
Guide to Participant Data Replication Monitor

**1.01 Final
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:

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FEEDBACK

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

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Chapter 1 Introduction

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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

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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).

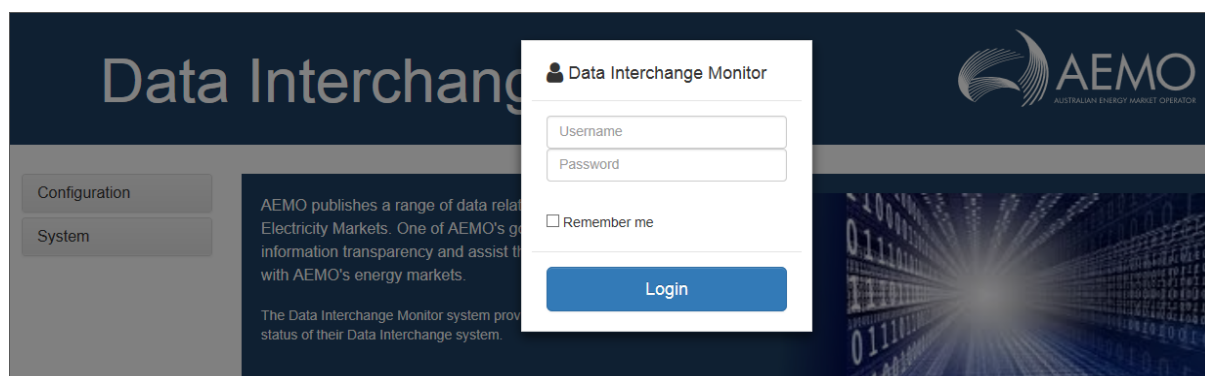
Chapter 3 Access

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 

System 1 

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

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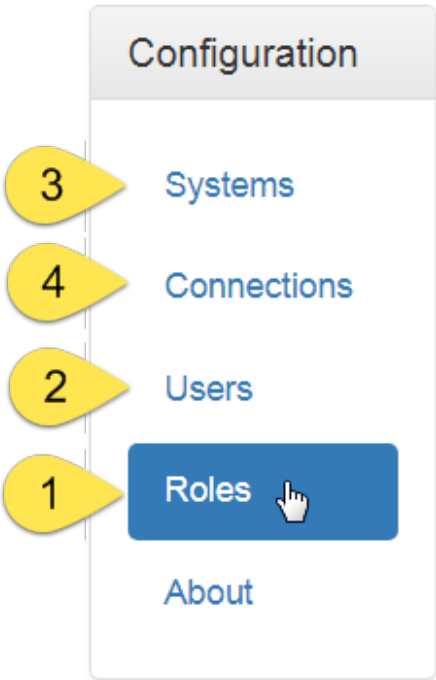
Configuration steps

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.

The screenshot shows the 'Roles' configuration page. On the left is a sidebar with 'Configuration' at the top, followed by 'Systems', 'Connections', 'Users', and 'Roles' (highlighted with a yellow circle and the number 1). Below the sidebar are buttons for 'System 1' and 'System 2'. The main area contains a table with columns 'Role' and 'Is Active'. The table lists roles: DEVELOPER (checked), INACTIVE (unchecked), PDR_ADMIN (checked), and TEST (unchecked). A yellow circle with the number 3 points to the 'Is Active' column header. To the right of the table is a form with a label 'Enter Role to add:' (pointed to by a yellow circle with the number 2), an input field, and an 'Add' button. At the bottom of the table are 'Save' and 'Cancel' buttons, with a yellow circle and the number 4 pointing to the 'Save' button.

| Role | Is Active |
|-----------|-------------------------------------|
| DEVELOPER | <input checked="" type="checkbox"/> |
| INACTIVE | <input type="checkbox"/> |
| PDR_ADMIN | <input checked="" type="checkbox"/> |
| TEST | <input type="checkbox"/> |

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**.

This screenshot shows the 'Roles' configuration page with the 'INACTIVE' role highlighted by a red rectangular box. The table has columns 'Role' and 'Is Active'. The roles listed are DEVELOPER, INACTIVE, PDR_ADMIN, TECHWRITER, and TEST. The 'Is Active' checkboxes are checked for DEVELOPER, PDR_ADMIN, and TECHWRITER, and unchecked for INACTIVE and TEST. At the bottom are 'Save' and 'Cancel' buttons.

| Role | Is Active |
|------------|-------------------------------------|
| DEVELOPER | <input checked="" type="checkbox"/> |
| INACTIVE | <input type="checkbox"/> |
| PDR_ADMIN | <input checked="" type="checkbox"/> |
| TECHWRITER | <input checked="" type="checkbox"/> |
| TEST | <input type="checkbox"/> |

Users

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

Add a user

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

| 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"/> |

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:

New User

a

Password:

password

b

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

c

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"/> |
| 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:

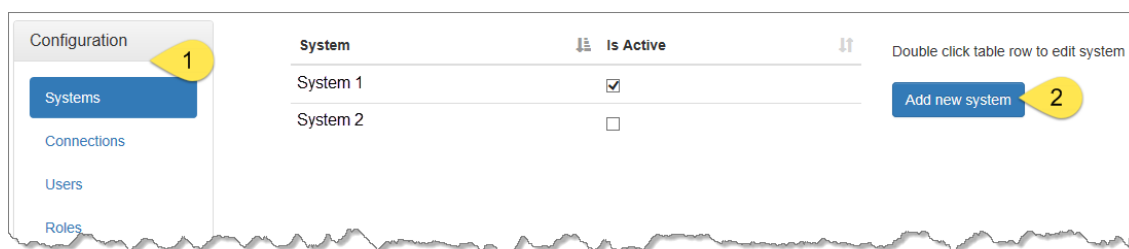
- Pre-production and production.
- Participant ID where multiple Data Interchange instances are installed within the company.

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"/> |

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**.

| Hostname | System | Instance | App Name | App Version | Port | API key | Last Active | Is Active |
|------------|-------------|-------------|------------|-------------|------|------------------|---------------------|-------------------------------------|
| [redacted] | INTEGRATION | NEM01 | pdrBatcher | 7.4.0 | 9000 | 9CB75D34DD1AB847 | 15-03-2018 08:27:56 | <input checked="" type="checkbox"/> |
| [redacted] | 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"/> |

Double click table row to edit source

Add new source

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.

New Source

3

Hostname:

Port:

API key:

System:

Choose ...

5

Application Name:

Instance:

Application Version:

4

Test

6

Save

Cancel

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:

localhost

Port:

8082

API key:

381DA419C63BF771

System:

PRODUCTION

Is Active:

Application Name:

pdrLoader

Instance:

NEM01

Application Version:

7.4.0

Test

Save

Cancel

Chapter 5 Systems

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

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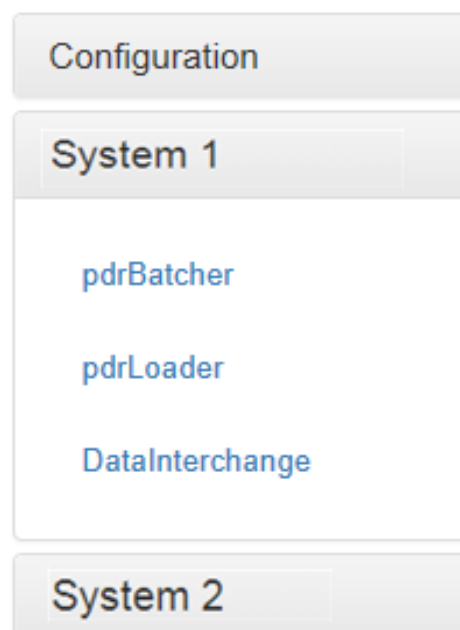
Prerequisites

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 | [REDACTED] |
| Process ID | 6132@[REDACTED] |

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 of the pdrMonitor application. The interface includes a left sidebar with 'Configuration' and 'System 1' sections. The 'System 1' section contains 'pdrBatcher', 'pdrLoader', and 'DataInterchange'. The 'pdrBatcher' is selected. The main area has tabs for 'Overview', 'Settings', 'logs', and 'Performance'. The 'logs' tab is active. A dropdown menu for 'Select Instance ID' is set to 'NEM01'. A search bar is labeled 'Search: instance'. The 'Base' tab is selected under the 'pdrBatcher' section. A list of configuration parameters is displayed in a table.

| 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

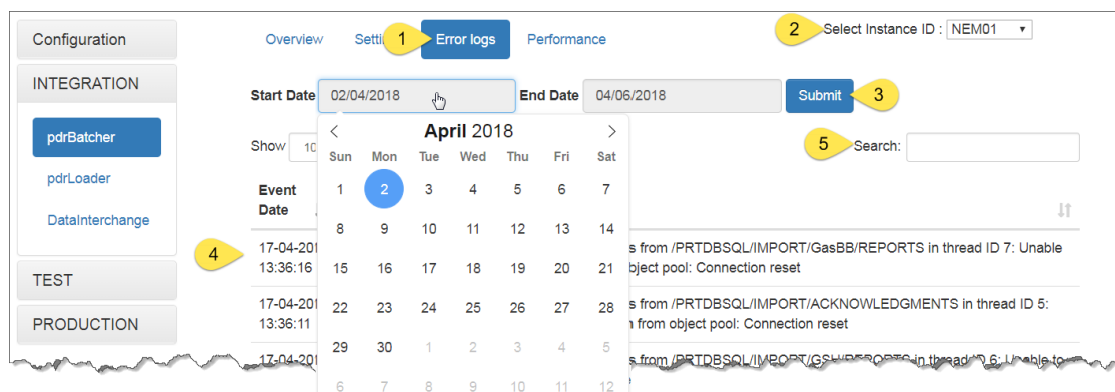
Application error logs

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

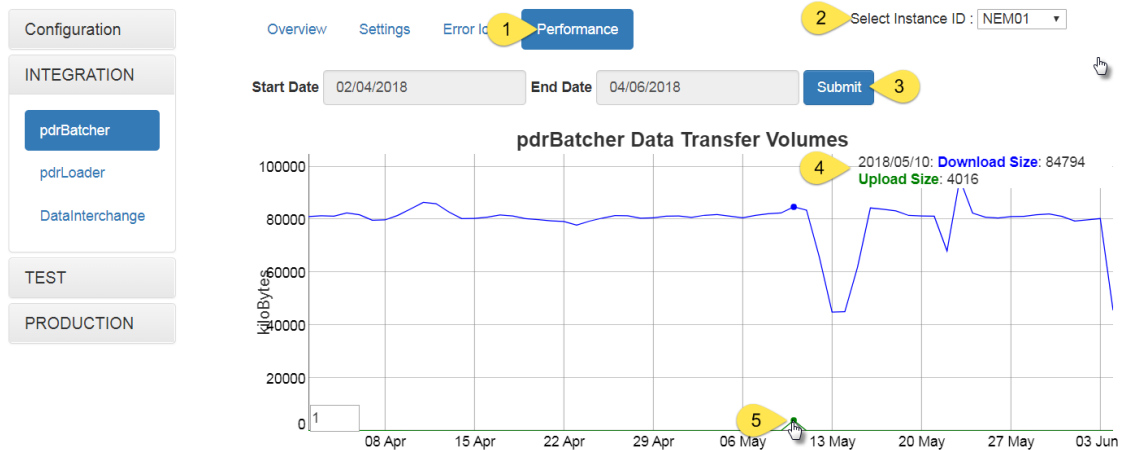
1. **Login** to pdrMonitor, click a system name, click **pdrBatcher** or **pdrLoader** and then click **Performance**.
2. Select the **Instance ID** you want to view.
3. Click the **Start** and **End** Dates, select from the date picker and then click **Submit**.
4. The performance chart displays. To 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

Search:

| Filename | Start Date | End Date | Job Size |
|--|---------------------|---------------------|----------|
| 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

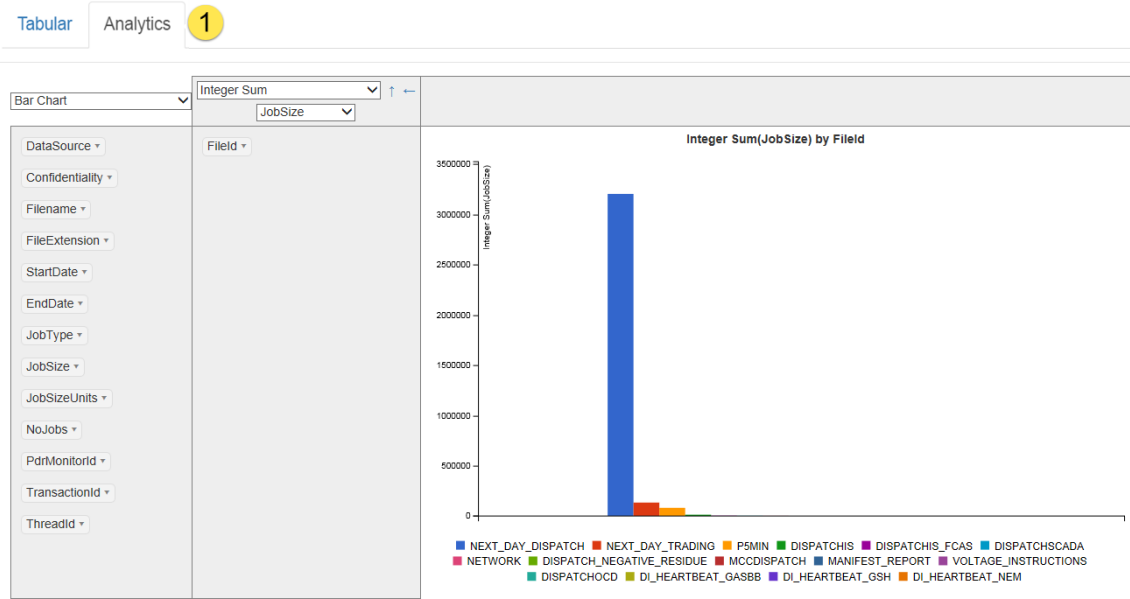
The **Analytics** tab displays a pivot chart representation of the individual jobs comprising the performance summary.

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



Performance Drill Down

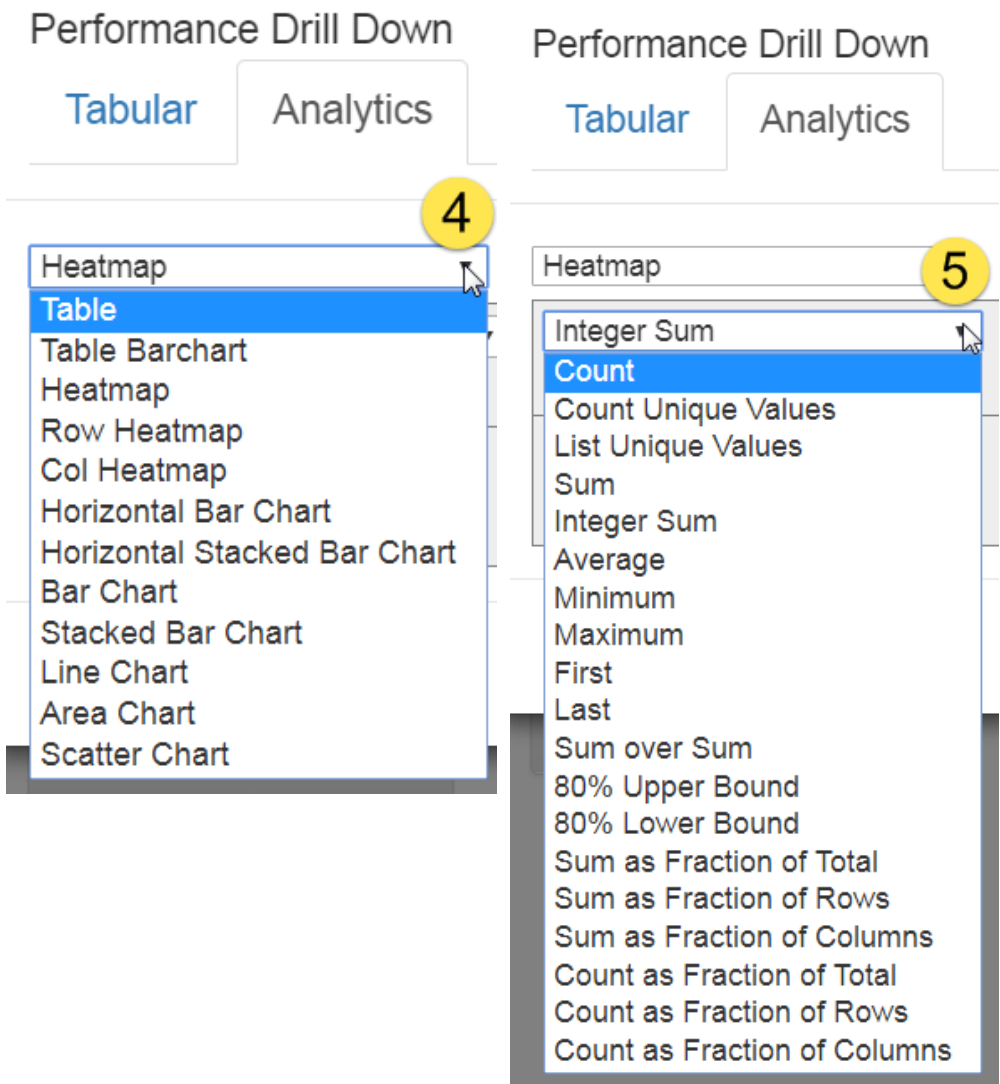
Tabular Analytics

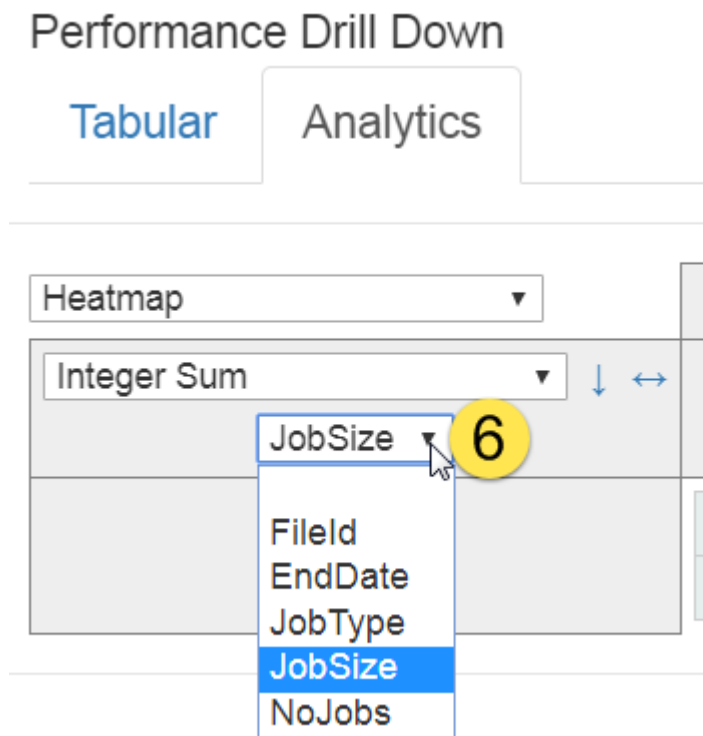
Heatmap Integer Sum JobSize ThreadId

2 3

| ThreadId | 2 | 1 | 4 | 7 | 6 | Totals |
|---------------------------|-----------|--------|-----|-----|-----|-----------|
| FileId | | | | | | |
| NEXT_DAY_DISPATCH | 3,204,098 | | | | | 3,204,098 |
| 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 | 3,425,498 | 16,262 | 508 | 341 | 336 | 3,442,942 |

Close





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 | Data | Connectivity | Heartbeat file monitoring |
| d | | 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.

The screenshot shows the 'DataInterchange' settings page. On the left is a sidebar with 'Configuration' (containing 'INTEGRATION', 'TEST', and 'PRODUCTION' tabs), 'pdrBatcher', 'pdrLoader', and a 'DataInterchange' button. The main area has a top navigation bar with 'Overview' (selected), 'Settings', 'Upgrades', 'Reports', 'Actions', and 'Performance'. Below this are dropdowns for 'pdrBatcher : NEM01' and 'pdrLoader : INTEGRATION', and a refresh button with the text 'Updated: 04/06 16:56:52'. The main content is a table with columns for 'Section', 'Measure', and a series of status indicators for 'Now', '3/6', '2/6', '1/6', and '31/5'. The 'Section' column lists 'MarketNet', 'Data', and 'Quality'. The 'Measure' column lists various metrics like 'pdrBatcher', 'Error Logs', 'Connectivity', 'pdrLoader', 'Latest Data', 'Performance', 'Storage', 'Point in time', 'Missing data', 'Request Type', and 'Request Status'. Status indicators are represented by colored circles: green for success, red for error, and orange for warning. Callouts 1-6 point to specific UI elements: 1 to Overview, 2 to the dropdowns, 3 to the refresh button, 4 to the Section column, 5 to the Measure column, and 6 to the status indicators.

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 12:06:09 | 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: METER_DATA 1 Is Active: ☒ 2 Priority: 3

Sequential Process: ☐ 4 Archive Priority: 5

| 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 | METERDATA:TRK | <input checked="" type="checkbox"/> | INSERT-UPDATE | | - |
| METER_DATA:GENERATOR:1 | GENUNITMTRINPERIOD | <input checked="" type="checkbox"/> | UPDATE-INSERT | | - |
| METER_DATA:INTERCONNECTOR:1 | INTERCONNMWFLOW | <input checked="" type="checkbox"/> | DELETE-INSERT | | - |
| METERDATA:AGGREGATE_READS:1 | METERDATA_AGGREGATE_READS | <input checked="" type="checkbox"/> | INSERT | | 26-10-2017 12:18:04 |
| 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 |

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](#).

Configuration

INTEGRATION

pdRBatcher

pdRLoader

DataInterchange

TEST

PRODUCTION

OverviewSettingsUpgradesReportsActionsPerformance

pdRBatcher : NEM01pdRLoader : INTEGRATION

Show10entries

Search:

| Destination Table | Report Identifier | Is Active | Last Replicated |
|--------------------------|--|-----------|---------------------|
| | IRAUCTION_CONFIGAUCTION_CALENDAR.1 | INACTIVE | - |
| | PARTICIPANT_REGISTRATION.MNSP_INTERCONNECTOR.1 | INACTIVE | - |
| | NETWORK.OUTAGEDDETAIL.2 | INACTIVE | - |
| | PARTICIPANT_REGISTRATION.DUDETAILSUMMARY.3 | INACTIVE | - |
| | BILLING.ENERGYSUMMARY_REGION.1 | INACTIVE | - |
| ANCILLARY_RECOVERY_SPLIT | SETTLEMENT_CONFIG.ANCILLARY_RECOVERY_SPLIT.1 | ACTIVE | - |
| APEVENT | AP.APEVENT.1 | ACTIVE | 05-06-2018 03:56:03 |
| APEVENTREGION | AP.APEVENTREGION.1 | ACTIVE | 05-06-2018 03:56:03 |
| AUCTION | IRAUCTION_CONFIGAUCTION.1 | ACTIVE | 01-06-2018 10:02:05 |
| AUCTION_CALENDAR | IRAUCTION_CONFIGAUCTION_CALENDAR.2 | ACTIVE | 01-04-2018 01:20:25 |

Showing 1 to 10 of 419 entries

Previous

1

2

3

4

5

...

42

Next

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](#).

Data Interchange Configuration

Configuration

Structure

| 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 |





Save

Cancel

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

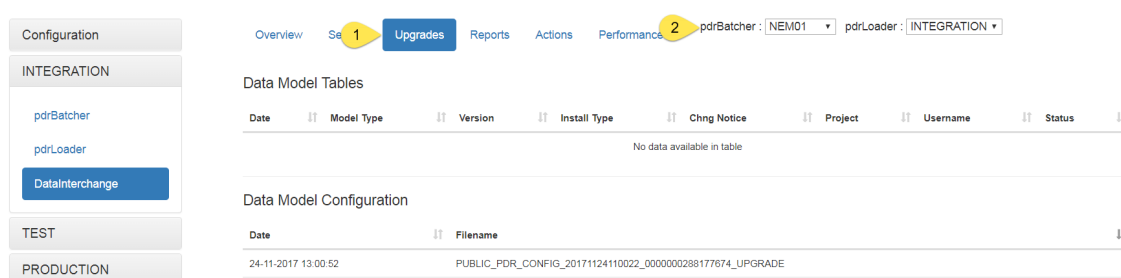
| Configuration | | Structure | | | |
|-----------------------|--|-----------|--------|-----------|---|
| Column Name | | Data Type | Length | Precision | Primary Key |
| DUID | | varchar | 10 | 0 |  |
| BIDTYPE | | varchar | 10 | 0 |  |
| SETTLEMENTDATE | | datetime | 23 | 3 |  |
| OFFERDATE | | datetime | 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.



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](#).

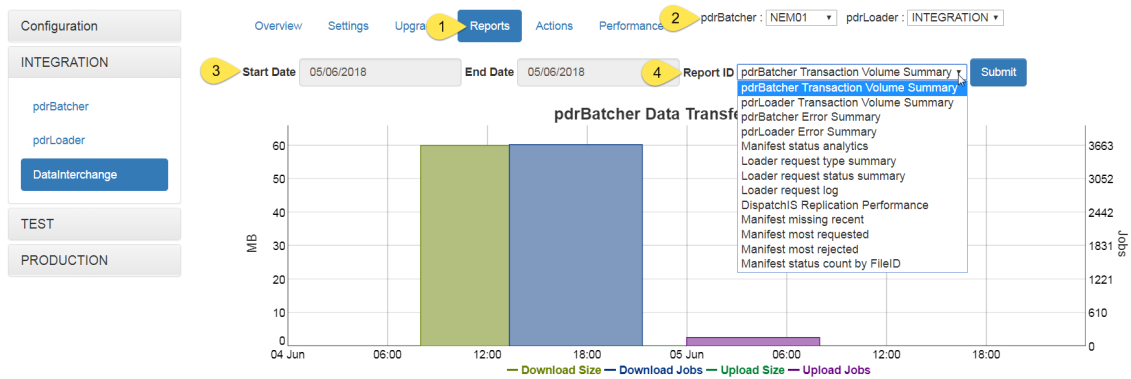


Table 2 Report summary

This table provides a description of each report ID.

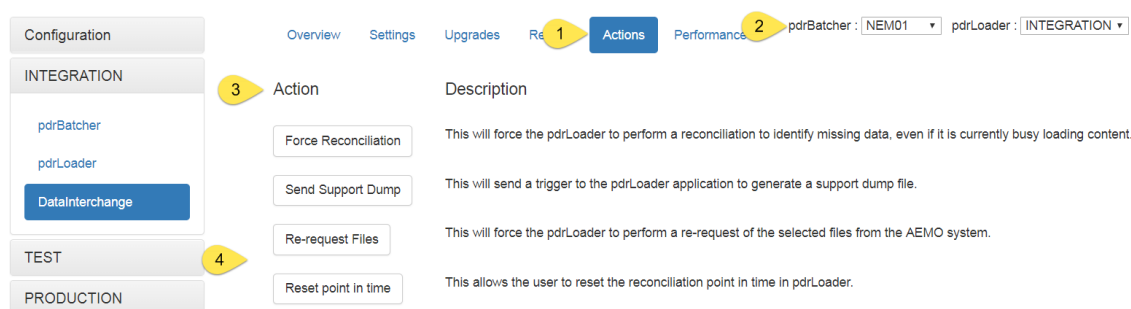
| Report ID | Description |
|---------------------------------------|--|
| DispatchIS Replication Performance | Performance of DispatchIS replication |
| Loader Request Log | A summary of requested files |
| Loader Request Status Summary | The summary of request responses received by the pdrLoader from 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.

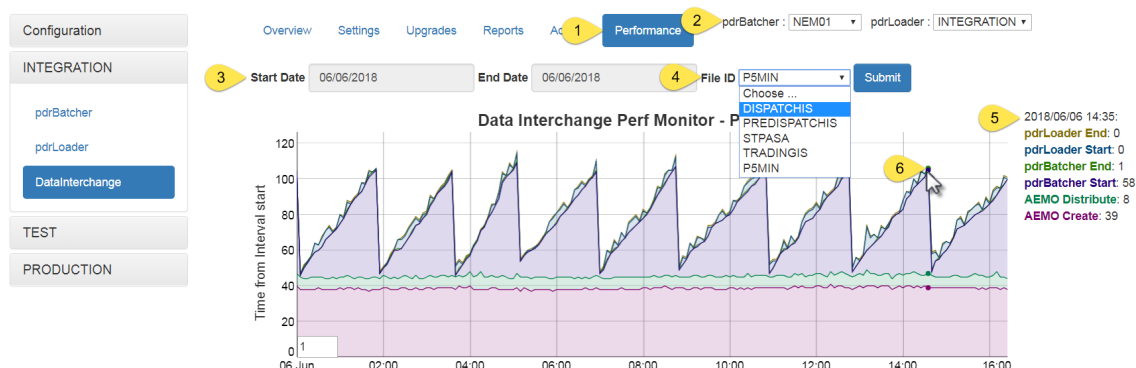


Table 3 Graph legend explanation

| 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

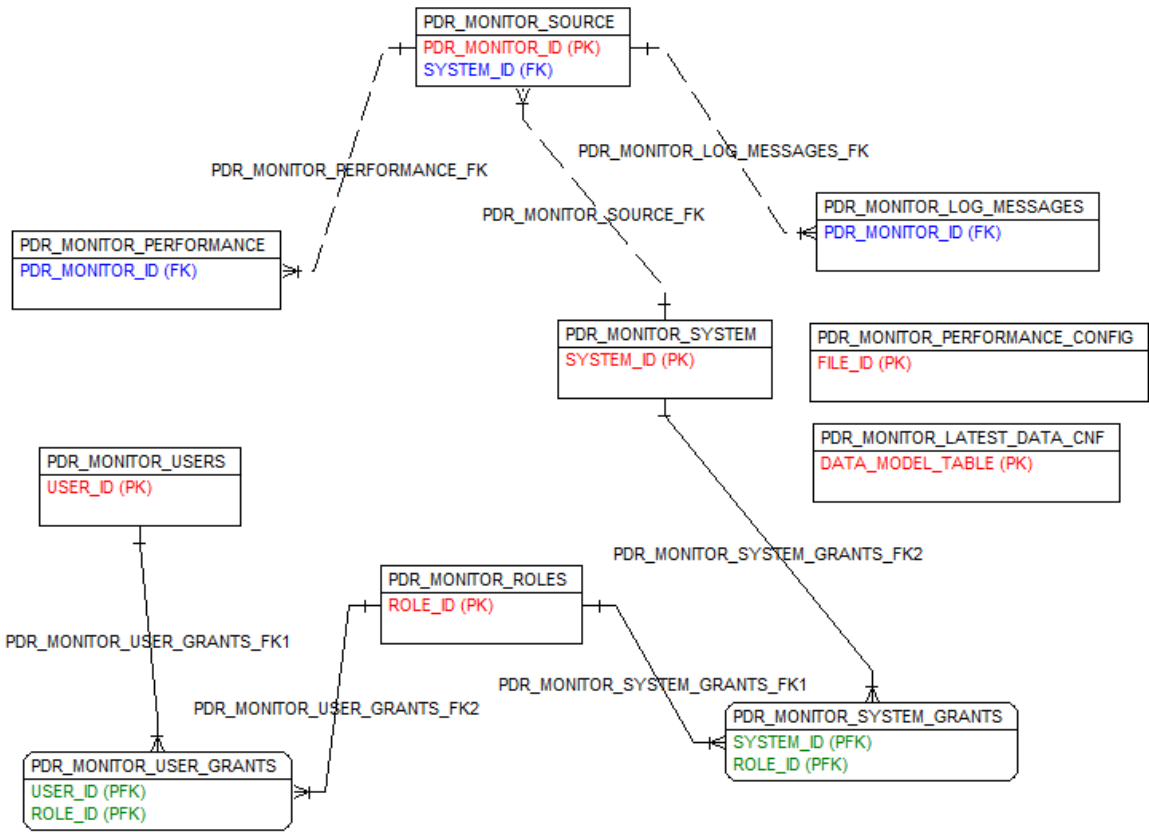


Table descriptions

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

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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:

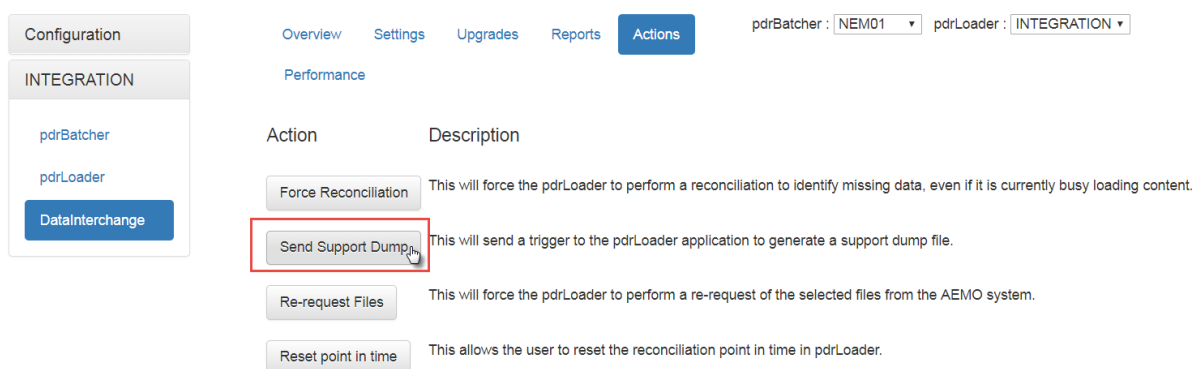
- Your name
- Organisation name
- Participant ID
- System or application name
- Environment: production or pre-production

- 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.

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