



Informatica® PowerExchange  
10.2

# Command Reference

This software and documentation are provided only under a separate license agreement containing restrictions on use and disclosure. No part of this document may be reproduced or transmitted in any form, by any means (electronic, photocopying, recording or otherwise) without prior consent of Informatica LLC.

U.S. GOVERNMENT RIGHTS Programs, software, databases, and related documentation and technical data delivered to U.S. Government customers are "commercial computer software" or "commercial technical data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, duplication, disclosure, modification, and adaptation is subject to the restrictions and license terms set forth in the applicable Government contract, and, to the extent applicable by the terms of the Government contract, the additional rights set forth in FAR 52.227-19, Commercial Computer Software License.

Informatica, the Informatica logo, PowerCenter, and PowerExchange are trademarks or registered trademarks of Informatica LLC in the United States and many jurisdictions throughout the world. A current list of Informatica trademarks is available on the web at <https://www.informatica.com/trademarks.html>. Other company and product names may be trade names or trademarks of their respective owners.

Portions of this software and/or documentation are subject to copyright held by third parties. Required third party notices are included with the product.

The information in this documentation is subject to change without notice. If you find any problems in this documentation, please report them to us in writing at Informatica LLC 2100 Seaport Blvd. Redwood City, CA 94063.

Informatica products are warranted according to the terms and conditions of the agreements under which they are provided. INFORMATICA PROVIDES THE INFORMATION IN THIS DOCUMENT "AS IS" WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING WITHOUT ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND ANY WARRANTY OR CONDITION OF NON-INFRINGEMENT.

# Table of Contents

<b>Preface .....</b>	<b>9</b>
Informatica Resources. ....	9
Informatica Network. ....	9
Informatica Knowledge Base. ....	10
Informatica Documentation. ....	10
Informatica Product Availability Matrixes. ....	10
Informatica Velocity. ....	10
Informatica Marketplace. ....	10
Informatica Global Customer Support. ....	10
 <b>Chapter 1: Introduction to PowerExchange Commands.....</b>	<b>11</b>
PowerExchange Commands Overview. ....	11
PowerExchange Command Syntax Conventions. ....	12
Running PowerExchange Commands. ....	12
Environment Variable Incompatibilities Between PowerExchange and PowerCenter. ....	13
 <b>Chapter 2: Adabas Log-Based ECCR Commands.....</b>	<b>14</b>
Introduction to the Adabas Log-Based ECCR Commands. ....	14
Starting the Adabas Log-Based ECCR. ....	14
CLOSE Command. ....	15
DISPLAY TRACE Command. ....	16
READ Command. ....	16
REFRESH Command. ....	17
STATISTICS Command. ....	17
STATUS Command. ....	19
TRACEOFF Command. ....	19
TRACEON Command. ....	20
 <b>Chapter 3: Batch VSAM ECCR Commands.....</b>	<b>21</b>
Introduction to the Batch VSAM ECCR Commands. ....	21
DISPLAY Command. ....	21
START Command. ....	22
STOP Command. ....	22
 <b>Chapter 4: CICS/VSAM ECCR Commands.....</b>	<b>23</b>
Introduction to the CICS/VSAM ECCR Commands. ....	23
DISPLAY Command. ....	24
EXITPGMS Command. ....	24
HELP Command. ....	25
INITIALIZE Command. ....	26

OPTIONS Command. . . . .	27
REFRESH Command. . . . .	28
RESTART Command. . . . .	29
TERMINATE Command. . . . .	29

## **Chapter 5: Datacom Table-Based ECCR Commands..... 31**

Introduction to the Datacom Table-Based ECCR Commands. . . . .	31
Starting the Datacom Table-Based ECCR. . . . .	32
CLOSE Command. . . . .	32
DISPLAY TRACE Command. . . . .	32
READ Command. . . . .	33
REFRESH Command. . . . .	33
STATISTICS Command. . . . .	34
STATUS Command. . . . .	36
TRACEOFF Command. . . . .	37
TRACEON Command. . . . .	37

## **Chapter 6: DB2 for z/OS ECCR Commands..... 38**

Introduction to the DB2 for z/OS ECCR Commands. . . . .	38
Starting the DB2 for z/OS ECCR. . . . .	39
Stopping the DB2 for z/OS ECCR. . . . .	39
DISPLAY Command. . . . .	40
QUIESCE Command. . . . .	43
REFRESH Command. . . . .	44
TERM Command. . . . .	44
TR ACT Command. . . . .	45
TR INACT Command. . . . .	45
URID Command. . . . .	46

## **Chapter 7: IDMS Log-Based ECCR Commands..... 47**

Introduction to the IDMS Log-Based ECCR Commands. . . . .	47
Starting the IDMS Log-Based ECCR. . . . .	48
CLOSE Command. . . . .	48
DISPLAY TRACE Command. . . . .	48
READ Command. . . . .	49
REFRESH Command. . . . .	49
STATISTICS Command. . . . .	50
STATUS Command. . . . .	52
TRACEOFF Command. . . . .	53
TRACEON Command. . . . .	53

## **Chapter 8: IMS Synchronous ECCR Commands..... 55**

Introduction to IMS Synchronous ECCR Commands. . . . .	55
--	----

IMS External Subsystem Commands. . . . .	55
xEDP-ABORT Command. . . . .	56
xEDP-CONTINUE Command. . . . .	56
xEDP-STAT Command. . . . .	57
xEDP-STATWTO Command. . . . .	57
IMS Console Command. . . . .	58
DISPLAY SUBSYS Command. . . . .	58
 <b>Chapter 9: IMS Log-Based ECCR Commands. . . . .</b>	 <b>59</b>
Introduction to the IMS Log-Based ECCR Commands. . . . .	59
Starting the IMS Log-Based ECCR. . . . .	59
CLOSE Command. . . . .	60
DISPLAY TRACE Command. . . . .	60
READ Command. . . . .	61
REFRESH Command. . . . .	61
STATISTICS Command. . . . .	62
STATUS Command. . . . .	65
TRACEOFF Command. . . . .	66
TRACEON Command. . . . .	66
 <b>Chapter 10: PowerExchange Agent Commands. . . . .</b>	 <b>68</b>
Introduction to the PowerExchange Agent Commands. . . . .	68
Starting the PowerExchange Agent. . . . .	69
DISPLAY Command. . . . .	69
DRAIN Command. . . . .	70
LOGCLOSE Command. . . . .	71
LOGOPEN Command. . . . .	71
LOGSPIN Command. . . . .	72
REPCLOSE Command. . . . .	72
REPOPEN Command. . . . .	73
REPOSITORYDSN Command. . . . .	73
REPSTATUS Command. . . . .	74
RESUME Command. . . . .	74
SHUTDOWN Command. . . . .	75
START Command. . . . .	75
STOP Command. . . . .	76
 <b>Chapter 11: PowerExchange Condense Commands. . . . .</b>	 <b>77</b>
Introduction to the PowerExchange Condense Commands. . . . .	77
Starting PowerExchange Condense. . . . .	78
Issuing PowerExchange Condense Commands. . . . .	79
Stopping PowerExchange Condense Processing. . . . .	79
CONDENSE Command. . . . .	80

DISPLAY STATUS Command. . . . .	80
FILESWITCH Command. . . . .	82
SHUTCOND Command. . . . .	83
SHUTDOWN Command. . . . .	84

## **Chapter 12: PowerExchange Listener Commands..... 86**

Introduction to PowerExchange Listener Commands. . . . .	86
Starting the PowerExchange Listener. . . . .	87
PowerExchange Listener Service on Windows. . . . .	90
Starting the PowerExchange Listener Service on Windows. . . . .	90
Testing the PowerExchange Listener Service on Windows. . . . .	90
Stopping the PowerExchange Listener Service on Windows. . . . .	91
CLOSE and CLOSE FORCE Commands. . . . .	91
DISPLAY ACTIVE and LISTTASK Commands. . . . .	93
DISPLAYSTATS Command. . . . .	94
DTLLSTSI Command. . . . .	102
STOPTASK Command. . . . .	103

## **Chapter 13: PowerExchange Logger for z/OS Commands..... 105**

Introduction to the PowerExchange Logger for z/OS Commands. . . . .	105
Methods of Issuing PowerExchange Logger Commands. . . . .	106
Syntax Rules and Guidelines for PowerExchange Logger Commands. . . . .	106
Starting the PowerExchange Logger for z/OS. . . . .	107
DEFINE_LOG Command. . . . .	107
DELETE_LOG Command. . . . .	110
DISPLAY OBJECT=CONNECTION Command. . . . .	111
DISPLAY OBJECT=LOG Command. . . . .	112
PRINT Command. . . . .	114
RESOLVE_INDOUBT Command. . . . .	115
STOP Command. . . . .	116
Post-Log Merge Commands. . . . .	117
DISPLAY and STATUS Commands. . . . .	117
QUIT and STOP Commands. . . . .	117
TRACEE, TRACEL, and TRACES Commands. . . . .	118

## **Chapter 14: PowerExchange Logger for Linux, UNIX, and Windows Commands..... 119**

Introduction to PowerExchange Logger for Linux, UNIX, and Windows Commands. . . . .	119
Starting the PowerExchange Logger for Linux, UNIX, and Windows. . . . .	120
CONDENSE Command. . . . .	125
DG Command. . . . .	126
DISPLAY ALL Command. . . . .	128
DISPLAY CPU Command. . . . .	129

DISPLAY EVENTS Command. . . . .	130
DISPLAY MEMORY Command. . . . .	130
DISPLAY RECORDS Command. . . . .	131
DISPLAY STATUS Command. . . . .	132
DL Command. . . . .	133
FILESWITCH Command. . . . .	134
SHUTCOND Command. . . . .	135
SHUTDOWN Command. . . . .	137

## **Chapter 15: pwxcmd Commands..... 139**

Introduction to the pwxcmd Commands. . . . .	139
General Syntax for pwxcmd Commands. . . . .	140
Command Processing for pwxcmd Commands. . . . .	141
Configuring PowerExchange Processes to Receive pwxcmd Commands. . . . .	142
Example 1: Configuring a PowerExchange Listener to Receive pwxcmd Commands. . . . .	143
Example 2: Configuring a PowerExchange Condense Process to Receive pwxcmd Commands	144
Example 3: Configuring a PowerExchange Logger Process to Receive pwxcmd Commands. .	145
Authorizing Users to Issue pwxcmd Commands. . . . .	146
Running pwxcmd Commands from the Command Line. . . . .	147
Scripting pwxcmd Commands. . . . .	147
pwxcmd Commands for the PowerExchange Listener. . . . .	148
pwxcmd close Command. . . . .	148
pwxcmd closeforce Command. . . . .	151
pwxcmd displaystats Command. . . . .	152
pwxcmd listtask Command. . . . .	154
pwxcmd stoptask Command. . . . .	156
pwxcmd Commands for PowerExchange Condense. . . . .	159
pwxcmd condense Command. . . . .	159
pwxcmd displaystatus Command. . . . .	161
pwxcmd fileswitch Command . . . . .	163
pwxcmd shutcond Command . . . . .	164
pwxcmd shutdown Command. . . . .	167
pwxcmd Commands for the PowerExchange Logger for Linux, UNIX, and Windows. . . . .	169
pwxcmd condense Command. . . . .	169
pwxcmd displayall Command. . . . .	169
pwxcmd displaycpu Command. . . . .	170
pwxcmd displayevents Command. . . . .	171
pwxcmd displaymemory Command. . . . .	172
pwxcmd displayrecords Command. . . . .	173
pwxcmd displaystats Command. . . . .	174
pwxcmd fileswitch Command . . . . .	175
pwxcmd shutcond Command . . . . .	176
pwxcmd shutdown Command . . . . .	177

Other pwxcmd Commands. . . . .	178
pwxcmd help Command. . . . .	178
pwxcmd version Command. . . . .	178
<b>Index. . . . .</b>	<b>179</b>



# Preface

The *PowerExchange Command Reference* contains reference information for the Informatica® PowerExchange® commands, including their syntax and usage. It is intended for PowerExchange administrators who are responsible for defining and managing PowerExchange change data capture and bulk data movement operations.

The manual includes commands that apply to the following Informatica products:

- PowerExchange for Adabas
- PowerExchange for CA Datacom
- PowerExchange for CA IDMS
- PowerExchange for DB2® for i5/OS
- PowerExchange for DB2 for Linux, UNIX, and Windows
- PowerExchange for DB2 for z/OS
- PowerExchange for IMS
- PowerExchange for Oracle
- PowerExchange for SQL Server
- PowerExchange for VSAM

## Informatica Resources

### Informatica Network

Informatica Network hosts Informatica Global Customer Support, the Informatica Knowledge Base, and other product resources. To access Informatica Network, visit <https://network.informatica.com>.

As a member, you can:

- Access all of your Informatica resources in one place.
- Search the Knowledge Base for product resources, including documentation, FAQs, and best practices.
- View product availability information.
- Review your support cases.
- Find your local Informatica User Group Network and collaborate with your peers.

## Informatica Knowledge Base

Use the Informatica Knowledge Base to search Informatica Network for product resources such as documentation, how-to articles, best practices, and PAMs.

To access the Knowledge Base, visit <https://kb.informatica.com>. If you have questions, comments, or ideas about the Knowledge Base, contact the Informatica Knowledge Base team at [KB\\_Feedback@informatica.com](mailto:KB_Feedback@informatica.com).

## Informatica Documentation

To get the latest documentation for your product, browse the Informatica Knowledge Base at [https://kb.informatica.com/\\_layouts/ProductDocumentation/Page/ProductDocumentSearch.aspx](https://kb.informatica.com/_layouts/ProductDocumentation/Page/ProductDocumentSearch.aspx).

If you have questions, comments, or ideas about this documentation, contact the Informatica Documentation team through email at [infa\\_documentation@informatica.com](mailto:infa_documentation@informatica.com).

## Informatica Product Availability Matrixes

Product Availability Matrixes (PAMs) indicate the versions of operating systems, databases, and other types of data sources and targets that a product release supports. If you are an Informatica Network member, you can access PAMs at

<https://network.informatica.com/community/informatica-network/product-availability-matrices>.

## Informatica Velocity

Informatica Velocity is a collection of tips and best practices developed by Informatica Professional Services. Developed from the real-world experience of hundreds of data management projects, Informatica Velocity represents the collective knowledge of our consultants who have worked with organizations from around the world to plan, develop, deploy, and maintain successful data management solutions.

If you are an Informatica Network member, you can access Informatica Velocity resources at <http://velocity.informatica.com>.

If you have questions, comments, or ideas about Informatica Velocity, contact Informatica Professional Services at [ips@informatica.com](mailto:ips@informatica.com).

## Informatica Marketplace

The Informatica Marketplace is a forum where you can find solutions that augment, extend, or enhance your Informatica implementations. By leveraging any of the hundreds of solutions from Informatica developers and partners, you can improve your productivity and speed up time to implementation on your projects. You can access Informatica Marketplace at <https://marketplace.informatica.com>.

## Informatica Global Customer Support

You can contact a Global Support Center by telephone or through Online Support on Informatica Network.

To find your local Informatica Global Customer Support telephone number, visit the Informatica website at the following link:

<http://www.informatica.com/us/services-and-training/support-services/global-support-centers>.

If you are an Informatica Network member, you can use Online Support at <http://network.informatica.com>.

# CHAPTER 1

## Introduction to PowerExchange Commands

This chapter includes the following topics:

- [PowerExchange Commands Overview, 11](#)
- [PowerExchange Command Syntax Conventions, 12](#)
- [Running PowerExchange Commands, 12](#)
- [Environment Variable Incompatibilities Between PowerExchange and PowerCenter, 13](#)

## PowerExchange Commands Overview

This publication describes the proper syntax, usage, and limitations of commands for controlling PowerExchange components and processes.

Commands for the following common components are covered:

- PowerExchange Agent
- PowerExchange Condense
- PowerExchange Listener
- PowerExchange Logger for Linux, UNIX, and Windows
- PowerExchange Logger for z/OS and Post-Log Merge Jobs

Also, commands for the following source-specific components are covered:

- Adabas log-based Environmental Change Capture Routine (ECCR)
- Batch/VSAM ECCR
- CIC/VSAM ECCR
- Datacom table-based ECCR
- DB2 for z/OS ECCR
- IDMS log-based ECCR
- IMS log-based ECCR
- IMS synchronous ECCR

**Note:** For your convenience, this publication includes some commands that are not specific to PowerExchange, such as z/OS commands that are used to start or stop a PowerExchange task or job.

The publication does not cover the following topics:

- Configuration parameters and statements, such as those in the DBMOVER configuration file. For information about setting these parameters, see the *PowerExchange Reference Manual* and the applicable CDC guides for your platforms.
- Parameters and control statements for the PowerExchange utilities.
- Sample JCL that is supplied as part of an MVS PowerExchange installation in the *hlq.SAMPLIB* library, where *hlq* is the high-level qualifier that you specified at installation.

This publication is organized to help you look up commands quickly. Each chapter addresses a PowerExchange source-specific change data capture component or a common component. The chapters for source-specific components precede those for common components. Within each chapter, the commands are arranged alphabetically by name. If a command name varies by platform, a generic name such as *Start commands* is used.

## PowerExchange Command Syntax Conventions

The following table describes the conventions that this manual uses to indicate the proper command syntax:

Convention	Description	Example
Monospaced font	Indicates the lines that are part of the general syntax or command example.	F <i>job_name</i> ,FILESWITCH
<i>Italics</i>	Indicates a variable for which you enter a specific value.	DSName= <i>data_set_name</i>
Square brackets ([ ])	Indicates an optional parameter or subparameter.	F <i>job_name</i> ,CLOSE [FORCE]
A vertical bar ( ), also called a <i>pipe</i> , between items	Indicates that you enter only one of the items.	DEBUG=ON OFF
A comma (,) between items	Indicates that you can enter more than one item.	{STARBA='rba',ENDRBA=x'rba'}
Curly brackets ({ }), also called <i>braces</i> , around multiple items	Indicates that you must enter at least one of the items within the brackets.	COPY={PRILOG SECLOG}

## Running PowerExchange Commands

The specific command notation and method of entry varies by platform. For example, MVS MODIFY (F) commands often require a comma (,) after a *job\_name* value and can be entered from the MVS operator console or an interface such as SDSF. Refer to the section for the command that you are interested in for specific information about entering a command.

# Environment Variable Incompatibilities Between PowerExchange and PowerCenter

When PowerCenter® and PowerExchange are installed on the same Linux, UNIX, or Windows machine, in certain cases, they have conflicting requirements for the PATH and LD\_LIBRARY\_PATH environment variables. To run correctly in these cases, PowerExchange and PowerCenter must run in separate environments.

This requirement applies when the PowerCenter Integration Service or PowerCenter Repository Service runs on the same machine as one of the following PowerExchange components:

- PowerExchange Listener
- PowerExchange Logger for Linux, UNIX, and Windows
- PowerExchange Navigator
- Any PowerExchange utility except the createdatamaps utility

The following table describes the restrictions that apply to the PATH and LD\_LIBRARY\_PATH variables in the PowerExchange and PowerCenter environments:

Environment	PATH	LD_LIBRARY_PATH
PowerExchange	\$INFA_HOME must not precede \$PWX_HOME. Otherwise, you cannot start the PowerExchange Listener or Logger from the command line.	LD_LIBRARY_PATH must not contain an entry for PowerCenter. This requirement ensures that PowerExchange utilities pick up their libraries from \$PWX_HOME only.
PowerCenter	The \$PWX_HOME entry must not precede the \$INFA_HOME entry.	The \$LD_LIBRARY_PATH variable definition must include both \$INFA_HOME and \$PWX_HOME, and \$INFA_HOME must precede \$PWX_HOME. For example:  \$INFA_HOME/server/bin:\$PWX_HOME: \$LD_LIBRARY_PATH

To set the correct environment for PowerExchange or PowerCenter instances on the same machine, use one of the following strategies:

- Always start PowerExchange and PowerCenter using separate user accounts, and set the environment variables appropriately for each account.
- Run the pwxsettask.sh or pwxsettask.bat script each time you start a PowerExchange component.

## CHAPTER 2

# Adabas Log-Based ECCR Commands

This chapter includes the following topics:

- [Introduction to the Adabas Log-Based ECCR Commands, 14](#)
- [Starting the Adabas Log-Based ECCR, 14](#)
- [CLOSE Command, 15](#)
- [DISPLAY TRACE Command, 16](#)
- [READ Command, 16](#)
- [REFRESH Command, 17](#)
- [STATISTICS Command, 17](#)
- [STATUS Command, 19](#)
- [TRACEOFF Command, 19](#)
- [TRACEON Command, 20](#)

## Introduction to the Adabas Log-Based ECCR Commands

Use the Adabas log-based ECCR commands to start or stop the Adabas log-based ECCR, display the status of change capture processing in the PLOGs, print statistics messages about captured changes by type, or control tracing.

Use the trace commands only at the direction of Informatica Global Customer Support.

Issue the commands from either the MVS operator console or an interface such as SDSF. To issue the commands, use the MVS MODIFY (F) command. You must include the ECCR started task name or job name in each command.

## Starting the Adabas Log-Based ECCR

The Adabas log-based ECCR can run as a started task or batch job. Usually, the Adabas ECCR runs as a started task. Sample JCL for the ECCR PROC is supplied in the ECCRADA member of the RUNLIB library.

When you ran the XIZZZ998 job during installation, that job copied the contents of the ECCRADA member to the xxxAD1EC member of the PROCLIB library, where xxx is the PowerExchange Agent prefix.

Before starting the ECCR started task, perform the following tasks:

- Create capture registrations for your Adabas change data sources.
- Verify that the PowerExchange ECCR DBID parameter value that is specified in the ADAECP1 member of the RUNLIB library matches the collection identifier in the Adabas capture registrations. If you use condense processing, also verify that this same DBID value is specified in the CAPTADA1 member of the RUNLIB library.
- Verify that the specified Adabas DBID is active.

## Syntax

To start the Adabas ECCR as a started task, use the MVS START (S) command:

```
S xxxAD1EC
```

The xxx variable is the three-character value that you specified for the **PowerExchange Agent/Logger Prefix** value when you ran the MVS Installation Assistant. Default is PWX. The value xxxAD1EC is the name of the PROCLIB member that contains the ECCR started task JCL.

## Usage Notes

Review the following usage notes:

- You must start one ECCR for each Adabas DBID or Nucleus to which PowerExchange requires access for change data capture.
- The ECCR, PowerExchange Logger, and PowerExchange Agent must all run on the same MVS system, except in a sysplex environment that uses Post-Log Merge processing.
- When the ECCR starts, it evaluates the PCAT data set to detect any new archived PLOG entries for capture processing. Thereafter, the ECCR checks for new PLOG entries whenever the wait period that is defined in the NO\_DATA\_WAIT or NO\_DATA\_WAIT2 parameter of the ADAECP1 member elapses.
- The PowerExchange ECCR terminates with return code 8 if Adabas capture registrations do not exist.
- The first time you start the ECCR, you must perform a cold start. For more information, see the *PowerExchange CDC Guide for z/OS*.
- To confirm that the PowerExchange ECCR connected to the PowerExchange Logger, review the messages in the EDMMSG data set.

# CLOSE Command

Stops the Adabas log-based ECCR. When you restart the ECCR, it resumes reading log records from where it left off. No changes are lost.

Alternatively, you can issue the MVS STOP (P) command.

## Syntax

For the CLOSE command, use the following syntax:

```
F eccr_task_name,{CLOSE|CLOS}
```

For the MVS STOP (P) command, use the following syntax:

```
P eccr_task_name
```

In both commands, the *eccr\_task\_name* variable is the name of the Adabas log-based ECCR started task or job.

## DISPLAY TRACE Command

Displays the number of traces that are active for the Adabas log-based ECCR and their tracing levels and filter criteria. Use this command only at the direction of Informatica Global Customer Support.

### Syntax

Use the following command syntax:

```
F eccr_task_name, {DISPLAY TRACE|DISP TRAC}
```

The *eccr\_task\_name* variable is the name of the Adabas log-based ECCR started task or job.

### Example Output

The following sample output results from the DISPLAY TRACE command when two traces are active that have a trace level of -1 and the specified filter criteria:

```
PWX-07994 Tracing is on
PWX-07996 Number of traces is 2
PWX-07997 Trace level=-1 filter=IMTCOLL,0,99
PWX-07997 Trace level=-1 filter=IMTCOLX,0,99
```

### RELATED TOPICS:

- [“TRACEOFF Command” on page 19](#)
- [“TRACEON Command” on page 20](#)

## READ Command

Starts another Adabas ECCR cycle of reading changes.

### Syntax

Use the following command syntax:

```
F eccr_task_name, READ
```

The *eccr\_task\_name* variable is the name of the Adabas log-based ECCR started task or job.



# REFRESH Command

Refreshes the list of Adabas files with active capture registrations that the Adabas log-based ECCR uses to capture change data.

Issue this command in the following situations to update the list of registered sources without shutting down the ECCR:

- After you add a capture registration.
- After you delete a capture registration.
- After you issue a PWXUCREG utility command that changes the registration status, such as the SUSPEND\_REGISTRATION or ACTIVATE\_REGISTRATION command. For more information, see the *PowerExchange Utilities Guide*.

To use this command, you must specify REFRESH\_ALLOWED=Y in the RUNLIB(ADAECRP1) member to which the DTLACFG DD statement in the ECCR JCL points.

When you issue the command, the ECCR begins shutdown processing but does not end. The ECCR rebuilds the list of registered sources and initiates a special warm start. The ECCR reprocesses any UOWs that were open when the command was issued, beginning with the earliest open UOW. After the ECCR has reprocessed all of the open UOWs up to the current ECCR log read position, it resumes normal processing.

## Syntax

Use the following command syntax:

```
F eccr_task_name,REFRESH
```

The *eccr\_task\_name* variable is the name of the Adabas log-based ECCR job or started task.

## Usage Notes

- For a REFRESH operation, the ECCR reprocesses all of the open UOWs so that it can capture data for any registration that was added or avoid capturing data for any registration that was deleted.
- For each registration that you add, you can control the point from which change capture begins for the new source. Before you issue the REFRESH command, stop change activity on the source, add the registration, and synchronize the source and target. Then issue REFRESH command and resume change activity on the source.
- For each registration that you delete, ensure that all in-flight changes have been captured and that extraction processing has caught up to the current ECCR position of the PLOGs before you issue the REFRESH command.

# STATISTICS Command

Prints statistics messages about the changes that the Adabas log-based ECCR captured. The messages are printed to the DTLLLOG and DTLOUT data sets.

Depending on the command parameter you specify, this command can print capture statistics since the start of the ECCR, at the end of a specific interval, since the last execution of the STATISTICS command, or when the ECCR finishes processing a PLOG. The ECCR always prints capture statistics at the end of its run.

**Important:** For the ECCR to print statistics for each PLOG, you must specify the CAPT\_STATS=Y parameter in the RUNLIB(ADAECRP1) member or specify the STATISTICS ON command after the ECCR starts.

## Syntax

Use the following command syntax to print message PWX-06182, which reports totals for changes captured since the start of the ECCR run:

```
F eccr_task_name,STATISTICS
```

Use the following command syntax to specify the interval for which to print message PWX-06181, which reports totals for changes captured for the interval:

```
F eccr_task_name,STATISTICS minutes
```

Use the following command syntax to print PWX-06153 statistics messages by registered source for the period since the last execution of the STATISTICS command:

```
F eccr_task_name,STATISTICS SINCE [TERSE]
```

Use the following command syntax to control whether PWX-06153 statistics messages are printed each time the ECCR finishes processing a PLOG:

```
F eccr_task_name,STATISTICS {OFF|ON}
```

In all of these commands, *eccr\_task\_name* is required. This variable represents the name of the Adabas log-based ECCR started task or batch job.

Do not specify multiple parameters on the same command, for example, *minutes* and SINCE.

## Parameter Descriptions

The following parameters are optional on the STATISTICS command:

### **minutes**

Defines the interval, in minutes, for which the ECCR collects statistics and prints a PWX-06181 message. This message reports the number of inserts, deletes, updates, and commits that were captured from a PLOG during the interval. The message also reports the position in the PLOG up to which changes were captured. Use this positional parameter to print statistics at a specific frequency, for example, every 60 minutes. This number of minutes overrides the CAPT\_STATS\_INTVL parameter value for the duration of the ECCR run. Valid values are 1 through 1440. No default is provided.

### **OFF**

Does not print PWX-06153 messages when a PLOG is closed. However, PWX-06153 messages are still be printed at the end of the ECCR run and can be printed for a subsequent STATISTICS *minutes* or STATISTICS SINCE command. The STATISTICS OFF command is analogous to the CAPT\_STATS=N parameter in the ECCR configuration member. When the command is issued, the ECCR prints message PWX- 07804 to indicate that statistics reporting is turned off.

### **ON**

Prints PWX-06153 messages each time the ECCR finishes processing a PLOG and closes it. The PWX-06153 messages report the number of inserts, deletes, and updates that were processed for each registered source, grouped by PLOG. The STATISTICS ON command is analogous the CAPT\_STATS=Y parameter in the ECCR configuration member. When this parameter is used, the ECCR prints message PWX-07803 to indicate that statistics reporting is turned on.

### **SINCE**

Prints PWX-06153 messages for the period since the last execution of the STATISTICS command. The PWX-06153 messages report the number of inserts, deletes, updates, and commits that were processed for each registered source during the SINCE period. Messages PWX-06183 and PWX-06184 identify the boundaries of this block of messages. Message PWX-06184 provides totals for all sources for the period. If you schedule the command with this parameter, you can print statistics with regular periodicity, such as daily or weekly.

## SINCE TERSE

Prints PWX-06153 messages only for registered sources for which the ECCR captured changes since the last execution of the STATISTICS command. The PWX-06183 message includes counts only for the registered sources for which inserts, updates, or deletes were committed.

### Usage Notes

- Before you specify the `STATISTICS minutes` command to change the interval at which statistics are reported, you must either specify `CAPT_STATS=Y` in the `RUNLIB(ADAECRP1)` member or issue the `STATISTICS ON` command.
- The interval that is specified in `STATISTICS minutes` command overrides any interval that is specified in the `CAPT_STATS_INTVL` parameter. In the message output, PWX-07809 reports the new interval that is set by the `STATISTICS` command.
- The interval value cannot be 0. If you enter the command `STATISTICS 0`, PowerExchange issues error message PWX-07808. If you set the `CAPT_STATS_INTVL` parameter to 0 in the `RUNLIB(ADAECRP1)` member, PowerExchange issues the error message PWX-00967.
- If you set the `CAPT_STATS_TERSE` parameter to N in the `RUNLIB(ADAECRP1)` member and then run `STATISTICS SINCE TERSE`, the `TERSE` option overrides the `CAPT_STATS_TERSE` setting for the `SINCE` period.

# STATUS Command

Prints message PWX-07905 to the SYSPRINT output file. This message indicates the status of Adabas ECCR processing in the PLOG file.

### Syntax

Use the following command syntax:

```
F eccr_task_name,STATUS
```

The *eccr\_task\_name* variable is the name of the Adabas log-based ECCR job or started task.

### Example Output

The command prints the following message:

```
PWX-07905 DTL07905 Current PLOG copy is plog_file latest time processed timestamp  
(ADABAS Capture)
```

# TRACEOFF Command

Disables tracing for the Adabas log-based ECCR. Use this command only at the direction of Informatica Global Customer Support.

### Syntax

Use the following command syntax:

```
F eccr_task_name,TRACEOFF [trace_id]
```

The *eccr\_task\_name* variable is the name of the Adabas log-based ECCR started task or job.

The optional *trace\_id* parameter is the identifier for a specific trace. Use this parameter to disable a particular trace. Without this parameter, the command disables all active traces.

### Example Output

One of the following messages is written to the DTLLOG file:

```
PWX-07800 Tracing turned off
PWX-07801 Trace trace_id has been turned off
```

### RELATED TOPICS:

- [“DISPLAY TRACE Command” on page 16](#)
- [“TRACEON Command” on page 20](#)

## TRACEON Command

Enables tracing for the Adabas log-based ECCR with specific filter criteria and a specific trace level. Trace information shows a history of Adabas ECCR events and is useful for diagnosing problems.

Use this command only at the direction of Informatica Global Customer Support.

### Syntax

Use the following command syntax:

```
F eccr_task_name,TRACEON trace_filter level_number
```

Where:

- *eccr\_task\_name* is the name of the Adabas log-based ECCR started task or job.
- *trace\_filter* and *level\_number* are values provided by Informatica Global Customer Support.

### Example Output

If the command is successful, the following message is written to the DTLLOG file:

```
PWX-07998 Trace trace_id level trace_level turned on
```

If you issue this command without valid trace filter criteria or a valid trace level, the following message is issued:

```
PWX-07282 The TRACEON command is missing the trace filter and trace level arguments
```

If a trace slot is unavailable, the following message is issued:

```
PWX-07999 No space for an additional trace
```

### RELATED TOPICS:

- [“DISPLAY TRACE Command” on page 16](#)
- [“TRACEOFF Command” on page 19](#)

## CHAPTER 3

# Batch VSAM ECCR Commands

This chapter includes the following topics:

- [Introduction to the Batch VSAM ECCR Commands, 21](#)
- [DISPLAY Command, 21](#)
- [START Command, 22](#)
- [STOP Command, 22](#)

## Introduction to the Batch VSAM ECCR Commands

Use the batch VSAM ECCR commands to perform the following ECCR management tasks on an MVS system:

- Display the number of active and inactive batch VSAM ECCR interfaces on the MVS system.
- Start the batch VSAM ECCR interface.
- Stop the batch VSAM ECCR interface.
- Reload the batch VSAM ECCR interface.

Issue the commands from the MVS operator console or an interface such as SDSF. Because the PowerExchange Agent processes batch VSAM ECCR interface commands, you must precede each command with the MVS command prefix for the PowerExchange Agent. Use the command prefix that you specified for the CmdPrefix parameter in the AGENTCTL member of the RUNLIB library. If you did not define the CmdPrefix parameter, use the default command prefix, which is the AGENTID parameter value in the AGENTCTL member. In the syntax, the command prefix is represented by the *cmd\_prefix* variable.

## DISPLAY Command

Displays the number of active and inactive batch VSAM ECCR interface modules that have been loaded on the MVS system.

### Syntax

Use the following command syntax:

```
cmd_prefix DISPLAY VSAMECCR
```

# START Command

Activates the batch VSAM ECCR interface manually, regardless of the value that is specified for the PowerExchange Agent CCVACTIVE parameter in the AGENTCTL member of the RUNLIB library.

The CCVACTIVE parameter controls whether the VSAM batch ECCR is activated automatically at PowerExchange Agent startup.

If you want to load a new batch VSAM ECCR interface module into Extended Common Storage Area (ECSA) or reload an existing one that has changed, specify VSAMECCR/RELOAD instead of VSAMECCR in the command. The command then places the module in an active state at the beginning of the LPA queue.

**Note:** If you activate the batch VSAM ECCR for one PowerExchange Agent, the ECCR becomes active globally for all PowerExchange Agents on the MVS image. Consequently, if you are running multiple PowerExchange Agents on an MVS image, you can activate the batch VSAM ECCR once, with only one PowerExchange Agent command prefix.

## Syntax

To start the batch VSAM ECCR interface, use the following command syntax:

```
cmd_prefix START VSAMECCR
```

To load a new batch VSAM ECCR interface module into ECSA, use the following command syntax:

```
cmd_prefix START VSAMECCR/RELOAD
```

# STOP Command

Stops the batch VSAM ECCR. This action disables the ECCR for the entire MVS system. Any change data capture activity that is in progress continues until the data set is closed. Thereafter, any additional changes to VSAM data sets are not captured.

If you want to stop change capture for a particular VSAM data set, set the status of the associated capture registration to *inactive* from the PowerExchange Navigator.

## Syntax

Use the following command syntax:

```
cmd_prefix STOP VSAMECCR
```

For more information about stopping the batch VSAM ECCR, see the *PowerExchange CDC Guide for z/OS*.

## CHAPTER 4

# CICS/VSAM ECCR Commands

This chapter includes the following topics:

- [Introduction to the CICS/VSAM ECCR Commands, 23](#)
- [DISPLAY Command, 24](#)
- [EXITPGMS Command, 24](#)
- [HELP Command, 25](#)
- [INITIALIZE Command, 26](#)
- [OPTIONS Command, 27](#)
- [REFRESH Command, 28](#)
- [RESTART Command, 29](#)
- [TERMINATE Command, 29](#)

## Introduction to the CICS/VSAM ECCR Commands

Use the CICS/VSAM ECCR commands to perform the following ECCR management tasks on a z/OS system:

- Start the CICS/VSAM ECCR.
- Display all open VSAM data sets that are registered for change data capture.
- Display a Help panel that describes the CICS/VSAM ECCR commands.
- Display or refresh the display of the CICS/VSAM CDC override options that are currently specified in the //EDMKOVRD DD statement in the CICS region startup JCL.
- Re-initialize the CICS/VSAM ECCR in the CICS region after changing the CDC override options that are specified in the //EDMKOVRD DD statement.
- Stop the CICS/VSAM ECCR.
- List all of the exit programs that are defined at the CICS global user exit points and task-related user exit point that PowerExchange uses for CICS/VSAM CDC.

Issue the commands as CICS commands from the CICS terminal. Enter the commands with the “EDMC” default CICS transaction code for the CICS/VSAM ECCR. Use the following syntax:

`EDMC command`

**Note:** The command reference topics use this syntax.

Alternatively, you can also issue the commands to the CICS region by using the MVS MODIFY (F) command. Use the following syntax:

```
F cics_region,EDMC command
```

## DISPLAY Command

Displays the names of the VSAM data sets that are registered for change data capture and that have been opened since the CICS/VSAM ECCR initialized.

You can issue the EDMC transaction with this keyword only from a CICS terminal. This information is then displayed at the terminal.

### Syntax

Use the following command syntax:

```
EDMC DISPLAY
```

Short form:

```
EDMC DISP
```

### Example Output

The following sample output indicates that six VSAM data sets are participating in change capture, but three data sets are not participating in change capture because the `DSN=dataset_name, NOCAPTURE` or `CAPTURE_vsam_dataset_type=OFF` override option in the EDMKOV RD DD data set excludes them:

File Name	Data set Name	Type	Warn/Error
DFHCSD	<<EDM File Open currently in progress>>		
EDMFIL01	PWX.VSAM.EDMVES01	ESDS	
EDMFIL02	PWX.VSAM.EDMVES02	KSDS	NoCapture
EDMFIL03	PWX.VSAM.EDMVES03	ESDS	
EDMFIL05	PWX.VSAM.EDMVES05	KSDS	NoCapture
EDMFIL06	PWX.VSAM.EDMVES06	KSDS	NoCapture
EDMFIL07	PWX.VSAM.EDMVES07	ESDS	
EDMFIL08	PWX.VSAM.EDMVES08	ESDS	
EDMFIL09	PWX.VSAM.EDMVES09	ESDS	
EDMFIL10	PWX.VSAM.EDMVES10	ESDS	Rcv (None)

## EXITPGMS Command

Lists all of the exit programs that are defined at the CICS task-related exit point (TRUE) and global user exit points (GLUEs) that PowerExchange uses for CICS/VSAM CDC.

### Syntax

```
EDMC EXITPGMS
```

Short form:

```
EDMC XPGM
```



## Example Output

The following example output lists the CICS TRUE and GLUE exit points that the CICS/VSAM CDC uses:

```
EDMC XPGM          PWXEDM CICS/VSAM Change Capture      Init Date: 10/23/15
ID: CT52           Exit Points Program Display         Time: 22:45:06

Exit   Entry   Program  Entry Pt Program Exit Prog Global Work Area (GWA)
Point  Name      Name     Address  Status  Attributes Name      Address  Size
<TRUE> DLI        DFHEDP   9B7A4918 Started Threadsaf 00000000
<TRUE> DFHQSTRU  DFHLETRU 9B6FD928 Started Threadsaf 00000000
<TRUE> EDMKTRUE EDMKTRUE 9BAE4E28 Started Quasirent EDMKTRUE 00056150 00064
XFCSREQ EDMKCT52 EDMKCT52 800AF028 Started Quasirent EDMKTRUE 00056150 00064
XFCSREQ EDMKCT52 EDMKCT52 800AF028 Started Quasirent EDMKTRUE 00056150 00064
XF CFRIN  EDMKIR69 EDMKIR69 9A8C5200 Started Quasirent EDMKTRUE 00056150 00064
XF CFROUT EDMKIR69 EDMKIR69 9A8C5200 Started Quasirent EDMKTRUE 00056150 00064
XF CBOUT  EDMKBO69 EDMKBO69 9BAF9E28 Started Threadsaf EDMKTRUE 00056150 00064
XF CLDEL  USERFCLD USERFCLD 9A5F9E28 Started Quasirent EDMKFCLD 1BD3E000 00004
XF CLDEL  EDMKLD69 EDMKLD69 9BAE5E28 Started Threadsaf EDMKTRUE 00056150 00064
```

For each exit point, the output shows the entry name and address, the exit program name and status, and the Global Work Area (GWA) name, address, and size.

## Usage Notes

- If the CICS/VSAM ECCR captures change data from ESDS data sets, use the command output to verify that the XFCLDEL exit point appears last. If multiple programs are defined at the XFCLDEL exit point, also verify that the EDMKLDnn exit program is last, as required for CDC. This program handles logical deletes for backouts.
- If conflicts occur between PowerExchange exit programs and any programs of third-party software products at the File Control Domain exit points, XFCRIN and XFROUT, provide the output of this command to Informatica Global Customer Support for troubleshooting purposes.

# HELP Command

Displays a Help panel that lists the CICS/VSAM ECCR commands, including their names and functions.

You can issue the EDMC transaction with the HELP keyword only from a CICS terminal. The help information is then displayed at the CICS terminal.

## Syntax

Use the following command syntax:

```
EDMC HELP
```

## Example Output

The following example output provides a brief description of each CICS/VSAM ECCR command:

```
EDMC HELP          PWXEDM CICS/VSAM Change Capture
                   List of Valid EDMC Command Operands

EDMC DISP - DISPlay CICS/VSAM Change Capture participating Files
EDMC HELP - Produces this helpful display of valid commands
EDMC INIT - INITialize CICS/VSAM Change Capture for the CICS region
EDMC OPTS - Display OPTionS from the //EDMKOVRD DD file in CICS startup
EDMC REFR - REFResh Options from the //EDMKOVRD DD file in CICS startup
```



operates as if you had issued the CICS command `CEMT PERFORM SHUTDOWN IMMEDIATE`. This action ensures change data integrity.

If you did not specify `CCERR=ABEND` in the `EDMSDIR` options module, after the ECCR ends abnormally during initialization, you can issue the `EDMC RESTART` command. This command issues a `TERMINATE` command followed by an `INITIALIZE` command. However, on a busy system, this method might cause change data loss because data is not captured during the period between ECCR termination and re-initialization.

- If you need to begin capturing changes for an additional VSAM file after the ECCR is running, verify that the capture registration is active and then close and reopen the VSAM file in CICS.
- CICS/VSAM CDC uses exit programs defined at multiple CICS global exit points to capture changes to VSAM data sets. The `INIT` command causes the exit programs to be dynamically added, and the `TERM` command causes the exit programs to be dynamically removed. If other exit programs are active at the same global exit points on the system where the CICS/VSAM ECCR runs, change data capture problems can occur if the CICS/VSAM CDC exit programs get control in the improper order. For more information, see the *PowerExchange CDC Guide for z/OS*.

## OPTIONS Command

Displays the CICS/VSAM CDC override options that are currently specified in the `EDMKOVRD` DD statement in the CICS region startup JCL or in the data set to which this DD statement points.

You can specify global overrides that enable or disable change data capture by type of VSAM data set and that control some processing for recoverable ESDS data sets, including overriding return codes from other active exit programs at the `XFCLDEL` exit point and allowing backout failures after a transaction abend or syncpoint rollback. You can also specify the same type of overrides for specific VSAM data sets.

Command output is displayed on the z/OS operator console or CICS terminal and logged to the CICS CSMT destination.

### Syntax

Use the following command syntax:

```
EDMC OPTIONS
```

Short form:

```
EDMC OPTS
```

### Example Output

The following example output shows global overrides and overrides that apply only to specific VSAM data sets:

```
EDMC OPTS          PWXEDM CICS/VSAM Change Capture      Init Date: 10/23/15
ID: CT52           Override Options Display             Time: 22:45:06
                                     Press ENTER for more...
....+....1....+....2....+....3....+....4....+....5....+....6....+....7....+....8
-----0-----0-----0-----0-----0-----0-----0-----0-----0-----0

* EDM Override Options were last refreshed at: 22:45:06 on 10/23/15 from:
*   INFAABC1.EDMKOVRD.SYSIN(INFAAB52)
*   comment line
*   This is line # 1
*   -----
*
* EDM Global Region Overrides:
*
```

```

    CAPTURE_ESDS=OFF          <-- Default value
*   CAPTURE_ESDS=ON
*
*   CAPTURE_KSDS=OFF
    CAPTURE_KSDS=ON          <-- Default value
*
*   CAPTURE_RRDS=OFF
    CAPTURE_RRDS=ON          <-- Default value
*
*   CAPTURE_CMDT=OFF
    CAPTURE_CMDT=ON          <-- Default value
*
    BACKOUTRC=OVERRIDE        <-- Default value
*   BACKOUTRC=NOOVERRIDE
*
    ESDSFAIL=NO               <-- Default value
*   ESDSFAIL=YES
*
* -----
*
* EDM Dataset Specific Overrides:
*
    DSN=INFAABC1.VSAM.EDMVKSXX CAPTURE
    DSN=INFAABC1.VSAM.EDMVKS04 CAPTURE
*
* DSN=INFAABC1.VSAM.EDMVES01 CAPTURE.XX OUTOVERRIDE BACKOUTFAIL
    DSN=INFAABC1.VSAM.EDMVES01 CAPTURE BACKOUTOVERRIDE BACKOUTFAIL

```

For more information about the CICS/VSAM CDC override options, see the *PowerExchange CDC Guide for z/OS*.

## REFRESH Command

Refreshes the display of the CICS/VSAM CDC override options that are currently specified in the EDMKOV RD DD statement in the CICS region startup JCL or in the data set to which this DD statement points. Also validates these options and identifies any syntax errors. Use this command after you change the override options to identify any syntax errors.

Command output is logged to the CICS CSMT destination. The output displays the type of information as the OPTIONS command.

### Syntax

Use the following command syntax:

```
EDMC REFRESH
```

Short form:

```
EDMC REFR
```

# RESTART Command

Re-initializes the CICS/VSAM ECCR in the CICS region by issuing the EDMC TERMINATE command followed by the EDMC INITIALIZE command.

You can issue the RESTART command after changing CDC override options in the //EDMKOVRD DD statement in the CICS region startup JCL or in the data set to which this DD statement points to make your changes take effect.

## Syntax

Use the following command syntax:

```
EDMC RESTART
```

Short form:

```
EDMC REST
```

## Usage Notes

Informatica recommends that you use the RESTART command only if the ECCR runs on a test system or on a system with no file I/O activity that is critical to continuous change capture. Because the ECCR cannot capture data between the time that the TERMINATE is invoked and the INITIALIZE command is invoked, change data loss might occur.

# TERMINATE Command

Terminates the CICS/VSAM ECCR that is running in the CICS region. The ECCR stops capturing change data from all VSAM source data sets immediately and then disconnects from the PowerExchange Logger for z/OS. Messages that indicate the number and type of changes captured since the data sets were last opened are written to EDMMSG data set.

Also dynamically removes the PowerExchange exit programs that run at the CICS task-related user exit point and global use exit points that PowerExchange uses for CICS/VSAM CDC.

**Important:** Use the EDMC TERM command only at the direction of Informatica Global Customer Support. Use of this command to terminate PowerExchange change data capture can cause data loss or other unexpected results if the exit points within the CICS region that the Power Exchange CICS/VSAM ECCR uses are also in use by other exit programs. Instead, let CICS request that the ECCR initiate its termination when you shut down the CICS region.

## Syntax

Use the following command syntax:

```
EDMC TERMINATE
```

Short form:

```
EDMC TERM
```

## Example Output

The following example output results from a TERMINATE command:

```
PWXEDM172809I Change Capture counts for EDM.ABC.EDMVES04: Insert=0, Update=20, Delete=0
PWXEDM172809I Change Capture counts for EDM.ABC.EDMVES03: Insert=10, Update=0, Delete=0
PWXEDM172809I Change Capture counts for EDM.ABC.EDMVES05: Insert=20, Update=0, Delete=0
PWXEDM172841I EDM ECCR ECCRCT41 disconnected from EDM Logger A10L, Log
```

```
RBA=X'0000019EAA160000'  
PWXEDM172818I Left XCF group 'A10L' as member 'ECCRCT41'  
PWXEDM172829I EDM ECCR sent 50 records to Logger A10L (50 change records)
```

**Note:** The PWXEDM172809I message is not displayed for a source data set if the Insert, Update, and Delete counts are all 0.

### Usage Notes

- Before you issue the EDMC TERM command, quiesce the CICS region.
- If you terminate the CICS/VSAM ECCR while transactions on data sources are updating VSAM data sets that are registered for change data capture, change data loss is likely to occur.
- CICS/VSAM CDC uses exit programs defined at multiple CICS global exit points to capture changes to VSAM data sets. The INIT command causes the exit programs to be dynamically added, and the TERM command causes the exit programs to be dynamically removed. If other exit programs are active at the same global exit points on the system where the CICS/VSAM ECCR runs, change data capture problems can occur if the CICS/VSAM CDC exit programs get control in the improper order. For more information, see the *PowerExchange CDC Guide for z/OS*.

## CHAPTER 5

# Datacom Table-Based ECCR Commands

This chapter includes the following topics:

- [Introduction to the Datacom Table-Based ECCR Commands, 31](#)
- [Starting the Datacom Table-Based ECCR, 32](#)
- [CLOSE Command, 32](#)
- [DISPLAY TRACE Command, 32](#)
- [READ Command, 33](#)
- [REFRESH Command, 33](#)
- [STATISTICS Command, 34](#)
- [STATUS Command, 36](#)
- [TRACEOFF Command, 37](#)
- [TRACEON Command, 37](#)

## Introduction to the Datacom Table-Based ECCR Commands

Use the standard MVS START and STOP commands to start or stop the Datacom table-based ECCR. Also, you can use the PowerExchange STATISTICS command to print statistics messages about captured inserts, updates, deletes, and commits.

Issue the commands from the MVS operator console or an interface such as SDSF. You must include the ECCR started task name or job name in the command.

# Starting the Datacom Table-Based ECCR

To start the Datacom table-based ECCR as a started task, use the MVS START (S) command.

## Syntax

Use the following command syntax:

```
S eccr_task_name
```

The *eccr\_task\_name* variable is the Datacom table-based ECCR started task name or job.

## Usage Notes

The first time you start the ECCR, perform a cold start.

For more information, see the *PowerExchange CDC Guide for z/OS*.

# CLOSE Command

Stops the Datacom table-based ECCR. When you restart the ECCR, it resumes reading log records from where it left off. No changes are lost.

Alternatively, you can issue the MVS STOP (P) command.

## Syntax

For the CLOSE command, use the following syntax:

```
F eccr_task_name, {CLOSE|CLOS}
```

For the MVS STOP (P) command, use the following syntax:

```
P eccr_task_name
```

In both commands, the *eccr\_task\_name* variable is the name of the Datacom table-based ECCR started task or job.

# DISPLAY TRACE Command

Displays the number of traces that are active for the Datacom table-based ECCR and their tracing levels and filter criteria. Use this command only at the direction of Informatica Global Customer Support.

## Syntax

Use the following command syntax:

```
F eccr_task_name, {DISPLAY TRACE|DISP TRAC}
```

The *eccr\_task\_name* variable is the name of the Datacom table-based ECCR job or started task.



## Example Output

The following example output results from the DISPLAY TRACE command when two traces are active that have a trace level of -1 and the specified filter criteria:

```
PWX-07994 Tracing is on
PWX-07996 Number of traces is 2
PWX-07997 Trace level=-1 filter=IMTCOLL,0,99
PWX-07997 Trace level=-1 filter=IMTCOLX,0,99
```

# READ Command

Starts another Datacom table-based ECCR cycle of reading changes.

## Syntax

Use the following command syntax:

```
F eccr_task_name,READ
```

The *eccr\_task\_name* variable is the name of the Datacom table-based ECCR started task or job.

# REFRESH Command

Refreshes the list of Datacom records with active capture registrations that the Datacom table-based ECCR uses to capture change data.

Issue this command in the following situations to update the list of registered sources without shutting down the ECCR:

- After you add a capture registration.
- After you delete a capture registration.
- After you issue a PWXUCREG utility command that changes the registration status, such as the SUSPEND\_REGISTRATION or ACTIVATE\_REGISTRATION command. For more information, see the *PowerExchange Utilities Guide*.

To use this command, you must specify REFRESH\_ALLOWED=Y in the RUNLIB(ECCRDCMP) member to which the DTLACCFG DD statement in the ECCR JCL points.

When you issue the command, the ECCR begins shutdown processing but does not end. The ECCR rebuilds the list of registered sources and initiates a special warm start. The ECCR reprocesses any UOWs that were open when the command was issued, beginning with the earliest open UOW. After the ECCR has reprocessed all of the open UOWs up to the current log read position, it resumes normal processing.

## Syntax

Use the following command syntax:

```
F eccr_task_name,REFRESH
```

The *eccr\_task\_name* variable is the name of the Datacom table-based ECCR job or started task.

## Usage Notes

- For a REFRESH operation, the ECCR reprocesses all of the open UOWs so that it can capture data for any registration that was added or avoid capturing data for any registration that was deleted.
- For each registration that you add, you can control the point from which change capture begins for the new source. Before you issue the REFRESH command, stop change activity on the source, add the registration, and synchronize the source and target. Then issue REFRESH command and resume change activity on the source.
- For each registration that you delete, ensure that all in-flight changes have been captured and that extraction processing has caught up to the current ECCR position in the change stream before you issue the REFRESH command.

# STATISTICS Command

Prints statistics messages about the changes that the Datacom table-based ECCR captured. The messages are printed to the DTLLOG and DTLOUT data sets.

Depending on the command parameter you specify, this command can print capture statistics since the start of the ECCR, at the end of a specific interval, since the last execution of the STATISTICS command, or when the ECCR reaches the end of the change stream in the Datacom CDC tables. The ECCR always prints capture statistics at the end of its run.

**Important:** For the ECCR to report statistics for each change stream read, you must set the CAPT\_STATS parameter to Y the RUNLIB(ECCRDCMP) member or specify the STATISTICS ON command after the ECCR starts.

## Syntax

Use the following command syntax to print message PWX-06182, which reports totals for changes captured since the start of the ECCR run:

```
F eccr_task_name,STATISTICS
```

Use the following command syntax to specify the interval for which to print message PWX-06181, which reports totals for changes captured during the interval:

```
F eccr_task_name,STATISTICS minutes
```

Use the following command syntax to print PWX-06153 statistics messages by registered source for the period since the last execution of the STATISTICS command:

```
F eccr_task_name,STATISTICS SINCE [TERSE]
```

Use the following command syntax to control whether statistics are printed each time the ECCR reaches the end of the change stream in the Datacom CDC tables:

```
F eccr_task_name,STATISTICS {OFF|ON}
```

In all of these commands, the *eccr\_task\_name* is required. This variable represents the name of the Datacom table-based ECCR started task or batch job.

Do not specify multiple parameters on the same command, for example, *minutes* and SINCE.

## Parameter Descriptions

The following parameters are optional on the STATISTICS command:

### **minutes**

Defines the interval, in minutes, for which the ECCR collects statistics and prints a PWX-06181 message. This message reports the number of inserts, deletes, updates, and commits that were captured during the interval. Use this positional parameter to print statistics at a specific frequency, for example, every 60 minutes. This number of minutes overrides the CAPT\_STATS\_INTVL parameter value for the duration of the ECCR run. Valid values are 1 through 1440. No default is provided.

### **OFF**

Does not print PWX-06153 messages when the ECCR reaches the end of the change stream in the Datacom CDC tables. However, PWX-06153 messages are still be printed at the end of the ECCR run and can be printed for a subsequent STATISTICS *minutes* or STATISTICS SINCE command. The STATISTICS OFF command is analogous to the CAPT\_STATS=N parameter in the ECCR configuration member. When the command is issued, the ECCR prints message PWX- 07804 to indicate that statistics reporting is turned off.

### **ON**

Prints PWX-06153 messages at the end of the ECCR run and at the end of the change stream. The PWX-06153 messages report the number of inserts, deletes, and updates that were processed for each registered source, grouped by change stream read. The STATISTICS ON command is analogous the CAPT\_STATS=Y parameter in the ECCR configuration member. When this parameter is used, the ECCR prints message PWX-07803 to indicate that statistics reporting is turned on.

### **SINCE**

Prints PWX-06153 messages for the period since the last execution of the STATISTICS command. The PWX-06153 messages report the number of inserts, deletes, updates, and commits that were processed for each registered source during this period. Messages PWX-06183 and PWX-06184 identify the boundaries of this block of messages. Message PWX-06184 provides totals for all sources for the period. If you schedule the command with this parameter, you can print statistics with regular periodicity, such as daily or weekly.

### **SINCE TERSE**

Prints PWX-06153 messages only for registered sources for which the ECCR captured changes since the last execution of the STATISTICS command. The PWX-06183 message includes counts only for the registered sources for which inserts, updates, or deletes were committed.

## **Example Output**

The following statistics messages are printed as a result of the STATISTICS command when the ECCR parameter CAPT\_STATS\_INTVL=10 is specified:

```
PWX-07702 DCOM TB CDC, ECCR, Thu May 17 14:02:45.934 2012, Registration read started.
PWX-06118 Registration loaded: DBName: MUF12345 RegName: td7crcol.1 Creator: ab_coll
Table: AB_COLL_COL
PWX-07745 DCOM TB CDC, ECCR, Thu May 17 14:02:46.881 2012, Registration
active...,DB:MUF12345,Name:td7crcol.1,Creator:ab_coll,Table:AB_COLL_COL.
PWX-06118 Registration loaded: DBName: MUF12345 RegName: td7crcrs.1 Creator: ab_crse
Table: AB_CRSE_CRS
PWX-07745 DCOM TB CDC, ECCR, Thu May 17 14:02:46.886 2012, Registration
active...,DB:MUF12345,Name:td7crcrs.1,Creator:ab_crse,Table:AB_CRSE_CRS.
PWX-07703 DCOM TB CDC, ECCR, Thu May 17 14:02:46.978 2012, Registration read completed.
PWX-07805 Statistics interval subtask started, collection interval 10 minute(s)
PWX-07701 DCOM TB CDC, ECCR, Thu May 17 14:03:22.578 2012, Initialisation completed.
PWX-06181 Interval 12/05/17 14:13:22 I=0000000000003 D=0000000000001 U=0000000000004
C=0000000000007 Log=00/01/01 00:00:00.00
PWX-06181 Interval 12/05/17 14:23:22 I=0000000000005 D=0000000000000 U=0000000000004
C=0000000000008 Log=00/01/01 00:00:00.00
PWX-07812 Latest time processed 00/01/01 00:00:00.000000 Records processed 40 (Datacom
capture)
PWX-07813 Datacom RTTB CDC, Reader Task Latest----->
captured data 00/01/01 00:00:00.000000.
```

```

PWX-07814 Datacom RTTB CDC, Reader Task Latest----->
              records processed 0000000040.
PWX-06153 td7crrcol.1      I=0000000000008 D=0000000000001 U=0000000000004
PWX-06153 td7crrcrs.1      I=0000000000000 D=0000000000000 U=0000000000004
PWX-06182 Totals 12/05/17 15:20:37 I=0000000000008 D=0000000000001 U=0000000000008
C=0000000000015 Log=00/01/01 00:00:00.00

```

In this example, the PWX-06153 messages show the number of inserts, deletes, and updates by registration for a Reader task run. The PWX-06181 messages provides totals for each 10-minute interval, and the PWX-06182 message provides totals for the entire run. Messages PWX-06181 and PWX-6182 report the log position with zeroes because the ECCR reads changes from the Datacom CDC tables instead of from database log files.

The following messages are printed if you add *minutes* to the STATISTICS command, for example, `F eccr_task_name, STATISTICS 2:`

```

PWX-07809 Statistics interval. New interval command accepted
PWX-07810 Statistics interval subtask, collection interval updated to 2 minute(s)
PWX-06181 Interval 12/05/17 15:48:14 I=0000000000001 D=0000000000000 U=0000000000000
C=0000000000001 Log=00/01/01 00:00:00.00
PWX-06181 Interval 12/05/17 15:50:14 I=0000000000000 D=0000000000001 U=0000000000002
C=0000000000003 Log=00/01/01 00:00:00.00

```

## Usage Notes

- Before you specify the `STATISTICS minutes` command to change the interval at which statistics are reported, you must either specify `CAPT_STATS=Y` in the `RUNLIB(ECCRDcmp)` member or issue the `STATISTICS ON` command.
- The interval that is specified in `STATISTICS minutes` command overrides any interval that is specified in the `CAPT_STATS_INTVL` parameter. In the message output, PWX-07809 reports the new interval that is set by the `STATISTICS` command.
- The interval value cannot be 0. If you enter the command `STATISTICS 0`, PowerExchange issues error message PWX-07808. If you set the `CAPT_STATS_INTVL` parameter to 0 in the `RUNLIB(ECCRDcmp)` member, PowerExchange issues the error message PWX-00967.
- If you set the `CAPT_STATS_TERSE` parameter to N in the `RUNLIB(ECCRDcmp)` member and then run `STATISTICS SINCE TERSE`, the `TERSE` option overrides the `CAPT_STATS_TERSE` setting for the `SINCE` period.

# STATUS Command

Prints messages to the SYSPRINT output file that indicate the current status of Datacom table-based ECCR processing in the change stream.

## Syntax

Use the following command syntax:

```
F eccr_task_name, STATUS
```

The `eccr_task_name` variable is the name of the Datacom table-based ECCR started task or job.

## Example Output

The command prints the following messages:

```

PWX-07812 Latest time processed timestamp Records processed number (eccr_type)
PWX-07813 eccr_type, Reader Task point_in_processing captured data timestamp
PWX-07814 eccr_type, Reader Task point_in_processing records processed number_of_records

```

# TRACEOFF Command

Disables tracing for the Datacom table-based ECCR for a specific trace or all active traces. Use this command only at the direction of Informatica Global Customer Support.

## Syntax

Use the following command syntax:

```
F eccr_task_name,TRACEOFF [trace_id]
```

The *eccr\_task\_name* variable is the name of the Datacom table-based ECCR started task or job.

The optional *trace\_id* parameter is the identifier for a specific trace. Include this parameter to disable a particular trace or omit the parameter to disable all active traces.

## Example Output

Depending on whether you include the *trace\_id* parameter, one of the following messages is written to the DTLLOG file:

```
PWX-07800 Tracing turned off
PWX-07801 Trace trace_id has been turned off
```

# TRACEON Command

Enables tracing for the Datacom table-based ECCR with specific filter criteria and a specific trace level. Trace information shows a history of Datacom ECCR events and is useful for diagnosing problems.

Use this command only at the direction of Informatica Global Customer Support.

## Syntax

Use the following command syntax:

```
F eccr_task_name,TRACEON trace_filter,trace_level
```

Where:

- *eccr\_task\_name* is the name of the Datacom table-based ECCR started task or job.
- *trace\_filter* and *trace\_level* are values provided by Informatica Global Customer Support.

## Example Output

If the command is successful, the following message is written to the DTLLOG file:

```
PWX-07998 Trace trace_id level trace_level turned on
```

If you issue this command without valid trace filter criteria or a valid trace level, the following message is issued:

```
PWX-07282 TRACEON should have a trace filter and a level as arguments
```

If a trace slot is unavailable, the following message is issued:

```
PWX-07999 No space for an additional trace
```

## CHAPTER 6

# DB2 for z/OS ECCR Commands

This chapter includes the following topics:

- [Introduction to the DB2 for z/OS ECCR Commands, 38](#)
- [Starting the DB2 for z/OS ECCR, 39](#)
- [Stopping the DB2 for z/OS ECCR, 39](#)
- [DISPLAY Command, 40](#)
- [QUIESCE Command, 43](#)
- [REFRESH Command, 44](#)
- [TERM Command, 44](#)
- [TR ACT Command, 45](#)
- [TR INACT Command, 45](#)
- [URID Command, 46](#)

## Introduction to the DB2 for z/OS ECCR Commands

Use the DB2 for z/OS ECCR commands to perform the following tasks on an MVS system:

- Display statistics about DB2 ECCR processing activity.
- Perform a controlled shutdown of the DB2 ECCR after all open UOWs complete.
- Refresh the DB2 ECCR after updating capture registrations or the ECCR control statements in the REPDB2OP member of the RUNLIB library, which is allocated by the REPL2OPT DD in the ECCR JCL.
- Display the open DB2 units of recovery (URs) as detected by the DB2 ECCR based on its current point of processing in the DB2 log.
- Commit outstanding DB2 URs.

To issue the DB2 for z/OS ECCR commands, use the MVS MODIFY (F) command. You must specify the ECCR started task name or job name in each command followed by a comma (,). In the syntax, this name is indicated by *task\_name*. You can issue the commands from the MVS operator console or from an interface such SDSF.

The commands for starting and stopping the ECCR are standard MVS START and STOP commands.

# Starting the DB2 for z/OS ECCR

Usually, the DB2 ECCR runs as a started task. However, you can run the DB2 ECCR as part of a batch job, if appropriate. The JCL for the DB2 ECCR PROC is supplied in the ECCRDB2 member of the SAMPLIB library.

Use the standard MVS START (S) command to restart a DB2 ECCR started task that stops.

## Syntax

Use the following syntax for the MVS START command:

```
{START|S} task_name
```

The *task\_name* variable is the DB2 for z/OS ECCR started task name.

## Usage Notes

Review the following notes before using the command:

- For the DB2 ECCR to start, the DB2 subsystem must be running on the MVS image where you issue the START command.
- You must have the proper authority to run the DB2 ECCR.

For more information, see the *PowerExchange CDC Guide for z/OS*.

- The START statement in the REPDB2OP member of the RUNLIB library controls if a WARM, COLD, or special STARTLOC start is performed. The first time you start the DB2 ECCR, you must perform a COLD start. Thereafter, a WARM start is usually preferable for restarting the DB2 ECCR.
- Stopping the DB2 for z/OS ECCR

# Stopping the DB2 for z/OS ECCR

Use the standard MVS STOP (P) command to stop the DB2 for z/OS ECCR immediately, even though in-flight UOWs might still exist. If records for incomplete UOWs are recorded in the PowerExchange Logger logs, PowerExchange cannot extract them until you restart the DB2 ECCR.

**Tip:** If you use the QUIESCE command instead of the MVS STOP command, restarting change data capture will be faster. The QUIESCE command waits until the ECCR reaches the DB2 quiesce point and no in-flight UOWs exist before stopping the ECCR. If the QUIESCE command fails to stop the ECCR for some reason, for example, because the ECCR is capturing changes for a long-running batch job, you can use the MVS STOP command.

## Syntax

Use the following syntax:

```
{STOP|P} task_name
```

The *task\_name* variable is the DB2 for z/OS ECCR started task name or job name.

## RELATED TOPICS:

- [“QUIESCE Command” on page 43](#)

# DISPLAY Command

Prints statistics on DB2 for z/OS ECCR activity to the EDMMSG data set. Also prints ECCR summary statistics to the JES job log and MVS hardcopy log.

## Syntax

Use the following command syntax:

```
DISPLAY[,SQ][,ST][,ALL]
```

Or use the following shorter syntax:

```
DI[,SQ][,ST][,ALL]
```

All parameters are optional. You can specify the DISPLAY or DI command with none, one, more than one, or all of the parameters. If you specify the DISPLAY command without any parameter, by default, the command uses the LEV parameter setting from the STAT statement in the REPL2OPT DD data set. The default for the LEV parameter is ST.

To issue the ECCR DISPLAY command, use the MVS MODIFY or F command with the ECCR started task or job name.

## Parameter Descriptions

### SQ

Prints the SQ Display statistics report in message PWXEDM177085I and summary statistics in message PWXEDM177084I to the EDMMSG data set. Also prints the PWXEDM177084I summary statistics to the JES log and MVS hardcopy log and as a WTO message.

The SQ Display report shows counts of change records that the ECCR sent to the PowerExchange Logger for z/OS for each source table since the ECCR started, by table and record type. The counts are for low-level types of database operations that indicate logging activity, not for SQL INSERT, UPDATE, and DELETE operations. By default, the SQ statistics are printed only for tables that have a non-zero value for at least one count. To print these counts for every table from which the ECCR captures changes, including tables that have a zero or null value for all of the counts, issue the DISPLAY,SQ,ALL command.

### ST

Prints the ST Display statistics report in message PWXEDM177085I and summary statistics in message PWXEDM177084I to the EDMMSG data set. Also prints the PWXEDM177084I summary statistics to the JES log and MVS hardcopy log and as a WTO message.

The ST Display report shows the total number of change records that the ECCR read from the DB2 log since the ECCR started and during the current statistics reporting interval. It also includes the average number of changes that the ECCR captured per second during the current statistics reporting interval. By default, the ST statistics are printed only for tables that have a non-zero value for the MSG\_TOT field. To print these statistics for every source table, including those with a MSG\_TOT value of zero or null, issue the DISPLAY,ST,ALL command.



## ALL

Prints SQ or ST statistics in message PWXEDM177085I for every source table, even for tables for which all SQ counts are zero or null or for which the ST MSG\_TOT field is zero or null. If you omit the ALL parameter, the ECCR prints the SQ or ST statistics only for the source tables for which the ECCR read at least one change record from the DB2 log or sent at least one record to the PowerExchange Logger. If you specify the ALL parameter without the SQ or ST parameter, the ALL parameter applies to the type of statistics that is specified by the LEV parameter of the STAT statement in the REPL2OPT statement, which is ST by default.

## Example Output

### ST Display report:

The following example statistics report is generated in response to the DISPLAY,ST command or to the DISPLAY command when STAT LEV=ST is used:

```
PWXEDM177084I ABCDSNB capture statistics at 2017-06-16 19.24.22
DB2 Log Location 00000000000A9B69565A.0000.0000
DB2 Log Timestamp 2017-06-16 19.22.47
Current Delay=      1.59 sec   Average Delay=      1.60 sec
                REC_TOT      RECS/INTV RECS/SEC
DB2 log records      209        209      -
EDM records          8         8        -
PWXEDM177085I ST Display
      MSG_TOT      MSG/INTV MSG/PSEC  TABLE_NAME
          5          5      -  ABCNKL1.TSTP1
          1          1      -  ABCNKL1.P707951D
          2          2      -  ABCNKL1.P707951A
```

The ST Display report in PWXEDM177085I shows counts of change records that the ECCR read from the DB2 log for each source table that has a non-zero numeric value in the MSG\_TOT field. If you want to show these statistics for every source table, including those with a MSG\_TOT value of zero or null, include the ALL parameter in the command.

The following example statistics report is generated in response to a DISPLAY,ST,ALL command:

```
PWXEDM177084I ABCDSNB capture statistics at 2017-06-16 19.24.22
DB2 Log Location 00000000000A9B69565A.0000.0000
DB2 Log Timestamp 2017-06-16 19.22.47
Current Delay=      1.59 sec   Average Delay=      1.60 sec
                REC_TOT      RECS/INTV RECS/SEC
DB2 log records      209        209      -
EDM records          8         8        -
PWXEDM177085I ST Display
      MSG_TOT      MSG/INTV MSG/PSEC  TABLE_NAME
          5          5      -  ABCNKL1.TSTP1
          -          -      -  ABCNKL1.TSTP2
          -          -      -  ABCNKL1.TSTP3
          1          1      -  ABCNKL1.P707951D
          2          2      -  ABCNKL1.P707951A
```

**Note:** Any numeric value with an integer overflow condition is displayed as asterisks, for example, \*, \*\*\*, \*\*, \*. A zero or null value is indicated by a hyphen (-).

The following table describes the fields in the PWXEDM177084I summary statistics and PWXEDM177085I ST Display statistics:

Report Field	Description
DB2 Log Location	In the PWXEDM177084I statistics, displays the RBA that indicates the current location of ECCR processing in the DB2 log.
DB2 Log Timestamp	In the PWXEDM177084I statistics, displays the timestamp of the last DB2 log record that the ECCR read. This timestamp reflects the date and time that the record was written to the DB2 log.
Current Delay	In the PWXEDM177084I statistics, displays the delay, in seconds, for the last change record. The delay is the difference between the time when a change record was written to the DB2 log and the time when the ECCR read the record.
Average Delay	In the PWXEDM177084I statistics, displays the average delay, in seconds, for processing a change record during the statistical reporting period. The delay is the difference between the time when a change record was written to the DB2 log and the time when the ECCR read the record.
REC_TOT	In the PWXEDM177084I statistics, displays the total number of DB2 log records and the total number of EDM records that the ECCR read since the ECCR started.
REC/INTV	In the PWXEDM177084I statistics, displays the number of DB2 log records and the number of EDM records that the ECCR read since the last statistics reporting interval. The reporting interval is specified in the SEC parameter in the STAT statement in the REPL2OPT data set.
REC/PSEC	In the PWXEDM177084I statistics, displays the average number of DB2 log records and the average number of EDM records that the ECCR read per second during the current statistics reporting interval.
MSG_TOT	In the PWXEDM177085I ST Display report, displays the total number of changes that the DB2 ECCR captured for each table since the ECCR started. This count includes backout records.
MSG/INTV	In the PWXEDM177085I ST Display report, displays the total number of changes that the DB2 ECCR captured for each table since the last statistics reporting interval. This count includes backout records.
MSG/PSEC	In the PWXEDM177085I ST Display report, displays the average number of changes that the ECCR captured per second for each table during the current statistics reporting interval. This average includes backout records.
TABLE_NAME	In the PWXEDM177085I ST Display report, displays the name of a source table for which the MSG_TOT, MSG/INTV, and MSG/PSEC statistics are reported.

If no ST type of activity has occurred, the following message is issued in response to the DISPLAY,ST command instead of the PWXEDM177085I message:

```
PWXEDM177086I No ST activity
```

#### **SQ Display report:**

The following example statistics report is generated in response to the DISPLAY,SQ command or to the DISPLAY command when STAT LEV=SQ is specified in the REPL2OPT data set:

```
PWXEDM177084I ABCDSNB capture statistics at 2017-06-16 19.24.22
DB2 Log Location 00000000000A9B69565A.0000.0000
DB2 Log Timestamp 2017-06-16 19.22.47
Current Delay=    1.59 sec    Average Delay=    1.60 sec
                REC_TOT    RECS/INTV RECS/SEC
DB2 log records    209        209        -
```

```

EDM records          8          8          -
PWXEDM177085I SQ Display
      INSERTs      UPDATEs      DELETEs  TABLE_NAME
          3          -          2  ABCNKL1.TSTP1
          1          -          -  ABCNKL1.P707951D
          1          1          -  ABCNKL1.P707951A

```

The SQ Display report in PWXEDM177085I shows counts of records that the ECCR sent to the PowerExchange Logger for z/OS since the ECCR started, by table and record type. These counts are for low-level types of database operations that indicate logging activity, not for SQL INSERT, UPDATE, and DELETE operations.

Only tables that have a numeric value for at least one count are displayed. To display these counts for every table from which the ECCR captures changes, including tables that have a zero for all of these counts, issue the DISPLAY,SQ,ALL command.

**Note:** Any numeric value with an integer overflow condition is displayed as asterisks, for example, \*, \*\*\*, \*\*, \*\*\*. A zero is indicated by a hyphen (-).

The following table describes the fields in the SQ Display report in PWXEDM177085I:

Report Field	Description
INSERTs	Displays the number of records of type "insert" that the ECCR sent to the PowerExchange Logger for z/OS for a source table since the ECCR started. The count is for low-level database operations of type of "insert," not for SQL insert operations.
UPDATEs	Displays the number of records of type "update" that the ECCR sent to the PowerExchange Logger for z/OS for a source table since the ECCR started. The count is for low-level database operations of type of "update," not for SQL update operations.
DELETEs	Displays the number of records of type "delete" that the ECCR sent to the PowerExchange Logger for z/OS for a source table since the ECCR started. The count is for low-level database operations of type "delete," not for SQL delete operations.
TABLE_NAME	Displays the name of a source table for which INSERTs, UPDATEs, and DELETEs are reported.

If no SQ type of activity has occurred, the following message is issued in response to the DISPLAY,SQ command instead of the PWXEDM177085I message:

```
PWXEDM177086I No SQ activity
```

## QUIESCE Command

Stops the DB2 for z/OS ECCR after the ECCR reaches a point in the DB2 log where no in-flight UOWs exist.

Use the QUIESCE command before performing a required cold start, for example, when migrating to a new DB2 version or upgrading PowerExchange. On a busy DB2 subsystem, quiesce processing might take a long time.

If you need to stop the ECCR immediately, use the MVS STOP command.

### Syntax

Use the following command syntax:

```
QUIESCE
```

Or use the following shorter syntax:

```
QU
```

To issue the ECCR QUIESCE command, use the MVS MODIFY or F command with the ECCR started task or job name.

### RELATED TOPICS:

- [“Stopping the DB2 for z/OS ECCR” on page 39](#)

## REFRESH Command

Refreshes the DB2 for z/OS ECCR after you update control statements in the REPDB2OP member of the RUNLIB library or after you add, edit, or delete capture registrations for DB2 source tables.

The refresh operation activates the new DB2 ECCR options and registration changes for change data capture. You can refresh the DB2 ECCR only while it is active.

**Note:** The REPDB2OP member is the member that is allocated by the REPL2OPT DD in the DB2 ECCR JCL.

This command is equivalent to stopping the DB2 ECCR and then restarting it with the START WARM statement.

### Syntax

Use the following command syntax:

```
REFRESH
```

Or use the following shorter syntax:

```
RE
```

To issue the ECCR REFRESH command, use the MVS MODIFY or F command with the ECCR started task or job name.

### Usage Notes

Review the following notes before using the command:

- You must issue the REFRESH command after adding or changing capture registrations and after editing any control statement other than DB2, IFI306OPT, or START in the REPDB2OP member of the RUNLIB library. Otherwise, your changes are ignored.
- The REFRESH command ignores any change that you make to the CA NAME statement in the REPL2CTL file.

## TERM Command

Commits an outstanding DB2 unit of recovery (UR) for a DB2 data source. Use this command only at the direction of Informatica Global Customer Support.

**Tip:** To find the unit-of-recovery identifier (URID) for the UR that you want to commit, first run the URID command.

## Syntax

Use the following command syntax:

```
TERM, urid
```

In this command, *urid* is the unit-of-recovery ID for the UR that you want to commit.

To issue the DB2 ECCR TERM command, use the MVS MODIFY or F command with the ECCR started task or job name.

## RELATED TOPICS:

- [“URID Command” on page 46](#)

# TR ACT Command

Enables a specific trace for the DB2 for z/OS ECCR. Use this command only at the direction of Informatica Global Customer Support.

## Syntax

Use the following command syntax:

```
TR ACT, trace_id
```

In this command, *trace\_id* is the identifier for the trace, which is provided by Informatica Global Customer Support.

To issue the ECCR TR ACT command, use the MVS MODIFY or F command with the ECCR started task or job name.

# TR INACT Command

Disables a specific trace for the DB2 for z/OS ECCR. Use this command only at the direction of Informatica Global Customer Support.

## Syntax

Use the following command syntax:

```
TR INACT, trace_id
```

In this command, *trace\_id* is the identifier for the specific trace, which is provided by Informatica Global Customer Support.

To issue the ECCR TR INACT command, use the MVS MODIFY or F command with the ECCR started task or job name.

# URID Command

Lists the DB2 URIDs for the DB2 subsystem or data-sharing group on which the DB2 for z/OS ECCR is running. Reports only the URIDs for active URs.

**Note:** A DB2 UR, if captured, can also be an outstanding PowerExchange Logger UOW.

Use this command to diagnose problems, such as unsuccessful QUIESCE operations or persistent UOWs that do not end.

## Syntax

Use the following command syntax:

```
URID
```

To issue the ECCR URID command, use the MVS MODIFY or F command with the ECCR started task or job name.

## Output

The command produces the following message:

```
PWXEDM177438I urid status last activity at last_log_position is activity_type
```

In this message:

- *urid* is the DB2 unit-of-recovery ID (URID) for the UR.
- *status* is one of the following values:
  - ABORT. The UOW was aborted, and no change data is available to capture.
  - OPEN. Change data is available to capture, but no Begin UOW record has been received.
  - POTENTIAL. The Begin UOW was received, but no change data is available to capture yet.
  - ROLLBACK. The UOW was rolled back, but change data is available to capture.
  - TRANSMIT. The DB2 ECCR is sending change data for this UOW to the PowerExchange Logger for z/OS.
  - UNRESOLVED. No *urid* value was encountered during the DB2 ECCR run. The ECCR records a URID value of PENDING for the specified UOW. When a UOW is outstanding, PowerExchange issues message PWXEDM177440W. This situation can occur if in-flight units of work exist when the previous occurrence of the DB2 ECCR is shut down, usually not with a QUIESCE.
- *last\_log\_position* is the RBA or LRSN of the last record that was processed for this UOW.
- *activity\_type* is one of the following values:
  - Begin UOW
  - End UOW
  - Data
  - Abort UOW
  - Begin Phase1
  - End Phase1
  - Begin Phase2
  - Phase 1/2 Tran
  - End Todo

## RELATED TOPICS:

- [“TERM Command” on page 44](#)

## CHAPTER 7

# IDMS Log-Based ECCR Commands

This chapter includes the following topics:

- [Introduction to the IDMS Log-Based ECCR Commands, 47](#)
- [Starting the IDMS Log-Based ECCR, 48](#)
- [CLOSE Command, 48](#)
- [DISPLAY TRACE Command, 48](#)
- [READ Command, 49](#)
- [REFRESH Command, 49](#)
- [STATISTICS Command, 50](#)
- [STATUS Command, 52](#)
- [TRACEOFF Command, 53](#)
- [TRACEON Command, 53](#)

## Introduction to the IDMS Log-Based ECCR Commands

Use the IDMS log-based ECCR commands to stop the IDMS log-based ECCR, display the status of change capture processing in the logs, print statistics messages about captured changes by type, or control tracing.

Use the trace commands only at the direction of Informatica Global Customer Support.

Issue the commands from either the MVS operator console or an interface such as SDSF. To issue the PowerExchange ECCR commands, use the MVS MODIFY (F) command. You must include the ECCR started task name or job name in the command.

# Starting the IDMS Log-Based ECCR

The IDMS log-based ECCR can run as a started task or batch job. Usually, the ECCR runs as a started task. Whenever you create or change IDMS capture registrations, you must restart the ECCR to activate those registrations.

Before starting the ECCR the first time, configure IDMS ECCR options in the ECCRIDLP member of RUNLIB.

## Syntax

To start the IDMS ECCR as a started task, use the MVS START (S) command:

```
S eccr_task_name
```

The *eccr\_task\_name* variable is the ECCR started task name.

# CLOSE Command

Stops the IDMS log-based ECCR. When you restart the ECCR, it resumes reading log records from where it left off. No change data is lost.

## Syntax

Use the following command syntax:

```
F eccr_task_name,{CLOSE|CLOS}
```

The *eccr\_task\_name* variable is the name of the IDMS log-based ECCR started task or job.

# DISPLAY TRACE Command

Displays the number of traces that are active for the IDMS log-based ECCR and their tracing levels and filter criteria. Use this command only at the direction of Informatica Global Customer Support.

## Syntax

Use the following command syntax:

```
F eccr_task_name,{DISPLAY TRACE|DISP TRAC}
```

The *eccr\_task\_name* variable is the name of the IDMS log-based ECCR job or started task.

## Example Output

The following example output results from the DISPLAY TRACE command when two traces are active that have a trace level of -1 and the specified filter criteria:

```
PWX-07994 Tracing is on
PWX-07996 Number of traces is 2
PWX-07997 Trace level=-1 filter=IMTCOLL,0,99
PWX-07997 Trace level=-1 filter=IMTCOLX,0,99
```

## RELATED TOPICS:

- [“TRACEOFF Command” on page 53](#)
- [“TRACEON Command” on page 53](#)



# READ Command

Starts another IDMS log-based ECCR cycle of reading changes.

## Syntax

Use the following command syntax:

```
F eccr_task_name,READ
```

The *eccr\_task\_name* variable is the name of the IDMS log-based ECCR started task or job.

# REFRESH Command

Refreshes the list of IDMS records with active capture registrations that the IDMS log-based ECCR uses to capture change data.

Issue this command in the following situations to update the list of registered sources without shutting down the ECCR:

- After you add a capture registration.
- After you delete a capture registration.
- After you issue a PWXUCREG utility command that changes the registration status, such as the SUSPEND\_REGISTRATION or ACTIVATE\_REGISTRATION command. For more information, see the *PowerExchange Utilities Guide*.

To use this command, you must specify REFRESH\_ALLOWED=Y in the RUNLIB(ECCRIDLP) member to which the DTLACCFG DD statement in the ECCR JCL points.

When you issue the command, the ECCR begins shutdown processing but does not end. The ECCR rebuilds the list of registered sources and initiates a special warm start. The ECCR reprocesses any UOWs that were open when the command was issued, beginning with the earliest open UOW. After the ECCR has reprocessed all of the open UOWs up to the current log read position, it resumes normal processing.

## Syntax

Use the following command syntax:

```
F eccr_task_name,REFRESH
```

The *eccr\_task\_name* variable is the name of the IDMS log-based ECCR job or started task.

## Usage Notes

- For a REFRESH operation, the ECCR reprocesses all of the open UOWs so that it can capture data for any registration that was added or avoid capturing data for any registration that was deleted.
- For each registration that you add, you can control the point from which change capture begins for the new source. Before you issue the REFRESH command, stop change activity on the source, add the registration, and synchronize the source and target. Then issue REFRESH command and resume change activity on the source.
- If you need to delete a registration, ensure that the ECCR has processed all changes for the registration before you delete it and issue the REFRESH command.
- For each registration that you delete, ensure that all in-flight changes have been captured and that extraction processing has caught up to the current ECCR position of the IDMS logs before you issue the REFRESH command.

# STATISTICS Command

Prints statistics messages about the changes that the IDMS log-based ECCR captured. The messages are printed to the DTLLOG and DTLOUT data sets.

Depending on the command parameter you specify, this command can print capture statistics since the start of the ECCR, at the end of a specific interval, since the last execution of the STATISTICS command, or when the ECCR finishes processing an IDMS log. The ECCR always prints capture statistics at the end of its run.

**Important:** For the ECCR to report statistics for each IDMS log, you must add the CAPT\_STATS=Y parameter to the RUNLIB(ECCRIDLP) member or specify the STATISTICS ON command after the ECCR starts.

## Syntax

Use the following command syntax to print message PWX-06182, which reports the totals for changes captured since the start of the ECCR run:

```
F eccr_task_name,STATISTICS
```

Use the following command syntax to specify the interval for which to print message PWX-06181, which reports the totals for changes captured during the interval:

```
F eccr_task_name,STATISTICS minutes
```

Use the following command syntax to print PWX-06153 statistics messages by registered source for the period since the last execution of the STATISTICS command:

```
F eccr_task_name,STATISTICS SINCE [TERSE]
```

Use the following command syntax to control whether PWX-06153 statistics messages are printed each time the ECCR finishes processing an IDMS log:

```
F eccr_task_name,STATISTICS {OFF|ON}
```

In all of these commands, *eccr\_task\_name* is required. This variable represents the name of the IDMS log-based ECCR started task or batch job.

Do not specify multiple parameters on the same command, for example, *minutes* and SINCE.

## Parameter Descriptions

The following parameters are optional on the STATISTICS command:

### **minutes**

Defines the interval, in minutes, for which the ECCR collects statistics and prints a PWX-06181 message. This message reports the number of inserts, deletes, updates, and commits that were captured from a log during the interval. The message also reports the position in the log up to which changes were captured. Use this positional parameter to print statistics at a specific frequency, for example, every 60 minutes. This number of minutes overrides the CAPT\_STATS\_INTVL parameter value for the duration of the ECCR run. Valid values are 1 through 1440. No default is provided.

### **OFF**

Does not print PWX-06153 messages when an IDMS log is closed. However, PWX-06153 messages are still be printed at the end of the ECCR run and can be printed for a subsequent STATISTICS *minutes* or STATISTICS SINCE command. The STATISTICS OFF command is analogous to the CAPT\_STATS=N parameter in the ECCR configuration member. When the command is issued, the ECCR prints message PWX- 07804 to indicate that statistics reporting is turned off.

### **ON**

Prints PWX-06153 messages each time the ECCR finishes processing an IDMS log and closes it. The PWX-06153 messages report the number of inserts, deletes, and updates that were processed for each

registered source, grouped by log. The STATISTICS ON command is analogous the CAPT\_STATS=Y parameter in the ECCR configuration member. When this parameter is used, the ECCR prints message PWX-07803 to indicate that statistics reporting is turned on.

#### SINCE

Prints PWX-06153 messages for the period since the last execution of the STATISTICS command. The PWX-06153 messages report the number of inserts, deletes, updates, and commits that were processed for each registered source during this period. Messages PWX-06183 and PWX-06184 identify the boundaries of this block of messages. Message PWX-06184 provides totals for all sources for the period. If you schedule the command with this parameter, you can print statistics with regular periodicity, such as daily or weekly.

#### SINCE TERSE

Prints PWX-06153 messages only for registered sources for which the ECCR captured changes since the last execution of the STATISTICS command. The PWX-06183 message includes counts only for the registered sources for which inserts, updates, or deletes were committed.

#### Example Output

The following statistics messages are printed as a result of the STATISTICS command when the ECCR parameter CAPT\_STATS\_INTVL=10 is specified.

```
PWX-07702 IDMS LB CDC, ECCR, Mon May 28 13:57:48.590 2012, Registration read started.
PWX-06118 Registration loaded: DBName: QACLGSID RegName: stuoflat.1 Creator: stuoss01
Table: abc STUODENT_FLAT
PWX-07745 IDMS LB CDC, ECCR, Mon May 28 14:04:07.246 2012, Registration
active...,DB:QACLGSID,Name:stuoflat.1,Creator:stuoss01,Table:abc_STUODENT_FLAT.
PWX-06118 Registration loaded: DBName: QACLGSID RegName: stupflat.1 Creator: stupss01
Table: abc STUPDENT_FLAT
PWX-07745 IDMS LB CDC, ECCR, Mon May 28 14:04:08.147 2012, Registration
active...,DB:QACLGSID,Name:stupflat.1,Creator:stupss01,Table:abc_STUPDENT_FLAT.
PWX-06118 Registration loaded: DBName: QACLGSID RegName: stupf100.1 Creator: stupsl00
Table: abc STUPDENT_FLAT
PWX-07745 IDMS LB CDC, ECCR, Mon May 28 14:04:08.447 2012, Registration
active...,DB:QACLGSID,Name:stupf100.1,Creator:stupsl00,Table:abc_STUPDENT_FLAT.
PWX-07703 IDMS LB CDC, ECCR, Mon May 28 13:57:52.699 2012, Registration read completed.
PWX-07991 GLCI did not return any extended Info. Cold Start implied
PWX-07805 Statistics interval subtask started, collection interval 10 minute(s)
PWX-07701 IDMS LB CDC, ECCR, Mon May 28 13:58:12.270 2012, Initialisation completed.
PWX-07813 IDMS LB CDC, Reader Task First-----> captured data 12/03/01
10:53:38.116809.
PWX-07814 IDMS LB CDC, Reader Task First-----> records processed 0000000002.
Closed journal/log after processing.... at 14:07:14:5022 on mon 28/05/2012, blocks =
0000000509, records = 0000022061
IDMS.Q18SP0.JOURNAL.GDG.G0024V00
PWX-06153 stuoflat.1 I=000000000190 D=000000000000 U=000000000000
PWX-06153 stupflat.1 I=000000000204 D=000000000000 U=000000000000
PWX-06153 stupf100.1 I=000000000265 D=000000000000 U=000000000000
Opened journal/log for processing..... at 14:07:15:8995 on mon 28/05/2012
IDMS.Q18SP0.JOURNAL.GDG.G0025V00
Closed journal/log after processing.... at 14:07:27:6910 on mon 28/05/2012, blocks =
0000000507, records = 0000023389
IDMS.Q18SP0.JOURNAL.GDG.G0025V00
PWX-06153 stuoflat.1 I=000000000427 D=000000000000 U=000000000000
PWX-06153 stupflat.1 I=000000000421 D=000000000000 U=000000000000
PWX-06153 stupf100.1 I=000000000429 D=000000000000 U=000000000000
PWX-06181 Interval 12/05/28 14:14:17 I=000000000868 D=000000000000 U=000000000000
C=000000000000 Log=12/03/01 11:08:35.67
PWX-06181 Interval 12/05/28 14:24:17 I=000000000868 D=000000000000 U=000000000000
C=000000000000 Log=12/03/01 11:08:35.67
PWX-07730 IDMS LB CDC, ECCR, Tue May 29 13:00:25.612 2012, No active units of work found
at shutdown.
PWX-07967 DTLCCIDL shutting down having read to .....
PWX-07812 Latest time processed 12/03/01 11:08:35.679115
Records processed 002939 (IDMS capture)
PWX-07807 Statistics subtask ended, cycle count = 20
```

```

PWX-07813 IDMS LB CDC, Reader Task Shutdown-----> captured data 12/03/01
11:08:35.679115.
PWX-07814 IDMS LB CDC, Reader Task Shutdown-----> records processed 0000300939.
PWX-06153 stuoflat.1 I=0000000000617 D=0000000000000 U=0000000000000
PWX-06153 stupflat.1 I=0000000000625 D=0000000000000 U=0000000000000
PWX-06153 stupf100.1 I=0000000000694 D=0000000000000 U=0000000000000
PWX-06182 Totals 12/05/29 13:00:37 I=0000000001936 D=0000000000000 U=0000000000000
C=0000000002047 Log=12/03/01 11:08:35.67
PWX-07971 Collector closing down (IDMS Capture)

```

In this example, the PWX-06153 messages show the number of inserts, deletes, and updates by registration for each IDMS log. The PWX-06181 messages provides totals for each 10-minute interval, and the PWX-06182 message provides totals for the entire run.

The following messages are printed if you add *minutes* to the STATISTICS command, for example, `F eccr_task_name,STATISTICS 2:`

```

PWX-07809 Statistics interval. New interval command accepted
PWX-07810 Statistics interval subtask, collection interval updated to 2 minute(s)
PWX-06181 Interval 12/05/28 20:41:29 I=0000000000000 D=0000000000000 U=0000000000000
C=0000000000000 Log=12/03/01 11:08:35.67
PWX-06181 Interval 12/05/30 00:41:30 I=0000000000000 D=0000000000000 U=0000000000000
C=0000000000000 Log=12/03/01 11:08:35.67

```

## Usage Notes

- Before you specify the `STATISTICS minutes` command to change the interval at which statistics are reported, you must either specify `CAPT_STATS=Y` in the `RUNLIB(ECCRIDLP)` member or issue the `STATISTICS ON` command.
- The interval that is specified in `STATISTICS minutes` command overrides any interval that is specified in the `CAPT_STATS_INTVL` parameter. In the message output, PWX-07809 reports the new interval that is set by the `STATISTICS` command.
- The interval value cannot be 0. If you enter the command `STATISTICS 0`, PowerExchange issues error message PWX-07808. If you set the `CAPT_STATS_INTVL` parameter to 0 in the `RUNLIB(ECCRIDLP)` member, PowerExchange issues the error message PWX-00967.
- If you set the `CAPT_STATS_TERSE` parameter to N in the `RUNLIB(ECCRIDLP)` member and then run `STATISTICS SINCE TERSE`, the `TERSE` option overrides the `CAPT_STATS_TERSE` setting for the `SINCE` period.

# STATUS Command

Prints message PWX-07976 to the SYSPRINT output file. This message indicates the current status of IDMS log-based ECCR processing in the IDMS log.

## Syntax

Use the following command syntax:

```
F eccr_task_name,STATUS
```

The *eccr\_task\_name* variable is the name of the IDMS log-based ECCR started task or job.

## Example Output

The command prints the following messages:

```

PWX-07812 Latest time processed timestamp Records processed number (eccr_type)
PWX-07813 eccr_type, Reader Task point_in_processing captured data timestamp
PWX-07814 eccr_type, Reader Task point_in_processing records processed number_of_records

```

# TRACEOFF Command

Disables tracing for the IDMS log-based ECCR. Use this command only at the direction of Informatica Global Customer Support.

## Syntax

Use the following command syntax:

```
F eccr_task_name,TRACEOFF [trace_id]
```

The *eccr\_task\_name* variable is the name of the IDMS log-based ECCR started task or job.

The optional *trace\_id* parameter is the identifier for a specific trace. Use this parameter to disable a particular trace. Without this parameter, the command disables all active traces.

## Example Output

One of the following messages is written to the DTLLOG file:

```
PWX-07800 Tracing turned off
PWX-07801 Trace trace_id has been turned off
```

## RELATED TOPICS:

- [“DISPLAY TRACE Command” on page 48](#)
- [“TRACEON Command” on page 53](#)

# TRACEON Command

Enables tracing for the IDMS log-based ECCR with specific filter criteria and a specific trace level. Trace information shows a history of IDMS ECCR events and is useful for diagnosing problems.

Use this command only at the direction of Informatica Global Customer Support.

## Syntax

Use the following command syntax:

```
F eccr_task_name,TRACEON trace_filter,level_number
```

Where:

- *eccr\_task\_name* is the name of the IDMS log-based ECCR started task or job.
- *trace\_filter* and *level\_number* are values provided by Informatica Global Customer Support.

## Example Output

If the command is successful, the following message is written to the DTLLOG file:

```
PWX-07998 Trace trace_id level trace_level turned on
```

If you issue this command without valid trace filter criteria or a valid trace level, the following message is issued:

```
PWX-07282 TRACEON should have a trace filter and a level as arguments
```

If a trace slot is unavailable, the following message is issued:

```
PWX-07999 No space for an additional trace
```

## RELATED TOPICS:

- [“DISPLAY TRACE Command” on page 48](#)
- [“TRACEOFF Command” on page 53](#)

## CHAPTER 8

# IMS Synchronous ECCR Commands

This chapter includes the following topics:

- [Introduction to IMS Synchronous ECCR Commands, 55](#)
- [IMS External Subsystem Commands, 55](#)
- [IMS Console Command, 58](#)

## Introduction to IMS Synchronous ECCR Commands

Use the IMS synchronous ECCR commands to override the CCERR parameter value in the EDMSDIR default options module or generate reports on the change data capture activity of the ECCR.

The ECCR operates as an IMS external subsystem. IMS starts the external subsystem when the DB/DC or DBCTL region is started.

Also, for your convenience, the standard IMS command for displaying the status of the connection to the IMS external subsystem is provided.

## IMS External Subsystem Commands

Use the IMS external subsystem commands to perform the following tasks:

- Temporarily override the CCERR parameter in the EDMSDIR default options module. Usually, the CCERR parameter is set to ABORT in the EDMSDIR default options module. You might need to override this default setting if the PowerExchange Logger becomes unavailable and you cannot resolve the problem promptly. In this case, issue the xEDP-CONTINUE command to restart your IMS online transactions. The transactions can then run while you are resolving the problem.
- Generate a report on the change data capture activity of the IMS ECCR. You can print the report to the EDMMSG SYSOUT data set or the job JESMSGLOG log of the IMS region. From the report, you can determine the databases for which PowerExchange is capturing changes. The EDMMSG data set contains messages that are sent from the Log Read API after it connects to the PowerExchange Logger to read captured change data.

To issue these commands to the IMS external subsystem from the IMS console, use the IMS /SSR command. In each command, replace the x variable with the command recognition character (CRC) that you specified

when configuring the IMS external subsystem for the ECCR. If you do not know the CRC, you can run the DISPLAY SUBSYS command.

**Note:** You can issue IMS external subsystem commands only if you edited the appropriate SSM member in the IMS PROCLIB library to supply a command recognition character (CRC) for the subsystem definition that PowerExchange uses.

## xEDP-ABORT Command

Overrides the CCERR value in the EDMSDIR default options module with the ABEND value.

While the ABEND value is in effect, if the PowerExchange Logger terminates, online BMP or MPP transactions pseudo-abend with the IBM U4094 abend code. A *pseudo-abend* means that the IMS control program transfers the abend condition to the online transaction that was responsible for the abnormal condition and then continues to service other message regions.

The ABEND value remains in effect until a process or command terminates the IMS control region or until a xEDP\_CONTINUE command supersedes the xEDP\_ABORT command.

### Syntax

Use the following command syntax:

```
/SSR xEDP-ABORT
```

The x variable is the CRC value that you specified when configuring the IMS external subsystem of the ECCR.

### Example Output

The following example output was produced by this command:

```
R 93,/SSR xEDP-ABORT.  
DFS058I SSR COMMAND COMPLETED  EDMA  
PWXEDM172889I Action if ECCR error encountered has been set to ABORT
```

This message indicates that the CCERR override value was successfully set to ABORT.

## xEDP-CONTINUE Command

Overrides the CCERR value in the EDMSDIR default options module with the CONTINUE value.

While CONTINUE is in effect, if the IMS external subsystem or PowerExchange Logger becomes unavailable, the IMS synchronous ECCR does not capture change data and the online transactions do not pseudo-abend. Change data might be lost. Also, the data source and target can become out of sync. To regain synchronization, you must rematerialize the target.

The CONTINUE value remains in effect until a process or command terminates the IMS control region or until another /SSR command supersedes the current xEDP-CONTINUE command.

### Syntax

Use the following command syntax:

```
/SSR xEDP-CONTINUE
```

The x variable is the CRC value that you specified when configuring the IMS external subsystem of the ECCR.

### Example Output

The following example output is produced by this command:

```
R 94,/SSR xEDP-CONTINUE.  
DFS058I SSR COMMAND COMPLETED  EDMA  
PWXEDM172889I Action if ECCR error encountered has been set to CONTINUE
```

This message indicates that the CCERR override value was successfully set to CONTINUE.



## xEDP-STAT Command

Prints a status report of IMS synchronous ECCR change capture activity to the EDMMSG SYSOUT data set. The report shows the number of record inserts, replacements, and deletes that the IMS ECCR captured, by IMS database area and segment.

**Note:** If you want to print this report to the job log of the IMS region, use the xEDP-STATWTO command instead. The xEDP-STAT and xEDP-STATWTO commands produce the same types of capture counts.

### Syntax

Use the following command syntax:

```
/SSR xEDP-STAT
```

The x variable is the CRC value that you specified when configuring the IMS external subsystem of the ECCR.

### Example Output

The following example output was produced by the command:

```
PWXEDM172853I Change Capture counts for IMS DBD DBLOG50F
Segment=DB#AASEG ISRT=0      REPL=0      DLET=0
Segment=DB#BASEG ISRT=0      REPL=0      DLET=0
Segment=DB#CASEG ISRT=0      REPL=0      DLET=0
Segment=DB#BBSEG ISRT=0      REPL=0      DLET=0
```

This output indicates that a database with four segments is registered for change data capture. The IMS synchronous ECCR has not yet captured any inserts, replacements, or deletes for this database.

## xEDP-STATWTO Command

Prints a status report of IMS synchronous ECCR change capture activity to the JESMSGLG log of the IMS region. The report shows the number of record inserts, replacements, and deletes that the ECCR captured, by IMS database area and segment.

**Note:** If you want to print this report to the EDMMSG SYSOUT data set, use the xEDP-STAT command instead. The xEDP-STATWTO and xEDP-STAT commands produce the same types of capture counts.

### Syntax

Use the following command syntax:

```
/SSR xEDP-STATWTO
```

The x variable is the CRC value that you specified when configuring the IMS external subsystem of the ECCR.

### Example Output

The following example output was produced by the command when none of the open databases were registered for CDC:

```
R 95,/SSR xEDP-STATWTO.
DFS058I SSR COMMAND COMPLETED EDMA
PWXEDM172890W There are no open databases registered for capture
```

If some of the databases were registered for CDC, this report would show the same types of capture counts as in the xEDP-STAT command output, that is, the number of record inserts, replacements, and deletes that the IMS ECCR captured by IMS database area and segment.

# IMS Console Command

Use the following IMS command to display the status of the connection to the IMS external subsystem. Issue the command from the IMS console.

## DISPLAY SUBSYS Command

Displays the status of the connection to the IMS external subsystem of the IMS synchronous ECCR.

**Tip:** You can also use this command to get the CRC value that was defined for the subsystem. The CRC value is required for issuing IMS external subsystem commands with the /SSR command.

### Syntax

Use the following command syntax:

```
/DISPLAY SUBSYS ssid
```

The *ssid* variable is the subsystem identifier for the IMS external subsystem for the IMS synchronous ECCR.

### Example Output

The following example output is produced by this command for the IMS external subsystem that has the subsystem ID of I24A:

```
R 89,/DISPLAY SUBSYS I24A
IEE600I REPLY TO 89 IS;/DISPLAY SUBSYS I24A
DFS000I      SUBSYS   CRC REGID PROGRAM LTERM   STATUS EDMA
DFS000I      I24A     3                                CONN  EDMA
```

The output shows that the connection to the external subsystem is active and that the CRC value is 3.

## CHAPTER 9

# IMS Log-Based ECCR Commands

This chapter includes the following topics:

- [Introduction to the IMS Log-Based ECCR Commands, 59](#)
- [Starting the IMS Log-Based ECCR, 59](#)
- [CLOSE Command, 60](#)
- [DISPLAY TRACE Command, 60](#)
- [READ Command, 61](#)
- [REFRESH Command, 61](#)
- [STATISTICS Command, 62](#)
- [STATUS Command, 65](#)
- [TRACEOFF Command, 66](#)
- [TRACEON Command, 66](#)

## Introduction to the IMS Log-Based ECCR Commands

Use the IMS log-based ECCR commands to stop the IMS log-based ECCR, print statistics messages about captured changes type, or control tracing.

Use the trace commands only at the direction of Informatica Global Customer Support.

Issue the commands from either the MVS operator console or an interface such as SDSF. To issue the commands, use the MVS MODIFY (F) command. You must include the ECCR started task name or job name in each command.

## Starting the IMS Log-Based ECCR

You can run the IMS log-based ECCR as a started task or batch job. Whenever you create or change capture registrations, you must restart the ECCR to activate those registrations.

Before starting the ECCR the first time, perform the following tasks:

- Verify that the PowerExchange Listener, PowerExchange Agent, and PowerExchange Logger for z/OS are running.
- Configure the IMS log-based ECCR JCL.

### Syntax

To start the IMS ECCR as a start task, use the MVS START (S) command:

```
S eccr_task_name
```

To run the IMS ECCR as a batch job, submit the configured JCL.

## CLOSE Command

Stops the IMS log-based ECCR in a controlled manner. When you restart the ECCR, it resumes reading log records from where it left off. No change data is lost.

### Syntax

Use the following command syntax:

```
F eccr_task_name,CLOSE
```

The *eccr\_task\_name* variable represents the name of the IMS log-based ECCR started task or batch job.

### Example Output

When the close operation completes, PowerExchange issues the following informational message:

```
PWX-07291 ECCR is shutting down after reading the IMS log to timestamp
```

## DISPLAY TRACE Command

Displays the number of traces that are active for the IMS log-based ECCR and their tracing levels and filter criteria. Use this command only at the direction of Informatica Global Customer Support.

### Syntax

Use the following command syntax:

```
F eccr_task_name,{DISPLAY TRACE|DISP TRAC}
```

The *eccr\_task\_name* variable represents the name of the IMS log-based ECCR started task or batch job.

### Example Output

The following example output was produced when two traces were active that had a trace level of -1 and the specified filter criteria:

```
PWX-07994 Tracing is on
PWX-07996 Number of traces is 2
PWX-07997 Trace level=-1 filter=IMTCOLL,0,99
PWX-07997 Trace level=-1 filter=IMTCOLX,0,99
```

### RELATED TOPICS:

- [“TRACEOFF Command” on page 66](#)
- [“TRACEON Command” on page 66](#)

# READ Command

Starts another IMS log-based ECCR cycle of reading changes.

## Syntax

Use the following command syntax:

```
F eccr_task_name,READ
```

The *eccr\_task\_name* variable is the name of the IMS log-based ECCR started task or job.

# REFRESH Command

Refreshes the list of IMS segments with active capture registrations that the IMS log-based ECCR uses to capture change data.

Issue this command in the following situations to update the list of registered sources without shutting down the ECCR:

- After you add a capture registration.
- After you delete a capture registration.
- After you issue a PWXUCREG utility command that changes the registration status, such as the SUSPEND\_REGISTRATION or ACTIVATE\_REGISTRATION command. For more information, see the *PowerExchange Utilities Guide*.

To use this command, you must specify REFRESH\_ALLOWED=Y in the RUNLIB(CAPTIMS) member to which the DTLCACFG DD statement in the ECCR JCL points.

When you issue the command, the ECCR begins shutdown processing but does not end. The ECCR rebuilds the list of registered sources and initiates a special warm start. The ECCR reprocesses any UOWs that were open when the command was issued, beginning with the earliest open UOW. After the ECCR has reprocessed all of the open UOWs up to the current log read position, it resumes normal processing.

## Syntax

Use the following command syntax:

```
F eccr_task_name,REFRESH
```

The *eccr\_task\_name* variable is the name of the IMS log-based ECCR job or started task.

## Usage Notes

- For a REFRESH operation, the ECCR reprocesses all of the open UOWs so that it can capture data for any registration that was added or avoid capturing data for any registration that was deleted.
- For each registration that you add, you can control the point from which change capture begins for the new source. Before you issue the REFRESH command, stop change activity on the source, add the registration, and synchronize the source and target. Then issue REFRESH command and resume change activity on the source.
- For each registration that you delete, ensure that all in-flight changes have been captured and that extraction processing has caught up to the current ECCR position of the SLDSs before you issue the REFRESH command.

# STATISTICS Command

Prints statistics messages about the changes that the IMS log-based ECCR captured. The messages are printed to the DTLLOG and DTLOUT data sets.

The IMS log-based ECCR STATISTICS command is supported only for the ECCR DTLCCIMX program that works with the DBRC API. PowerExchange supplies the DTLCCIMX program for IMS 10 and later.

Depending on the command parameter you specify, this command can print capture statistics since the start of the ECCR, at the end of a specific interval, since the last execution of the STATISTICS command, or when the ECCR finishes processing a SLDS. The ECCR always prints capture statistics at the end of its run.

**Important:** For the ECCR to print statistics for each SLDS, you must set the CAPT\_STATS parameter to Y in the RUNLIB(CAPTIMS) member or run the ECCR STATISTICS ON command.

## Syntax

Use the following command syntax to print message PWX-06182, which reports totals for changes captured since the start of the ECCR run:

```
F eccr_name,STATISTICS
```

Use the following command syntax to specify the interval for which to print message PWX-06181, which reports totals for changes captured during the interval:

```
F eccr_task_name,STATISTICS minutes
```

Use the following command syntax to print PWX-06153 statistics messages by registered source for the period since the last execution of the STATISTICS command:

```
F eccr_task_name,STATISTICS SINCE [TERSE]
```

Use the following command syntax to control whether PWX-06153 statistics messages are printed each time the ECCR finishes processing a SLDS:

```
F eccr_task_name,STATISTICS {OFF|ON}
```

In all of these commands, *eccr\_task\_name* is required. This variable represents the name of the IMS log-based ECCR started task or batch job.

Do not specify multiple parameters on the same command, for example, *minutes* and SINCE.

## Parameter Descriptions

The following parameters are optional on the STATISTICS command:

### **minutes**

Defines the interval, in minutes, for which the ECCR collects statistics and prints a PWX-06181 message. This message reports the number of inserts, deletes, updates, and commits that were captured from a SLDS during the interval. The message also reports the position in the SLDS up to which changes were captured. Use this positional parameter to print statistics at a specific frequency, for example, every 60 minutes. This number of minutes overrides the CAPT\_STATS\_INTVL parameter value for the duration of the ECCR run. Valid values are 1 through 1440. No default is provided.

### **OFF**

Does not print PWX-06153 messages when a SLDS is closed. However, PWX-06153 messages are still be printed at the end of the ECCR run and can be printed for a subsequent STATISTICS *minutes* or STATISTICS SINCE command. The STATISTICS OFF command is analogous to the CAPT\_STATS=N parameter in the ECCR configuration member. When the command is issued, the ECCR prints message PWX- 07804 to indicate that statistics reporting is turned off.

## ON

Prints PWX-06153 messages each time the ECCR finishes processing a SLDS and closes it. The PWX-06153 messages report the number of inserts, deletes, and updates that were processed for each registered source, grouped by SLDS. The STATISTICS ON command is analogous the CAPT\_STATS=Y parameter in the ECCR configuration member. When this parameter is used, the ECCR prints message PWX-07803 to indicate that statistics reporting is turned on.

## SINCE

Prints PWX-06153 messages for the period since the last execution of the STATISTICS command. The PWX-06153 messages report the number of inserts, deletes, updates, and commits that were processed for each registered source during this period. Messages PWX-06183 and PWX-06184 identify the boundaries of this block of messages. Message PWX-06184 provides totals for all sources for the period. If you schedule the command with this parameter, you can print statistics with regular periodicity, such as daily or weekly.

## SINCE TERSE

Prints PWX-06153 messages only for registered sources for which the ECCR captured changes since the last execution of the STATISTICS command. The PWX-06183 message includes counts only for the registered sources for which inserts, updates, or deletes were committed.

## Example Output

The following statistics messages are printed as a result of the STATISTICS command when the ECCR parameter CAPT\_STATS\_INTVL=1 is specified.

```
PWX-06967 ECCR starting at IMS log time 12/04/08 12:00:00.000000 (YY/MM/DD HH:MM:SS.NNNNNN).
Record count=0
PWX-07805 Statistics interval subtask started, collection interval 1
minute(s)
PWX-06118 Registration loaded: DBName: IMSZ RegName: root.1 Creator: IMSDBASE Table: ROOT
PWX-06118 Registration loaded: DBName: IMSZ RegName: xlev2.1 Creator: XMSDBASE Table:
LEV2

PWX-07703 IMS ECCR, ECCR, Fri Apr 13 14:24:40.956 2012, Registration read
completed.
PWX-06940 Batch logs: Initial query with StartTime=<2012099F1309587000000000C> loc=<SPEC>
SSID=<*>.
PWX-07261 The IMS ECCR will use offline log
IMS123.ABCDEF.IEFRDER.G0024V00
PWX-07262 The IMS ECCR will use offline log data set with start time C963AE40AA3E0000 2012.099
13:09:58.70
PWX-07280 and end time C963AE412F0E0000 2012.099
13:09:59.24.
PWX-07261 The IMS ECCR will use offline log
IMS123.ABCDEF.IEFRDER.G0025V00
PWX-07262 The IMS ECCR will use offline log data set with start time C963AE572BF60000 2012.099
13:10:22.30
PWX-07280 and end time C963AE5845F18000 2012.099
13:10:23.45.
PWX-06941 Online logs: Initial query with StartTime=<00000000000000000000000000000000> loc=<SPEC>
SSID=<IMS1>.
PWX-07272 The IMS ECCR is processing log data set
IMS123.ABCDEF.IEFRDER.G0024V00.
PWX-06152 IMS SLDS File IMS123.ABCDEF.IEFRDER.G0024V00 closed with some records processed.
Progress since last display:
PWX-06153 root.1 IMSDBASE ROOT I=000000000005 D=000000000000
U=000000000000
PWX-06153 xlev2.1 XMSDBASE LEV2 I=000000000000 D=000000000000
U=000000000000
PWX-07272 The IMS ECCR is processing log data set
IMS123.ABCDEF.IEFRDER.G0025V00.
PWX-06152 IMS SLDS File IMS123.ABCDEF.IEFRDER.G0025V00 closed with some records processed.
Progress since last display:
PWX-06153 root.1 IMSDBASE ROOT I=000000000000 D=000000000001
U=000000000001
PWX-06153 xlev2.1 XMSDBASE LEV2 I=000000000001 D=000000000000
U=000000000000

PWX-06181 Interval 12/04/13 14:25:35 I=000000000006 D=000000000001 U=000000000001
```

```

C=0000000000002 Log=12/04/12 15:15:34.02
PWX-06181 Interval 12/04/13 14:26:35 I=000000000000 D=000000000000 U=000000000000
C=0000000000000 Log=12/04/12 15:15:34.02
PWX-06181 Interval 12/04/13 14:27:35 I=000000000000 D=000000000000 U=000000000000
C=0000000000000 Log=12/04/12
15:15:34.02
PWX-06179 IMS ECCR Run complete. Totals for this
run:
PWX-06153 root.1 IMSDBASE ROOT I=000000000005 D=000000000001
U=0000000000001
PWX-06153 xlev2.1 XMSDBASE LEV2 I=000000000001 D=000000000000
U=0000000000000
PWX-06182 Totals 12/04/13 14:36:09 I=000000000006 D=000000000001 U=000000000001
C=0000000000008 Log=12/04/12 15:15:34.02
PWX-07291 ECCR is shutting down after reading the IMS log to 12/04/12
15:15:34.026000
PWX-07807 Statistics subtask ended, cycle count = 3

```

In this example, the PWX-06153 messages show the number of inserts, deletes, and updates by registration for each SLDS and for the entire ECCR run. The PWX-06181 messages provides totals for each 1-minute interval, and the PWX-06182 message provides totals for the entire ECCR run.

The following messages are printed if you add *minutes* to the STATISTICS command, for example, `F eccr_task_name, STATISTICS 1:`

```

PWX-07809 Statistics interval. New interval command accepted
PWX-07810 Statistics interval subtask, collection interval updated to 1 minute(s)
...
PWX-06181 Interval 12/05/22 15:12:35 I=000000000001 D=000000000001
U=0000000000000 C=0000000000002 Log=12/05/22 09:26:46.64
PWX-06181 Interval 12/05/22 15:13:35 I=000000000000 D=000000000000
U=0000000000000 C=0000000000000 Log=12/05/22 09:26:46.

```

The following messages are printed if you use the STATISTICS SINCE command to print statistics since the last execution of the STATISTICS command:

```

PWX-06183 SnceLast 12/04/13
14:32:35

PWX-06153 root.1 IMSDBASE ROOT I=000000000000 D=000000000000
U=0000000000000
PWX-06153 xlev2.1 XMSDBASE LEV2 I=000000000000 D=000000000000
U=0000000000000
PWX-06184 SnceLast 12/04/13 14:34:51 I=000000000000 D=000000000000
U=0000000000000 C=0000000000000 Log=12/04/12 15:15:34.02

```

The following messages are printed if you use the STATISTICS ON command to print statistics by SLDS and for the entire run:

```

PWX-07272 The IMS ECCR is processing log data set
IMS1210.SLDSP.IMSC.D12135.T1318291.V03.
PWX-06152 IMS SLDS File IMS1210.SLDSP.IMSC.D12121.T1318291.V03 closed with some records
processed. Progress since last display:
PWX-06153 d002cpl.1 DTLDD002 *COMPLEX I=000000000013 D=000000000000
U=0000000000000
PWX-06153 d002root.1 DTLDD002 ROOT I=000000000040 D=000000000000
U=0000000000000
PWX-06153 d002seg1.1 DTLDD002 SEG1 I=000000000040 D=000000000000
U=0000000000000
PWX-06153 d002seg2.1 DTLDD002 SEG2 I=000000000013 D=000000000000
U=0000000000000
PWX-07272 The IMS ECCR is processing log data set
IMS1210.SLDSP.IMSC.D12356.T0723336.V03.
PWX-06152 IMS SLDS File IMS1210.SLDSP.IMSC.D12143.T0723336.V03 closed with some records
processed. Progress since last display:
PWX-06153 d002cpl.1 DTLDD002 *COMPLEX I=000000000007 D=000000000020
U=0000000000000
PWX-06153 d002root.1 DTLDD002 ROOT I=000000000043 D=000000000077
U=0000000000000
PWX-06153 d002seg1.1 DTLDD002 SEG1 I=000000000135 D=000000000157
U=0000000000000

```



```

PWX-06153 d002seg2.1          DTLD002 SEG2          I=0000000000007 D=0000000000020
U=0000000000000
PWX-06179 IMS ECCR Run complete. Totals for this
run:
PWX-06153 d002cpl.1           DTLD002 *COMPLEX      I=0000000000080 D=0000000000080
U=0000000000000
PWX-06153 d002root.1          DTLD002 ROOT         I=0000000000332 D=0000000000308
U=0000000000000
PWX-06153 d002seg1.1          DTLD002 SEG1         I=0000000000700 D=0000000000628
U=0000000000000
PWX-06153 d002seg2.1          DTLD002 SEG2         I=0000000000080 D=0000000000080
U=0000000000000
PWX-06182 Totals 12/05/22 07:34:26          I=000000001490 D=000000001370
U=0000000000000 C=000000000237 Log=12/05/22 07:24:05.20
PWX-07291 ECCR is shutting down after reading the IMS log to 12/05/22 07:24:05.207000

```

## Usage Notes

- PowerExchange supports the STATISTICS command only for the ECCR DTLCCIMX program, which is available for IMS 10 and later.
- Before you specify the STATISTICS *minutes* command to change the interval at which statistics are reported, you must either specify CAPT\_STATS=Y in the DBMOVER configuration member or issue the STATISTICS ON command.
- The interval that is specified in STATISTICS *minutes* command overrides any interval that is specified in the CAPT\_STATS\_INTVL parameter. In the message output, PWX-07809 reports the new interval that is set by the STATISTICS command.
- The interval value cannot be 0. If you enter the command STATISTICS 0, PowerExchange issues error message PWX-07808. If you set the CAPT\_STATS\_INTVL parameter to 0 in the RUNLIB(CAPTIMS) configuration member, PowerExchange issues the error message PWX-00967.
- If you set the CAPT\_STATS\_TERSE parameter to N in the RUNLIB(CAPTIMS) member and then run STATISTICS SINCE TERSE, the TERSE option overrides the CAPT\_STATS\_TERSE setting for the SINCE period.

# STATUS Command

Prints message PWX-07812 to the SYSPRINT output file. This message indicates the current status of IMS log-based ECCR read processing in the SLDS.

You can use this command only with the IMS log-based ECCR DTLCCIMX program that works with the DBRC API.

## Syntax

Use the following command syntax:

```
F eccr_task_name,STATUS
```

The *eccr\_task\_name* variable is the name of the IMS log-based ECCR started task or job.

## Example Output

The command prints the following message:

```
PWX-07812 Latest time processed YY/MM/DD hh:mm:ss. Records processed number (IMS ECCR)
```

# TRACEOFF Command

Disables tracing for the IMS log-based ECCR. Use this command only at the direction of Informatica Global Customer Support.

## Syntax

Use the following command syntax:

```
F eccr_task_name,TRACEOFF [trace_id]
```

The *eccr\_task\_name* variable is the name of the IMS log-based ECCR started task or batch job.

The optional *trace\_id* parameter is the identifier for a specific trace. Use this parameter to disable a particular trace. Without this parameter, the command disables all active traces.

## Usage Note

One of the following messages is written to the DTLLOG file:

```
PWX-07800 Tracing turned off
PWX-07801 Trace trace_id has been turned off
```

## RELATED TOPICS:

- [“DISPLAY TRACE Command” on page 60](#)
- [“TRACEON Command” on page 66](#)

# TRACEON Command

Enables tracing for the IMS log-based ECCR with specific filter criteria and a specific trace level. Trace information shows a history of IMS ECCR events and is useful for diagnosing problems.

Use this command only at the direction of Informatica Global Customer Support.

## Syntax

Use the following command syntax:

```
F eccr_task_name,TRACEON trace_filter level_number
```

Where:

- *eccr\_task\_name* is the name of the IMS log-based ECCR started task or job.
- *trace\_filter* and *level\_number* are values provided by Informatica Global Customer Support.

## Example Output

If you issue this command successfully, the following message is written to the DTLLOG file:

```
PWX-07998 Trace trace_id level trace_level turned on
```

If you issue this command without valid trace filter criteria or a valid trace level, the following message is written to the DTLLOG file:

```
PWX-07282 The TRACEON command is missing the trace filter and trace level arguments.
```

## RELATED TOPICS:

- [“DISPLAY TRACE Command” on page 60](#)
- [“TRACEOFF Command” on page 66](#)

## CHAPTER 10

# PowerExchange Agent Commands

This chapter includes the following topics:

- [Introduction to the PowerExchange Agent Commands, 68](#)
- [Starting the PowerExchange Agent, 69](#)
- [DISPLAY Command, 69](#)
- [DRAIN Command, 70](#)
- [LOGCLOSE Command, 71](#)
- [LOGOPEN Command, 71](#)
- [LOGSPIN Command, 72](#)
- [REPCLOSE Command, 72](#)
- [REPOPEN Command, 73](#)
- [REPOSITORYDSN Command, 73](#)
- [REPSTATUS Command, 74](#)
- [RESUME Command, 74](#)
- [SHUTDOWN Command, 75](#)
- [START Command, 75](#)
- [STOP Command, 76](#)

## Introduction to the PowerExchange Agent Commands

Use the PowerExchange Agent commands to perform the following tasks:

- Display information about PowerExchange Agent processing.
- Manage the PowerExchange Agent message log.
- Open or close the PowerExchange Agent repository data set, change the name that the PowerExchange Agent uses for the repository data set, and display status information about this data set.
- Start and stop PowerExchange Agent subtasks.
- Shut down the PowerExchange Agent address space.

The commands that begin with “REP” manage to the PowerExchange Agent repository data set. The PowerExchange Agent uses the repository data set to get the latest capture registration information. You can use either the AGENTREP data set or CCT data set as the PowerExchange Agent repository. Informatica recommends using the AGENTREP data set to avoid unnecessary I/O activity.

To issue the PowerExchange Agent commands, use the MVS operator console or an interface such as SDSF. You must precede each command with the MVS command prefix that is specified for the CmdPrefix parameter in the AGENTCTL member of the RUNLIB library. If you did not define the optional CmdPrefix parameter, use the default command prefix, which is the AGENTID parameter value in the AGENTCTL member. The PowerExchange Agent uses the command prefix to intercept commands issued to MVS. In the syntax, the command prefix is represented by the *cmd\_prefix* variable.

If you issue a PowerExchange Agent command when the PowerExchange Agent address space is inactive, MVS rejects the command and PowerExchange issues the following message:

```
PWXEDM172054W module: agentid Command Exit. command command rejected - Agent is not active
```

If you issue a PowerExchange Agent command with the incorrect command prefix or when the PowerExchange Agent has not been active since the last IPL of the system, MVS issues the following message:

```
IEE305I agent_command COMMAND INVALID
```

To start the PowerExchange Agent, use the standard MVS START command.

For more information about the PowerExchange Agent repository and AGENTREP data set, see the *PowerExchange CDC Guide for z/OS*.

## Starting the PowerExchange Agent

To start the PowerExchange Agent after installation or to restart it after it has stopped, use the MVS START command followed by the name of the PowerExchange Agent started task.

### Syntax

Use the following command syntax:

```
START task_name
```

This command initiates the PowerExchange Agent startup procedure.

To start a specific DIS, LOG, or REP subtask, use the PowerExchange START command.

### RELATED TOPICS:

- [“START Command” on page 75](#)

## DISPLAY Command

Displays information about PowerExchange Agent processing on the MVS operator console.

### Syntax

Use the following command syntax:

```
cmd_prefix DISPLAY {GBLQDSNS|JOBS|LOCKS|MODULES}
```

The *cmd\_prefix* variable is the command prefix that is specified in the AGENTCTL member of the RUNLIB library or the AGENTID parameter value in the AGENTCTL member.

## Parameter Descriptions

You must specify one of the following parameters for this command:

### GBLQDSNS

Displays identifiers for all global circular queues that are allocated for the PowerExchange Agent.

### JOBS

Displays all MVS TCBs that are registered to the PowerExchange Agent for its services.

### LOCKS

Displays any PowerExchange Agent locks and the owners of those locks.

### MODULES

Displays the names of all modules that the PowerExchange Agent loads.

## Usage Notes

For this command to be successful, the PowerExchange Agent must be running. If you issue the command when the PowerExchange Agent is not running but it has run since the last IPL, PowerExchange issues the following message:

```
PWXEDM172054W module: agentid Command Exit. command command rejected - Agent is not active
```

## Example Output

The following command was entered for the PowerExchange Agent that has an AGENTID value of "DBM1" and is currently running:

```
DBM1 DISPLAY GBLQDSNS
```

The command produced the following message output:

```
PWXEDM172078I EDMSDIS0: DISPLAY command accepted by EDM Agent DBM1
PWXEDM172200I EDMSDIS0: Global Queue DSNs display for EDM Agent DBM1
PWXEDM172205I EDMSDIS0: PWXL.LOGGER.QUEUE.DBM1.DBML -
CQMN=10A989028,Seq=28
PWXEDM172206I EDMSDIS0: End of list
```

# DRAIN Command

Verifies that all tasks that were accessing the PowerExchange Agent have completed and are no longer running on the system.

You must issue the DRAIN command before issuing the SHUTDOWN COMPLETELY command to ensure that all tasks complete before the address space shuts down.

**Tip:** After you issue the DRAIN command, you can use the RESUME command to enable tasks to resume access to the PowerExchange Agent.

## Syntax

Use the following command syntax:

```
cmd_prefix DRAIN
```

The *cmd\_prefix* variable is the command prefix that is specified in the AGENTCTL member of the RUNLIB library or the AGENTID parameter value in the AGENTCTL member.

#### RELATED TOPICS:

- [“RESUME Command” on page 74](#)
- [“SHUTDOWN Command” on page 75](#)

## LOGCLOSE Command

Closes and deallocates the PowerExchange Agent message log data set named EDMSLOG.

#### Syntax

Use the following command syntax:

```
cmd_prefix LOGCLOSE
```

The *cmd\_prefix* variable is the command prefix that is specified in the AGENTCTL member of the RUNLIB library or the AGENTID parameter value in the AGENTCTL member.

#### RELATED TOPICS:

- [“LOGSPIN Command” on page 72](#)

## LOGOPEN Command

Allocates and opens a new PowerExchange Agent message log data set named EDMSLOG. EDMSLOG is a SYSOUT data set that contains messages from the PowerExchange Agent and from all components that interact with the PowerExchange Agent. After the message log is open, it is available to accept PowerExchange Agent messages.

#### Syntax

Use the following command syntax:

```
cmd_prefix LOGOPEN
```

The *cmd\_prefix* variable is the command prefix that is specified in the AGENTCTL member of the RUNLIB library or the AGENTID parameter value in the AGENTCTL member.

#### Usage Notes

If you issue the LOGOPEN command when the EDMSLOG log data set is already open, the PowerExchange Agent rejects the command and issues the following messages to the current log data set:

```
PWXEDM172078W EDMSLOG0: LOGOPEN command rejected by EDM Agent agent_id  
PWXEDM172083W EDMSLOG0: The Agent Message log is already open
```

## RELATED TOPICS:

- [“LOGSPIN Command” on page 72](#)

# LOGSPIN Command

Closes and deallocates the current PowerExchange Agent EDMSLOG message log and then allocates and opens a new EDMSLOG message log. This action is equivalent to issuing the LOGCLOSE command followed by the LOGOPEN command.

## Syntax

Use the following command syntax:

```
cmd_prefix LOGSPIN
```

The *cmd\_prefix* variable is the command prefix that is specified in the AGENTCTL member of the RUNLIB library or the AGENTID parameter value in the AGENTCTL member.

## RELATED TOPICS:

- [“LOGCLOSE Command” on page 71](#)
- [“LOGOPEN Command” on page 71](#)

# REPCLOSE Command

Closes and deallocates the current PowerExchange Agent repository data set. You might need to perform this function when you are managing repository data sets in a testing environment or when you need to move or reorganize repository data sets. Usually, the current repository data set is the one that is defined by the REPOSITORYDSN parameter in the AGENTCTL member of the RUNLIB library. However, if you used the REPOSITORYDSN command to override that repository data set, the REPCLOSE command closes the override repository data set that was allocated by the REPOSITORYDSN command.

## Syntax

Use the following command syntax:

```
cmd_prefix REPCLOSE
```

The *cmd\_prefix* variable is the command prefix that is specified in the AGENTCTL member of the RUNLIB library or the AGENTID parameter value in the AGENTCTL member.

## RELATED TOPICS:

- [“REOPEN Command” on page 73](#)
- [“REPOSITORYDSN Command” on page 73](#)



# REOPEN Command

Allocates and opens a new PowerExchange Agent repository data set after the REPCLOSE command has been issued. Usually, this command opens the repository data set that is defined by the REPOSITORYDSN parameter in the AGENTCTL member of the RUNLIB library. However, if you have used the REPOSITORYDSN command to override that repository data set, the REOPEN command opens the repository data set that was allocated by last REPOSITORYDSN command.

## Syntax

Use the following command syntax:

```
cmd_prefix REOPEN
```

The *cmd\_prefix* variable is the command prefix that is specified in the AGENTCTL member of the RUNLIB library or the AGENTID parameter value in the AGENTCTL member.

## Usage Notes

If you issue this command when the repository data set is already open, the PowerExchange Agent ignores the command and issues the following message:

```
PWXEDM172078W EDMSREP0: REOPEN command rejected by EDM Agent agent_id  
PWXEDM172083W EDMSREP0: The Repository is already open
```

## RELATED TOPICS:

- [“REPCLOSE Command” on page 72](#)
- [“REPOSITORYDSN Command” on page 73](#)

# REPOSITORYDSN Command

Closes and deallocates the current PowerExchange Agent repository data set and then allocates and opens a new data set that has the name you specify.

## Syntax

Use the following command syntax:

```
cmd_prefix REPOSITORYDSN data_set_name
```

Where:

- *cmd\_prefix* is the command prefix that is specified in the AGENTCTL member of the RUNLIB library or the AGENTID parameter value in the AGENTCTL member.
- *data\_set\_name* is the name that you want to use for the new repository data set.

## Usage Notes

If you specify an invalid data set name in the REPOSITORYDSN command, the allocation of the new repository data set fails. The following messages are written to the EDMSLOG data set:

```
PWXEDM172076I EDMSREP0: Repository file CLOSED  
IKJ56228I DATA SET data_set_name NOT IN CATALOG OR CATALOG CAN NOT BE ACCESSED
```

In this case, the PowerExchange Agent allocates a data set under the previous data set name. You must issue the REOPEN command to open that repository data set.

## RELATED TOPICS:

- [“REPCLOSE Command” on page 72](#)
- [“REOPEN Command” on page 73](#)

# REPSTATUS Command

Displays status information for the current PowerExchange Agent repository data set, including the data set name, the time when the last refresh attempt was made, the timestamp when change data capture information was last received, and the cache data sets, if used.

## Syntax

Use the following command syntax:

```
cmd_prefix REPSTATUS
```

The *cmd\_prefix* variable is the command prefix that is specified in the AGENTCTL member of the RUNLIB library or the AGENTID parameter value in the AGENTCTL member.

## Example Output

The following RESTATUS command was entered with the command prefix “AG01”:

```
AG01 REPSTATUS
```

This command produced in the following output:

```
PWXEDM172078I EDMSREP0: REPSTATUS command accepted by EDM Agent AG01
PWXEDM181216I DTERIOM : Repository status follows:
PWXEDM181217I DTERIOM : PWX10052 last refresh attempt Thu Apr  3 18:32:56 2008
PWXEDM181217I DTERIOM : PWX10053 current change identifier 20080403122139
PWXEDM181217I DTERIOM : PWX10055 configuration type repository PWX.V.AGENTREP
PWXEDM181217I DTERIOM : PWX10057 location node1
PWXEDM181217I DTERIOM : PWX10058 cache (1) PWX.V.C1.CACHE
PWXEDM181217I DTERIOM : PWX10058 cache (2) PWX.V.C2.CACHE
PWXEDM181217I DTERIOM : PWX10062 memory usage: REGS 33K, VIRT 252K, SYS 264K, EXT 5964K,
SYS 11964K
PWXEDM181217I DTERIOM : PWX10063 memory usage: below the line 2%, above the line 0%
PWXEDM181218I DTERIOM : End of repository status
```

# RESUME Command

Resumes task access to the PowerExchange Agent after a DRAIN command was issued. You can use the DRAIN and RESUME commands to temporarily suspend and then resume PowerExchange Agent activity.

## Syntax

Use the following command syntax:

```
cmd_prefix RESUME
```

The *cmd\_prefix* variable is the command prefix that is specified in the AGENTCTL member of the RUNLIB library or the AGENTID parameter value in the AGENTCTL member.

## RELATED TOPICS:

- [“DRAIN Command” on page 70](#)

# SHUTDOWN Command

Shuts down the PowerExchange Agent address space. This command prevents any additional tasks from connecting to the PowerExchange Agent but permits tasks that are currently connected to continue running.

You can include the optional COMPLETELY parameter to both shut down the PowerExchange Agent address space and delete the PowerExchange Agent modules and data space from storage. Before issuing the SHUTDOWN COMPLETELY command, issue the DRAIN command. The DRAIN command ensures that all tasks that are currently accessing the PowerExchange Agent complete before shutdown processing begins. After issuing the DRAIN command, issue the DISPLAY JOBS command to determine if any processes are still active.

Do not use the MVS STOP command to stop the PowerExchange Agent.

**Tip:** To restart the PowerExchange Agent after a shutdown, use the standard MVS START command.

## Syntax

Use the following command syntax:

```
cmd_prefix SHUTDOWN [COMPLETELY]
```

The *cmd\_prefix* variable is the command prefix that is specified in the AGENTCTL member of the RUNLIB library or the AGENTID parameter value in the AGENTCTL member.

## Parameter Description

You can optionally specify the following parameter for this command:

### COMPLETELY

Shuts down the PowerExchange Agent address space and deletes the PowerExchange Agent modules and data space from storage. The parameter completely removes the PowerExchange Agent from an MVS system.

## RELATED TOPICS:

- [“DRAIN Command” on page 70](#)
- [“DISPLAY Command” on page 69](#)

# START Command

Starts an inactive PowerExchange Agent DIS, LOG, or REP subtask.

These subtasks are started automatically at PowerExchange Agent initialization. If they stop because you issued the STOP command or for any other reason, use the START command to restart them.

**Note:** To start the PowerExchange Agent after installation or to restart it after it has stopped, use the MVS START command with the name of the PowerExchange Agent task.

## Syntax

Use the following command syntax:

```
cmd_prefix START {DIS|LOG|REP}
```

The *cmd\_prefix* variable is the command prefix that is specified in the AGENTCTL member of the RUNLIB library.

## Parameter Descriptions

You must specify one of the following parameters for this command:

### DIS

Starts the DIS subtask, which controls the DISPLAY commands.

### LOG

Starts the LOG subtask, which writes data from the PowerExchange Agent data space to the EDMSLOG message log data set.

### REP

Starts the REP subtask, which provides access to PowerExchange Agent repository information primarily for the ECCRs.

## RELATED TOPICS:

- [“Starting the PowerExchange Agent” on page 69](#)

# STOP Command

Stops an active PowerExchange Agent DIS, LOG, or REP subtask. Usually, you use this command at the direction of Informatica Global Customer Support when attempting to resolve problems.

## Syntax

Use the following command syntax:

```
cmd_prefix STOP {DIS|LOG|REP}
```

The *cmd\_prefix* variable is the command prefix that is specified in the AGENTCTL member of the RUNLIB library.

## Parameter Descriptions

You must specify one of the following parameters for this command:

### DIS

Stops the DIS subtask, which controls DISPLAY commands.

### LOG

Stops the LOG subtask, which writes data from the PowerExchange Agent data space to the EDMSLOG message log data set.

### REP

Stops the REP subtask, which prevents ECCR access to PowerExchange repository information.

## CHAPTER 11

# PowerExchange Condense Commands

This chapter includes the following topics:

- [Introduction to the PowerExchange Condense Commands, 77](#)
- [Starting PowerExchange Condense, 78](#)
- [Issuing PowerExchange Condense Commands, 79](#)
- [Stopping PowerExchange Condense Processing, 79](#)
- [CONDENSE Command, 80](#)
- [DISPLAY STATUS Command, 80](#)
- [FILESWITCH Command, 82](#)
- [SHUTCOND Command, 83](#)
- [SHUTDOWN Command, 84](#)

## Introduction to the PowerExchange Condense Commands

Use PowerExchange Condense commands to control PowerExchange Condense processing on an i5/OS or z/OS system. With these commands, you can perform the following tasks:

- Display the status of Condense subtasks.
- Start a Condense job manually.
- Stop a Condense job.
- Switch to a new set of condense files.

**Note:** On Linux, UNIX, and Windows, the PowerExchange Logger for Linux, UNIX, and Windows performs the partial condense function of PowerExchange Condense. The PowerExchange Logger commands are similar to those for PowerExchange Condense.

You can use the `pxwcmd` program to issue the PowerExchange Condense commands from a Linux, UNIX, or Windows system to a PowerExchange Condense process running on a remote i5/OS or z/OS system.

## RELATED TOPICS:

- [“PowerExchange Logger for Linux, UNIX, and Windows Commands” on page 119](#)
- [“pwxcmd Commands” on page 139](#)

# Starting PowerExchange Condense

The method of starting PowerExchange Condense depends on the operating system.

Before you start PowerExchange Condense, configure the DBMOVER and CAPTPARM configuration members. Use the COLL\_END\_LOG parameter in the CAPTPARM configuration file or member to set the run mode to continuous mode or batch mode. For more information about PowerExchange Condense configuration, see *PowerExchange CDC Guide for i5/OS* or *PowerExchange CDC Guide for z/OS*.

**Note:** You cannot use the pwxcmd program to start PowerExchange Condense.

## Starting PowerExchange Condense on i5/OS

Use the SBMJOB command to invoke the DTLCAON program.

You can include the optional CONFIG and LICENSE parameters to specify an override configuration file or license key file that you want to use instead of the default DBMOVER configuration file or license.key file. The override files must have a file name or path that is different from that of the default files. These override files take precedence over any override configuration and license key files that you specified in the optional PWX\_CONFIG and PWX\_LICENSE environment variables.

To start the PowerExchange Condense DTLCAON program on the PowerExchange Listener system, use the following command syntax:

```
SBMJOB CMD(CALL PGM(DTLCAON) PARM('[CS=library/file(mycondense_config_member)]'
'[CONFIG=library/file(myconfig_member)]' '[LICENSE=library/file(mylicensekey_member)]')
JOB(job_name) JOBD(datalib/DTLLIST) JOBQ(*JOBQ) PRTDEV(*JOBQ) OUTQ(*JOBQ)
CURLIB(datalib) INLLIBL(*JOBQ)
```

This syntax contains the following variables:

- *job\_name* is the name of the Condense job that you want to start.
- *datalib* is the name of the PowerExchange data library that you specified at installation.

**Note:** In the CS parameter, you can specify *condlib*/CFGCOND(CAPTPARM), where *condlib* is the name of the library that contains the PowerExchange Condense files. To run a job for each journal that PowerExchange Condense processes, specify the appropriate *condlib* library name.

In the syntax, you can specify one or more of the following optional parameters:

### CS

Specifies the library, file name, and member name for any condense configuration member that you created and want to use instead of the default *condlib*/CFGCOND(CAPTPARM) configuration member.

### CONFIG

Specifies the library, file name, and member name of any override dbmover configuration member that you created and want to use instead of the default *datalib*/CFG(DBMOVER) configuration member.

### LICENSE

Specifies the library, file name, and member name for any override license key member that you created and want to use instead of the default license key member.

**Note:** In these parameters, the full path is required only if the member does not reside at the default location.

### Starting PowerExchange Condense on z/OS

On a z/OS system, you can run PowerExchange Condense as a started task or batch job. PowerExchange provides sample JCL in the CONDxxx and PCNDxxx members of the SAMPLIB library, where xxx indicates the data source type. CONDxxx members run PowerExchange Condense as a batch job, and PCNDxxx members run PowerExchange Condense as a started task. For more information, see the *PowerExchange CDC Guide for z/OS*.

## Issuing PowerExchange Condense Commands

Issuing commands to a PowerExchange Condense process varies by operating system.

On a z/OS system, use the MVS MODIFY (F) command to issue the PowerExchange Condense commands. You must include the Condense started task name or job name followed by a comma (.). In the syntax for the commands, this name is indicated by the *job\_name* variable. You can enter the commands from the MVS operator console, an interface such as SDSF, or a batch job.

On an i5/OS system, use the SNDPWXCMD command to issue the PowerExchange Condense commands in foreground mode. Enter the commands from the i5/OS command line or include the commands in script files.

Alternatively, you can use the pwxcmd program to issue the PowerExchange Condense commands. You can issue a pwxcmd command from a Linux, UNIX, or Windows system to a PowerExchange Condense process running on the local or a remote i5/OS or z/OS system.

### RELATED TOPICS:

- [“pwxcmd Commands” on page 139](#)

## Stopping PowerExchange Condense Processing

Use either of the following PowerExchange commands to stop a Condense job that is running in continuous mode:

- SHUTDOWN
- SHUTCOND

These commands maintain data integrity and enable you to resume condense processing efficiently. Both commands perform the same shutdown except that the SHUTCOND command first performs a final condense operation. Before shutting down, PowerExchange Condense takes a checkpoint that contains the latest restart tokens so that condense processing can resume from where it left off.

On z/OS, PowerExchange Condense ignores the STOP (P) command. If you issue this command, PowerExchange issues a message that indicates the command is not valid.

On z/OS, if you issue the CANCEL (C) command for a Condense job, the job stops. When you restart the job, it resumes from the last checkpoint. Any condense processing that occurred since that checkpoint is rolled back, and PowerExchange deletes the related CDCT records and condense files.

You can issue pwxcmd shutcond and shutdown commands from a Linux, UNIX, or Windows system to a PowerExchange Condense process running on a remote i5/OS or z/OS system.

## RELATED TOPICS:

- [“SHUTCOND Command” on page 83](#)
- [“SHUTDOWN Command” on page 84](#)
- [“pwxcmd shutcond Command ” on page 164](#)
- [“pwxcmd shutdown Command” on page 167](#)

# CONDENSE Command

Manually starts a new condense cycle before the wait period for resuming condense processing has elapsed, if you are running PowerExchange Condense in continuous mode. You specify the wait period in the NO\_DATA\_WAIT parameter of the PowerExchange Condense CAPTPARM configuration member.

You can issue a pwxcmd condense command from a Linux, UNIX, or Windows system to a PowerExchange Condense process running on a remote i5/OS or z/OS system.

## Syntax

The syntax varies by system.

- On an i5/OS system, use the following syntax to issue a command to an i5/OS batch job:

```
SNDPWXCMD CMDHDLRLIB(condlib) DTLCMD(CONDENSE)
```

The *condlib* variable is the name of the library that contains the condense files. You specify this library in the COND\_DIR parameter of the CAPTPARM configuration member.

- On a z/OS system, use the following syntax:

```
F task_name,CONDENSE
```

The *task\_name* variable is the name of the PowerExchange Condense started task that you are running in continuous mode. Usually, the PowerExchange Condense runs as a started task.

## RELATED TOPICS:

- [“pwxcmd condense Command” on page 159](#)

# DISPLAY STATUS Command

Displays the current status of the Controller task, Command Handler subtask, and Condense subtask of a PowerExchange Condense started task or job.

Alternatively, on a Linux, UNIX, or Windows system, you can issue a pwxcmd displaystatus command from the command line, a batch file, or a script to a PowerExchange Condense process running on the local or a remote system.

## Syntax

The syntax varies by platform.

- On an i5/OS system, use the following syntax:

```
SNDPWXCMD CMDHDLRLIB(condlib) DTLCMD(DISPLAY) DISPLAYOPT(STATUS)
```



The *condlib* variable is the name of the library that contains the condense files, which you specified in the COND\_DIR parameter of the CAPTPARM configuration file.

- On an z/OS system, use the following syntax:

```
F task_name,DISPLAY STATUS
```

The *task\_name* variable is the name of the Condense started task or batch job for which you want to display information. Usually, PowerExchange Condense runs as a started task.

## Example Output

The following example output was produced by the DISPLAY STATUS command on z/OS:

```
PWX-26011 Command handler received command "DISPLAY STATUS"
***** STATUS *****
COMMAND_HANDLER NOT waiting
CONDENSE WAITING
PWX-26021 Controller waits on events ALL_TASK_SHUTDOWN, CMDH_ENDED, CONDENSE_ENDED,
CHKPT_COND_DONE, CONDENSING_COMPLETE,
PWX-26022 Command Handler waits on events ALL_TASK_SHUTDOWN, GOT_A_COMMAND,
CONDENSE_INIT_COMPLETE, CAPTURE_STARTUP_COMPLETE,
PWX-26023 Writer waits on events ALL_TASK_SHUTDOWN, START_CONDENSING,
CAPTURE_STARTUP_COMPLETE,
PWX-26024 Writer is sleeping, waiting for an event or timeout
*****
```

In this output, "CONDENSE WAITING" means that the Condense subtask is waiting for the number of minutes that is defined in the NO\_DATA\_WAIT parameter before starting the next condense cycle.

PWX-26021 reports the event types to which the Controller task responds. The Controller task has the following responses to these event types:

- ALL\_TASK\_SHUTDOWN. The Controller waits for the CONDENSE\_ENDED and CMDH\_ENDED events to complete and then shuts down.
- CMDH\_ENDED. The Controller detects that the Command Handler subtask has ended.
- CONDENSE\_ENDED. The Controller detects that the Condense subtask has ended.
- CHKPT\_COND\_DONE. The Controller deletes old CDCT records for which the retention period has expired.
- CONDENSING\_COMPLETE. The Controller does not respond to this event type.

PWX-26022 reports the event types to which the Command Handler responds. The Command Handler has the following responses to these event types:

- ALL\_TASK\_SHUTDOWN. The Command Handler subtask ends.
- GOT\_A\_COMMAND. The Command Handler processes the command.
- CONDENSE\_INIT\_COMPLETE. The Command Handler flags certain commands, such as CONDENSE, as eligible for processing now that Condense initialization is complete.
- CAPTURE\_STARTUP\_COMPLETE. The Command Handler subtask has completed initialization and is beginning its main processing.

PWX-26023 reports the event types to which the Condense subtask, also called the Writer, responds. The Condense subtask has the following responses to these event types:

- ALL\_TASK\_SHUTDOWN. The Condense subtask ends.
- START\_CONDENSING. The Condense subtasks starts looking for changes for the next condense cycle.
- CAPTURE\_STARTUP\_COMPLETE. The Condense subtask has completed initialization and is beginning its main processing.

# FILESWITCH Command

Closes the current condense files if they contain data and switches to a new set of condense files for PowerExchange Condense. If the current condense files do not contain any data, the file switch does not occur.

You can issue a `pwxcmd fileswitch` command from a Linux, UNIX, or Windows system to a PowerExchange Condense process running on a remote i5/OS or z/OS system.

## Syntax

The syntax varies by system.

- On an i5/OS system, use the following syntax:

```
SNDPWXCMD CMDHDLRLIB(condlib) DTLCMD(FILESWITCH)
```

The *condlib* variable is the name of the library that contains the condense files, which you specified in the COND\_DIR parameter of the CAPTPARM configuration member.

- On an z/OS system, use the following syntax:

```
F task_name,FILESWITCH
```

The *task\_name* variable is the name of the PowerExchange Condense started task or batch job for which you want to switch to a new set of condense files. Usually, PowerExchange Condense runs as a started task.

## Usage Notes

You can use this command to make change data in the current condense files available for extraction before the next file switch is due to occur. For example, you want to extract change data hourly from condense files on z/OS. Set the FILE\_SWITCH\_CRIT and FILE\_SWITCH\_VAL parameters in the CAPTPARM configuration file such that a file switch occurs after every one million record updates. Then include the FILESWITCH command as part of a batch job to perform an automated file switch hourly, before extraction processing runs.

**Note:** If you perform both partial and full condense processing in a single Condense job, PowerExchange uses separate sets of condense files for the partial and full condense operations. If you issue the FILESWITCH command, a file switch occurs for both sets of condense files.

## Example Output

The FILESWITCH command produced the following example output on z/OS:

```
PWX-26011 Command handler received command "FILESWITCH"
PWX-06460 Command Handler: New File Switch requested.
PWX-06415 Condense: Condense completed. Total Records=34, Data=16, UOWs =12
PWX-06422 Condense: Received FILESWITCH request.
PWX-06419 Condense: Doing file switch. Records=34 Reason=FILESWITCH request Cdcts=2 CPU:
TotMs=20558768 Diff=20558768
PWX-06418 Condense: Closed file ABCD.D1010QB.CND.CF160524.T1716003
PWX-06136 Checkpoint taken to file=ABCD.D1010QB.CHKPTV0 time=16/05/24 17:17:04
PWX-06420 Condense: Checkpoint done. Sequence=000027B4415F000000000000027B4415F00000000
PowerExchange Logger=D8C1C8D3404000001C6E83F400000000
PWX-06421 Condense: 16/05/24 17:17:04 Starting wait on commands for 268 seconds
```

## RELATED TOPICS:

- [“pwxcmd fileswitch Command ” on page 163](#)

# SHUTCOND Command

Stops PowerExchange Condense after completing a final condense cycle.

PowerExchange initiates a final condense cycle, waits for it to complete, and then shuts down PowerExchange Condense. During shutdown, PowerExchange Condense closes any open condense files, writes data to the CDCT file, takes a final checkpoint that contains the latest restart tokens, and then shuts down.

Alternatively, you can issue a pwxcmd shutcond command from a Linux, UNIX, or Windows system to a PowerExchange Condense process running on a remote i5/OS or z/OS system.

## Syntax

The syntax varies by system.

- On an i5/OS system, use the following syntax:

```
SNDPWXCMD CMDHDLRLIB(condlib) DTLCMD(SHUTCOND)
```

The *condlib* variable is the name of the library that contains the condense files. You specified this library in the COND\_DIR parameter of the CAPTPARM configuration member.

- On a z/OS system, use the following syntax:

```
F task_name,SHUTCOND
```

The *task\_name* variable is the name of the PowerExchange Condense started task or batch job that you want to stop. Usually, PowerExchange Condense runs as a started task.

## Example Output

The following example output was produced by the SHUTCOND command on z/OS:

```
PWX-26011 Command handler received command "SHUTCOND"
PWX-06467 Command Handler: Setting Condense to shut down on running out of data.
PWX-06468 Command Handler: Condense request issued.
PWX-06417 Condense: Start to Condense because CONDENSE Command Received
PWX-06416 Condense: Shutting down because Single Condense run completed
PWX-06136 Checkpoint taken to file=ABCD.D1010QB.CHKPTV2 time=16/05/24 14:49:36
PWX-06420 Condense: Checkpoint done. Sequence=00000B696E0B000000000000000B696E0B00000000
PowerExchange Logger=D8C1C8D3404000000B695CEF00000000
PWX-06404 Condense: Deleting file ABCD.D1010QB.CND.CP160520.T1832002.
PWX-06404 Condense: Deleting file ABCD.D1010QB.CND.CF160520.T1831001.
PWX-06404 Condense: Deleting file ABCD.D1010QB.CND.CP160520.T1832002.
PWX-06414 Condense: Closing down CAPI
PWX-06401 Condense: Ending successfully.
PWX-06110 Unloaded module 2 (CONDENSE).
PWX-06453 Command Handler: shutting down.
PWX-06454 Command Handler: has stopped.
PWX-06110 Unloaded module 1 (COMMAND HANDLER).
PWX-06060 Controller: subtask Command Handler ended.
PWX-06060 Controller: subtask Condense ended.
PWX-06107 Controller: All subtasks shut down.
PWX-06065 Controller: Condensing ended. Last checkpoint time 16/05/24 14:49:36.
PWX-06039 Controller: Ending.
```

## RELATED TOPICS:

- [“pwxcmd shutcond Command ” on page 164](#)

# SHUTDOWN Command

Stops PowerExchange Condense. The command passes a shutdown event to PowerExchange Condense. When PowerExchange Condense recognizes the command, the Condense subtask requests all subtasks to close, closes any open condense files, writes data to CDCT data set records, and takes a final checkpoint that contains the latest restart tokens. After all condense subtasks have shut down, PowerExchange Condense shuts down.

**Note:** PowerExchange does not process the SHUTDOWN command until condense read operations finish and the wait period that you specify in the NO\_DATA\_WAIT2 parameter of the CAPTPARM member elapses.

Alternatively, you can issue a pwxcmd shutcond command from a Linux, UNIX, or Windows system to a PowerExchange Condense process running on a remote i5/OS or z/OS system.

## Syntax

The syntax varies by system.

- On an i5/OS system, use the following syntax:

```
SNDPWXCMD CMDHDLRLIB(condlib) DTLCMD(SHUTDOWN)
```

The *condlib* variable is the name of the library that contains the condense files, which you specified in the COND\_DIR parameter of the CAPTPARM configuration member.

- On a z/OS system, use the following syntax:

```
F task_name,SHUTDOWN
```

The *task\_name* variable is the name of the PowerExchange Condense started task or batch job that you want to stop. Usually, PowerExchange Condense runs as a started task.

## Example Output

The SHUTDOWN command produces the following example output:

```
PWX-26011 Command handler received command "SHUTDOWN"
PWX-06463 Command Handler: Close Condense request is now queued.
PWX-06464 Command Handler: Shutdown will occur shortly.
PWX-06453 Command Handler: shutting down.
PWX-06454 Command Handler: has stopped.
PWX-06110 Unloaded module 1 (COMMAND_HANDLER).
PWX-06416 Condense: Shutting down because SHUTDOWN event received
PWX-06418 Condense: Closed file ABCDEF1.v101.I.CND.CP160520.T2039005
PWX-06136 Checkpoint taken to file=ABCDEF1.v101.I.CHKPTV2 time=16/05/20 20:45:41
PWX-06420 Condense: Checkpoint done. Sequence=0000003411E200000000000000003411E200000000
PowerExchange Logger=E2C2F2D3404000000002FF5BB00000000
PWX-06414 Condense: Closing down CAPI
PWX-10780 CAPI: INFO: Extraction return counts: no data 2, commits 118, inserts 1708,
updates 44, deletes 562.
PWX-10781 CAPI: INFO: Extraction subordinate read counts: no data 0, commits 406,
inserts 1828, updates 59,
deletes 786, backouts 10.
PWX-10782 CAPI: INFO: Extraction resource maximums: memory cache 433 KB, spill files 0.
PWX-10746 CAPI: INFO: Last data returned: timestamp 2016/05/13 17:44:28, sequence
0000003411E200000000000000003411E200000000.
PWX-10743 CAPI: INFO: No noteworthy transactions.
PWX-10749 CAPI: INFO: + Current subordinate sequence number 0000007A5F5100000000.
PWX-06401 Condense: Ending successfully.
PWX-06110 Unloaded module 2 (CONDENSE).
PWX-06060 Controller: subtask Command Handler ended.
```

PWX-06060 Controller: subtask Condense ended.  
PWX-06107 Controller: All subtasks shut down.  
PWX-06065 Controller: Condensing ended. Last checkpoint time 16/05/20 20:45:41.  
PWX-06039 Controller: Ending.

## RELATED TOPICS:

- [“pwxcmd shutdown Command” on page 167](#)

## CHAPTER 12

# PowerExchange Listener Commands

This chapter includes the following topics:

- [Introduction to PowerExchange Listener Commands, 86](#)
- [Starting the PowerExchange Listener, 87](#)
- [PowerExchange Listener Service on Windows, 90](#)
- [CLOSE and CLOSE FORCE Commands, 91](#)
- [DISPLAY ACTIVE and LISTTASK Commands, 93](#)
- [DISPLAYSTATS Command, 94](#)
- [DTLLSTSI Command, 102](#)
- [STOPTASK Command, 103](#)

## Introduction to PowerExchange Listener Commands

Use the PowerExchange Listener commands to stop or manage a PowerExchange Listener.

With these commands, you can complete the following tasks:

- Stop a PowerExchange Listener job or task after waiting for its subtasks complete.
- Stop a PowerExchange Listener job or task after canceling its subtasks.
- Display information about each active PowerExchange Listener task, including the TCP/IP address, port number, application name, access type, and status.
- Display monitoring statistics for a PowerExchange Listener, including statistics on resource usage, client tasks, and connections.
- Manage a PowerExchange Listener service on a Windows system.

All PowerExchange Listener commands except DTLLSTSI are available on all operating systems. DTLLSTSI is available on Windows only. The manner in which you issue the commands depends on the operating system.

On a z/OS system, use the z/OS MODIFY (F) command to issue the PowerExchange Listener commands. Include the PowerExchange Listener started task name or batch job name, followed by a comma (.). You can enter the commands from the MVS operator console or an interface such as SDSF. From SDSF, place a slash (/) before MODIFY or F, as follows:

```
/F job_name,CLOSE
```

On an i5/OS system, use the SNDLSTCMD command to issue PowerExchange Listener commands. These commands can be entered in the i5/OS interface or by using an automated scheduler, a CL program, or a REXX procedure.

On a Linux, UNIX, or Windows system, run the dtllst program to start the PowerExchange Listener job from the command prompt. On Windows, you can run the PowerExchange Listener as a Windows service.

You can also enter the PowerExchange Listener LISTTASK and STOPTASK commands in the PowerExchange Navigator. In the **Database Row Test** dialog box, select **TASK\_CNTL** in the **DB Type** list. Optionally, in the **Application** box, enter an application name for the command.

Alternatively, use the pwxcmd program to issue the PowerExchange Listener commands from a Linux, UNIX, or Windows system to a PowerExchange Listener running on any system.

## RELATED TOPICS:

- [“pwxcmd Commands” on page 139](#)
- [“DTLLSTSI Command” on page 102](#)

# Starting the PowerExchange Listener

The method of starting the PowerExchange Listener varies by operating system.

On i5/OS, Linux, UNIX, and Windows systems, you can include optional CONFIG and LICENSE parameters in the command that starts the dtllst program to specify alternative configuration and license key files that you want to use instead of the original DBMOVER configuration and license key files. Usually, you define the alternative files at a location or under a file name that is different from that of the original files. This practice prevents your customized files from being overwritten when you upgrade or reinstall the product. If you also specify alternative configuration and license key files in the PWX\_CONFIG and PWX\_LICENSE environment variables, the files identified in the CONFIG and LICENSE parameters override the files identified in the environment variables.

**Note:** You cannot use the pwxcmd program to start the PowerExchange Listener.

## Starting the PowerExchange Listener on i5/OS

On i5/OS, use the SBMJOB command to invoke the DTLLST program.

Before you execute the SBMJOB command, verify that the following prerequisites are met:

- The QMLTTHDACN system value is set to 1 or 2. For more information about the QMLTTHDACN system value, see the IBM i Information Center for i5/OS.
- The JOBDD description includes the ALWMLTTHD(\*YES) parameter to allow multiple threads.

Use the following command syntax:

```
SBMJOB CMD(CALL PGM(dtllib/DTLLST) PARM('node_name' '[CONFIG=library/  
file(myconfig_member)]' '[LICENSE=library/file(mylicense_key_member)]') JOB(job_name)  
JOBDD(datailib/DTLLIST) PRTDEV(*JOBDD) OUTQ(*JOBDD) CURLIB(*CRTDFT) INLLIBL(*JOBDD)
```

This syntax contains the following variables:

- *dtllib* is the name of the PowerExchange software library that was entered at installation.
- *node\_name* is the PowerExchange Listener node name that was specified in the LISTENER statement of the *datailib*/CFG(DBMOVER) configuration member.
- *job\_name* is the name of the PowerExchange Listener job or started task.

- *datalib* is the user-specified name for the PowerExchange data library that was entered at installation.

You can enter the SBMJOB command at the command line.

Alternatively, you can execute the SBMJOB command by using an automated scheduler, a CL program, or a REXX procedure. For example, include the SBMJOB command in a REXX member named STARTLST and then use the following statement to start the PowerExchange Listener:

```
STRREXPRC SRCMBR(STARTLST) SRCFILE(datalib/REXX)
```

**Note:** You cannot use the pwxcmd program to start the PowerExchange Listener.

## Starting the PowerExchange Listener on Linux and UNIX

On Linux or UNIX, you can start the PowerExchange Listener in the following ways:

- Run the dtllst program from the command prompt.
- Run the startlst script that was shipped with PowerExchange. The startlst script deletes the detail.log file and starts the PowerExchange Listener.

To run the dtllst program, use one of the following syntax constructions, depending on the PowerExchange Listener run mode that you want to use:

- To run PowerExchange Listener in foreground mode, use the following syntax:

```
dtllst node_name [config=directory/myconfig_file] [license=directory/  
mylicense_key_file]
```

- To run the PowerExchange Listener in background mode, add an ampersand (&) at the end:

```
dtllst node_name [config=directory/myconfig_file] [license=directory/  
mylicense_key_file] &
```

- To run the PowerExchange Listener permanently, even if the session is disconnected or the user logs out, add the prefix nohup:

```
nohup dtllst node_name [config=directory/myconfig_file] [license=directory/  
mylicense_key_file] &
```

The *node\_name* variable is the PowerExchange Listener node name that was specified in the LISTENER statement of your default or override dbmover.cfg file.

You can include the command in the startlst script or run it from the command prompt.

## Starting the PowerExchange Listener on Windows

On Windows, you can start the PowerExchange Listener in one of the following ways:

- Start and manage the PowerExchange Listener service through the **Start** menu.
- Start and manage the PowerExchange Listener service through the dtllstsi program.
- Start the PowerExchange Listener manually by invoking the dtllst program with the start option from the command prompt. Your product license must allow this mode of operation.

To start the dtllst program manually from the Command Prompt window, use the following syntax:

```
dtllst node_name [config=directory\myconfig_file] [license=directory\mylicense_key_file]
```

The *node\_name* variable is the PowerExchange Listener node name that was specified in the LISTENER statement of your default or override dbmover.cfg file.

## Starting the PowerExchange Listener on z/OS

On z/OS, you can start the PowerExchange Listener in the following ways:

- Issue the standard MVS START (S) command to run the PowerExchange Listener as a started task.
- Submit the JCL in the STARTLST member of the RUNLIB library. You can include the JCL as part of a batch job.



To issue the MVS START (S) command, use the following syntax:

```
S task_name
```

The *task\_name* variable is the name of the PowerExchange Listener started task or batch job. Usually, the PowerExchange Listener runs as a started task. This command starts the started task from a system PROCLIB library.

To start the PowerExchange Listener as a batch job, submit the JCL in the STARTLST member of the RUNLIB.

## Common Parameters

When you run dtllst on i5/OS, Linux, UNIX, or Windows, you can include the following optional parameters to specify alternative configuration and license key files:

### CONFIG

On Linux, UNIX, or Windows, specifies the full path and file name for any dbmover.cfg configuration file that you created and want to use instead of the default *install\_directory/dbmover.cfg* file. This alternative configuration file takes precedence over any alternative configuration file that you specified in the PWX\_CONFIG environment variable.

On i5/OS, specifies the library, file name, and member name for the alternative configuration member that you want to use instead of the default *datalib/CFG(DBMOVER)* member.

### LICENSE

On Linux, UNIX, or Windows, specifies the full path and file name for any license key file that you created and want to use instead of the default license.key file. This alternative license key file takes precedence over any alternative license key file that you specified in the PWX\_LICENSE environment variable.

On i5/OS, specifies the library, file name, and member name for the alternative license key member.

**Note:** In the CONFIG and LICENSE parameters, the full path is required only if the file does *not* reside at the default location.

## Usage Notes

After the PowerExchange Listener starts, the following message indicates that the PowerExchange Listener is ready for communication:

```
PWX00607 - "Listener node" VRM "n.n.n Build Vnnn" started.
```

On i5/OS, Linux, UNIX, and Windows, the following additional messages are displayed to identify the dbmover.cfg configuration file and the license.key file that the PowerExchange Listener is using:

```
PWX-00595 Using "config" "override_config_file"
PWX-00595 Using "license" "override_license_key_file"
```

If you set the PWX\_CONFIG and PWX\_LICENSE environment variables or specified the config and license parameters in the command to override the default configuration and license files, the following messages are also displayed to alert you of the override action:

```
PWX-00369 The default "config" filename has been overridden.
PWX-00369 The default "license" filename has been overridden.
```

**Caution:** If you run PowerExchange and PowerCenter on the same machine and under the same user account, you must create separate environments for PowerExchange and PowerCenter. To create the appropriate PowerExchange environment and start the PowerExchange Listener, run the pwxsettask.sh or pwxsettask.bat script.

- On Linux or UNIX, use the following syntax:

```
pwxsettask.sh dtllst node_name ["config=directory/config_file"] ["license=directory/
license_key_file"]
```

The quotation marks are optional on Linux or UNIX.

- On Windows, use the following syntax:

```
pwxssettask dtllst node_name ["config=directory/config_file"] ["license=directory/
license_key_file"]
```

The quotation marks are required on Windows.

For more information, see [“Environment Variable Incompatibilities Between PowerExchange and PowerCenter” on page 13](#).

## RELATED TOPICS:

- [“PowerExchange Listener Service on Windows” on page 90](#)
- [“DTLLSTSI Command” on page 102](#)

# PowerExchange Listener Service on Windows

On Windows, you can run the PowerExchange Listener as a Windows service.

You can start, test, and stop the PowerExchange Listener service from the Windows **Start** menu.

You can also start the PowerExchange Listener service by entering the `dtllstsi` command from a command prompt. If you do not run the PowerExchange Listener as a service, use the `dtllst` command.

By default, in the `dbmover` configuration file, the following statement defines the PowerExchange Listener on Windows:

```
LISTENER=(node1,TCPIP,2480,262144,262144,262144,262144)
```

## Starting the PowerExchange Listener Service on Windows

You can start the PowerExchange Listener service from the Windows Start menu.

To start the PowerExchange Listener service:

- From the Windows **Start** menu, click **Start > All Programs > Informatica > PowerExchange > v.r.m > Start PowerExchange Listener**.

The `v.r.m` variable represents the version, release, and modification level of PowerExchange.

After the PowerExchange Listener service is active, an icon appears in the notification area, at the far right of the taskbar. If this icon does not appear, review the `PowerExchange detail.log` file that is located in the following directory:

```
C:\windows\system32
```

## Testing the PowerExchange Listener Service on Windows

You can test the connection to the PowerExchange Listener service from the Windows **Start** menu.

To test the PowerExchange Listener service:

- From the Windows **Start** menu, click **Start > All Programs > Informatica > PowerExchange > v.r.m > PING PowerExchange Listener**.

The `v.r.m` variable represents the version, release, and modification level of PowerExchange.

If the connection is active, the following information is displayed:

```
This does a PowerExchange "ping" to the node "node1"

C:\Informatica\PowerExchange\v.r.m>dtlrexe loc=node1 prog=ping
PWX-00750 DTLREXE Input LOC=node1, PROG=PING, PARMS=<null>, UID=<>.
PWX-00755 DTLREXE Command OK!

C:\Informatica\PowerExchange\v.r.m>pause
Press any key to continue . . .
```

## Stopping the PowerExchange Listener Service on Windows

You can stop the PowerExchange Listener service from the Windows **Start** menu.

To stop the PowerExchange Listener service:

- From the Windows **Start** menu, click **Start > All Programs > Informatica > PowerExchange > v.r.m > Stop PowerExchange Listener**.

The *v.r.m* variable represents the version, release, and modification level of PowerExchange.

## CLOSE and CLOSE FORCE Commands

Stops the PowerExchange Listener job or task after the following subtasks complete:

- Bulk data movement subtasks
- CDC subtasks, which stop at the next commit of a unit of work (UOW)
- PowerExchange Listener subtasks

For long-running subtasks on the PowerExchange Listener, use the CLOSE FORCE option to force the cancellation of all user subtasks and stop the PowerExchange Listener. The PowerExchange Listener waits 30 seconds for running tasks to complete and then stops any tasks that continue to run before shutting down.

Alternatively, issue the `pxcmd close` and `closeforce` commands from a Linux, UNIX, or Windows system to a PowerExchange Listener running on any system.

### Syntax on i5/OS

On i5/OS, use the following command syntax:

```
SNDLSTCMD datalib CLOSE [CLOSEOPT(FORCE)]
```

The *datalib* variable is the user-specified name for the PowerExchange data library that you entered at installation.

Alternatively, issue the `pxcmd close` and `closeforce` commands from a Linux, UNIX, or Windows system to a PowerExchange Listener running on an i5/OS system.

### Syntax on Linux and UNIX

If the PowerExchange Listener is running in foreground mode, press C and then press Enter to perform a controlled shutdown. Press Ctrl + C to perform a forced shutdown. However, instead of pressing Ctrl + C to kill the PowerExchange Listener process, issue one of the following commands at the command prompt:

- If the PowerExchange Listener is running in foreground mode and you want to perform a CLOSE operation, issue the following command:

```
C
```

- If the PowerExchange Listener is running in foreground mode and you want to perform a CLOSE FORCE operation, issue the following command:

```
C F
```

- If the PowerExchange Listener is running in background mode, use the standard Linux or UNIX operating system commands. Find the PowerExchange Logger process ID and then issue the “kill” command for that process. This controlled shutdown is like a CLOSE operation.

- To list process IDs, enter the following command at the command prompt:

```
ps -ef | grep dtllst
```

- To stop the PowerExchange Listener process by sending a CLOSE command, enter the following command:

```
kill process_ID
```

- To stop the PowerExchange Listener process by sending a CLOSE FORCE command, enter the following command:

```
Kill process_ID
```

- If the PowerExchange Listener process does not respond to a CLOSE FORCE command, perform a clean shutdown and kill the process by entering the following command:

```
kill -9 process_ID
```

Alternatively, you can issue the `pwxcmd close` and `closeforce` commands from a Linux, UNIX, or Windows system to a PowerExchange Listener running on a Linux or UNIX system.

## Syntax on Windows

On Windows, enter the following commands in the command prompt window on which you are running the PowerExchange Listener **dtllst** program interactively.

- To perform a CLOSE operation, enter one of the following commands:

```
{CLOSE|C}
```

- To perform a CLOSE FORCE operation, enter one of the following commands:

```
{CLOSE FORCE|C F}
```

If the PowerExchange Listener process does not respond to a CLOSE FORCE command, you can press Ctrl + C. The first time you press Ctrl + C, a CLOSE command is sent to the PowerExchange Listener service. The second time you press Ctrl + C, PowerExchange sends a CLOSE FORCE command to the PowerExchange Listener service.

Alternatively, issue the `pwxcmd close` and `closeforce` commands from a Linux, UNIX, or Windows system to a PowerExchange Listener running on any Windows system.

## Syntax on z/OS

On z/OS, use the following command syntax:

```
F task_name,CLOSE [FORCE]
```

The `task_name` variable is the name of the PowerExchange Listener started task or batch job. Usually, the PowerExchange Listener runs as a started task.

Alternatively, issue the `pwxcmd close` and `closeforce` commands from a Linux, UNIX, or Windows system to a PowerExchange Listener running on a z/OS system.

## Usage Notes

Review the following notes before using the command:

- The CLOSE command performs a controlled shutdown and generates the following messages:

```
PWX-00618 Standard Close in progress.  
PWX-00619 All tasks closed.  
PWX-00623 Listener shutdown complete.
```

- When you specify the FORCE parameter, PowerExchange completes the following processing:

1. Checks if any PowerExchange Listener subtasks are active.
2. If active subtasks exist, polls the number of active subtasks every second until 30 seconds have elapsed.
3. During this period, PowerExchange ends any subtasks that are waiting for TCP/IP network input and issues the following message:

```
PWX-00653 Operator close met while waiting for TCPIP input
```

4. Cancels any remaining active subtasks.
5. Stops the PowerExchange Listener.

**Note:** On i5/OS and z/OS systems, PowerCenter workflow tasks shut down after they read the next record. However, PowerExchange utility and row-test subtasks remain active after the 30-second wait period expires. To cancel a PowerExchange utility or row-test subtask and the associated PowerExchange Listener task, use the appropriate operating system command.

- On z/OS, the CLOSE FORCE command is similar to the z/OS STOP command. Informatica does not recommend using the z/OS CANCEL command because it stops the PowerExchange Listener without first waiting for active subtasks to shut down. In this case, the PowerExchange Listener port remains unavailable until TCP/IP completes cleanup processing. If you start a PowerExchange Listener job before the cleanup completes, an error message indicates that the port is in use.

## RELATED TOPICS:

- [“STOPTASK Command” on page 103](#)
- [“pwxcmd close Command” on page 148](#)
- [“pwxcmd closeforce Command” on page 151](#)

# DISPLAY ACTIVE and LISTTASK Commands

Displays information about each active PowerExchange Listener task, including the TCP/IP address, port number, application name, access type, and status. The LISTTASK and DISPLAY ACTIVE commands produce the equivalent results. However, their availability varies by operating system:

- On i5/OS, issue the DISPLAY ACTIVE command.
- On z/OS, issue the LISTTASK or DISPLAY ACTIVE command.
- On Linux, UNIX, and Windows, issue the DISPLAY ACTIVE command.

Alternatively, you can issue a pwxcmd listtask command from a Linux, UNIX, or Windows system to a PowerExchange Listener running on the local or a remote system. Also, in the PowerExchange Navigator on Windows, you can enter the LISTTASK command in the **Database Row Test** dialog box.

## Syntax

The syntax varies by operating system.

The following syntax is for entering the command from the command line:

- On i5/OS, use the following command syntax:

```
SNDLSTCMD datalib DISPLAY DISPLAYOPT(ACTIVE)
```

The *datalib* variable is the user-specified name for the PowerExchange data library that was entered at installation.

Alternatively, on a Linux, UNIX, or Windows system, you can issue a `pwxcmd listtask` command from the command line, a batch file, or a script to a PowerExchange Listener running on an i5/OS system.

- On Linux, UNIX, and Windows, if the PowerExchange Listener is running in foreground mode, enter one of the following commands:

```
DISPLAY ACTIVE
```

or

```
D
```

On Windows, if you want to issue the command from the PowerExchange Navigator, enter the LISTTASK command in the **Database Row Test** dialog box. Select **TASK\_CNTL** in the **DB Type** list, and select **List Task** in the **Fetch** box. The **SQL Statement** box displays `listtask`.

Alternatively, on a Linux, UNIX, or Windows system, you can issue a `pwxcmd listtask` command from the command line, a batch file, or a script to a PowerExchange Listener running on a Linux, UNIX, or Windows system.

- On z/OS, use the following command syntax

```
F task_name, {DISPLAY ACTIVE|D A}
```

or

```
F task_name, LISTTASK
```

The *task\_name* variable is the name of the PowerExchange Listener started task or batch job. Usually, the PowerExchange Listener runs as a started task.

Alternatively, on a Linux, UNIX, or Windows system, you can issue a `pwxcmd listtask` command from the command line, a batch file, or a script to a PowerExchange Listener running on a z/OS system.

## Example Output

The command produces the following message output on a z/OS system:

```
PWX-00712 taskid=1, partner=255.255.255.255, port=7634, name=appl, am=CAPXRT, status=  
PWX-00713 1 active tasks  
PWX-00709 0 Dormant TCBS
```

The PWX-00712 message is issued for each active task.

## RELATED TOPICS:

- [“pwxcmd listtask Command” on page 154](#)

# DISPLAYSTATS Command

Displays monitoring statistics for a PowerExchange Listener that runs on Linux, zLinux, UNIX, Windows, or z/OS. Also displays statistics for the client tasks and source or target connections that are associated with the Listener.

**Note:** To display monitoring statistics on demand for a PowerExchange Listener that runs on i5/OS, you must issue the `pwxcmd displaystats` command from a remote Linux, UNIX, or Windows machine. You cannot issue

a DISPLAYSTATS command with the SNDLSTCMD command from the command line, a CL program, or REXX procedure. For more information, see [“pwxcmd displaystats Command” on page 152](#).

The command can print the following types of statistics:

- PowerExchange Listener summary statistics on resource usage and client requests. These statistics include counts of client tasks, connections, access methods, messages sent and received, and bytes of data sent and received.
- Message and data volumes sent and received for client requests, by task ID and access method. The message and data volumes are totals as of the time the statistics are generated. For CDC tasks that use the CAPX or CAPXRT access method, includes counts of SQL inserts, updates, and deletes processed.
- Information about the active tasks that are running under the PowerExchange Listener to process client requests. These statistics include the task start time, CPU processing time, access method, read or write mode, and associated process name and session ID if available. Also includes the port number and IP address of the client that issued the request to the PowerExchange Listener.

Before you run the command, configure the following statements in the DBMOVER configuration file:

- Specify the MONITOR parameter in the STATS statement to enable PowerExchange to collect these statistics. You can include an *interval* subparameter to publish the statistics at a regular interval as well as on demand.
- For the proper display of monitoring output on z/OS, set the LOG\_LINE\_LIMIT statement to 132. Otherwise, the lines might wrap awkwardly, making the output hard to read.

**Tip:** On UNIX, PowerExchange uses memory-mapped files and shared memory as the inter-process communication (IPC) method for monitoring. The memory-mapped files are allocated in the directory that is specified by the LOGPATH statement in the dbmover.cfg file, or in the current directory if the LOGPATH statement is not specified. On Linux and zLinux, PowerExchange uses shared memory but not memory-mapped files. PowerExchange releases shared memory and cleans up the memory-mapped files when PowerExchange Listener subtasks end and when the PowerExchange Listener is closed. To check that the shared memory was freed, use the IPC command `-ipcs -m`. If you need to release shared memory, use the `ipcrm -m` command.

## Syntax on Linux, zLinux, UNIX, and Windows

On Linux, zLinux, UNIX, and Windows, use the following command syntax:

```
displaystats [{listener|accessmethods|clients}]
```

or

```
ds [{l|a|c}]
```

You can use a mixture of the long and short forms of the command and its parameter, such as `ds accessmethods` and `displaystats a`.

## Syntax on z/OS

On z/OS, use the MVS MODIFY (F) command to issue the DISPLAYSTATS command. Use the following command syntax:

```
F task_name,DISPLAYSTATS [{LISTENER|ACCESSMETHODS|CLIENTS}]
```

or

```
F task_name,DS [{L|A|C}]
```

The *task\_name* variable is the name of the PowerExchange Listener started task or batch job. Usually, the PowerExchange Listener runs as a started task.

You can use a mixture of the long and short forms of the command and its parameter, such as `DS CLIENTS` and `DISPLAYSTATS C`.

## Parameter Descriptions

In the DISPLAYSTATS command, you can specify one the following optional parameters to indicate the report type:

### LISTENER or L

Reports PowerExchange Listener summary statistics on resource usage and client requests processed. These statistics include memory usage, CPU processing time, total number of tasks that were created for client requests, active tasks, high-watermark tasks, maximum allowed tasks, total number of connections attempted, connections accepted, active connections, number of messages sent and received, and bytes of data sent and received. For a PowerExchange Listener on z/OS, these statistics also include the total number of netport jobs that have run under the Listener.

### ACCESSMETHODS or A

Reports statistics on PowerExchange Listener message and data transfer activity by client task and access method, as of the time the statistics are generated. For each active task and access method combination, these statistics include the number of rows read and written, bytes of data read and written, the source or target file name or data map file name, and the CPU processing time. For CDC requests that use the CAPX or CAPXRT access method, the report also includes the number of SQL inserts, updates, and deletes that the task processed.

### CLIENTS or C

Reports information about the active tasks that are running under the PowerExchange Listener, including the associated client and session ID. A client is an application such as PowerCenter, the PowerExchange Navigator, or a PowerExchange utility. For each active client task, the statistics show some or all of the following information: the status, access method that the task is using, task read or write mode, process name and session ID if available, CPU processing time, and start date and time. The statistics also include the client port number and IP address. If the client is PowerCenter, the statistics include the PowerCenter session ID and the application name for CDC.

Default is LISTENER, which is used if a parameter is not specified.

## Example Output - Listener Report

On z/OS, enter the following command to generate a Listener report for a PowerExchange Listener task on z/OS:

```
F task_name,DS
```

PowerExchange writes the following report output on the z/OS system:

```
PWX-00723 Command <displaystats Listener> succeeded
PWX-37101 Listener <PWXLST > ASID=375 (x'177') UserID=AUSER
PWX-37102 Memory
PWX-37103   Region below 16-MB line: In Use      108 KB Limit Value      9192 KB Free      9084 KB
PWX-37104   Region above 16-MB line: In Use    53912 KB Limit Value    1675264 KB Free    1621352 KB
PWX-37117 CPU Time
PWX-37118   TCB Time      = 0 SRB Time      = 0 zIIP-NTime = zIPP_normalized_time
PWX-37119   Listener     = 0 hrs, 0 mins, 1 secs, 275762 mcrcs
PWX-37106 Cumulative Requests
PWX-37107   Total Tasks=      11 Active Tasks =      3 HWM Tasks =      3 Maxtasks =      50
PWX-37108   Connections=      11 Accepted   =      11 Active   =      0
PWX-37109   Msgs Sent   =      0 Msgs Received=      22
PWX-37110   Data Sent   =      0 Data Received=      7304
PWX-37111   NetportJobs=      0
```

On Windows, open the Command Prompt window, navigate to the PowerExchange installation directory, and enter the following command for the PowerExchange Listener on Windows:

```
ds 1
```



PowerExchange displays the following report output in the Command Prompt window, provided that you are running the Listener in the foreground:

```
PWX-00723 Command <displaystats Listener> succeeded
PWX-37102 Memory
PWX-37105 Total Memory 50952 KB
PWX-37117 CPU Time
PWX-37119 Listener = 0 hrs, 0 mins, 0 secs, 234001 mcrs
PWX-37106 Cumulative Requests
PWX-37107 Total Tasks=      2 Active Tasks =      2 HWM Tasks =      2 Maxtasks =      5
PWX-37108 Connections=    2 Accepted =      2 Active =      2
PWX-37109 Msgs Sent =      0 Msgs Received=      4
PWX-37110 Data Sent =      0 Data Received=    1328
```

**Note:** If you are running the PowerExchange Listener as a background process, you must use the pwxcmd program to issue the command.

The following fields occur in one or both these reports:

#### Listener

For the PowerExchange Listener on z/OS only. The Listener node name as specified in a LISTENER statement in the DBMOVER configuration file.

#### ASID

For the PowerExchange Listener on z/OS only, the identifier for the Listener address space.

#### UserID

For the PowerExchange Listener on z/OS only, the user ID under which the PowerExchange Listener task is running.

#### Memory > Region below 16-MB line

For the PowerExchange Listener on z/OS only, memory usage by the Listener and its client tasks below the 16-MB line of the Listener address space. The following memory statistics are reported:

- **In Use.** The amount of memory below the 16-MB line of the address space that is in use by the PowerExchange Listener and its client tasks.
- **Limit Value.** The maximum memory storage below the 16-MB line.
- **Free.** The amount of memory below the 16-MB line that is free.

#### Memory > Region above 16-MB line

For the PowerExchange Listener on z/OS only, memory usage by the Listener and its client tasks above the 16-MB line of the Listener address space. The following memory statistics are reported:

- **In Use.** The amount of memory above the 16-MB line of the address space that is in use by the PowerExchange Listener and its client tasks.
- **Limit Value.** The maximum memory storage above the 16-MB line.
- **Free.** The amount of memory above the 16-MB line that is free.

#### Total Memory

For the PowerExchange Listener on Windows only, the total amount of memory that is in use by the PowerExchange Listener on Windows.

#### CPU Time > TCB Time

For the PowerExchange Listener on z/OS only, the CPU processing time of the task control block (TCB) in the PowerExchange Listener address space on z/OS.

#### CPU Time > SRB Time

For the PowerExchange Listener on z/OS only, the CPU processing time of the service request block (SRB) in the PowerExchange Listener address space on z/OS.

**CPU Time > zIIP-NTime**

If you use a System z Integrated Information Processor (zIIP) and set the USESUP statement in the DBMOVER configuration file to Y, the zIIP Normalized time used by the PowerExchange Listener and its client tasks. zIIP Normalized time is CPU time adjusted to account for the difference in speed between CP and zIIP processors.

**CPU Time > Listener**

The CPU processing time of the PowerExchange Listener and its client tasks.

**Total Tasks**

The total number of client tasks that have run under the PowerExchange Listener since it started.

**Active Tasks**

The number of active client tasks that are running under the PowerExchange Listener, as of the time when these statistics were generated.

**HWM Tasks**

The greatest number of concurrent client tasks, also called *high-watermark tasks*, that ran under the PowerExchange Listener at any one time. Compare the number of HWM tasks to the Maxtasks value to prevent exceeding the Maxtasks limit. If the Maxtasks limit is reached, PowerExchange Listener processing might be delayed, which can lead to reduced throughput and connection timeouts.

**Maxtasks**

The maximum number of concurrent tasks that can run under the PowerExchange Listener. This value is set in the MAXTASKS statement of the DBMOVER member.

**Connections**

The total number of connections to a source or target that were attempted for the client tasks that run under the PowerExchange Listener.

**Accepted**

The number of connections that were accepted.

**Note:** The number of access methods can be greater than the number of connections if some connections are rejected or fail or if access methods share connections.

**Active**

The number of active connections, as of the time these statistics were generated.

**Msgs Sent**

The total number of messages that the PowerExchange Listener sent when processing requests from clients.

**Msgs Received**

The total number of messages that the PowerExchange Listener received when processing requests from clients.

**Data Sent**

The total bytes of data that the PowerExchange Listener sent in response to client requests. Includes the data for both bulk data movement and CDC tasks.

**Data Received**

The total bytes of data that the PowerExchange Listener received in response to client requests. Includes the data for both bulk data movement and CDC tasks.

## NetportJobs

For the PowerExchange Listener on z/OS only. The total number of netport jobs that ran under the PowerExchange Listener.

## Example Output - Accessmethods Report

On z/OS, enter the following command to generate an accessmethods report for a PowerExchange Listener on z/OS:

```
F listener_task,DS A
```

PowerExchange writes the following report output to the screen or message log on the Windows system:

```
PWX-00723 Command <displaystats AccessMethods> succeeded
PWX-37201 Active Access Methods
PWX-37202 Task ID = 42412 AM = CAPXRT
PWX-37203 Rows read = 1029 Rows written = 0
PWX-37204 Bytes read = 116277 Bytes written = 0
PWX-37205 File = d2iyd0.d002root_ROOT
PWX-37206 Table = <Capture Extract Realtime>
PWX-37208 Inserts = 564 Updates = 0 Deletes = 465
PWX-37121 CPU time = 0 hrs, 0 mins, 0 secs, 299809 mcrs
PWX-37202 Task ID = 42414 AM = NRDB
PWX-37203 Rows read = 10 Rows written = 0
PWX-37204 Bytes read = 570 Bytes written = 0
PWX-37205 File = ABCD.VSAM.MASTER_REC
PWX-37206 Table = <Non-relational Source>
PWX-37202 Task ID = 42414 AM = KSDS
PWX-37203 Rows read = 10 Rows written = 0
PWX-37204 Bytes read = 800 Bytes written = 0
PWX-37205 File = XYZ.TEST.KSDS
PWX-37206 Table = XYZ.TEST.KSDS
PWX-37121 CPU time = 0 hrs, 0 mins, 0 secs, 76151 mcrs
```

**Note:** On Linux, UNIX, Windows, or zLinux, the displaystats accessmethods or ds a command provides the same type of report output for a PowerExchange Listener that runs on Linux, UNIX, Windows, or zLinux.

The following fields occur in this report:

### Task ID

The identifier for an active task that the PowerExchange Listener created to service a request from a client. The client task can be for accessing data, reading source metadata, or other functions.

### AM

The access method, or source type, that the task uses.

A client task can use multiple access methods, for example, one for reading source data and one for mapping nonrelational source data to a relational format. In the sample output, task 42412 uses the NRDB access method with the data map file specified in the **File** field to map nonrelational data to a relational format. The same task uses the KSDS access method to retrieve data from the KSDS data set identified in the **File** field.

### Rows read

The number of rows that the active client task has read from the source by using the specified access method. This value is 0 if the task is performing another function such as mapping a nonrelational source to relational format.

### Rows written

The number of rows that the active client task has written to the target by using the specified access method. This value is 0 if the task is performing another function such as mapping a nonrelational source to relational format.

### Bytes read

The bytes of data that the active client task has read from the source by using the specified access method. This value is 0 if the task is performing another function such as mapping a nonrelational source to relational format.

**Bytes written**

The bytes of data that the active client task has written to the target. This value is 0 if the task is performing another function such as mapping a nonrelational source to relational format.

**File**

The name of the source or target file or the name of a data map file, depending on the access method that is used to process the data.

**Table**

The source or target table name, if applicable.

**Inserts**

The number of SQL inserts that the client task processed from the source with the CAPX or CAPXRT access method for a CDC request.

**Updates**

The number of SQL updates that the client task processed from the source with the CAPX or CAPXRT access method for a CDC request.

**Deletes**

The number of SQL deletes that the client task processed from the source with the CAPX or CAPXRT access method for a CDC request.

**CPU time**

The CPU processing time of the active client task. A CPU time is not reported for PowerExchange internal tasks such as reading data maps.

**Example Output - Clients Report**

Use this report to learn about the client requests for which the PowerExchange Listener created tasks.

On z/OS, enter the following command to generate a clients report for a PowerExchange Listener task on z/OS:

```
F listener_task,DS C
```

PowerExchange writes the following report output on the z/OS system:

```
PWX-00723 Command <displaystats Clients> succeeded
PWX-37112 Active Tasks
PWX-37113 Task ID = 42407 Status = Active
PWX-37114 Port = 6580 Partner = ::ffff:127.0.0.1
PWX-37115 PwrCtrSess = N/A
PWX-37207 Application = N/A
PWX-37116 AM = CPR Mode = Read Process = SessionId =
PWX-37113 Task ID = 42412 Status = Active
PWX-37114 Port = 6580 Partner = ::ffff:10.33.8.137
PWX-37115 PwrCtrSess = N/A
PWX-37207 Application = myappl
PWX-37116 AM = CAPXRT Mode = Read Process = SessionId =
PWX-37121 CPU time = 0 hrs, 0 mins, 0 secs, 299809 mcrcs
PWX-37122 Start time = 2014-05-01 14:32:28
```

**Note:** On Linux, UNIX, Windows, or zLinux, the displaystats clients or ds c command provides the same type of output for a PowerExchange Listener that runs on Linux, UNIX, Windows, or zLinux.

The following fields occur in this report:

**Task ID**

The identifier for an active task that the PowerExchange Listener created to service a request from a client. The client task can be for accessing data, reading source metadata, or other functions.

**Status**

The status of the active client task, which can be one of the following values:

- Active
- STOPTASK acknowledged, if a STOPTASK command has been issued for the active task
- STOPTASK set, if a STOPTASK command has been issued for the active task

**Port**

The port number of the client for which the task was created.

**Partner**

The TCP/IP address of the client. A value that begins with :ffff indicates an IPv6 address.

**Note:** The full IPv6 address is not reported because the PowerExchange Listener uses addresses in IPv4 format.

**PwrCtrSess**

If the client is PowerCenter, the PowerCenter session ID for a bulk data movement or CDC workflow in the format *integration\_service/workflow\_name/session\_name*. Otherwise, this field displays N/A for not applicable.

**Application**

For PowerCenter CDC sessions, the value of the **Application Name** attribute on the PWXPC application connection. Otherwise, the value is N/A for not applicable.

**AM**

The access method, or source type, that the task uses.

**Mode**

The data request mode that the task uses, which can be one of the following values:

- Read
- Write

**Process**

The name of the process that the PowerExchange Listener starts to service the client request, if available.

**SessionId**

A session ID that is optionally defined for client requests. This value primarily pertains to client requests for DB2 access. If you use PowerCenter with the PowerExchange Client for PowerCenter (PWXPC), this value can be the correlation ID that is specified in the SESSID statement of the DBMOVER configuration file or in the **Correlation Id** override attribute on the PWXPC DB2 Batch connection. For ODBC connections, it can be the value of the DTLSESSID SQL escape sequence, if defined.

**CPU time**

The CPU processing time of the client task. This value is expressed in hours, minutes, seconds, and microseconds, as appropriate. This value is not reported for PowerExchange internal tasks such as those that read data maps.

**Start time**

The start date and time of the client task in the format YYYY-MM-DD HH:MM:SS. This value is not reported for PowerExchange internal tasks such as those that read data maps.

# DTLLSTSI Command

Controls a PowerExchange Listener that you run as a Windows service. Use the dtllstsi program to perform the following tasks:

- Create or delete a PowerExchange Listener service.
- Stop or start a PowerExchange Listener service.
- Query a PowerExchange Listener service to determine its status.
- Display help information about the dtllstsi syntax.

**Tip:** You can also start, test, and stop a PowerExchange Listener service from the Windows **Start** menu.

If you do not want to run the PowerExchange Listener as a Windows service, you can start it manually.

## Syntax

On Windows, use the following command syntax:

```
dtllstsi function "service_name" ["path\dtllstnt.exe"] [parms] [-u "user_id/password"] [-q]
```

## Parameter Descriptions

You can include the following parameters in the command:

### **function**

Required. The function to perform. The options are:

- **add**. Creates a new PowerExchange Listener service.
- **delete**. Deletes an existing PowerExchange Listener service.
- **start**. Starts a PowerExchange Listener service.
- **stop**. Stops a PowerExchange Listener service.
- **query**. Displays message PWX-00541 or PWX-00542, which indicates whether a specified PowerExchange Listener service is running or stopped.
- **help**. Displays the dtllstsi syntax and briefly explains each parameter.

### **"service\_name"**

Required. User-defined name for a PowerExchange Listener service.

### **"path\dtllstnt.exe"**

Optional, for the **add** function only. Full path to the service executable file for the PowerExchange Listener.

### **parms**

Optional, for the **add** function only. PowerExchange Listener node names from the LISTENER statements in the dbmover.cfg file. If you define multiple LISTENER statements in dbmover.cfg, you can start multiple PowerExchange Listener services under a single Windows service.

### **-u "user\_id/password"**

Optional, for the **add** function only. User ID and password to require for running the PowerExchange Listener service.

### **-q**

Optional. Suppresses the display of console messages and prompts.

## Examples

- **Adding a Service.** To add a new service named PowerExchange\_Listener1 for which you require a user ID and password and suppress messages output, enter the following statement:

```
dtllstsi add "PowerExchange_Listener1" "C:\Informatica\PowerExchange\dtllstnt.exe"  
node1 -u "joe/mypassword" -q
```

- **Deleting a Service.** To remove the service named PowerExchange\_Listener1 from the Windows system, enter the following statement:

```
dtllstsi delete "PowerExchange_Listener1"
```

- **Starting a Service.** To start the PowerExchange\_Listener1 service, which you previously added, enter the following statement:

```
dtllstsi start "PowerExchange_Listener1"
```

**Note:** You can also start a PowerExchange Listener service by clicking

**Start > Programs > Informatica PowerExchange > Start PowerExchange Listener.**

- **Stopping a Service.** To stop the PowerExchange\_Listener1 service when it is running, enter the following statement:

```
dtllstsi stop "PowerExchange_Listener1"
```

- **Querying a Service.** To determine if the PowerExchange\_Listener1 service is running, enter the following statement:

```
dtllstsi query "PowerExchange_Listener1"
```

If the PowerExchange\_Listener1 service is not running, the following message is issued:

```
PWX00542 Service "PowerExchange_Listener" STOPPED.
```

## RELATED TOPICS:

- [“Starting the PowerExchange Listener” on page 87](#)
- [“Starting the PowerExchange Listener Service on Windows” on page 90](#)

# STOPTASK Command

Stops an individual PowerExchange Listener task based on the application name that you specify.

**Tip:** To determine the name of the active task, issue the DISPLAY ACTIVE or LISTTASK command. In the command output, look for the PWX-00712 message for the task. Record the task name that is in the message. You must enter this value in the STOPTASK command.

During change data extraction, the STOPTASK command waits to stop the task until either the end UOW is encountered or the commit threshold is reached. For information about controlling commit processing and commit thresholds, see *PowerExchange Interfaces for PowerCenter*.

Alternatively, you can issue a pwxcmd stoptask command from a Linux, UNIX, or Windows system to a PowerExchange Listener that runs on any type of supported system. Also, in the PowerExchange Navigator on Windows, you can enter the STOPTASK command in the **Database Row Test** dialog box.

## Syntax on i5/OS

On i5/OS, use the following command syntax:

```
SNLSTCMD LSTMSGQLIB(datalib) LSTCMD(STOPTASK) STOPTASK(application_name)
```

Where:

- *datalib* is the user-specified name for the PowerExchange data library that was entered at installation.
- *application\_name* is the name for the active extraction process that you want to stop. This name is included in a PWX-00712 message of the DISPLAY ACTIVE command output.

## Syntax on Linux, UNIX, and Windows

On Linux, UNIX, or Windows, use the following command syntax:

```
STOPTASK application_name
```

or

```
S application_name
```

The *application\_name* is the name for the active extraction process that you want to stop. This name is included in a PWX-00712 message of the DISPLAY ACTIVE command output.

On Windows, if you want to issue the command from the PowerExchange Navigator, enter the STOPTASK command in the **Database Row Test** dialog box. Select **TASK\_CNTL** in the **DB Type** list, and select **Stop Task** in the **Fetch** box. The **SQL Statement** box displays `stoptask taskid=`. Enter a task ID.

## Syntax on z/OS

On z/OS, use the following command syntax:

```
F task_name,STOPTASK {APPL=application_name|TASKID=task_id}
```

Where:

- *task\_name* is the name of the PowerExchange Listener started task or batch job. Usually, the PowerExchange Listener runs as a started task.
- *application\_name* is the name for the active extraction process that you want to stop. This name is included in a PWX-00712 message of the LISTTASK command output.
- *task\_id* is the numeric identifier for the PowerExchange Listener task that you want to stop. This ID is included in a PWX-00712 message of the LISTTASK command output.

## RELATED TOPICS:

- [“pwxcmd stoptask Command” on page 156](#)
- [“PowerExchange Listener Service on Windows” on page 90](#)



## CHAPTER 13

# PowerExchange Logger for z/OS Commands

This chapter includes the following topics:

- [Introduction to the PowerExchange Logger for z/OS Commands, 105](#)
- [Starting the PowerExchange Logger for z/OS, 107](#)
- [DEFINE\\_LOG Command, 107](#)
- [DELETE\\_LOG Command, 110](#)
- [DISPLAY OBJECT=CONNECTION Command, 111](#)
- [DISPLAY OBJECT=LOG Command, 112](#)
- [PRINT Command, 114](#)
- [RESOLVE\\_INDOUBT Command, 115](#)
- [STOP Command, 116](#)
- [Post-Log Merge Commands, 117](#)

## Introduction to the PowerExchange Logger for z/OS Commands

Use the PowerExchange Logger for z/OS commands to manage PowerExchange Logger log data sets, units of work (UOWs), and connections. These commands pertain to any PowerExchange installation that uses the PowerExchange Logger for z/OS.

With the PowerExchange Logger commands, you can perform the following tasks:

- Display information about PowerExchange Logger log data sets, units of work (UOWs), reader connections, and writer connections.
- Resolve in-doubt UOWs that are recorded in the log records.
- Stop the PowerExchange Logger.
- Print the contents of the PowerExchange Logger active log to a SYSOUT data set.
- Define new PowerExchange Logger log data sets.
- Delete PowerExchange Logger log records from the restart data set.

If you are capturing changes from multiple z/OS images in a sysplex environment and using multiple PowerExchange Loggers, you can use the additional Post-Log Merge commands to control how the changes are merged into a single stream.

## RELATED TOPICS:

- [“Post-Log Merge Commands” on page 117](#)

## Methods of Issuing PowerExchange Logger Commands

Issue the basic PowerExchange Logger commands in either of the following ways:

- Use the MVS MODIFY (F) command to issue the commands interactively from the MVS operator console or an interface such as SDSF. The PowerExchange Logger must be running when you issue the MODIFY command.
- Include the commands as part of batch utility jobs for changing PowerExchange Logger configuration or managing log and restart data sets. The PowerExchange Logger must *not* be running when these jobs run. The changes take effect when you restart the PowerExchange Logger.

The following table summarizes the methods that are available for issuing each PowerExchange Logger command:

Command	With the MVS MODIFY Command	In a Batch Job
DEFINE_LOG	-	X
DELETE_LOG	X	X
DISPLAY OBJECT	X	X
PRINT	X	X
RESOLVE_INDOUBT	X	-
STOP	X	-

## Syntax Rules and Guidelines for PowerExchange Logger Commands

The following syntax rules and guidelines apply to the basic PowerExchange Logger for z/OS commands:

- Do not use the same parameter more than once in a PowerExchange Logger command.
- In batch jobs, include PowerExchange Logger control cards under the SYSIN DD statement. If multiple parameters are specified, add a comma (,) after each one except the last parameter that is just before END, such as:

```
DEFINE_LOG  
DSNAME=PWX.MYLOGS.SECLOG.DS03,  
COPY=SECLOG  
END
```

- You can include multiple PowerExchange Logger commands in a batch change job to accomplish a task such as defining a log data set.

- If you use the MVS MODIFY (F) command to issue PowerExchange Logger commands, you must include the PowerExchange Logger procedure name followed by a comma (.). In the syntax, this name is indicated by the *proc\_name* variable. If you use SDSF, place a slash (/) at the beginning, such as:

```
/F proc_name,COMMAND
```

- Other syntax conventions, such as the use of brackets [ ] and curly brackets { }, apply to the PowerExchange Logger commands.

## RELATED TOPICS:

- [“PowerExchange Command Syntax Conventions” on page 12](#)

# Starting the PowerExchange Logger for z/OS

Use the MVS START (S) command to initially start or to restart the PowerExchange Logger for z/OS task. You might need to restart the PowerExchange Logger if it stops, for example, in response to the STOP command.

Start the PowerExchange Logger after you start the PowerExchange Agent but prior to starting any other PowerExchange CDC component address spaces.

## Syntax

Use the following command syntax:

```
{START|S} proc_name
```

The *proc\_name* variable is the PowerExchange Logger procedure name.

# DEFINE\_LOG Command

Adds PowerExchange Logger for z/OS log definitions to the restart data set. You can add definitions for the following types of log data sets:

- Additional active log definitions
- Replacement active log definitions
- Replacement archive log definitions

**Note:** PowerExchange installation creates definitions for at least three active log data sets. You can define additional active log data sets, up to a maximum of 31 active logs.

Include the DEFINE\_LOG control statements in batch jobs that include log maintenance tasks.

PowerExchange provides sample JCL for adding active log data set definitions in the #ADDLOGS member of the SAMPLIB library.

## Syntax

To define PowerExchange Logger active logs, use the following syntax for the control statements:

```
DEFINE_LOG
DSN=data_set_name,
COPY={PRILOG|SECLOG},
[STARTRBA=X' start_rba', ENDRBA=X' end_rba']
END
```

To define PowerExchange Logger archive logs, use the following syntax for the control statements:

```
DEFINE LOG
DSN=data_set_name,
[STARTRBA=X'start_rba', ENDRBA=X'end_rba',]
[TODSTIME=X'start_time', TODENDTIME=X'end_time',]
{VOL1=archive_log1_volser|VOL2=archive_log2_volser}
END
```

Use the following syntax rules:

- If you specify STARTRBA, you must also specify ENDRBA.
- If you specify TODSTIME, you must also specify TODENDTIME.
- For archive logs, you must specify either VOLUME1 or VOLUME2. Do not specify both.

## Parameter Descriptions

You can specify the following parameters for DEFINE\_LOG:

### COPY

Indicates whether to define the data set for the primary or secondary active logs. Enter one of the following options:

- PRILOG. Defines a primary log data set.
- SECLOG. Defines a secondary log data set, which acts as a backup copy.

This parameter is required for active logs.

### {DSN|DSNAME|LOG\_DSNAME}

Specifies a fully-qualified log data set name. Maximum length is 44 characters.

### END

Indicates the end of the DEFINE\_LOG control statement for a log data set.

### ENDRBA

Specifies the RBA of the end of the replacement log data set that is named by the DSNAME parameter. A replacement log data set is one that replaces a previously existing log file. Enter this RBA value in hexadecimal format, beginning with the letter "X" and then adding exactly 12 hexadecimal digits enclosed in single-quotation marks, for example, X'0000004552FF'. If you do not know this RBA value, you can get it either by reviewing the messages that were generated when the log data set was originally created or by running the PowerExchange Logger DISPLAY OBJECT=LOG command.

This parameter is required only for replacement active or archive log data sets. Do not use the parameter if you are defining a new active log data set.

You must also specify the STARTRBA parameter. The STARTRBA value must be less than the ENDRBA value.

### STARTRBA

Specifies the RBA of the start of the replacement log data set that is named by the DSNAME parameter. A replacement log data set is one that replaces a previously existing log file. Enter this RBA value in hexadecimal format, beginning with the letter "X" and then adding exactly 12 hexadecimal digits enclosed in single-quotation marks, for example, X'000000422108'. If you do not know this RBA value, you can get it either by reviewing the messages that were generated when the log data set was originally created or by running the PowerExchange Logger DISPLAY OBJECT=LOG command.

This parameter is required only for replacement active or archive log data sets in a non-Post-Log-Merge environment. Do not use the parameter if you are defining a new active log data set.

You must also specify the ENDRBA parameter. The ENDRBA value must be greater than the STARTRBA value.

#### **TODENDTIME**

For a Post-Log-Merge environment, specifies the timestamp of the end of the replacement archive log data set that is named in the DSNAME parameter. A replacement archive log data set is one that replaces a previously existing log file. Enter this timestamp value in hexadecimal format, beginning with the letter "X" and then adding exactly 16 hexadecimal digits enclosed in single-quotation marks, for example, X'BDC05246A8723542'. If you do not know this timestamp value, you can get it either by reviewing the messages that were generated when the log data set was originally created or by running the PowerExchange Logger DISPLAY OBJECT=LOG command.

This parameter is required only for replacement archive log data sets in a Post-Log-Merge environment. Do not use the parameter if you are defining a new log data set or if you do not use the Post-Log Merge function.

You must also specify the TODSTATIME parameter. The TODSTATIME value must be less than the TODENDTIME value.

#### **TODSTATIME**

For a Post-Log-Merge environment, specifies the timestamp of the start of the replacement archive log data set that is named by the DSNAME parameter. A replacement archive log data set is one that replaces a previously existing archive log file. Enter this value in hexadecimal format, beginning with the letter "X" and then adding exactly 16 hexadecimal digits enclosed in single-quotation marks, for example, X'BDC04135624371A8'. If you do not know this timestamp value, you can get it either by reviewing the messages that were generated when the archive log data set was originally created or by running the PowerExchange Logger DISPLAY OBJECT=LOG command.

This parameter is required only for replacement archive log data sets in a Post-Log-Merge environment. Do not use the parameter if you are defining a new log data set or if you do not use the Post-Log Merge function.

You must also specify the TODENDTIME parameter. The TODENDTIME value must be greater than the TODSTATIME value.

#### **{VOL1|VOLUME1|COPYVOL1}**

For archive logs only, specifies the volume serial number, also called *volser*, where the archive log data set is located. Use this parameter only for a primary archive log data set.

#### **{VOL2|VOLUME2|COPYVOL2}**

For archive logs only, specifies the volume serial number, also called *volser*, where the archive log data set is located. Use this parameter only for a secondary archive log data set.

### **Example**

The following command and control statements define a primary archive log data set that is named ARCHLOG1.PWXL.LG1.D2007331.T1536523 in a non-Post-Log-Merge environment:

```
DEFINE LOG
DSN=PWXR1.ARCHLOG1.PWXL.LG1.D2007331.T1536523,
VOL1=DSK38F,
STARTRBA=X'000000168000',ENDRBA=X'0000002CFFFF'
END
```

The resulting output is:

```
LOG START
PWXEDM172502I EDM Logger BATCH initialization in-progress product level V2.4.05
08/31/2006
PWXEDM172638I Logger system timestamp for ERDS = 2008.107 15:11:09.49
```

```

DEFINE_LOG DSN=PWXUSR1.ARCHLOG1.PWXL.LG1.D2007331.T1536523,
          VOL1=DSK38F,
          STARTRBA=X'000000168000',ENDRBA=X'0000002CFFFF'   END
PWXEDM172572I  Logger input commands accepted execution started
PWXEDM172506I  EDM  Logger BATCH Shutdown in progress
PWXEDM172508I  EDM  Logger ##### TASK EDMLIPC0 COMPLETE RC=00
PWXEDM172508I  EDM  Logger ##### TASK EDMLCKP0 COMPLETE RC=00
PWXEDM172508I  EDM  Logger ##### TASK EDMLRLM0 COMPLETE RC=00
PWXEDM172508I  EDM  Logger ##### TASK EDMLLLG0 COMPLETE RC=00
PWXEDM172509I  EDM  Logger BATCH shutdown complete
L O G   E N D

```

## DELETE\_LOG Command

Deletes all information about a specific PowerExchange Logger for z/OS log data set from the emergency restart data set (ERDS). Run this command periodically to delete information about obsolete archive log data sets.

Issue this command either by using the MVS MODIFY (F) command or by adding it to batch jobs that include log maintenance tasks.

### Syntax

To issue the command with the MVS MODIFY command, use the following syntax:

```
F proc_name,DELETE_LOG DSN=data_set_name
```

The *proc\_name* variable is the PowerExchange Logger procedure name.

To issue the command in batch mode, add the following control statements to a batch job:

```

DELETE_LOG
DSN=data_set_name
END

```

### Parameter Descriptions

You can specify the following parameters for DELETE\_LOG:

#### {DSN|DSNAME|LOG\_DSNAME}

Specifies the fully-qualified data set name of the log data set for which you want to remove information from the ERDS. Maximum length is 44 characters.

#### END

Indicates the end of the DELETE\_LOG control statement for a log data set in a batch job. Required for batch control statements only.

### Usage Notes

- If you use the MVS MODIFY command to run the DELETE\_LOG command in interactive mode, the PowerExchange Logger can continue running.
- If you run the DELETE\_LOG command as part of a batch job, you must stop the PowerExchange Logger before the batch job runs. Also stop any ECCR that is running against data sources for which the PowerExchange Logger logs changes.

## Example

Run the following command in batch mode to delete the archive log data set named PWXUSR1.ARCHLOG1.PWXL.LG1.D2007331.T1536523:

```
DELETE LOG
DSNAME=PWXUSR1.ARCHLOG1.PWXL.LG1.D2007331.T1536523
END
```

The resulting output is:

```
L O G   S T A R T
PWXEDM172502I EDM Logger BATCH initialization in-progress product level V2.4.05
08/31/2006
PWXEDM172638I Logger system timestamp for ERDS = 2008.107 15:11:09.49
DELETE_LOG

      DSNAME=PWXUSR1.ARCHLOG1.PWXL.LG1.D2007331.T1536523  END
PWXEDM172572I Logger input commands accepted execution started
PWXEDM172506I EDM Logger BATCH Shutdown in progress
PWXEDM172508I EDM Logger ##### TASK EDMLIPC0 COMPLETE RC=00
PWXEDM172508I EDM Logger ##### TASK EDMLCKP0 COMPLETE RC=00
PWXEDM172508I EDM Logger ##### TASK EDMLRLM0 COMPLETE RC=00
PWXEDM172508I EDM Logger ##### TASK EDMLLLG0 COMPLETE RC=00
PWXEDM172509I EDM Logger BATCH shutdown complete
L O G   E N D
```

# DISPLAY OBJECT=CONNECTION Command

Displays information about PowerExchange Logger for z/OS reader connections, writer connections, or all unit-of-work (UOW) connections.

## Syntax

To issue the command with the MVS MODIFY command, use the following syntax:

```
MODIFY proc_name,DISPLAY OBJECT=CONNECTION, [{TYPE=READER|WRITER|UOW}], [CONID={*|pattern}]
```

Alternatively, you can use the following shorter command syntax:

```
F proc_name,DIS OB={CON|CONN}, [TYPE={READER|WRITER|UOW}],CONID=[{*|pattern}]
```

Separate the parameters with a comma only. The *proc\_name* variable is the PowerExchange Logger procedure name.

To issue the command in batch mode, add the following control statements to the batch job:

```
DISPLAY
OBJECT=CONNECTION,
[TYPE={READER|WRITER|UOW}],
[CONID={*|pattern}]
END
```

**Tip:** If you enter DISPLAY only, PowerExchange treats the DISPLAY command as if you had entered it with the OBJECT=CONNECTION keyword.

## Parameter Descriptions

You can specify the following parameters for DISPLAY OBJECT=CONNECTION:

## TYPE

Defines the type of connections for which to display information. Enter one of the following options:

- **READER.** Displays information about log reader connections.
- **WRITER.** Displays information about log writer connections.
- **UOW.** Displays information about UOW connections, including the UOW ID in hexadecimal format. You can use this UOW ID as input to the **RESOLVE\_INDOUBT** UOW command.

This parameter is optional. If you do not include it, PowerExchange displays information for all connection types.

If you also specify the **CONID** parameter, only the connections that match the connection ID criteria in **CONID** are displayed.

## CONID

Specifies the connection IDs of the PowerExchange Logger connections for which to display information. You can enter the connection IDs in any of the following ways:

- To select a single PowerExchange Logger connection, enter a specific connection ID.
- To select all PowerExchange Logger connection IDs, enter the asterisk (\*) wildcard only.
- To select a subset of connection IDs, enter a wildcard pattern. A wildcard pattern is composed of the first part of a connection ID followed by the asterisk (\*) wildcard, such as **PWX\***.

Default is the asterisk (\*) wildcard.

## Example

The following command displays information about all active log writer connections of the PowerExchange Logger **PWXLLOG5**:

```
F PWXLLOG5,DIS OB=CON,TYPE=U
```

The resulting output is:

```
PWXEDM172679I Logger UOW Connection report follows:
      Name                               Logger UOW                               Type and Status_
      |E7E8000000000012F324F9B0000000000000 SXPL000006A8D6FE00000000 UOW In_Flight
```

## RELATED TOPICS:

- [“DISPLAY OBJECT=LOG Command” on page 112](#)

# DISPLAY OBJECT=LOG Command

Displays information about PowerExchange Logger for z/OS active log data sets, archive log data sets, or both types of log data sets.

## Syntax

To issue the command with the MVS **MODIFY** command, use the following syntax:

```
MODIFY proc_name,DISPLAY OBJECT=LOG, [TYPE={ALL|ACTIVE|ARCHIVE}], [DSN={*|pattern}]
```

Alternatively, you can use the following syntax:

```
F proc_name,DIS OB=LOG, [TYPE={ALL|ACT|ARC}], [DSN={*|pattern}]
```

The *proc\_name* variable is the PowerExchange Logger procedure name.



To issue the command in batch mode, add the following control statements to a batch job:

```
DISPLAY
OBJECT=LOG,
[TYPE={ALL|ACTIVE|ARCHIVE}],
[DSN={*|pattern}]
END
```

## Parameter Descriptions

You can specify the following parameters for DISPLAY OBJECT=LOG:

### TYPE

Defines the type of log data sets for which to display information. Enter one of the following options:

- ALL. Displays information about all active and archive logs that match the specified DSNAME value.
- ACTive. Displays information about all active logs that match the specified DSNAME value.
- ARChive. Displays information about all archive logs that match the specified DSNAME value.

**Tip:** The uppercase letters in the option names indicate the short form of the option name that you can enter.

Default is ACTIVE.

### {DSN|DSNAME}={\*|pattern}

Specifies the data set names of the PowerExchange Logger log data sets for which to display information. You can enter the data set names in any of the following ways:

- To select a single PowerExchange Logger log data set, enter a fully-qualified data set name.
- To select all PowerExchange Logger log data sets, enter only the asterisk (\*) wildcard.
- To select a subset of the log data sets, enter a wildcard pattern. A wildcard pattern is composed of the first part of a data set name followed by the asterisk (\*) wildcard, such as PWXUSR1.PWXT.PWXL.SECA.

Default is the asterisk (\*) wildcard.

## Example

The following command displays information about all active log data sets of the PowerExchange Logger PWXLLOG5:

```
F PWXLLOG5,DIS OB=LOG,TYPE=ACT,DSN=*
```

The resulting output is:

```
PWXEDM172679I  Logger LOG ACTIVE report follows:
               *Start RBA      End   RBA      Status      Log
Dsname
0000093A8000  00000C4DFFFF  PWXUSR1.PWXT.PWXL.PRILOG.DS01
REUS,IN-USE
00000C4E0000  00000F617FFF  PWXUSR1.PWXT.PWXL.PRILOG.DS02  REUS
000006270000  0000093A7FFF  PWXUSR1.PWXT.PWXL.PRILOG.DS03  REUS
0000093A8000  00000C4DFFFF  PWXUSR1.PWXT.PWXL.SECLOG.DS01
REUS,IN-USE
00000C4E0000  00000F617FFF  PWXUSR1.PWXT.PWXL.SECLOG.DS02  REUS
000006270000  0000093A7FFF  PWXUSR1.PWXT.PWXL.SECLOG.DS03  REUS
```

## RELATED TOPICS:

- [“DISPLAY OBJECT=CONNECTION Command” on page 111](#)

# PRINT Command

Prints PowerExchange Logger for z/OS active and archive log records in hexadecimal format to a SYSOUT data set. The SYSOUT data set is dynamically allocated each time you run this command. Depending on the parameters you set, you can print the following sets of records:

- The 50 log records that start from the starting RBA that you specify
- All log records up to the ending RBA that you specify
- All log records between the starting and ending RBAs that you specify

Usually, you use the PRINT command only at the direction of Informatica Global Customer Support for troubleshooting purposes. The command can produce a very large amount of output.

## Syntax

To issue the command with the MVS MODIFY command, use the following syntax:

```
F proc_name,PRINT {STARBA=x' rba_number',ENDRBA=x' rba_number'}
```

The *proc\_name* variable is the PowerExchange Logger procedure name.

To issue the command in batch mode, add the following control statements to a batch job:

```
PRINT  
{STARBA=x' rba_number',ENDRBA=x' rba_number'}  
END
```

You must specify STARBA, ENDRBA, or both. If you specify both parameters, include a comma between them.

## Parameter Descriptions

You must specify at least one of the following parameters to indicate the range of log records to print. If you specify both parameters, the log records between the specified starting and ending RBAs are printed.

### {ENDRBA|STOPRBA|STORBA}

Specifies the RBA that indicates the end of the range of log records to print. Enter this RBA value in hexadecimal format, beginning with the letter “X” and then adding exactly 12 hexadecimal digits enclosed in single-quotation marks, for example, X'0000004552FF'. If you do not know this RBA value, you can get it either by reviewing the messages that were generated when the log records were created or by running the PowerExchange Logger DISPLAY OBJECT=LOG command.

If you do not also enter a STARBA value, all log records up to the ENDRBA position are printed.

If you enter both STARBA and ENDRBA values, the ENDRBA value must be greater than the STARBA value.

### {STARBA|STARTRBA|LOGRBA}

Specifies the RBA that indicates the start of the range of log records to print. Enter this RBA value in hexadecimal format, beginning with the letter “X” and then adding exactly 12 hexadecimal digits enclosed in single-quotation marks, for example, X'000000422108'. If you do not know this RBA value, you can get it either by reviewing the messages that were generated when the log records were created or running the PowerExchange Logger DISPLAY OBJECT=LOG command.

If you do not also enter an ENDRBA value, the 50 log records starting from the STARBA position are printed.

If you enter both STARBA and ENDRBA values, the STARBA value must be less than the ENDRBA value.

### Example

The following command prints the PowerExchange Logger log records between the starting RBA and ending RBA that are specified:

```
F PWXLOGR1,PRINT STARBA=x'000000422108',ENDRBA=x'0000004552FF' }
```

### RELATED TOPICS:

- [“DISPLAY OBJECT=LOG Command” on page 112](#)

## RESOLVE\_INDOUBT Command

Forces the PowerExchange Logger for z/OS to either commit or discard open UOWs that have a status of in-flight.

For example, assume that an ECCR terminated abnormally and left an in-flight UOW. Normally, when you perform a warm start of the ECCR, any in-flight UOWs are resolved. However, you might not be able to restart the ECCR, or when you perform a warm start, the normal resolution of the in-flight status fails to occur. In this case, use the RESOLVE\_INDOUBT command to resolve the in-flight UOW.

### Syntax

Use the following command syntax:

```
MODIFY proc_name,RESOLVE_INDOUBT UOW=X'uow_id'[,ECCR=eccr_name],ACTION={ABORT|COMMIT}
```

Alternatively, you can use the following shorter command syntax:

```
F proc_name,RI U=X'uow_id'[,E=eccr_id],A={A|C}  
F proc_name,RES_UOW U=X'uow_id'[,E=eccr_id],A={A|C}
```

The *proc\_name* variable is the PowerExchange Logger procedure name.

### Parameter Descriptions

The following parameters are required:

#### **UOW=X'*uow\_id*'**

The UOW ID of the in-flight UOW that you want to commit or discard. Enter the ECCR-assigned UOW ID in hexadecimal format, beginning with the letter “X” followed by a 36-character string enclosed in single-quotation marks. To get this identifier, issue the DISPLAY OBJECT=CONNECTION,TYPE=UOW command and look for UOW=X'*value*' in the output.

#### **ECCR=*eccr\_id***

Optional. Specifies the name of the ECCR that captured the in-flight UOW that you want to commit or discard. If you specify this parameter, the PowerExchange Logger verifies that the ECCR owns the UOW that you are attempting to resolve. If you specify the wrong ECCR name, the command ends with error message PWXEDM172681E.

### ACTION={COMMIT|ABORT}

Indicates whether to commit or discard the specified in-flight UOW. Enter one of the following options:

- COMMIT. Commits the UOW.
- ABORT. Discards the UOW.

### Example

The DISPLAY OBJECT=CONNECTION,TYPE=UOW command produces the following report, which indicates that an in-flight UOW exists for the PowerExchange Logger PWXLOGR1:

```
PWXEDM172679I Logger UOW Connection report follows:
  Name                               Logger UOW                               Type and Status
  |E7E800000000000012F324F9B0000000000000    SXPL000006A8D6FE00000000    UOW In_Flight
```

To commit this in-flight UOW, issue the following RESOLVE\_INDOUBT UOW command with the UOW hexadecimal value from the **Name** field of the report:

```
F PWXLOGR1,RESOLVE_INDOUBT U=X'E7E800000000000012F324F9B0000000000000',A=C
```

### RELATED TOPICS:

- [“DISPLAY OBJECT=CONNECTION Command” on page 111](#)

## STOP Command

Stops an active PowerExchange Logger for z/OS. Use either the PowerExchange STOP command that is issued with the MVS MODIFY (F) command, or use the standard MVS STOP (P) command.

Before you issue a STOP command, verify that all ECCR and log reader connections to the PowerExchange Logger have ended. The PowerExchange Logger cannot stop until all attached reader and writer connections complete or are canceled. If you issue the STOP command when reader or writer connections are still active, the PowerExchange Logger waits until the connections end before stopping.

### Syntax

To issue the PowerExchange STOP command, use the following syntax:

```
F proc_name,STOP
```

To issue the MVS STOP (P) command, use the following syntax:

```
P proc_name
```

The *proc\_name* variable is the PowerExchange Logger procedure name.

### Usage Notes

Review the following notes before issuing the command:

- If you issue the PowerExchange STOP command when the PowerExchange Logger still has active ECCR or log reader connections, the PowerExchange Logger waits until the connections end before stopping. Also, PowerExchange issues the following message for each outstanding ECCR or log reader task:

```
PWXEDM172596E Logger waiting for {reader|ECCR} Client (job_name) to end
```

- After the PowerExchange STOP command completes, the PowerExchange Logger accepts no additional commands.
- Instead of the PowerExchange STOP command, you can use the MVS STOP (P) command. Before running the MVS STOP command, verify that no outstanding ECCR or log reader tasks are attached to the PowerExchange Logger.

- If you cannot terminate all outstanding ECCR and log reader tasks, you can use the MVS CANCEL command to terminate the PowerExchange Logger.

## Post-Log Merge Commands

In a Post-Log Merge environment, PowerExchange uses the Log Read API to read change data from the active and archive logs of each PowerExchange Logger on each MVS image in the sysplex. Then PowerExchange merges the change data in chronological order into a single stream for extraction processing. You can use the Post-Log Merge commands to manage merge processing in the following ways:

- Display the status of log-read processes.
- Stop the Post-Log Merge started task.
- Produce trace information.

To issue Post-Log Merge commands, use the standard MVS MODIFY (F) command. You must include the Post-Log-Merge started task name or job name followed by a comma (.). In the command syntax, this name is indicated by the *task\_name* variable.

### DISPLAY and STATUS Commands

Displays information about log-read processes that are connected to the Post-Log Merge started task by means of the Log Read API. This information includes the PowerExchange Logger for which changes are being merged and the current read location in each log data set.

**Note:** The DISPLAY and STATUS commands are equivalent in function.

#### Syntax

Use the following command syntax:

```
F task_name,{DISPLAY|DIS}
```

or

```
F task_name,{STATUS|STAT}
```

The *task\_name* variable is the name of the Post-Log Merge started task or batch job.

### QUIT and STOP Commands

Stops the Post-Log Merge started task. If the Post-Log Merge started task has active log-read processes running, those processes terminate abnormally.

**Note:** The QUIT and STOP commands are equivalent in function.

#### Syntax

Use the following command syntax:

```
F task_name,{QUIT|STOP}
```

The *task\_name* variable is the name of the Post-Log Merge started task or batch job.

## TRACEE, TRACEL, and TRACES Commands

Control the production of trace information for the Post-Log Merge started task. Trace information is primarily used for troubleshooting. Use these commands only at the direction of Informatica Global Customer Support.

The following trace commands are available:

- TRACEE. Disables tracing for the Post-Log Merge started task.
- TRACEL. Activates long-form tracing, which produces all trace information.
- TRACES. Activates short-form tracing, which produces a maximum of 32 bytes of information for each trace.

### Syntax

Use the following command syntax:

```
F task_name, {TRACEE|TRACEL|TRACES}
```

The *task\_name* variable is the name of the Post-Log Merge started task or batch job.

## CHAPTER 14

# PowerExchange Logger for Linux, UNIX, and Windows Commands

This chapter includes the following topics:

- [Introduction to PowerExchange Logger for Linux, UNIX, and Windows Commands, 119](#)
- [Starting the PowerExchange Logger for Linux, UNIX, and Windows, 120](#)
- [CONDENSE Command, 125](#)
- [DG Command, 126](#)
- [DISPLAY ALL Command, 128](#)
- [DISPLAY CPU Command, 129](#)
- [DISPLAY EVENTS Command, 130](#)
- [DISPLAY MEMORY Command, 130](#)
- [DISPLAY RECORDS Command, 131](#)
- [DISPLAY STATUS Command, 132](#)
- [DL Command, 133](#)
- [FILESWITCH Command, 134](#)
- [SHUTCOND Command, 135](#)
- [SHUTDOWN Command, 137](#)

## Introduction to PowerExchange Logger for Linux, UNIX, and Windows Commands

Use the PowerExchange Logger for Linux, UNIX, and Windows commands to control or stop a PowerExchange Logger process or to display information about PowerExchange Logger processing.

With these commands, you can perform the following tasks:

- Stop a PowerExchange Logger process.
- Cold start the PowerExchange Logger with an encryption password to enable the encryption of PowerExchange Logger log files.

- Display the following statistics about PowerExchange Logger processing:
  - Status information for the PowerExchange Logger Writer and Command Handler subtasks
  - Counts of change records processed since the PowerExchange Logger started and for the active logging cycle, current Logger log file, and each PowerExchange Logger group definition
  - Number of change records that have not yet been flushed to log files on disk for each PowerExchange Logger group definition
  - CPU time used by the PowerExchange Logger
  - Memory use, total and for each PowerExchange Logger task
- Manually switch to a new set of log files.
- Manually have the Writer subtask resume reading source data during a wait interval.

You must issue the commands, except those for starting the PowerExchange Logger, against an active PowerExchange Logger process that is running on Linux, UNIX, or Windows. The command descriptions describe the purpose, syntax, and usage of each command and provide example output, where appropriate. The descriptions focus on issuing commands against a PowerExchange Logger process that is running in foreground mode.

Alternatively, you can use the `pwxcmd` program to send commands to a PowerExchange Logger process that is running in background or foreground mode on the same system or on a different system. You must use the `pwxcmd` program to issue commands if you run the PowerExchange Logger process in background mode. You can issue a `pwxcmd` command from the command line, a batch file, or a script.

## RELATED TOPICS:

- [“pwxcmd Commands” on page 139](#)

# Starting the PowerExchange Logger for Linux, UNIX, and Windows

To start the PowerExchange Logger for Linux, UNIX, or Windows, run the `pwxccl` program. This program resides in the PowerExchange installation directory.

Before you start `pwxccl`, complete the PowerExchange Logger configuration steps that are described in the *PowerExchange CDC Guide for Linux, UNIX, and Windows*.

**Note:** You cannot use the `pwxcmd` program to start `pwxccl`.

## Syntax

The syntax for running `pwxccl` varies by operating system.

On a Linux or UNIX system, use one of the following syntax alternatives to start the PowerExchange Logger from the command line:

- To run the PowerExchange Logger in foreground mode, use the following syntax:
 

```
pwxccl [coldstart=Y|N] [specialstart=Y|N] [config=directory/myconfig_file]
[cs=directory/mycondense_config_file] [license=directory/mylicense_key_file]
[encryptepwd=encrypted_encryption_password]
```



- To run the PowerExchange Logger in background mode, add an ampersand (&) at the end of the statement, as shown in the following syntax:

```

pwxcc1 [coldstart=Y|N] [specialstart=Y|N] [config=directory/myconfig_file]
[cs=directory/mycondense_config_file] [license=directory/mylicense_key_file]
[encryptepwd=encrypted_encryption_password] &

```

- To run the PowerExchange Logger in background mode on an ongoing basis, even if the session is disconnected or the user logs out, add the prefix nohup, as shown in the following syntax:

```

nohup pwxcc1 [coldstart=Y|N] [specialstart=Y|N] [config=directory/myconfig_file]
[cs=directory/mycondense_config_file] [license=directory/mylicense_key_file]]
[encryptepwd=encrypted_encryption_password] &

```

On a Windows system, use following syntax to start the PowerExchange Logger in foreground mode from the command line:

```

pwxcc1 [coldstart=Y|N] [specialstart=Y|N] [config=directory\myconfig_file] [cs=directory
\mycondense_config_file] [license=directory\mylicense_key_file]
[encryptepwd=encrypted_encryption_password]

```

To start the PowerExchange Logger as a background task on a Windows system, you have multiple options. You can create a .bat file that executes pwxcc1 and then run the .bat file in a minimized window or from a script file. For more information about running programs in a minimized window, see the Microsoft Windows documentation.

## Parameter Descriptions

In the pwxcc1 statement, you can specify one or more of the following optional parameters:

### **coldstart**

Indicates whether to cold start or warm start the PowerExchange Logger. Enter one of the following values:

**Y**

Cold starts the PowerExchange Logger. You must specify COLDSTART=Y to perform a cold start. If the CDCT file contains log entries, the PowerExchange Logger deletes these entries.

**N**

Warm starts the PowerExchange Logger from the restart point that is indicated in the CDCT file. If no restart information exists in the CDCT file, the PowerExchange Logger ends with an error message. Default is N.

Do not specify both coldstart=Y and specialstart=Y. If you do, coldstart=Y takes precedence.

### **config**

Specifies the full path and file name for a DBMOVER configuration file that overrides the default dbmover configuration file in the installation directory. The override file must have a path or file name that is different from that of the default file. The override file takes precedence over any override configuration file that you optionally specify with the PWX\_CONFIG environment variable.

### **cs**

Specifies the full path and file name for the PowerExchange Logger configuration file. Use this parameter to specify a PowerExchange Logger configuration file that overrides the default pwxcc1 configuration file in the installation directory. The override file must have a path or file name that is different from that of the default file.

### **encryptepwd**

A password in encrypted format for enabling the encryption of PowerExchange Logger log files. With this password, the PowerExchange Logger can generate a unique encryption key for each Logger log file. The

password is stored in the CDCT file in encrypted format. For security purposes, the password is not stored in CDCT backup files and is not displayed in the CDCT reports that you can generate with the PWXUCDCT utility.

If you specify this parameter, you must also specify `coldstart=Y` in the same `pwxccl` command.

If you specify this parameter and also specify the `ENCRYPTPWD` parameter in the PowerExchange Logger configuration file, `pwxccl.cfg`, the parameter in the configuration file takes precedence. If you specify this parameter and also specify the `ENCRYPTPWD` parameter in the PowerExchange Logger configuration file, an error occurs.

You can set the AES algorithm to use for log file encryption in the `ENCRYPTOPT` parameter of the `pwxccl` file. The default is `AES128`.

**Tip:** For optimal security, Informatica recommends that you specify the encryption password in a `pwxccl` command for cold starting the PowerExchange Logger rather than in the `pwxccl.cfg` configuration file. This practice can reduce the risk of malicious access to the encryption password for the following reasons: 1) The encryption password is not stored in the `pwxccl.cfg` file, and 2) You can remove the password from the command line after a successful cold start. If you specify the encryption password in a `pwxccl` command for a cold start and then need to restore the CDCT file later, you must enter the same encryption password in the `RESTORE_CDCT` command of the `PWXUCDCT` utility.

To *not* encrypt PowerExchange Logger log files, do not enter an encryption password in the `pwxccl` command for a cold start or in the `pwxccl.cfg` configuration file.

#### **license**

Specifies the full path and file name for a license key file that overrides the default `license.key` file in the installation directory. The override file must have a file name or path that is different from that of the default file. The override file takes precedence over any override license key file that you optionally specify with the `PWX_LICENSE` environment variable.

#### **specialstart**

Indicates whether to perform a special start of the PowerExchange Logger. A special start begins PowerExchange capture processing from the point in the change stream that you specify in the `pwxccl.cfg` file. This start point overrides the restart point from the CDCT file for the PowerExchange Logger run. A special start does not delete any content from the CDCT file.

Use this parameter to skip beyond problematic parts in the source logs without losing captured data. For example, use a special start in the following situations:

- You do not want the PowerExchange Logger to capture an upgrade of an Oracle catalog. In this case, stop the PowerExchange Logger before the upgrade. After the upgrade is complete, generate new sequence and restart tokens for the PowerExchange Logger based on the post-upgrade SCN. Enter these token values in the `SEQUENCE_TOKEN` and `RESTART_TOKEN` parameters in the `pwxccl.cfg`, and then special start the PowerExchange Logger.
- You do not want the PowerExchange Logger to reprocess old, unavailable logs that were caused by outstanding UOWs that are not of CDC interest. In this case, stop the PowerExchange Logger. Edit the `RESTART_TOKEN` value to reflect the SCN of the earliest available log, and then perform a special start. If any of the outstanding UOWs that started before this restart point are of CDC interest, data might be lost.

Valid values:

## Y

Perform a special start of the PowerExchange Logger from the point in the change stream that is defined by the SEQUENCE\_TOKEN and RESTART\_TOKEN parameter values in the pwxcl.cfg configuration file. You must specify valid token values in the pwxcl.cfg file to perform a special start. These token values override the token values from the CDCT file. Ensure that the SEQUENCE\_TOKEN value in the pwxcl.cfg is greater than or equal to the current sequence token from the CDCT file.

Do not also specify the coldstart=Y parameter. If you do, the coldstart=Y parameter takes precedence.

## N

Do not perform a special start. Perform a cold start or warm start as indicated by the coldstart parameter.

Default is N.

**Note:** In the CONFIG, CS, and LICENSE parameters, the full path is required only if the file is not in the default location.

## Usage Notes

During startup, the PowerExchange Logger performs the processing:

1. Reads the pwxcl configuration file and displays the parameter settings in a series of PWX-15799 messages.  
**Note:** If the PowerExchange Logger does not find the pwxcl.cfg file it looks for dtlca.cfg.
2. Displays the name of the selected CAPI\_CONNECTION statement in message PWX-21605.
3. Loads active capture registrations from the CCT file that match the database specified in the DBID parameter of the pwxcl.cfg file and that specify **Part** for the **Condense** option. Any registrations that do not apply are ignored.
4. If you use a group definition file, the PowerExchange Logger displays the statements in the file. A group definition file defines groups of tables and capture registrations for which the PowerExchange Logger creates separate sets of log files.
5. The Controller task starts the Command Handler subtask and then the Writer subtask. The PowerExchange Logger issues a series of Command Handler and Writer initialization messages. If you specified COLDSTART=Y in the startup statement and PROMPT=Y in the dbmover.cfg configuration file, the PowerExchange Logger prompts you to confirm the cold start by entering Y.

When the Writer initialization is complete, the following messages appear:

```
PWX-06111 Controller: All tasks initialization complete.  
PWX-06455 Command Handler: received CAPTURE_STARTUP_COMPLETE event.
```

6. The Writer deletes any expired CDCT records and the PowerExchange log files associated with them. If you entered VERBOSE=Y in the pwxcl.cfg file, the PowerExchange Logger issues detailed messages about this processing, such as the CDCT records and log files that were deleted, restart and sequence tokens, and CPU usage.
7. The Writer begins processing source data.

After initialization is complete, you can issue PowerExchange Logger commands to determine the status of PowerExchange Logger processing, manually initiate a file switch or Writer reading of source data, or shut down the PowerExchange Logger.

## Example Output

During cold start processing, PowerExchange writes the following messages to the command line screen and the PowerExchange message log file:

```
C:\Informatica\PowerExchange9.0.0>pwxccl coldstart=y
PWX-33314 TIMEOUTS configuration parameter is deprecated
PWX-00607 PWXCCL VRM 9.0.0 Build V900_B10 started.
PWX-06036 Controller: Started 09/11/06 15:38:41.
PWX-33250 pwxccl started as a foreground process. pid="4500". coldstart="Y"

PWX-15799 ##PWXCCL <C:\Informatica\PowerExchange9.0.0\pwxccl.cfg> PARM INPUT FILE:
START>>> .
PWX-15799 DBID=NORT000.
PWX-15799 DB_TYPE=MSS.
PWX-15799 EXT_CAPT_MASK=C:\Informatica\PowerExchange9.0.0\capture\condense0.
PWX-15799 CHKPT_NUM=3.
PWX-15799 CHKPT_BASENAME=C:\Informatica\PowerExchange9.0.0\capture\condense0.chkpt.
PWX-15799 COND_CDCT_RET_P=50.
PWX-15799 CONDENSENAME=msssvc.
PWX-15799 COLL_END_LOG=0.
PWX-15799 NO_DATA_WAIT=5.
PWX-15799 NO_DATA_WAIT2=60.
PWX-15799 FILE_SWITCH_VAL=20.
PWX-15799 FILE_SWITCH_CRIT=M.
PWX-15799 CAPT_IMAGE=BA.
PWX-15799 SIGNALLING=N.
PWX-15799 VERBOSE=Y.
PWX-15799 ##PWXCCL <C:\Informatica\PowerExchange9.0.0\pwxccl.cfg> PARM INPUT FILE:
END(COMplete).

PWX-21605 Connection selected vpsql found from covr< > tag< > type< MSS> int< FALSE>
method< SRC_DFLT for TYPE>.

PWX-25802 Process pwxccl pid 4500 locked file C:\Informatica
\PowerExchange9.0.0\CDCT_instance_NORT000_lockfile.lck
PWX-25802 Process pwxccl pid 4500 locked file C:\Informatica\PowerExchange9.0.0\capture
\condense0_loggerfiles_lockfile.lck

PWX-33261 Loaded "customer.1". Table "dbo.Customers". Tag "MSSNORT000customer1"
PWX-33261 Loaded "employee.1". Table "dbo.Employees". Tag "MSSNORT000employee1"
PWX-33262 Discarded "orderdet". Creator "dbo". Condense option "None"
PWX-33261 Loaded "orders.1". Table "dbo.Orders". Tag "MSSNORT000orders1"
PWX-33261 Loaded "products.2". Table "dbo.Products". Tag "MSSNORT000products1"
PWX-33262 Discarded "region". Creator "dbo". Condense option "None"
PWX-33263 4 registrations loaded

PWX-06112 Controller: Starting the capture subtasks.

PWX-06076 Starting Subtask program PWXCCLH.
PWX-06450 Command Handler: Starting.
PWX-32503 Command Handler initialization complete, listening on port 6988 .

PWX-26002 Command handler is waiting for the writer to initialize before accepting
commands
PWX-06076 Starting Subtask program PWXCCLW.
PWX-06400 Condense: Starting. Instance=NORT000.
PWX-33232 No tokens specified. Cold start at the current data stream file position
PWX-33236 Type Y to confirm the cold start position or N to terminate the CCL logger
PWX-33238 Cold start accepted

PWX-09964 CAPI i/f: Current PowerExchange Logger log files position:
Sequence=07D9000B0006000F0022003B111B45C0000000010000000350000000630004FFFFFFFFF
Restart=07000000434158313730313031
PWX-09950 CAPI i/f: Connect OK. Sources = 4
PWX-25229 Started initialization of the CDCT Retention Array
PWX-25230 Retention array initialized. Files 1. CDCTs read 2. Allocated 300000. Memory
1500236
PWX-25211 Rolling back 2 CDCT records
```

```

PWX-06455 Command Handler: received CAPTURE_STARTUP_COMPLETE event.
PWX-06111 Controller: All tasks initialization complete.
PWX-26003 Command handler is accepting commands
PWX-25204 Deleted expired file "C:\Informatica\PowerExchange9.0.0\capture
\condense0.CND.CP091106.T1532001"
PWX-25221 Deleted 2 expired CDCT records and 1 files
PWX-33279 CPU total 390625. This file total 390625. CAPI Reads 0. Writing file 0. Other
390625

PWX-33274 CPU Total 406250. CAPI Read 0. Writing 0. File switching 0. Other 406250
PWX-33271 Writer starts reading source data. First processing cycle since initialization
PWX-09957 CAPI i/f: Read times out after 60 seconds
PWX-09967 CAPI i/f: End of log for time 09/11/06 15:38:44 reached

```

**Note:** Warm start messages are similar to cold start messages with the following exceptions:

- You do not need to reply to a confirmation prompt to proceed with startup processing.
- The PWX-06413 message reports the highest restart token and sequence token found for restart processing.

### Caution

If you run PowerExchange and PowerCenter on the same machine, using the same user account, you must create separate environments for PowerExchange and PowerCenter. To create the appropriate PowerExchange environment and start the PowerExchange Logger, run the `pwxccl.bat` script on Windows or the `pwxccl.sh` script on Linux or UNIX.

Use the following syntax on Windows:

```

pwxccl
["coldstart={Y|N}"]
["config=path/pwx_config_file"]
["cs=path/pwxlogger_config_file"]
["license=path/license_file"]

```

The quotation marks are required on Windows.

Use the following syntax on Linux and UNIX:

```

pwxccl.sh
["coldstart={Y|N}"]
["config=path/pwx_config_file"]
["cs=path/pwxlogger_config_file"]
["license=path/license_file"]

```

The quotation marks are optional on Linux and UNIX.

For more information, see [“Environment Variable Incompatibilities Between PowerExchange and PowerCenter” on page 13](#).

## CONDENSE Command

When the PowerExchange Logger for Linux, UNIX, and Windows is running in continuous mode, the CONDENSE command starts a another logging cycle before the wait period for starting another cycle has elapsed.

The wait period is specified in the NO\_DATA\_WAIT parameter of the `pwxccl.cfg` configuration file.

The message output from this command is displayed on screen and written to the PowerExchange message log.

## Syntax

Use the following syntax to issue the command from the command line against a PowerExchange Logger process that is running in foreground mode:

```
CONDENSE
```

**Note:** Alternatively, use the `pwxcmd` program to issue the condense command. You must use `pwxcmd` if you run the PowerExchange Logger in background mode.

## Example Output

The following example CONDENSE output indicates that the Writer subtask is reading or waiting for source data and provides the time of the next file switch:

```
PWX-26011 Command handler received command "CONDENSE"
PWX-06468 Command Handler: Condense request issued.

PWX-06415 Condense: Condense completed. Total Records=4, Data=2, UOWs =2
PWX-33270 Writer is sleeping for 300 seconds. Start time 09/10/30 15:15:20
```

## RELATED TOPICS:

- [“DISPLAY STATUS Command” on page 132](#)
- [“pwxcmd condense Command” on page 169](#)

# DG Command

Displays monitoring statistics for each PowerExchange Logger for Linux, UNIX, and Windows group definition that is defined. A *group definition* defines a set of PowerExchange Logger log files for a group of registered source tables.

The command writes the following statistics to the PowerExchange message log file and displays the statistics on screen:

- The group name and the number of capture registrations in the group
- The total number of insert, update, and delete records that the PowerExchange Logger processed for the group
- The number of commits that the PowerExchange Logger processed for the group
- The number of change records that the PowerExchange Logger has not yet flushed from memory to its log files on disk

If no group definitions are defined, this command displays monitoring statistics for all of the registrations, as if they are in one group.

Before you run the command, you must configure the `STATS=(MONITOR)` parameter in the PowerExchange Logger `pwxccl.cfg` configuration file on the system where the PowerExchange Logger runs to enable collection of the monitoring statistics.

## Syntax

Use the following syntax to issue the command from the command line against a PowerExchange Logger process that is running in foreground mode:

```
DG
```

### Example Output

```
PWX-26011 Command handler received command "DG"
PWX-37138 Grp: /pwxprod/v1010/capture/dtld004 Regs=100 IUD=000001046400 C=000000000969
Unflushed=0000000000000
PWX-37139 FirstRec=2016-05-11 21:26:49.000000 Open file=/pwxprod/v1010/capture/
dtld004.CND.CP160525.T1917001
PWX-37140 BeginSeq=D4000019EA11240000000000000000019EA11A0000000000007591000004E9001000020000
BeginRstrrt =000019EA111A631850012F800103
PWX-37141 LastSeq =D400001A023FA8000000000000000001A023FA600000000000075F200014B27010400010000
PWX-37142 CommitSeq=D400001A025AAD00000000000000FFFFFFFFFFF000075F700011A440068FFFF0000
CommitRstrrt=00001A025A5D631850012F800103
PWX-37138 Grp: /pwxprod/v1010/capture/dtld003 Regs=5 IUD=000000290000 C=000000000030
Unflushed=0000000000000
PWX-37139 FirstRec=2016-05-25 19:19:58.000000 Open file=/pwxprod/v1010/capture/
dtld003.CND.CP160525.T1920001
PWX-37140 BeginSeq=D400001A0243B8000000000000000001A0243B200000001000075F3000018F7014000010000
BeginRstrrt =00001A0243A1631850012F800103
PWX-37141 LastSeq =D400001A025AAD000000000000000001A025AAA00000042000075F700011A3A015400010000
PWX-37142 CommitSeq=D400001A025AAD00000000000000FFFFFFFFFFF000075F700011A440068FFFF0000
CommitRstrrt=00001A025A5D631850012F800103
```

```

PWX-26011 Command handler received command "DG"
PWX-37138 Grp: c:/pwx/capture/condense0 Regs=5 IUD=000000032292 C=000000001931 Unflushed=000000034223
PWX-37139 FirstRec=2016-05-22 13:59:10.603648
Open file=c:/pwx/capture/condense0.CND.CP150707.T1816001
PWX-37140 BeginSeq =000000009DE60000000000000000088D8000000000
BeginRstrrt =D4C9C7D3404000000000037DA000000000
PWX-37141 LastSeq =000001587438000000000000000158728600000000
PWX-37142 CommitSeq=000001589B240000000000000001589B2400000000
CommitRstrrt=D4C9C7D3404000000000037DA000000000

```

- Grp. The name of the group definition.
- Regs. The number of capture registrations in the group.
- IUD. the total number of inserts, updates, and deletes processed for the group.
- C. The number of commits processed for the group.
- Unflushed. The number of change records for the group that have not yet been flushed to PowerExchange Logger log files on disk.
- FirstRec. The timestamp of the first record in the open Logger log file.
- Open file. The path and file name of the open Logger log file.
- BeginSeq. The sequence token of the earliest record in the open Logger log file.
- BeginRstrt. The restart token of the earliest record in the open Logger log file.
- LastSeq. The sequence token of the last change record in the Logger log file that is not followed by a commit record. This value should be greater than the CommitSeq value.
- CommitSeq. The sequence token of the last commit record in the Logger log file.
- CommitRstrt. The restart token of the last commit record in the Logger log file.

DG Command 127

## RELATED TOPICS:

- [“pwxcmd displaystats Command” on page 174](#)
- [“DL Command” on page 133](#)

# DISPLAY ALL Command

Displays all messages that can be produced by the other PowerExchange Logger for Linux, UNIX, and Windows DISPLAY commands, arranged by command.

The output is the same as if you ran the following commands separately:

- DISPLAY CPU
- DISPLAY EVENTS
- DISPLAY MEMORY
- DISPLAY RECORDS
- DISPLAY STATUS

The message output from this command is displayed on screen and written to the PowerExchange message log.

## Syntax

Use the following syntax to issue the command from the command line against a PowerExchange Logger process that is running in foreground mode:

```
DISPLAY ALL
```

**Note:** Alternatively, use the pwxcmd program to issue the displayall command. You must use pwxcmd if you run the PowerExchange Logger in background mode.

## Example Output

The following example DISPLAY ALL output shows information about PowerExchange Logger processing, CPU time, and memory usage, arranged by command:

```
PWX-26011 Command handler received command "DISPLAY ALL"

PWX-26010 Command "DISPLAY CPU" information
PWX-26051 CPU uSecs reading source data 78125
PWX-26052 CPU uSecs writing data to files 31250
PWX-26053 CPU uSecs during file switches 15625
PWX-26054 CPU uSecs for other processing 796875
PWX-26055 CPU uSecs TOTAL 921875

PWX-26010 Command "DISPLAY EVENTS" information
PWX-26021 Controller waits on events ALL_TASK_SHUTDOWN, CMDH_ENDED, CONDENSE_ENDED,
PWX-26022 Command Handler waits on events ALL_TASK_SHUTDOWN, GOT_A_COMMAND,
PWX-26023 Writer waits on events ALL_TASK_SHUTDOWN, START_CONDENSING,
PWX-26024 Writer is sleeping, waiting for an event or timeout

PWX-26010 Command "DISPLAY MEMORY" information
PWX-26031 Controller memory. Application 1136258. Total 1145597. Maximum 1360714

PWX-26032 Command Handler memory. Application 636244. Total 636871. Maximum 671371
PWX-26033 Writer memory. Application 2326803. Total 2343567. Maximum 2410614
PWX-26034 Total memory. Application 4099305. Total 4126035. Maximum 4442699

PWX-26010 Command "DISPLAY RECORDS" information
PWX-26068 Update records. File 2. Total 4
PWX-26069 Commit records. File 2. Total 4
```



```
PWX-26070 Total records. File 4. Total 8

PWX-26010 Command "DISPLAY STATUS" information
PWX-26086 Writer is sleeping. Time "2009-10-07 16:25:07"
PWX-26101 Current file was opened at time "2009-10-07 16:16:08". Records 6
PWX-26103 Time of next file switch "2009-10-07 16:38:07"
```

## RELATED TOPICS:

- ["pwxcmd displayall Command" on page 169](#)

# DISPLAY CPU Command

Displays the CPU time spent, in microseconds, for PowerExchange Logger processing during the current logging cycle, by processing phase. Also includes the total CPU time for all PowerExchange Logger processing.

For example, CPU time might be reported for the following processing phases:

- Reading source data
- Writing data to PowerExchange Logger log files
- Performing file switches
- Performing "other processing," such as initialization and Command Handler processing of commands

The message output from this command is displayed on screen and written to the PowerExchange message log.

## Syntax

Use the following syntax to issue the command from the command line against a PowerExchange Logger process that is running in foreground mode:

```
DISPLAY CPU
```

**Note:** Alternatively, use the pwxcmd program to issue the displaycpu command. You must use pwxcmd if you run the PowerExchange Logger in background mode.

## Example Output

The following example DISPLAY CPU output shows information about CPU time spent for many processing phases, including file switches:

```
PWX-26011 Command handler received command "DISPLAY CPU"
PWX-26010 Command "DISPLAY CPU" information
PWX-26051 CPU uSecs reading source data 78125
PWX-26052 CPU uSecs writing data to files 31250
PWX-26053 CPU uSecs during file switches 15625
PWX-26054 CPU uSecs for other processing 640625
PWX-26055 CPU uSecs TOTAL 765625
```

## RELATED TOPICS:

- [“pwxcmd displaycpu Command” on page 170](#)

# DISPLAY EVENTS Command

Displays events that the PowerExchange Logger Controller, Command Handler, and Writer tasks are waiting on. Also indicates if the Writer is processing data or is in a sleep state waiting for an event or timeout to occur.

The message output from this command is displayed on screen and written to the PowerExchange message log.

## Syntax

Use the following syntax to issue the command from the command line against a PowerExchange Logger process that is running in foreground mode:

```
DISPLAY EVENTS
```

**Note:** Alternatively, use the pwxcmd program to issue the displayevents command. You must use pwxcmd if you run the PowerExchange Logger in background mode.

## Example Output

The following example DISPLAY EVENTS output shows the events that the Controller, Command Handler, and Writer are waiting on and the current status of the Writer:

```
PWX-26011 Command handler received command "DISPLAY EVENTS"
PWX-26010 Command "DISPLAY EVENTS" information
PWX-26021 Controller waits on events ALL_TASK_SHUTDOWN, CMDH_ENDED, CONDENSE_ENDED,
PWX-26022 Command Handler waits on events ALL_TASK_SHUTDOWN, GOT_A_COMMAND,
PWX-26023 Writer waits on events ALL_TASK_SHUTDOWN, START_CONDENSING,
PWX-26025 Writer is processing, reading source data
```

## RELATED TOPICS:

- [“pwxcmd displayevents Command” on page 171](#)

# DISPLAY MEMORY Command

Displays PowerExchange Logger for Linux, UNIX, and Windows memory use, in bytes, for each PowerExchange Logger task and subtask, with totals for the entire PowerExchange Logger process.

Memory use is reported for the following categories:

- **Application.** Memory requested by the PowerExchange Logger application for its own use.
- **Total.** Total memory in use for the PowerExchange Logger application and for related header overhead. This value fluctuates as memory is dynamically allocated and freed during PowerExchange Logger processing.
- **Maximum.** The largest memory amount that has been recorded for the “Total” category up to the point in time when this command runs.

The message output from this command is displayed on screen and written to the PowerExchange message log.

## Syntax

Use the following syntax to issue the command from the command line against a PowerExchange Logger process that is running in foreground mode:

```
DISPLAY MEMORY
```

**Note:** Alternatively, use the `pwxcmd` program to issue the `displaymemory` command. You must use `pwxcmd` if you run the PowerExchange Logger in background mode.

## Example Output

The following example `DISPLAY MEMORY` output shows total memory usage and memory usage by PowerExchange Logger task:

```
PWX-26011 Command handler received command "DISPLAY MEMORY"
PWX-26010 Command "DISPLAY MEMORY" information
PWX-26031 Controller memory. Application 1531327. Total 1545145. Maximum 1794550

PWX-26032 Command Handler memory. Application 645278. Total 646552. Maximum 646552
PWX-26033 Writer memory. Application 3495909. Total 3514235. Maximum 3613892
PWX-26034 Total memory. Application 5672514. Total 5705932. Maximum 6054994
```

## RELATED TOPICS:

- [“pwxcmd displaymemory Command” on page 172](#)

# DISPLAY RECORDS Command

Displays counts of change records that the PowerExchange Logger for Linux, UNIX, and Windows processed during the current processing cycle. If the PowerExchange Logger did not receive changes during the current cycle, displays counts of change records for the current set of PowerExchange Logger log files.

Record counts are shown for each type of change record processed and for total records processed. Change record types include Delete, Insert, Update, and Commit.

Depending on whether the counts are for the current cycle or the current log files, the output includes all or some of the following types of counts:

- **Cycle.** Counts of change records for the current PowerExchange Logger processing cycle. The PowerExchange Logger resets these counts to zero when the wait interval that is specified in the `NO_DATA_WAIT2` parameter of the `pwxccl.cfg` file expires and no change data has been received.
- **File.** Counts of change records for the current set of PowerExchange log files. The PowerExchange Logger resets these counts to zero when a file switch occurs.
- **Total.** Total counts of change records that the PowerExchange Logger received since it started. These counts are not reset to zero.

The message output from this command is displayed on screen and written to the PowerExchange message log.

## Syntax

Use the following syntax to issue the command from the command line against a PowerExchange Logger process that is running in foreground mode:

```
DISPLAY RECORDS
```

**Note:** Alternatively, use the `pwxcmd` program to issue the `displayrecords` command. You must use `pwxcmd` if you run the PowerExchange Logger in background mode.

## Example Output

The following example DISPLAY RECORDS output shows counts of Update, Commit, and Total records that the PowerExchange Logger processed in the current log file:

```
PWX-26011 Command handler received command "DISPLAY RECORDS"
PWX-26010 Command "DISPLAY RECORDS" information
PWX-26068 Update records. File 2. Total 2
PWX-26069 Commit records. File 2. Total 2
PWX-26070 Total records. File 4. Total 4
```

## RELATED TOPICS:

- [“pwxcmd displayrecords Command” on page 173](#)

# DISPLAY STATUS Command

Displays the status of the PowerExchange Logger Writer subtask.

For example, the command can report when the Writer is performing the following processing:

- Initializing
- Reading or waiting for source data
- Writing source data to a PowerExchange Logger log file
- Writing CDCT records during a file switch
- Completing deletion of expired CDCT records
- Shutting down

The message output from this command is displayed on screen and written to the PowerExchange message log.

## Syntax

Use the following syntax to issue the command from the command line against a PowerExchange Logger process that is running in foreground mode:

```
DISPLAY STATUS
```

**Note:** Alternatively, use the pwxcmd program to issue the displaystatus command. You must use pwxcmd if you run the PowerExchange Logger in background mode.

## Example Output

The following example DISPLAY STATUS output indicates that the Writer subtask is reading or waiting for source data and the time of the next file switch:

```
PWX-26011 Command handler received command "DISPLAY STATUS"
PWX-26010 Command "DISPLAY STATUS" information
PWX-26087 Writer is reading or waiting for source data. Time "2009-11-06 14:05:01"
PWX-26101 Current file was opened at time "2009-11-06 13:52:57". Records 3
PWX-26103 Time of next file switch "2009-11-06 14:12:59"
```

# DL Command

Displays monitoring statistics for a PowerExchange Logger for Linux, UNIX, and Windows process and its tasks.

The command writes the following statistics to the PowerExchange message log file and displays the statistics on screen:

- The PowerExchange Logger process ID
- The status of the PowerExchange Logger Writer subtask at the time the command is issued
- The CPU time used by the PowerExchange Logger since it started
- PowerExchange Logger memory use by the Controller, Command Handler, and Writer tasks. For the tasks, memory use is reported in the following categories:
  - Current. The amount of memory that the task is currently using.
  - Total. The amount of memory in use by the task plus related header overhead. This value fluctuates as memory is dynamically allocated and freed during PowerExchange Logger processing
  - Maximum. The largest amount of memory that has been recorded for the "Total" category up to the point in time when the monitoring statistics are generated.
- Counts of inserts, updates, deletes, and commits that the PowerExchange Logger has processed, total and for the open Logger log file and the active logging cycle

Before you run the command, you must configure the STATS=(MONITOR) parameter in the PowerExchange Logger pwxcl.cfg configuration file on the system where the PowerExchange Logger runs to enable collection of the monitoring statistics. In this statement, you can optionally include the *interval* positional parameter to print these statistics at a specific interval, in addition to printing them on demand.

**Note:** Fewer interval-based monitoring statistics are displayed on screen than are printed to the PowerExchange message log to avoid flooding the screen with output over time.

## Syntax

Use the following syntax to issue the command from the command line against a PowerExchange Logger process that is running in foreground mode:

```
DL
```

Alternatively, you can use the equivalent DS command:

```
DS
```

**Note:** If you run the PowerExchange Logger in background mode, you must use the pwxcmd program to issue the displaystats -tp logger command.

## Example Output

The following example command output shows the monitoring statistics for a PowerExchange Logger process and its tasks:

```
PWX-26011 Command handler received command "DS"
PWX-00723 Command <display L stats> succeeded
PWX-37130   PWXCCL pid = 7144           Writer status = Reading or waiting for source data
PWX-37134   CPU Time =      0:00:02.589616
PWX-37131   Memory (Current/Total/Maximum)
PWX-37132   Controller: (981/983/1849) KB   Command Handler: (0/0/34) KB   Writer: (5127/5147/5181)
KB
PWX-37135   Status 7144                               Totals  I=000000024344 U=000000000000 D=000000024336
C=000000004004 Total=000000052684
PWX-37136   CurrFileOpened : 2015-08-11 13:20:39 I=000000024344 U=000000000000 D=000000024336
C=000000004004 Total=000000052684
PWX-37137   Active Cycle : 2015-08-11 13:21:01 I=000000024344 U=000000000000 D=000000024336
C=000000004004 Total=000000052684
```

This report contains the following fields:

- PWXCCL pid. The process ID of the PowerExchange Logger process.
- Writer status. The status of the PowerExchange Logger Writer subtask at the time the command was issued.
- CPU Time. The amount of CPU time used by the PowerExchange Logger since it started.
- Controller. The amount of memory in kilobytes that the PowerExchange Logger Controller has used.
- Command Handler. The amount of memory in kilobytes that the PowerExchange Logger Command Handler has used.
- Writer. The amount of memory in kilobytes that the PowerExchange Logger Writer subtask has used.
- Status. The process ID of the PowerExchange Logger process.
- I, U, D, C, and Total. Counts of inserts, updates, deletes, and commits that the PowerExchange processed, with the total for all of these operation types. These values are reported for the PowerExchange Logger process, the currently open log file, and the active logging cycle.
- CurrentFileOpened. The timestamp that indicates when the log file was opened.
- Active Cycle. The timestamp that indicates when the active logging cycle started.

For more information about report messages, see *PowerExchange Message Reference Volume 2*.

## RELATED TOPICS:

- [“pwxcmd displaystats Command” on page 174](#)
- [“DG Command” on page 126](#)

# FILESWITCH Command

Closes open PowerExchange Logger for Linux, UNIX, and Windows log files if they contain data and then switches to a new set of log files. If the log files do not contain data, the file switch does not occur.

The message output from this command is displayed on screen and written to the PowerExchange message log.

## Syntax

Use the following syntax to issue the command from the command line against a PowerExchange Logger process that is running in foreground mode:

```
FILESWITCH
```

**Note:** Alternatively, use the pwxcmd program to issue the fileswitch command. You must use pwxcmd if you run the PowerExchange Logger in background mode.

## Usage Notes

You can perform an automated file switch before the next file switch is due to occur to make change data available for extraction processing. If you run extractions in batch extraction mode, include the fileswitch command in a script and then run that script before the batch extractions. To issue the fileswitch command from a script or batch file, you must use the pwxcmd program.

For example, to extract change data hourly from PowerExchange Logger log files, first set the FILE\_SWITCH\_CRIT and FILE\_SWITCH\_VAL parameters in the pwxccl.cfg file such that a file switch does not automatically occur before the extractions run. You might set the parameters to perform an automatic file

switch after every 1,000,000 record updates. Then include the `pwxcmd fileswitch` command in a script that runs shortly before the scheduled extraction processes.

**Note:** Usually, you do not need to perform file switches manually if you use continuous extraction mode.

### Example Output

The following example `FILESWITCH` output was generated when `VERBOSE=Y` in the `pwxccl.cfg` file:

```
PWX-06422 Condense: Received FILESWITCH request.
PWX-33283 File switch because of a FILESWITCH command. Records 800. Elapsed seconds 13
PWX-36940 Closed file C:\Perforce\all\pwx\resources\ccl
\group1\grp2.CND.CP121205.T1455001.
PWX-36941 Records 360. Commits 40. File sequence 1212051455001. Sequence token
D400000057A5410000000000000000FFFFFFFFFFFFFFFF00000103000095B400C4FFFF0000.
```

### RELATED TOPICS:

- [“pwxcmd fileswitch Command ” on page 175](#)

## SHUTCOND Command

Stops the PowerExchange Logger for Linux, UNIX, and Windows in a controlled manner after initiating and completing a final processing cycle. The final processing cycle enables the PowerExchange Logger to capture all of the changes made up to point when the command is issued.

After the processing cycle completes, the PowerExchange Logger performs the following actions:

- Closes open log files.
- Writes information to the CDCT file, including restart and sequence tokens.
- Closes the CAPI.
- Stops the Writer and Command Handler subtasks.
- Ends the `pwxccl` program.
- Reports CPU usage.
- Reports summary Logger monitoring statistics if the `STATS=(MONITOR)` parameter is specified in the PowerExchange Logger configuration file, `pwxccl.cfg`, either with or without the optional *interval* subparameter.

The message output from this command is displayed on screen and written to the PowerExchange message log.

### Syntax

Use the following syntax to issue the command from the command line against a PowerExchange Logger process that is running in foreground mode:

```
SHUTCOND
```

**Note:** Alternatively, use the `pwxcmd` program to issue the `shutcond` command. You must use `pwxcmd` if you run the PowerExchange Logger in background mode.

### Usage Notes

Use this command to stop the PowerExchange Logger if a processing cycle has not run recently.

## Example Output

The following example SHUTCOND output indicates the order in which PowerExchange Logger subtasks and processing stop:

```
PWX-26011 Command handler received command "SHUTCOND"
PWX-06467 Command Handler: Setting Condense to shut down on running out of data.
PWX-33289 Condense: Condense completed. Total Records=3036, Inserts=1404, Updates=0,Deletes=1404,
UOWs=228
PWX-06416 Condense: Shutting down because Single Condense run completed
PWX-36940 Closed file c:\pwx\capture\condenseO.CND.CP160819.T1036001.
PWX-36941 Records 2808. Commits 168. End sequence 00000833A3460000000000000833A34600000000.
PWX-33256 CCLWTR File switch complete. Current restart tokens: Sequence
00000833A34600000000000000000833A34600000000 Restart D4C9C7D34040000008166DE000000000.
PWX-33278 Total Records 3036. Inserts 1404. Updates 0. Deletes 1404. UOWs 228. Bytes 652056
PWX-33279 CPU total 670804. This file total 670804. CAPI Reads 156002. Writing file 62400. Other 452402

PWX-33274 CPU Total 670804. CAPI Read 156002. Writing 62400. File switching 0. Other 452402

PWX-06414 Condense: Closing down CAPI
PWX-10780 CAPI: INFO: Extraction return counts: no data 3, commits 229, inserts 1404, updates 0,
deletes 1404.
PWX-10781 CAPI: INFO: Extraction subordinate read counts: no data 0, commits 232, inserts 1548,
updates 0, deletes 1404, backouts
0.
PWX-10782 CAPI: INFO: Extraction resource maximums: memory cache 32 KB, spill files 0.
PWX-10746 CAPI: INFO: Last data returned: timestamp 2015/06/15 10:34:19,
sequence 00000833A34600000000000000000833A34600000000.
PWX-10743 CAPI: INFO: No noteworthy transactions.
PWX-10749 CAPI: INFO: + Current subordinate sequence number 00000833A61A00000000.
PWX-33304 Connection: 10.43.203.106:62818, Type: TASK_CNTL, Task ID: 0, Operation timeout: (-) secs,
Heartbeat interval: 30 secs, Session: (-)
PWX-06453 Command Handler: shutting down.
PWX-33255 CCLWTR Restart tokens at run termination: Sequence 00000833A346000000000000000833A34600000000
Restart D4C9C7D34040000008166DE000000000.
PWX-33221 CCLWTR closing after a SHUTDOWN request.
PWX-06110 Unloaded module 2 (CCL WRITER).
PWX-06454 Command Handler: has stopped.
PWX-06110 Unloaded module 1 (COMMAND_HANDLER).
PWX-06060 Controller: subtask Condense ended.
PWX-06060 Controller: subtask Command Handler ended.
PWX-06107 Controller: All subtasks shut down.
PWX-25803 Process pwxcl pid 9064 unlocked file c:\pwx\capture\condenseO_loggerfiles_lockfile.lck
PWX-25803 Process pwxcl pid 9064 unlocked file c:\pwx\capture\CDCT_instance_IME0_lockfile.lck

PWX-33254 pwxcl ended. return code 0
PWX-33274 CPU Total 686404. CAPI Read 156002. Writing 62400. File switching 0. Other 468002
PWX-00723 Command <Shutdown stats> succeeded
PWX-37130 PWXCL pid = 9064 Writer status = Shutting down
PWX-37134 CPU Time = 0:00:00.686404
PWX-37131 Memory (Current/Total/Maximum)
PWX-37132 Controller: (476/477/1853) KB Command Handler: (476/477/1853) KB Writer: (0/0/0) KB
PWX-37105 Total Memory 16468 KB
PWX-37135 Status 9064 Totals I=000000001404 U=000000000000 D=000000001404
C=000000000228 Total=0000000003036
PWX-37136 CurrFileOpened : 2016-08-19 10:37:47 I=000000000000 U=000000000000 D=000000000000
C=000000000000 Total=000000000000
PWX-37137 Active Cycle : 2016-08-19 10:37:47 I=000000001404 U=000000000000 D=000000001404
C=000000000228 Total=0000000003036
```

For this example, the pwxcl.cfg file specifies VERBOSE=Y and STATS=(MONITOR). In the output, the monitoring messages are highlighted in bold.

**Note:** If the PowerExchange Logger runs on a SUSE Linux version 11 machine, the PWX-37105 message incorrectly reports 0 KB as the total amount of memory that the Logger used. This problem does not occur if the Logger runs on a later SUSE Linux version.



## RELATED TOPICS:

- [“pwxcmd shutcond Command ” on page 164](#)

# SHUTDOWN Command

Stops the PowerExchange Logger for Linux, UNIX, and Windows in a controlled manner after closing open PowerExchange Logger log files and writing the latest restart position to the CDCT file.

During shutdown processing, the PowerExchange Logger performs these actions:

- Closes open log files.
- Writes updated log and restart information to the CDCT file.
- Closes the CAPI.
- Stops the Writer and Command Handler subtasks.
- Ends the pwxcl program.
- Reports CPU usage.
- Reports summary Logger monitoring statistics if the STATS=(MONITOR) parameter is specified in the PowerExchange Logger configuration file, pwxcl.cfg, either with or without the optional *interval* subparameter.

The message output from this command is displayed on screen and is written to the PowerExchange message log.

## Syntax

Informatica recommends that you use the pwxcmd program to issue the shutdown command instead of entering the command at a command prompt. With pwxcmd, you can send the command to a PowerExchange Logger process that is running in background or foreground mode on the same system or on a different system.

If you did not configure PowerExchange for pwxcmd use, you can stop a PowerExchange Logger process in one of the following ways:

- If the PowerExchange Logger process is running in foreground mode, enter the following command at the command prompt:

```
SHUTDOWN
```

- If the PowerExchange Logger process is running in background mode on a Linux or UNIX operating system, use the kill command to stop the PowerExchange Logger. Ensure that you enter the correct process ID for the command.
- On Windows, you can end the pwxcl.exe process immediately from the Task Manager.

## Usage Notes

Use the SHUTDOWN command to stop a PowerExchange Logger process that is running in continuous mode.

If the PowerExchange Logger is running in batch mode, this command is usually not needed. The PowerExchange Logger process shuts down after the wait period that is specified in the NO\_DATA\_WAIT2 parameter of the pwxcl.cfg file elapses.

## Example Output

The following example SHUTDOWN output shows the progress of shutdown processing:

```
PWX-06416 Condense: Shutting down because SHUTDOWN event received

PWX-26011 Command handler received command "SHUTDOWN"
PWX-06463 Command Handler: Close Condense request is now queued.
PWX-06464 Command Handler: Shutdown will occur shortly.

PWX-06453 Command Handler: shutting down.
PWX-33278 Total Records 3036. Inserts 1404. Updates 0. Deletes 1404. UOWs 228. Bytes 652056
PWX-33279 CPU total 670804. This file total 670804. CAPI Reads 156002. Writing file 62400. Other 452402

PWX-33274 CPU Total 670804. CAPI Read 156002. Writing 62400. File switching 0. Other 452402

PWX-06414 Condense: Closing down CAPI
PWX-33221 CCLWTR closing after a SHUTDOWN request.
PWX-06110 Unloaded module 3 (CCL WRITER).
PWX-06060 Controller: subtask Condense ended.
PWX-06454 Command Handler: has stopped.
PWX-06110 Unloaded module 1 (COMMAND HANDLER).
PWX-06060 Controller: subtask Command Handler ended.
PWX-06107 Controller: All subtasks shut down.
PWX-25803 Process pwxcc1 pid 3396 unlocked file C:\Informatica\PowerExchange9.0.0\capture
\condense0 loggerfiles_lockfile.lck
PWX-25803 Process pwxcc1 pid 3396 unlocked file C:\Informatica
\PowerExchange8.6.1\CDCT_instance_NORT000_lockfile.lck

PWX-33254 pwxcc1 ended. return code 0
pwxcc1 ended. rc=0
PWX-33274 CPU Total 686404. CAPI Read 156002. Writing 62400. File switching 0. Other 468002
PWX-00723 Command <Shutdown stats> succeeded
PWX-37130 PWXCL pid = 9064 Writer status = Shutting down
PWX-37134 CPU Time = 0:00:00.686404
PWX-37131 Memory (Current/Total/Maximum)
PWX-37132 Controller: (476/477/1853) KB Command Handler: (476/477/1853) KB Writer: (0/0/0) KB
PWX-37105 Total Memory 16468 KB
PWX-37135 Status 9064 Totals I=000000001404 U=000000000000 D=000000001404
C=000000000228 Total=000000003036
PWX-37136 CurrFileOpened : 2016-08-19 10:37:47 I=000000000000 U=000000000000 D=000000000000
C=000000000000 Total=000000000000
PWX-37137 Active Cycle : 2016-08-19 10:37:47 I=000000001404 U=000000000000 D=000000001404
C=000000000228 Total=000000003036
```

For this example, the pwxcc1.cfg file specifies VERBOSE=Y and STATS=(MONITOR). In the output, the monitoring messages are highlighted in bold.

**Note:** If the PowerExchange Logger runs on a SUSE Linux version 11 machine, the PWX-37105 message incorrectly reports 0 KB as the total amount of memory that the Logger used. This problem does not occur if the Logger runs on a later SUSE Linux version.

## RELATED TOPICS:

- [“pwxcmd shutdown Command ” on page 177](#)

## CHAPTER 15

# pxcmd Commands

This chapter includes the following topics:

- [Introduction to the pwxcmd Commands, 139](#)
- [General Syntax for pwxcmd Commands, 140](#)
- [Command Processing for pwxcmd Commands, 141](#)
- [Configuring PowerExchange Processes to Receive pwxcmd Commands, 142](#)
- [Authorizing Users to Issue pwxcmd Commands, 146](#)
- [Running pwxcmd Commands from the Command Line, 147](#)
- [Scripting pwxcmd Commands, 147](#)
- [pxcmd Commands for the PowerExchange Listener, 148](#)
- [pxcmd Commands for PowerExchange Condense, 159](#)
- [pxcmd Commands for the PowerExchange Logger for Linux, UNIX, and Windows, 169](#)
- [Other pwxcmd Commands, 178](#)

## Introduction to the pwxcmd Commands

To issue commands to a PowerExchange process that is not managed by a PowerExchange application service, you must use the pwxcmd program. To issue commands to a PowerExchange process that is managed by a PowerExchange application service, use the infacmd pwx program instead. For more information about the infacmd pwx program, see the *Informatica Command Reference*.

You can issue pwxcmd commands on a Linux, UNIX, or Windows system from a command line, script, or batch job to any of the following processes and systems:

- PowerExchange Listener on any system
- PowerExchange Condense on an i5/OS or z/OS system
- PowerExchange Logger for Linux, UNIX, and Windows on a Linux, UNIX, or Windows system
- PowerExchange Adabas, IDMS, and IMS log-based ECCRs and Datacom table-based ECCR on z/OS

With pwxcmd, you can issue the same commands that you can issue from the command line against these PowerExchange processes.

Before issuing pwxcmd commands, you must configure PowerExchange processes to receive pwxcmd commands. The configuration tasks that you must complete depend on which PowerExchange process is the target of pwxcmd commands. For more information, see [“Configuring PowerExchange Processes to Receive pwxcmd Commands” on page 142](#).

When you issue pwxcmd commands, each pwxcmd command must include the user-defined service name for the PowerExchange process that is the target of the command. In addition, if you enable security, you must specify a user ID and a password or encrypted password when you issue a pwxcmd command. For more information, see [“General Syntax for pwxcmd Commands” on page 140](#).

The output from pwxcmd commands appears on the command line or in a file to which you pipe the output on the Linux, UNIX, or Windows system from which you issue the commands. For more information, see [“Running pwxcmd Commands from the Command Line” on page 147](#) and [“Scripting pwxcmd Commands” on page 147](#).

## RELATED TOPICS:

- [“PowerExchange Condense Commands” on page 77](#)
- [“PowerExchange Listener Commands” on page 86](#)
- [“PowerExchange Logger for Linux, UNIX, and Windows Commands” on page 119](#)
- [“General Syntax for pwxcmd Commands” on page 140](#)
- [“Configuring PowerExchange Processes to Receive pwxcmd Commands” on page 142](#)
- [“pwxcmd Commands for the PowerExchange Listener” on page 148](#)
- [“pwxcmd Commands for PowerExchange Condense” on page 159](#)
- [“pwxcmd Commands for the PowerExchange Logger for Linux, UNIX, and Windows” on page 169](#)

# General Syntax for pwxcmd Commands

When you enter pwxcmd commands, ensure that you use valid syntax.

The general syntax of pwxcmd commands is:

```
pwxcmd command_name {-service|-sv} service_name
      [{-user|-uid|-u} user_ID [{-password|-pwd|-p} password] |
      {-epassword|-e} encrypted_password}]
      [command_options]
```

This syntax includes the following common parameters and variables:

### ***command\_name***

*Required.* The command that pwxcmd sends to the PowerExchange process running the service specified in the **-service** parameter.

### ***{-service|-sv} service\_name***

*Required.* The service name for the PowerExchange process that is the target of the command. Specify the service name value coded in the CMDNODE statement in the DBMOVER configuration file that configures the PowerExchange process that is the target of the command.

### ***{-user|-uid|-u} user\_ID***

*Optional.* A valid operating system user ID on the system that is the target of the command. If the target PowerExchange process has security enabled, you must specify a valid user ID and a password or encrypted password.

For a PowerExchange Listener or PowerExchange Logger on a supported Linux, UNIX, or Windows system, if you have enabled PowerExchange LDAP user authentication, the user name is the enterprise user name. For more information, see the *PowerExchange Reference Manual*.

**{-password|-pwd|-p} *password***

*Optional.* A clear text password for the user ID that you specified in the -user parameter. For some commands, you can use a passphrase instead of a password.

**{-epassword|-e} *encrypted\_password***

*Optional.* An encrypted password for the user ID that you specified in the -user parameter. For some commands, you can use an encrypted passphrase.

***command\_options***

*Optional.* Additional options that are valid for the command specified in *command\_name*.

For more information about allowable parameters and options, see the individual command descriptions.

## Command Processing for pwxcmd Commands

The pwxcmd command handler processes pwxcmd commands that you send to a PowerExchange Listener, PowerExchange Condense, or PowerExchange Logger for Linux, UNIX, and Windows process.

When you issue a pwxcmd command, the following command processing occurs:

1. The pwxcmd command handler determines the IP address and port number to which to send the command from the CMDNODE statement that has the service name specified on the command. The CMDNODE statement is in the DBMOVER configuration file on the Linux, UNIX, or Windows system from which you issue the pwxcmd command.
2. The PowerExchange process that is the target of the command acquires its service name as follows:
  - A PowerExchange Listener process acquires its service name from the pwxcmd command.
  - A PowerExchange Condense process acquires its service name from the CONDENSENAME statement in the CAPTPARM configuration file or member.
  - A PowerExchange Logger for Linux, UNIX, and Windows process acquires its service name from the CONDENSENAME statement in the pwxcl.cfg file.

The PowerExchange process listens for any pwxcmd command on the port that you specified in the relevant SVCNODE statement.

If no SVCNODE statement corresponds to the service name, PowerExchange issues warning message PWX-32534 and disables pwxcmd input.

3. The pwxcmd command handler passes the service type specified on the CMDNODE statement to the command-handling service for the PowerExchange process. The service refuses the connection if the service type is incorrect. For example, a PowerExchange Listener service refuses the connection if the service type is CONDENSE.
4. The pwxcmd program waits 60 seconds for the command-handling service to issue a return code to indicate that the command completed. If the command does not complete within this time period, the pwxcmd program displays a timeout message.

The return codes are either PowerExchange message numbers or a return code from the processing of the command.

# Configuring PowerExchange Processes to Receive pwxcmd Commands

To send pwxcmd commands to a PowerExchange process, configure the PowerExchange process to receive pwxcmd commands.

Also, on the Linux, UNIX, or Windows system from which you issue pwxcmd commands, configure a connection to the PowerExchange process.

To configure a PowerExchange process to receive pwxcmd commands, complete the following configuration tasks:

- On the system where the PowerExchange process runs:

1. Configure the PowerExchange process to receive pwxcmd commands.

To configure a PowerExchange Listener process to receive pwxcmd commands, define a LISTENER statement and an SVCNODE statement in the DBMOVER configuration file.

To configure a PowerExchange Condense or PowerExchange Logger for Linux, UNIX, and Windows process, define a CONDENSENAME statement and an SVCNODE statement. For a PowerExchange Condense process, define the CONDENSENAME statement in the CAPTPARM configuration file or member. For a PowerExchange Logger for Linux, UNIX, and Windows process, define a CONDENSENAME statement in the pwxcl.cfg file. For information about the CONDENSENAME statement, see the CDC guide for the operating system. For information about the LISTENER and SVCNODE statements, see the *PowerExchange Reference Manual*.

2. Optionally, configure security for pwxcmd commands. You can configure PowerExchange to verify that the user has authorization to access PowerExchange or issue the command.

To configure security, define a SECURITY statement in the DBMOVER configuration file and complete other configuration tasks.

For more information about pwxcmd command security, see the *PowerExchange Reference Manual*.

3. On i5/OS, if you are upgrading to PowerExchange 9.0.1, complete the following tasks to enable the PowerExchange Listener to run and authorize users to issue pwxcmd commands to a PowerExchange process.

To enable the PowerExchange Listener to run, issue the following upgrade command:

```
CHGJOB JOB(DATALIB/DTLLIST) ALWMLTTHD(*YES)
```

Where *datalib* is the user-defined name for the PowerExchange data library specified at installation.

Also, verify that the QMLTTHDACN system value is set to a value that enables functions that might not be threadsafe to run. If the QMLTTHDACN system value is set to 3, or to the **Do not perform the function** value in the iSeries Navigator, PowerExchange does not start. Set the QMLTTHDACN system value to 1 or 2, or to the **Perform the function that is not threadsafe** value in the iSeries Navigator.

To create security objects, issue the following upgrade command:

```
CALL PGM(dtllib/CRTDTLENVA) PARM('datalib')
```

Where *dtllib* is the name of the PowerExchange software library that you specified at installation and *datalib* is the name for the PowerExchange data library that you specified at installation. To authorize a user to issue a specific pwxcmd command, grant the user access to the security object for the command.

4. Start the PowerExchange processes to which you want to send pwxcmd commands.
- On the Linux, UNIX, or Windows system from which you issue pwxcmd commands, configure connections to the PowerExchange processes to which you want to send pwxcmd commands. To configure a connection, define a CMDNODE statement in the dbmover.cfg file. For more information about the CMDNODE statement, see the *PowerExchange Reference Manual*.

## Example 1: Configuring a PowerExchange Listener to Receive pwxcmd Commands

This example configures a PowerExchange Listener to receive pwxcmd commands.

You issue pwxcmd commands from a Linux, UNIX, or Windows system that is remote from the system on which the PowerExchange Listener runs.

You must include pwxcmd command configuration statements in the DBMOVER configuration files on both systems.

To configure a PowerExchange Listener to receive pwxcmd commands:

1. In the DBMOVER configuration file on the system where the PowerExchange Listener runs, include an SVCNODE statement. The SVCNODE statement specifies the port on which the command-handling service for the PowerExchange Listener listens for pwxcmd commands. For example:

```
LISTENER=(node1,TCPIP,2480)
SVCNODE=(node1,6001)
```

In the SVCNODE statement:

- The first parameter value, node1, is the service name, which matches the node name in the LISTENER statement.
  - The second parameter value, 6001, is the TCP/IP port number on which the service listens for pwxcmd commands. The port number must match the port number in the corresponding CMDNODE statement. The CMDNODE statement is in the DBMOVER configuration file on the Linux, UNIX, or Windows system from which you issue pwxcmd commands.
2. In the dbmover.cfg configuration file on the Linux, UNIX, or Windows system from which you issue pwxcmd commands, include a CMDNODE statement. The CMDNODE statement defines connection information for a PowerExchange Listener to which you want to send pwxcmd commands. For example:

```
CMDNODE=(listnode,LISTENER,remote_host,6001)
```

In the CMDNODE statement:

- The first parameter value, listnode, is a service name. This service name can be any name you want. Specify this service name when you issue pwxcmd commands to the PowerExchange Listener.
  - The second parameter value, LISTENER, is the service type for a PowerExchange Listener.
  - The third parameter value, remote\_host, is the host name of the PowerExchange Listener that you want to contact.
  - The fourth parameter value, 6001, is the TCP/IP port number. This port number must match the port number in the corresponding SVCNODE statement in the DBMOVER configuration file on the system where the PowerExchange Listener runs.
3. In the pwxcmd command that you send to the PowerExchange Listener, specify the **-service** option as follows:

```
pwxcmd listtask -service listnode
```

The service name in the pwxcmd command must match the service name in the corresponding CMDNODE statement. The CMDNODE statement is in the dbmover.cfg configuration file on the Linux, UNIX, or Windows system from which you issue pwxcmd commands.

## Example 2: Configuring a PowerExchange Condense Process to Receive pwxcmd Commands

This example configures a PowerExchange Condense process to receive pwxcmd commands.

You issue pwxcmd commands from a Linux, UNIX, or Windows system that is remote from the system on which the PowerExchange Condense process runs.

You must include pwxcmd command configuration statements in the DBMOVER configuration files on both systems.

Additionally, include a CONDENSENAME statement in the CAPTPARM configuration file or member on the i5/OS or z/OS system where the PowerExchange Condense process runs. The CONDENSENAME statement defines a service name for the PowerExchange Condense process.

To configure a PowerExchange Condense process to receive pwxcmd commands:

1. In the CAPTPARM configuration file or member on the i5/OS or z/OS system where the PowerExchange Condense process runs, include a CONDENSENAME statement. The CONDENSENAME statement defines a service name for the PowerExchange Condense process that receives pwxcmd commands. For example:

```
CONDENSENAME=COND_NODE
```

2. In the DBMOVER configuration file on the system where the PowerExchange Condense process runs, include an SVCNODE statement. The SVCNODE statement specifies a TCP/IP port on which the command-handling service for the PowerExchange Condense process listens for pwxcmd commands. For example:

```
SVCNODE=(COND_NODE, 6003)
```

In the SVCNODE statement:

- The first parameter value, COND\_NODE, is the service name. This service name must match the service name in the corresponding CONDENSENAME statement. The CONDENSENAME statement is in the CAPTPARM configuration file or member on the system where the PowerExchange Condense process runs.
  - The second parameter value, 6003, is the TCP/IP port number on which the service listens for pwxcmd commands. This port number must match the port number in the corresponding CMDNODE statement. The CMDNODE statement is in the DBMOVER configuration file on the system from which you issue pwxcmd commands.
3. In the dbmover.cfg configuration file on the Linux, UNIX, or Windows system from which you issue pwxcmd commands, include a CMDNODE statement. The CMDNODE statement specifies connection information for a PowerExchange Condense process to which you want to send pwxcmd commands. For example:

```
CMDNODE=(cndnode,CONDENSE,remote_host,6003)
```

In the CMDNODE statement:

- The first parameter value, cndnode, is a service name. This service name can be any name you want. Specify this service name when you issue pwxcmd commands to the PowerExchange Condense process.
- The second parameter value, CONDENSE, is the service type for a PowerExchange Condense process.
- The third parameter value, remote\_host, is the name of the host where the PowerExchange Condense process runs.



- The fourth parameter value, 6003, is the TCP/IP port number. This port number must match the port number in the corresponding SVCNODE statement. The SVCNODE statement is in the DBMOVER configuration file on the system where the PowerExchange Condense process runs.
4. In the pwxcmd command that you send to the PowerExchange Condense process, specify the **-service** option as follows:

```
pwxcmd condense -service cndnode
```

The service name in the pwxcmd command matches the service name in the corresponding CMDNODE statement. The CMDNODE statement is in the dbmover.cfg configuration file on the system from which you issue pwxcmd commands.

## Example 3: Configuring a PowerExchange Logger Process to Receive pwxcmd Commands

This example configures a PowerExchange Logger for Linux, UNIX, and Windows process to receive pwxcmd commands.

You issue pwxcmd commands from a Linux, UNIX, or Windows system that is remote from the system where the PowerExchange Logger for Linux, UNIX, and Windows process runs.

You must include pwxcmd command configuration statements in the DBMOVER configuration files on both systems.

Additionally, you must include a CONDENSENAME statement in the pwxcl.cfg configuration file on the system where the PowerExchange Logger for Linux, UNIX, and Windows process runs. The CONDENSENAME statement defines a service name for the PowerExchange Logger for Linux, UNIX, and Windows process.

To configure a PowerExchange Logger process to receive pwxcmd commands:

1. In the pwxcl.cfg configuration file on the Linux, UNIX, or Windows system where the PowerExchange Logger for Linux, UNIX, and Windows process runs, include a CONDENSENAME statement. The CONDENSENAME statement defines a service name for the PowerExchange Logger for Linux, UNIX, and Windows process that receives pwxcmd commands. For example:

```
CONDENSENAME=COND_NODE
```

2. In the DBMOVER configuration file on the system where the PowerExchange Logger for Linux, UNIX, and Windows process runs, include an SVCNODE statement. The SVCNODE statement specifies a TCP/IP port on which the command-handling service for the PowerExchange Logger for Linux, UNIX, and Windows process listens for pwxcmd commands. For example:

```
SVCNODE=(COND_NODE, 6003)
```

In the SVCNODE statement:

- The first parameter value, COND\_NODE, is the service name. This service name must match the service name in the corresponding CONDENSENAME statement. The CONDENSENAME statement is in the pwxcl.cfg configuration file on the system where the PowerExchange Logger for Linux, UNIX, and Windows process runs.
  - The second parameter value, 6003, is the TCP/IP port number on which the service listens for pwxcmd commands. This port number must match the port number in the corresponding CMDNODE statement. The CMDNODE statement is in the DBMOVER configuration file on the Linux, UNIX, or Windows system from which you issue pwxcmd commands.
3. In the dbmover.cfg configuration file on the Linux, UNIX, or Windows system from which you issue pwxcmd commands, include a CMDNODE statement. The CMDNODE statement specifies connection

information for a PowerExchange Logger for Linux, UNIX, and Windows process to which you want to send `pwxcmd` commands. For example:

```
CMDNODE=(cndnode,CONDENSE,remote_host,6003)
```

In the `CMDNODE` statement:

- The first parameter value, `cndnode`, is a service name. This service name can be any name you want. Specify this service name when you issue `pwxcmd` commands to the PowerExchange Logger for Linux, UNIX, and Windows process.
  - The second parameter value, `CONDENSE`, is the service type for a PowerExchange Logger for Linux, UNIX, and Windows process.
  - The third parameter value, `remote_host`, is the name of the host where the PowerExchange Logger for Linux, UNIX, and Windows process runs.
  - The fourth parameter value, `6003`, is the TCP/IP port number. This port number must match the port number in the corresponding `SVCNODE` statement. The `SVCNODE` statement is in the `DBMOVER` configuration file on the system where the PowerExchange Logger for Linux, UNIX, and Windows process runs.
4. In the `pwxcmd` command that you send to the PowerExchange Logger for Linux, UNIX, and Windows process, specify the **-service** option as follows:

```
pwxcmd condense -service cndnode
```

The service name on the `pwxcmd` command must match the service name in the corresponding `CMDNODE` statement. The `CMDNODE` statement is in the `DBMOVER` configuration file on the Linux, UNIX, or Windows system from which you issue `pwxcmd` commands.

## Authorizing Users to Issue `pwxcmd` Commands

You can enable security for `pwxcmd` commands.

PowerExchange provides the following basic security options for `pwxcmd` commands:

- You can require users to enter a valid operating system user ID and a password to access PowerExchange when they issue a `pwxcmd` command.
- You can configure PowerExchange LDAP user authentication on supported Linux, UNIX, or Windows systems to require users to enter a valid enterprise user ID and password to access PowerExchange when they issue a `pwxcmd` command.
- You can authorize specific users to issue specific `pwxcmd` commands.

If you enable security for `pwxcmd` commands, users must specify a user ID and a password or encrypted password on all commands. Based on the type of security in effect, PowerExchange verifies that the user has authorization to either access PowerExchange or issue the command.

If you do not enable security for `pwxcmd` commands, users do not need to specify a user ID and password on `pwxcmd` commands.

For more information about `pwxcmd` command security, see the *PowerExchange Reference Manual*.

# Running pwxcmd Commands from the Command Line

You can run pwxcmd commands from the command line on a Linux, UNIX, or Windows system.

To run pwxcmd commands from the command line:

1. Include the directory that contains pwxcmd in the PATH environment variable. By default, this directory is the PowerExchange installation directory.
2. From a command prompt, enter the pwxcmd command with its options and arguments. Use the following syntax:

```
pwxcmd command_name -service service_name
        [-user user_ID {-password password|-epassword encrypted_password}]
        [command_options]
```

**Note:** The user ID and password or encrypted password options are required only if you enable pwxcmd security.

For a PowerExchange Listener or PowerExchange Logger on a supported Linux, UNIX, or Windows system, if you enable PowerExchange LDAP user authentication, the user name is the enterprise user name.

For example, you might enter the following command on Windows:

```
C:\Informatica\PowerExchange>pwxcmd listtask -service node1
```

The output from the pwxcmd command appears on the command line or in a file to which you pipe the output on the Linux, UNIX, or Windows system from which you issue the command. For example, the output might appear on the command line on Windows, as follows:

```
C:\Informatica\PowerExchange>pwxcmd listtask -service node1
PWX-00711 Active tasks:
PWX-00713 0 active tasks
```

## RELATED TOPICS:

- [“General Syntax for pwxcmd Commands” on page 140](#)
- [“Authorizing Users to Issue pwxcmd Commands” on page 146](#)

# Scripting pwxcmd Commands

You can issue pwxcmd commands from a Linux, UNIX, or Windows system through batch files, scripts, or other programs.

You might issue some pwxcmd commands on a regular basis, such as a pwxcmd close command to stop a PowerExchange Listener. In this case, you can create a shell script or a batch file to call one or more pwxcmd commands with its options and arguments.

The following example Windows batch file, pwxcmd\_list.bat, verifies that a PowerExchange Listener is active and then closes it:

```
@echo off
REM -- NAME:          pwxcmd_list.bat
REM -- DESCRIPTION:   Sample pwxcmd script to display any PowerExchange Listener active
tasks
pwxcmd listtask -sv TEST
if errorlevel ==32601 goto noconnect
if errorlevel ==0 goto close
:close
```

```

pwxcmd close -sv TEST
if %errorlevel% neq 0 goto noconnect
if errorlevel ==0 goto end
:noconnect
echo %errorlevel%
echo "Could not connect to pwxcmd command handler."
pause
goto end
:end

```

**Note:** This script does not use security for pwxcmd commands.

For this script to work, you must configure a PowerExchange Listener to receive pwxcmd commands. For example, to issue pwxcmd commands from the same system where the PowerExchange Listener runs, you might configure a PowerExchange Listener in the dbmover.cfg file, as follows:

```

LISTENER=(node1,TCPIP,2480)
SVCNODE=(node1,6001)
CMDNODE=(TEST,LISTENER,localhost,6001)

```

Run the script from the command line. For example, on Windows, run the script, as follows:

```

C:\Informatica\PowerExchange>pwxcmd_list.bat

```

The output from the pwxcmd commands in the script appears on the command line or in a file to which you pipe the output on the Linux, UNIX, or Windows system from which you run the script. For example, the output might appear on the command line on Windows, as follows:

```

C:\Informatica\PowerExchange>pwxcmd_list.bat
PWX-00711 Active tasks:
PWX-00713 0 active tasks
PWX-00726 Close

```

## RELATED TOPICS:

- [“General Syntax for pwxcmd Commands” on page 140](#)
- [“Configuring PowerExchange Processes to Receive pwxcmd Commands” on page 142](#)

# pwxcmd Commands for the PowerExchange Listener

You can use the pwxcmd program to issue the close, closeforce, listtask, and stoptask commands from a Linux, UNIX, or Windows system to a PowerExchange Listener running on any system.

**Note:** You cannot start a PowerExchange Listener with the pwxcmd program.

## pwxcmd close Command

Stops the PowerExchange Listener job or task after waiting for all outstanding PowerExchange Listener subtasks to complete.

**Note:** If you have long-running subtasks on the PowerExchange Listener, issue a pwxcmd closeforce command instead to force the cancellation of all user subtasks and stop the PowerExchange Listener.

The close command issues the following messages:

```

PWX-00618 Standard Close in progress.
PWX-00619 All tasks closed.
PWX-00623 Listener shutdown complete.

```

Use the following syntax:

```
pwxcmd close {-service|-sv} service_name  
            [{-user|-uid|-u} user_ID]  
            [{{-password|-pwd|-p} password|{-epassword|-e} encrypted_password}]
```

The following table describes *pwxcmd* close options and arguments:

Option	Argument	Description
-service -sv	service_name	Required. Service name for the PowerExchange Listener.
-user -uid -u	user_ID	<p>Required if you enable security. A valid operating system user ID on the system that is the target of the command.</p> <p>For a PowerExchange Listener on a supported Linux, UNIX, or Windows system, if you have enabled PowerExchange LDAP user authentication, the user name is the enterprise user name. For more information, see the <i>PowerExchange Reference Manual</i>.</p> <p>If you specify a user name, you must also specify a -password or -epassword value, but do not specify both.</p>

Option	Argument	Description
-password -pwd -p	<i>password</i>	<p>A password for the specified user.</p> <p>If the PowerExchange Listener runs on i5/OS or z/OS, you can enter a valid PowerExchange passphrase instead of a password. An i5/OS passphrase can be from 9 to 31 characters in length. A z/OS passphrase can be from 9 to 128 characters in length. A passphrase can contain the following characters:</p> <ul style="list-style-type: none"> <li>- Uppercase and lowercase letters</li> <li>- The numbers 0 to 9</li> <li>- Spaces</li> <li>- The following special characters: ' - ; # \ , . / ! % &amp; * ( ) _ + { } : @   &lt; &gt; ?</li> </ul> <p><b>Note:</b> The first character is an apostrophe.</p> <p>Passphrases cannot include single quotation marks ('), double quotation marks ("), or currency symbols.</p> <p>If a passphrase contains spaces, you must enclose it with double-quotation marks ("), for example, "This is a passphrase". If a passphrase contains special characters, you must enclose it with triple double-quotation characters ("""), for example, """"This passphrase contains special characters ! % &amp; * ."""". If a passphrase contains only alphanumeric characters without spaces, you can enter it without delimiters.</p> <p><b>Note:</b> On z/OS, a valid RACF passphrase can be up to 100 characters in length. PowerExchange truncates passphrases longer than 100 characters when passing them to RACF for validation.</p> <p>To use passphrases, ensure that the PowerExchange Listener runs with a security setting of SECURITY=(1,N) or higher in the DBMOVER member. For more information, see "SECURITY Statement" in the <i>PowerExchange Reference Manual</i>.</p>
-epassword -e	<i>encrypted_password</i>	<p>An encrypted password for the specified user.</p> <p>If the PowerExchange Listener runs on z/OS, you can enter an encrypted PowerExchange passphrase instead of an encrypted password. Do not encrypt a passphrase that contains invalid characters, such as double-quotation marks, single quotation marks, or currency symbols.</p>

## pwxcmd closeforce Command

If you have long-running subtasks on the PowerExchange Listener, issue a closeforce command to force the cancellation of all user subtasks and to stop the PowerExchange Listener.

When you issue the closeforce command, PowerExchange completes the following processing:

1. Checks if any PowerExchange Listener subtasks are active.
2. If active subtasks exist, polls the number of active subtasks every second until 30 seconds have elapsed.
3. During this period, stops any subtask that is waiting for TCP/IP network input, and issues the following message:

```
PWX-00653 Operator close met while waiting for TCPIP input
```

4. Cancels any remaining active subtasks.
5. Stops the PowerExchange Listener.

Use the following syntax:

```
pwxcmd closeforce {-service|-sv} service_name  
                  [{-user|-uid|-u} user_ID]  
                  [{-password|-pwd|-p} password_or_passphrase|{-epassword|-e}  
encrypted_password_or_passphrase}]
```

The following table describes pwxcmd closeforce options and arguments:

Option	Argument	Description
-service -sv	service_name	Required. Service name for the PowerExchange Listener.
-user -uid -u	user_ID	<p>Required if you enable security. A valid operating system user ID on the system that is the target of the command.</p> <p>For a PowerExchange Listener on a supported Linux, UNIX, or Windows system, if you have enabled PowerExchange LDAP user authentication, the user name is the enterprise user name. For more information, see the <i>PowerExchange Reference Manual</i>.</p> <p>If you specify a user name, you must also specify a -password or -epassword value, but do not specify both.</p>

Option	Argument	Description
-password -pwd -p	<i>password</i>	<p>A password for the specified user.</p> <p>If the PowerExchange Listener runs on i5/OS or z/OS, you can enter a valid PowerExchange passphrase instead of a password. An i5/OS passphrase can be from 9 to 31 characters in length. A z/OS passphrase can be from 9 to 128 characters in length. A passphrase can contain the following characters:</p> <ul style="list-style-type: none"> <li>- Uppercase and lowercase letters</li> <li>- The numbers 0 to 9</li> <li>- Spaces</li> <li>- The following special characters: ' - ; # \ , . / ! % &amp; * ( ) _ + { } : @   &lt; &gt; ?</li> </ul> <p><b>Note:</b> The first character is an apostrophe.</p> <p>Passphrases cannot include single quotation marks ('), double quotation marks ("), or currency symbols.</p> <p>If a passphrase contains spaces, you must enclose it with double-quotation marks ("), for example, "This is a passphrase". If a passphrase contains special characters, you must enclose it with triple double-quotation characters ("""), for example, """"This passphrase contains special characters ! % &amp; *. """" If a passphrase contains only alphanumeric characters without spaces, you can enter it without delimiters.</p> <p><b>Note:</b> On z/OS, a valid RACF passphrase can be up to 100 characters in length. PowerExchange truncates passphrases longer than 100 characters when passing them to RACF for validation.</p> <p>To use passphrases, ensure that the PowerExchange Listener runs with a security setting of SECURITY=(1,N) or higher in the DBMOVER member. For more information, see "SECURITY Statement" in the <i>PowerExchange Reference Manual</i>.</p>
-epassword -e	<i>encrypted_password</i>	<p>An encrypted password for the specified user.</p> <p>If the PowerExchange Listener runs on i5/OS or z/OS, you can enter an encrypted PowerExchange passphrase instead of an encrypted password. Do not encrypt a passphrase that contains invalid characters, such as double-quotation marks, single quotation marks, or currency symbols.</p>

## pwxcmd displaystats Command

Displays monitoring statistics for a PowerExchange Listener that runs on i5/OS, Linux, zLinux, UNIX, Windows, or z/OS. Also displays statistics for the client tasks and source or target connections that are associated with the Listener.

The command can print the following types of statistics:

- PowerExchange Listener summary statistics on resource usage and client requests. These statistics include counts of client tasks, connections, access methods, messages sent and received, and bytes of data sent and received.
- Message and data volumes sent and received for client requests, by task ID and access method. The message and data volumes are totals as of the time the statistics are generated.
- Information about the active tasks that are running under the Listener to process client requests. These statistics include the task start time, CPU processing time, access method, read or write mode, and associated process and session IDs. Also includes the port number and IP address of the client that issued the request to the PowerExchange Listener.



Use the following syntax:

```

pwxcmd displaystats
{-service|-sv} service_name
[{-user|-uid|-u} user_ID
[{-password|-pwd|-p} password][{-epassword|-e} encrypted_password]]
[{-type|-tp} [{listener|accessmethods|clients}]

```

The following table describes pwxcmd displaystats options and arguments:

Option	Argument	Description
-service -sv	service_name	Required. Service name for the PowerExchange Listener.
-user -uid -u	user_ID	<p>Required if you enable security. A valid operating system user ID on the system that is the target of the command.</p> <p>For a PowerExchange Listener on a supported Linux or UNIX system, if you have enabled PowerExchange LDAP user authentication, the user name is the enterprise user name. For more information, see the <i>PowerExchange Reference Manual</i>.</p> <p>If you specify a user name, you must also specify a -password or -epassword value, but do not specify both.</p>
-password -pwd -p	password	<p>A password for the specified user.</p> <p>If the PowerExchange Listener runs on i5/OS or z/OS, you can enter a valid PowerExchange passphrase instead of a password. An i5/OS passphrase can be from 9 to 31 characters in length. A z/OS passphrase can be from 9 to 128 characters in length. A passphrase can contain the following characters:</p> <ul style="list-style-type: none"> <li>- Uppercase and lowercase letters</li> <li>- The numbers 0 to 9</li> <li>- Spaces</li> <li>- The following special characters: ' - ; # \ , . / ! % &amp; * ( ) _ + { } : @   &lt; &gt; ?</li> </ul> <p><b>Note:</b> The first character is an apostrophe.</p> <p>Passphrases cannot include single quotation marks ('), double quotation marks ("), or currency symbols.</p> <p>If a passphrase contains spaces, you must enclose it with double-quotation marks ("), for example, "This is a passphrase". If a passphrase contains special characters, you must enclose it with triple double-quotation characters ("""), for example, """"This passphrase contains special characters ! % &amp; * ."""". If a passphrase contains only alphanumeric characters without spaces, you can enter it without delimiters.</p> <p><b>Note:</b> On z/OS, a valid RACF passphrase can be up to 100 characters in length. PowerExchange truncates passphrases longer than 100 characters when passing them to RACF for validation.</p> <p>To use passphrases, ensure that the PowerExchange Listener runs with a security setting of SECURITY=(1,N) or higher in the DBMOVER member. For more information, see "SECURITY Statement" in the <i>PowerExchange Reference Manual</i>.</p>

Option	Argument	Description
-epassword -e	<i>encrypted_password</i>	An encrypted password for the specified user.  If the PowerExchange Listener runs on z/OS, you can enter an encrypted PowerExchange passphrase instead of an encrypted password. Do not encrypt a passphrase that contains invalid characters, such as double-quotation marks, single quotation marks, or currency symbols.
-type -tp	<i>report_type</i>	Optional. Indicates the type of PowerExchange Listener monitoring statistics to report. Valid report types are: <ul style="list-style-type: none"> <li>- <b>listener</b>. Reports PowerExchange Listener summary statistics on resource usage and client requests processed. These statistics include memory usage, CPU processing time, total number of tasks that were created for client requests, active tasks, high-watermark tasks, maximum allowed tasks, number of connections, total and active access methods, number of messages sent and received, and bytes of data read and written. For a PowerExchange Listener on z/OS, these statistics also include the total number of netport jobs that ran under the Listener.</li> <li>- <b>accessmethods</b>. Reports statistics on PowerExchange Listener data transfer activity by client task and access method. For each active access method connection of a task to the PowerExchange Listener, these statistics include the number of rows read and written, bytes of data read and written, the source or target table name or data set name, and the data map file used.</li> <li>- <b>clients</b>. Reports information about the active tasks that are running under the PowerExchange Listener and the remote clients that started them, as of the time the statistics are generated. A client is an application such as PowerCenter, the PowerExchange Navigator, or a PowerExchange utility. For each client task ID, the statistics show the access method that the task is using, task read or write mode, process ID, session ID, CPU processing time, and task start date and time. The statistics also include the remote client port number and IP address and the PowerCenter session ID and application name if the client is PowerCenter.</li> </ul> <p>Default is listener.</p>

**Tip:** On i5/OS and UNIX, PowerExchange uses memory-mapped files and shared memory as the inter-process communication (IPC) method for monitoring. On UNIX, the memory-mapped files are allocated in the directory that is specified by the LOGPATH statement in the dbmover.cfg file or in the current directory if the LOGPATH statement is not specified. On i5/OS, the memory-mapped files are stored in an Integrated File System (IFS) directory named */home/user\_id*, where *user\_ID* is the user ID under which the PowerExchange Listener is running. On Linux and zLinux, PowerExchange uses shared memory but not memory-mapped files.

PowerExchange releases shared memory and cleans up the memory-mapped files when PowerExchange Listener subtasks end and when the PowerExchange Listener is closed. On Linux and UNIX, you can use the `-ipcs -m` command to check that the shared memory was freed and use the `ipcrm -m` command to release shared memory.

## pwxcmd listtask Command

Displays information about each active PowerExchange Listener task, including the TCP/IP address, port number, application name, access type, and status.

Use the following syntax:

```
pwxcmd listtask {-service|-sv} service_name
                [{-user|-uid|-u} user_ID]
                [{{-password|-pwd|-p} password|{-epassword|-e} encrypted_password}]
```

The following table describes pwxcmd listtask options and arguments:

Option	Argument	Description
-service -sv	<i>service_name</i>	Required. Service name for the PowerExchange Listener.
-user -uid -u	<i>user_ID</i>	<p>Required if you enable security. A valid operating system user ID on the system that is the target of the command.</p> <p>For a PowerExchange Listener on a supported Linux, UNIX, or Windows system, if you have enabled PowerExchange LDAP user authentication, the user name is the enterprise user name. For more information, see the <i>PowerExchange Reference Manual</i>.</p> <p>If you specify a user name, you must also specify a -password or -epassword value, but do not specify both.</p>

Option	Argument	Description
-password -pwd -p	<i>password</i>	<p>A password for the specified user.</p> <p>If PowerExchange Condense runs on i5/OS or z/OS, you can enter a valid PowerExchange passphrase instead of a password. An i5/OS passphrase can be from 9 to 31 characters in length. A z/OS passphrase can be from 9 to 128 characters in length. A passphrase can contain the following characters:</p> <ul style="list-style-type: none"> <li>- Uppercase and lowercase letters</li> <li>- The numbers 0 to 9</li> <li>- Spaces</li> <li>- The following special characters: ' - ; # \ , . / ! % &amp; * ( ) _ + { } : @   &lt; &gt; ?</li> </ul> <p><b>Note:</b> The first character is an apostrophe.</p> <p>Passphrases cannot include single quotation marks ('), double quotation marks ("), or currency symbols.</p> <p>If a passphrase contains spaces, you must enclose it with double-quotation marks ("), for example, "This is a passphrase". If a passphrase contains special characters, you must enclose it with triple double-quotation characters ("""), for example, """"This passphrase contains special characters ! % &amp; * ."""". If a passphrase contains only alphanumeric characters without spaces, you can enter it without delimiters.</p> <p><b>Note:</b> On z/OS, a valid RACF passphrase can be up to 100 characters in length. PowerExchange truncates passphrases longer than 100 characters when passing them to RACF for validation.</p> <p>To use passphrases, ensure that the PowerExchange Listener runs with a security setting of SECURITY=(1,N) or higher in the DBMOVER member. For more information, see "SECURITY Statement" in the <i>PowerExchange Reference Manual</i>.</p>
-epassword -e	<i>encrypted_password</i>	<p>An encrypted password for the specified user.</p> <p>If the PowerExchange Listener runs on i5/OS or z/OS, you can enter an encrypted PowerExchange passphrase instead of an encrypted password. Do not encrypt a passphrase that contains invalid characters, such as double-quotation marks, single quotation marks, or currency symbols.</p>

## pwxcmd stoptask Command

Stops an individual PowerExchange Listener task based on an application name or task ID that you specify.

**Tip:** To determine the name of the active task, issue the listtask command. In the command output, look for the PWX-00712 message for the task and note the name value. Enter this value in the stoptask command.

During change data extraction, the stoptask command waits to stop the task until either the end UOW is encountered or the commit threshold is reached.

Use the following syntax:

```

pwxcmd stoptask {-service|-sv} service_name
                [(-user|-uid|-u) user_ID]
                [{(-password|-pwd|-p) password|(-epassword|-e) encrypted_password}]
                {(-applicationid|-a) appname|
                {(-taskid|-t) taskid}

```

The following table describes pwxcmd stoptask options and arguments:

Option	Argument	Description
-service -sv	service_name	Required. Service name for the PowerExchange Listener.
-user -uid -u	user_ID	<p>Required if you enable security. A valid operating system user ID on the system that is the target of the command.</p> <p>For a PowerExchange Listener on a supported Linux, UNIX, or Windows system, if you have enabled PowerExchange LDAP user authentication, the user name is the enterprise user name. For more information, see the <i>PowerExchange Reference Manual</i>.</p> <p>If you specify a user name, you must also specify a -password or -epassword value, but do not specify both.</p>

Option	Argument	Description
-password -pwd -p	<i>password</i>	<p>A password for the specified user.</p> <p>If the PowerExchange Listener runs on i5/OS or z/OS, you can enter a valid PowerExchange passphrase instead of a password. An i5/OS passphrase can be from 9 to 31 characters in length. A z/OS passphrase can be from 9 to 128 characters in length. A passphrase can contain the following characters:</p> <ul style="list-style-type: none"> <li>- Uppercase and lowercase letters</li> <li>- The numbers 0 to 9</li> <li>- Spaces</li> <li>- The following special characters: ' - ; # \ , . / ! % &amp; * ( ) _ + { } : @   &lt; &gt; ?</li> </ul> <p><b>Note:</b> The first character is an apostrophe.</p> <p>Passphrases cannot include single quotation marks ('), double quotation marks ("), or currency symbols.</p> <p>If a passphrase contains spaces, you must enclose it with double-quotation marks ("), for example, "This is a passphrase". If a passphrase contains special characters, you must enclose it with triple double-quotation characters ("""), for example, """"This passphrase contains special characters ! % &amp; * ."""". If a passphrase contains only alphanumeric characters without spaces, you can enter it without delimiters.</p> <p><b>Note:</b> On z/OS, a valid RACF passphrase can be up to 100 characters in length. PowerExchange truncates passphrases longer than 100 characters when passing them to RACF for validation.</p> <p>To use passphrases, ensure that the PowerExchange Listener runs with a security setting of SECURITY=(1,N) or higher in the DBMOVER member. For more information, see "SECURITY Statement" in the <i>PowerExchange Reference Manual</i>.</p>
-epassword -e	<i>encrypted_password</i>	<p>An encrypted password for the specified user.</p> <p>If the PowerExchange Listener runs on i5/OS or z/OS, you can enter an encrypted PowerExchange passphrase instead of an encrypted password. Do not encrypt a passphrase that contains invalid characters, such as double-quotation marks, single quotation marks, or currency symbols.</p>

Option	Argument	Description
-applicationid -a	<i>appname</i>	Required if you do not specify -taskid <i>taskid</i> . Application name. The name for the active extraction process that you want to stop. The PWX-00712 message of the listtask command output displays this name.
-taskid -t	<i>taskid</i>	Required if you do not specify -application <i>appname</i> . Task ID of the PowerExchange Listener. The numeric identifier for the PowerExchange Listener task that you want to stop. The PWX-00712 message of the listtask command output displays this ID.

## pwxcmd Commands for PowerExchange Condense

You can use the pwxcmd program to issue the condense, displaystatus, fileswitch, shutcond, and shutdown commands to a PowerExchange Condense process running on an i5/OS or z/OS system.

**Note:** You cannot start a PowerExchange Condense process with the pwxcmd program.

### pwxcmd condense Command

Starts a condense cycle before the wait period for resuming condense processing has elapsed, if you run PowerExchange Condense in continuous mode. Specify the wait period in the NO\_DATA\_WAIT parameter of the PowerExchange Condense CAPTPARM configuration file or member.

Use the following syntax:

```
pwxcmd condense {-service|-sv} service_name
                [{-user|-uid|-u} user_ID]
                [{{-password|-pwd|-p} password|{-epassword|-e} encrypted_password}]
```

The following table describes pwxcmd condense options and arguments:

Option	Argument	Description
-service -sv	<i>service_name</i>	Required. Service name for the PowerExchange Condense process.
-user -uid -u	<i>user_ID</i>	Required if you enable security. A valid operating system user ID on the system that is the target of the command.  If you specify a user name, you must also specify a -password or -epassword value, but do not specify both.

Option	Argument	Description
-password -pwd -p	<i>password</i>	<p>A password for the specified user.</p> <p>If PowerExchange Condense runs on i5/OS or z/OS, you can enter a valid PowerExchange passphrase instead of a password. An i5/OS passphrase can be from 9 to 31 characters in length. A z/OS passphrase can be from 9 to 128 characters in length. A passphrase can contain the following characters:</p> <ul style="list-style-type: none"> <li>- Uppercase and lowercase letters</li> <li>- The numbers 0 to 9</li> <li>- Spaces</li> <li>- The following special characters: ' - ; # \ , . / ! % &amp; * ( ) _ + { } : @   &lt; &gt; ?</li> </ul> <p><b>Note:</b> The first character is an apostrophe.</p> <p>Passphrases cannot include single quotation marks ('), double quotation marks ("), or currency symbols.</p> <p>If a passphrase contains spaces, you must enclose it with double-quotation marks ("), for example, "This is a passphrase". If a passphrase contains special characters, you must enclose it with triple double-quotation characters ("""), for example, """"This passphrase contains special characters ! % &amp; * ."""". If a passphrase contains only alphanumeric characters without spaces, you can enter it without delimiters.</p> <p><b>Note:</b> On z/OS, a valid RACF passphrase can be up to 100 characters in length. PowerExchange truncates passphrases longer than 100 characters when passing them to RACF for validation.</p> <p>To use passphrases, ensure that the PowerExchange Listener runs with a security setting of SECURITY=(1,N) or higher in the DBMOVER member. For more information, see "SECURITY Statement" in the <i>PowerExchange Reference Manual</i>.</p>
-epassword -e	<i>encrypted_password</i>	<p>An encrypted password for the specified user.</p> <p>If PowerExchange Condense runs on i5/OS or z/OS, you can enter an encrypted PowerExchange passphrase instead of an encrypted password. Do not encrypt a passphrase that contains invalid characters, such as double-quotation marks, single quotation marks, or currency symbols.</p>



## pwxcmd displaystatus Command

Displays the current status of the PowerExchange Condense Controller task and each subtask for a PowerExchange Condense job or started task.

Use the following syntax:

```
pwxcmd displaystatus {-service|-sv} service_name  
                    [{-user|-uid|-u} user_ID]  
                    [{{-password|-pwd|-p} password|{-epassword|-e} encrypted_password}]
```

The following table describes pwxcmd displaystatus options and arguments:

Option	Argument	Description
-service -sv	service_name	Required. Service name for the PowerExchange Condense process.
-user -uid -u	user_ID	Required if you enable security. User name. If you specify a user name, you must also specify a -password or -epassword value, but do not specify both.

Option	Argument	Description
-password -pwd -p	<i>password</i>	<p>A password for the specified user.</p> <p>If PowerExchange Condense runs on i5/OS or z/OS, you can enter a valid PowerExchange passphrase instead of a password. An i5/OS passphrase can be from 9 to 31 characters in length. A z/OS passphrase can be from 9 to 128 characters in length. A passphrase can contain the following characters:</p> <ul style="list-style-type: none"> <li>- Uppercase and lowercase letters</li> <li>- The numbers 0 to 9</li> <li>- Spaces</li> <li>- The following special characters: ' - ; # \ , . / ! % &amp; * ( ) _ + { } : @   &lt; &gt; ?</li> </ul> <p><b>Note:</b> The first character is an apostrophe.</p> <p>Passphrases cannot include single quotation marks ('), double quotation marks ("), or currency symbols.</p> <p>If a passphrase contains spaces, you must enclose it with double-quotation marks ("), for example, "This is a passphrase". If a passphrase contains special characters, you must enclose it with triple double-quotation characters ("""), for example, """"This passphrase contains special characters ! % &amp; * ."""". If a passphrase contains only alphanumeric characters without spaces, you can enter it without delimiters.</p> <p><b>Note:</b> On z/OS, a valid RACF passphrase can be up to 100 characters in length. PowerExchange truncates passphrases longer than 100 characters when passing them to RACF for validation.</p> <p>To use passphrases, ensure that the PowerExchange Listener runs with a security setting of SECURITY=(1,N) or higher in the DBMOVER member. For more information, see "SECURITY Statement" in the <i>PowerExchange Reference Manual</i>.</p>
-epassword -e	<i>encrypted_password</i>	<p>An encrypted password for the specified user.</p> <p>If PowerExchange Condense runs on i5/OS or z/OS, you can enter an encrypted PowerExchange passphrase instead of an encrypted password. Do not encrypt a passphrase that contains invalid characters, such as double-quotation marks, single quotation marks, or currency symbols.</p>

## pwxcmd fileswitch Command

Closes open condense files if they contain data and switches to a new set of PowerExchange Condense condense files. If the current condense files do not contain any data, the file switch does not occur.

Use this command to make change data in the current condense files available for extraction before the next file switch is due to occur. For example, to extract change data hourly from condense files, set the FILE\_SWITCH\_CRIT and FILE\_SWITCH\_VAL parameters in the CAPTPARM configuration file such that a file switch occurs after every one million record updates. Then include the fileswitch command as part of a batch job to perform an automated file switch hourly, before extraction processing runs.

**Note:** If you perform both partial and full condense processing in a single PowerExchange Condense job, PowerExchange uses separate sets of condense files for the partial and full condense operations. When you issue the fileswitch command, a file switch occurs for both sets of condense files.

Use the following syntax:

```
pwxcmd fileswitch {-service|-sv} service_name
                  [{-user|-uid|-u} user_ID]
                  [{{-password|-pwd|-p} password|{-epassword|-e} encrypted_password}]
```

The following table describes pwxcmd fileswitch options and arguments:

Option	Argument	Description
-service -sv	service_name	Required. The service name for the PowerExchange Condense process.
-user -uid -u	user_ID	Required if you enable security. User name. If you specify a user name, you must also specify a -password or -epassword value, but do not specify both.

Option	Argument	Description
-password -pwd -p	<i>password</i>	<p>A password for the specified user.</p> <p>If PowerExchange Condense runs on i5/OS or z/OS, you can enter a valid PowerExchange passphrase instead of a password. An i5/OS passphrase can be from 9 to 31 characters in length. A z/OS passphrase can be from 9 to 128 characters in length. A passphrase can contain the following characters:</p> <ul style="list-style-type: none"> <li>- Uppercase and lowercase letters</li> <li>- The numbers 0 to 9</li> <li>- Spaces</li> <li>- The following special characters: ' - ; # \ , . / ! % &amp; * ( ) _ + { } : @   &lt; &gt; ?</li> </ul> <p><b>Note:</b> The first character is an apostrophe.</p> <p>Passphrases cannot include single quotation marks ('), double quotation marks ("), or currency symbols.</p> <p>If a passphrase contains spaces, you must enclose it with double-quotation marks ("), for example, "This is a passphrase". If a passphrase contains special characters, you must enclose it with triple double-quotation characters ("""), for example, """"This passphrase contains special characters ! % &amp; * ."""". If a passphrase contains only alphanumeric characters without spaces, you can enter it without delimiters.</p> <p><b>Note:</b> On z/OS, a valid RACF passphrase can be up to 100 characters in length. PowerExchange truncates passphrases longer than 100 characters when passing them to RACF for validation.</p> <p>To use passphrases, ensure that the PowerExchange Listener runs with a security setting of SECURITY=(1,N) or higher in the DBMOVER member. For more information, see "SECURITY Statement" in the <i>PowerExchange Reference Manual</i>.</p>
-epassword -e	<i>encrypted_password</i>	<p>An encrypted password for the specified user.</p> <p>If PowerExchange Condense runs on i5/OS or z/OS, you can enter an encrypted PowerExchange passphrase instead of an encrypted password. Do not encrypt a passphrase that contains invalid characters, such as double-quotation marks, single quotation marks, or currency symbols.</p>

## pwxcmd shutcond Command

Stops PowerExchange Condense after performing a final condense cycle.

PowerExchange initiates a final condense cycle, waits for it to complete, and then shuts down PowerExchange Condense. During shutdown, PowerExchange Condense closes any open condense files,

writes data to the CDCT file, takes a final checkpoint that contains the latest restart tokens, and then shuts down.

Use the following syntax:

```
pxwcmd shutcond {-service|-sv} service_name  
                [ {-user|-uid|-u} user_ID]  
                [ { {-password|-pwd|-p} password | {-epassword|-e} encrypted_password } ]
```

The following table describes pxwcmd shutcond options and arguments:

Option	Argument	Description
-service -sv	service_name	Required. Service name for the PowerExchange Condense process.
-user -uid -u	user_ID	Required if you enable security. User name. If you specify a user name, you must also specify a -password or -epassword value, but do not specify both.

Option	Argument	Description
-password -pwd -p	<i>password</i>	<p>A password for the specified user.</p> <p>If PowerExchange Condense runs on i5/OS or z/OS, you can enter a valid PowerExchange passphrase instead of a password. An i5/OS passphrase can be from 9 to 31 characters in length. A z/OS passphrase can be from 9 to 128 characters in length. A passphrase can contain the following characters:</p> <ul style="list-style-type: none"> <li>- Uppercase and lowercase letters</li> <li>- The numbers 0 to 9</li> <li>- Spaces</li> <li>- The following special characters: ' - ; # \ , . / ! % &amp; * ( ) _ + { } : @   &lt; &gt; ?</li> </ul> <p><b>Note:</b> The first character is an apostrophe.</p> <p>Passphrases cannot include single quotation marks ('), double quotation marks ("), or currency symbols.</p> <p>If a passphrase contains spaces, you must enclose it with double-quotation marks ("), for example, "This is a passphrase". If a passphrase contains special characters, you must enclose it with triple double-quotation characters ("""), for example, """"This passphrase contains special characters ! % &amp; * ."""". If a passphrase contains only alphanumeric characters without spaces, you can enter it without delimiters.</p> <p><b>Note:</b> On z/OS, a valid RACF passphrase can be up to 100 characters in length. PowerExchange truncates passphrases longer than 100 characters when passing them to RACF for validation.</p> <p>To use passphrases, ensure that the PowerExchange Listener runs with a security setting of SECURITY=(1,N) or higher in the DBMOVER member. For more information, see "SECURITY Statement" in the <i>PowerExchange Reference Manual</i>.</p>
-epassword -e	<i>encrypted_password</i>	<p>An encrypted password for the specified user.</p> <p>If PowerExchange Condense runs on i5/OS or z/OS, you can enter an encrypted PowerExchange passphrase instead of an encrypted password. Do not encrypt a passphrase that contains invalid characters, such as double-quotation marks, single quotation marks, or currency symbols.</p>

## pwxcmd shutdown Command

Stops PowerExchange Condense.

The shutdown command passes a shutdown event to PowerExchange Condense. When PowerExchange Condense recognizes the command, the Condense subtask completes the following processing:

1. Requests all subtasks to close.
2. Closes any open condense files.
3. Writes data to CDCT data set records.
4. Takes a final checkpoint that contains the latest restart tokens.

After all condense subtasks have shut down, PowerExchange Condense shuts down.

**Note:** PowerExchange does not process the shutdown command until condense read operations finish and the wait period that you specify in the NO\_DATA\_WAIT2 parameter of the CAPTPARM member elapses.

Use the following syntax:

```
pwxcmd shutdown {-service|-sv} service_name
                [ {-user|-uid|-u} user_ID]
                [ { {-password|-pwd|-p} password | {-epassword|-e} encrypted_password } ]
```

The following table describes pwxcmd shutdown options and arguments:

Option	Argument	Description
-service -sv	service_name	Required. Service name for the PowerExchange Condense process.
-user -uid -u	user_ID	Required if you enable security. User name. If you specify a user name, you must also specify a -password or -epassword value, but do not specify both.

Option	Argument	Description
-password -pwd -p	<i>password</i>	<p>A password for the specified user.</p> <p>If PowerExchange Condense runs on i5/OS or z/OS, you can enter a valid PowerExchange passphrase instead of a password. An i5/OS passphrase can be from 9 to 31 characters in length. A z/OS passphrase can be from 9 to 128 characters in length. A passphrase can contain the following characters:</p> <ul style="list-style-type: none"> <li>- Uppercase and lowercase letters</li> <li>- The numbers 0 to 9</li> <li>- Spaces</li> <li>- The following special characters: ' - ; # \ , . / ! % &amp; * ( ) _ + { } : @   &lt; &gt; ?</li> </ul> <p><b>Note:</b> The first character is an apostrophe.</p> <p>Passphrases cannot include single quotation marks ('), double quotation marks ("), or currency symbols.</p> <p>If a passphrase contains spaces, you must enclose it with double-quotation marks ("), for example, "This is a passphrase". If a passphrase contains special characters, you must enclose it with triple double-quotation characters ("""), for example, """"This passphrase contains special characters ! % &amp; * ."""". If a passphrase contains only alphanumeric characters without spaces, you can enter it without delimiters.</p> <p><b>Note:</b> On z/OS, a valid RACF passphrase can be up to 100 characters in length. PowerExchange truncates passphrases longer than 100 characters when passing them to RACF for validation.</p> <p>To use passphrases, ensure that the PowerExchange Listener runs with a security setting of SECURITY=(1,N) or higher in the DBMOVER member. For more information, see "SECURITY Statement" in the <i>PowerExchange Reference Manual</i>.</p>
-epassword -e	<i>encrypted_password</i>	<p>An encrypted password for the specified user.</p> <p>If PowerExchange Condense runs on i5/OS or z/OS, you can enter an encrypted PowerExchange passphrase instead of an encrypted password. Do not encrypt a passphrase that contains invalid characters, such as double-quotation marks, single quotation marks, or currency symbols.</p>



# pwxcmd Commands for the PowerExchange Logger for Linux, UNIX, and Windows

You can use the pwxcmd program to issue the condense, display, fileswitch, shutcond, and shutdown commands to a PowerExchange Logger for Linux, UNIX, and Windows process.

**Note:** You cannot start a PowerExchange Logger for Linux, UNIX, and Windows process with the pwxcmd program.

## pwxcmd condense Command

When the PowerExchange Logger for Linux, UNIX, and Windows is running in continuous mode, the condense command starts another logging cycle before the wait period for starting another cycle has elapsed.

Specify the wait period in the NO\_DATA\_WAIT parameter of the pwxcl.cfg configuration file.

Use the following syntax:

```
pwxcmd condense {-service|-sv} service_name
                [(-user|-uid|-u) user_ID]
                [{(-password|-pwd|-p) password|(-epassword|-e) encrypted_password}]
```

The following table describes pwxcmd condense options and arguments:

Option	Argument	Description
-service -sv	service_name	Required. Service name for the PowerExchange Logger for Linux, UNIX, and Windows process.
-user -uid -u	user_ID	Required if you enable security. A valid operating system user ID on the system that is the target of the command.  For a PowerExchange Logger on a supported Linux, UNIX, or Windows system, if you have enabled PowerExchange LDAP user authentication, the user name is the enterprise user name. For more information, see the <i>PowerExchange Reference Manual</i> .
-password -pwd -p	password	Plain text password.  If you specify a user ID, you must specify a plain text password or an encrypted password.
-epassword -e	encrypted_password	Encrypted password.  If you specify a user ID, you must specify a plain text password or an encrypted password.

## pwxcmd displayall Command

Displays all messages that can be produced by the other PowerExchange Logger for Linux, UNIX, and Windows display commands, arranged by command.

The output is the same as if you ran the following pwxcmd commands separately:

- displaycpu

- `displayevents`
- `displaymemory`
- `displayrecords`
- `displaystatus`

Use the following syntax:

```

pwxcmd displayall {-service|-sv} service_name
                  [{-user|-uid|-u} user_ID]
                  [{-password|-pwd|-p} password|{-epassword|-e} encrypted_password}]

```

The following table describes `pwxcmd displayall` options and arguments:

Option	Argument	Description
-service -sv	<i>service_name</i>	Required. Service name for the PowerExchange Logger for Linux, UNIX, and Windows process.
-user -uid -u	<i>user_ID</i>	Required if you enable security. A valid operating system user ID on the system that is the target of the command.  For a PowerExchange Logger on a supported Linux, UNIX, or Windows system, if you have enabled PowerExchange LDAP user authentication, the user name is the enterprise user name. For more information, see the <i>PowerExchange Reference Manual</i> .
-password -pwd -p	<i>password</i>	Plain text password.  If you specify a user ID, you must specify a plain text password or an encrypted password.
-epassword -e	<i>encrypted_password</i>	Encrypted password.  If you specify a user ID, you must specify a plain text password or an encrypted password.

## pwxcmd displaycpu Command

Displays the CPU time spent, in microseconds, for PowerExchange Logger processing during the current logging cycle, by processing phase. Also includes the total CPU time for all PowerExchange Logger processing.

For example, PowerExchange might report the CPU time for the following processing phases:

- Reading source data
- Writing data to PowerExchange Logger log files
- Performing file switches
- Performing "other processing," such as initialization and Command Handler processing of commands

Use the following syntax:

```

pwxcmd displaycpu {-service|-sv} service_name
                  [{-user|-uid|-u} user_ID]
                  [{-password|-pwd|-p} password|{-epassword|-e} encrypted_password}]

```

The following table describes `pwxcmd displaycpu` options and arguments:

Option	Argument	Description
-service -sv	<i>service_name</i>	Required. Service name for the PowerExchange Logger for Linux, UNIX, and Windows process.
-user -uid -u	<i>user_ID</i>	Required if you enable security. A valid operating system user ID on the system that is the target of the command.  For a PowerExchange Logger on a supported Linux, UNIX, or Windows system, if you have enabled PowerExchange LDAP user authentication, the user name is the enterprise user name. For more information, see the <i>PowerExchange Reference Manual</i> .
-password -pwd -p	<i>password</i>	Plain text password.  If you specify a user ID, you must specify a plain text password or an encrypted password.
-epassword -e	<i>encrypted_password</i>	Encrypted password.  If you specify a user ID, you must specify a plain text password or an encrypted password.

## pwxcmd displayevents Command

Displays events that the PowerExchange Logger Controller, Command Handler, and Writer tasks are waiting on. Also indicates if the Writer is processing data or is in a sleep state waiting for an event or timeout to occur.

Use the following syntax:

```
pwxcmd displayevents {-service|-sv} service_name
                    [{-user|-uid|-u} user_ID]
                    [{{-password|-pwd|-p} password|{-epassword|-e} encrypted_password}]
```

The following table describes `pwxcmd displayevents` options and arguments:

Option	Argument	Description
-service -sv	<i>service_name</i>	Required. Service name for the PowerExchange Logger for Linux, UNIX, and Windows process.
-user -uid -u	<i>user_ID</i>	Required if you enable security. A valid operating system user ID on the system that is the target of the command.  For a PowerExchange Logger on a supported Linux, UNIX, or Windows system, if you have enabled PowerExchange LDAP user authentication, the user name is the enterprise user name. For more information, see the <i>PowerExchange Reference Manual</i> .

Option	Argument	Description
-password -pwd -p	<i>password</i>	Plain text password. If you specify a user ID, you must specify a plain text password or an encrypted password.
-epassword -e	<i>encrypted_password</i>	Encrypted password. If you specify a user ID, you must specify a plain text password or an encrypted password.

## pwxcmd displaymemory Command

Displays PowerExchange Logger for Linux, UNIX, and Windows memory use, in bytes, for each PowerExchange Logger task and subtask, with totals for the entire PowerExchange Logger process.

PowerExchange reports memory use for the following categories:

- **Application.** Memory that the PowerExchange Logger application requested for its own use.
- **Total.** Total memory in use for the PowerExchange Logger application and for related header overhead. This value fluctuates as PowerExchange dynamically allocates and frees memory during PowerExchange Logger processing.
- **Maximum.** The largest memory amount that has been recorded for the “Total” category up to the point in time when this command runs.

Use the following syntax:

```
pwxcmd displaymemory {-service|-sv} service_name
                    [{-user|-uid|-u} user_ID]
                    [{{-password|-pwd|-p} password|{-epassword|-e} encrypted_password}]
```

The following table describes pwxcmd displaymemory options and arguments:

Option	Argument	Description
-service -sv	<i>service_name</i>	Required. Service name for the PowerExchange Logger for Linux, UNIX, and Windows process.
-user -uid -u	<i>user_ID</i>	Required if you enable security. A valid operating system user ID on the system that is the target of the command.  For a PowerExchange Logger on a supported Linux, UNIX, or Windows system, if you have enabled PowerExchange LDAP user authentication, the user name is the enterprise user name. For more information, see the <i>PowerExchange Reference Manual</i> .
-password -pwd -p	<i>password</i>	Plain text password. If you specify a user ID, you must specify a plain text password or an encrypted password.
-epassword -e	<i>encrypted_password</i>	Encrypted password. If you specify a user ID, you must specify a plain text password or an encrypted password.

## pxcmd displayrecords Command

Displays counts of change records that the PowerExchange Logger for Linux, UNIX, and Windows processed during the current processing cycle. If the PowerExchange Logger did not receive changes in the current cycle, displays counts of change records for the current set of PowerExchange Logger log files.

Record counts are shown for each type of change record processed and for total records processed. Change record types include Delete, Insert, Update, and Commit.

Depending on whether the counts are for the current cycle or the current log files, the output includes all or some of the following types of counts:

- **Cycle.** Counts of change records for the current PowerExchange Logger processing cycle. The PowerExchange Logger resets these counts to zero when the wait interval that is specified in the NO\_DATA\_WAIT2 parameter of the pwxcl.cfg file expires and no change data has been received.
- **File.** Counts of change records for the current set of PowerExchange log files. The PowerExchange Logger resets these counts to zero when a file switch occurs.
- **Total.** Total counts of change records that the PowerExchange Logger received since it started. These counts are not reset to zero.

Use the following syntax:

```
pxcmd displayrecords {-service|-sv} service_name
                    [(-user|-uid|-u) user_ID]
                    [{(-password|-pwd|-p) password|(-epassword|-e) encrypted_password}]
```

The following table describes pwxcmd displayrecords options and arguments:

Option	Argument	Description
-service -sv	service_name	Required. Service name for the PowerExchange Logger for Linux, UNIX, and Windows process.
-user -uid -u	user_ID	Required if you enable security. A valid operating system user ID on the system that is the target of the command.  For a PowerExchange Logger on a supported Linux, UNIX, or Windows system, if you have enabled PowerExchange LDAP user authentication, the user name is the enterprise user name. For more information, see the <i>PowerExchange Reference Manual</i> .
-password -pwd -p	password	Plain text password.  If you specify a user ID, you must specify a plain text password or an encrypted password.
-epassword -e	encrypted_password	Encrypted password.  If you specify a user ID, you must specify a plain text password or an encrypted password.

## pwxcmd displaystats Command

Displays PowerExchange Logger for Linux, UNIX, and Windows monitoring statistics. The command can report statistics for the PowerExchange Logger process and tasks or PowerExchange Logger group definitions, depending on the `-type (-tp)` argument that you use.

Before you run the command, you must configure the `STATS=(MONITOR)` parameter in the PowerExchange Logger `pwxcl.cfg` configuration file on the system where the PowerExchange Logger runs to enable collection of the monitoring statistics.

If you use the default value of `-tp logger` in the command, the command reports the following statistics:

- The PowerExchange Logger process ID
- The status of the PowerExchange Logger Writer subtask
- The CPU time used by the PowerExchange Logger since it started
- PowerExchange Logger memory use, total and for the Controller, Command Handler, and Writer tasks. For the tasks, memory use is reported in the following categories:
  - Current. The amount of memory that the task is currently using.
  - Total. The amount of memory in use by the task and for related header overhead. This value fluctuates as memory is dynamically allocated and freed during PowerExchange Logger processing
  - Maximum. The largest amount of memory that has been recorded for the "Total" category up to the point in time when the monitoring statistics are generated.
- Counts of inserts, updates, deletes, and commits that the PowerExchange Logger processed, total and for the open Logger log file and the active logging cycle

If you specify `-tp groups` in the command, the command reports the following statistics for each PowerExchange Logger group that is defined:

- The group name and the number of capture registrations in the group
- The total number of insert, update, and delete records that the PowerExchange Logger processed for the group
- The number of commits that the PowerExchange Logger processed for the group
- The number of change records that the PowerExchange Logger has not yet flushed from memory to its log files on disk
- The file name of the open Logger log file and the timestamp for when the file was opened

Use the following syntax:

```
pwxcmd displaystats {-service|-sv} service_name
                    [{-user|-uid|-u} user_ID
                    [{-password |-pwd|-p} password]|{-epassword|-e} encrypted_password}]
                    [{-type|-tp} [{logger|groups}]
```

The following table describes pwxcmd displaystats options and arguments:

Option	Argument	Description
-service -sv	<i>service_name</i>	Required. Service name for the PowerExchange Logger for Linux, UNIX, and Windows process.
-user -uid -u	<i>user_ID</i>	Required if you enable security. A valid operating system user ID on the system that is the target of the command.  For a PowerExchange Logger on a supported Linux, UNIX, or Windows system, if you have enabled PowerExchange LDAP user authentication, the user name is the enterprise user name. For more information, see the <i>PowerExchange Reference Manual</i> .
-password -pwd -p	<i>password</i>	Plain text password. If you specify a user ID, you must specify a plain text password or an encrypted password.
-epassword -e	<i>encrypted_password</i>	Encrypted password. If you specify a user ID, you must specify a plain text password or an encrypted password. .
-type -t	<i>report_type</i>	Optional. Indicates the type of PowerExchange Logger report. Options are: <ul style="list-style-type: none"> <li>- <b>logger</b>. Reports monitoring statistics for the PowerExchange Logger process and tasks. The statistics include the PowerExchange Logger process ID (PID), Writer subtask status, CPU time used, memory use by task type, and counts of inserts, updates, deletes, and commits processed.</li> <li>- <b>groups</b>. Reports statistics for each PowerExchange Logger group definition. A <i>group definition</i> defines a set of PowerExchange Logger log files for a group of registered source tables. The statistics include the number of registrations in the group, the total number of DML operations processed, the number of commits processed, the name of the open Logger log file, the timestamp of the open log file, and the number of change records that have not yet been flushed to a log file. If no group definitions are defined, reports these and some other statistics as if all source tables and registrations were in one large group.</li> </ul> Default is logger.

## RELATED TOPICS:

- [“DG Command” on page 126](#)
- [“DL Command” on page 133](#)

## pwxcmd fileswitch Command

Closes open PowerExchange Logger for Linux, UNIX, and Windows log files and then switches to a new set of log files. If the open log files do not contain any data, the file switch does not occur.

You can perform an automated file switch before the next file switch is due to occur to make change data available for extraction processing. If you run extractions in batch extraction mode, include the pwxcmd fileswitch command in a script and then run that script before the batch extractions.

For example, to extract change data hourly from PowerExchange Logger log files, first set the FILE\_SWITCH\_CRIT and FILE\_SWITCH\_VAL parameters in the pwxcl.cfg file such that a file switch does not automatically occur before the extractions run. For example, you might set the parameters to perform an

automatic file switch after every 1,000,000 record updates. Then include the `pxcmd fileswitch` command in a script that runs shortly before the scheduled extraction processes.

**Note:** Usually, you do not need to perform file switches manually if you use continuous extraction mode.

Use the following syntax:

```
pxcmd fileswitch {-service|-sv} service_name
                [{-user|-uid|-u} user_ID]
                [{{-password|-pwd|-p} password|{-epassword|-e} encrypted_password}]
```

The following table describes `pxcmd fileswitch` options and arguments:

Option	Argument	Description
-service -sv	<i>service_name</i>	Required. Service name for the PowerExchange Logger for Linux, UNIX, and Windows process.
-user -uid -u	<i>user_ID</i>	Required if you enable security. A valid operating system user ID on the system that is the target of the command.  For a PowerExchange Logger on a supported Linux, UNIX, or Windows system, if you have enabled PowerExchange LDAP user authentication, the user name is the enterprise user name. For more information, see the <i>PowerExchange Reference Manual</i> .
-password -pwd -p	<i>password</i>	Plain text password.  If you specify a user ID, you must specify a plain text password or an encrypted password.
-epassword -e	<i>encrypted_password</i>	Encrypted password.  If you specify a user ID, you must specify a plain text password or an encrypted password.

## pxcmd shutcond Command

Stops the PowerExchange Logger for Linux, UNIX, and Windows in a controlled manner after completing a final processing cycle. The final processing cycle enables the PowerExchange Logger to capture all of the changes made up to point when you issue the command.

**Tip:** Use this command to stop the PowerExchange Logger if a processing cycle has not run recently.

After the processing cycle completes, the PowerExchange Logger performs the following actions:

- Closes open log files.
- Writes data to the CDCT file, including restart and sequence tokens.
- Closes the CAPI.
- Stops the Writer and Command Handler subtasks.
- Ends the `pxcccl` program.
- Reports CPU usage.

Use the following syntax:

```
pxcmd shutcond {-service|-sv} service_name
               [{-user|-uid|-u} user_ID]
               [{{-password|-pwd|-p} password|{-epassword|-e} encrypted_password}]
```



The following table describes pwxcmd shutcond options and arguments:

Option	Argument	Description
-service -sv	<i>service_name</i>	Required. Service name for the PowerExchange Logger for Linux, UNIX, and Windows process.
-user -uid -u	<i>user_ID</i>	Required if you enable security. A valid operating system user ID on the system that is the target of the command.  For a PowerExchange Logger on a supported Linux, UNIX, or Windows system, if you have enabled PowerExchange LDAP user authentication, the user name is the enterprise user name. For more information, see the <i>PowerExchange Reference Manual</i> .
-password -pwd -p	<i>password</i>	Plain text password.  If you specify a user ID, you must specify a plain text password or an encrypted password.
-epassword -e	<i>encrypted_password</i>	Encrypted password.  If you specify a user ID, you must specify a plain text password or an encrypted password.

## pwxcmd shutdown Command

Stops the PowerExchange Logger for Linux, UNIX, and Windows in a controlled manner after closing open PowerExchange Logger log files and writing the latest restart position to the CDCT file.

During shutdown processing, the PowerExchange Logger completes these actions:

- Closes open log files.
- Writes updated log and restart information to the CDCT file.
- Closes the CAPI.
- Stops the Writer and Command Handler subtasks.
- Ends the pwxcl program.
- Reports CPU usage.

Use this command to stop a PowerExchange Logger process that is running in continuous mode. Informatica recommends that you use the pwxcmd program to issue the shutdown command instead of entering the command at a command prompt. With pwxcmd, you can send the command to a PowerExchange Logger process that is running in background or foreground mode on the same system or on a different system.

If you run the PowerExchange Logger in batch mode, you do not usually need this command. The PowerExchange Logger process shuts down after the wait period that you specify in the NO\_DATA\_WAIT2 parameter of the pwxcl.cfg file elapses.

Use the following syntax:

```
pwxcmd shutdown {-service|-sv} service_name
                [{-user|-uid|-u} user_ID]
                [{{-password|-pwd|-p} password|{-epassword|-e} encrypted_password}]
```

The following table describes pwxcmd shutdown options and arguments:

Option	Argument	Description
-service -sv	<i>service_name</i>	Required. Service name for the PowerExchange Logger for Linux, UNIX, and Windows process.
-user -uid -u	<i>user_ID</i>	Required if you enable security. A valid operating system user ID on the system that is the target of the command.  For a PowerExchange Logger on a supported Linux, UNIX, or Windows system, if you have enabled PowerExchange LDAP user authentication, the user name is the enterprise user name. For more information, see the <i>PowerExchange Reference Manual</i> .
-password -pwd -p	<i>password</i>	Plain text password.  If you specify a user ID, you must also specify a plain text password or an encrypted password.
-epassword -e	<i>encrypted_password</i>	Encrypted password.  If you specify a user ID, you must also specify a plain text password or an encrypted password.

## Other pwxcmd Commands

By using the pwxcmd program, you can issue help and version commands.

### pwxcmd help Command

Displays the syntax for a command. If you omit the command name, pwxcmd displays the syntax for all commands.

Use the following syntax:

```
pwxcmd help [command]
```

The following table describes the pwxcmd help argument:

Argument	Description
<i>command</i>	Name of pwxcmd command. If you omit the command name, pwxcmd displays the syntax for all commands.

### pwxcmd version Command

Displays the PowerExchange version and Informatica trademark and copyright information.

Use the following syntax:

```
pwxcmd version
```

# INDEX

## A

### Adabas log-based ECCR commands

- CLOSE [15](#)
- DISPLAY TRACE [16](#)
- introduction [14](#)
- READ [16](#)
- REFRESH [17](#)
- starting the ECCR [14](#)
- STATISTICS [17](#)
- STATUS [19](#)
- stopping the ECCR [15](#)
- TRACEOFF [19](#)

### Agent commands

- DISPLAY [69](#)
- DRAIN [70](#)
- introduction [68](#)
- LOGCLOSE [71](#)
- LOGOPEN [71](#)
- LOGSPIN [72](#)
- REPCLOSE [72](#)
- REOPEN [73](#)
- REPOSITORYDSN [73](#)
- REPSTATUS [74](#)
- RESUME [74](#)
- SHUTDOWN [75](#)
- START [75](#)
- starting the PowerExchange Agent [69](#)
- STOP [76](#)

## B

### batch VSAM ECCR commands

- DISPLAY [21](#)
- introduction [21](#)
- START [22](#)
- STOP [22](#)

## C

### CICS/VSAM ECCR commands

- DISPLAY [24](#)
- EXITPGMS [24](#)
- HELP [25](#)
- INITIALIZE [26](#)
- introduction [23](#)
- OPTIONS [27](#)
- REFRESH [28](#)
- RESTART [29](#)
- TERM [29](#)

### cmd\_prefix commands, Agent

- DISPLAY [69](#)
- DRAIN [70](#)
- LOGCLOSE [71](#)

### cmd\_prefix commands, Agent (*continued*)

- LOGOPEN [71](#)
- LOGSPIN [72](#)
- REPCLOSE [72](#)
- REOPEN [73](#)
- REPOSITORYDSN [73](#)
- REPSTATUS [74](#)
- RESUME [74](#)
- SHUTDOWN [75](#)
- START [75](#)
- STOP [76](#)

### cmd\_prefix commands, batch VSAM ECCR

- DISPLAY [21](#)
- START [22](#)
- STOP [22](#)

### CMDNODE statement

- DBMOVER configuration file [142](#)

### command line mode

- pwxcmd commands [147](#)

### command prefix, AGENTCTL

- in batch VSAM ECCR commands [21](#)
- in PowerExchange Agent commands [68](#)

### CONDENSE command

- PowerExchange Logger for Linux, UNIX, and Windows [125](#)

### Condense commands

- CONDENSE [80](#)
- DISPLAY STATUS [80](#)
- FILESWITCH [82](#)
- introduction [77](#)
- issuing [79](#)
- SHUTCOND [83](#)
- SHUTDOWN [84](#)
- starting PowerExchange Condense [78](#)
- stopping PowerExchange Condense [79](#)

### CONDENSENAME statement

- CAPTPARM configuration file or member [142](#)
- pwxccl.cfg file [142](#)

### configuring

- PowerExchange processes to receive pwxcmd commands [142](#)

## D

### Datcom table-based ECCR commands

- CLOSE [32](#)
- DISPLAY TRACE [32](#)
- introduction [31](#)
- READ [33](#)
- REFRESH [33](#)
- starting the ECCR [32](#)
- STATISTICS [34](#)
- STATUS [36](#)
- stopping the ECCR [32](#)
- TRACEOFF [37](#)
- TRACEON [37](#)

## DB2 for z/OS ECCR commands

- DISPLAY [40](#)
- introduction [38](#)
- QUIESCE [43](#)
- REFRESH [44](#)
- starting the ECCR [39](#)
- stopping the ECCR [39](#)
- TERM [44](#)
- TR ACT [45](#)
- TR INACT [45](#)
- URID [46](#)

## DBMOVER statements

- CMDNODE [142](#)
- LISTENER [142](#)
- SVCNODE [142](#)

## DG command [126](#)

## DISPLAY ALL command [128](#)

## DISPLAY CPU command [129](#)

## DISPLAY EVENTS command [130](#)

## DISPLAY MEMORY command [130](#)

## DISPLAY RECORDS command [131](#)

## DISPLAY STATUS command

- PowerExchange Logger for Linux, UNIX, and Windows [132](#)

## displaystatus (pwxcmd)

- overview [161](#)

## DL command [133](#)

# E

## ECCR commands

- Adabas log-based ECCR commands [14](#)
- batch VSAM ECCR commands [21](#)
- CICS/VSAM ECCR commands [23](#)
- Datacom table-based ECCR commands [31](#)
- DB2 for z/OS ECCR commands [38](#)
- IDMS log-based ECCR commands [47](#)
- IMS log-based ECCR commands [59](#)
- IMS synchronous ECCR commands [55](#)

## EDMC commands

- in CICS/VSAM ECCR commands [23](#)

# F

## FILESWITCH command

- PowerExchange Logger for Linux, UNIX, and Windows [134](#)

# H

## help (pwxcmd)

- description [178](#)

# I

## IDMS log-based ECCR commands

- CLOSE [48](#)
- DISPLAY TRACE [48](#)
- introduction [47](#)
- READ [49](#)
- REFRESH [49](#)
- starting the ECCR [48](#)
- STATISTICS [50](#)
- STATUS [52](#)
- TRACEOFF [53](#)
- TRACEON [53](#)

## IMS external subsystem commands (/SSR)

- synchronous ECCR commands [55](#)
- xEDP-ABORT [56](#)
- xEDP-CONTINUE [56](#)
- xEDP-STAT [57](#)
- xEDP-STATWTO [57](#)

## IMS log-based ECCR commands

- CLOSE [60](#)
- DISPLAY TRACE [60](#)
- introduction [59](#)
- READ [61](#)
- REFRESH [61](#)
- starting the ECCR [59](#)
- STATISTICS [62](#)
- STATUS [65](#)
- TRACEOFF [66](#)
- TRACEON [66](#)

## IMS synchronous ECCR commands

- DISPLAY SUBSYS [58](#)
- external subsystem commands [55](#)
- introduction [55](#)
- xEDP-ABORT [56](#)
- xEDP-CONTINUE [56](#)
- xEDP-STAT [57](#)
- xEDP-STATWTO [57](#)

# L

## Listener commands

- CLOSE [91](#)
- CLOSE and CLOSE FORCE [91](#)
- DISPLAY ACTIVE [93](#)
- DISPLAYSTATS [94](#)
- DTLLST program [87](#)
- introduction [86](#)
- issuing with DTLLSTSI [102](#)
- LISTTASK [93](#)
- starting the PowerExchange Listener [87](#)
- STOPTASK [103](#)

## LISTENER statement

- DBMOVER configuration file [142](#)

## listtask (pwxcmd)

- description [154](#), [164](#)

## Logger for Linux, UNIX, and Windows commands

- CONDENSE [125](#)
- DG [126](#)
- DISPLAY ALL [128](#)
- DISPLAY CPU [129](#)
- DISPLAY EVENTS [130](#)
- DISPLAY MEMORY [130](#)
- DISPLAY RECORDS [131](#)
- DISPLAY STATUS [132](#)
- DL [133](#)
- FILESWITCH [134](#)
- introduction [119](#)
- PWXCLL [120](#)
- SHUTCOND [135](#)
- SHUTDOWN [137](#)
- starting the Logger [120](#)

## Logger for z/OS commands

- DEFINE\_LOG [107](#)
- DELETE\_LOG [110](#)
- DISPLAY OBJECT=CONNECTION [111](#)
- DISPLAY OBJECT=LOG [112](#)
- introduction [105](#)
- PRINT [114](#)
- RESOLVE\_INDOUBT [115](#)

Logger for z/OS commands (*continued*)  
rules and guidelines [106](#)  
starting the PowerExchange Logger [107](#)  
STOP [116](#)

## M

MODIFY commands (MVS)  
Adabas log-based ECCR commands [14](#)  
Datacom table-based ECCR commands [31](#)  
DB2 for z/OS ECCR commands [38](#)  
IDMS log-based ECCR commands [47](#)  
IMS log-based ECCR commands [59](#)  
PowerExchange Condense commands [79](#)

## P

Post-Log Merge commands  
DISPLAY [117](#)  
QUIT [117](#)  
STATUS [117](#)  
STOP [117](#)  
TRACEE, TRACEL, TRACES [118](#)  
PowerExchange Agent commands  
DISPLAY [69](#)  
DRAIN [70](#)  
introduction [68](#)  
LOGCLOSE [71](#)  
LOGOPEN [71](#)  
LOGSPIN [72](#)  
REPCLOSE [72](#)  
REOPEN [73](#)  
REPOSITORYDSN [73](#)  
REPSTATUS [74](#)  
RESUME [74](#)  
SHUTDOWN [75](#)  
START [75](#)  
starting the PowerExchange Agent [69](#)  
STOP [76](#)  
PowerExchange Condense commands  
CONDENSE [80](#)  
DISPLAY STATUS [80](#)  
FILESWITCH [82](#)  
introduction [77](#)  
issuing [79](#)  
SHUTCOND [83](#)  
SHUTDOWN [84](#)  
starting PowerExchange Condense [78](#)  
stopping PowerExchange Condense [79](#)  
PowerExchange Condense process  
sending pwxcmd commands to [139](#), [144](#)  
PowerExchange Listener  
sending pwxcmd commands to [143](#)  
service on Windows [90](#)  
testing remote [91](#)  
PowerExchange Listener commands  
CLOSE [91](#)  
DISPLAY ACTIVE [93](#)  
DISPLAYSTATS [94](#)  
DTLLSTSI [102](#)  
introduction [86](#)  
LISTTASK [93](#)  
Stop commands [91](#)  
STOPTASK [103](#)  
PowerExchange Listener process  
sending pwxcmd commands to [139](#)

PowerExchange Listener service  
starting [90](#)  
stopping [91](#)  
PowerExchange Logger for Linux, UNIX, and Windows commands  
CONDENSE [125](#)  
DG [126](#)  
DISPLAY ALL [128](#)  
DISPLAY CPU [129](#)  
DISPLAY EVENTS [130](#)  
DISPLAY MEMORY [130](#)  
DISPLAY RECORDS [131](#)  
DISPLAY STATUS [132](#)  
DL [133](#)  
FILESWITCH [134](#)  
introduction [119](#)  
PWXCCL [120](#)  
SHUTCOND [135](#)  
SHUTDOWN [137](#)  
starting the Logger [120](#)  
PowerExchange Logger for Linux, UNIX, and Windows process  
sending pwxcmd commands to [139](#), [145](#)  
PowerExchange Logger for z/OS commands  
DEFINE\_LOG [107](#)  
DELETE\_LOG [110](#)  
DISPLAY OBJECT=CONNECTION [111](#)  
DISPLAY OBJECT=LOG [112](#)  
introduction [105](#)  
PRINT [114](#)  
RESOLVE\_INDOUBT [115](#)  
rules and guidelines [106](#)  
starting the PowerExchange Logger [107](#)  
STOP [116](#)  
PowerExchange processes  
configuring to receive pwxcmd commands [142](#)  
PowerExchange Condense [139](#)  
PowerExchange Listener [139](#)  
PowerExchange Logger for Linux, UNIX, and Windows [139](#)  
pwxcmd commands  
command line mode [147](#)  
condense for PowerExchange Condense [159](#)  
condense for PowerExchange Logger [169](#)  
configuration for [142](#)  
displaycpu [170](#)  
displayevents [171](#)  
displaymemory [172](#)  
displayrecords [173](#)  
displaystatus [161](#)  
displaystatus for the PowerExchange Logger [174](#)  
example [143–145](#)  
fileswitch for PowerExchange Condense [163](#)  
fileswitch for PowerExchange Logger [175](#)  
introduction [139](#)  
PowerExchange Listener displaystats command [152](#)  
PowerExchange Listener task, stopping [156](#)  
PowerExchange Listener, stopping [148](#), [151](#)  
return codes [141](#)  
script files [147](#)  
shutcond for PowerExchange Logger [176](#)  
shutdown for PowerExchange Condense [167](#)  
shutdown for PowerExchange Logger [177](#)  
syntax [140](#)  
version, displaying [178](#)  
pwxcmd program  
to issue pwxcmd commands [139](#)

## R

return codes  
    pwxcmd commands [141](#)

## S

/SSR commands  
    IMS external subsystem commands for synchronous ECCR  
    aaa] [55](#)  
script files  
    pwxcmd commands [147](#)  
security  
    pwxcmd commands, Linux, UNIX, and Windows [146](#)  
sending  
    pwxcmd commands to a PowerExchange Condense process [144](#)  
    pwxcmd commands to a PowerExchange Logger for Linux, UNIX,  
    and Windows process [145](#)  
sending pwxcmd commands  
    to a PowerExchange Listener [143](#)  
shutcond (pwxcmd)  
    description [164](#)  
SNDPWXCMD  
    DISPLAY STATUS [80](#)  
SNDPWXCMD commands (i5/OS)  
    PowerExchange Condense commands [79](#)

starting  
    PowerExchange Listener service [90](#)  
stopping  
    PowerExchange Listener service [91](#)  
SVCNODE statement  
    DBMOVER configuration file [142](#)  
syntax  
    pwxcmd commands [140](#)

## T

testing  
    local PowerExchange Listener service [90](#)  
    remote PowerExchange Listener [91](#)

## V

version (pwxcmd)  
    description [178](#)  
VSAM batch ECCR commands  
    DISPLAY [21](#)  
    introduction [21](#)  
    START [22](#)  
    STOP [22](#)