
Guide to Participant Data Replication Monitor

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September 2018**

For pdrMonitor v1.0.0 or above

Important notice

PURPOSE

This Guide to Participant Data Replication Monitor, prepared by the Australian Energy Market Operator (AEMO), provides guidance for pdrMonitor under the National NER or NGR (Rules).

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The release of this document changes any previous versions of Guide to Participant Data Replication Monitor.

FURTHER INFORMATION

For further information, please visit AEMO's website www.aemo.com.au or contact:

AEMO's Support HubPhone: 1300 AEMO 00 (1300 236 600), Email: supporhub@aemo.com.au

FEEDBACK

Your feedback is important and helps us improve our services and products. To suggest improvements, please contact AEMO's Support Hub.

Contents

Chapter 1 Introduction	1
Purpose	1
Audience	1
Assumed knowledge	1
How to use this guide	1
What's in this guide	2
Chapter 2 About pdrMonitor	3
What the software is for	3
Who can use pdrMonitor	3
How do you use the software?	3
Software requirements	3
Supported web browsers	4
Prerequisites	4
Chapter 3 Access	5
Chapter 4 Configure	7
Configuration steps	7
Roles	7
Users	9
Systems	11
Connections	14
Chapter 5 Systems	18
Prerequisites	18
System menu	19
Application overview	19
Application settings	20
Application error logs	21
Application performance	22
Data Interchange overview	28
Data Interchange settings	30
Data Interchange structure	34
Data Interchange upgrades	35
Data Interchange reports	35

Data Interchange actions	37
Data Interchange performance	37
Chapter 6 Database Tables	39
Entity-relationship diagram	39
Table descriptions	40
Chapter 7 Needing Help	47
Related resources	47
Troubleshooting	48
AEMO's Support Hub	49
Feedback	50
Index	51

Chapter 1 Introduction

Purpose	1
Audience	1
Assumed knowledge	1
How to use this guide	1
What's in this guide	2

Purpose

Covers the configuration and use of the pdrMonitor software.

Audience

This guide is for *Registered Participants*:

- Who use Data Interchange.
- Technical and software development staff, responsible for systems implementation.

Assumed knowledge

This guide assumes you have knowledge of:

- The Java application environment.
- The operating system you are using.
- Database design
- How Data Interchange operates.

How to use this guide

- This guide is written in plain language for easy reading. Where there is a discrepancy between the Rules, and information or a term in this document, the Rules take precedence.
- **Text in this format** indicates a resource is on AEMO's website.

- Glossary terms are capitalised and have the meanings listed against them in the **Data Interchange Framework and Glossary**.
- *Italicised terms* are defined in the NER or NGR. Any rules terms not in this format still have the same meaning.
- Actions to complete in the interface are **bold and dark grey**.

What's in this guide

Chapter 2 About pdrMonitor on page 3 provides an overview of the software, who can use it, how you use it, system requirements, supported web browsers, and prerequisites.

Chapter 3 Access on page 5 explains how to login to pdrMonitor.

Chapter 4 Configure on page 7 explains the steps required to setup pdrMonitor.

Chapter 5 Systems on page 18 explains how to use the pdrMonitor to view the status of your systems.

Chapter 6 Database Tables on page 39 provides an information about the pdrMonitor database, including an ER diagram and table descriptions.

Chapter 7 Needing Help on page 47 provides some troubleshooting, a list of related resources, information about contacting AEMO's Support Hub, and how to provide feedback.

Chapter 2 About pdrMonitor

What the software is for	3
Who can use pdrMonitor	3
How do you use the software?	3
Software requirements	3
Supported web browsers	4
Prerequisites	4

What the software is for

The pdrMonitor software is a component of Data Interchange, providing participants with visualisation of the status of their Data Interchange systems.

Who can use pdrMonitor

This software is for *Registered Participants* using the Data Interchange software to replicate data between their systems and AEMO's.

The pdrMonitor software replaces the Replication Manager software.

How do you use the software?

Participants install, configure, and use the pdrMonitor on their local computers.

For help, see Participant Data Replication Monitor GUI Installer Guide.

Software requirements

The pdrMonitor software:

- Runs under Oracle's JRE 8.
- Runs on both Windows and Unix-like operating systems.
- In a Windows 64-bit environment, the Java and wrapper for service must be either 32-bit or 64-bit.

Supported web browsers

To access the pdrMonitor, AEMO recommends the following web browsers:

Browser	Platform	Version	More information
Microsoft Internet Explorer	Windows	IE11	https://www.whatismybrowser.com/guides/the-latest-version/internet-explorer
Microsoft Edge	Windows 10	Latest	https://www.microsoft.com/en-au/windows/microsoft-edge
Google Chrome	All platforms	Latest	https://www.whatismybrowser.com/guides/the-latest-version/chrome

Prerequisites

To configure and use the pdrMonitor, you need:

1. A working installed version of the pdrMonitor software. For help, see Participant Data Replication Monitor GUI Installer Guide.
2. One or more working Data Interchange instances. For help, see Concise Guide to Data Interchange.
3. Access to the local database (read and write).

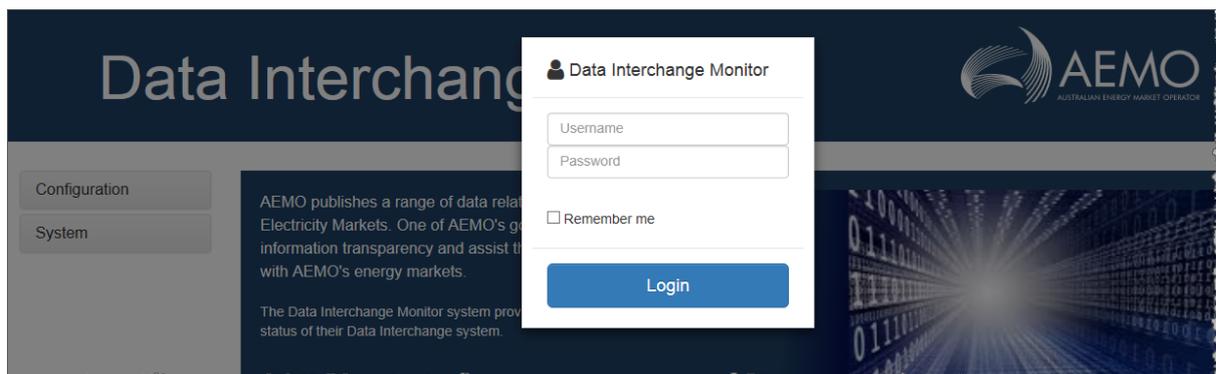
Chapter 3 Access

To access pdrMonitor:

1. Using your web browser, navigate to the following URL:
http://<hostname>:<web_server_port>/html/index.html
 - **hostname** is the server where you installed the pdrMonitor
 - **web_server_port** is the port number you selected during installation configuration, for example 9020.
2. A login screen similar to below displays. Enter the following default access credentials :
 - **Username:** admin
 - **Password:** admin

This is an initial set up password only.

3. Click Login.



4. The home page displays with the following functionality:

- a. **Configuration:** where administrators manage systems connections, users, roles, and view settings. For help,, see [Configure](#). If you do not have administration rights, you cannot see this menu option.
- b. **System names:** The system names administrators set up in the configuration menu display where providing you have rights you can view a summary and configure Data Interchange applications for each system. For more details, see [Systems](#)

To see the menu options, click the menu item.

Data Interchange Monitor



Configuration **a**

System 1 **b**

System 2

System 3

- [pdrBatcher](#)
- [pdrLoader](#)
- [DataInterchange](#)

AEMO publishes a range of data relating to the operation of Gas and Electricity Markets. One of AEMO's goals is to promote greater information transparency and assist the market participants in interacting with AEMO's energy markets.

The Data Interchange Monitor system provides participants with visualisation of the status of their Data Interchange system.



Next, see **Configure**.

Chapter 4 Configure

Configuration steps	7
Roles	7
Users	9
Systems	11
Connections	14

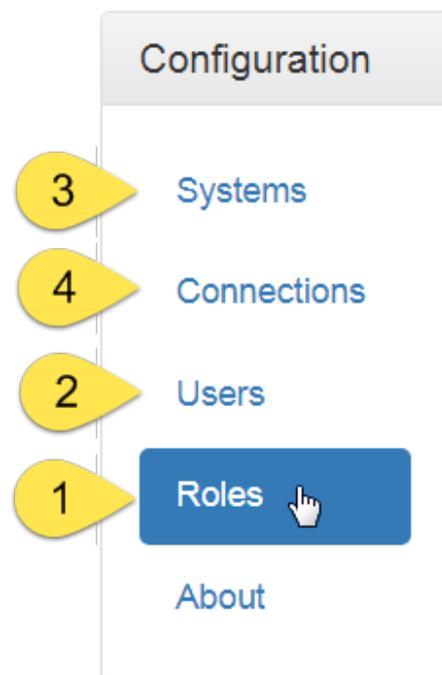
Configuration steps

Steps required to configure pdrMonitor:

1. Roles.
2. Users.
3. Systems
4. Connections.

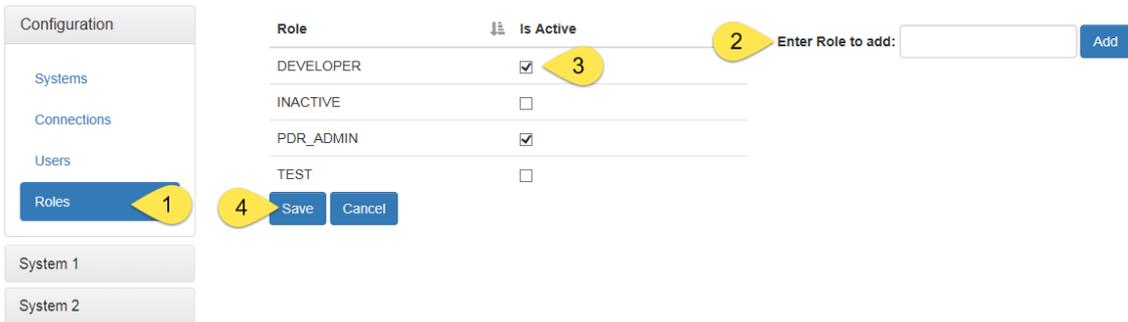
Roles

In the **Roles** interface, you configure the user defined roles. The install process sets up one pre-defined role called PDR_ADMIN. This is the system administrator who can add and edit systems, connections, users, and roles.



Create a new role

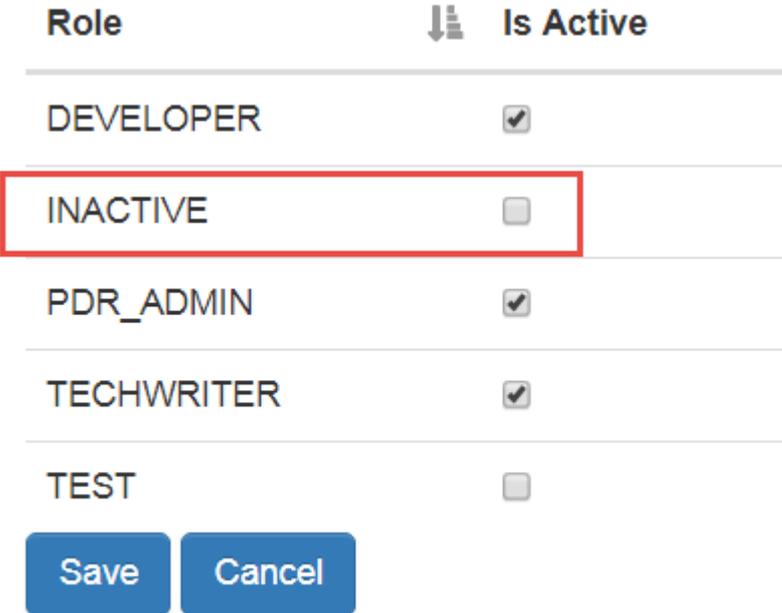
1. **Login** to pdrMonitor, click **Configuration** and then **Roles**.
2. Next to **Enter Role to add**, enter the role name and click **Add**.
3. To make the role active, next to the role, under **Is Active** select the checkbox (by default, this is selected).
4. Click **Save**.
Alternatively, click **Cancel** to discard all changes.



Edit a role

Only PDR_ADMINS have access to edit roles.

- 1. Login to pdrMonitor, click Configuration and then Roles.
- 2. To make the role inactive, next to the role, under Is Active deselect the checkbox.
- 3. Click Save.



Users

In the **Users** interface you create and edit user accounts.

Add a user

1. **Login** to pdrMonitor, click **Configuration** and then **Users**.

The screenshot shows the pdrMonitor Configuration interface. On the left is a sidebar with a 'Configuration' header and several menu items: 'Systems', 'Connections', 'Users' (highlighted in blue with a yellow callout '1'), 'Roles', 'About pdrMonitor', and 'INTEGRATION'. To the right is a table with columns 'User' and 'Is Active'. The table contains the following data:

User	Is Active
ADMIN	<input checked="" type="checkbox"/>
DEB	<input checked="" type="checkbox"/>
FRED	<input checked="" type="checkbox"/>
JOHN	<input type="checkbox"/>
phayes	<input checked="" type="checkbox"/>
SAN	<input type="checkbox"/>

Below the table is a blue button labeled 'Add new user' with a yellow callout '2'. A text label 'Double click table row to edit user' is positioned above the button.

2. Click **Add new user** and complete the details:
 - a. **Username:** enter the new user's name.
 - b. **Password:** create a password for the new user.
 - c. **Role:** under **Is Active** select the checkbox next to the user's role. For help, see [Roles](#).

New User ×

Username:

 a

Password:

 b

Role	Is Active	
DEVELOPER	<input checked="" type="checkbox"/>	c
PDR_ADMIN	<input type="checkbox"/>	

Save **Cancel**

Edit a user

1. **Login** to pdrMonitor, click **Configuration** and then **Users**.
2. Under **Users**, double-click their name.
3. In the **Edit User** window, make the relevant changes:

Only PDR_ADMINS
can edit users.

- a. **Username:**The username is read only. You cannot edit it.
 - b. **Password:** If you are not changing the password leave the password field blank to retain the existing password.
 - c. **Is Active** enables or disables the user account. Once the account is inactive the user cannot login.
 - d. **Role:** To enable a role for a user, select **Is Active** checkbox next to the role name. To inactivate a role, unselect the **Is Active** checkbox.
4. Click **Save**.
Alternatively, click **Cancel** to discard all changes.

Edit User
×

Username:

FRED
a

Password:

b

Is Active:

c

Role	⇕	Is Active	⇩
DEVELOPER	⇕	<input checked="" type="checkbox"/>	d
PDR_ADMIN	⇕	<input type="checkbox"/>	
TEST	⇕	<input type="checkbox"/>	

4

Save
Cancel

Change password

Only the PDR_ADMIN role can make password changes. If you forget your password, contact your pdrMonitor administrator to change it for you.

To change a password, administrators follow the steps for [Edit a user](#) and enter the new password in the **Password** field.

Systems

The **Systems** option in the **Configuration** menu is where you register a Data Interchange application that displays in the main menu.

A system is a collection of Data Interchange applications that work together, usually comprising a pdrBatcher and a pdrLoader instance.

You might create a system around environments, for example:

- Pre-production and production.
- Participant ID where multiple Data Interchange instances are installed within the company.

Prerequisites

To add a system you must have system **Roles** setup. For help, see [Users](#).

Add a system

1. **Login** to pdrMonitor, click **Configuration** and then **Systems**.
2. Click **Add new system**.



3. In the **New System** window, enter the system name.
4. For each **Role**, select if they can view only or also configure.
5. Click **Save**.
6. If successful your system displays in the System list. Otherwise a message displays advising the amendments required.

New System ×

System:

systemName 3

Role ↓↑	Can View ↑↓	Can Configure ↑↓
DEVELOPER	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PDR_ADMIN	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4

5
Save
Cancel

Edit a system

Only PDR_ADMINS can edit a system.

To edit a system:

1. **Login** to pdrMonitor, click **Configuration** and then **Systems**.
2. Under **system**, double-click the system name.
3. In the **Edit System** window you can change the following:
 - a. **System:** The System name is read only. You cannot edit it.
 - b. **Is Active:** controls if pdrMonitor collects data from the named system. During system maintenance this is where you can disable the system.
 - c. **Role:** The mapping of roles onto a system. For each role, you can allocate permissions to **View** configuration and reports and also **Configure** updates to the data replication settings.

Edit System ×

System:

a System 1

Is Active:

b

Role ↓↑	Can View ↑↓	Can Configure ↑↓
c TEST	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PDR_ADMIN	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
DEVELOPER	<input checked="" type="checkbox"/>	<input type="checkbox"/>

4
Save
Cancel

4. Click **Save** to change the system configuration in the pdrMonitor database. Alternatively, click **Cancel** to discard all changes.

Remove a system

To remove a system follow the steps to [Edit a system](#) deselecting the **Is Active** checkbox.

There is no functionality to remove a system because removing a system would cause you to lose historical data.

Connections

The connections interface is where you configure Data Interchange applications to allow the pdrMonitor to collect performance and logging data from your applications.

Prerequisites

1. Before you can setup a connection you must first setup your systems. For help, see [Systems](#).
2. pdrBatcher and pdrLoader services must be running while adding or editing connections.

Add a connection

1. **Login** to pdrMonitor, click **Configuration** and then **Connections**.
2. Click **Add new source**.

The screenshot shows the 'Configuration' sidebar with 'Connections' selected (marked with a yellow '1'). The main area displays a table of connections with columns: Hostname, System, Instance, App Name, App Version, Port, API Key, Last Active, and Is Active. Below the table is a 'Double click table row to edit source' instruction and an 'Add new source' button (marked with a yellow '2').

Hostname	System	Instance	App Name	App Version	Port	API Key	Last Active	Is Active
██████████	INTEGRATION	NEM01	pdrBatcher	7.4.0	9000	9CB75D34DD1AB847	15-03-2018 08:27:56	<input checked="" type="checkbox"/>
██████████	INTEGRATION	INTEGRATION	pdrLoader	7.4.0	8081	381DA419C63BF771	15-03-2018 08:27:56	<input checked="" type="checkbox"/>
localhost	PRODUCTION	NEM01	pdrLoader	7.4.0	8082	381DA419C63BF771	15-06-2017 09:11:20	<input type="checkbox"/>
localhost	PRODUCTION	TEST	pdrBatcher	7.4.0	8080	381DA419C63BF772	07-06-2017 19:49:01	<input type="checkbox"/>

3. In the **New Source** window, enter the source details. For help with the fields, see [Table 1](#)
4. When all fields are complete, click **Test**.

5. The pdrMonitor performs a connectivity test to the application and returns the **Application Name**, **Instance**, and **Application Version**.
If the connectivity test fails, adjust the parameters in the **New Source** window and click **Test** again.
6. When the connectivity test is successful, the **Save** button enables. Click it to save the connection details.
This also results in the data collection commencing from any newly configured source.
Alternatively, click **Cancel** to discard all changes and return to the main connections window.

The image shows a 'New Source' dialog box with a close button (X) in the top right corner. The dialog is divided into several sections:

- Section 3:** Contains two input fields: 'Hostname:' and 'Port:'.
- Section 4:** Contains an input field for 'API key:' and a dropdown menu for 'System:' with the text 'Choose ...'.
- Section 5:** Contains two disabled input fields: 'Application Name:' and 'Instance:'.
- Section 6:** Contains a disabled input field for 'Application Version:'.

At the bottom right of the dialog, there are three buttons: 'Test' (blue), 'Save' (blue), and 'Cancel' (blue). A yellow callout bubble with the number '6' points to the 'Save' button.

Table 1 New source window fields

Parameter	Description
Hostname	The server where the pdrBatcher or pdrLoader application is running.
Port	The port number configured in the application where the web services are exposed. For help, see your pdrBatcher or pdrLoader properties file.
API key	The API key used to authorise access to web services in the application. Defined either in the pdrBatcher or pdrLoader properties file in property web_server_api_key . If you do not define this property the pdrMonitor uses the value of the hash property in the pdr_key.properties file .
System	The name of the system, for help, see Systems . The application is allocated against one of the registered systems within pdrMonitor. pdrBatcher and pdrLoader instances that are configured to work together should always be defined in the same system to allow end to end data replication performance reporting.

Edit a connection

In the **Edit Source** window you can modify an existing source.

To edit an existing source:

1. Double-click the relevant row in the table.
2. In the **Edit Source** window, modify the required parameters. For help with the fields, see [Add a connection](#).
3. Click **Save**.
 Alternatively, click **Cancel** to discard all changes and return to the main connections window.

You can temporarily disable a connection by deselecting the **Is Active** checkbox.

This may be desirable during periods of application maintenance.

Edit Source ✕

Hostname:	<input type="text" value="localhost"/>	Port:	<input type="text" value="8082"/>
API key:	<input type="text" value="381DA419C63BF771"/>	System:	<input style="border-bottom: 1px solid #ccc;" type="text" value="PRODUCTION"/>
Is Active:	<input type="checkbox"/>		
Application Name:	<input type="text" value="pdrLoader"/>	Instance:	<input type="text" value="NEM01"/>
Application Version:	<input type="text" value="7.4.0"/>		

Chapter 5 Systems

In the systems menu, you can view the application details for all the systems you have setup.

Prerequisites	18
System menu	19
Application overview	19
Application settings	20
Application error logs	21
Application performance	22
Data Interchange overview	28
Data Interchange settings	30
Data Interchange structure	34
Data Interchange upgrades	35
Data Interchange reports	35
Data Interchange actions	37
Data Interchange performance	37

Prerequisites

To view system details, you must first configure your systems and connections. For help, see [Configure](#).

System menu

Clicking a system menu displays three options for the system:

1. **pdrBatcher** for viewing the status, configuration, and reporting for each connected pdrBatcher instance.
2. **pdrLoader** for viewing the status, configuration, and reporting for each connected pdrLoader instance.
3. **Data Interchange** for viewing the status, configuration, and reporting for each end-to-end data replication service.



Application overview

In the main system menu, clicking pdrBatcher or pdrLoader displays a summary of the application.

To see an overview:

1. **Login** to pdrMonitor, click a system name and then click **pdrBatcher** or **pdrLoader**.
2. By default, the **Overview** tab displays a summary of the application (**Base**)
3. Each **Thread** level (dependent on how many threads you have setup in your system). Each thread level displays the running status of jobs processed by that thread.
4. If you have multiple application instances, you can view each using the **Select Instance ID** drop-down.

Name	Value
Application	pdrBatcher v7.4.0
Installed at	file://D:/pdrBatcher/Lib/AppPdrBatcher.jar
Executable timestamp	05/10/2017 06:32:10
Start time	06/02/2018 08:12:50
Java	Oracle Corporation v1.8.0_121
Operating System	Windows Server 2012 R2 v6.3 amd64
Free memory (Mb)	16
Total memory (Mb)	39
Hostname	██████████
Process ID	6132@██████████

Application settings

The application **Settings** tab displays the configuration at the application (**Base**) and **Thread** levels (dependent on how many threads you have setup in your system).

This interface is read only. You make changes in the .properties file.

To view the settings:

1. **Login** to pdrMonitor, click a system name, click **pdrBatcher** or **pdrLoader** and then click **Settings**.
2. By default, the **Base** settings display the properties configuration (.properties file) used by the running application instance.
3. If you have multiple application instance, you can view each using the **Select Instance ID** drop-down.
4. To find specific properties, enter the criteria in the **Search** filter.
5. To see thread specific configurations, click the **Thread** level. This level includes any global level configurations inherited at the application thread level.

The screenshot shows the 'Settings' tab for 'pdrBatcher' in 'System 1'. The 'logs' tab is highlighted with a yellow callout '1'. A dropdown menu for 'Select Instance ID' is set to 'NEM01' with a yellow callout '3'. A search box contains 'instance' with a yellow callout '4'. The 'Base' configuration section is selected with a yellow callout '2', and 'Thread 1' is selected with a yellow callout '5'. The table below lists configuration parameters:

Name	Value
batcher_data_sources	remote,local
batcher_fail_interval	60
batcher_heartbeat_file	d:/pdrBatcher/Log/heartbeat_download.out
batcher_holding_dir	d:/pdrBatcher/Holding
batcher_inactivity_timeout	450
batcher_local_dir	D:/pdrLoader/Reports
batcher_local_mode	local
batcher_polling_interval	60
batcher_remote_dir	/PRTDBSQL/import/reports/csvreports
batcher_remote_ftp_mode	passive
batcher_remote_host	192.168.244.25
batcher_remote_mode	ftp

Showing 1 to 76 of 76 entries

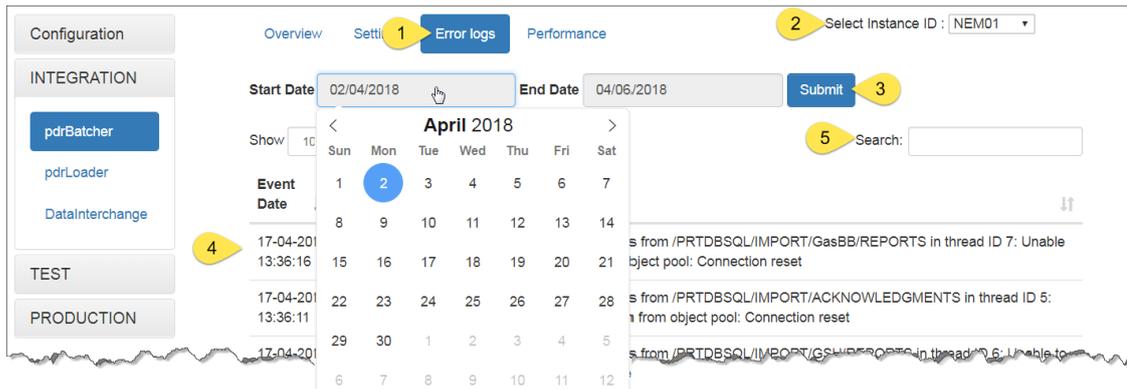
Application error logs

The **Error logs** tab shows the application log detail captured at the WARN and ERROR levels.

To limit the size of the pdrMonitor database repository, informational log messages are not available.

To view error logs:

1. **Login** to pdrMonitor, click a system name, click **pdrBatcher** or **pdrLoader** and then click **Error logs**.
2. Select the **pdrBatcher** and **pdrLoader** you want to view.
3. Click the **Start and End Dates**, select from the date picker and then click **Submit**.
4. The **Event Date**, **Level (WARN or ERROR)**, and **Message** display.
5. To find a specific error, enter the criteria in the **Search** filter.



Application performance

The **Performance** tab shows the application activity across your selected dates.

Viewing performance

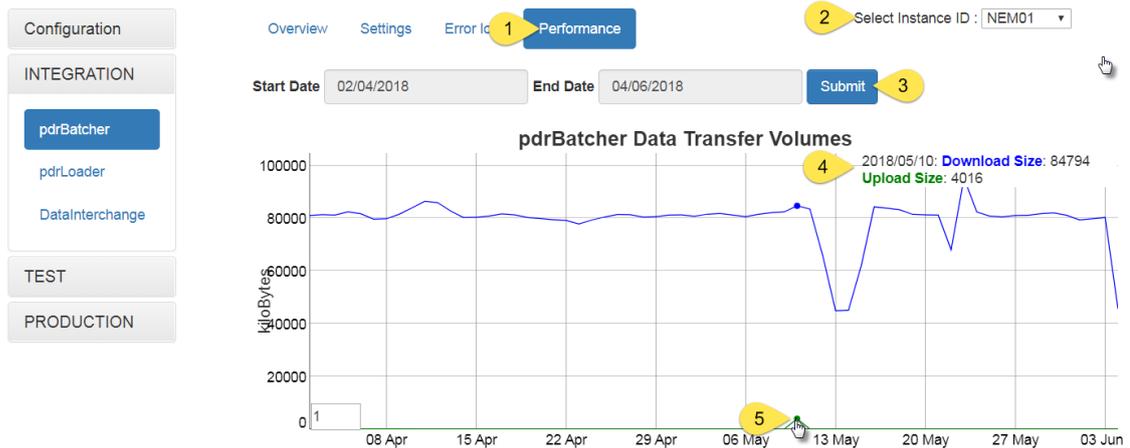
1. **Login** to pdrMonitor, click a system name, click **pdrBatcher** or **pdrLoader** and then click **Performance**.
2. Select the **Instance ID** you want to view.
3. Click the **Start** and **End** Dates, select from the date picker and then click **Submit**.
4. The performance chart displays. To see granular graph information in the top right of the chart, hover your cursor over the graph.

pdrBatcher:

- **Download size:** Data downloaded from AEMO to your system
- **Upload size:** Data sent from your system to AEMO.

pdrLoader:

- **Transactional size:** Data loaded to the database as a transactional publication from the pdrLoader **Reports** directory.
- **Backfill size:** Data loaded to the database as recovery for missing transactions from the pdrLoader **ReportsTrickle** directory.



4. To drill down and see individual jobs, double-click a chart point.
5. The Performance Drill Down window displays with two views:
 - a. **Tabular**: Provides details in a table view. For more details, see [Tabular performance](#).
 - b. **Analytics**: Provides a pivot chart representation of the data. For more details, see [Performance analytics](#).
6. To view more entries, click **Next**.
7. To exit, click **Close**.

Performance Drill Down **5**

a Tabular **Analytics** **b**

Show entries Search:

File ID	Period Ending	Job Type	Job Count	Total Size
ACTUAL_OPERATIONAL_DEMAND_HH	10-05-2018 00:00:00	DOWNLOAD	48	21109
AP_EVENT	10-05-2018 00:00:00	DOWNLOAD	6	5526
BIDMOVE_SUMMARY	10-05-2018 00:00:00	DOWNLOAD	1	644569
DEMAND	10-05-2018 00:00:00	DOWNLOAD	60	414287
DI_HEARTBEAT_GASBB	10-05-2018 00:00:00	DOWNLOAD	293	99530
DI_HEARTBEAT_GSH	10-05-2018 00:00:00	DOWNLOAD	294	98958
DI_HEARTBEAT_NEM	10-05-2018 00:00:00	DOWNLOAD	295	99241
DISPATCH_NEGATIVE_RESIDUE	10-05-2018 00:00:00	DOWNLOAD	288	173531
DISPATCHIS	10-05-2018 00:00:00	DOWNLOAD	288	4157181
DISPATCHIS_FCAS	10-05-2018 00:00:00	DOWNLOAD	16	53437

Showing 1 to 10 of 56 entries

6 Previous **1** 2 3 4 5 6 Next

7 Close

Tabular performance

Displays the individual jobs comprising the performance summary. In this interface, you can:

1. Sort by **Start** or **End Date**.
2. Filter by entering criteria in the **Search** filter.
3. Sort by job size (descending).
 - For **pdrBatcher**, the job size is defined as the number of bytes transferred.
 - For **pdrLoader**, the job size is the number of rows loaded to the database.

Performance Drill Down

Tabular **Analytics**

Show 10 entries 1 Search:

Filename	2 Start Date	End Date	Job Size	3
PUBLIC_NEXT_DAY_DISPATCH_20180314_0000000290170506	15-03-2018 05:11:31	15-03-2018 05:11:34	3204059	
PUBLIC_NEXT_DAY_TRADING_20180314_0000000290170511	15-03-2018 05:11:31	15-03-2018 05:11:31	133610	
PUBLIC_P5MIN_201803150415_20180315041038	15-03-2018 05:11:35	15-03-2018 05:11:35	81274	
PUBLIC_DISPATCHIS_201803150415_0000000290170517	15-03-2018 05:10:25	15-03-2018 05:10:25	13016	
PUBLIC_DISPATCHIS_FCAS_201803150415_0000000290170532	15-03-2018 05:10:35	15-03-2018 05:10:36	3246	
PUBLIC_DISPATCHSCADA_201803150415_0000000290170522	15-03-	15-03-	2314	

Performance analytics

The **Analytics** tab displays a pivot chart representation of the individual jobs comprising the performance summary.

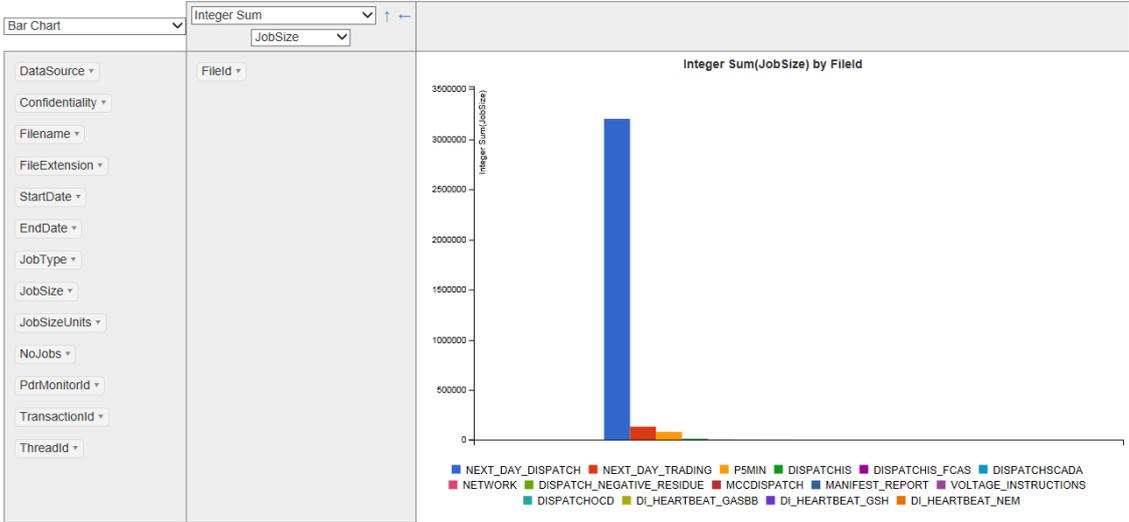
You can manipulate the reporting component to segment the data in various ways, providing insight into the overall activity of the system.

For example, you can:

1. View the summed job size by file type. This is the default view.
2. Filter and group information.
3. Sort and view next page.
4. Change the chart type.
5. Filter by field.
6. Filter by FileID, EndDate, JobType, JobSize, NoJobs.

Performance Drill Down

Tabular Analytics **1**



Performance Drill Down

Tabular Analytics

Heatmap Integer Sum JobSize ThreadId

Fileid	ThreadId	2	1	4	7	6	Totals
NEXT_DAY_DISPATCH		3,204,069					3,204,069
NEXT_DAY_TRADING		133,610					133,610
P5MIN		81,274					81,274
DISPATCHIS			13,016				13,016
DISPATCHIS_FCAS			3,246				3,246
DISPATCHSCADA		2,314					2,314
NETWORK		1,931					1,931
DISPATCH_NEGATIVE_RESIDUE		553					553
MCCDISPATCH		544					544
MANIFEST_REPORT				508			508
VOLTAGE_INSTRUCTIONS		456					456
DISPATCHOCD		419					419
DI_HEARTBEAT_GASBB					341		341
DI_HEARTBEAT_GSH						336	336
DI_HEARTBEAT_NEM		335					335
Totals		3,425,488	16,262	508	341	336	3,442,942

Close

Performance Drill Down

Tabular

Analytics

4

- Heatmap
- Table**
- Table Barchart
- Heatmap
- Row Heatmap
- Col Heatmap
- Horizontal Bar Chart
- Horizontal Stacked Bar Chart
- Bar Chart
- Stacked Bar Chart
- Line Chart
- Area Chart
- Scatter Chart

Performance Drill Down

Tabular

Analytics

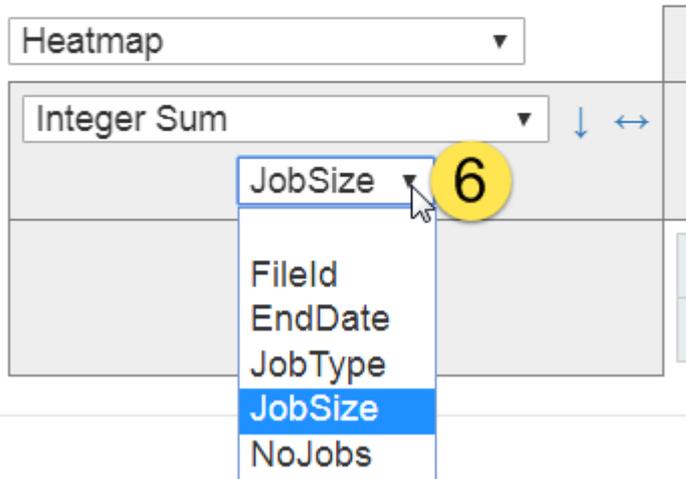
5

- Heatmap
- Count**
- Count Unique Values
- List Unique Values
- Sum
- Integer Sum
- Average
- Minimum
- Maximum
- First
- Last
- Sum over Sum
- 80% Upper Bound
- 80% Lower Bound
- Sum as Fraction of Total
- Sum as Fraction of Rows
- Sum as Fraction of Columns
- Count as Fraction of Total
- Count as Fraction of Rows
- Count as Fraction of Columns

Performance Drill Down

Tabular

Analytics



Data Interchange overview

The Overview tab provides a dashboard displaying the current operational status of the selected Data Interchange system.

To see a Data Interchange overview:

1. In the top right, select the pdrBatcher and pdrLoader instances for the analysis. If you only have a single instance of each application is defined within your system, they are pre-selected.
2. To refresh the view, click the refresh icon.
3. **Section:** Where the error occurred, either **MarketNet**, **Data**, or **Quality**.
4. **Measure:** Click a measure to see more details.

Reference	Section	Measure	Detail
a	MarketNet	pdrBatcher	pdrBatcher summary
b		Error Logs	pdrBatcher error log Shows the total count of ERROR and WARN level messages for the last 5 days.
c		Connectivity	Heartbeat file monitoring
d	Data	pdrLoader	pdrLoader summary
e		Error Logs	pdrLoader error log Shows the total count of ERROR and WARN level messages for the last 5 days.
f		Latest Data	Latest data summary.
g		Performance	Dispatch replication performance. Shows the minimum, average, and maximum end-to-end replication performance of DISPATCHIS summarised per day over the last 5 days. Useful for identifying trends in replication performance.
h		Storage	Database storage summary
i	Quality	Point in time	Market point in time summary. Shows the point in time reconciliation for each market, indicating up to when the pdrLoader assessed data completeness.
j		Missing Data	Manifest status summary. Shows the current manifest status, allowing identification of any data completeness issues. A large number of MISSING transactions indicates data quality problems.
k		Request Type	pdrLoader request type. Shows the count of requests generated by the pdrLoader back to AEMO's systems over the last 5 days <ul style="list-style-type: none"> ◦ Manifest requests are part of normal operation. ◦ Archive requests indicate missing data.
l		Request Status	pdrLoader request status. Shows the status of request responses received as a result of requests to AEMO's systems over the last 5 days.

Reference	Section	Measure	Detail
			<ul style="list-style-type: none"> ○ SUCCESS is the normal operational status. ○ REJECTED or TIMEOUT may indicate configuration or system problems.

6. Shows the system status for the for the last 5 days.

Section	Measure	Now	3/6	2/6	1/6	31/5
MarketNet	a pdrBatcher	●	●	●	●	●
	b Error Logs	●	●	●	●	●
	c Connectivity	●	●	●	●	●
Data	d pdrLoader	●	●	●	●	●
	e Error Logs	●	●	●	●	●
	f Latest Data	●	●	●	●	●
	g Performance	●	●	●	●	●
Quality	h Storage	●	●	●	●	●
	i Point in time	●	●	●	●	●
	j Missing data	●	●	●	●	●
	k Request Type	●	●	●	●	●
	l Request Status	●	●	●	●	●

Data Interchange settings

The Settings tab shows the current data replication configuration and settings.

Viewing Data Interchange settings

1. **Login** to pdrMonitor, click a system name, click **DataInterchange**, and then click **Settings**.
2. Select the **pdrBatcher** and **pdrLoader** you want to see the settings for.
3. The Settings interface displays with the status at the report level:

Status: ACTIVE = enabled for loading, **INACTIVE** = configured for processing but not loading to the Data Model tables, **PAUSED** = configured not to process but held in the pdrLoader reports directory until you change the status. This can be useful to stop temporarily loading a particular report type to allow maintenance on the database.

To change the status, right-click the status for the **Report Type** and select a new status.

3. To find a specific **Report Type**, enter the criteria in the **Search** filter.
4. To reload the table with the latest information, click the refresh button.
5. To switch to Data Model table view, click the grid button. For details about the table view, see [Data Interchange table view](#).
6. To pause replication for all reports, click the pause button.
7. To resume replication for all reports, click the play button.
8. To modify a report, double-click a row. For details about report configuration, see [Data Interchange report configuration](#).

Market	Report Type	Status	Last Replicated	Last Processed Records
-	DISPATCHIS	ACTIVE	05-06-2018 12:30:26	7
-	METER_DATA	ACT	05-06-2018 12:25:07	0
-	NEXT_DAY_MCCDISPATCH	ACT	05-06-2018 12:41:53	383
-	PREDISPATCH_SENSITIVITIES	ACTIVE	05-06-2018 00:06:09	228
-	STPASA	ACTIVE	05-06-2018 08:10:46	2880
-	VOLTAGE_INSTRUCTIONS	ACTIVE	24-05-2018 13:13:24	553
-	BILLING_CONFIG	ACTIVE	08-01-2018 10:12:01	1
-	MTPASA	ACTIVE	-	-
-	NEXT_DAY_GDINSTRUCT	ACTIVE	-	-
-	NEXT_DAY_MR	ACTIVE	-	-
SYSTEM	PDR_HEARTBEAT	ACTIVE	05-06-2018 09:30:48	1
-	MARKET_NOTICE	ACTIVE	05-06-2018 04:00:05	1

Showing 1 to 58 of 58 entries

Data Interchange report configuration

Double-clicking a row in the in the Data Interchange Settings interface displays the report edit window where you can configure reports and associated report records.

You can make the following changes:

1. Inactivate a **Report Type** or **Report ID**.
2. Activate **Sequential Process** settings.

3. Add report loading priorities.
4. Inactivate a Report Type or Report ID (same as 1).
5. Modify the Transaction Type.
6. Modify the row filter.
7. Sort by all column headings.
8. Click Save, to keep the configuration changes.
Alternatively, click Cancel to discard the changes.

Data Interchange Configuration

Report Type: 1 Is Active: 2 Priority:

Sequential Process: 3 Archive Priority:

Report ID	Destination Table	Is Active	Transaction Type	Row Filter	Last Replicated
METER_DATA:CUSTOMER:1	METERDATA	<input checked="" type="checkbox"/>	INSERT		-
METER_DATA:CUSTOMER_TRK:1	METERDATATRK	<input checked="" type="checkbox"/>	INSERT		-
METER_DATA:GENERATOR:1	GENUNITMTRINPERIOD	<input checked="" type="checkbox"/>	INSERT		-
METER_DATA:INTERCONNECTOR:1	INTERCONNMMWFLOW	<input checked="" type="checkbox"/>	INSERT		26-10-2017 12:18:04
METERDATA:AGGREGATE_READS:1	METERDATA_AGGREGATE_READS	<input checked="" type="checkbox"/>	INSERT		-
METERDATA:INDIVIDUAL_READS:1	METERDATA_INDIVIDUAL_READS	<input checked="" type="checkbox"/>	INSERT		-
METERDATA:INTERCONNECTOR:1	METERDATA_INTERCONNECTOR	<input checked="" type="checkbox"/>	INSERT		26-10-2017 12:25:07
METERDATA:TRK:1	METERDATA_TRK	<input checked="" type="checkbox"/>	INSERT		26-10-2017 12:25:07

4 5 6 7

8 Save Cancel

Data Interchange table view

Clicking the grid button from report view displays the Data Model table view. For help with the fields, see [Data Interchange settings](#).

To modify a table's configuration, double-click the row. For help, see [Data Interchange configuration](#).

Data Interchange configuration

Double-clicking a row in the Data Interchange table view displays the table configuration window showing all the report and record configurations relevant to the selected table. For help with the fields, see [Data Interchange report configuration](#).

Report Type	Is Active	Sequential Process	Priority	Archive Priority
BID	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
NEXT_DAY_OFFER_ENERGY	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
NEXT_DAY_OFFER_FCAS	<input checked="" type="checkbox"/>	<input type="checkbox"/>		

Report ID	Destination Table	Is Active	Transaction Type	Row Filter	Last Replicated
OFFER.BIDDAYOFFER:2	BIDDAYOFFER	<input checked="" type="checkbox"/>	INSERT		15-03-2018 05:42:07

Data Interchange structure

In the Data Interchange Configuration window, click the Structure tab to view the database table structure for the selected table.

Data Interchange Configuration

Column Name	Data Type	Length	Precision	Primary Key
DUID	varchar	10	0	☑
BIDTYPE	varchar	10	0	☑
SETTLEMENTDATE	datetime	23	3	☑
OFFERDATE	datetime	23	3	☑
VERSIONNO	numeric	22	0	
PARTICIPANTID	varchar	10	0	
DAILYENERGYCONSTRAINT	numeric	12	6	
REBIDEXPLANATION	varchar	500	0	
PRICEBAND1	numeric	9	2	
PRICEBAND2	numeric	9	2	
PRICEBAND3	numeric	9	2	
PRICEBAND4	numeric	9	2	
PRICEBAND5	numeric	9	2	
PRICEBAND6	numeric	9	2	
PRICEBAND7	numeric	9	2	
PRICEBAND8	numeric	9	2	
PRICEBAND9	numeric	9	2	
PRICEBAND10	numeric	9	2	
MINIMUMLOAD	numeric	22	0	

Data Interchange upgrades

The **Upgrades** tab displays the records for Data Model updates applied to the database, including the receipt of the pdrLoader configuration required to support the population of any new tables or report versions.

To view Data Interchange upgrades:

1. **Login** to pdrMonitor, click a system name, click **DataInterchange**, and then click **Upgrades**.
2. Select the **pdrBatcher** and **pdrLoader** you want to view.

The screenshot shows the pdrMonitor interface. On the left, a sidebar menu has 'DataInterchange' selected under the 'INTEGRATION' section. The main content area has a navigation bar with 'Upgrades' selected. Below the navigation bar, there are two tables:

Data Model Tables

Date	Model Type	Version	Install Type	Chng Notice	Project	Username	Status
No data available in table							

Data Model Configuration

Date	Filename
24-11-2017 13:00:52	PUBLIC_PDR_CONFIG_20171124110022_000000288177674_UPGRADE

Data Interchange reports

From the **Reports** tab you can generate a range of pre-defined reports to understand your Data Interchange system status.

To view Data Interchange reports:

1. **Login** to pdrMonitor, click a system name, click **DataInterchange**, and then click **Reports**.
2. Select the **pdrBatcher** and **pdrLoader** you want to report on.
3. Click the **Start and End Dates** and select dates from the date picker.
4. Select the **Report ID** and click **Submit** to view the report. For help with the Report ID, see [Table 2](#).

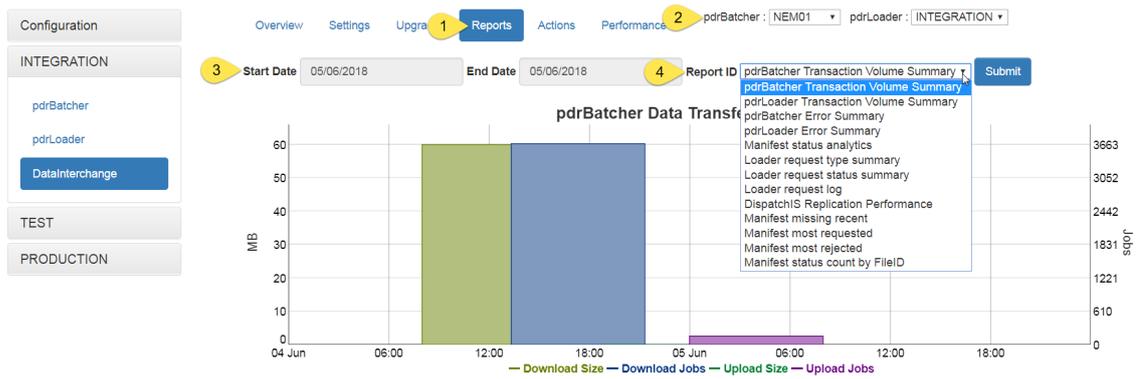


Table 2 Report summary

This table provides a description of each report ID.

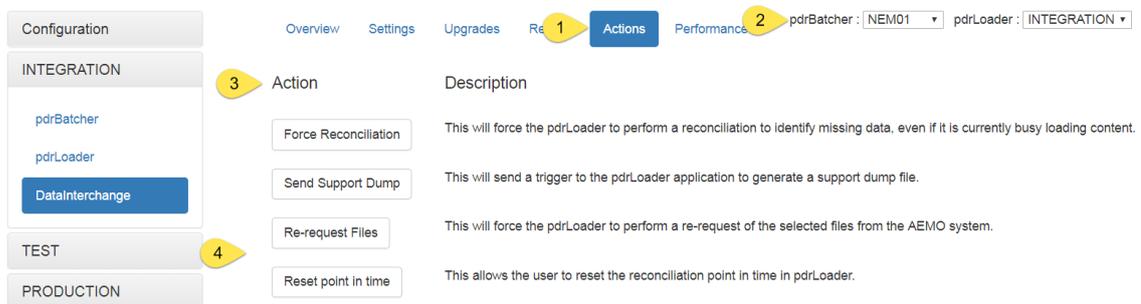
Report ID	Description
DispatchIS Replication Performance	Performance of DispatchIS replication
Loader Request Log	A summary of requested files
Loader Request Status Summary	The summary of request responses received by the pdrLoader from AEMO systems for the selected period summarised by count per day
Loader Request Type Summary	The summary of requests generated by the pdrLoader to AEMO systems for the selected period summarised by count per day
Manifest Missing Recent	Most recent reports detected as MISSING
Manifest Most Rejected	The most re-requested and rejected reports by AEMO systems
Manifest Most Requested	The most often re-requested reports
Manifest Status Analytics	A pivot table report for reporting on the pdrLoader manifest status
Manifest status count by FileID	A summary of the manifest status by File ID
pdrBatcher Error Summary	The count of WARN and ERROR level messages per day for the selected period.
pdrBatcher Transaction Volume Summary	pdrBatcher Data Transfer Volumes
pdrLoader Error Summary	The count of WARN and ERROR level messages per day for the selected period.

Data Interchange actions

From this interface you can perform several control actions against the applications.

To perform an action:

1. **Login** to pdrMonitor, click a system name, click **DataInterchange**, and then click **Actions**.
2. Select the **pdrBatcher** and **pdrLoader** you want to perform the action on.
3. Select one of the following actions:
 - a. **Force Reconciliation**: Forces the pdrLoader to perform a data reconciliation to identify missing data.
 - b. **Send Support Dump**: Requests the pdrLoader to generate a support dump file for sending to AEMO's Support Hub for analysis. Any Data Interchange support requests must include this file.
 - c. **Re-request Files**: Force the pdrLoader to perform a re-request of selected report types and tables from AEMO's system.
 - d. **Reset point in time**: Resets the pdrLoader reconciliation for a selected market and time.



Data Interchange performance

From the Performance tab you can generate end-to-end replication performance graphs for selected report types over a date range.

To generate a performance graph:

1. **Login** to pdrMonitor, click a system name, click **DataInterchange**, and then click **Performance**.
2. Select the **pdrBatcher** and **pdrLoader** you want to report on.

3. Click the **Start and End Dates** and select dates from the date picker.
4. Select the **File ID** and click **Submit**.
5. The performance graph displays. For help with the graph legend, see [Table 3](#).
6. To see the chart values in the legend, hover your cursor over the graph.

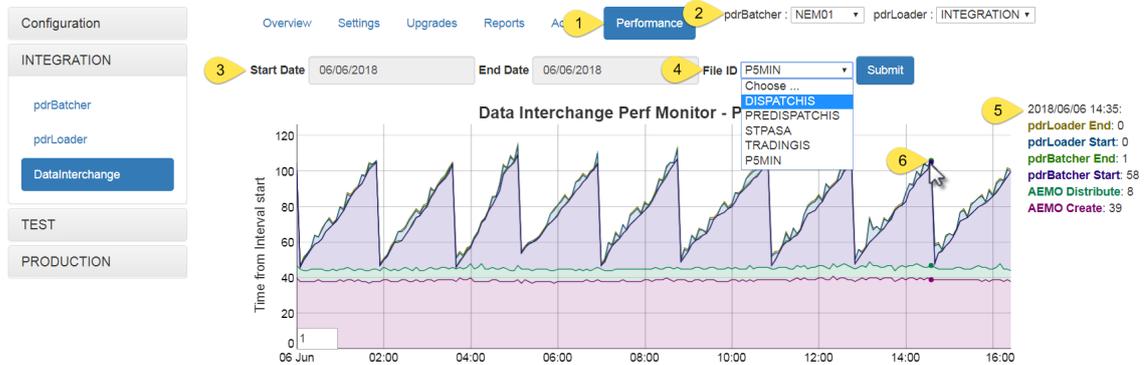


Table 3 Graph legend explanation

State	Description
AEMO Create	The time in seconds between the start of the dispatch interval and when AEMO's system has calculated a solution and generated a report
AEMO Distribute	The time in seconds AEMO's system took to make the report available in the Participant File Server
pdrBatcher End	The time in seconds for pdrBatcher to complete the download of the file
pdrBatcher Start	The time in seconds between the file being available in the Participant File Server and pdrBatcher starting to download the file. Typically related to the polling cycle.
pdrLoader End	The time in seconds for pdrLoader to have processed the report and committed the data to the data model tables.
pdrLoader Start	The time in seconds between the file being available to pdrLoader and when pdrLoader commenced processing the report.

Chapter 6 Database Tables

Entity-relationship diagram	39
Table descriptions	40

Entity-relationship diagram

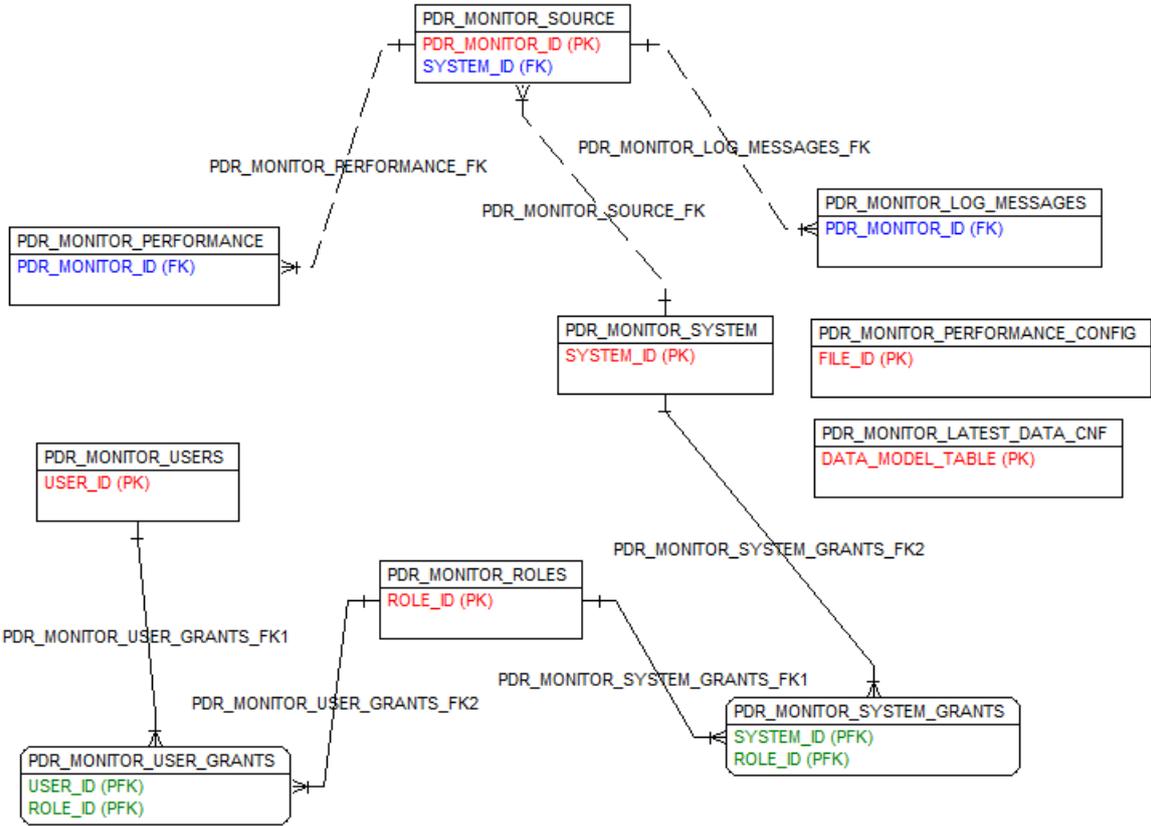


Table descriptions

PDR_MONITOR_LATEST_DATA_CNF

The PDR_MONITOR_LATEST_DATA_CNF table contains the configuration of business cycles and end-to-end delivery SLA for specific data model tables.

The primary source of data for this table is SQL (for manual updates).

Primary Key

- DATA_MODEL_TABLE

Table 4 PDR_MONITOR_LATEST_DATA_CNF contents

Name	Data Type	Length	Comment
DATA_MODEL_TABLE	Varchar2	40	The data model table to query
COLUMN_NAME	Varchar2	30	The column to query in this table, should be of type DATE
DESCRIPTION	Varchar2	60	The description of this configuration
BUSINESS_CYCLE_MINS	Integer		The business cycle for this process in minutes
IS_ACTIVE	Integer		1 if the configuration is active, 0 otherwise
DISPLAY_PRIORITY	Integer		The display order for this configuration

PDR_MONITOR_LOG_MESSAGES

The PDR_MONITOR_LOG_MESSAGES table contains log messages from Data Interchange applications.

This table is populated by the pdrMonitor as log details are retrieved from Data Interchange applications.

Index

- PDR_MONITOR_ID
- TRANSACTION_ID
- EVENT_DATE
- PDR_MONITOR_ID

Table 5 PDR_MONITOR_LOG_MESSAGES contents

Name	Data Type	Length	Comment
PDR_MONITOR_ID	Integer		The monitor collector identifier
TRANSACTION_ID	Varchar2	40	Unique transaction identifier
EVENT_DATE	Date		The event date time of this log message
THREAD_ID	Varchar2	50	The application thread that logged this event
LOG_LEVEL	Varchar2	10	The logging level for this message. Valid entries are ERROR and WARNING
LOG_MESSAGE	Varchar2	1000	The Log message associated with this record

PDR_MONITOR_PERFORMANCE

The PDR_MONITOR_PERFORMANCE table contains performance data from Data Interchange applications.

This table is populated by the pdrMonitor as performance details are retrieved from Data Interchange applications.

Index

- PDR_MONITOR_ID
- TRANSACTION_ID
- PDR_MONITOR_ID
- START_DATE
- END_DATE
- PDR_MONITOR_ID
- INTERVAL_END_DATE
- FILE_ID
- PDR_MONITOR_ID
- FILE_NAME

Table 6 PDR_MONITOR_PERFORMANCE contents

Name	Data Type	Length	Comment
PDR_MONITOR_ID	Integer		The monitor collector identifier
TRANSACTION_ID	Varchar2	40	Unique transaction identifier
START_DATE	Date		The start processing datetime
END_DATE	Date		The end processing datetime
DATA_SOURCE	Varchar2	20	The data source associated with this performance record
CONTENT_CREATION_DATE	Date		The content creation date time associated with this performance record
INTERVAL_END_DATE	Date		The interval end date for the performance assessment
THREAD_ID	Varchar2	50	The application thread that processed this event
FILE_ID	Varchar2	40	The unique file identifier
CONFIDENTIALITY	Varchar2	30	The confidentiality of the file, PUBLIC or PRIVATE
FILE_NAME	Varchar2	100	The filename associated with this performance record
FILE_EXTENSION	Varchar2	10	The type of file, the filename extension
JOB_TYPE	Varchar2	30	The type of Job. For pdrBatcher, values are DOWNLOAD, UPLOAD For pdrLoader, values are TRANSACTIONAL. BACKFILL
JOB_SIZE	Integer		The size of this job. Units of measure are defined in the JOB_SIZE_UNITS column
JOB_SIZE_UNITS	Varchar2	10	The size units for this performance record. Valid values are BYTES and ROWS

PDR_MONITOR_PERFORMANCE_CONFIG

The PDR_MONITOR_PERFORMANCE_CONFIG tables contains the configuration for end to end delivery SLA for a range of datasets to be monitored.

The primary source of data for this table is SQL (for manual updates).

Primary Key

- FILE_ID

Table 7 PDR_MONITOR_PERFORMANCE_CONFIG contents

Name	Data Type	Length	Comment
FILE_ID	Varchar2	40	The unique file identifier
INTERVAL_ITEM_IN_FILENAME	Integer		The part of the filename after being split by _ which contains the interval date time for performance assessment
BUSINESS_CYCLE_MINS	Integer		The business cycle for this process in minutes
END_TO_END_SLA	Integer		The end to end data replication SLA in seconds

PDR_MONITOR_ROLES

The PDR_MONITOR_ROLES table contains the list of roles that can be used for permissioning access in the PDR monitor system.

This table content is managed within the PDR monitor user interface.

Primary Key

- ROLE_ID

Table 8 PDR_MONITOR_ROLES contents

Field Name	Data Type	Length	Comment
ROLE_ID	Varchar2	30	The unique role identifier
IS_ACTIVE	Integer		If the role is currently active then 1, otherwise 0

PDR_MONITOR_SOURCE

The PDR_MONITOR_SOURCE table contains configuration data for access to the pdrBatcher and pdrLoader applications and associates these instances with a system identifier.

This table content is managed within the PDR monitor user interface.

Primary Key

- PDR_MONITOR_ID

Table 9 PDR_MONITOR_SOURCE contents

Name	Data Type	Length	Comment
PDR_MONITOR_ID	Integer		The monitor collector identifier
SYSTEM_ID	Varchar2	30	The system identifier associated with this application
HOSTNAME	Varchar2	40	The hostname on which this application is running
INSTANCE_ID	Varchar2	30	The unique instance identifier for this application instance
APP_NAME	Varchar2	30	The name of the application associated with this data source
APP_VERSION	Varchar2	30	The version of the application associated with this data source
LAST_ACTIVE	Date		The datetime at which this last source was last active
PORT	Integer		The port number for web service communication
API_KEY	Varchar2	30	The API key for web service communication security
IS_ACTIVE	Integer		Identifies if this source is currently active and should be polled for updates. Valid entries are: 1 = Active 0 = Inactive

PDR_MONITOR_SYSTEM

The PDR_MONITOR_SYSTEM table contains a list of Data Interchange system identifiers that are configured for this PDR monitor instance .

This table content is managed within the PDR monitor user interface.

Primary Key

- SYSTEM_ID

Table 10 PDR_MONITOR_SYSTEM contents

Name	Data Type	Length	Comment
SYSTEM_ID	Varchar2	30	The unique system identifier
IS_ACTIVE	Integer		1 if the system is active, 0 otherwise

PDR_MONITOR_SYSTEM_GRANTS

The PDR_MONITOR_SYSTEM_GRANTS table associates user roles to specific systems.

This table content is managed within the PDR monitor user interface.

Primary Key

- SYSTEM_ID
- ROLE_ID

Table 11 PDR_MONITOR_SYSTEM_GRANTS contents

Name	Data Type	Length	Comment
SYSTEM_ID	Varchar2	30	The unique system identifier
ROLE_ID	Varchar2	30	The unique role identifier
CAN_VIEW	Integer		Is set to true (1) if the associated role can view this Data Interchange system, otherwise 0
CAN_CONFIGURE	Integer		Is set to true (1) if the associated role can configure this Data Interchange system, otherwise 0
SOURCE_COLUMN	Varchar2	40	The name of the column in the input file
DESTINATION_COLUMN	Varchar2	40	The name of the column in the destination table
TRANSFORM_TYPE	Varchar2	20	The data transform to apply to the file input data to get the data to insert into the local database

PDR_MONITOR_USER_GRANTS

The PDR_MONITOR_USER_GRANTS table assigns the role permissions to users.

This table content is managed within the PDR monitor user interface.

Primary Key

- USER_ID
- ROLE_ID

Table 12 PDR_MONITOR_USER_GRANTS contents

Name	Data Type	Length	Comment
USER_ID	Varchar2	30	Unique user identifier
ROLE_ID	Varchar2	30	Unique Role identifier
IS_ACTIVE	Integer		1 if the role grant is active, 0 otherwise

PDR_MONITOR_USERS

The PDR_MONITOR_USERS table contains the list of users who are configured for access to the PDR monitor system.

This table content is managed within the PDR monitor user interface.

Primary Key

- USER_ID

Table 13 PDR_MONITOR_USERS contents

Name	Data Type	Length	Comment
USER_ID	Varchar2	30	The unique user identifier
PASSWORD	Varchar2	80	The encrypted password
IS_ACTIVE	Integer		1 if the user is active, 0 otherwise

Chapter 7 Needing Help

Related resources	47
Troubleshooting	48
AEMO's Support Hub	49
Feedback	50

Related resources

Data Interchange Framework and

Glossary: explains Data Interchange components, terms, abbreviations, and provides important upgrade information. Read this guide in conjunction with other guides in the Data Interchange set and the release schedules and technical specifications relevant to Data Interchange and the Data Model.

You can find resources on AEMO's website.

Concise Guide to Data Interchange: assists participants to understand AEMO's Data Interchange software, describing how to set up a standard Data Interchange environment to replicate data between AEMO's wholesale energy market systems and participants' local DBMS conforming to the Electricity or Gas Data Models.

Guide to Troubleshooting Data Interchange, provides assistance with troubleshooting Data Interchange issues.

Participant Data Replication Monitor GUI Installer: software to install the pdrMonitor.

Participant Data Replication Monitor GUI Installer Guide: assists participants to install the pdrMonitor software.

Data Interchange software and resources

You can find Data Interchange software and associated documentation in the following locations:

1. Releases directory on the participant file share: FTP to 146.178.211.25 > Data Interchange, pdrBatcher, pdrLoader, or Replication Manager.
2. Data Subscription web application in the energy market systems web portal:

- Production: <https://portal.prod.nemnet.net.au>
 - Pre-production: <https://portal.preprod.nemnet.net.au>
3. Electricity or gas IT Systems web pages on **AEMO's website**.

The following resources may also be useful:

Java SE Downloads,
<http://www.oracle.com/technetwork/java/javase/downloads/index.html>

Troubleshooting

Installation

For best installation results use the pdrMonitor GUI installer software.

Ensure the Java Runtime Environment (JRE) 8 is available. There are known compatibility issues with the Microsoft SQL Server JDBC driver with later versions of JRE.

Connection

For best connection results use the interface in the pdrMonitor GUI installer software to manage pdrMonitor configuration.

Problems with pdrMonitor connecting to Data Interchange applications:

1. Check the times on the server running the pdrMonitor and the application server are synchronised. You can override this security feature by configuring the properties in the pdrBatcher or pdrLoader Properties file.
2. Confirm the pdrMonitor configuration is correct. Check the hostname, port, and API key is matching the application.
3. Check the application log file for the application to see why the connection was refused.
4. From the command line, check the firewall rules by performing a connectivity check from the pdrMonitor host, for example:
`telnet <di_application_host> <di_application_port>`.

Problems connecting to the pdrMonitor web browser:

1. Use the command line facility in pdrMonitor to reset the user's password:
`pdrMonitorPasswordReset.bat <user_name> <new_password>`.
2. Try bypassing any web proxy and connecting directly.

3. All content is served with browser directives not to cache, so caching should not be an issue but try clearing the cache and restarting the web browser.
4. As a last resort, try restarting the pdrMonitor application.

Data integrity

pdrMonitor data not up to date:

1. Check pdrMonitor dashboard for status information.
2. Check pdrMonitor application log file for **ERROR** messages.
3. Check pdrMonitor database is not full (consider adjusting data retention parameters in XML config to keep the database pruned).
4. Check the **Performance** subfolder on the target application to see if there is a data backlog waiting to load into the pdrMonitor.
5. Ensure the target application does not have a processing backlog or has lost connectivity with its process inputs.

AEMO's Support Hub

IT assistance is requested through one of the following methods:

- Phone: 1300 AEMO 00 (1300 236 600)

For non-urgent issues, normal coverage is 8:00 AM to 6:00 PM on weekdays, Australian Eastern Standard Time (AEST).

- Email: supporthub@aemo.com.au

AEMO recommends participants call AEMO's Support Hub for all urgent issues.

Information to provide

Please provide the following information when requesting assistance from AEMO:

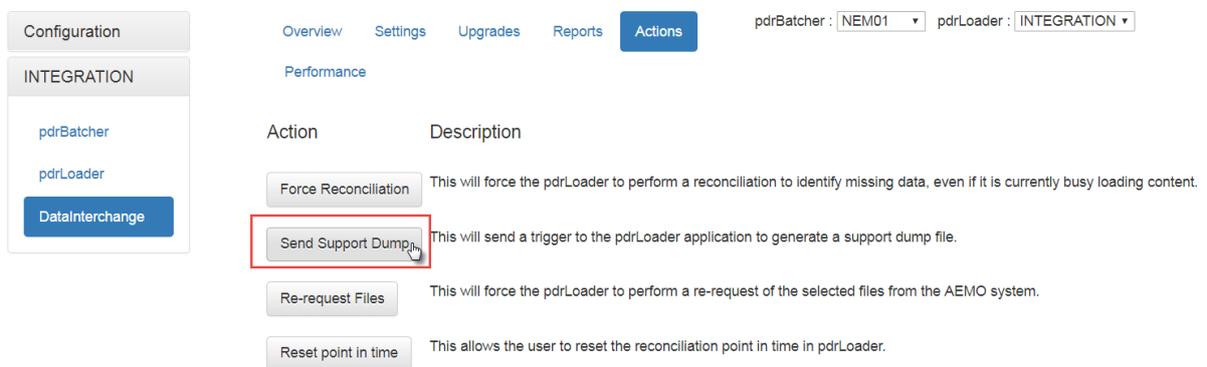
- Your name
- Organisation name
- Participant ID
- System or application name
- Environment: production or pre-production

- Problem description
- Screenshots

For AEMO software-related issues please also provide:

- Version of software.
- Properties or log files.
- Support dump and Data Interchange instance name (if Data Interchange problem).

If you are using pdrMonitor, you can send a support dump directly to AEMO:



Feedback

Your feedback is important and helps us improve our services and products. To suggest improvements, please contact AEMO's Support Hub.

Index

.

.properties file 20

A

Activate Sequential Process settings 31

Add report loading priorities 32

AEMO Create 38

AEMO Distribute 38

Analytics tab 25

application (Base) 20

Assumed Knowledge 1

B

Backfill size 22

C

Change the chart type 25

Configuration 5

configure Data Interchange applications 14

configure pdrMonitor 7

current operational status 28

D

Data Interchange Performance tab 37

Data Interchange software and resources 47

Data Interchange Structure tab 34

Data Interchange system status 35

Data Model table view 32

description of each report ID 36

DispatchIS Replication Performanc 36

Download size 22

E

Entity-relationship diagram 39

ERROR 21

Error logs tab 21

F

Feedback 50

Filter and group information 25

Filter by entering criteria in the Search
filter 24

Filter by field 25

Filter by FileID, EndDate, JobType, JobSize,
NoJobs 25

G

generate a report 37

H

home page 5

I

Inactivate a Report Type or Report ID 31

Is Active 13

L

Loader Request Log 36

Loader Request Status Summary 36

Loader Request Type Summar 36

M

Manifest Most Rejected 36

Manifest Most Requested 36

Manifest Status Analytics 36

Manifest status count by FileID 36

menu options 5

modify a report 31

Modify the row filter 32

Modify the Transaction Type 32

Most recent reports detected as MISSING 36

multiple application instances defined in this
system, you can view each instance
using the Select Instance ID drop-
down. 19-20

O

Overview tab 19, 28

P

pause replication for all reports 31
 PDR_MONITOR_LATEST_DATA_CNF 40
 PDR_MONITOR_LOG_MESSAGES 40
 PDR_MONITOR_PERFORMANCE 41
 PDR_MONITOR_PERFORMANCE_CONFIG 42
 PDR_MONITOR_ROLES 43
 PDR_MONITOR_SOURCE 43
 PDR_MONITOR_SYSTEM 44
 PDR_MONITOR_SYSTEM_GRANTS 45
 PDR_MONITOR_USER_GRANTS 45
 PDR_MONITOR_USERS 46
 pdrBatcher and pdrLoader services 14
 pdrBatcher End 38
 pdrBatcher Error Summary 36
 pdrBatcher Start 38
 pdrBatcher Transaction Volume Summary 36
 pdrLoader End 38
 pdrLoader Error Summary 36
 pdrLoader Start 38
 pdrMonitor database repository 21
 performance and logging data 14
 performance chart 22
 Performance Drill Down 23
 Performance tab 22
 pivot chart representation 25

R

receipt of the pdrLoader configuration 35
 records for Data Model updates 35
 Reports 35
 Reports directory 22
 ReportsTrickle directory 22
 resume replication for all reports 31
 Role 13

S

Select Instance ID 19-20
 Settings tab 20, 30
 Sort 25

Sort by job size 24
 Sort by Start or End Date 24
 summed job size by file type 25
 Support dump 50
 Supported Web Browsers 4
 system 11
 system administrator 7
 System names 5

T

table configuration window 33
 Table descriptions 40
 thread level 19
 Thread levels 20
 To modify a table's configuration 32
 Transactional size 22

U

Upgrades tab 35
 Upload size 22
 user defined roles 7

V

view error logs 21
 view the settings 20

W

WARN 21