Client Commands and Utilities Reference

Novell. Dynamic File Services

1.6

February 17, 2011

www.novell.com

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/) for more information on exporting Novell software. Novell assumes no responsibility for your failure to obtain any necessary export approvals.

Copyright © 2009–2011 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. 404 Wyman Street, Suite 500 Waltham, MA 02451 U.S.A. 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).

Novell Trademarks

For Novell trademarks, see the Novell Trademark and Service Mark list (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 log4net open source software that is developed as part of the Apache Logging Services project. For information, see 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) on SourceForge.net.

This product includes ZedGraph open source software that is developed by the ZedGraph open source project. For information, see ZedGraph.org (http://zedgraph.org).

Contents

	Abo	ut This	Guide	7
1	Over	view of	the Dynamic File Services Client Commands and Utilities	9
	1.1 1.2		LI and Utilities	
2	Wha	t's New	for the Dynamic File Services Client CLI and Utilities	11
	2.1	What's I 2.1.1 2.1.2 2.1.3	New for Dynamic File Services 1.6 File Owner Filter Option. SyncPair Utility. The logfilename Parameters	. 11 . 11
3	Dyna	amic Fil	e Services Client Commands for Pair and Policy Management	13
	3.1	Syntax (Overview	. 13
	3.2	Help Co	ommand	. 14
	3.3	Authent	ication Parameters	. 15
		3.3.1	Setting Authentication Parameters in Commands	
		3.3.2	Setting Authentication Parameters as Environment Variables	
	3.4		n Pair and Policy Parameters	
		3.4.1	Description	
		3.4.2	Direction to Move Files	
		3.4.3	Name	. 20
		3.4.4	Pair ID	. 21
		3.4.5	Policy ID	. 21
		3.4.6	Policy ID List	. 21
	3.5	Commo	n Options	. 22
		3.5.1	Debug	. 22
		3.5.2	Output to a File	. 22
		3.5.3	Silent	
	3.6	System	Actions	
		3.6.1	Display Active Directory Computers	
		3.6.2	Display Active Directory Shares	
		3.6.3	Display the File Types Information	
		3.6.4	Display Local Drives	
		3.6.5	Display Network Shares	
		3.6.6	Display Server System Information	
		3.6.7	Display or Modify the Logging Level for the Service or Standard Policy	
	0.7	3.6.8	Query for File Types or Extensions (for Technical Support Use Only)	
	3.7		ions	
		3.7.1	Add a Pair	
		3.7.2	Delete a Pair	
		3.7.3	Associate a Pair and Policy	
		3.7.4 3.7.5	Disassociate a Pair and Policy	
		3.7.5 3.7.6	Remove Exclude/Include Paths from a Pair	
		3.7.6	List Pairs	
		3.7.8	List Details for a Pair	-
		3.7.9	Run Policies on a Pair	
		-		

	3.8	3.7.10 Move Files or Folders in a Pair	
		3.8.1 Policy Parameters	 34
		3.8.2 Add a Policy	
		3.8.3 Delete a Policy	
		3.8.4 List All Policies	
		3.8.5 List Details for a Policy	
	3.9	3	
	3.10		
		3.10.1 Creating a Pair and Policy	
		3.10.2 Running the Policies Manually	
		3.10.3 Deleting the Policies	
		3.10.4 Deleting the Pair Relationship	 45
4	Dyna	namic File Services File System Inventory Utility	47
	4.1	DswInventory	 47
		4.1.1 Description	 47
		4.1.2 Syntax	
	4.2	Preparing a Command File for a File System Inventory	 48
		4.2.1 Inventory Path	
		4.2.2 Report Types and Filenames	
		4.2.3 Action List Filename	
		4.2.4 Inventory Options	
	4.3		
		4.3.1 Create a Command File	
		4.3.2 Run the File System Inventory Utility	
		4.3.3 View the Summary Report	
	4.4	4.3.4 View the Detailed Report	
	4.4		
		4.4.1 Create a Command File	
		4.4.3 View the Summary Report	
		4.4.4 View the Detailed Report	
	4.5	· · · · · · · · · · · · · · · · · · ·	
5	Dyna	namic File Services Synchronize Pair Utility	61
	5.1	DswSyncPair	 61
	0	5.1.1 Description	
		5.1.2 Syntax	
		5.1.3 Using the Utility	
		5.1.4 Check Action Options	
		5.1.5 Control Options	 63
		5.1.6 Report Options	 63
		5.1.7 Examples	
	5.2	Additional Information	 65
6	Dyna	namic File Services Configuration Dump Utility	67
	6.1	DswDump	 67
		6.1.1 Description	
		6.1.2 Syntax	
	6.2	•	60

About This Guide

This guide provides essential information for the client command line interface (CLI) and utilities for Novell Dynamic File Services (DynamicFS) 1.6.

- Chapter 1, "Overview of the Dynamic File Services Client Commands and Utilities," on page 9
- Chapter 2, "What's New for the Dynamic File Services Client CLI and Utilities," on page 11
- Chapter 3, "Dynamic File Services Client Commands for Pair and Policy Management," on page 13
- Chapter 4, "Dynamic File Services File System Inventory Utility," on page 47
- Chapter 5, "Dynamic File Services Synchronize Pair Utility," on page 61
- Chapter 6, "Dynamic File Services Configuration Dump Utility," on page 67

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, or go to www.novell.com/documentation/feedback.html and enter your comments there.

Documentation Updates

For the most recent version of the *Novell Dynamic File Services 1.6 Client Commands and Utilities Guide*, visit the Dynamic File Services 1.6 Documentation Web site (http://www.novell.com/documentation/dynamic_file_services/).

Additional Documentation

Additional documentation is available on the Dynamic File Services 1.6 Documentation Web site (http://www.novell.com/documentation/dynamic_file_services/):

- ◆ Readme
- Installation Guide
- Administration Guide

Overview of the Dynamic File Services Client Commands and Utilities

1

Novell Dynamic File Services (DynamicFS) 1.6 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 1.6 ADMINISTRATION GUIDEDynamic File Services 1.6 Help Topics*.

- Section 1.1, "Client CLI and Utilities," on page 9
- Section 1.2, "Command Line Syntax," on page 10

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	The DynamicFS CLI application allows you to create and manage pairs and policies on the server by issuing commands in the Windows Command Prompt console. The application runs only when you issue a command.
	For information, see Chapter 3, "Dynamic File Services Client Commands for Pair and Policy Management," on page 13.
	The application is DswCLI.exe.
Configuration Dump	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.
	For information, see Chapter 6, "Dynamic File Services Configuration Dump Utility," on page 67.
	The application is DswDump.exe.

Component	Description
File System Inventory	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.
	The time and frequency of pair history scanning is configurable. For information, see "Scheduling the Pair History Scan" in the DYNAMIC FILE SERVICES 1.6 ADMINISTRATION GUIDEDynamic File Services 1.6 Help Topics.
	The DynamicFS Service controls when the File System Inventory runs. The application is <code>DswInventory.exe</code> .
Synchronize Pair	The DynamicFS Synchronize Pair 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 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.
	For information, see Chapter 5, "Dynamic File Services Synchronize Pair Utility," on page 61.
	The application is DswSyncPair.exe.

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.
<pre><italicized angle="" brackets="" inside="" text=""></italicized></pre>	Variable that you must replace with a value.
Italicized text	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.

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 1.6.

• Section 2.1, "What's New for Dynamic File Services 1.6," on page 11

2.1 What's New for Dynamic File Services 1.6

In addition to bug fixes, the initial release of Novell Dynamic File Services 1.6 provides the following new features and changes for the client commands and utilities over the previous release of Dynamic File Services 1.5:

- Section 2.1.1, "File Owner Filter Option," on page 11
- Section 2.1.2, "SyncPair Utility," on page 11
- Section 2.1.3, "The logfilename Parameters," on page 11

2.1.1 File Owner Filter Option

You can use identity as a filter option in order to move files based on the file owner. For information, see "-fileOwner="userList"" on page 37.

2.1.2 SyncPair Utility

The following changes were made to the SyncPair utility:

- The SyncPair utility can be run by a user with Administrator privileges on the primary server and that has file system rights for the primary path and secondary path. For information, see Section 5.1, "DswSyncPair," on page 61.
- The Dynamic File Service can be running or not running when you run the SyncPair utility, but policies must not be running against the pair.

2.1.3 The logfilename Parameters

The following changes were made for the logfilname command:

- The ENFORCER option was renamed as STANDARDPOLICY.
- STANDARDPOLICY can also be typed as SPOL.
- SERVICE can be typed as SVC.

The new syntax is:

Dynamic File Services Client Commands for Pair and Policy Management

The Novell Dynamic File Services (DynamicFS) 1.6 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:

- Add and remove pairs.
- Add and remove policies.
- Associate and disassociate a pair with a policy.
- Run one or more policies for a pair.
- Move files or folders based on a supplied list.
- Set log levels for the Standard Policy and Service logs.

The 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, "Syntax Overview," on page 13
```

- Section 3.2, "Help Command," on page 14
- Section 3.3, "Authentication Parameters," on page 15
- Section 3.4, "Common Pair and Policy Parameters," on page 19
- Section 3.5, "Common Options," on page 22
- Section 3.6, "System Actions," on page 22
- Section 3.7, "Pair Actions," on page 26
- Section 3.8, "Policy Actions," on page 34
- Section 3.9, "Using CLI Commands in Scripts," on page 43
- Section 3.10, "Example Scripts Using CLI Commands," on page 43

3.1 Syntax Overview

```
dswcli.exe [-servername [-port [-username [-password]]]] -PAIR -ASSOCIATE
         -pairid=<pairname | GUID>
         -policyid=<policyname | GUID>
dswcli.exe [-servername [-port [-username [-password]]]] -PAIR -DISASSOCIATE
         -pairid=<pairname|GUID>
         -policyid=<policyname|GUID>
dswcli.exe [-servername [-port [-username [-password]]]] -PAIR -
ADDEXCLUDEINCLUDEPATHS
         -pairid=<pairname|GUID>
         -flags=<Exclude | Include | None>
         [-paths=<path1[;path2;path3...]>]
dswcli.exe [-servername [-port [-username [-password]]]] -PAIR -
DELETEEXCLUDEINCLUDEPATHS
         -pairid=<pairname | GUID>
         -flags=<Exclude | Include | None>
         [-paths=<path1[;path2;path3...]>]
dswcli.exe [-servername [-port [-username [-password]]]] -PAIR -RUN
         -pairid=<pairname|GUID>
         -policyidlist=<policyname|GUID>
dswcli.exe [-servername [-port [-username [-password]]]] -PAIR -DETAIL
         -pairid=<pairname|GUID>
dswcli.exe [-servername [-port [-username [-password]]]] -POLICY -ADD
         -name=<policyname>
         [-description=<"text">]
         -primaryToSecondary|-secondaryToPrimary
         [-fileExtension=<SEE FORMAT>]
         [-lastAccessed=<SEE FORMAT>]
         [-lastModified=<SEE FORMAT>]
         [-manual]
         [-hourly]
         [-daily=<SEE FORMAT>]
         [-weekly=<SEE FORMAT>]
         [-monthly=<SEE FORMAT>]
         [-yearly=<SEE FORMAT>]
dswcli.exe [-servername [-port [-username [-password]]]] -POLICY -DELETE
         -policyid=<policyname|GUID>
dswcli.exe [-servername [-port [-username [-password]]]] -POLICY -DETAIL
         -policyid=<policyname | GUID>
```

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 DynamicFS that is running.

Syntax

At the Command Prompt console, go to the DynamicFS directory, then enter one of the following:

```
DswCli.exe help
DswCli.exe -h
```

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 Dynamic File Services server and execute the command. The authentication parameters include the server name, username, password, and port number for the Dynamic File Services 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 15
- Section 3.3.2, "Setting Authentication Parameters as Environment Variables," on page 17

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 DynamicFS 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 15
- "Authentication Parameters" on page 15
- "Authentication Examples" on page 17

Syntax

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

Authentication Parameters

-servername

Specifies the IP address or DNS name of the server where you want to create or manage the pair. If you are issuing the DynamicFS 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"
```

-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"
Example
-port="1234"
```

-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

Using the IP Address of the Server

```
DswCli.exe -servername="192.168.1.1" -username="Administrator" -password="novel1" -pair
```

This command connects to the server via the IP address 192.168.1.1, logs in with the credentials of Administrator and novel1, 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 8999.

Using the DNS Address of the Server

```
DswCli.exe -servername="serverl.sitel.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 novel1, 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 DynamicFS 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 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 Command Prompt console.

After the environment variables are set for a given server, the parameter values are automatically applied for every <code>DswCli.exe</code> 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.

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

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

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

Environment Variable	Description
set DswParm1=servername	Specifies the <i>servername</i> by providing the DNS address or the IP address of the server you want to manage.
	Examples
	The following command sets the environment variable for servername to 192.168.1.1:
	set DswParm1=192.168.1.1
	The following command displays the current setting for the DswParm1 environment variable:
	set DswParm1
set DswParm2=username	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.
	Examples
	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.
	set DswParm2=Administrator
	The following command displays the current setting for the DswParm2 environment variable:
	set DswParm2
set DswParm3=password	Specifies the <i>password</i> of the user identity you specified with DswParm2.
	Examples
	The following command sets the environment variable for <i>password</i> to novell:
	set DswParm3=novell
	The following command displays the current setting for the DswParm3 environment variable:
	set DswParm3

Environment Variable	Description
set DswParm4=portnumber	Specifies the <i>portnumber</i> to use for DynamicFS communications with the server you want to manage.
	You need to specify this parameter only if you have set up the target server to use a port other than the default DynamicFS port for remote management communications. The default port value is automatically assumed if this parameter is not otherwise specified.
	Examples
	The following command sets the environment variable for portnumber to 1234:
	set DswParm4=1234
	The following command displays the current setting for the DswParm4 environment variable:
	set DswParm4

To use environmental variables while executing Dynamic File Services commands:

- **1** On a Windows server or workstation where DynamicFS is installed, open the 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 Command Prompt console to remove the credentials as environmental variables.

3.4 Common Pair and Policy Parameters

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

- Section 3.4.1, "Description," on page 20
- Section 3.4.2, "Direction to Move Files," on page 20
- Section 3.4.3, "Name," on page 20

- Section 3.4.4, "Pair ID," on page 21
- Section 3.4.5, "Policy ID," on page 21
- Section 3.4.6, "Policy ID List," on page 21

3.4.1 Description

-description

Specifies a textual description of a pair or policy that you are creating with the -pair -add action or the -policy -add action.

Syntax

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

Examples

```
-description="This is a description of myPair"
```

-description="Moves graphics files to the secondary location."

3.4.2 Direction to Move Files

-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.

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

3.4.3 Name

-name

Specifies a name for the pair or policy that you are creating with the -pair -add action or the -policy -add action.

Syntax

```
-name="text"
```

Pair Examples

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

Policy Examples

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

3.4.4 Pair ID

-pairId

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

Syntax

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

Examples
-policyId="myPolicy"
-policyId="My JPG and BMP Policy"
-policyId="My Last Modified GT 6 Months Policy"
-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="<policyname | GUID>[, <policyname | GUID>,...]"

Examples
-policyIdList="myPolicy, myPolicy100, 4b5b5820-da6c-4c07-b9da-07e3b83ebe02"
-policyIdList="My JPG and BMP Policy"
-policyIdList="My Last Modified GT 6 Months Policy, myPolicy"
```

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 22
Section 3.5.2, "Output to a File," on page 22
```

• Section 3.5.3, "Silent," on page 22

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 a 0 if the command is successful. It returns a 1 if the command fails.

If a command fails, you can enter the command at the 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 15.

- Section 3.6.1, "Display Active Directory Computers," on page 23
- Section 3.6.2, "Display Active Directory Shares," on page 23
- Section 3.6.3, "Display the File Types Information," on page 23
- Section 3.6.4, "Display Local Drives," on page 23
- Section 3.6.5, "Display Network Shares," on page 23
- Section 3.6.6, "Display Server System Information," on page 24

- Section 3.6.7, "Display or Modify the Logging Level for the Service or Standard Policy," on page 24
- Section 3.6.8, "Query for File Types or Extensions (for Technical Support Use Only)," on page 26

3.6.1 Display Active Directory Computers

-adcomputers

Displays the computers in Active Directory.

DswCli.exe [authentication parameters] -adcomputers

3.6.2 Display Active Directory Shares

-adshares

Displays the shares that are published in Active Directory.

Syntax

DswCli.exe [authentication_parameters] -adshares

3.6.3 Display the File Types Information

-fileTypesInfo, -types

Displays a list of supported file types on the target.

Syntax

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

3.6.4 Display Local Drives

-localdrives

Displays local drive information for the specified server.

Syntax

DswCli.exe [authentication_parameters] -localdrives

3.6.5 Display Network Shares

-shares

Displays network share information for the specified server.

Syntax

DswCli.exe [authentication_parameters] -shares

3.6.6 Display Server System Information

-system

Displays system information for the specified server.

Syntax

DswCli.exe [authentication_parameters] -system

3.6.7 Display or Modify the Logging Level for the Service or Standard Policy

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 set the log levels for the Dynamic File Service (DswMcpCore.log) and Standard Policy (DswStandardPolicy.log) log files.

Syntax

```
DswCli [authentication_parameters] -logfilename={ * | SERVICE | STANDARDPOLICY | filename } -loglevel={ ALL | DEBUG | INFO | WARN | ERROR | FATAL | OFF }
```

The two log level options are used together to modify 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.

The SERVICE parameter can be typed as SVC. The STANDARDPOLICY parameter can be typed as SPOL.

Parameters

-logfilename={ * | SERVICE | STANDARDPOLICY | filename }

You must specify whether you want to apply the <code>-loglevel</code> setting to the Service, Standard Policy, or both the Serviced and Standard Policy. Use this option in combation with the <code>-loglevel</code> option to modify the log level for the specified file. If you use the <code>-logfilename</code> without the <code>-loglevel</code> option, the current setting for the specified log file is displayed.

Logfilename Options

Logfilename Option	Description
*	Apply the specified -loglevel setting to both the Service (DswMcpCore.config.xml) log file and the Standard Policy (DswStandardPolicy.config.xml) log file.
SERVICE SVC	Apply the specified -loglevel setting to the Service (DswMcpCore.config.xml) log file.
-	
STANDARDPOLICY	Apply the specified -loglevel setting to the Standard Policy (DswStandardPolicy.config.xml) log file.
SPOL	(22.12.24.144.147.144.144.144.144.144.144.144.14

Logfilename Option	Description
"filename"	Apply the specified -loglevel setting to the specified file. Valid filenames are DswMcpCore.config.xml or DswStandardPolicy.config.xml.
	This option allows you to specify the names of the Service and Standard Policy log files as an alternative to using the SERVICE or STANDARDPOLICY options.

Logfilename Examples

- -logfilename=*
- -logfilename=SERVICE

-loglevel={ ALL | DEBUG | INFO | WARN | ERROR | FATAL | OFF }

The log level settings determine which events are logged for the Dynamic File Service or Standard Policy log files. Use this option in combation with the <code>-logfilename</code> option to modify the log level setting for the specified log file.

Loglevel Options

The log level options are ordered from the most information reported to no information reported. 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:

Loglevel Option	Description
All	Record all events in the specified log file. (This is the same output as for 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.

Loglevel Examples

- -loglevel=INFO
- -loglevel=FATAL

Logging Level Examples

To get the current value of the Service log file (DswMcpCore.config.xml), enter

DswCli [authentication_parameters] -logfilename=SERVICE

To set the log level to ALL for the Service log file (DswMcpCore.config.xml), enter the following command:

DswCli [authentication_parameters] -logfilename=SERVICE -loglevel=ALL

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

Dynamic File Services provides the following query commands for use only by Novell Technical 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.

Example

dswcli.exe [authentication_parameters] -fileTypeQuery="image"

3.7 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 [authentication_parameters] -pair [pair_action] [-pairId pair_option]

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 15.

- Section 3.7.1, "Add a Pair," on page 27
- Section 3.7.2, "Delete a Pair," on page 29
- Section 3.7.3, "Associate a Pair and Policy," on page 29
- Section 3.7.4, "Disassociate a Pair and Policy," on page 29
- Section 3.7.5, "Add Exclude/Include Paths to a Pair," on page 30
- Section 3.7.6, "Remove Exclude/Include Paths from a Pair," on page 31
- Section 3.7.7, "List Pairs," on page 31
- Section 3.7.8, "List Details for a Pair," on page 32
- Section 3.7.9, "Run Policies on a Pair," on page 32
- Section 3.7.10, "Move Files or Folders in a Pair," on page 32

3.7.1 Add a Pair

-add

The -add action creates the pair with the desired name and stores the configuration as an XML file in the ...\Dynamic File Services\Pairs folder.

IMPORTANT: Before you issue a command to create a pair, make sure your system meets the requirements in "Dynamic File Services Pairs" in the *DYNAMIC FILE SERVICES 1.6 ADMINISTRATION GUIDEDynamic File Services 1.6 Help Topics*.

Syntax

```
DswCli.exe [authentication_parameters] -pair -add -name=<pairname>
-primaryPath=<path> -secondaryPath=<path> option
```

You must specify a name for the pair, a primary path, and a secondary path. You can optionally specify a description of the pair.

IMPORTANT: You must create a network share for the primary path in order to provide a merged view of the data for users. Use the Microsoft Network Sharing tool to create a network share. 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.

If the secondary location is a remote share, you must create the remote share and publish it in Active Directory before you issue the command to create the pair. You must add the DFSStorageRights group to the remote share and give the group all permissions. We recommend that you verify that the setup is correct before granting users access to the pair or running policies on the pair.

After you create a pair, you must associate it with one or more policies in order for files to be moved between the paths. For information about creating policies, see the -add action option for a policy command.

Add Pair Parameters

-name

Specifies the pair name. The name must be unique on the server you are managing.

Syntax

```
-name="pairname"

Example
```

-name="myPair"

-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.

Syntax

```
-primaryPath="path"
Examples
-primaryPath="C:\users"
-primaryPath="M:"
-primaryPath="K:\engineering\proj1"
```

-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. Beginning in version 1.5, the path can also be a UNC (Universal Naming Convention) path to a remote file server.

Syntax

```
-secondaryPath="path"
```

Examples

```
-secondaryPath="L:\users\media"
-secondaryPath="N:\m_sh"
-secondaryPath="Z:\project1"
-secondaryPath="\\remoteserver\share"
```

Add Pair Option

-description

Specifies a textual description of the pair.

Syntax

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

Example

-description="Moves graphics files to the secondary location."

Add Pair Examples

Create a Pair

```
DswCli.exe -servername="localhost" -username="Administrator"
-password="novell" -pair -add -name="myPair"
-primaryPath="e:\PrimaryPath" -secondaryPath="f:\SecondaryPath"
```

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 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.

Create a Pair with a Description

```
DswCli.exe -servername="localhost" -username="Administrator"
-password="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 pair named ProjectA. It uses the optional description field to provide more information about the pair. The pair's primary path is the <code>e:\PrimaryPath</code> directory. The pair's secondary path is the <code>f:\SecondaryPath</code> directory. No files are moved until you create a policy for the pair, and associate the policy to the pair.

3.7.2 Delete 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 [authentication_parameters] -pair -delete -pairId=<"pairname" |
"GUID" >
```

Example

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

```
DswCli.exe -servername="localhost" -username="Administrator" -password="novell" -pair -delete -pairId="myPair"
```

3.7.3 Associate a Pair and Policy

-associate

The -associate action links a specified pair to a specified policy. You must specify the pairId parameter for the pair that you want to associate, and the policyID parameter for the policy.

Syntax

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

Example

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

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

3.7.4 Disassociate a Pair and Policy

-disassociate

The -disassociate action removes the association between a given pair and policy. You must specify the pairId parameter for the pair. You must specify the policyId parameter for the policy that you no longer want to run on the pair.

Syntax

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

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 -username=Administrator -password=novell -pair -disassociate -pairId="myPair" -policyId="myPolicy"
```

3.7.5 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.

Syntax

```
DswCli.exe [authentication_parameters] -pair -addExcludeIncludePaths -
pairID -flags -paths
```

Examples

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

-paths

Specifies one or more directory paths to be included or excluded from policies run on the pair. Separate multiple paths with a semicolon. Use this option in combination with the -flags option.

Syntax

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

Examples

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

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

3.7.6 Remove 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 [authentication_parameters] -pair -addExcludeIncludePaths -
pairID -flags -paths
```

Examples

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

-paths

Specifies one or more directory paths to be included or excluded from policies run on the pair. Separate multiple paths with a semicolon. Use this option in combination with the -flags option.

Syntax

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

Examples

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

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

3.7.7 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 [authentication_parameters]] -pair
```

Example

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

```
DswCli.exe -servername="localhost" -username="Administrator"
-password="novell" -pair
```

3.7.8 List Details for a Pair

-detail

The -detail action provides a detail listing for a pair. You must specify the pairId parameter for the pair.

Syntax

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

Example

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

```
DswCli.exe -servername="localhost" -username="Administrator" -password="novell" -pair -detail -pairId="myPair"
```

3.7.9 Run Policies on a Pair

-riin

The -run 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 are run that are associated with the specified pair.

Syntax

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

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" -username="Administrator" -password="novell" -pair -run -pairId="myPair" -policyIdList="myPolicy, myPolicy100"
```

3.7.10 Move Files or Folders in a Pair

-move

Moves a specified list of files or a list of folders in the specified direction. You can specify either file or both files in a single move command.

Syntax

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

Description

The -move option requires the following options be specified:

```
-pair
-pairId=<pairname | GUID>
{ -primaryToSecondary or -secondaryToPrimary }
```

```
{ -folderList or -folderList }
```

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.

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.

Example

The following -pair command moves the folders specified in the ListOfFoldersToMove.txt file for a pair named myPair on the specified server from the primary location to the secondary location.

```
DswCli.exe -servername="localhost" -username="Administrator"
   -password="novell" -pair -pairId="myPair"
   -moveFolders -folderList="c:\dirl\ListOfFoldersToMove.txt"
   -primaryToSecondary
```

-fileList="path\ListOfFilesToMove.txt"

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.

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="path\ListOfFoldersToMove.txt"

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.

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"
```

3.8 Policy Actions

-policy

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

Syntax

```
DswCli.exe [authentication_parameters] -policy [policy_action [policyId |
policyIdList] [policy_option]]
```

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 15.

- Section 3.8.1, "Policy Parameters," on page 34
- Section 3.8.2, "Add a Policy," on page 35
- Section 3.8.3, "Delete a Policy," on page 42
- Section 3.8.4, "List All Policies," on page 42
- Section 3.8.5, "List Details for a Policy," on page 42

3.8.1 Policy Parameters

-policyId

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

Syntax

```
-policyId=< "policyname" | "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="<policyname|GUID>,<policyname|GUID>,..."
```

Example

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

-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.

Restriction: This option cannot be used with the primaryToSecondary option.

3.8.2 Add a Policy

-add

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

Syntax

DswCli.exe [authentication_parameters] -policy -add -name=<policyname>
options filterOptions frequencyOptions

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 the -associate action option for a pair command.

Add Policy Parameter

-name

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

Syntax

-name="policyname"

Example

-name="myPolicy"

Add Policy Description Option

Specifies the following as options in combination with the -add action.

Options	Description
-description="text"	Specifies a textual description of the policy. This option is optional.

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.

Filter Options	Description
-fileSize="ccn[]uu" Where	Specifies the file size of files to filter for movement.
	Examples:
cc = gt or lt conditional n[] = any length numeric value uu = units of size	Move all files that are greater than 1 GB in size.
Valid uu values are:	-fileSize="gt1gb"
b =bytes kb =kilobytes	Move all files that are less than 100 KB in size.
mb =megabytes gb =gigabytes	-fileSize="lt100kb"
-lastAccessed="ccn[]u" Where cc = gt or lt conditional n[] = any length numeric value u = units of time	Moves files that meet the specified condition based on the last access time.
	Examples:
	Move all files that have an access time greater than 10 days old.
Valid u values are:	-lastAccessed="gt10d"
<pre>d = days w = weeks m = months y = years</pre>	Move all files that have an access time less than 5 weeks old.
	-lastAccessed="lt5w"
-lastModified="ccn[]u"	Moves files that meet the specified condition based on the last modified time.
Where cc = gt or lt conditional n[] = any length numeric value u = units of time	Examples:
	Move all files that have a modified time greater than 10 days old.
Valid u values are:	-lastModified="gt10d"
d = days w = weeks	Move all files that have a modified time less than 5 weeks old.
<pre>m = months y = years</pre>	-lastModified="lt5w"

Filter Options	Description
-fileExtension="extensionList" In Dynamic File Services 1.5 and later, you can use the -filePattern option. The -fileextension option has been aliased to -filePattern.	Moves files that have the specified file extensions. An asterisk (*) can be used as a wildcard character. Separate multiple entries with a comma.
	Examples:
-filePattern="patternList"	Move all . jpg files and .gif files:
	-filePattern="*.jpg,*.gif"
	-fileExtension="*.jpg,*.gif"
	Move all files that begin with g_{W} that have the file extension $.\mbox{\tt mail}:$
	-filepattern="gw*.mail"
	Move all .txt files:
	-filePattern="*.txt"
fileType="typeList"	Moves files based on the file type. Separate multiple entries with a comma.
Valid types are:	Examples:
application audio	Move video and audio files:
compressed image message model system text video	Example: -filetype="video,audio"
-fileOwner="userList"	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.
	Example:
	-fileowner="user1,user2"

Add Policy Schedule Frequency Options

Specify 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.

Frequency Options	Description
-manual	Scan frequency is performed manually.
	Restrictions: This option cannot be combined with the following frequency options:
	-hourly -daily -weekly -monthly -yearly
-hourly	Scan frequency is performed hourly.
	Restrictions: This option cannot be combined with the following frequency options:
	-manual -daily -weekly -monthly -yearly
-daily[="hh:mm[-hh:mm]"]	Scan frequency is performed daily.
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.	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 start time is provided and the stop time is omitted, the scan starts at the given time and runs until complete.
	Restrictions: This option cannot be combined with the following frequency options:
	-manual -hourly -weekly -monthly -yearly
	Example:
	The scan runs daily from 1:00 p.m. to 3:00 p.m.:
	-daily="13:00-15:00"

Frequency Options

-weekly[="nn[@hh:mm[-hh:mm]]"]

Where

 ${\tt nn}$ 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, 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.

Description

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

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

- -manual
- -hourly
- -daily
- -monthly
- -yearly

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"

Frequency Options

-monthly[="nn[@hh:mm-hh:mm]]"]

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

⊚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.

Description

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

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

- -manual
- -hourly
- -daily
- -weekly
- -yearly

Examples:

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

-monthly="25@13:00"

Frequency Options

-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, 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.

Description

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.

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

- -manual
- -hourly
- -daily
- -weekly
- -monthly

Examples:

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

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

Add Policy Examples

Each of the following -policy commands creates a policy with a single filter specified. The direction option is not set in these policies, so data is moved in the default direction of primary to secondary. If no frequency is specified, the policy can be run manually.

-fileExtension Policy Filter

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

-fileSize Policy Filter

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

-frequency Policy Filter

```
DswCli.exe -servername="localhost" -username="Administrator" -password="novell" -policy -add -name="My Weekly at 1300 Policy" -weekly="01@1300"
```

-lastAccessed Policy Filter

```
DswCli.exe -servername="localhost" -username="Administrator" -password="novell" -policy -add -name="My Last Accessed LT 5 Weeks Policy" -lastAccessed="lt5w"
```

-lastModified Policy Filter

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

3.8.3 Delete a Policy

-delete

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

Syntax

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

Example

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

```
DswCli.exe -servername="localhost" -username="Administrator" -password="novell" -policy -delete -policyId="myPolicy"
```

3.8.4 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 [authentication_parameters] -policy
```

Example

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

```
DswCli.exe -servername="localhost" -username="Administrator"
-password="novell" -policy
```

3.8.5 List Details for a Policy

-detail

The -detail action provides a detail listing of the requested policy. You must specify the policyId parameter for the policy.

Syntax

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

Example

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

```
DswCli.exe -servername="localhost" -username="Administrator"
-password="novell" -policy -detail -policyId="myPolicy"
```

3.9 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 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 DynamicFS command options, see the following resources:

Option	Reference
authentication_parameters	Section 3.3, "Authentication Parameters," on page 15
-pair pair_actions pair_parameters pair_options	Section 3.7, "Pair Actions," on page 26
-policy policy_actions policy_parameters policy_options	Section 3.8, "Policy Actions," on page 34

Exit Codes

The DswCli.exe command returns an exit code of 0 or 1.

Return Code	Description
0	Success
1	Failure

3.10 Example Scripts Using CLI Commands

This section provides example scripts for Dynamic File Services.

- Section 3.10.1, "Creating a Pair and Policy," on page 44
- Section 3.10.2, "Running the Policies Manually," on page 45

- Section 3.10.3, "Deleting the Policies," on page 45
- Section 3.10.4, "Deleting the Pair Relationship," on page 45

3.10.1 Creating a Pair and Policy

This example uses the DynamicFS 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 accessed or modified within two weeks to the secondary path. It is scheduled to run weekly on Saturday at midnight.
- The ACCESSED FILES policy moves files accessed 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="Dynamic File Services 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" - lastAccessed="gt2w" -primaryToSecondary -description="Moves files that have not been modified or accessed 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 ACCESSED FILES to primary

DswCli.exe -policy -add -name="ACCESSED FILES to primary" -lastModified="lt1d" -primaryToSecondary -description="Moves files that were accessed 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="ACCESSED FILES to primary" -pairId=myPair -
serverName=192.168.1.3 -port=8999 -userName=Administrator -password=myPassword
```

3.10.2 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 -run -policyIdList="OLD FILES to secondary", "ACCESSED FILES to primary", "OLD FILES to secondary" -pairId=myPair -serverName=192.168.1.3 -port=8999 -userName=Administrator -password=myPassword
```

3.10.3 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="ACCESSED FILES to primary" -
serverName=192.168.1.3 -port=8999 -userName=Administrator -password=myPassword
```

3.10.4 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
```

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 1.6 Administration GuideDynamic File Services 1.6 Help Topics*.

- Section 4.1, "DswInventory," on page 47
- Section 4.2, "Preparing a Command File for a File System Inventory," on page 48
- Section 4.3, "Example of a General Inventory," on page 51
- Section 4.4, "Example of a Filtered Inventory," on page 56
- Section 4.5, "Additional Information," on page 59

4.1 DswInventory

- Section 4.1.1, "Description," on page 47
- Section 4.1.2, "Syntax," on page 47

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 48.

4.1.2 Syntax

You use the following syntax to run the utility:

```
DswInventory.exe commandFile [commandFile2...]
```

Log in to the DynamicFS server as the Administrator user or a user with Administrator privileges, then issue the command in the Command Prompt console. It does not matter if the user is also a member of the Dynamic File Services group.

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 (DFSStorageRights) 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 48
- Section 4.2.2, "Report Types and Filenames," on page 49
- Section 4.2.3, "Action List Filename," on page 49
- Section 4.2.4, "Inventory Options," on page 49

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
/summary=summary_report_filename.xml	After an inventory is performed, creates a summary report file with the specified filename.
/detailed=detailed_report_filename.xml	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
/actionlist=filename	Requests a list of files to be generated in the specified file.
/actionlistappend	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
/access	Inventories files by last access time.
/create	Inventories files by creation time.
/modify	Inventories files by modification time.
/owner	Inventories files by owner name.
/size	Inventories files by file length.
/extension	Inventories files by file extension.

Inventory Option	Description
/empty	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.

Inventory Option	Description
/access>ddd.hh:mm:ss	Inventories files by last access times that are greater than the specified time duration.
/access <ddd.hh:mm:ss< td=""><td>Inventories files by last access times that are less than the specified time duration.</td></ddd.hh:mm:ss<>	Inventories files by last access times that are less than the specified time duration.
/create>ddd.hh:mm:ss	Inventories files by creation times that are greater than the specified time duration.
/create <ddd.hh:mm:ss< td=""><td>Inventories files by creation times that are less than the specified time duration.</td></ddd.hh:mm:ss<>	Inventories files by creation times that are less than the specified time duration.
/modify>ddd.hh:mm:ss	Inventories files by modification times that are greater than the specified time duration.
/modify <ddd.hh:mm:ss< td=""><td>Inventories files by modification times that are less than the specified time duration.</td></ddd.hh:mm:ss<>	Inventories files by modification times that are less than the specified time duration.
/owner=name[,nextName]	Inventories files by the specified owner name or names. Delimit multiple names with a comma and no spaces.
/size>amount	Inventories files by file length that is greater than the amount specified. Specify the amount in bytes.
	For example, to inventory files greater than 1 MB, specify:
	/size>1024
/size <amount< td=""><td>Inventories files by file length that is less than the amount specified. Specify the amount in bytes.</td></amount<>	Inventories files by file length that is less than the amount specified. Specify the amount in bytes.
	For example, to inventory files less than 1 MB, specify:
	/size<1024
/extension=*.extension[,*.extension2]	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 51
- Section 4.3.2, "Run the File System Inventory Utility," on page 51
- Section 4.3.3, "View the Summary Report," on page 51
- Section 4.3.4, "View the Detailed Report," on page 52

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:\
 11>
  </folder>
  </folderlist>
- <list type="Accessed">
  <criteria filter="Within Last Day" filecount="31" totalsize="74811"</pre>
sizeunit="1024" />
  </list>
- type="Creation">
  <criteria filter="Within Last Day" filecount="31" totalsize="74811"</pre>
sizeunit="1024" />
  </list>
- type="EmptyFiles">
```

```
<criteria filter="Empty Files" filecount="11" totalsize="0" sizeunit="0" />
  </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"</pre>
sizeunit="1024" />
  <criteria filter="1 Month - 2 Months" filecount="1" totalsize="16"</pre>
sizeunit="1024" />
  <criteria filter="6 Months - 1 Year" filecount="27" totalsize="5512"</pre>
sizeunit="1024" />
  </list>
- <list type="Owner">
  <criteria filter="Administrators" filecount="31" totalsize="74811"</pre>
sizeunit="1024" />
  </list>
- <list type="Length">
 <criteria filter="Less than 1KB" filecount="2" totalsize="2" sizeunit="1024"</pre>
  <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"</pre>
  <criteria filter="64KB - 256KB" filecount="1" totalsize="161"</pre>
sizeunit="1024" />
  <criteria filter="256KB - 1MB" filecount="8" totalsize="5170"</pre>
sizeunit="1024" />
  <criteria filter="64MB - 256MB" filecount="1" totalsize="69277"</pre>
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:\</pre>
```

```
]]>
 </folder>
 </folderlist>
- <list type="Accessed">
- <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>
- 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</pre>
  </information>
 </criteria>
 </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</pre>
 ]]>
 </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</pre>
 ]]>
 </information>
 </criteria>
- <criteria filter=".exe" filecount="1" totalsize="16" sizeunit="1024">
- <information name="GimmeFiles.exe" matchvalue=".exe">
- <![CDATA[ e:\Primary\subfolder\GimmeFiles.exe</pre>
  ]]>
 </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</pre>
 ]]>
 </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
 11>
 </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
 11>
 </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</pre>
 11>
 </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
 11>
 </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
 11>
 </information>
 </criteria>
- <criteria filter=".xml" filecount="2" totalsize="6" sizeunit="1024">
- <information name="myDetails.xml" matchvalue=".xml">
- <![CDATA[ e:\myDetails.xml</pre>
 11>
 </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</pre>
  </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</pre>
  ]]>
  </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
  11>
  </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</pre>
 ]]>
  </information>
  </criteria>
- <criteria filter="4KB - 16KB" filecount="1" totalsize="5" sizeunit="1024">
- <information name="myDetails.xml" matchvalue="4597">
- <![CDATA[ e:\myDetails.xml</pre>
  ]]>
  </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
  11>
  </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 (Formated).odt" matchvalue="782959">
- <![CDATA[ e:\Primary\subfolder\Text Files\Rough (Formated).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 56
- Section 4.4.2, "Run the File System Inventory Utility," on page 57
- Section 4.4.3, "View the Summary Report," on page 57
- Section 4.4.4, "View the Detailed Report," on page 57

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>
- type="Extension">
  <criteria filter=".jpg" filecount="5" totalsize="2569" sizeunit="1024" />
  </list>
- <list type="Length">
  <criteria filter="64KB - 256KB" filecount="1" totalsize="161"</pre>
sizeunit="1024" />
  <criteria filter="256KB - 1MB" filecount="4" totalsize="2408"</pre>
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:

```
- type="Extension">
- <criteria filter=".jpg" filecount="5" totalsize="2569" sizeunit="1024">
- <information name="arctica1920.jpg" matchvalue=".jpg">
- <![CDATA[ e:\Primary\subfolder\Pictures\arctica1920.jpg
 11>
 </information>
- <information name="Eastern Fire.jpg" matchvalue=".jpg">
- <![CDATA[ e:\Primary\subfolder\Pictures\Eastern Fire.jpg
 11>
 </information>
- <information name="eventide1920.jpg" matchvalue=".jpg">
- <![CDATA[ e:\Primary\subfolder\Pictures\eventide1920.jpg
 11>
 </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
 11>
 </information>
- <information name="lastlight1920.jpg" matchvalue="705456">
- <![CDATA[ e:\Primary\subfolder\Pictures\lastlight1920.jpg
 11>
 </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 1.6 ADMINISTRATION GUIDEDynamic File Services 1.6 Help Topics*.

Dynamic File Services Synchronize Pair Utility

The Novell Dynamic File Services (DynamicFS) Synchronize Pair utility (DswSyncPair.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 SyncPair utility, but policies must not be running against the pair.

- Section 5.1, "DswSyncPair," on page 61
- Section 5.2, "Additional Information," on page 65

5.1 DswSyncPair

- Section 5.1.1, "Description," on page 61
- Section 5.1.2, "Syntax," on page 61
- Section 5.1.3, "Using the Utility," on page 62
- Section 5.1.4, "Check Action Options," on page 62
- Section 5.1.5, "Control Options," on page 63
- Section 5.1.6, "Report Options," on page 63
- Section 5.1.7, "Examples," on page 64

5.1.1 Description

The Dynamic File Services Synchronize Pair 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 Dynamic File Service can be running or not running when you run the SyncPair utility, but policies must not be running against the pair.

5.1.2 Syntax

Make sure there are no policies running against the pair (that is, the pair status is *Idle*), then run the DswSyncPair.exe command on the server where Dynamic File Services is installed.

The SyncPair 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 (DFSStorageRights) group. It does not matter if the user is also a member of the Dynamic File Services group.

```
DswSyncPair.exe -pair="<pairname | guid>" [options]
DswSyncPair.exe -source="path" -target="path" [options]
```

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:

```
DswSyncPair.exe -pair=\"<pairname | guid>\" [options] -silent

DswSyncPair.exe -source=\"path\" -target=\"path\" [options] -silent
```

5.1.3 Using the Utility

- **1** Log in to the Dynamic File Services server.
- **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 Synchronize Pair 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 a Command Prompt console, then change directory to go to the C:\Program Files\Dynamic File Services folder (or the folder where you installed Dynamic File Services). Select Start > All Programs > Accessories, then click Command Prompt.
- **4** At the command prompt, enter one of the following commands:

```
DswSyncPair.exe -pair="<pairname | guid>" [options]
DswSyncPair.exe -source="path" -target="path" [options]
```

5 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 DswSyncPair.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="cvsReport"
```

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 64
- "Check for Folders with Mismatched Attributes and ACLs and Produce an XML Report" on page 64
- "Check Files and Folders and Produce CSV and XML Reports" on page 64

Check for Duplicate Files and Produce a CSV Report

```
DswSyncPair.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

```
DswSyncPair.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

```
DswSyncPair.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 Synchronize Pair utility for reporting on files and folders in a pair, see the following sections in the *Novell Dynamic File Services 1.6 Administration Guide* (http://www.novell.com/documentation/dynamic_file_services/):

- "Reporting Conflicts for Attributes and ACL Permissions on Folders"
- "Reporting Conflicts for Duplicate Files"

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. This report is helpful for record-keeping and troubleshooting. The tool can be run at any time, with service running or not running, including in Windows Safe Mode.

- Section 6.1, "DswDump," on page 67
- Section 6.2, "Config.txt Output," on page 68

6.1 DswDump

- Section 6.1.1, "Description," on page 67
- Section 6.1.2, "Syntax," on page 68

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:

- Server hardware and operating system
- Active Directory domain
- Service configuration
- Folders and files in the Dynamic File Services folder (or the folder where you installed Dynamic File Services)
- Pair information
- · Policy information
- Audit information
- Microsoft Event Logger event messages
- Service and Standard Policy log event messages

The information is dumped into the Config.txt file in the C:\Program Files\Dynamic File Services folder (or the folder where you installed Dynamic File Services). For an overview of the output, see Section 6.2, "Config.txt Output," on page 68.

6.1.2 Syntax

Log in to the server as the Administrator user or as a user with Administrator privileges.

Open a Command Prompt console, change directory to go to the C:\Program Files\Dynamic File Services folder (or the folder where you installed Dynamic File Services), then enter

```
DswDump.exe
```

The tool can be run at any time, with the service running or not running, including in Windows Safe Mode.

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
[ Windows Configuration ]
 OS Version
 OS Service Pack
 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 ]
[ Audit Information ]
 [ Audit Config Contents ]
 [ Audit Log 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 ...DswStandardPolicy.log ]
 [ Log File Contents for ...DswMcpCore.log ]
```