|GUID>
    -flags=<exclude|include|none> ; None disables exclude/include policy
    [-paths=<path1[;path2;path3...]>] ; Required to add paths
    [authentication_parameters]
```

## Delete Exclude/Include Paths from a Pair

```
DswCli.exe -PAIR -DELETEEXCLUDEINCLUDEPATHS
  -pairId=<pairname|GUID>
  -flags=<exclude|include|none> ; None disables exclude/include policy
  [-paths=<path1[;path2;path3...]>] ; Required to remove paths
  [authentication_parameters]
```

## Associate a Policy and Pair

```
DswCli.exe -PAIR -ASSOCIATE
  -pairId=<pairname|GUID>
  -policyId=<polycyname|GUID>
  [authentication_parameters]
```

## Disassociate a Policy and Pair

```
DswCli.exe -PAIR -DISASSOCIATE
  -pairId=<pairname|GUID>
  -policyId=<polycyname|GUID>
  [authentication_parameters]
```

## Associate a Review Schedule to a Retention Pair

```
DswCli.exe -PAIR -ASSOCIATE
  -pairId=<pairname|GUID>
  -scheduleId=<schedulename|GUID>
  [authentication_parameters]
```

## Disassociate a Review Schedule from a Retention Pair

```
DswCli.exe -PAIR -DISASSOCIATE
  -pairId=<pairname|GUID>
  -scheduleId=<schedulename|GUID>
  [authentication_parameters]
```

## Execute a List of Policies for a Pair

```
DswCli.exe -PAIR -EXECUTE
  -pairId=<pairname|GUID>
  -policyIdList=<<polycyname|GUID>[, <polycyname|GUID>, ...]>
  [authentication_parameters]
```

## Move a List of Files or Folders on a Pair

```
DswCli.exe -PAIR -MOVE
  -pairId=<pairname|GUID>
  <-folderList="filename" | -fileList="filename">
  <-primaryToSecondary | -secondaryToPrimary>
  [authentication_parameters]
```

## POLICY ACTIONS

### Add a Policy

```
DswCli.exe -POLICY -ADD
  -name=<polycyname>
  [-description=<"text">]
  <-primaryToSecondary | -secondaryToPrimary>
  [-fileExtension=<SEE FORMAT>]
  [-fileOwners=<SEE FORMAT>]
  [-groups=<SEE FORMAT>]
  [-lastAccessed=<SEE FORMAT>]
  [-lastModified=<SEE FORMAT>]
  [-fileTypes=<SEE FORMAT> [-fileContent]]
  [-fileSize=<SEE FORMAT>]
  [-noOwner]
  [authentication_parameters]
```

## Modify a Policy

```
DswCli.exe -POLICY -MODIFY
    -policyId=<"polycyname"|"GUID">
    [-name=<new_polycyname>]
    [-description"text"]
    [-primaryToSecondary | -secondaryToPrimary]
    [-fileExtension=<SEE FORMAT>]
    [-fileOwners=<SEE FORMAT>]
    [-groups=<SEE FORMAT>]
    [-lastAccessed=<SEE FORMAT>]
    [-lastModified=<SEE FORMAT>]
    [-fileTypes=<SEE FORMAT> [-fileContent]]
    [-fileSize=<SEE FORMAT>]
    [-noOwner]
    [authentication_parameters]
```

## Delete a Policy

```
DswCli.exe -POLICY -DELETE
    -policyId=<polycyname|GUID>
    [authentication_parameters]
```

## List All Policies

```
DswCli.exe -POLICY
    [authentication_parameters]
```

## List Details for a Policy

```
DswCli.exe -POLICY -DETAIL
    -policyId=<polycyname|GUID>
    [authentication_parameters]
```

## Associate a Policy Schedule to a Policy

```
DswCli.exe -POLICY -ASSOCIATE
    -policyId=<polycyname|GUID>
    -scheduleId=<schedulename|GUID>
    [authentication_parameters]
```

## Disassociate a Policy Schedule from a Policy

```
DswCli.exe -POLICY -DISASSOCIATE
    -policyId=<polycyname|GUID>
    -scheduleId=<schedulename|GUID>
    [authentication_parameters]
```

## SCHEDULE ACTIONS

### Add a Review Schedule

```
DswCli.exe -SCHEDULE -ADD
    -name=<schedulename>
    -scheduleType="review"
    [-description=<"text">]
    [-monthly=<SEE FORMAT>]
    [-quarterly=<SEE FORMAT>]
    [-yearly=<SEE FORMAT>]
    [-custom=<SEE FORMAT>]
    [authentication_parameters]
```

## Add a Policy Schedule

```
DswCli.exe -SCHEDULE -ADD
    -name=<schedulename>
    -scheduleType="policy"
    [-description=<"text">]
    [-time=<SEE FORMAT>] ; Note: -time not allowed with -hourly
    [-hourly=<SEE FORMAT>]
    [-daily=<SEE FORMAT>]
    [-weekly=<SEE FORMAT>]
    [-monthly=<SEE FORMAT>]
    [-quarterly=<SEE FORMAT>]
    [-yearly=<SEE FORMAT>]
    [-custom=<SEE FORMAT>]
    [authentication_parameters]
```

## Modify a Review Schedule

```
DswCli.exe -SCHEDULE -MODIFY
    -scheduleId=<schedulename|GUID>
    [-name=<new_schedulename>]
    [-description=<"text">]
    [-monthly=<SEE FORMAT>]
    [-quarterly=<SEE FORMAT>]
    [-yearly=<SEE FORMAT>]
    [-custom=<SEE FORMAT>]
    [authentication_parameters]
```

## Modify a Policy Schedule

```
DswCli.exe -SCHEDULE -MODIFY
    -scheduleId=<schedulename|GUID>
    [-name=<new_schedulename>]
    [-description=<"text">]
    [-time=<SEE FORMAT>] ; Note: -time not allowed with -hourly
    [-hourly=<SEE FORMAT>]
    [-daily=<SEE FORMAT>]
    [-weekly=<SEE FORMAT>]
    [-monthly=<SEE FORMAT>]
    [-quarterly=<SEE FORMAT>]
    [-yearly=<SEE FORMAT>]
    [-custom=<SEE FORMAT>]
    [authentication_parameters]
```

## Delete a Review Schedule or a Policy Schedule

```
DswCli.exe -SCHEDULE -DELETE
    -scheduleId=<schedulename|GUID>
    [authentication_parameters]
```

## List All Schedules

```
DswCli.exe -SCHEDULE
    [authentication_parameters]
```

## List All Review Schedules

```
DswCli.exe -SCHEDULE
    -scheduleType="review"
    [authentication_parameters]
```

## List All Policy Schedules

```
DswCli.exe -SCHEDULE
    -scheduleType="policy"
    [authentication_parameters]
```

## List Details of a Review Schedule or Policy Schedule

```
DswCli.exe -SCHEDULE -DETAIL
    -scheduleId=<schedulename|GUID>
    [authentication_parameters]
```

## REGISTRATION ACTIONS

### Register a License Key

```
DswCli.exe -REGISTRATION
  -regFilePath=<"filename">
  [authentication_parameters]
```

### Display the Registration Status

```
DswCli.exe -REGISTRATION
  [authentication_parameters]
```

### Dump the Contents of the License If the Product Is Registered

```
DswCli.exe -REGISTRATION
  -dumpLicense
  [authentication_parameters]
```

## CLOUD PROVIDERS ACTION

### List All Cloud Providers

```
DswCli.exe -CLOUDPROVIDERS
  [authentication_parameters]
```

## CLOUD ACTIONS

### Add a Cloud Account

```
DswCli.exe -CLOUD -ADD
  -name=<cloud_account_name>
  [-description=<"text">]
  -cloudProvider=<amazons3|cloudme|dropbox>
  [-cloudAccountName=<acc_login_name>
  -cloudAccountPwd=<acc_pwd>
  ] ; Use for CloudMe(TM)
  [-cloudAccountAppKey=<app_key>
  -cloudAccountAppSecret=<app_secret>
  [-cloudAccountBucket=<bucketname>]
  [-folderPath=<"folder_path">]
  ] ; Use for Amazon S3(TM)
  [-cloudAccountAppKey=<app_key>
  -cloudAccountAppSecret=<app_secret>
  [-phase1 | -phase2]
  ] ; Use for DropBox(TM)
  [-cloudPath=<"/cloud_path">]
  [authentication_parameters]
```

### Modify a Cloud Account

```
DswCli.exe -CLOUD -MODIFY
  -cloudId=<cloud_account_name|GUID>
  [-name=<cloud_account_name>]
  [-description=<"text">]
  [-cloudAccountName=<acc_login_name>
  -cloudAccountPwd=<acc_pwd>
  ] ; Use for CloudMe(TM)
  [-cloudAccountAppKey=<app_key>
  -cloudAccountAppSecret=<app_secret>
  [-cloudAccountBucket=<bucketname>]
  [-folderPath=<"folder_path">]
  ] ; Use for Amazon S3(TM)
  [-cloudAccountAppKey=<app_key>
  -cloudAccountAppSecret=<app_secret>
  [-phase1 | -phase2]
  ] ; Use for DropBox(TM)
  [-cloudPath=<"/cloud_path">]
  [authentication_parameters]
```



### Delete a Cloud Account

```
DswCli.exe -CLOUD -DELETE  
-cloudId=<cloud_account_name|GUID>  
[authentication_parameters]
```

### List All Cloud Accounts

```
DswCli.exe -CLOUD  
[authentication_parameters]
```

### List Details of a Cloud Account

```
DswCli.exe -CLOUD -DETAIL  
-cloudId=<cloud_account_name|GUID>  
[authentication_parameters]
```

## 3.2 Help Command

### -help, -h

Displays basic information about the syntax for Dynamic File Services CLI options, parameters, and actions. It also identifies the software version of Dynamic File Services that is running.

Entering `DswCli.exe` without a parameter lists all of the help without paging.

#### Syntax

At the Administrator Command Prompt console, go to the directory where you installed Dynamic File Services, then enter one of the following:

```
DswCli.exe -help
```

```
DswCli.exe -h
```

```
DswCli.exe (displays all online help without paging)
```

## 3.3 Authentication Parameters

You must specify the server name and login credentials for the server where you want to manage Dynamic File Services pairs and policies. This allows you to connect to the service running on the DynamicFS server and execute the command. The authentication parameters include the server name, username, password, and port number for the server that you want to manage.

---

**IMPORTANT:** Login credentials are not required if you run a `DswCli` command while you are logged in as the Administrator user or a user in the Dynamic File Services group on the server. Credentials are required if you are managing the server remotely from another computer, or if you are on the server you want to manage but are logged in as a user without the privileges needed to manage Dynamic File Services.

---

You can specify the server name and login credentials with each command, or you can set environment variables for the parameters while you are managing the server.

- ♦ [Section 3.3.1, “Setting Authentication Parameters in Commands,” on page 26](#)
- ♦ [Section 3.3.2, “Setting Authentication Parameters as Environment Variables,” on page 28](#)

## 3.3.1 Setting Authentication Parameters in Commands

Use the options in this section to specify the authentication parameters in each Dynamic File Services command for a server. With this method, you must provide the `-servername`, `-username`, and `-password` options for every command. You need to specify the port number for the Dynamic File Service port on the target server only if the server has been previously configured to use a port other than the default (8999).

- ♦ [“Syntax” on page 26](#)
- ♦ [“Authentication Parameters” on page 26](#)
- ♦ [“Authentication Examples” on page 27](#)

### Syntax

Specifies the authentication parameters as needed in the pair or policy command.

```
DswCli.exe [-servername [-port [-username [-password]]]]
    { [system_action] |
      -pair [pair_options] |
      -policy [policy_options] |
      -schedule [schedule_options] |
      -registration [registration_option] |
      -cloudproviders |
      -cloud [cloud_options]
    }
```

### Authentication Parameters

This section describes the following authentication parameters:

- ♦ `-servername`
- ♦ `-port`
- ♦ `-username`
- ♦ `-password`

#### **-servername**

Specifies the IP address or DNS name of the server where you want to create or manage the pair. If you are issuing commands locally on the DynamicFS server, you can also use the loopback address (127.0.0.1) instead of its assigned IP address, or you can use `localhost` as the server name instead of its full DNS name. The IPv4 format is supported for the IP address. DNS names are case sensitive.

#### **Syntax**

```
-servername={"ip_address" | "DNS_name"}
```

#### **Examples**

```
-servername="192.168.1.1"
-servername="server1.site1.example.com"
-servername="localhost"
-servername="127.0.0.1"
```

#### **-port**

Instead of using the configured port number, use the supplied value.

You need to specify this parameter only if you have set up the target server to use a port other than the default Dynamic File Service port (8999) for remote management communications.

If this parameter is not used and the port is not configured as an environment variable, the default port is automatically used for DynamicFS communications.

#### Syntax

```
-port=<"portnumber">
```

#### Examples

```
-port="1234"  
-port=8999
```

#### **-username, -u**

Specifies the username of a user who is a member of the Dynamic File Services group (or is the Administrator user) for the DynamicFS server that you want to manage.

#### Syntax

```
-username=<"admin_user_name">
```

```
-u=<"admin_user_name">
```

#### Examples

```
-username="Administrator"
```

```
-u="Administrator"
```

```
-u="john"
```

#### **-password, -p**

Specifies the password for the user whose username you supplied.

#### Syntax

```
-password=<"admin_user_password">
```

```
-p=<"admin_user_password">
```

#### Examples

```
-password="novell"
```

```
-p="novell"
```

## Authentication Examples

### Example: Using the IP Address of the Server

```
DswCli.exe -servername=192.168.1.1 -u=Administrator -p=novell  
-pair
```

This command connects to the server via the IP address 192.168.1.1, logs in with the credentials of Administrator and novell, then lists all pairs on the specified server. You can also provide the credentials of a user who is a member of the Dynamic File Services group. It assumes that the default port is 8999.

### Example: Using the DNS Address of the Server

```
DswCli.exe -servername=server1.site1.example.com -u=Administrator -p=novell  
-port="1234"  
-policy
```

This command connects to the server via the DNS name of `server1.site1.example.com`, logs in with the credentials of `Administrator` and `novell`, then lists all policies on the specified server. You can also provide the credentials of a user who is a member of the `Dynamic File Services` group. It specifies that the TCP connection should be made with port 1234 on the target server, because you have previously configured the `Dynamic File Service` port on that server to use port 1234 instead of the default port 8999.

## 3.3.2 Setting Authentication Parameters as Environment Variables

Dynamic File Services allows you to use the Windows `set` command in the Administrator Command Prompt console to specify environment variables for the authentication parameters (server name, username, password, and port) for the server that you want to manage with commands. The environment variables are set for only one server at a time. The environment variable settings persist if you issue the `set` command again with different values, or until you close the console.

After the environment variables are set for a given server, the parameter values are automatically applied for every `DswCli.exe` command where you do not provide authentication parameters. For example, the following commands apply only to the server that has been previously set up with the environment variables:

```
DswCli.exe -pair  
DswCli.exe -policy
```

You can change the environment variables settings by issuing the `set` commands again with the new values.

---

**IMPORTANT:** You can remove the environment variable settings by closing the Administrator Command Prompt console.

---

If it is used without parameters, the `set` command displays the current environment variable settings.

The Dynamic File Services environment variables for the `set` command are:

---

| Environment Variable  | Description  |
|-----------------------|--|
| DswParm1=<servername> | Specifies the <i>servername</i> by providing the DNS address or the IP address of the server you want to manage. |
|                       | <b>Examples</b>  |
|                       | The following command sets the environment variable for <i>servername</i> to 192.168.1.1:                        |
|                       | <pre>set DswParm1=192.168.1.1</pre>  |
|                       | The following command displays the current setting for the <code>DswParm1</code> environment variable:           |
|                       | <pre>set DswParm1</pre>  |

---

| Environment Variable  | Description  |
|-----------------------|--|
| DswParm2=<username>   | <p>Specifies the <i>username</i> of the user identity you want to use to manage the server. The user must be a member of the Dynamic File Services group (or the Administrator user) on the server.</p> <p><b>Examples</b></p> <p>The following command sets the environment variable for <i>username</i> to Administrator. You can also provide the credentials of a user who is a member of the Dynamic File Services group.</p> <pre>set DswParm2=Administrator</pre> <p>The following command displays the current setting for the DswParm2 environment variable:</p> <pre>set DswParm2</pre>  |
| DswParm3=<password>   | <p>Specifies the <i>password</i> of the user identity you specified with DswParm2.</p> <p><b>Examples</b></p> <p>The following command sets the environment variable for <i>password</i> to novell:</p> <pre>set DswParm3=novell</pre> <p>The following command displays the current setting for the DswParm3 environment variable:</p> <pre>set DswParm3</pre>  |
| DswParm4=<portnumber> | <p>Specifies the <i>portnumber</i> to use for DynamicFS communications with the server you want to manage.</p> <p>You need to specify this parameter only if you have set up the target server to use a port other than the default Dynamic File Service port for remote management communications. The default port value is automatically assumed if this parameter is not otherwise specified.</p> <p><b>Examples</b></p> <p>The following command sets the environment variable for <i>portnumber</i> to 1234:</p> <pre>set DswParm4=1234</pre> <p>The following command displays the current setting for the DswParm4 environment variable:</p> <pre>set DswParm4</pre> |

To use environmental variables while executing Dynamic File Services commands:

- 1 On a Windows server or workstation where Dynamic File Services is installed, open the Administrator Command Prompt console.
- 2 At the command prompt, specify the server name and login credentials for the server that you want to manage by entering the following commands as needed:

```
set DswParm1=192.168.1.1
set DswParm2=Administrator
set DswParm3=password
set DswParm4=1234
```

Make sure to change the values to the credentials needed to log in to the server you want to manage.

- 3 At the command prompt, enter the `DswCli.exe` commands to manage pairs and policies on the specified server.  
You can specify the commands without providing credentials.
- 4 Repeat [Step 3](#) for all of the `DswCli.exe` commands you want to issue for that server.
- 5 When you are done, repeat [Step 2](#) to [Step 4](#) for each server you want to manage.
- 6 Close the console to remove the credentials as environmental variables.

## 3.4 Common Parameters

The parameters in this section can be used by Dynamic File Services pair or policy actions.

- ♦ [Section 3.4.1, "Description," on page 30](#)
- ♦ [Section 3.4.2, "Direction to Move Files," on page 31](#)
- ♦ [Section 3.4.3, "Name," on page 31](#)
- ♦ [Section 3.4.4, "Pair ID," on page 31](#)
- ♦ [Section 3.4.5, "Policy ID," on page 32](#)
- ♦ [Section 3.4.6, "Policy ID List," on page 32](#)
- ♦ [Section 3.4.7, "Schedule ID," on page 32](#)
- ♦ [Section 3.4.8, "Schedule Type," on page 33](#)
- ♦ [Section 3.4.9, "Cloud ID," on page 33](#)

### 3.4.1 Description

#### **-description**

Specifies a textual description of a pair, a policy, a schedule, or a cloud account.

#### **Syntax**

```
-description=<"text">
```

#### **Examples**

```
-description="East site user files"
-description="Policy to move graphics files to the secondary"
-description="Run every Saturday from 0100 to 0800"
-description="Cloud account for John Doe's bucket at Amazon S3"
```

## 3.4.2 Direction to Move Files

### **-primaryToSecondary**

Specifies that files will move from the primary to the secondary location when an action is performed. If a direction option is not specified, the default direction is primary to secondary.

**Restriction:** This option cannot be used with the `-secondaryToPrimary` option.

### **-secondaryToPrimary**

Specifies that files will move from the secondary to the primary location when an action is performed. If a direction option is not specified, the default direction is primary to secondary.

The `-secondaryToPrimary` option is invalid for retention pairs.

**Restriction:** This option cannot be used with the `-primaryToSecondary` option.

## 3.4.3 Name

### **-name**

Specifies a unique name on a Dynamic File Services server for a new pair, policy, schedule, or cloud account. You can modify policy names, schedule names, and cloud account names. Pair names cannot be modified; you must unlink and re-create the pair with the new name.

#### **Syntax**

```
-name=<"text">
```

#### **Pair Examples**

```
-name="myPair"
```

```
-name="ProjectA Pair"
```

#### **Policy Examples**

```
-name="myPolicy"
```

```
-name="Move music and videos"
```

#### **Schedule Examples**

```
-name="quarterly_1st"
```

```
-name="custom_financial"
```

#### **Cloud Account Examples**

```
-name="dropbox1"
```

```
-name="amazons3_johndoe"
```

## 3.4.4 Pair ID

### **-pairId**

Specifies the pair identifier. You can provide the pair name, or provide the GUID (globally unique identification) of the pair. A GUID is automatically assigned by Dynamic File Services when you create a pair.

#### **Syntax**

```
-pairId=<"pairname" | "GUID">
```

### Examples

```
-pairId="myPair"
```

```
-pairId="42e0064d-0b2c-4bb3-9825-bfa82999720e"
```

## 3.4.5 Policy ID

### -policyId

Specifies the policy identifier. You can provide the policy name, or provide the GUID of the policy. A GUID is automatically assigned by Dynamic File Services when you create a policy.

#### Syntax

```
-policyId=<"polycyname" | "GUID">
```

#### Examples

```
-policyId="myPolicy"
```

```
-policyId="My JPG and BMP Policy"
```

```
-policyId="Last Modified GT 6 Months"
```

```
-policyId="4b5b5820-da6c-4c07-b9da-07e3b83ebe02"
```

## 3.4.6 Policy ID List

### -policyIdList

Specifies a comma-separated list of `policyId` parameters. For each policy in the list, you can provide the policy name or the GUID. Separate entries with a comma and no spaces. Place quotation marks around the list.

#### Syntax

```
-policyIdList=<"<polycyname|GUID>[, <polycyname" |GUID>, ...]">
```

#### Examples

```
-policyIdList="myPolicy,myPolicy100,4b5b5820-da6c-4c07-b9da-07e3b83ebe02"
```

```
-policyIdList="My JPG and BMP Policy"
```

```
-policyIdList="Last Modified GT 6 Months,myPolicy"
```

## 3.4.7 Schedule ID

### -scheduleId

Specifies the schedule identifier. You can provide the schedule name, or provide the GUID of the schedule. A GUID is automatically assigned by Dynamic File Services when you create a schedule.

#### Syntax

```
-scheduleId=<"schedulename" | "GUID">
```



### Examples

```
-scheduleId="quarterly_1st"  
-scheduleId="custom_financial"  
-scheduleId="4b5b5820-da6c-4c07-b9da-07e3b83ebe02"
```

## 3.4.8 Schedule Type

### -scheduleType

Specifies whether the type of schedule is a review schedule or a policy schedule.

#### Syntax

```
-scheduleType=<"review" | "policy">
```

#### Examples

```
-scheduleType="review"  
-scheduleType="policy"
```

## 3.4.9 Cloud ID

### -cloudId

Specifies the cloud account identifier. You can provide the cloud account name, or provide the GUID of the cloud account. A GUID is automatically assigned by Dynamic File Services when you add a cloud account.

#### Syntax

```
-cloudId=<"cloud_account_name" | "GUID">
```

#### Examples

```
-cloudId="dropbox1"  
-cloudId="cloudme1"  
-cloudId="box1"  
-cloudId="4b5b5820-da6c-4c07-b9da-07e3b83ebe03"
```

## 3.5 Common Options

Common options can be used in combination with any of the system, pair, or policy actions.

- ♦ [Section 3.5.1, “Debug,” on page 33](#)
- ♦ [Section 3.5.2, “Output to a File,” on page 34](#)
- ♦ [Section 3.5.3, “Silent,” on page 34](#)

### 3.5.1 Debug

#### -debug

Displays debug messages.

#### Syntax

-debug

### 3.5.2 Output to a File

#### -of

Dumps certain requests and replies to a file.

#### Syntax

-of

### 3.5.3 Silent

#### -silent

Use this option when you do not want to display errors or help on execution, such as in scripts for batch files where the batch file checks for return codes. This option returns 0 if the command is successful. It returns 1 if the command fails.

If a command fails, you can enter the command at the Administrator Command Prompt console without the `-silent` option to view the error messages.

#### Syntax

-silent

## 3.6 System Actions

You can use the system action options to display information about a specified Dynamic File Services server. For information about authentication parameters, see [Section 3.3, "Authentication Parameters,"](#) on page 25.

- ♦ [Section 3.6.1, "Display Active Directory Computers,"](#) on page 34
- ♦ [Section 3.6.2, "Display Active Directory Shares,"](#) on page 35
- ♦ [Section 3.6.3, "Display the File Types Information,"](#) on page 35
- ♦ [Section 3.6.4, "Display Local Drives,"](#) on page 35
- ♦ [Section 3.6.5, "Display Network Shares,"](#) on page 35
- ♦ [Section 3.6.6, "Display Server System Information,"](#) on page 35
- ♦ [Section 3.6.7, "Display or Set the Logging Level for the Service and Engines,"](#) on page 36
- ♦ [Section 3.6.8, "Query for File Types or Extensions \(for Novell Support Use Only\),"](#) on page 37

### 3.6.1 Display Active Directory Computers

#### -adComputers

Displays a list of the computers in the Active Directory domain.

#### Syntax

```
DswCli.exe -adComputers  
[authentication_parameters]
```

## 3.6.2 Display Active Directory Shares

### **-adShares**

Displays the shares that are published in Active Directory.

#### **Syntax**

```
DswCli.exe -adShares  
            [authentication_parameters]
```

## 3.6.3 Display the File Types Information

### **-fileTypesInfo, -types**

Displays a list of file types found on the target server. File types are the MIME content types or perceived types of file extensions that are associated in the Windows Registry with applications installed on the server. It also lists the perceived file types that are defined in the `..\Dynamic File Services\DswFileTypes.cfg` file. You can customize the types defined in the `DswFileTypes.cfg` file. For information, see [“Configuring File Extensions and Categories for the File Types Filter”](#) in the *Dynamic File Services 2.2 Administration Guide*.

#### **Syntax**

```
DswCli.exe -fileTypesInfo  
            [authentication_parameters]  
  
DswCli.exe -types  
            [authentication_parameters]
```

## 3.6.4 Display Local Drives

### **-localDrives**

Displays local drive information for the specified server.

#### **Syntax**

```
DswCli.exe -localDrives  
            [authentication_parameters]
```

## 3.6.5 Display Network Shares

### **-shares**

Displays network share information for the specified server.

#### **Syntax**

```
DswCli.exe -shares  
            [authentication_parameters]
```

## 3.6.6 Display Server System Information

### **-system**

Displays system information for the specified server.

#### **Syntax**

```
DswCli.exe -system  
            [authentication_parameters]
```

## 3.6.7 Display or Set the Logging Level for the Service and Engines

### **-logFileName [-logLevel]**

Novell Dynamic File Services uses Apache log4net to log events. Log level settings determine the type of events that are logged. You can use the log level commands to display or set the logging levels for the following components:

- ♦ Dynamic File Service
- ♦ Standard Pair engine
- ♦ Retention Pair engine
- ♦ Cloud engine

### **Syntax**

```
DswCli.exe
  -logFileName=<*> | SERVICE | STANDARDPAIR | RETENTIONPAIR | CLOUD | filename>
  [-logLevel=<ALL | DEBUG | INFO | WARN | ERROR | FATAL | OFF>]
  [authentication_parameters]
```

The two log level options are used together to set the log level for the specified log file. If you use the `-logFileName` option without the `-logLevel` option, the current setting for the specified log file is displayed.

### **Log File Name Options**

Specify whether you want to apply the `-logLevel` setting to the configuration files for all engines, or for a specified engine. You can alternatively specify a log configuration file name.

| <b>LogFileName Option</b> | <b>Log Configuration File Name</b>                                   | <b>Log File Name</b>               |
|---------------------------|--|------------------------------------|
| *                         | All  | All                                |
| SERVICE                   | DswMcpCore.config.xml  | DswMcpCore.log                     |
| SVC                       |  |                                    |
| STANDARDPAIR              | DswStandardEngine.config.xml   | DswStandardEngine.log              |
| RETENTIONPAIR             | DswRetentionEngine.config.xml  | DswRetentionEngine.log             |
| CLOUD                     | DswCloudEngine.config.xml  | DswCloudEngine.log                 |
| "filename"                | Specify the name of the log configuration file instead of an option. | Applies to the specified log file. |

### **LogFileName Examples**

```
-logFileName=*
-logFileName="SERVICE"
-logFileName="DswRetentionPair.config.xml"
```

### **Log Level Options**

The log level options determine which events are logged for the specified log files. Use this option in combination with the `-logFileName` option to modify the log level setting for the specified log file. The default logging level is WARN.

Each level includes the events specified, plus the events of the levels below it. The log4net software supports the following logging levels in order of increasing priority:

| Log Level Option | Description  |
|------------------|--|
| All              | Record all events in the specified log file. (This is the same output as the DEBUG level.) |
| DEBUG            | Record debug, information, warning, error, and fatal events in the specified log file.     |
| INFO             | Record information, warning, error, and fatal events in the specified log file.            |
| WARN             | (Default) Record warning, error, and fatal events in the specified log file.               |
| ERROR            | Record error and fatal events in the specified log file.                                   |
| FATAL            | Record fatal events in the specified log file.   |
| OFF              | No events are recorded in the specified log file.  |

#### Log Level Examples

```
-logLevel=INFO  
-logLevel=FATAL
```

#### Logging Level Examples

Get the current value of the Service log file (DswMcpCore.config.xml):

```
DswCli.exe [authentication_parameters] -logFileName=SERVICE
```

Set the log level to ALL for the Service log file (DswMcpCore.config.xml):

```
DswCli.exe [authentication_parameters] -logFileName=SERVICE -logLevel=ALL
```

## 3.6.8 Query for File Types or Extensions (for Novell Support Use Only)

Dynamic File Services provides the following query commands for use only by Novell Support:

#### **-fileTypeExtensionQuery, -extQuery**

Returns a list of file types associated with the specified extensions.

#### **Example**

```
DswCli.exe [authentication_parameters] -fileTypeExtensionQuery=".jpg,.mp3"
```

#### **-fileTypeQuery, -typeQuery**

Returns a list of file extensions associated with the specified file type. File types are the MIME content types or perceived types of file extensions that are associated with applications installed on the server.

#### **Example**

```
DswCli.exe [authentication_parameters] -fileTypeQuery="image"
```

## 3.7 Registration Actions

### -registration

Performs operations on a registration key file. The `-registration` action allows you to register a license key on the server where you have installed the Service component of Dynamic File Services. When it is used without providing a registration key file name, it checks to see if a key has already been registered.

You can get a license key from [Novell Customer Center \(http://www.novell.com/customercenter/\)](http://www.novell.com/customercenter/). Save the key as a `.txt` or `.html` file on the server.

#### Syntax

```
DswCli.exe -registration  
            [-regFilePath=<"filename">]  
            [authentication_parameters]
```

```
DswCli.exe -dumpLicense
```

For information about how to provide the servername and login credentials that are needed to connect to the server that you want to manage, see [Section 3.3, "Authentication Parameters," on page 25](#).

- ♦ [Section 3.7.1, "Display the Registration Status," on page 38](#)
- ♦ [Section 3.7.2, "Register a Product License Key," on page 38](#)
- ♦ [Section 3.7.3, "Dump the Contents of the License If the Product Is Registered," on page 39](#)

### 3.7.1 Display the Registration Status

#### (no path)

When the `-registration` action is used without providing a key file name, it displays whether a license key has been registered on the Dynamic File Services server.

#### Syntax

```
DswCli.exe -registration  
            [authentication_parameters]
```

#### Example

The following `-registration` command displays the registration status.

```
DswCli.exe -servername=localhost -u=Administrator -p=novell  
-registration
```

### 3.7.2 Register a Product License Key

#### -regFilePath

The `-regFilePath` option specifies the path and filename of the license key file for Dynamic File Services. The key file must have been previously obtained from the [Novell Customer Center \(http://www.novell.com/customercenter/\)](http://www.novell.com/customercenter/) and saved to a location on the server.

#### Syntax

```
DswCli.exe -registration  
            -regFilePath=<"filename">  
            [authentication_parameters]
```

### Example

The following command reads the specified license key file and registers the license key with DynamicFS:

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
           -registration
           -regFilePath="C:\dir1\myregistration.txt"
```

## 3.7.3 Dump the Contents of the License If the Product Is Registered

### -dumpLicense

The -dumpLicense option outputs information to the terminal console about the license if the Dynamic File Services product is registered on the specified computer.

### Syntax

```
DswCli.exe -dumpLicense
           [authentication_parameters]
```

### Example

The following command reads information about the currently registered license and outputs it to the terminal console:

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
           -dumpLicense
```

### Sample Output

---

```
C:\Program Files\Dynamic File Services>dswcli -dumplicense
License Contents:
Registrar = "MyCompany, Inc."
DomainName = "EXAMPLEDOMAIN"
MachineName = "SERVER1"
MachineAddress = "BC305BD86E01"
UserName = "SERVER1\Administrator"
S/N = "7c02-0201-228a-4e06-bc45-1212-1234-12ab"
Timestamp = "3/20/2012 4:51:17 PM"
REPLICATION = "true"
STANDARD = "true"
RETENTION = "true"
VERSION = "1"
PRODUCTTYPE = "NDFS"
PRODUCTLEVEL = "500"
CLOUDLEVEL = "500"
IMPACTLEVEL = "High"
LICENSETYPE = "TEST"
PAIRCOUNT = "unlimited"
POLICYCOUNT = "unlimited"
```

---

## 3.8 Pair Actions

### -pair

Performs operations on a pair. When it is used without other pair action options, all pairs on the server are listed.

#### Syntax

```
DswCli.exe -pair  
            [pair_action]  
            [-pairId]  
            [pair_option]  
            [authentication_parameters]
```

Each of the following pair actions are described below:

```
-add  
-modify  
-delete  
-addExcludeIncludePaths  
-removeExcludeIncludePaths  
-associate  
-disassociate  
-detail  
-execute  
-move
```

For information about how to provide the servername and login credentials that are needed to connect to the server that you want to manage, see [Section 3.3, “Authentication Parameters,” on page 25](#).

- ◆ [Section 3.8.1, “Pair Parameters,” on page 40](#)
- ◆ [Section 3.8.2, “Add a Pair,” on page 41](#)
- ◆ [Section 3.8.3, “Modify a Pair,” on page 46](#)
- ◆ [Section 3.8.4, “Unlink a Pair,” on page 47](#)
- ◆ [Section 3.8.5, “Add Exclude/Include Paths to a Pair,” on page 48](#)
- ◆ [Section 3.8.6, “Delete Exclude/Include Paths from a Pair,” on page 49](#)
- ◆ [Section 3.8.7, “Associate a Pair and Policy,” on page 50](#)
- ◆ [Section 3.8.8, “Disassociate a Pair and Policy,” on page 50](#)
- ◆ [Section 3.8.9, “Associate a Review Schedule to a Retention Pair,” on page 51](#)
- ◆ [Section 3.8.10, “Disassociate a Review Schedule from a Retention Pair,” on page 51](#)
- ◆ [Section 3.8.11, “List Pairs,” on page 52](#)
- ◆ [Section 3.8.12, “List Details for a Pair,” on page 52](#)
- ◆ [Section 3.8.13, “Execute a List of Policies on a Pair,” on page 52](#)
- ◆ [Section 3.8.14, “Move a List of Files or Folders in a Pair,” on page 53](#)

### 3.8.1 Pair Parameters

This section describes the following common pair parameters:

- ◆ [-description](#)
- ◆ [-pairId](#)



### **-description**

Specifies a textual description of the pair. The description is optional.

#### **Syntax**

```
-description="text"
```

#### **Example**

```
-description="Department A user files"
```

### **-pairId**

Specifies the pair identifier. You can provide the pair name, or provide the GUID of the pair. A GUID is automatically assigned by Dynamic File Services when you create a pair.

#### **Syntax**

```
-pairId=<"pairname" | "GUID">
```

#### **Examples**

```
-pairId="myPair"
```

```
-pairId="42e0064d-0b2c-4bb3-9825-bfa82999720e"
```

## **3.8.2 Add a Pair**

### **-add**

The `-add` action creates the pair with the desired name and stores the configuration in the XML file in the `C:\ProgramData\Dynamic File Services\Pairs` folder.

---

**IMPORTANT:** Before you issue a command to create a pair, make sure your system meets the requirements in “[Pair Requirements](#)” in the *Dynamic File Services 2.2 Administration Guide*.

---

#### **Syntax**

```
DswCli.exe -pair -add
    -name=<"pairname">
    -primarypath=<"path">
    -secondaryPath=<"path">
    [-description=<"text">]
    [-pairType=<"standard" | "retention">]
    [-secondaryCloud=<cloudId>]
    [-reviewUsers=user1[,user2,...]]
    [-reviewGroups=group1[,group2,...]]
    [authentication_parameters]
```

You must specify a name for the pair, a primary path, and a secondary path. You can optionally specify a description of the pair. If the `pairType` option is not specified, the default is "standard".

For a standard pair, the primary path is a local path. The secondary path can be a local path or the UNC (Universal Naming Convention) path of a remote share. The standard pair provides a merged view of data in the two locations. You must create a network share for the primary path in order to provide a merged view of the data for users.

---

**IMPORTANT:** Use the Microsoft Network Sharing tool to create a network share on the primary path of a standard pair. Users connect to the network share by mapping a local drive letter on their workstations to the network share. All user access takes place through the share.

---

For a retention pair, the primary path and secondary path can be a local path or the UNC path of a remote share. In combination with the `-secondaryCloud` option, the secondary path of a retention pair can alternatively be a relative path for storage in a predefined cloud account. A retention pair type does not have a merged view.

If you specify a UNC path for remote shares, the share must already exist before you run the command. To set up a share in an Active Directory environment, you must do the following:

- ◆ Create the remote network share.
- ◆ Publish the share in Active Directory.
- ◆ Add the `Dynamic File Services Storage Rights` group to the remote share and give the group all permissions.

After you create a pair, you should verify that the pair setup is correct before you grant users access to the pair or before you run policies on the pair.

Data is not moved between the primary path and secondary path until you associate the policy with one or more policies, or until you move a specified list of files or folders by using the `move` command. For information about creating policies, see [Section 3.9.2, “Add a Policy,” on page 56](#). For information about moving specified files or folders, see [Section 3.8.14, “Move a List of Files or Folders in a Pair,” on page 53](#).

### Add Pair Parameters

#### **-name**

Specifies the pair name. The name must be unique on the Dynamic File Services server that you are managing.

#### **Syntax**

```
-name=<"pairname">
```

#### **Example**

```
-name="myPair"
```

#### **-pairType**

Specifies whether the pair is a standard pair or retention pair. If this option is not specified, the default pair type is "standard".

#### **Syntax**

```
-pairType=<"standard" | "retention">
```

#### **Example**

```
-pairType="standard"
```

#### **-primaryPath**

Specifies the path of the primary location in the pair. The drive or path must already exist; the command does not create it for you.

For a retention pair type, the primary path can also be a UNC path to a remote share. The parser requires that you use 3 backslashes (`\\`) instead of two to precede the server name, such as `\\remoteservername\share`.

#### **Syntax**

```
-primaryPath=<"path">
```

## Examples

```
-primaryPath="C:\users"  
-primaryPath="M:"  
-primaryPath="K:\engineering\proj1"  
-primaryPath="\\remoteserver\share"
```

### **-secondaryPath**

Specifies the path of the secondary location in the pair. The drive or path must already exist; the command does not create it for you.

The secondary path can also be a UNC path to a remote share. The parser requires that you use three backslashes (\\\) instead of two to precede the server name, such as \\remoteserver\share.

For a retention pair, the secondary path can be in a cloud storage account. Use the `secondaryCloud` parameter to specify the cloud account to use. Specify the secondary path value as a relative path in the cloud account, and use forward slashes (/).

#### **Syntax**

```
-secondaryPath=<"path">
```

#### **Examples**

```
-secondaryPath="L:\users\media"  
-secondaryPath="N:\m_sh"  
-secondaryPath="Z:\project1"  
-secondaryPath="\\remoteserver\share"  
-secondaryPath="/project_a/dir1/" -secondaryCloud="dropbox1"
```

### **-secondaryCloud**

Specifies the cloud ID of a predefined cloud account that is used as the secondary location in a retention pair. The cloud account and path must already exist; the command does not create it for you.

#### **Syntax**

```
-secondaryCloud=<"cloud_account_name" | "GUID">
```

This option is used in combination with the `-secondaryPath` option.

#### **Examples**

```
-secondaryCloud="dropbox1" -secondaryPath="/Scott3/"  
-secondaryCloud="cloudme1" -secondaryPath="/Scott4/"  
-secondaryCloud="box1" -secondaryPath="/Scott5/"
```

### **-reviewGroups**

Specifies one or more comma-separated Active Directory group names or local group names. Use this option to specify groups that are authorized to review retained data for a retention pair. Separate group names with a comma and no spaces.

#### **Syntax**

```
-reviewGroups=<"group1[,group2,...]">
```

## Example

```
-reviewGroups=finance,deptA
```

## -reviewUsers

Specifies one or more comma-separated Active Directory user names or local user names. Use this option to specify users that are authorized to review retained data for a retention pair. Separate user names with a comma and no spaces.

## Syntax

```
-reviewUsers=<"user1[,user2,...]">
```

## Example

```
-reviewUsers=bob,tom,sally
```

## Add Pair Examples

### Example: Create a Standard Pair

```
DswCli.exe -servername=localhost -u=Administrator -p=novell  
-pair  
-add  
-name="myPair"  
-primaryPath="e:\PrimaryPath"  
-secondaryPath="f:\SecondaryPath"  
-pairType="standard"
```

This command uses the user credentials of the Administrator user to log you in to the server where you are running the command. You can also provide the credentials of a user who is a member of the `Dynamic File Services` group. It creates a standard pair named `myPair` on the server. The pair's primary path is the `e:\PrimaryPath` directory. The pair's secondary path is the `f:\SecondaryPath` directory. No files are moved until you create a policy for the pair, and associate the policy to the pair. Users access a share on the primary path to see a merged view of the data.

### Example: Create a Standard Pair with a Description

```
DswCli.exe -servername=localhost -u=Administrator -p=novell  
-pair  
-add  
-name="ProjectA"  
-primaryPath="e:\PrimaryPath"  
-secondaryPath="f:\SecondaryPath"  
-description="Project A management files"
```

This command uses the user credentials of the Administrator user to log you in to the server where you are running the command. You can also provide the credentials of a user who is a member of the `Dynamic File Services` group. It creates a standard pair named `ProjectA`. It uses the optional description field to provide more information about the pair. The pair's primary path is the `e:\PrimaryPath` directory. The pair's secondary path is the `f:\SecondaryPath` directory. No files are moved until you create a policy for the pair, and associate the policy to the pair. The default pair type of "standard" is used. Users access a share on the primary path to see a merged view of the data.

### Example: Create a Retention Pair

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
  -pair
  -add
  -name="retentionPair"
  -primaryPath="e:\PrimaryPath"
  -secondaryPath="s:\SecondaryPath"
  -pairType="retention"
  -reviewGroups=finance,deptA
  -reviewUsers=bob
```

This command uses the credentials of the Administrator user to log you in to the server where you are running the command. You can also provide the credentials of a user who is a member of the Dynamic File Services group. It creates a retention pair named retentionPair on the server. The pair's primary path is the e:\PrimaryPath directory. The pair's secondary path is the s:\SecondaryPath directory. No files are moved until you create a policy for the pair, and associate the policy to the pair. A merged view is not available for retention pairs. Users can view and access only the data on the primary path.

The finance group, deptA group, and bob user name are specified as reviewers for the pair's retained data.

### Example: Create Retention Pairs with a Secondary Path in a Cloud

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
  -pair -add
  -name=dropbox1_scott3
  -description="Dropbox for Scott - project 3"
  -pairType=retention
  -primaryPath=c:\projects\data\p3
  -secondaryCloud=dropbox1
  -secondaryPath="/Scott3/"
```

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
  -pair -add
  -name=cloudmel_scott4
  -description="CloudMe for Scott - project 4"
  -pairType=retention
  -primaryPath=c:\projects\data\p4
  -secondaryCloud=cloudmel
  -secondaryPath="/Scott4/"
```

## 3.8.3 Modify a Pair

### **-modify**

The `-modify` action modifies a specified pair and stores the new configuration the pair's XML file in the `C:\ProgramData\Dynamic File Services\Pairs` folder.

#### **Syntax**

```
DswCli.exe -pair
            -modify
            -pairId=<pairname|GUID>
            [-description=<"text">]
            [-addReviewUsers=user1[,user2,...]]
            [-addReviewGroups=group1[,group2,...]]
            [-deleteReviewUsers=user1[,user2,...]]
            [-deleteReviewGroups=group1[,group2,...]]
            [authentication_parameters]
```

To modify a pair, the required parameters are `pair`, `modify`, and `pairId`. You can modify the description for a pair. For a retention pair, you can also add or remove user names and group names as reviewers of its retained data.

### **Modify Pair Parameters**

#### **-addReviewGroups**

Specifies one or more comma-separated Active Directory group names or local group names. Use this option to add group names to the list of authorized reviewers of retained data for a retention pair. Separate group names with a comma and no spaces.

#### **Syntax**

```
-addReviewGroups=<"group1[,group2,...]">
```

#### **Example**

```
-addReviewGroups="finance,deptA"
```

#### **-addReviewUsers**

Specifies one or more comma-separated Active Directory user names or local user names. Use this option to add user names to the list of authorized reviewers of retained data for a retention pair. Separate user names with a comma and no spaces.

#### **Syntax**

```
-addReviewUsers=<"user1[,user2,...]">
```

#### **Example**

```
-addReviewUsers="bob, john, sally"
```

#### **-deleteReviewGroups**

Specifies one or more comma-separated Active Directory group names or local group names. Use this option to remove group names from the list of authorized reviewers of retained data for a retention pair. Separate group names with a comma and no spaces.

#### **Syntax**

```
-deleetReviewGroups=<"group1[,group2,...]">
```

#### **Example**

```
-deleteReviewGroups="finance"
```

### **-deleteReviewUsers**

Specifies one or more comma-separated Active Directory user names or local user names. Use this option to remove user names from the list of authorized reviewers of retained data for a retention pair. Separate user names with a comma and no spaces.

#### **Syntax**

```
-deleteReviewUsers=<"user1 [,user2, ...]">
```

#### **Example**

```
-addReviewUsers="bob,tom,sally"
```

### **Modify Pair Examples**

#### **Example: Add Reviewers for a Retention Pair**

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
-pair
-modify
-pairId="myRetPair"
-addReviewUsers="bob, john, sally"
-addReviewGroup="deptB"
```

This command adds three user names and one group as reviewers of the retention pair MyRetPair.

#### **Example: Remove Reviewers for a Retention Pair**

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
-pair
-modify
-pairId="myRetPair"
-removeReviewUsers="john"
-removeReviewGroup="deptA"
```

This command removes one user name and one group as reviewers of the retention pair.

## **3.8.4 Unlink a Pair**

### **-delete**

The `-delete` action removes the specified pair from the pair database. All links between the two storage locations are removed. Data is not destroyed. The data is not moved; that is, the data remains in the location where it was stored when the delete command was executed. The associations between the pair and any policies are removed. After the pair is deleted, the users who are logged in to the network share on the primary location can see and access the data only on the primary location.

You must specify the `pairId` for the pair that you want to delete.

#### **Syntax**

The delete option unlinks the two paths in a pair. The files are not deleted.

```
DswCli.exe -pair -delete
-pairId=<"pairname" | "GUID">
[authentication_parameters]
```

#### **Example**

The following `-pair` command deletes the pair named `myPair` on the specified server:

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
-pair
-delete
-pairId="myPair"
```

## 3.8.5 Add Exclude/Include Paths to a Pair

### -addExcludeIncludePaths

Adds exclude or include folder paths to a pair. It requires the `-pairId`, `-paths`, and `-flags` parameters. A given pair can include folders or exclude folders, but you cannot do both.

---

**IMPORTANT:** This option is not supported for pairs with remote primary paths.

---

### Syntax

```
DswCli.exe -pair
            -addExcludeIncludePaths
            -pairId=<pairname | GUID>
            -flags=<"exclude" | "include" | "none">
            [-paths=<"path1 [;path2; ...]">]
            [authentication_parameters]
```

### Exclude/Include Paths Options

#### -flags

Specifies the flag to exclude or include the folders specified by the `-paths` option. A given pair can include folders or exclude folders, but you cannot do both.

#### Syntax

```
-flags=<"exclude" | "include" | "none">
```

Use this option in combination with the `-paths` option to add paths.

Use `-flags=none` without specifying a path to disable an existing exclude policy or include policy for the pair. Any existing paths remain defined. Use `-flags=exclude` or `-flags=include` without specifying a path to enable the policy again.

#### Examples

```
-flags="exclude" -paths="path1"
-flags="include" -paths="path1;path2;path3"
-flags="none"           ; Disable the feature without altering paths
-flags="include"       ; Enable the feature again
```

#### -paths

Specifies one or more subdirectory paths that are to be included or excluded from policies run on the pair. Separate multiple paths with a semi-colon and no spaces. Exclude/include paths should be set on subfolders and not at the root of the primary share.

The primary path must reside on a device that is attached to the Dynamic File Services server. Remote primary paths are not supported.

#### Syntax

```
-paths=<"path1 [;path2; ...]">
```

Use this option in combination with the `-flags` option to add paths. The flag's value must match the pair's current flag setting in order for any specified paths to be added.

#### Examples

```
-flags="exclude" -paths="path1"
-flags="include" -paths="path1;path2;path3"
-flags="exclude" -paths="C:\primary\subdir1;C:\primary\subdir2"
```



## Add Exclude/Include Paths Examples

```
DswCli.exe -servername=localhost -u=Administrator -p=novell  
-pair  
-addExcludeIncludePaths  
-pairId="myPair"  
-flags="exclude"  
-paths="path1"
```

```
DswCli.exe -servername=localhost -u=Administrator -p=novell  
-pair  
-addExcludeIncludePaths  
-pairId="myPair"  
-flags="include"  
-paths="path1;path2;path3"
```

## 3.8.6 Delete Exclude/Include Paths from a Pair

### -deleteExcludeIncludePaths

Removes exclude or include folder paths from a pair. It requires the `-pairId`, `-paths`, and `-flags` options.

#### Syntax

```
DswCli.exe -pair  
-deleteExcludeIncludePaths  
-pairId=<pairname | GUID>  
-flags=<"exclude" | "include" | "none">  
[-paths=<"path1 [;path2;...]">]  
[authentication_parameters]
```

### Exclude/Include Paths Options

#### -flags

Specifies the flag setting to use when removing the paths specified by the `-paths` option. A given pair can include folders or exclude folders, but you cannot do both.

#### Syntax

```
-flags=<exclude | include | none>
```

Use this option in combination with the `-paths` option to remove paths.

Use `-flags=none` without specifying a path to disable an existing exclude policy or include policy for the pair. Any existing paths remain defined. Use `-flags=exclude` or `-flags=include` without specifying a path to enable the policy again.

#### Examples

```
-flags="exclude" -paths="path1"  
-flags="include" -paths="path1;path2;path3"
```

#### -paths

Specifies one or more directory paths to be removed from the excluded paths list or the included paths list on the pair. Separate multiple paths with a semi-colon and no spaces.

#### Syntax

```
-paths=<"dirpath[;dirpath;...]">
```

Use this option in combination with the `-flags` option to remove paths. The flag's value must match the pair's current flag setting in order for any specified paths to be removed.

## Examples

```
-flags="exclude" -paths="path1"  
-flags="include" -paths="path1;path2;path3"  
-flags="exclude" -paths="C:\primary\subdir1;C:\primary\subdir2"
```

### Delete Exclude/Include Paths Examples

```
DswCli.exe -servername=localhost -u=Administrator -p=novell  
-pair  
-deleteExcludeIncludePaths  
-pairId="myPair"  
-flags="exclude"  
-paths="path1"
```

```
DswCli.exe -servername=localhost -u=Administrator -p=novell  
-pair  
-deleteExcludeIncludePaths  
-pairId="myPair"  
-flags="include"  
-paths="path1;path2;path3"
```

## 3.8.7 Associate a Pair and Policy

### -associate

Associates a policy with a retention pair or standard pair. When the `-policyId` parameter is used with the `-associate` action and a `-pairId` parameter, it links the specified pair and policy. Policies that move data in either direction can be associated with retention pairs and standard pairs. Policies that move data from secondary to primary can be associated only with standard pairs.

#### Syntax

```
DswCli.exe -pair -associate  
-pairId=<"pairname" | "GUID" >  
-policyId=<"policyname" | "GUID" >  
[authentication_parameters]
```

#### Example

The following `-pair` command associates the pair named `myPair` with the policy named `myPolicy` on the specified server:

```
DswCli.exe -servername=localhost -u=Administrator -p=novell  
-pair  
-associate  
-pairId="myPair"  
-policyId="myPolicy"
```

## 3.8.8 Disassociate a Pair and Policy

### -disassociate

Disassociates a policy from a retention pair or standard pair. When the `-policyId` parameter is used with the `-disassociate` action and a `-pairId` parameter, it unlinks the specified pair and policy.

## Syntax

```
DswCli.exe -pair
            -disassociate
            -pairId=<"pairname" | "GUID">
            -policyId=<"policyname" | "GUID">
            [authentication_parameters]
```

## Example

The following `-pair` command removes the association between the pair named `myPair` and the policy named `myPolicy` on the specified server:

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
            -pair
            -disassociate
            -pairId="myPair"
            -policyId="myPolicy"
```

## 3.8.9 Associate a Review Schedule to a Retention Pair

### **-associate**

When the `-scheduleId` option is used with the `-associate` action, it links a specified retention pair to a specified review schedule. You must specify the `pairId` parameter for the retention pair that you want to associate, and the `scheduleId` parameter for the review schedule.

## Syntax

```
DswCli.exe -pair
            -associate
            -pairId=<"pairname" | "GUID">
            -scheduleId=<"schemulename" | "GUID">
            [authentication_parameters]
```

## Example

The following `-pair` command associates the pair named `myRetentionPair` with the schedule named `quarterly_1st` on the specified server:

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
            -pair
            -associate
            -pairId="myPair"
            -scheduleId="quarterly_1st"
```

## 3.8.10 Disassociate a Review Schedule from a Retention Pair

### **-disassociate**

When the `-scheduleId` option is used with the `-disassociate` action, it removes the association between a specified retention pair and schedule. You must specify the `pairId` parameter for the pair. You must specify the `scheduleId` parameter for the review schedule that you no longer want to be associated with the retention pair.

## Syntax

```
DswCli.exe -pair
            -disassociate
            -pairId=<"pairname" | "GUID">
            -scheduleId=<"schemulename" | "GUID">
            [authentication_parameters]
```

### Example

The following `-pair` command removes the association between the retention pair named `myRetentionPair` and the schedule named `quarterly_1st` on the specified server:

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
           -pair
           -disassociate
           -pairId="myPair"
           -scheduleId="quarterly_1st"
```

## 3.8.11 List Pairs

### (no action options)

When the `-pair` action option is used without any other parameters or options, all pairs on the server are listed.

### Syntax

```
DswCli.exe -pair
           [authentication_parameters]
```

### Example

The following `-pair` command displays a list of all pairs on the specified server:

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
           -pair
```

## 3.8.12 List Details for a Pair

### -detail

The `-detail` action provides a details for a pair, including its pair type, paths, and associated policies. For retention pairs, the associated schedule is also identified. You must specify the `pairId` parameter for the pair.

### Syntax

```
DswCli.exe -pair
           -detail
           -pairId=<"pairname" | "GUID">
           [authentication_parameters]
```

### Example

The following `-pair` command lists details for the pair named `myPair` on the specified server:

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
           -pair
           -detail
           -pairId="myPair"
```

## 3.8.13 Execute a List of Policies on a Pair

### -execute, -run

The `-execute` action causes all policies defined in the specified policy ID list to be executed for the specified pair. You must specify the `pairId` parameter for the pair. Use the [-policyIdList parameter](#) to list one or more policies to run. If the policy list is not specified, all policies run that are associated with the specified pair.

The `-run` option is supported as an alias.

## Syntax

```
DswCli.exe -pair
            -execute -pairId=<"pairname"|"GUID">
            [-policyIdList=<"policy1[,policy2,...]">]
            [authentication_parameters]
```

## Example

The following `-pair` command runs the DynamicFS policies named `myPolicy` and `myPolicy100` for the pair named `myPair` on the specified server:

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
            -pair
            -execute
            -pairId="myPair"
            -policyIdList="myPolicy,myPolicy100"
```

## 3.8.14 Move a List of Files or Folders in a Pair

### **-move**

Moves a specified list of files or a list of folders from primary to secondary. You can specify either a list of files, a list of folders, or both lists in a single move command.

### Syntax

```
DswCli.exe -pair
            -pairId=<"pairname"|"GUID">
            -move < -folderList | -fileList | -folderList -fileList >
            -primaryToSecondary | -secondaryToPrimary
            [authentication_parameters]
```

### Description

The `-move` option requires the following options be specified:

```
-pair
-pairId=<pairname|GUID>
-primaryToSecondary | -secondaryToPrimary
-folderList, -folderList, or both of these options
```

The `-pairId` option identifies the pair where the folders are located.

The `-primaryToSecondary` or `-secondaryToPrimary` option specifies which direction to move the folders and their content. The `-secondaryToPrimary` option is valid on a standard pair, but not on a retention pair.

In the `-fileList` option, the `ListOfFilesToMove.txt` file contains a list of files to move.

In the `-folderList` option, the `ListOfFoldersToMove.txt` file contains a list of folders to move. The folders and all of their contents are moved.

### List Options

#### **-fileList**

Specifies the path to a text file that contains a list of the files that are to be moved. This parameter is used in combination with the `-move` option.

#### Syntax

```
-fileList=<"path\ListOfFilesToMove.txt">
```

Each entry in the file provides path and filename of the file to be moved. Each file appears on a different line in the text file. The file path is relative to the pair's root directory.

For example, the following lines are sample text content for the `ListOfFilesToMove.txt` file:

```
\file.jpg
\dir1\anotherfile.avi
\dir2\dir3\file3.bmp
```

### Examples

```
-fileList="M:\primary\dir1\ListOfFilesToMove.txt"
-fileList="C:\dir1\movelist.txt"
```

### -folderList

Specifies the path to a text file that contains a list of the files that are to be moved. This parameter is used in combination with the `-move` option.

#### Syntax

```
-folderList=<"path\ListOfFoldersToMove.txt">
```

Each entry in the file provides path of the folder to be moved. Each folder path appears on a different line in the text file. The folder path is relative to the pair's root directory.

For example, the following lines are sample text content for the `ListOfFoldersToMove.txt` file:

```
\home\user1\music
\dir1\archive
\dir2\dir3\reports
```

### Examples

```
-folderList="M:\primary\dir1\ListOfFoldersToMove.txt"
-folderList="C:\dir1\movelist.txt"
```

## Move Files or Folders Examples

### Example: Move a List of Folders

The following `-pair -move` command moves the folders that are specified in the `ListOfFoldersToMove.txt` file from the primary location to the secondary location of the `myPair` pair. All of the contents in each folder are also moved.

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
           -pair -pairId="myPair"
           -move
           -folderList="c:\dir1\ListOfFoldersToMove.txt"
           -primaryToSecondary
```

### Example: Move a List of Files and a List of Folders

The following `-pair -move` command moves the folders that are specified in the `ListOfFoldersToMove.txt` file from the primary location to the secondary location of the `myPair` pair. All of the contents in each folder are also moved. The command also moves the individual files that are separately specified in the `ListOfFilesToMove.txt` file.

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
           -pair -pairId="myPair"
           -move
           -folderList="c:\dir1\ListOfFoldersToMove.txt"
           -fileList="c:\dir1\ListOfFilesToMove.txt"
           -primaryToSecondary
```

## 3.9 Policy Actions

### **-policy**

Performs operations on a policy. When it is used without policy action options, all policies on the server are listed.

#### **Syntax**

```
DswCli.exe -policy  
          [-add | -modify | -delete | -detail | -associate | -disassociate]  
          [policy_parameter]  
          [policy_option]  
          [authentication_parameters]
```

For information about how to provide the servername and login credentials that are needed to connect to the server that you want to manage, see [Section 3.3, “Authentication Parameters,”](#) on page 25.

- ♦ [Section 3.9.1, “Policy Parameters,”](#) on page 55
- ♦ [Section 3.9.2, “Add a Policy,”](#) on page 56
- ♦ [Section 3.9.3, “Modify a Policy,”](#) on page 62
- ♦ [Section 3.9.4, “Delete a Policy,”](#) on page 63
- ♦ [Section 3.9.5, “List All Policies,”](#) on page 63
- ♦ [Section 3.9.6, “List Details for a Policy,”](#) on page 64
- ♦ [Section 3.9.7, “Associate a Policy Schedule to a Policy,”](#) on page 64
- ♦ [Section 3.9.8, “Disassociate a Policy Schedule from a Policy,”](#) on page 64
- ♦ [Section 3.9.9, “Associate a Policy and a Pair,”](#) on page 65
- ♦ [Section 3.9.10, “Disassociate a Policy and a Pair,”](#) on page 65
- ♦ [Section 3.9.11, “List Policies Associated with a Pair,”](#) on page 65

### 3.9.1 Policy Parameters

This section describes the following common policy parameters:

- ♦ [-description](#)
- ♦ [-policyId](#)
- ♦ [-policyIdList](#)

#### **-description**

Specifies a textual description of the policy. The description is optional.

#### **Syntax**

```
-description=<"text">
```

#### **Example**

```
-description="Move graphics to secondary weekly"
```

#### **-policyId**

Specifies the policy identifier. You can provide the policy name, or provide the GUID of the policy.

### Syntax

```
-policyId=<"polycyname" | "GUID">
```

### Examples

```
-policyId="myPolicy"
```

```
-policyId="My JPG and BMP Policy"
```

```
-policyId="My Last Modified GT 6 Months Policy"
```

### -policyIdList

Specifies a comma-separated list of `policyId` parameters. For each policy, you can provide the policy name, or provide the GUID of the policy.

If the policy list is not specified, all policies that are associated with the specified pair are run.

### Syntax

```
-policyIdList=<"<polycyname | GUID> [, <polycyname | GUID>, ...]">
```

### Example

```
-policyIdList="myPolicy,myPolicy100"
```

## 3.9.2 Add a Policy

### -add

The `-add` action creates the policy with the specified name and stores the configuration as an XML file in the `C:\ProgramData\Dynamic File Services\Policies` folder.

### Syntax

```
DswCli.exe -policy
            -add
            -name=<polycyname>
            [-description"text"]
            directionOption
            filterOptions
            frequencyOptions
            [authentication_parameters]
```

After you add a policy, you must associate it with one or more pairs before you can run it on the pairs. For information, see [Section 3.8.7, "Associate a Pair and Policy," on page 50](#)

You can run a policy manually, or associate it with a policy schedule to run it automatically. For information, see [Section 3.10.3, "Add a Policy Schedule," on page 69](#) and [Section 3.9.7, "Associate a Policy Schedule to a Policy," on page 64](#).

### Add Policy Parameter

#### -name

Specifies a name for the policy. The name must be unique on the server you are managing.

### Syntax

```
-name=<"polycyname">
```

### Example

```
-name="myPolicy"
```



## Add Policy Direction Option

Choose one of the direction options in combination with the `-add` action.

- ♦ `-primaryToSecondary`
- ♦ `-secondaryToPrimary`

### `-primaryToSecondary`

Specifies the direction to move files. If a direction option is not specified, the default direction is primary to secondary.

**Restriction:** This option cannot be used with the `-secondaryToPrimary` option.

### `-secondaryToPrimary`

Specifies the direction to move files. If a direction option is not specified, the default direction is primary to secondary.

The `-secondaryToPrimary` option is valid on a standard pair, but not on a retention pair.

**Restriction:** This option cannot be used with the `-primaryToSecondary` option.

## Add Policy Filter Options

Specify the following as filter options in combination with the `-add` action. Filter options are applied in combination to determine which files you want to move. All of the specified filter options must be met in order for the file to be moved.

You can specify one or more filter options in the same policy. Only one filter option of each type can be used in the same policy.

Filters set in the same policy are enforced as AND conditions. A file must meet all filter conditions to be moved. For example, if you specify a filter with the file extension option for files ending in `*.jpg` and `*.gif`, then any file with either of the specified extensions is moved. If you specify a second filter with a file size option for files with a file size greater than 5 MB, only the `*.jpg` and `*.gif` files that have a file size greater than 5 MB are moved.

Filters set in different policies that run at the same time are enforced as OR conditions. A file that meets the conditions in any one of the policies is moved. In the example above, if each of the filters was set in two separate policies and both policies run at the same time, then a file is moved if it ends in `*.jpg` or `*.gif`, or the file is moved if it is greater than 5 MB with any file extension.

The following filter options are available:

- ♦ `-fileSize`
- ♦ `-lastAccessed`
- ♦ `-lastModified`
- ♦ `-filePattern, -fileExtension`
- ♦ `-fileTypes [-fileContent]`
- ♦ `-fileOwners`
- ♦ `-groups`
- ♦ `-noOwner`

### `-fileSize`

Specifies the file size of files to filter for movement.

#### Syntax

```
-fileSize=<"ccn[...]uu">
```

Where:

cc = gt or lt conditional  
n[...] = any length numeric value  
uu = units of size

Valid uu values are:

b=bytes  
kb=kilobytes  
mb=megabytes  
gb=gigabytes

### Examples

Move all files that are greater than 1 GB in size:

```
-fileSize="gt1gb"
```

Move all files that are less than 100 KB in size:

```
-fileSize="lt100kb"
```

### -lastAccessed

Moves files that meet the specified condition based on the last accessed time.

#### Syntax

```
-lastAccessed=<"ccn[...]u">
```

Where

cc = gt or lt conditional  
n[...] = any length numeric value  
u = units of time

Valid u values are:

d = days  
w = weeks  
m = months  
y = years

### Examples

Move all files that have a last accessed time greater than 10 days old:

```
-lastAccessed="gt10d"
```

Move all files that have a last accessed time less than 5 weeks old:

```
-lastAccessed="lt5w"
```

### -lastModified

Moves files that meet the specified condition based on the last modified time.

#### Syntax

```
-lastModified=<"ccn[...]u">
```

Where

cc = gt or lt conditional  
n[...] = any length numeric value  
u = units of time

Valid u values are:

d = days  
w = weeks  
m = months  
y = years

### Examples

Move all files that have a modified time greater than 10 days old:

```
-lastModified="gt10d"
```

Move all files that have a modified time less than 5 weeks old:

```
-lastModified="lt5w"
```

### **-filePattern, -fileExtension**

Moves files that match a specified file pattern. Moves files that have the specified file extensions. An asterisk (\*) can be used as a wildcard character. Separate multiple entries with a comma.

#### Syntax

```
-fileExtension=<"extensionList">
```

The `-fileextension` option has been aliased to `-filePattern`.

```
-filePattern="patternList"
```

#### Examples

Move all .jpg files and .gif files:

```
-filePattern="*.jpg,*.gif"
```

```
-fileExtension="*.jpg,*.gif"
```

Move all files that begin with gw that have the file extension .mail:

```
-filepattern="gw*.mail"
```

Move all .txt files:

```
-filePattern="*.txt"
```

### **-fileTypes [-fileContent]**

Moves files based on the file type. Separate multiple entries with a comma. Use the `-fileTypes` option in combination with the `-fileContent` option to additionally use the file content to determine which files to move.

File types are the MIME content types or perceived types of file extensions that are associated with applications installed on the server. These types appear in the server's Windows Registry.

You can also use the perceived file types that are defined in the `Dynamic File Services\DswFileTypes.cfg` file. The file lists well-known file extensions and their perceived types. Each line in the `DswFileTypes.cfg` contains a file extension and its perceived type. For example:

```
.doc/document
```

You can customize the list by using a text editor to add or remove file extension entries in the proper format. The file types and extensions can be listed in any order.

## Syntax

```
-fileTypes=<"typeList"> [-fileContent]
```

Valid types are:

```
application
audio
compressed
image
message
model
system
text
video
```

## Examples

Move video and audio files:

```
-fileTypes="video, audio"
```

Move video and audio files based on file content:

```
-fileTypes="video, audio" -fileContent
```

## -fileContent

Use the `-fileContent` option in combination with the `-fileTypes` option to additionally use the file content to determine which files to move. The policy moves a file only if its content matches the MIME type of the specified file type. Checking the file content increases the time needed to process the files during a policy run. Required parameter: `-fileTypes`.

## Syntax

```
-fileContent
```

## Examples

Move video and audio files based on file content:

```
-fileTypes="video, audio" -fileContent
```

## -fileOwners

Move files based on identity.

You can specify one or more valid usernames in order to move files based on file ownership. For usernames, files are moved if they are owned by any of the specified users.

---

**IMPORTANT:** The CLI does not verify the usernames that you add. Make sure to enter valid usernames. Invalid usernames are ignored when the policy runs.

---

## Syntax

```
-fileOwners=<"userList">
```

## Example

```
-fileOwners="user1, user2"
```

## -groups

Move files based on group identity.

You can specify one or more valid group names in order to move files based on file ownership. For usernames, files are moved if they are owned by any users listed as members of the group when the policy runs.

---

**IMPORTANT:** The CLI does not verify the group names that you add. Make sure to enter valid group names. Invalid group names are ignored when the policy runs.

---

### Syntax

```
-groups=<"groupList">
```

### Example

```
-groups="group1,group2"
```

### -noOwner

Use the `-noOwner` option to move ownerless files. Files are considered to be ownerless if the user name or group name has been removed from the Active Directory domain or the server's Users and Groups list. A file retains the Security Identifier (SID) of that user or group even after the associated name becomes invalid.

### Syntax

```
-noOwner
```

### Example

```
-noOwner
```

## Add Policy Examples

Each of the following `-policy` commands creates a policy with one type of filter. The direction option is not set in these policies, so data is moved in the default direction of primary to secondary.

### Example: Policy to Filter by File Extension

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
  -policy
  -add
  -name="My Pictures Policy"
  -fileExtension="*.jpg,*.bmp,*.gif"
```

### Example: Policy to Filter by File Size

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
  -policy
  -add
  -name="My Size GT 1GB Policy"
  -fileSize="gt1gb"
```

### Example: Policy to Filter by Last Modified Date

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
  -policy
  -add
  -name="My Last Modified GT 10 Days Policy"
  -lastModified="gt10d"
```

### Example: Policy to Filter by File Content for Video and Audio Files

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
  -policy
  -add
  -name="Files with invalid owners"
  -fileTypes=audio,video
  -fileContent
```

### Example: Policy to Filter by Ownerless Files

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
  -policy
  -add
  -name="Files with invalid owners"
  -noowner
```

## 3.9.3 Modify a Policy

### -modify

The `-modify` action modifies a specified policy and stores the new configuration in the policy's XML file in the `C:\ProgramData\Dynamic File Services\Policies` folder.

#### Syntax

```
DswCli.exe -policy
  -modify
  -policyId=<"polycyname" | "GUID">
  [-name=<polycyname>]
  [-description"text"]
  directionOption
  filterOptions
  frequencyOptions
  [authentication_parameters]
```

For information about the options, see [Section 3.9.2, "Add a Policy," on page 56](#).

For modifying a policy, the required parameters are `policy` and `policyId`. Name, description, direction, and filter options can be changed. Policy GUIDs cannot be changed.

The changes apply to all pairs that are associated with the policy.

#### Modify Policy Examples

Each of the following `-policy` commands modifies a policy that has one type of filter.

#### Example: Policy to Filter by File Extension

Modify a policy to add `.mp3` files to the list of file extensions. Change the policy name from "My Pictures Policy" to "My Pictures and Music Policy":

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
  -policy
  -modify
  -policyId="My Pictures Policy"
  -name="My Pictures and Music Policy"
  -fileExtension="*.jpg,*.bmp,*.gif"
```

### Example: Policy to Filter by File Size

Modify a policy that moves files bigger than 1 GB to move only files bigger than 2 GB. Change the name to reflect the new setting:

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
  -policy
  -modify
  -policyId="My Size GT 1GB Policy"
  -name="BIG FILES GT 2GB Policy"
  -fileSize="gt2gb"
```

### Example: Policy to Filter by Last Modified Date

Modify a policy that moves files based on last modified date greater than 10 days to one greater than 10 months:

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
  -policy
  -add
  -policyId="My Last Modified GT 10 Days Policy"
  -name="My Last Modified GT 10 Months Policy"
  -lastModified="gt10m"
```

## 3.9.4 Delete a Policy

### -delete

The `-delete` action removes the specified policy from the database. All links to any pairs are removed.

### Syntax

```
DswCli.exe -policy
  -delete
  -policyId=<"policyname" | "GUID">
  [authentication_parameters]
```

### Example

The following `-policy` command deletes the DynamicFS policy named `myPolicy` on the specified server:

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
  -policy
  -delete
  -policyId="myPolicy"
```

## 3.9.5 List All Policies

### (no action options)

When the `-policy` action option is used without any other parameters or options, all policies on the server are listed.

### Syntax

```
DswCli.exe -policy
  [authentication_parameters]
```

### Example

The following `-policy` command displays a list of all policies on the specified server:

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
  -policy
```

## 3.9.6 List Details for a Policy

### -detail

The `-detail` action provides a details for a specified policy, including the direction that files are moved, the filter options, the policy schedule, and its associated pairs. You must specify the `policyId` parameter for the policy.

### Syntax

```
DswCli.exe -policy
            -detail
            -policyId=<"polycyname" | "GUID">
            [authentication_parameters]
```

### Example

The following `-policy` command lists details for the DynamicFS policy named `myPolicy` on the specified server:

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
            -policy
            -detail
            -policyId="myPolicy"
```

## 3.9.7 Associate a Policy Schedule to a Policy

### -associate

When the `-scheduleId` parameter is used with the `-associate` action for a policy, it links a specified policy schedule to a specified policy. You must specify the `policyId` parameter for the policy that you want to associate, and the `scheduleId` parameter for the policy schedule.

### Syntax

```
DswCli.exe -policy
            -associate
            -policyId=<"polycyname" | "GUID">
            -scheduleId=<"schedulename" | "GUID">
            [authentication_parameters]
```

### Example

The following `-policy` command associates the policy named `myPolicy` with the policy schedule named `Weekends` on the specified server:

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
            -policy
            -associate
            -policyId="myPolicy"
            -scheduleId="Weekends"
```

## 3.9.8 Disassociate a Policy Schedule from a Policy

### -disassociate

When the `-scheduleId` option is used with the `-disassociate` action for a policy, it removes the association between a specified policy and schedule. You must specify the `policyId` parameter for the policy. You must specify the `scheduleId` parameter for the schedule that you no longer want to be associated with the policy.



## Syntax

```
DswCli.exe -policy
            -disassociate
            -policyId=<"policyname" | "GUID">
            -scheduleId=<"schedulename" | "GUID">
            [authentication_parameters]
```

## Example

The following `-policy` command removes the association between the policy named `myPolicy` and the schedule named `Weekends` on the specified server:

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
            -policy
            -disassociate
            -policyId="myPolicy"
            -scheduleId="Weekends"
```

## 3.9.9 Associate a Policy and a Pair

See [Section 3.8.7, “Associate a Pair and Policy,”](#) on page 50.

## 3.9.10 Disassociate a Policy and a Pair

See [Section 3.8.8, “Disassociate a Pair and Policy,”](#) on page 50.

## 3.9.11 List Policies Associated with a Pair

See [Section 3.8.12, “List Details for a Pair,”](#) on page 52.

## 3.10 Schedule Actions

### `-schedule`

Performs operations on a schedule. When it is used without other schedule action options, all schedules on the server are listed.

### Syntax

```
DswCli.exe -schedule
            [-add | -modify | -delete | -detail]
            [-scheduleId]
            [schedule_option]
            [authentication_parameters]
```

For information about how to provide the `servername` and login credentials that are needed to connect to the server that you want to manage, see [Section 3.3, “Authentication Parameters,”](#) on page 25.

- ◆ [Section 3.10.1, “Schedule Parameters,”](#) on page 66
- ◆ [Section 3.10.2, “Add a Review Schedule,”](#) on page 66
- ◆ [Section 3.10.3, “Add a Policy Schedule,”](#) on page 69
- ◆ [Section 3.10.4, “Delete a Schedule,”](#) on page 75
- ◆ [Section 3.10.5, “Modify a Review Schedule,”](#) on page 76
- ◆ [Section 3.10.6, “Modify a Policy Schedule,”](#) on page 77

- ♦ [Section 3.10.7, “List All Schedules,” on page 78](#)
- ♦ [Section 3.10.8, “List Details for a Schedule,” on page 78](#)
- ♦ [Section 3.10.9, “Associate a Review Schedule to a Retention Pair,” on page 79](#)
- ♦ [Section 3.10.10, “Disassociate a Review Schedule from a Retention Pair,” on page 79](#)
- ♦ [Section 3.10.11, “Associate a Policy Schedule to a Policy,” on page 79](#)
- ♦ [Section 3.10.12, “Disassociate a Policy Schedule from a Policy,” on page 79](#)

## 3.10.1 Schedule Parameters

### **-description**

Specifies a textual description of the schedule. The description is optional.

#### **Syntax**

```
-description=<"text">
```

#### **Example**

```
-description="Custom schedule for the Finance department"
```

### **-scheduleId**

Specifies the schedule identifier. You can provide the schedule name, or provide the GUID of the schedule. A GUID is automatically assigned by Dynamic File Services when you create a schedule.

#### **Syntax**

```
-scheduleId=<"schedulename" | "GUID">
```

#### **Examples**

```
-scheduleId="quarterly_1st"
```

```
-scheduleId="custom_financial"
```

### **-scheduleType**

Specifies whether the type of schedule is a review schedule or a policy schedule.

#### **Syntax**

```
-scheduleType=<"review" | "policy">
```

#### **Examples**

```
-scheduleType="review"
```

```
-scheduleType="policy"
```

## 3.10.2 Add a Review Schedule

### **-add -scheduleType="review"**

The `-add` action with the “review” schedule type creates a review schedule with the specified name and stores the configuration as an XML file in the `C:\ProgramData\Dynamic File Services\Schedules` folder.

## Syntax

```
DswCli.exe -SCHEDULE
  -ADD
  -name=<schedulename>
  -scheduleType="review"
  [-description=<"text">]
  [-monthly=<SEE FORMAT>]
  [-quarterly=<SEE FORMAT>]
  [-yearly=<SEE FORMAT>]
  [-custom=<SEE FORMAT>]
  [authentication_parameters]
```

After you add a review schedule, you can associate it with one or more retention pairs. For information, see [Section 3.8.9, "Associate a Review Schedule to a Retention Pair,"](#) on page 51.

### Add Review Schedule Parameter

#### **-name**

Specifies a name for the schedule. The name must be unique on the server you are managing.

#### **Syntax**

```
-name=<"schedulename">
```

#### **Example**

```
-name="quarterly_1st"
```

### Add Review Schedule Dates Options

Specify one of the following date options for the schedule. The dates indicate when you want to perform reviews. Notifications are sent by default at 12:10 a.m. (0010 hours) on that date. The default time is controlled by the setting in the `..\Dynamic File Services\DswCore.xml` file.

Use the "last" option to specify that the policy runs on the last day of every month. The policy runs on day 28, 29, 30, or 31, according to how many days are in the month.

#### **-custom**

Specifies the custom dates that you want to review the retained data in a retention pair.

#### **Syntax**

```
-Custom=<"dd:nn:<yy|yyyy>[, dd:nn:<yy|yyyy>, ...]">
```

Where:

dd = calendar day of the month (01 to 31)

nn = month (01 to 12)

yy or yyyy = year (e.g., 11 or 2011 is the year 2011)

#### **Example**

The following example sends review notifications for a retention pair so that reviews can be held on March 30, 2011, April 15, 2011, and June 30, 2011:

```
-custom="30:03:2011,15:04:11,30:06:11"
```

#### **-monthly**

Specifies a monthly review frequency. You must specify the month and calendar day to begin the review cycle. Reviews are planned on the same calendar day in each month. The cycle repeats with no end time.

### Syntax

```
-monthly=<"<dd|'last '>:nn">
```

Where:

`dd` = calendar day of the month (01 to 31)

`last` = the last calendar day of the month (e.g., 28, 29, 30, or 31 as appropriate)

`nn` = month (01 to 12)

### Example

The following example sends review notifications for a retention pair so that reviews can be held on the last day of every month, beginning in June of the current year. Reviews are planned for June 30, July 31, August 31, September 30, October 31, November 30, December 31, January 31, February 28 (or 29 in a leap year), March 31, April 30, and May 31. The cycle repeats with no end time.

```
-monthly="last:06"
```

### -quarterly

Specifies a quarterly review frequency. You must specify the month and calendar day to begin the review cycle. Reviews are planned on the same calendar day every three months. The cycle repeats with no end time.

### Syntax

```
-quarterly=<"<dd|'last '>:nn">
```

Where:

`dd` = calendar day of the month (01 to 31)

`last` = the last calendar day of the month (e.g., 28, 29, 30, or 31 as appropriate)

`nn` = month (01 to 12)

### Example

The following example sends review notifications for a retention pair so that reviews can be held on the last day of every quarter, beginning in June of the current year. Reviews are planned for June 30, September 30, December 31, and March 31. The cycle repeats with no end time.

```
-quarterly="last:06"
```

### -yearly

Specifies a yearly frequency. You must specify the month and calendar day to begin the review cycle. Reviews are planned on the same calendar day in each year. The cycle repeats with no end time.

### Syntax

```
-yearly=<"<dd|'last '>:nn">
```

Where:

`dd` = calendar day of the month (01 to 31)

`last` = the last calendar day of the month (e.g., 28, 29, 30, or 31 as appropriate)

`nn` = month (01 to 12)

### Example

The following example sends review notifications for a retention pair so that reviews can be held on January 15 of each year, beginning in January of the current year. Reviews are planned for January 15. The cycle repeats with no end time.

```
-yearly="15:01"
```

### Add Review Schedule Examples

Each of the following `-schedule` commands creates a review schedule with the frequency specified. A schedule must be separately associated with a retention pair.

#### Example: Add a Schedule to Review Retained Data on Custom Dates

The following example sends review notifications for a retention pair so that reviews can be held on March 30, 2011, April 15, 2011, June 30, 2011, and January 2, 2012:

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
-schedule
-add
-name="custom_financial"
-description="Custom schedule for the Finance department"
-custom="30:03:2011,15:04:11,30:06:11,02:01:12"
```

#### Example: Add a Schedule to Review Retained Data Quarterly

The following example sends review notifications for a retention pair so that reviews can be held quarterly, beginning on July 1 of the current year. Reviews are planned for July 1, October 1, January 1, and April 1 of each year.

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
-schedule
-add
-name="quarterly_1st"
-quarterly="01:07"
```

## 3.10.3 Add a Policy Schedule

### `-add -scheduleType="policy"`

The `-add` action with the “policy” schedule type creates a policy schedule with the specified name and stores the configuration as an XML file in the `C:\ProgramData\Dynamic File Services\Schedules` folder.

#### Syntax

```
DswCli.exe -SCHEDULE
-ADD
-name=<schedulename>
-scheduleType="policy"
[-description=<"text">]
[-time=<SEE FORMAT>]
[-hourly=<SEE FORMAT>]
[-daily=<SEE FORMAT>]
[-weekly=<SEE FORMAT>]
[-monthly=<SEE FORMAT>]
[-quarterly=<SEE FORMAT>]
[-yearly=<SEE FORMAT>]
[-custom=<SEE FORMAT>]
[authentication_parameters]
```

After you add a policy schedule, you can associate it with one or more policies. For information, see [Section 3.9.7, “Associate a Policy Schedule to a Policy,” on page 64](#).

## Add Policy Schedule Parameter

### **-name**

Specifies a name for the schedule. The name must be unique on the server you are managing.

### **Syntax**

```
-name=<"schedulename">
```

### **Example**

```
-name="quarterly_1st"
```

## Add Policy Schedule Frequency Options

Specify only one frequency option in combination with the `-add` action. The specified frequency option determines when the is enforced. The policy is enforced for all pairs associated with the policy.

You can specify the start and stop time by using the `-time` option or by specifying the times as part of the frequency parameter.

The following frequency options are available:

- ♦ `time`
- ♦ `-manual`
- ♦ `-hourly`
- ♦ `-daily`
- ♦ `-weekly`
- ♦ `-monthly`
- ♦ `-quarterly`
- ♦ `-yearly`
- ♦ `-custom`

### **-time**

If the `-time` option is not used, or if the time is not specified by a frequency option, a default start time of 00:00 (midnight) is assumed and the scan runs until complete.

If the start time is provided and the stop time is omitted, the scan starts at the given time and runs until complete.

### **Syntax**

```
-time=<"hh[:mm[-hh:mm]]">
```

`hh[:mm[-hh:mm]]` specifies the scan start and stop time. Twenty-four-hour time is required with valid values of 00:00 to 23:45 (that is, midnight to 11:45 p.m.). The first two units specify hours from 00 to 23. The second two units specify minutes in 15-minute increments of 00, 15, 30, or 45.

**Restrictions:** This option cannot be combined with the following frequency options:

- `-manual`
- `-hourly`

This option cannot be used in combination with other frequency options where the time is set explicitly as a parameter for the frequency.

### **-manual**

Scan frequency is performed manually.

**Restrictions:** This option cannot be combined with the following frequency options:

- time
- hourly
- daily
- weekly
- monthly
- quarterly
- yearly
- custom

### **-hourly**

Scan frequency is performed hourly.

**Restrictions:** This option cannot be combined with the following frequency options:

- time
- manual
- daily
- weekly
- monthly
- quarterly
- yearly
- custom

### **-daily**

Scan frequency is performed daily.

If the start and stop time are omitted, a default start time of 00:00 (midnight) is assumed and the scan runs until complete.

If the start time is provided and the stop time is omitted, the scan starts at the given time and runs until complete.

#### **Syntax**

```
-daily [= "hh:mm [-hh:mm] "]
```

hh:mm [-hh:mm] specifies the scan start and stop time, respectively. Twenty-four-hour time is required with valid values of 00:00 to 23:45 (that is, midnight to 11:45 p.m.). The first two units specify hours from 00 to 23. The second two units specify minutes in 15-minute increments of 00, 15, 30, or 45.

**Restrictions:** This option cannot be combined with the following frequency options:

- manual
- hourly
- weekly
- monthly
- quarterly
- yearly
- custom

#### **Example**

The scan runs daily from 1:00 p.m. to 3:00 p.m.:

```
-daily="13:00-15:00"
```

## **-weekly**

Scan frequency is performed weekly.

If the day of the week and the start and stop times are omitted, the scan starts on Sunday at 00:00 (12:00 midnight), and the scan runs until complete.

If the start and stop time are omitted, a default start time of 00:00 (midnight) is assumed, and the scan runs until complete.

If the start time is provided and the stop time is omitted, the scan starts at the given time and runs until complete.

### **Syntax**

```
-weekly [= "ww | [@hh:mm [-hh:mm] ] "]
```

### **Where**

ww specifies the day of the week. Valid values are:

```
01 = Sunday
02 = Monday
03 = Tuesday
04 = Wednesday
05 = Thursday
06 = Friday
07 = Saturday
```

@hh:mm [-hh:mm] specifies the scan start and stop time. Twenty-four-hour time is required with valid values of 00:00 to 23:45 (that is, midnight to 11:45 p.m.). The first two units specify hours from 00 to 23. The second two units specify minutes in 15-minute increments of 00, 15, 30, or 45.

**Restrictions:** This option cannot be combined with the following frequency options:

```
-manual
-hourly
-daily
-monthly
-quarterly
-yearly
-custom
```

### **Examples**

The scan runs every Monday from 1:00 p.m. until complete:

```
-weekly="02@13:00"
```

The scan runs every Monday from 1:00 a.m. to 5:00 a.m.:

```
-weekly="02@01:00-05:00"
```

## **-monthly**

Scan frequency is performed monthly.

If the day of the month and the start and stop times are omitted, the scan starts on first day of the month at 00:00 (midnight) and runs until complete.

If the start and stop time are omitted, a default start time of 00:00 is assumed and the scan runs until complete.



If the start time is provided and the stop time is omitted, the scan starts at the given time and runs until complete.

### Syntax

```
-monthly [= "<dd | 'last' > [@hh:mm-hh:mm] ] "
```

`dd` specifies the day of the month numerically. Valid values are from 01 to 31.

`last` specifies the last day of the calendar month (that is, 28, 29, 30, or 31 as appropriate).

`@hh:mm [-hh:mm]` specifies the scan start and stop time. Twenty-four-hour time is required with valid values of 00:00 to 23:45 (that is, midnight to 11:45 p.m.). The first two units specify hours from 00 to 23. The second two units specify minutes in 15-minute increments of 00, 15, 30, or 45.

**Restrictions:** This option cannot be combined with the following frequency options:

- manual
- hourly
- daily
- weekly
- quarterly
- yearly
- custom

### Example

The scan runs on the 25th day of the month from 1:00 p.m. until complete:

```
-monthly="25@13:00"
```

### -quarterly

Scan frequency is performed quarterly. You must specify the month and calendar day to begin the run. Reviews are planned on the same calendar day every three months. The cycle repeats with no end time.

### Syntax

```
-quarterly=<"<dd | 'last' >:nn">
```

Where:

`dd` = calendar day of the month (01 to 31)

`last` = the last calendar day of the month (that is, 28, 29, 30, or 31 as appropriate)

`nn` = month (01 to 12)

**Restrictions:** This option cannot be combined with the following frequency options:

- manual
- hourly
- daily
- weekly
- monthly
- yearly
- custom

### Example

Run the policy on the last day of every quarter, beginning in June of the current year. The scans occur on June 30, September 30, December 31, and March 31. The cycle repeats with no end time.

```
-quarterly="last:06"
```

### -yearly

Scan frequency is performed yearly.

The day of the month and the month fields are required to be specified. There are no defaults specified.

If the start and stop times are omitted, a default start time of 00:00 is assumed and the scan runs until complete.

If start time is provided and the stop time is omitted, the scan starts at the given time and runs until complete.

### Syntax

```
-yearly=<"dd:nn[@hh:mm[-hh:mm]]">
```

`dd` specifies the day of the month numerically. Valid values are from 01 to 31.

`nn` specifies the month numerically. Valid values are 01 to 12, where the numbers correspond to the sequential months of the year in the Gregorian calendar.

`@hh:mm[-hh:mm]` specifies the scan start and stop time. Twenty-four-hour time is required with valid values of 00:00 to 23:45 (that is, midnight to 11:45 p.m.). The first two units specify hours from 00 to 23. The second two units specify minutes in 15-minute increments of 00, 15, 30, or 45.

**Restrictions:** This option cannot be combined with the following frequency options:

```
-manual  
-hourly  
-daily  
-weekly  
-monthly  
-quarterly  
-custom
```

### Example

The scan runs on day 15, month 6, starting at 1:00 p.m. and running until complete:

```
-yearly="15:06@13:00"
```

### -custom

Specifies the custom dates that you want to run the policy.

### Syntax

```
-custom=<"dd:nn:<yy|yyyy>[,dd:nn:<yy|yyyy>,...]">
```

Where:

`dd` = calendar day of the month (01 to 31)

`nn` = month (01 to 12)

`yy` or `yyyy` = year (e.g., 11 or 2011 is the year 2011)

**Restrictions:** This option cannot be combined with the following frequency options:

- manual
- hourly
- daily
- weekly
- monthly
- quarterly
- yearly

#### Example

Schedule a policy to run on March 30, 2011, April 15, 2011, and June 30, 2011:

```
-custom="30:03:2011,15:04:11,30:06:11"
```

#### Add Policy Schedule Examples

Each of the following `-schedule` commands creates a policy schedule with the frequency specified. A policy schedule is separately associated with one or more pairs.

##### Example: Weekly Policy Schedule

The following example specifies the start and stop times as part of the frequency parameter:

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
-schedule
-add
-scheduleType="policy"
-name="Weekly on Sunday"
-weekly="01@01:00-05:00"
```

The following example specifies the start and stop times using the `-time` option:

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
-schedule
-add
-scheduleType="policy"
-name="Weekly on Sunday"
-time="01:00-05:00"
-weekly="01"
```

##### Example: Monthly Policy Schedule

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
-schedule
-add
-scheduleType="policy"
-name="Monthly Last Day of the Month"
-time="01:30"
-monthly="last"
```

## 3.10.4 Delete a Schedule

### -delete

The `-delete` action removes the specified schedule from the database. All links to any retention pairs are removed.

#### Syntax

```
DswCli.exe [authentication_parameters] -schedule
-delete
-scheduleId=<"schedulename" | "GUID">
```

### Delete Schedule Example

Delete a schedule named `custom_financial`:

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
-schedule
-delete
-scheduleId="custom_financial"
```

## 3.10.5 Modify a Review Schedule

### -modify

The `-modify` action changes the settings for an existing schedule. You cannot modify the schedule type. The new configuration is written to the schedule's XML file in the `C:\ProgramData\Dynamic File Services\Schedules` folder.

#### Syntax

```
DswCli.exe -schedule
-modify
-scheduleId=<"schedulename" | "GUID">
[-name=<schedulename>]
[-description=<"text">]
[-custom=<SEE FORMAT>]
[-monthly=<SEE FORMAT>]
[-quarterly=<SEE FORMAT>]
[-yearly=<SEE FORMAT>]
[authentication_parameters]
```

For modifying a schedule, the required parameters are `schedule` and `scheduleId`. Name, description, frequency, and time options can be changed. Schedule GUIDs and types cannot be changed.

The changes apply to all retention pairs that are associated with the review schedule.

### Modify Schedule Dates Options

For information, see the "Add Schedule Dates Option" in ["Add a Review Schedule" on page 66](#).

### Modify Schedule Examples

Each of the following `-schedule` commands modifies an existing schedule with the frequency specified. The changes apply to all retention pairs associated with the schedule.

#### Example: Modify a Schedule to Review Retained Data on Custom Dates

A custom schedule is currently set for the dates March 30, 2011, April 15, 2011, June 30, 2011, and January 2, 2012. In December 2011, you decide to use the same dates for 2012. You must create a new schedule, or modify the existing custom dates. Make sure to account for the pending date in January. The revised schedule has five custom dates: January 2, 2012, March 30, 2012, April 15, 2012, June 30, 2012, and January 2, 2013.

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
-schedule
-modify
-scheduleId="custom_financial"
-description="Custom schedule for the Finance department"
-custom=
    "02:01:12,30:03:2012,15:04:12,30:06:12,02:01:13"
```

### Example: Modify a Schedule to Review Retained Data Quarterly

A current schedule is set for the first day of each quarter, beginning on July 1 of the current year. You want to modify the schedule to the 15th. The schedule name of `quarterly_1st` can be modified, such as `quarterly_15th`. You decide to modify the dates anyway. The revised schedule is planned for July 15, October 15, January 15, and April 15.

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
-schedule
-modify
-scheduleId="quarterly_1st"
-name="quarterly_15th"
-quarterly="15:07"
```

## 3.10.6 Modify a Policy Schedule

### -modify

The `-modify` action changes the settings for an existing schedule. You cannot modify the schedule type. The new configuration is written to the schedule's XML file in the `C:\ProgramData\Dynamic File Services\Schedules` folder.

### Syntax

```
DswCli.exe -schedule
-modify
-scheduleId=<"schedulename" | "GUID">
[-name=<schedulename>]
[-description=<"text">]
[-time=<SEE FORMAT>]
[-hourly=<SEE FORMAT>]
[-daily=<SEE FORMAT>]
[-weekly=<SEE FORMAT>]
[-monthly=<SEE FORMAT>]
[-quarterly=<SEE FORMAT>]
[-yearly=<SEE FORMAT>]
[-custom=<SEE FORMAT>]
[authentication_parameters]
```

For modifying a schedule, the required parameters are `schedule` and `scheduleId`. Name, description, frequency and time options can be changed. Schedule GUIDs and types cannot be changed.

The changes apply to all policies that are associated with the policy schedule.

### Modify Schedule Dates Options

For information, see the "Add Schedule Dates Option" in ["Add a Policy Schedule" on page 69](#).

### Modify Schedule Examples

Each of the following `-schedule` commands modifies an existing policy schedule with the frequency specified. The changes apply to all policies associated with the schedule.

#### Example: Modify a Schedule to Run on Custom Dates

A custom schedule is currently set to run on the dates March 30, 2011, April 15, 2011, June 30, 2011, and January 2, 2012. In December 2011, you decide to use the same dates for 2012. You must create a new schedule, or modify the existing custom dates. Make

sure to account for the pending date in January. The revised schedule has five custom dates: January 2, 2012, March 30, 2012, April 15, 2012, June 30, 2012, and January 2, 2013.

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
            -schedule
            -modify
            -scheduleId="custom_financial_policy"
            -description="Custom policy schedule for the Finance
department"
            -custom=
                "02:01:12,30:03:2012,15:04:12,30:06:12,02:01:13"
```

#### **Example: Modify a Policy Schedule to Run Quarterly on a Different Day of the Month**

A current policy schedule is set to start a run on the first day of each quarter, beginning on July 1 of the current year. You want to modify the schedule to the 15th. The schedule name of `quarterly_1st` can be modified, such as `quarterly_15th`. You decide to modify the dates rather than creating a new schedule. The revised policy schedule is planned for July 15, October 15, January 15, and April 15. Any policies associated with the schedule runs on those dates.

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
            -schedule
            -scheduleId="quarterly_1st"
            -modify
            -name="quarterly_15th"
            -quarterly="15:07"
```

### **3.10.7 List All Schedules**

**(no action options)**

When `-schedule` action option is used without any other parameters or options, all review schedules on the server are listed.

#### **Syntax**

```
DswCli.exe -schedule
            [authentication_parameters]
```

#### **Example**

The following `-schedule` command displays a list of all schedules on the specified server:

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
            -schedule
```

### **3.10.8 List Details for a Schedule**

**-detail**

The `-detail` action provides a details for a schedule, including its schedule type and frequency. For review schedules, the associated pairs are identified. For policy schedules, the associated pairs are identified. You must specify the `scheduleId` parameter for the policy.

#### **Syntax**

```
DswCli.exe -schedule
            -detail
            -scheduleId=<"schedulename" | "GUID">
            [authentication_parameters]
```

### Example

The following `-schedule` command lists details for the schedule named `custom_financial` on the specified server:

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
-schedule
-detail
-scheduleId="custom_financial"
```

## 3.10.9 Associate a Review Schedule to a Retention Pair

See [Section 3.8.9, "Associate a Review Schedule to a Retention Pair,"](#) on page 51.

## 3.10.10 Disassociate a Review Schedule from a Retention Pair

See [Section 3.8.10, "Disassociate a Review Schedule from a Retention Pair,"](#) on page 51.

## 3.10.11 Associate a Policy Schedule to a Policy

See [Section 3.9.7, "Associate a Policy Schedule to a Policy,"](#) on page 64.

## 3.10.12 Disassociate a Policy Schedule from a Policy

See [Section 3.9.8, "Disassociate a Policy Schedule from a Policy,"](#) on page 64.

# 3.11 Cloud Providers Action

### **-cloudProviders**

The `-cloudProviders` option displays a list of the supported cloud providers and the types of authentication credentials that each one requires.

#### **Syntax**

```
DswCli.exe -cloudProviders
[authentication_parameters]
```

#### **Example**

The following `-cloudProviders` command displays a list of all cloud providers that are available on the specified Dynamic File Services server:

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
-cloudProviders
```

For example, the command returns:

---

|             |                    |
|-------------|--------------------|
| ID:cloudme  | NAME:CloudME(TM)   |
| REQUIRED    | Account Name       |
| REQUIRED    | Account Password   |
|             |                    |
| ID:dropbox  | NAME:DropBox(TM)   |
| USES:       | 2 Phase OAuth      |
| REQUIRED    | Application Key    |
| REQUIRED    | Application Secret |
|             |                    |
| ID:amazons3 | NAME:Amazon S3(TM) |
| REQUIRED    | Application Key    |
| REQUIRED    | Application Secret |
| REQUIRED    | Bucket Name        |

---

## 3.12 Cloud Actions

### -cloud

Performs operations on a cloud provider account. When it is used without other cloud action options, all cloud accounts on the server are listed.

#### Syntax

```
DswCli.exe -cloud  
[-add | -modify | -delete | -detail]  
[-cloudId]  
[cloud_options]  
[authentication_parameters]
```

For information about how to provide the servername and login credentials that are needed to connect to the server that you want to manage, see [Section 3.3, “Authentication Parameters,”](#) on page 25.

- ♦ [Section 3.12.1, “Cloud Parameters,”](#) on page 80
- ♦ [Section 3.12.2, “Add a Cloud Account,”](#) on page 81
- ♦ [Section 3.12.3, “Modify a Cloud Account,”](#) on page 85
- ♦ [Section 3.12.4, “Delete a Cloud Account,”](#) on page 86
- ♦ [Section 3.12.5, “List All Cloud Accounts,”](#) on page 86
- ♦ [Section 3.12.6, “List Details about a Cloud Account,”](#) on page 87

### 3.12.1 Cloud Parameters

This section describes the following common cloud parameters:

- ♦ [description](#)
- ♦ [cloudId](#)
- ♦ [name](#)

#### -description

Specifies a textual description of the cloud account. The description is optional.



### Syntax

```
-description=<"text">
```

### Example

```
-description="John Doe's Dropbox account"
```

### -cloudId

Specifies the cloud account identifier. You can provide the cloud account name, or provide the GUID of the cloud account. A GUID is automatically assigned by Dynamic File Services when you add a cloud account.

### Syntax

```
-cloudId=<"cloud_account_name" | "GUID">
```

### Examples

```
-cloudId="dropbox1"  
-cloudId="cloudme1"  
-cloudId="box1"  
-cloudID="amazons3tom"
```

### -name

Specifies a friendly local name for the cloud account. The name must be unique on the server you are managing. It can be different than the login name for the cloud account.

### Syntax

```
-name=<"cloud_account_name">
```

### Example

```
-name=dropbox1  
-name=cloudme1  
-name=dropboxusers
```

## 3.12.2 Add a Cloud Account

### -add

The `-add` action creates a cloud account with the specified name and stores the configuration in the XML file in the `C:\ProgramData\Dynamic File Services\Clouds` folder.

## Syntax

```
DswCli.exe -cloud
  -add
  -name=<"cloud_account_name">
  [-description=<"text">]
  -cloudProvider=<"provider">
  [-cloudAccountName=<"acc_login_name">
    -cloudAccountPwd=<"acc_pwd">
  ] ;Use for CloudMe(TM)
  [-cloudAccountAppKey=<"app_key">
    -cloudAccountAppSecret=<"app_secret">
    [-cloudAccountBucket=<"bucket">]
    [-folderPath=<"folder_path">]
  ] ;Use for Amazon S3(TM)
  [-cloudAccountAppKey=<"app_key">
    -cloudAccountAppSecret=<"app_secret">
    [-phase1 | -phase2]
  ] ;Use for DropBox(TM)
  [-cloudPath=<"/cloud_path">]
  [authentication_parameters]
```

After you add a cloud account, you can use a path on its cloud storage as the secondary path in a retention pair. For information, see [“Add a Pair” on page 20](#).

## Add Cloud Account Parameters

### -cloudProvider

Specifies the Dynamic File Services code name for your cloud provider.

#### Syntax

```
-cloudProvider=<dropbox|cloudme|amazons3>
```

You can use the `-cloudProviders` command to get a complete list of the cloud providers that are supported by Dynamic File Services.

#### Example

```
-cloudProvider="cloudme"
```

### -cloudAccountName

Specifies the login name for your account with the specified cloud provider. Use this option in combination with the `-cloudAccountPwd` option.

Use the cloud account name and password credentials for CloudMe cloud storage accounts.

#### Syntax

```
-cloudAccountName=<"account_login_name">
```

#### Example

```
-cloudAccountName="box1"
```

### -cloudAccountPwd

Specifies the password for the specified login name for your account with cloud provider. Use this option in combination with the `-cloudAccountName` option.

Use the cloud account name and password credentials for CloudMe cloud storage accounts.

#### Syntax

```
-cloudAccountPwd=<"account_password">
```

### Example

```
-cloudAccountPwd="box1_pwd"
```

### **-cloudAccountAppKey**

Specifies the application key credential that allows Dynamic File Services to access files in a cloud account on your behalf. Use this option in combination with the `-cloudAccountAppSecret` option.

Use the application key and secret credentials with Amazon S3 and Dropbox cloud storage accounts. For information about how to get the key and secret values, see [“Setting Up Cloud Access Credentials and Folders for Your Cloud Storage Provider”](#) in the *Dynamic File Services 2.2 Administration Guide*.

### Syntax

```
[-cloudAccountAppKey=<"app_key">]
```

### Example

```
-cloudAccountAppKey="mshgb4yvfrvabcd"
```

### **-cloudAccountAppSecret**

Specifies the application secret credential that allows Dynamic File Services to access files in a cloud account on your behalf. Use this option in combination with the `-cloudAccountAppKey` option.

Use the application key and secret credentials with Amazon S3 and Dropbox cloud storage accounts. For information about how to get the key and secret values, see [“Setting Up Cloud Access Credentials and Folders for Your Cloud Storage Provider”](#) in the *Dynamic File Services 2.2 Administration Guide*.

### Syntax

```
[-cloudAccountAppSecret=<"app_secret">]
```

### Example

```
-cloudAccountAppSecret="4iangwkivs1abcd"
```

### **-phase1, -phase2**

Specifies the phase of a two-phase OAuth authentication process. Use the OAuth method to set up a Dropbox cloud account.

Use the `-phase1` option to create a URL that has a secret token that allows the Dynamic File Services application to connect to the provider account and to perform file actions on your behalf. In a Web browser, go to the URL, then log in by using your provider account’s user name and password in order to authorize the connection.

After a successful login, use the `-phase2` option to confirm to Dynamic File Services that you have authorized the connection. The local cloud account is then created.

### Syntax

```
[-phase1 | -phase2]
```

### Examples

```
-phase1  
-phase2
```

### **-cloudAccountBucket**

Specifies the bucket to use for the cloud account. Use with Amazon S3 cloud storage accounts.

### Syntax

```
[-cloudAccountBucket=<"bucket">]
```

### Example

```
-cloudAccountBucket="NDFSjohndoebucket"
```

### -folderPath

Specifies the folder path in the bucket for the cloud storage account where you want to store the retention repository files. The path is relative to the root of the bucket. Do not precede the path with a backslash.

Use with an Amazon S3 cloud storage account's bucket.

### Syntax

```
[-folderPath=<"folder_path">]
```

### Example

```
-folderPath="bob/video"
```

### -cloudPath

Specifies the path in the cloud storage account where you want to store the retention repository files. The path is relative to the root of the cloud storage account. Begin the path with a backslash.

### Syntax

```
[-cloudPath=<"cloud_path">]
```

### Example

```
-cloudPath="/main/dir1"
```

## Add Cloud Account Examples

Each of the following `-cloud` commands creates a cloud account.

### Example: Add an Amazon S3 Cloud Account

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
  -cloud
  -add
  -name="box_bob"
  -description="Bob's Amazon3 account description"
  -cloudProvider="amazons3"
  -cloudAccountAppKey="ABCDJRJVWA6P7OBABCD"
  -cloudAccountAppSecret="abCDAQWgmZdCfVvOJP7lGDqE2ue3c00G9u+AbCd3"
  -cloudAccountBucket="bobs_bucket"
  -folderPath="projects"
```

### Example: Add a CloudMe Cloud Account

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
  -cloud
  -add
  -name="mycloudme_account"
  -description="cloudme account description"
  -cloudProvider="cloudme"
  -cloudAccountName="mycloudme_account"
  -cloudAccountPwd="mycloudme_password"
```

### Example: Add a DropBox Cloud Account

Dropbox uses a two-phase OAuth authorization process. Phase 1 generates the token you need to authorize access by Dynamic File Services to your Dropbox account.

Enter the command for phase 1 of the OAuth authorization:

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
  -cloud
  -add
  -phase1
  -name="dropbox1"
  -description="dropbox account for john doe"
  -cloudProvider="dropbox"
  -cloudAccountAppKey="mshgb4yvfrvabcd"
  -cloudAccountAppSecret="4iangwkivslabcd"
```

This command returns an Authorization URL. For example:

```
Authorization URL: https://www.dropbox.com/1/oauth/
authorize?oauth_token=gaaexample1abcd
```

In a Web browser, go to the URL, then log in to your Dropbox account by using your Dropbox account name and password. This authorizes Dynamic File Services to access files in the account on your behalf.

Enter the command for phase 2 of the OAuth authorization. This action confirms that there was a successful authorization, and allows the cloud account to be created on the Dynamic File Services server.

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
  -cloud
  -add
  -phase2
  -name="dropbox1"
  -description="dropbox1 for john doe"
  -cloudProvider="dropbox"
  -cloudAccountAppKey="mshgb4yvfrvabcd"
  -cloudAccountAppSecret="4iangwkivslabcd"
```

### 3.12.3 Modify a Cloud Account

#### **-modify**

The `-modify` action changes a the settings for an existing cloud account. You cannot modify the cloud provider. The new configuration is written to the XML file in the `C:\ProgramData\Dynamic File Services\Clouds` folder.

#### **Syntax**

```
DswCli.exe [authentication_parameters] -cloud
  -modify
  -cloudId=<"cloud_account_name"|"GUID">
  [-name=<"cloud_account_name">]
  [-description=<"text">]
  [-cloudAccountName=<"acc_login_name">
    -cloudAccountPwd=<"acc_pwd">
  ] ;Use for CloudMe(TM)
  [-cloudAccountAppKey=<"app_key">
    -cloudAccountAppSecret=<"app_secret">
    [-cloudAccountBucket=<"bucket">]
    [-folderPath=<"folder_path">]
  ] ;Use for Amazon S3(TM)
  [-cloudAccountAppKey=<"app_key">
    -cloudAccountAppSecret=<"app_secret">
  ] [-phase1|-phase2]
  ] ;Use for DropBox(TM)
  [-cloudPath=<"/cloud_path">]
```

For modifying a cloud account, the required parameters are `cloud`, `modify`, and `cloudId`. Name, description, and account credentials can be changed. Cloud GUIDs and cloud providers cannot be changed.

The changes apply to all retention pairs that are associated with the cloud account.

For a description of the cloud account parameters, see [Section 3.12.2, "Add a Cloud Account,"](#) on page 81.

### Modify Cloud Account Examples

Each of the following `-cloud` commands modifies a cloud account.

#### Example: Modify a DropBox Account Name

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
           -cloud
           -modify
           -cloudId="dropbox1"
           -name="dropbox_users"
```

#### Example: Modify a CloudMe Account's Password

```
DswCli.exe -servername=localhost -u=Administrator -p=novell
           -cloud
           -modify
           -cloudId="cloudme1"
           -cloudAccountPwd="newpwd"
```

## 3.12.4 Delete a Cloud Account

### -delete

The `-delete` action removes an existing cloud account. This removes the account's information in the XML file in the `C:\ProgramData\Dynamic File Services\Clouds` folder.

#### Syntax

```
DswCli.exe -cloud
           -delete
           -cloudId=<"cloud_account_name"|"GUID">
           [authentication_parameters]
```

#### Delete a Cloud Account Example

Delete a cloud account named `dropbox1`:

```
DswCli.exe -serverName=localhost -u=Administrator -p=novell
           -cloud
           -delete
           -cloudId "dropbox1"
```

## 3.12.5 List All Cloud Accounts

### (no action options)

When the `-cloud` action option is used without any other parameters or options, all cloud accounts on the server are listed.

#### Syntax

```
DswCli.exe [authentication_parameters] -cloud
```

### Example

The following `-cloud` command displays a list of all cloud accounts on the specified server:

```
DswCli.exe -servername=localhost -u=Administrator -p=novell  
-cloud
```

## 3.12.6 List Details about a Cloud Account

### -detail

The `-detail` action lists information about a specified cloud account.

#### Syntax

```
DswCli.exe [authentication_parameters] -cloud  
-detail  
-cloudId <cloud_account_name|GUID>
```

#### List Cloud Account Details Examples

Each of the following `-cloud` commands provides information about a specified cloud account.

```
DswCli.exe -cloud -detail -cloudId dropbox1  
DswCli.exe -cloud -detail -cloudId cloudme1  
DswCli.exe -cloud -detail -cloudId box1
```

## 3.13 Using CLI Commands in Scripts

When you use Dynamic File Services commands in scripts, you can use the `-silent` option to prevent the results from displaying to a console. The script should check for an exit code to report whether a command succeeded or failed. The `-silent` option can be added to any pair or policy command.

### -silent

Use this option when you do not want to display errors or help on execution, such as in scripts for batch files where the batch file checks for exit codes.

If a command fails, you can enter the command at the Administrator Command Prompt console without the `-silent` option to view the error messages.

#### Syntax

```
DswCli.exe [authentication_parameters] -pair  
-silent  
[pair_actions]  
[pair_parameters]  
[pair_options]  
  
DswCli.exe [authentication_parameters] -policy  
-silent  
[policy_actions]  
[policy_parameters]  
[policy_options]
```

For information about the Dynamic File Services command options, see the following resources:

| Option                    | Reference  |
|---------------------------|--|
| authentication_parameters | <a href="#">Section 3.3, "Authentication Parameters," on page 25</a> |

| Option   | Reference   |
|--|---|
| -pair<br>pair_actions<br>pair_parameters<br>pair_options         | <a href="#">Section 3.8, "Pair Actions," on page 40</a>   |
| -policy<br>policy_actions<br>policy_parameters<br>policy_options | <a href="#">Section 3.9, "Policy Actions," on page 55</a> |

#### Exit Codes

The `DswCli.exe` command returns an exit code of 0 for success or 1 for failure.

## 3.14 Example Scripts Using CLI Commands

This section provides example scripts for Dynamic File Services.

- ◆ [Section 3.14.1, "Creating a Pair and Policy," on page 88](#)
- ◆ [Section 3.14.2, "Running the Policies Manually," on page 89](#)
- ◆ [Section 3.14.3, "Deleting the Policies," on page 89](#)
- ◆ [Section 3.14.4, "Deleting the Pair Relationship," on page 90](#)

### 3.14.1 Creating a Pair and Policy

This example uses the Dynamic File Services CLI to set up one pair named `myPair` with a primary path of `e:\Primary` and a secondary path of `f:\Secondary`. It creates three policies and associates them to the pair:

- ◆ The `GRAPHICS` policy moves graphic files to the secondary path. It is scheduled to run daily at midnight.
- ◆ The `OLD FILES` policy moves files that have not been modified within two weeks to the secondary path. It is scheduled to run weekly on Saturday at midnight.
- ◆ The `MODIFIED FILES` policy moves files modified during the past day from the secondary to the primary. It is scheduled to run hourly.

```
ECHO Create Dynamic File Services Setup of one pair and three policies
```

```
ECHO Create the pair named myPair
```

```
DswCli.exe -pair -add -name=myPair -primaryPath=e:\Primary
-secondaryPath=f:\Secondary -description="Pair linking user home directories and
old storage" -serverName=192.168.1.3 -port=8999 -userName=Administrator
-password=myPassword
```

```
ECHO Create the policy named GRAPHICS to secondary
```

```
DswCli.exe -policy -add -name="GRAPHICS to secondary" -
fileExtension=JPG,JPEG,BMP,GIF,PNG,RAW -daily="00:00" -primaryToSecondary
-description="Moves all graphic files to secondary storage. Runs daily at
midnight." -serverName=192.168.1.3 -port=8999 -userName=Administrator
-password=myPassword
```

```
ECHO Associate the policy to myPair
```



```
DswCli.exe -associate -policyId="GRAPHICS to secondary" -pairId=myPair
-serverName=192.168.1.3 -port=8999 -userName=Administrator
-password=myPassword
```

ECHO Create the policy named OLD FILES to secondary

```
DswCli.exe -policy -add -name="OLD FILES to secondary" -lastModified="gt2w"
-primaryToSecondary -description="Moves files that have not been modified for over
two weeks to secondary. Runs weekly on Saturday morning at midnight" -
weekly="05@00:00" -serverName=192.168.1.3
-port=8999 -userName=Administrator -password=myPassword
```

ECHO Associate the policy to myPair

```
DswCli.exe -associate -policyId="OLD FILES to secondary" -pairId=myPair
-serverName=192.168.1.3 -port=8999 -userName=Administrator
-password=myPassword
```

ECHO Create the policy named MODIFIED FILES to primary

```
DswCli.exe -policy -add -name="MODIFIED FILES to primary" -lastModified="lt1d" -
primaryToSecondary -description="Moves files that were modified within the last day
to the primary. Runs hourly every day." -hourly
-serverName=192.168.1.3 -port=8999 -userName=Administrator
-password=myPassword
```

ECHO Associate the policy to myPair

```
DswCli.exe -associate -policyId="MODIFIED FILES to primary" -pairId=myPair
-serverName=192.168.1.3 -port=8999 -userName=Administrator
-password=myPassword
```

## 3.14.2 Running the Policies Manually

The following command uses a Dynamic File Services CLI command to run the three policies manually for the pair named myPair:

ECHO Manually run all policies

```
DswCli.exe -execute -policyIdList="GRAPHICS FILES to secondary","MODIFIED FILES to
primary","OLD FILES to secondary" -pairId=myPair -serverName=192.168.1.3
-port=8999 -userName=Administrator -password=myPassword
```

## 3.14.3 Deleting the Policies

The following example uses the Dynamic File Services CLI to delete the three policies. The policies' associations to the pair are also deleted.

ECHO Delete the policies

```
DswCli.exe -policy -delete -policyId="GRAPHICS to secondary"
-serverName=192.168.1.3 -port=8999 -userName=Administrator
-password=myPassword
```

```
DswCli.exe -policy -delete -policyId="OLD FILES to secondary"
-serverName=192.168.1.3 -port=8999 -userName=Administrator
-password=myPassword
```

```
DswCli.exe -policy -delete -policyId="MODIFIED FILES to primary"
-serverName=192.168.1.3 -port=8999 -userName=Administrator
-password=myPassword
```

### 3.14.4 Deleting the Pair Relationship

The following example uses the Dynamic File Services CLI to delete the link between the primary path and secondary path. No files are deleted.

```
DswCli.exe -pair -delete -pairId="myPair" -serverName=192.168.1.3  
-port=8999 -userName=Administrator -password=myPassword
```

---

# 4 Dynamic File Services File System Inventory Utility

The Novell Dynamic File Services (DynamicFS) File System Inventory utility (`DswInventory.exe`) creates an inventory of the files in a pair, and writes the report to a file. On computers where the DynamicFS Service is installed, the File System Inventory utility is found in the directory where you installed DynamicFS. By default, DynamicFS is installed in the `C:\Program Files\Dynamic File Services` directory. The output inventory files are written in XML format. You can use a text editor or an XML editor to display the output of the inventories that you run manually.

---

**IMPORTANT:** A file system inventory of each pair is automatically generated daily with the pair history run. For information, see [“Viewing the Pair History”](#) in the *Dynamic File Services 2.2 Administration Guide*.

---

- ♦ [Section 4.1, “DswInventory,”](#) on page 91
- ♦ [Section 4.2, “Preparing a Command File for a File System Inventory,”](#) on page 92
- ♦ [Section 4.3, “Example of a General Inventory,”](#) on page 94
- ♦ [Section 4.4, “Example of a Filtered Inventory,”](#) on page 99
- ♦ [Section 4.5, “Additional Information,”](#) on page 101

## 4.1 DswInventory

- ♦ [Section 4.1.1, “Description,”](#) on page 91
- ♦ [Section 4.1.2, “Syntax,”](#) on page 91

### 4.1.1 Description

The Dynamic File Services File System Inventory utility is used to create an inventory of the file system and write the desired output to a file. You must create a command file for each report that you want to create that specifies the options to use and the output file where you want write the results.

For information about creating the command file, see [Section 4.2, “Preparing a Command File for a File System Inventory,”](#) on page 92.

### 4.1.2 Syntax

Log in to the server as the Administrator user or as a user with Administrator privileges. It does not matter if the user is also a member of the `Dynamic File Services` group. Navigate to the `C:\Program Files\Dynamic File Services` folder (or the folder where you installed Dynamic File Services), then issue the command.

```
DswInventory.exe commandFile [commandFile2...]
```

---

**IMPORTANT:** If remote shares are used in pairs, you must log in as a domain user with Administrator privileges on the DynamicFS server that also has Active Directory rights on the remote shares and NTFS file system access rights on the secondary storage locations. Otherwise, a secondary location is reported as missing. One way to do this is to add the administrator user as a member of the `Dynamic File Services Storage Rights` group.

---

## 4.2 Preparing a Command File for a File System Inventory

Before you can use the Dynamic File Services File System Inventory tool, you must create a text file (referred to as the command file) where you specify the path to be inventoried, the type of reports to create, the filenames to use for the output reports, and the inventory options to use. You can create multiple command files to generate different inventory reports that meet the criteria that are specified in the different command files.

In a command file, specify the following information about the inventory report that you want to create. Put each command on a separate line in the following order:

```
inventory_path report_type  
[inventory_option]
```

---

**IMPORTANT:** If there are errors in any parameter that you specify, the generated report files are empty.

---

The syntax for each of the required and optional elements is described in more detail in the following sections:

- ♦ [Section 4.2.1, “Inventory Path,” on page 92](#)
- ♦ [Section 4.2.2, “Report Types and Filenames,” on page 92](#)
- ♦ [Section 4.2.3, “Action List Filename,” on page 93](#)
- ♦ [Section 4.2.4, “Inventory Options,” on page 93](#)

### 4.2.1 Inventory Path

Specify the path that you want to inventory for this report. The inventory path can be the primary path for the pair or for any path in the pair.

```
inventory_path
```

Specify the full path, including the drive letter. For example:

```
C:\DATA\dir1\dir2
```

A command file can contain multiple paths. Place each path on a separate line. The combined output is written to the same report file. To write the inventory for each path to separate output files, create a separate command file for each path.

### 4.2.2 Report Types and Filenames

You can generate a summary report, a detailed report, or both reports. The summary report contains the statistics about the files, but does not contain the filenames. The detailed report includes both statistics and the matching filenames.

Specify a different filename for each report. The output files are in the `.xml` format.

| Report Option                                       | Description  |
|---|--|
| <code>/summary=summary_report_filename.xml</code>   | After an inventory is performed, creates a summary report file with the specified filename.  |
| <code>/detailed=detailed_report_filename.xml</code> | After an inventory is performed, creates a detailed report file with the specified filename. |

For example:

```
/summary=DATA_summary.xml
/detailed=DATA_detailed.xml
```

### 4.2.3 Action List Filename

You can request that a list of the filtered files be written to a separate file by using the `/actionlist` parameter. Specify a filename for a file where a list of files will be written.

| Action List Option                | Description   |
|-----------------------------------|---|
| <code>/actionlist=filename</code> | Requests a list of files to be generated in the specified file.   |
| <code>/actionlistappend</code>    | Append the list of files to the specified action list file instead of overwriting its existing content. |

### 4.2.4 Inventory Options

Specify one inventory option per line. If no inventory options are specified, then all options are enabled for the report. The inventory results are written to the report files that you requested.

You can specify none, one, or multiple general inventory options in any combination:

| Inventory Option        | Description   |
|-------------------------|---|
| <code>/create</code>    | Inventories files by creation time.                             |
| <code>/modify</code>    | Inventories files by modification time.                         |
| <code>/owner</code>     | Inventories files by owner name.                                |
| <code>/size</code>      | Inventories files by file length.                               |
| <code>/extension</code> | Inventories files by file extension.                            |
| <code>/empty</code>     | Tracks empty files and folders and adds the list to the report. |

If you want to specify constraints for any one of the inventory options, you must specify constraints for each of the inventory options that you use in the same command file. For each parameter type, you can specify only one of its constraints.

In the following commands, the time duration notation `ddd.hh:mm:ss` indicates days (0 to 999), hours (0 to 24), minutes (0 to 60), and seconds (0 to 60). You can also specify days (`ddd`) alone.

| <b>Inventory Option</b>                               | <b>Description</b>  |
|---|---|
| <code>/create&gt;ddd.hh:mm:ss</code>                  | Inventories files by creation times that are greater than the specified time duration.  |
| <code>/create&lt;ddd.hh:mm:ss</code>                  | Inventories files by creation times that are less than the specified time duration.   |
| <code>/modify&gt;ddd.hh:mm:ss</code>                  | Inventories files by modification times that are greater than the specified time duration.  |
| <code>/modify&lt;ddd.hh:mm:ss</code>                  | Inventories files by modification times that are less than the specified time duration.   |
| <code>/owner=name[,nextName...]</code>                | Inventories files by the specified owner name or names. Delimit multiple names with a comma and no spaces.  |
| <code>/size&gt;amount</code>                          | Inventories files by file length that is greater than the amount specified. Specify the amount in bytes.<br><br>For example, to inventory files greater than 1 MB, specify:<br><br><code>/size&gt;1024</code> |
| <code>/size&lt;amount</code>                          | Inventories files by file length that is less than the amount specified. Specify the amount in bytes.<br><br>For example, to inventory files less than 1 MB, specify:<br><br><code>/size&lt;1024</code>       |
| <code>/extension=*.extension[,*.extension2...]</code> | Inventories files with the specified file extension. Separate entries with a comma and no spaces.   |

## 4.3 Example of a General Inventory

In this example, assume that you want an inventory for the Dynamic File Services pair that has a primary path of `e:\`. You perform the following tasks to manually generate a report:

- ♦ [Section 4.3.1, “Create a Command File,” on page 94](#)
- ♦ [Section 4.3.2, “Run the File System Inventory Utility,” on page 95](#)
- ♦ [Section 4.3.3, “View the Summary Report,” on page 95](#)
- ♦ [Section 4.3.4, “View the Detailed Report,” on page 96](#)

### 4.3.1 Create a Command File

Use a text editor to create a command file called `FScommands.txt` in the `Dynamic File Services` folder. The first line is the primary path for the pair. The second line requests a summary report to be created and specifies the output file for the summary report. The third line requests a detailed report to be created and specifies the output file for the detailed report. No inventory options are specified, so all inventory options are enabled.

```
e:\
/summary=e:\mySummary.xml
/detailed=e:\myDetails.xml
```

## 4.3.2 Run the File System Inventory Utility

- 1 Log in to the server as the Administrator user, or as a user in the Administrators group.
- 2 Open a Command Prompt console, then go to the Dynamic File Services folder.
- 3 At the prompt, enter

```
DswInventory.exe FSCommands.txt
```

## 4.3.3 View the Summary Report

The summary results are written to the e:\mySummary.xml file. The following is sample output of a summary report:

```
<?xml version="1.0" encoding="utf-8" standalone="yes" ?>
- <DswInventory GenerationDateTime="8/27/2009 3:10:37 PM" generation="summary"
platform="Win32NT" OS="Microsoft Windows NT 5.2.3790 Service Pack 2">
- <folderlist>
- <folder>
- <![CDATA[ e:\
]]>
</folder>
</folderlist>
- <list type="Modified">
<criteria filter="Within Last Day" filecount="31" totalsize="74811"
sizeunit="1024" />
</list>
- <list type="Creation">
<criteria filter="Within Last Day" filecount="31" totalsize="74811"
sizeunit="1024" />
</list>
- <list type="EmptyFiles">
<criteria filter="Empty Files" filecount="11" totalsize="0" sizeunit="0" />
</list>
- <list type="Extension">
<criteria filter=".10file" filecount="10" totalsize="0" sizeunit="1024" />
<criteria filter=".doc" filecount="1" totalsize="57" sizeunit="1024" />
<criteria filter=".docx" filecount="1" totalsize="57" sizeunit="1024" />
<criteria filter=".exe" filecount="1" totalsize="16" sizeunit="1024" />
<criteria filter=".gif" filecount="1" totalsize="888" sizeunit="1024" />
<criteria filter=".jpeg" filecount="1" totalsize="468" sizeunit="1024" />
<criteria filter=".jpg" filecount="5" totalsize="2569" sizeunit="1024" />
<criteria filter=".ods" filecount="1" totalsize="3" sizeunit="1024" />
<criteria filter=".odt" filecount="4" totalsize="828" sizeunit="1024" />
<criteria filter=".pdf" filecount="1" totalsize="641" sizeunit="1024" />
<criteria filter=".rtf" filecount="1" totalsize="1" sizeunit="1024" />
<criteria filter=".txt" filecount="1" totalsize="0" sizeunit="1024" />
<criteria filter=".xml" filecount="2" totalsize="6" sizeunit="1024" />
<criteria filter=".zip" filecount="1" totalsize="69277" sizeunit="1024" />
</list>
- <list type="Modified">
<criteria filter="Within Last Day" filecount="3" totalsize="69283"
sizeunit="1024" />
<criteria filter="1 Month - 2 Months" filecount="1" totalsize="16"
sizeunit="1024" />
<criteria filter="6 Months - 1 Year" filecount="27" totalsize="5512"
sizeunit="1024" />
</list>
- <list type="Owner">
```

```

    <criteria filter="Administrators" filecount="31" totalsize="74811"
sizeunit="1024" />
  </list>
- <list type="Length">
  <criteria filter="Less than 1KB" filecount="2" totalsize="2" sizeunit="1024" />
  <criteria filter="1KB - 4KB" filecount="1" totalsize="3" sizeunit="1024" />
  <criteria filter="4KB - 16KB" filecount="1" totalsize="5" sizeunit="1024" />
  <criteria filter="16KB - 64KB" filecount="6" totalsize="193" sizeunit="1024" />
  <criteria filter="64KB - 256KB" filecount="1" totalsize="161" sizeunit="1024" />
  <criteria filter="256KB - 1MB" filecount="8" totalsize="5170" sizeunit="1024" />
  <criteria filter="64MB - 256MB" filecount="1" totalsize="69277" sizeunit="1024" />
>
  </list>
</DswInventory>

```

## 4.3.4 View the Detailed Report

The detailed results are written to the e:\myDetails.xml file. The following is sample output from a detailed report. Omitted entries are replaced by an ellipsis (...).

```

<?xml version="1.0" encoding="utf-8" standalone="yes" ?>
- <DswInventory GenerationDateTime="8/27/2009 3:10:37 PM" generation="detailed"
platform="Win32NT" OS="Microsoft Windows NT 5.2.3790 Service Pack 2">
- <folderlist>
- <folder>
- <![CDATA[ e:\
]]>
  </folder>
</folderlist>
- <list type="Modified">
- <criteria filter="Within Last Day" filecount="31" totalsize="74811"
sizeunit="1024">
- <information name="Spreadsheet.ods" matchvalue="8/26/2009 7:50:17 PM">
- <![CDATA[ e:\Primary\subfolder\Text Files\Spreadsheet.ods
]]>
  </information>
...
</criteria>
</list>
- <list type="Creation">
- <criteria filter="Within Last Day" filecount="31" totalsize="74811"
sizeunit="1024">
- <information name="Spreadsheet.ods" matchvalue="8/26/2009 7:50:17 PM">
- <![CDATA[ e:\Primary\subfolder\Text Files\Spreadsheet.ods
]]>
  </information>
...
</criteria>
</list>
- <list type="EmptyFiles">
- <criteria filter="Empty Files" filecount="11" totalsize="0" sizeunit="0">
- <information name="10file1.10file" matchvalue="0">
- <![CDATA[ e:\Primary\subfolder\10Files.10file\10file1.10file
]]>
  </information>
...
</criteria>
</list>
- <list type="Extension">
- <criteria filter=".10file" filecount="10" totalsize="0" sizeunit="1024">
- <information name="10file1.10file" matchvalue=".10file">
- <![CDATA[ e:\Primary\subfolder\10Files.10file\10file1.10file
]]>
  </information>
...
</criteria>
- <criteria filter=".doc" filecount="1" totalsize="57" sizeunit="1024">

```



```

- <information name="Proposal.doc" matchvalue=".doc">
- <![CDATA[ e:\Primary\subfolder\Text Files\Proposal.doc
]]>
</information>
</criteria>
- <criteria filter=".docx" filecount="1" totalsize="57" sizeunit="1024">
- <information name="Advanced&.docx" matchvalue=".docx">
- <![CDATA[ e:\Primary\subfolder\Text Files\Advanced&.docx
]]>
</information>
</criteria>
- <criteria filter=".exe" filecount="1" totalsize="16" sizeunit="1024">
- <information name="GimmeFiles.exe" matchvalue=".exe">
- <![CDATA[ e:\Primary\subfolder\GimmeFiles.exe
]]>
...
</information>
</criteria>
- <criteria filter=".gif" filecount="1" totalsize="888" sizeunit="1024">
- <information name="poppies1920.gif" matchvalue=".gif">
- <![CDATA[ e:\Primary\subfolder\Pictures\poppies1920.gif
]]>
</information>
</criteria>
- <criteria filter=".jpeg" filecount="1" totalsize="468" sizeunit="1024">
- <information name="backtrack.jpeg" matchvalue=".jpeg">
- <![CDATA[ e:\Primary\subfolder\Pictures\backtrack.jpeg
]]>
</information>
</criteria>
- <criteria filter=".jpg" filecount="5" totalsize="2569" sizeunit="1024">
- <information name="arctica1920.jpg" matchvalue=".jpg">
- <![CDATA[ e:\Primary\subfolder\Pictures\arctica1920.jpg
]]>
</information>
</criteria>
- <criteria filter=".ods" filecount="1" totalsize="3" sizeunit="1024">
- <information name="Spreadsheet.ods" matchvalue=".ods">
- <![CDATA[ e:\Primary\subfolder\Text Files\Spreadsheet.ods
]]>
</information>
</criteria>
- <criteria filter=".odt" filecount="4" totalsize="828" sizeunit="1024">
- <information name="Investment Final.odt" matchvalue=".odt">
- <![CDATA[ e:\Primary\subfolder\Text Files\Investment Final.odt
]]>
</information>
...
</criteria>
- <criteria filter=".pdf" filecount="1" totalsize="641" sizeunit="1024">
- <information name="dep_stats.pdf" matchvalue=".pdf">
- <![CDATA[ e:\Primary\subfolder\Text Files\dep_stats.pdf
]]>
</information>
</criteria>
- <criteria filter=".rtf" filecount="1" totalsize="1" sizeunit="1024">
- <information name="Another Document.rtf" matchvalue=".rtf">
- <![CDATA[ e:\Primary\subfolder\Text Files\Another Document.rtf
]]>
</information>
</criteria>
- <criteria filter=".txt" filecount="1" totalsize="0" sizeunit="1024">
- <information name="Some Document.txt" matchvalue=".txt">
- <![CDATA[ e:\Primary\subfolder\Text Files\Some Document.txt
]]>
</information>
</criteria>
- <criteria filter=".xml" filecount="2" totalsize="6" sizeunit="1024">
- <information name="myDetails.xml" matchvalue=".xml">
- <![CDATA[ e:\myDetails.xml

```

```

]]>
</information>
...
</criteria>
- <criteria filter=".zip" filecount="1" totalsize="69277" sizeunit="1024">
- <information name="Text Files.zip" matchvalue=".zip">
- <![CDATA[ e:\Primary\subfolder\Text Files.zip
]]>
</information>
</criteria>
</list>
- <list type="Modified">
- <criteria filter="Within Last Day" filecount="3" totalsize="69283"
sizeunit="1024">
- <information name="Text Files.zip" matchvalue="8/26/2009 4:01:18 PM">
- <![CDATA[ e:\Primary\subfolder\Text Files.zip
]]>
</information>
...
</criteria>
- <criteria filter="1 Month - 2 Months" filecount="1" totalsize="16"
sizeunit="1024">
- <information name="GimmeFiles.exe" matchvalue="7/17/2009 2:00:44 PM">
- <![CDATA[ e:\Primary\subfolder\GimmeFiles.exe
]]>
</information>
</criteria>
- <criteria filter="6 Months - 1 Year" filecount="27" totalsize="5512"
sizeunit="1024">
- <information name="Spreadsheet.ods" matchvalue="12/16/2008 8:29:00 AM">
- <![CDATA[ e:\Primary\subfolder\Text Files\Spreadsheet.ods
]]>
</information>
...
</criteria>
</list>
- <list type="Owner">
- <criteria filter="Administrators" filecount="31" totalsize="74811"
sizeunit="1024">
- <information name="myDetails.xml" matchvalue="Administrators">
- <![CDATA[ e:\myDetails.xml
]]>
</information>
...
</criteria>
</list>
- <list type="Length">
- <criteria filter="Less than 1KB" filecount="2" totalsize="2" sizeunit="1024">
- <information name="Another Document.rtf" matchvalue="7">
- <![CDATA[ e:\Primary\subfolder\Text Files\Another Document.rtf
]]>
</information>
...
</criteria>
- <criteria filter="1KB - 4KB" filecount="1" totalsize="3" sizeunit="1024">
- <information name="Spreadsheet.ods" matchvalue="2274">
- <![CDATA[ e:\Primary\subfolder\Text Files\Spreadsheet.ods
]]>
</information>
</criteria>
- <criteria filter="4KB - 16KB" filecount="1" totalsize="5" sizeunit="1024">
- <information name="myDetails.xml" matchvalue="4597">
- <![CDATA[ e:\myDetails.xml
]]>
</information>
</criteria>
- <criteria filter="16KB - 64KB" filecount="6" totalsize="193" sizeunit="1024">
- <information name="Proposal.doc" matchvalue="57856">
- <![CDATA[ e:\Primary\subfolder\Text Files\Proposal.doc
]]>

```

```

    </information>
...
  </criteria>
- <criteria filter="64KB - 256KB" filecount="1" totalsize="161" sizeunit="1024">
- <information name="Eastern Fire.jpg" matchvalue="164026">
- <![CDATA[ e:\Primary\subfolder\Pictures\Eastern Fire.jpg
]]>
  </information>
</criteria>
- <criteria filter="256KB - 1MB" filecount="8" totalsize="5170" sizeunit="1024">
- <information name="Rough (Formatted).odt" matchvalue="782959">
- <![CDATA[ e:\Primary\subfolder\Text Files\Rough (Formatted).odt
]]>
  </information>
- <information name="dep_stats.pdf" matchvalue="655518">
...
  </criteria>
- <criteria filter="64MB - 256MB" filecount="1" totalsize="69277" sizeunit="1024">
- <information name="Text Files.zip" matchvalue="70938669">
- <![CDATA[ e:\Primary\subfolder\Text Files.zip
]]>
  </information>
</criteria>
</list>
</DswInventory>

```

## 4.4 Example of a Filtered Inventory

In this example, assume that you want a filtered inventory for the Dynamic File Services pair that has a primary path of `e:\`. You want to find JPG files with file sizes greater than 1 MB. You perform the following tasks to manually generate a report:

- ♦ [Section 4.4.1, "Create a Command File," on page 99](#)
- ♦ [Section 4.4.2, "Run the File System Inventory Utility," on page 99](#)
- ♦ [Section 4.4.3, "View the Summary Report," on page 100](#)
- ♦ [Section 4.4.4, "View the Detailed Report," on page 100](#)

### 4.4.1 Create a Command File

Use a text editor to create a command file called `FSCommands.txt` in the Dynamic File Services folder. The first line is the primary path for the pair. The second line requests a summary report to be created and specifies the output file for the summary report. The third line requests a detailed report to be created and specifies the output file for the detailed report. No inventory options are specified, so all inventory options are enabled.

```

e:\
/summary=e:\mySummary.xml
/detailed=e:\myDetails.xml
/size>1024
/extension=*.jpg

```

### 4.4.2 Run the File System Inventory Utility

- 1 Log in to the server as the Administrator user, or as a user in the Administrators group.
- 2 Open a Command Prompt console, then go to the `Dynamic File Services` folder.
- 3 At the prompt, enter

```
DswInventory.exe FSCommands.txt
```

## 4.4.3 View the Summary Report

The summary results are written to the e:\mySummary.xml file. The following is sample output of a summary report:

```
<?xml version="1.0" encoding="utf-8" standalone="yes" ?>
- <DswInventory GenerationDateTime="8/27/2009 3:13:10 PM" generation="summary"
platform="Win32NT" OS="Microsoft Windows NT 5.2.3790 Service Pack 2">
- <folderlist>
- <folder>
- <![CDATA[ e:\
]]>
</folder>
</folderlist>
- <list type="Extension">
<criteria filter=".jpg" filecount="5" totalsize="2569" sizeunit="1024" />
</list>
- <list type="Length">
<criteria filter="64KB - 256KB" filecount="1" totalsize="161" sizeunit="1024" />
<criteria filter="256KB - 1MB" filecount="4" totalsize="2408" sizeunit="1024" />
</list>
</DswInventory>
```

## 4.4.4 View the Detailed Report

The detailed results are written to the e:\myDetails.xml file. The following is sample output from a detailed report:

```
<?xml version="1.0" encoding="utf-8" standalone="yes" ?>
- <DswInventory GenerationDateTime="8/27/2009 3:13:10 PM" generation="detailed"
platform="Win32NT" OS="Microsoft Windows NT 5.2.3790 Service Pack 2">
- <folderlist>
- <folder>
- <![CDATA[ e:\
]]>
</folder>
</folderlist>

- <list type="Extension">
- <criteria filter=".jpg" filecount="5" totalsize="2569" sizeunit="1024">

- <information name="arctical1920.jpg" matchvalue=".jpg">
- <![CDATA[ e:\Primary\subfolder\Pictures\arctical1920.jpg
]]>
</information>

- <information name="Eastern Fire.jpg" matchvalue=".jpg">
- <![CDATA[ e:\Primary\subfolder\Pictures\Eastern Fire.jpg
]]>
</information>

- <information name="eventide1920.jpg" matchvalue=".jpg">
- <![CDATA[ e:\Primary\subfolder\Pictures\eventide1920.jpg
]]>
</information>

- <information name="lastlight1920.jpg" matchvalue=".jpg">
- <![CDATA[ e:\Primary\subfolder\Pictures\lastlight1920.jpg
]]>
</information>

- <information name="vigil1920.jpg" matchvalue=".jpg">
- <![CDATA[ e:\Primary\subfolder\Pictures\vigil1920.jpg
]]>
</information>
</criteria>
</list>
```

```

- <list type="Length">
- <criteria filter="64KB - 256KB" filecount="1" totalsize="161" sizeunit="1024">
- <information name="Eastern Fire.jpg" matchvalue="164026">
- <![CDATA[ e:\Primary\subfolder\Pictures\Eastern Fire.jpg
]]>
</information>
</criteria>
- <criteria filter="256KB - 1MB" filecount="4" totalsize="2408" sizeunit="1024">
- <information name="vigil1920.jpg" matchvalue="642827">
- <![CDATA[ e:\Primary\subfolder\Pictures\vigil1920.jpg
]]>
</information>
- <information name="lastlight1920.jpg" matchvalue="705456">
- <![CDATA[ e:\Primary\subfolder\Pictures\lastlight1920.jpg
]]>
</information>
- <information name="eventide1920.jpg" matchvalue="544622">
- <![CDATA[ e:\Primary\subfolder\Pictures\eventide1920.jpg
]]>
</information>
- <information name="arctica1920.jpg" matchvalue="572311">
- <![CDATA[ e:\Primary\subfolder\Pictures\arctica1920.jpg
]]>
</information>
</criteria>
</list>
</DswInventory>

```

## 4.5 Additional Information

A file system inventory of each Dynamic File Services pair is automatically generated daily with the pair history run. You can use the Management Console to view graphical displays of this report, and to drill down into the report to see the individual files in various categories. For information, see “[Viewing the Pair History](#)” in the *Dynamic File Services 2.2 Administration Guide*.



---

# 5 Dynamic File Services Pair Check Utility

The Novell Dynamic File Services (DynamicFS) Pair Check utility (`DswPairCheck.exe`) provides a way to detect and report conflicts for duplicate files and mismatched ACL permissions and attributes on folders. This report is helpful for identifying information about duplicate files or mismatched folder metadata that might exist after restoring the primary and secondary data from separate backup media.

The Dynamic File Service can be running or not running when you run the Pair Check utility, but policies must not be running against the pair.

- ♦ [Section 5.1, “DswPairCheck,” on page 103](#)
- ♦ [Section 5.2, “Additional Information,” on page 107](#)

## 5.1 DswPairCheck

- ♦ [Section 5.1.1, “Description,” on page 103](#)
- ♦ [Section 5.1.2, “Syntax,” on page 103](#)
- ♦ [Section 5.1.3, “Using the Utility,” on page 104](#)
- ♦ [Section 5.1.4, “Check Action Options,” on page 105](#)
- ♦ [Section 5.1.5, “Control Options,” on page 105](#)
- ♦ [Section 5.1.6, “Report Options,” on page 106](#)
- ♦ [Section 5.1.7, “Examples,” on page 106](#)

### 5.1.1 Description

The Dynamic File Services Pair Check utility is used to detect duplicate files in the pair structure or to detect folders with attribute or ACL permission differences. It can generate reports in CSV and XML format.

The Pair Check utility is typically used for standard pairs to detect duplicate files that are hidden by the merged view, and to verify ACLs. Duplicate files do not occur in a retention pair because the retention repository in the secondary location has a different file structure than the primary path. In addition, the Pair Check utility does not support being run on a retention pair that uses cloud storage as the secondary path. In the cloud, the ACL metadata is stored in a database and not with the files.

---

**IMPORTANT:** The Dynamic File Service can be running or not running when you run the Pair Check utility, but policies must not be running against the pair.

---

### 5.1.2 Syntax

```
DswPairCheck.exe -pair="<pairname|guid>" [options]
```

```
DswPairCheck.exe -source="path" -target="path" [options]
```

Make sure there are no policies running against the pair (that is, the pair status is *Idle*), then run the `DswPairCheck.exe` command on the server where Dynamic File Services is installed.

## Rights Needed to Run the Command

The Pair Check utility can be run by any user with Administrator privileges on the primary server and that has file system rights on the primary path and secondary path.

---

**IMPORTANT:** Typically, the username provided is a user identity that has Administrator privileges. If a remote secondary path is used in a pair, you must provide the username of a user that also has Administrator privileges on the DynamicFS server, rights on the remote share, and NTFS file system access rights on the secondary path. Otherwise, the secondary location is reported as missing. One way to do this is to add the username as a member of the `Dynamic File Services Storage Rights` group. It does not matter if the user is also a member of the `Dynamic File Services` group.

---

## Syntax for Scripts

If you are using this command in a script, you must escape the quotation mark characters by preceding them with a backslash (`\`). You can also use the `-silent` option to turn off the screen output. For example:

```
DswPairCheck.exe -pair=\"<pairname|guid>\" [options] -silent
```

```
DswPairCheck.exe -source=\"path\" -target=\"path\" [options] -silent
```

### 5.1.3 Using the Utility

- 1 Log in to the Dynamic File Services server as the Administrator user or as a user with Administrator privileges.
- 2 Open the Management Console, select the pair, then verify that the pair status is in the *Idle* state. Policies must not be running against the pair when you start the Pair Check utility. If policies are running, wait until they are done, or stop them manually. Wait until the pair status is idle before continuing.
- 3 Open an Administrator Command Prompt console. Select *Start > All Programs > Accessories*, right-click *Command Prompt*, then select *Run as Administrator*.

If you are prompted to confirm that you want to run the program as Administrator, click *Continue*.

- 4 Change directory to go to the `C:\Program Files\Dynamic File Services` folder (or the folder where you installed Dynamic File Services).
- 5 At the command prompt, enter one of the following commands:

```
DswPairCheck.exe -pair="<pairname|guid>" [options]
```

```
DswPairCheck.exe -source="path" -target="path" [options]
```

- 6 When you are prompted, enter the username of a user with rights to all of the paths in the pair.



## 5.1.4 Check Action Options

### **-files**

If this option is specified, a check is performed for duplicate files on the specified source and target paths.

#### **Example**

```
-files
```

### **-folders**

If this option is specified, a check is performed for folder attribute and ACL permission differences on the specified source and target paths.

#### **Example**

```
-folders
```

## 5.1.5 Control Options

### **-h, --help**

Displays help for `DswPairCheck.exe`, then exits.

### **-pair="*<pairname | guid>*"**

Use this option to look for the specified pair in the pair database to determine the paths to use for the source and target paths. Do not use this option with the `-source` and `-target` options.

#### **Example**

```
-pair="MyPair"
```

### **-silent**

If this option is specified, screen output is not generated.

#### **Example**

```
-silent
```

### **-source="*path*"**

Use this option to specify the path to use for the primary path. This option must be used in combination with the `-target` option.

Do not use this option with the `-pair` option.

#### **Example**

```
-source="c:\primary"
```

### **-target="*path*"**

Use this option to specify the path to use for the secondary path. This option must be used in combination with the `-source` option.

Do not use this option with the `-pair` option.

#### **Example**

```
-target="g:\shadow"
```

## 5.1.6 Report Options

### **-csv="reportname"**

Use this option to generate an output report in CSV format.

If this option is used with the `-files` option, the output file is named `reportname.files.csv`.

If this option is used with the `-folders` option, the output file is named `reportname.folders.csv`.

#### **Example**

```
-csv="csvReport"
```

The possible reports generated are `csvReport.files.csv` and `csvReport.folders.csv`.

### **-xml="reportname"**

Use this option to generate an output report in XML format.

If this option is used with the `-files` option, the output file is named `reportname.files.xml`.

If this option is used with the `-folders` option, the output file is named `reportname.folders.xml`.

#### **Example**

```
-xml="xmlReport"
```

The possible reports generated are `xmlReport.files.xml` and `xmlReport.folders.xml`.

## 5.1.7 Examples

- ♦ [“Check for Duplicate Files and Produce a CSV Report” on page 106](#)
- ♦ [“Check for Folders with Mismatched Attributes and ACLs and Produce an XML Report” on page 106](#)
- ♦ [“Check Files and Folders and Produce CSV and XML Reports” on page 106](#)

### **Check for Duplicate Files and Produce a CSV Report**

```
DswPairCheck.exe -pair="My DSW Pair" -files -csv="myCsvReport"
```

Looks in the pair database for the source and target paths of the pair named My DSW Pair. Checks for duplicate files on the source and target paths. Produces a report in CSV format. The report file generated is `myCsvReport.files.csv`.

### **Check for Folders with Mismatched Attributes and ACLs and Produce an XML Report**

```
DswPairCheck.exe -pair="My DSW Pair" -folders -xml="myXmlReport"
```

Looks in the pair database for the source and target paths of the pair named My DSW Pair. Checks for folders that have mismatched attributes and ACLs on the source and target paths. Produces a report in XML format. The report file generated is `myXmlReport.folders.xml`.

### **Check Files and Folders and Produce CSV and XML Reports**

```
DswPairCheck.exe -pair="My DSW Pair" -folders -files -xml="myXmlReport" -csv="myCsvReport"
```

Looks in the pair database for the source and target paths of the pair named My DSW Pair. Checks for duplicate files and for folders that have mismatched attributes and ACLs on the source and target paths. Produces a report in XML format and in CSV format.

The report files generated are:

```
myCsvReport.files.csv  
myCsvReport.folders.csv  
myXmlReport.files.xml  
myXmlReport.folders.xml
```

## 5.2 Additional Information

For information about using the Dynamic File Services Pair Check utility for reporting on files and folders in a pair, see the following sections in the *Novell Dynamic File Services Administration Guide* ([http://www.novell.com/documentation/dynamic\\_file\\_services/](http://www.novell.com/documentation/dynamic_file_services/)):

- ◆ “Reporting Conflicts for Attributes and ACL Permissions on Folders”
- ◆ “Reporting Conflicts for Duplicate Files”



---

# 6 Dynamic File Services Configuration Dump Utility

The Novell Dynamic File Services (DynamicFS) Configuration Dump utility (`DswDump.exe`) reports information about the configuration settings, pairs, policies, files, error events, and logs to a file called `Config.txt` in the folder where you installed Dynamic File Services. You can also output the file in `.html` format. This report is helpful for record-keeping and troubleshooting. The tool can be run at any time, with the Service running or not running, including in Windows Safe Mode.

- ♦ [Section 6.1, “DswDump,” on page 109](#)
- ♦ [Section 6.2, “Config.txt Output,” on page 111](#)

## 6.1 DswDump

- ♦ [Section 6.1.1, “Description,” on page 109](#)
- ♦ [Section 6.1.2, “Syntax,” on page 110](#)
- ♦ [Section 6.1.3, “Options,” on page 110](#)
- ♦ [Section 6.1.4, “Examples,” on page 111](#)

### 6.1.1 Description

The Dynamic File Services Configuration Dump utility consolidates current information about Dynamic File Services running on the server, and writes it all to a single file. It includes the following information:

- ♦ Product Information (registration)
- ♦ Windows Configuration (such as the operating system version, domain, machine name, processor type, and total memory)
- ♦ Service configuration (such as the installation and data folders, the port numbers, and the certificate)
- ♦ Workgroup or Domain information
- ♦ Folders and files in the `Dynamic File Services` folder (or the folder where you installed Dynamic File Services)
- ♦ Folders and files in the program data folder
- ♦ Pairs information
- ♦ Policies information
- ♦ Schedules information
- ♦ Audit event messages
- ♦ Audit configuration information

- ♦ Microsoft Event Logger event messages
- ♦ Log files

The information is output by default to the `Config.txt` file in the `C:\Program Files\Dynamic File Services` folder (or the folder where you installed Dynamic File Services). You can also output the file in `.html` format and specify a target output file. For an overview of the output, see [Section 6.2, "Config.txt Output,"](#) on page 111.

## 6.1.2 Syntax

Log in to the server as the Administrator user or as a user with Administrator privileges. It does not matter if the user is also a member of the `Dynamic File Services` group. Navigate to the `C:\Program Files\Dynamic File Services` folder (or the folder where you installed Dynamic File Services), then issue the command.

```
DswDump.exe [-html] ["output_filename"]
```

If no options are specified, it generates the information in `.txt` format and writes it to the default `C:\Program Files\Dynamic File Services\Config.txt` file. The tool can be run at any time, with the Service running or not running, including in Windows Safe Mode.

## 6.1.3 Options

The following options are available for the `DswDump.exe` command:

### **-h**

Displays help.

### **(no options)**

Generates the file output in `.txt` format.

If you do not specify a filename, the information is written to the `Config.txt` file in the `Dynamic File Services` folder.

If you specify a filename, the information is written to the specified file and path.

### **-html**

Generates the file output in `.html` format.

If you do not specify a filename, the information is written to the `Config.htm` file in the `Dynamic File Services` folder.

If you specify a filename, the information is written to the specified file and path.

### **"output\_filename"**

Generates the file output and writes it to the specified file and path. Provide the full path and filename, including the extension. Enclose the filename in double quotes if the name contains spaces.

If no format is specified, the file is generated in `.txt` format.

If the `-html` format is specified, the file is generated in `.html` format.

### **Examples**

```
"F:\path\ndfs_config_20110704.txt"
"G:\path\ndfs_config.htm"
"\\servername\sharename\server1_ndfs_config_20110704.htm"
```

## 6.1.4 Examples

The following command generates the information in .txt format and writes it to the default C:\Program Files\Dynamic File Services\Config.txt file:

```
DswDump.exe
```

The following command generates the information in .txt format and writes it to the F:\path\ndfs\_config\_20110704.txt file:

```
DswDump.exe "F:\path\ndfs_config_20110704.txt"
```

The following command generates the information in .html format and writes it to the default C:\Program Files\Dynamic File Services\Config.htm file:

```
DswDump.exe -html
```

The following command generates the information in .html format and writes it to the \\servername\sharename\ndfs\_config\_20110704.htm file:

```
DswDump.exe -html "\\servername\sharename\ndfs_config_20110704.htm"
```

## 6.2 Config.txt Output

The results of the Dynamic File Services Configuration Dump utility are written to the Config.txt file in the C:\Program Files\Dynamic File Services folder (or the folder where you installed Dynamic File Services). The report includes the following major categories:

```
[ DswDump Runtime Information ]
  Startup path

[Product Information]
  Registered

[ Windows Configuration ]
  OS Version
  OS Service Pack
  Domain
  Machine Name
  Processor
  Total Memory

[ Dynamic File Services Configuration ]
  [ Registry Settings = SOFTWARE\Novell\Dynamic File Services\Setup ]
  [ Registry Settings = Hardware\Description\System\CentralProcessor\0 ]
  [ Snapshot Information ]
  [ Filter Information ]

[ Active Directory Information ]
  Domain name
  Domain context
  [ Published Shares ]
  [ Share ]

[ Dsw Folder Hierarchy ]
  [ Folder ]
  [ Child Folders ]
  [ Child Files ]
  [ File ]
```

```

[ Pairs ]
  [ Pair Database Contents ]
  [ Pair List ]
  [ Pair Details ]
    [ Pair ]
      [ Associated Pair Policies ]
        [ Pair Policy ]
  Folder flags = < None | IncludeFolders | ExcludeFolders >
  [ Include Folders ] or [ Exclude Folders ]
  [ Pair Health ]
[ Pair Summary History ]

[ Policies ]
  [ Policy Database Contents ]
  [ Policies List ]
  [ Policy Details ]
    [ Policy ]

[ Schedules ]
  [ Schedule Entry Information ]
    [ Schedule Database Contents ]
    [ Schedule Details ]

[ Audit Entry Information ]
  [ Audit Log Contents ]

[ Audit Config Information ]
  [ Audit Config Contents ]

[ MS Event Logger ]
  [ Dynamic File Services ]
  [ Dynamic File Services Snap Shot System ]
  [ DswStandard Policy ]

[ Log files ]
  [ Log File Contents for ...DswDump.log ]
  [ Log File Contents for ...DswMcpCore.log ]
  [ Log File Contents for ...DswStandardPolicy.log ]
  [ Log File Contents for ...install.log ]
  [ Log File Contents for ...upgrade.log ]

```