

global-roam
ez2view Australia
Installation and Upgrade Manual
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Introduction and Prerequisites

ez2view Australia

ez2viewAustralia is a desktop application that provides a viewing platform for NEM data obtained from a number of sources (for example, it can be used to view the InfoServer data obtained directly from the AEMO, as well as TNSP data supplied by global-roam through the ez2updateAustralia application).

This manual describes how to install ez2view Australia as either an upgrade to a previous version of ez2view Australia, or as a clean installation.

This manual applies to ez2viewAustralia version 7.4.0 or later.

What you will need

The tasks involved in this deployment include such things as installation and configuration of a database and configuration of proxy settings.

To successfully install or upgrade ez2view Australia you will need:

- Intermediate IT skills.
- Basic knowledge of Microsoft SQL Server or Oracle.
- Your GR-ID and password.
- Access to a user account with administrative permissions.
- Knowledge of any proxy settings or other internet security processes in place in your organization.
- Access to the internet.

For each of the global-roam products that you install or upgrade, you will need to go through the following steps:

1. Installation of the software
2. Configuration of Proxy settings
3. Activation of your software license
4. Configuring a connection to the database
5. Install databases and tables (if necessary)

Supported Platforms and System Requirements

Operating Systems

ez2view Australia is officially supported on the following platforms:

- Windows 7 (32 bit and 64 bit)
- Windows 8 (32 bit)
- Windows 8.1 (32 bit and 64 bit)
- Windows 10 (32 bit and 64 bit)
- Windows Server 2008 R2 (64 bit)
- Windows Server 2012 R2 (64 bit)

ez2view Australia may work on other Windows platforms – please let us know how you get on...

Database

On first install, ez2view uses a Global-Roam hosted web database to access AEMO data. To access data from a local database a full licenses of ez2view Australia can connect to either SQL Server or Oracle in order to obtain AEMO data.

The following database versions are officially supported:

- Microsoft SQL Server 2005
- Microsoft SQL Server 2008
- Microsoft SQL Server 2008 R2
- Microsoft SQL Server 2008 R2 Express
- Microsoft SQL Server 2012
- Microsoft SQL Server 2012 Express
- Oracle 10g
- Oracle 11g
- Oracle 12c

Oracle Database Installation Notes

The Oracle client drivers are included in the ez2view Australia installation package. Assuming you are running a standard Oracle environment ez2view Australia is a complete installation package and will run against Oracle without any further driver installations.

If you need to continue using your native Oracle client drivers, please contact support for more information regarding your ez2view Australia installation: support@global-roam.com.

Notes:

ez2view Australia may work when connected to other versions of SQL Server or Oracle, and again, please let us know how you get on.

.NET Framework

ez2view requires the .NET Framework 4.7.1 Full Profile. If you do not have this installed beforehand the ez2view MSI will simply fail with an error message. For more details go to [Installation of .NET Framework 4.7.1 Full Profile](#).

File System Access

ez2view Australia may create and write to a number of folders under the following locations:

- ProgramData\global-roam
- Program Files (x86)\global-roam
- Users\<username>\AppData\Local\Global-Roam
- Users\<username>\AppData\Roaming\Global-Roam



Hardware Requirements

ez2view requires the following hardware:

Minimum:

- *Processor*: 1-gigahertz (GHz) processor or faster
- *Disk Space*: 200 MB free disk space. This assumes that the .NET prerequisites are already installed on the target machine.
- *Memory*: 1 GB RAM per instance (additional RAM may be required for the operating system and other applications)

Recommended:

- *Processor* : 1-gigahertz (GHz) processor or faster or faster. Multi-core CPU's perform significantly better.
- *Disk Space*: 400 MB free disk space. This assumes that the .NET prerequisites are already installed on the target machine.
- *Memory*: 2 GB RAM per instance (additional RAM may be required for the operating system and other applications)
- *Graphics*: DirectX 9 compatible graphics card for hardware acceleration.

Network Requirements

ez2view requires access to the Internet for HTTP and XML over HTTP (SOAP).

Full licensed copies of ez2view Australia require access to the following URL's using HTTP and XML over HTTP (SOAP):

URL	Port	Description
http://aemo.datastripe1.com	80	Additional AEMO data, currently only Price Setter Data Gold Edition Only
http://ez2viewlicensing.datastripe1.com	80	ez2view license verification
https://ez2viewdefcon.datastripe1.com	443	ez2view Price DEFCON (BETA) data source. Gold Edition Only
https://ez2viewsearch.datastripe1.com	443	Time Series Data Viewer data service
https://ez2viewtimeseries.datastripe1.com	443	ez2view search tuning and feedback
https://mapwidgets.datastripe1.com	443	ez2view map based web widgets
https://nemconstraints.datastripe1.com	443	Constraint Equation plain English translation Gold Edition Only
https://smsalarms.datastripes1.com	443	ez2view SMS Alarms (BETA) web widget
https://ez2viewonline.global-roam.com	443	ez2view SMS Alarms (BETA) web widget

This may require the installation of the SSL certificate used on this site.

Access to Data

On first install ez2view will obtain AEMO data from a Global-Roam hosted web database.

ez2view can be configured to access AEMO data from a local database either by:

- connecting ez2view to your own existing AEMO InfoServer database (MMS Version 4.18 or higher) or
- connecting ez2view to a database that has been populated by global-roam's ez2update data feed.

If you license TNSP data from us you will need to obtain this data via our ez2update data feed.

These instructions assume that you have access to a populated database.

More information about ez2update can be found on the ez2view website at

<http://ez2viewaustralia.info/>

InfoServer Tables

If you are connecting directly to your own InfoServer installation, then you will need to run ez2view under a user account that has read access to the following database tables.

The following tables are required by ez2view Australia 7.0.15202 and above:

BIDDAYOFFER	MTPASA_REGIONAVAILABILITY
BIDDAYOFFER_D	NETWORK_EQUIPMENTDETAIL
BIDPEROFFER	NETWORK_OUTAGEDetail
BIDPEROFFER_D	NETWORK_SUBSTATIONDETAIL
BIDDUIDDETAILS	NETWORK_OUTAGECONSTRAINTSET
BIDTYPES	NETWORK_OUTAGESTATUSCODE
DISPATCH_UNIT_SCADA	P5MIN_CONSTRAINTSOLUTION
DISPATCHABLEUNIT	P5MIN_INTERCONNECTORSOLN
DISPATCHCASESOLUTION	P5MIN_REGIONSOLUTION
DISPATCHCONSTRAINT	PARTICIPANT
DISPATCHINTERCONNECTORRES	PARTICIPANTCATEGORY
DISPATCHLOAD	PARTICIPANTCATEGORYALLOC
DISPATCHPRICE	PARTICIPANTCLASS
DISPATCHREGIONSUM	PREDISPATCHCONSTRAINT
DUDETAIL	PREDISPATCHINTERCONNECTORRES
DUDETAILSUMMARY	PREDISPATCHPRICE
EMSMaster	PREDISPATCHPRICESENSITIVITIES
GENCONDATA	PREDISPATCHREGIONSUM
GENCONSET	PREDISPATCHSCENARIODEMAND
GENCONSETINVOKE	REGION
GENCONSETTRK	REGIONSTANDINGDATA
GENERICCONSTRAINTRHS	SPDCONNECTIONPOINTCONSTRAINT
GENERIC EQUATIONDESC	SPDINTERCONNECTORCONSTRAINT
GENERIC EQUATIONRHS	SPDREGIONCONSTRAINT
GENUNITS	STADUALLOC
INTERCONNECTOR	STATION
INTERCONNECTORCONSTRAINT	STATIONOPERATINGSTATUS
LOSSFACTORMODEL	STATIONOWNER
LOSSMODEL	STATIONOWNERTRK
MARKET_PRICE_THRESHOLDS	STPASA_CASESOLUTION
MARKETNOTICEDATA	STPASA_CONSTRAINTSOLUTION
MCC_CONSTRAINTSOLUTION	STPASA_INTERCONNECTORSOLN
MNSP_INTERCONNECTOR	STPASA_REGIONSOLUTION
MNSP_PARTICIPANT	TRADINGINTERCONNECT
MTPASA_CASESOLUTION	TRADINGPRICE

MTPASA_CONSTRAINTSOLUTION
MTPASA_INTERCONNECTORSOLUTION
MTPASA_REGIONAVAIL_TRK
MTPASA_REGIONSOLUTION

TRADINGREGIONSUM
TRANSMISSIONLOSSFACTOR

The following tables are required by ez2view Australia 7.0.30000 and above:

P5MIN_UNITSOLUTION
PREDISPATCHLOAD

TRADINGLOAD

The following tables are required by ez2view Australia 7.2.10 and above:

PREDISPATCHCASESOLUTION

The following tables are required by ez2view Australia 7.3.0 and above:

BIDDUIDDETAILSTRK

DISPATCHOFFERTRK

Schema Differences

ez2view is designed to use a database schema that has is different from the standard MMS data model schema. While we ensure that ez2view Australia will run without error on the default MMS data model schema, implementing the following changes will ensure that all features of the application are fully functional and it performs as well as designed.

If you connect ez2view Australia to a database supplied through ez2update Australia, you do not need to worry about this section.

If you connect ez2view Australia to your own InfoServer installation (both MSSQL and Oracle), you will need to read this section.

Predispatch Data

The schema differences in this section relate to how much predispatch data is retained. This is important for:

- The Sensitivities feature. This feature allows the end-user to compare the current predispatch run (based on the application point in time) with a previous run, to see how the prices in the runs have changed. Without the following key changes, the end-user will be unable to do the comparison (because previous runs will not contain sufficient data to do so), and the feature will only be able to show the prices from the current predispatch run.
- The Time Travel feature. This feature allows the end-user to set ez2view Australia to view a point in time in the market in the past. Without the following key changes, the end-user will not see the full range of data for the point in time they are looking at (specifically, charts and tables will not extend into the future, the Sensitivities feature will not display any data, Notifications using forecast values may not evaluate as expected).

Continued on the next page.

The key changes are as follows:

Table Name	Default MMS Model primary key	ez2view primary key
PREDISPATCHCONSTRAINT	CONSTRAINTID, DATETIME	PREDISPATCHSEQNO, RUNNO, CONSTRAINTID, PERIODID, INTERVENTION
PREDISPATCHINTERCONNECTORRES	INTERCONNECTORID, DATETIME	PREDISPATCHSEQNO, RUNNO, INTERCONNECTORID, PERIODID, INTERVENTION
PREDISPATCHLOAD	DUID, DATETIME	PREDISPATCHSEQNO, RUNNO, DUID, PERIODID, INTERVENTION
PREDISPATCHPRICE	REGIONID, DATETIME	PREDISPATCHSEQNO, RUNNO, REGIONID, PERIODID, INTERVENTION
PREDISPATCHPRICESENSITIVITIES	REGIONID, DATETIME	PREDISPATCHSEQNO, RUNNO, REGIONID, PERIODID, INTERVENTION
PREDISPATCHREGIONSUM	REGIONID, DATETIME	PREDISPATCHSEQNO, RUNNO, REGIONID, PERIODID, INTERVENTION

The change in primary key for these tables will have an impact on space requirements for the database. Each of the predispach tables altered will grow by a factor of approximately 48 compared to the default schema.

Table Name	Default MMS volume	ez2view volume
PREDISPATCHCONSTRAINT	20000 rows / day	1000000 rows / day
PREDISPATCHINTERCONNECTORRES	288 rows / day	14000 rows / day
PREDISPATCHLOAD	14000 rows / day	650000 rows / day
PREDISPATCHPRICE	240 rows / day	12000 rows / day
PREDISPATCHPRICESENSITIVITIES	240 rows / day	12000 rows / day
PREDISPATCHREGIONSUM	240 rows / day	12000 rows / day

Additional Indexes

The schema differences in this section relate to additional indexes that ez2view Australia prefers to be present in the database that it is connecting to.

Table Name	Index
MARKETNOTICEDATA	EFFECTIVEDATE
BIDPEROFFER_D	INTERVAL_DATETIME



Contacting Global-Roam

If you experience difficulties in installing or upgrading ez2view Australia, please feel free to contact us at:

e-mail: support@global-roam.com

phone: +61 7 3368 4064



Installing ez2view for the First Time

Installing ez2view Australia

ez2view Australia is a desktop application, and can be installed on whatever machine you like.

Installation of .NET Framework 4.7.1 Full Profile

If you already have the .NET Framework 4.7.1 Full Profile installed on your machine you can go straight to [Installation](#).

If you do not have the .NET Framework 4.5.2 Full Profile go to the download section of the ez2view Australia web site go to <http://install.ez2viewaustralia.info/ez2view-downloads/> and click the .NET Framework link.

The upgrade to .NET Framework 4.7.1 is an in-place upgrade. That means when .NET Framework 4.7.1 is installed it effectively **replaces** .NET 4.5.2 on your machine. [According to Microsoft](#), this replacement is 100% backwards compatible. If you are installing ez2view v7.4.x on your existing ez2view machine, which had .NET 4.5.2 installed, then .NET 4.5.2 will be replaced with .NET 4.7.1.

Once you have downloaded the file you must install the .NET Framework on the. Right-click the install file and choose the “Run As Administrator” option, then follow the prompts until the installation has completed. This may take some time

Installation

Download the install file for ez2view Australia from the download section of the ez2view Australia web site (go to <http://install.ez2viewaustralia.info/ez2view-downloads/> and follow the links to the ez2view Download page).

Right-click the ez2view Australia install file and choose the “Run As Administrator” option, then follow the prompts until the installation has completed.

Configuration

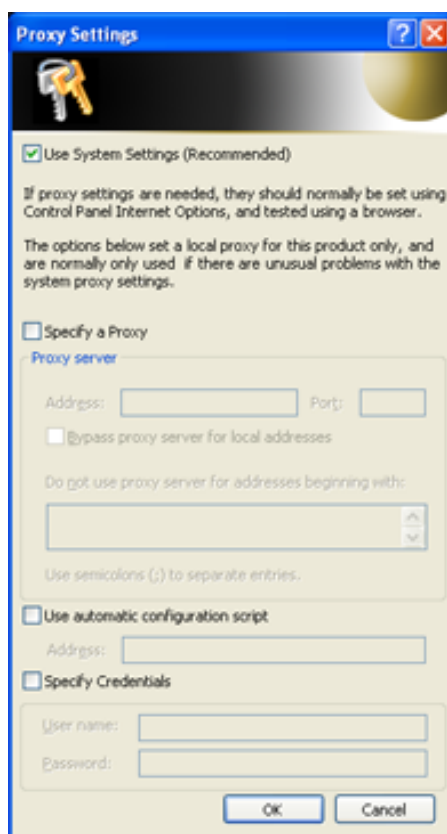
Double-click on the ez2view Australia shortcut on the desktop and ez2view will prompt for all the required configuration parameters.

Proxy Setup

ez2view Australia requires access to the following websites using HTTP and XML over HTTP (SOAP):

- <http://ez2viewlicensing.datastripe1.com>

If ez2view Australia has experienced a problem with connecting to any of the websites above during startup, it will display the Proxy Settings screen. It looks like this:



If you do not use a proxy to access the internet, simply click OK.

If you do use a proxy, then we suggest that you maintain your proxy information in your system settings. If you make sure the [Use System Settings] option is checked on the Proxy Settings screen, then your system settings should automatically be detected and used in ez2view Australia.

If you have difficulties with ez2view Australia with regards to internet access, you may need to manually specify your proxy settings and credentials. This can be done on the Proxy Settings screen.

NOTE: The Proxy Settings screen is also available from inside the application at [Tools -> Internet Settings].

License Activation

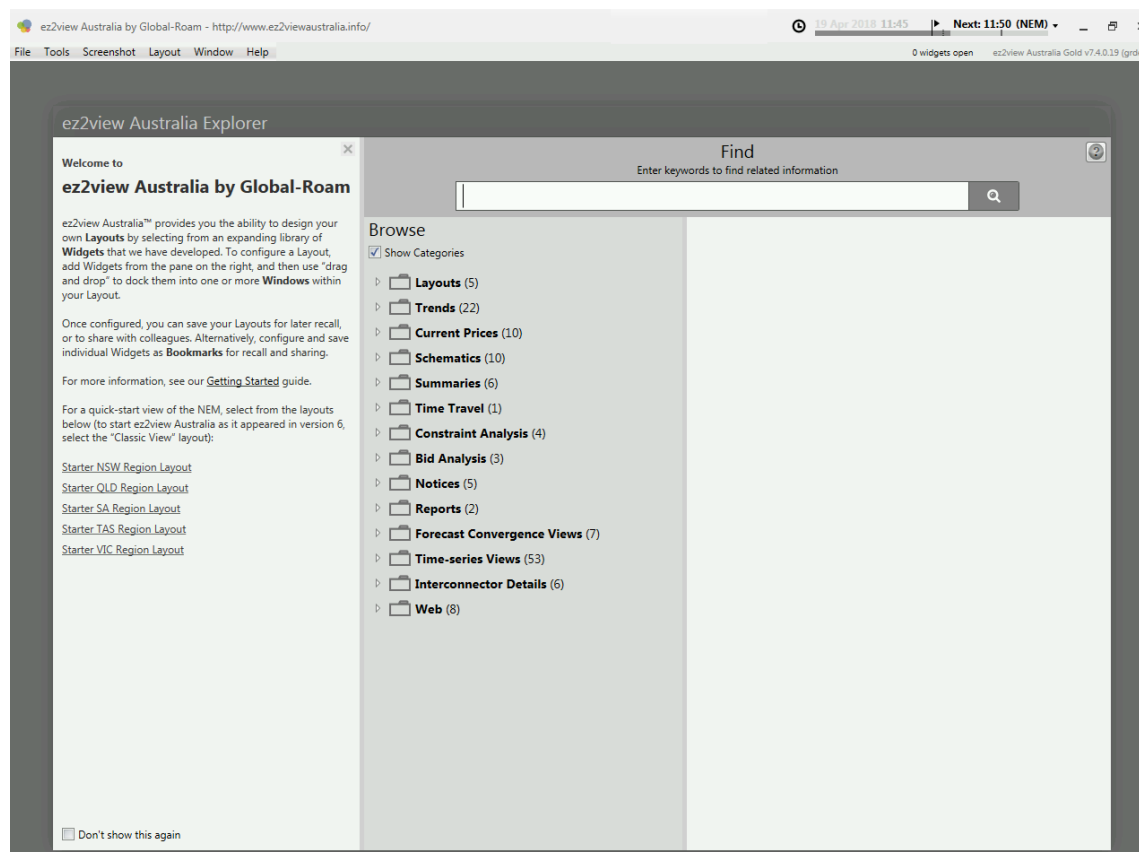
On first startup, ez2view Australia will display a screen saying that “This machine does not have a license for ez2view Australia”.

Simply follow the instructions on the screen to configure a license for ez2view Australia (it mostly involves entering information/selecting options and clicking next).

If you do not have any licenses to select on Step 3, and you believe that you should have a full commercial license, then you will need to go to <http://www.global-roam.com/secure> to manage your licenses before you can go any further. After you login to the website, click on My Licenses (top-right corner). On this page you can manage your licenses. If you didn't have a license available in Step 3, you may need to deactivate one of your existing licenses to free it up for use.

You cannot start ez2view Australia without a valid license.

Once you have activated your license you should be presented with the ez2view Australia Explorer. We have provided 5 regional starter layouts that will allow you to begin exploring the ez2view widgets.



Selecting a starter layout will cause the application to restart in order to load the new layout. As ez2view is initially configured to access AEMO data from a Global-Roam hosted web database you should see data loaded into your widgets as soon as the layout loads.

Done with Installing ez2view Australia

At this point, your copy of ez2view is all configured and ready for you to start exploring the widgets.

If ez2view is not displaying data, or if you had some other problem, please contact us for help (see [Contacting Global-Roam](#) on page 14).

If you would like to configure ez2view to access a local data source please refer to the [Database Setup](#), on page 19.

Database Setup

To configure ez2view to access data from a local database source rather than the Global-Roam hosted web database you will need to configure your database connection strings via the ez2view Data Access Manger.

Selecting **Tools -> Options** from the top menu will open the Data Access Manager.

Options

Database Licence User Settings Advanced

☒ Use Global-Roam Web Database ☐ Use Your Own Database

You are currently connected to the Global-Roam Web Database.

This is a database managed by Global-Roam. It's the recommended option, if you don't need private data or offline access.

For more information, please contact our customer support.

OK Cancel Apply

Select the “Use Your Own Database” option to begin configuring access to your local data source.

Options

Database Licence User Settings Advanced

☐ Use Global-Roam Web Database ☒ Use Your Own Database

... delivering Clarity, Convenience and Cost Effectiveness through information systems that make the electricity market understandable.

GLOBAL-ROAM **DataAccessManager Settings**

Welcome to the database setup for ez2view Australia. You can use this form to show ez2view Australia how to locate the sources of data that it will need to run successfully.

If this is the first time you have seen this screen, you will need to setup each of the data sources below with valid settings. You can do this by clicking on the data source, and then clicking on the Configure button. You can use the form that pops up to setup the settings for the data source you selected.

You can also choose to mark a data source as IGNORED. Keep in mind, that this will prevent that data source from working at all.

Electranet Database Connection	Error
Powerlink Database Connection	Error
SPAusNet Database Connection	Error
TransGrid Database Connection	Error
AEMO Database Connection	Error
Ez2 Database Connection	Error

Configure Selected Ignore Selected

Export Settings to File Import Settings from File

OK Cancel Apply

In order for ez2view Australia to work correctly, you will need to configure each of the database connections listed on the left hand side of the screen to either

- a) A valid database containing the specified dataset, or
- b) Ignored (if you do not have access to the dataset)

Please continue reading.

Configuring the AEMO Data Database Connection

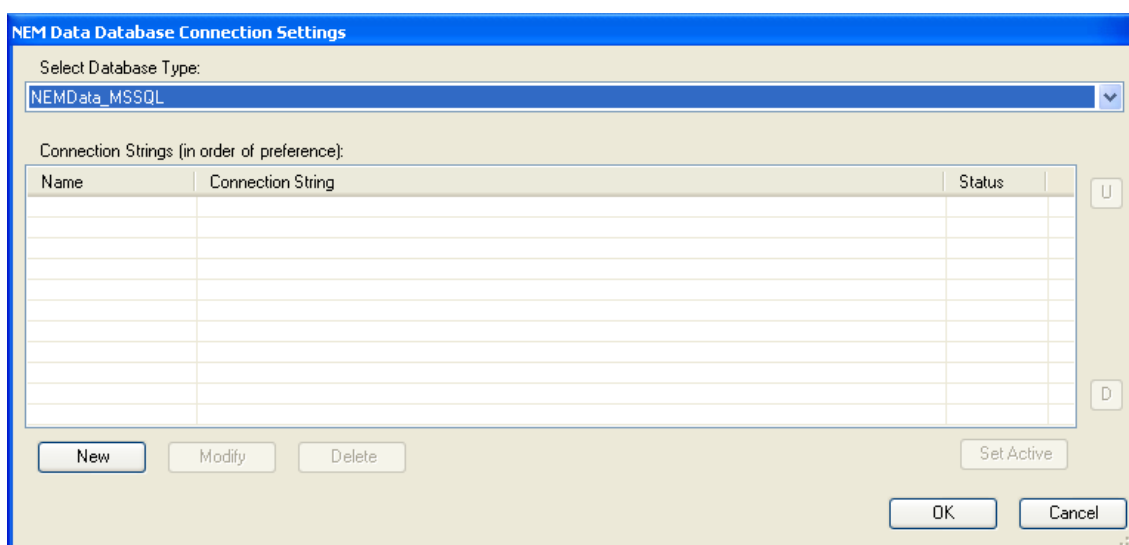
This connection is the location where ez2view Australia loads all of the AEMO data that it displays.

If you do not have access to AEMO Data Database, use the Ignore Selected button to ignore this connection, and skip this section.

To configure the AEMO Data Database Connection, from the database settings screen

- Select the AEMO Data Database Connection
- Click the Configure Selected button.

On the next screen, select either NEMMCO_MSSQL, or NEMMCO_ORACLE in the drop-down box at the top, and click the New button.



The dialog box titled "NEM Data Database Connection Settings" features a "Select Database Type:" dropdown menu with "NEMData_MSSQL" selected. Below this is a section labeled "Connection Strings (in order of preference):" containing a table with columns "Name", "Connection String", and "Status". The table is currently empty. To the right of the table are "U" and "D" buttons. At the bottom left are "New", "Modify", and "Delete" buttons. At the bottom right are "Set Active", "OK", and "Cancel" buttons.

Name	Connection String	Status

If you are using SQL Server, go to [SQL Server Specific](#), on page 22.

If you are using Oracle, go to [Oracle Specific](#), on page 23.

SQL Server Specific

Fill the next screen in with information about how to connect to the database where you want to read NEM Data from.

The screenshot shows the 'Create MSSQL Connection String' dialog box. The 'Connection Name' field is filled with 'CONNECTION NAME'. The 'Advanced' tab is selected, showing the 'Server' field with 'MACHINE_NAME\INSTANCE_I' and an 'Install Server' button. Under 'Authentication', 'Use a Specific Username and Password' is selected, with 'Username' as 'USERNAME' and 'Password' as 'XXXXXXXX'. Below that, 'Database on Server' is '<Install New Database>' with an 'Install Database' button. At the bottom is a 'Test Connection' button, and at the very bottom are 'OK' and 'Cancel' buttons.

Note:

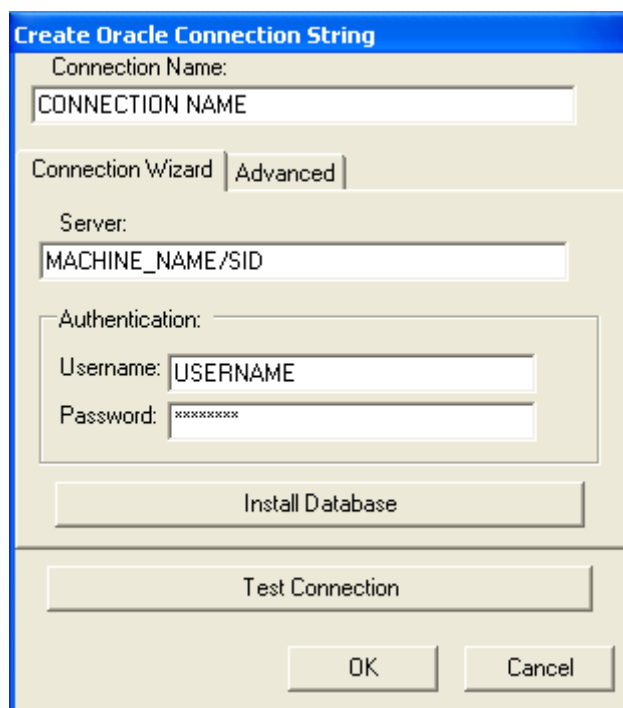
If you cannot find your SQL Server in the server drop down box, you can simply type in the name of the machine that it is on, followed by a “\” character, followed by the instance name. e.g. MACHINE_NAME\INSTANCE_NAME.

Once you have filled out the name, server and authentication, use the “Database on Server” drop down box to select the database where the AEMO data is stored.

Go to [Configuring the Transgrid Database Connection](#), on page 24.

Oracle Specific

Fill the next screen in with information about how to connect to the Oracle database where you want to read NEM Data from.



Once you have filled out the name, server and authentication, click on the “Test Connection” button. It should display a message saying everything is okay.

If you instead get an error saying that a set of required tables are missing, that’s bad. Make sure that the username you entered has direct access to the tables listed. If the tables need to be accessed by typing the name as [Namespace].[TableName], then ez2view Australia will not be able to access the tables, they need to be accessed purely by the [TableName]. See your Oracle administrator about setting up synonyms for the necessary tables.

Go to [Configuring the Transgrid Database Connection](#), on page 24.

Configuring the Transgrid Database Connection

This connection is the location where ez2view Australia loads all of the Transgrid data that it displays.

If you do not have access to Transgrid data, use the Ignore Selected button to ignore this connection, and skip this section.

To configure the Transgrid Data Database Connection, from the database settings screen

- Select the Transgrid Data Database Connection
- Click the Configure Selected button.

On the next screen, select either Transgrid_MSSQL, or Transgrid_ORACLE in the drop-down box at the top, and click the New button.

The screenshot shows a dialog box titled "TransGrid Database Connection Settings". At the top, there is a label "Select Database Type:" followed by a dropdown menu currently showing "TRANSGRID_MSSQL". Below this is a label "Connection Strings (in order of preference):" above a table. The table has three columns: "Name", "Connection String", and "Status". The table is currently empty. To the right of the table are two buttons: "U" (Ignore) and "D" (Delete). Below the table are three buttons: "New", "Modify", and "Delete". To the right of these is a "Set Active" button. At the bottom right are "OK" and "Cancel" buttons.

Name	Connection String	Status
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If you are using SQL Server, go to [SQL Server Specific](#), on page 25.

If you are using Oracle, go to [Oracle Specific](#), on page 26

SQL Server Specific

Fill the next screen in with information about how to connect to the database where you want to read the Transgrid data from.

The screenshot shows the 'Create MSSQL Connection String' dialog box with the 'Advanced' tab selected. The 'Connection Name' field contains 'CONNECTION NAME'. The 'Server' dropdown menu shows 'MACHINE_NAME\INSTANCE_I'. The 'Authentication' section has 'Use a Specific Username and Password' selected. The 'Username' field contains 'USERNAME' and the 'Password' field contains 'XXXXXXXX'. The 'Database on Server' dropdown menu shows '<Install New Database>'. There are buttons for 'Install Server', 'Install Database', 'Test Connection', 'OK', and 'Cancel'.

Note:

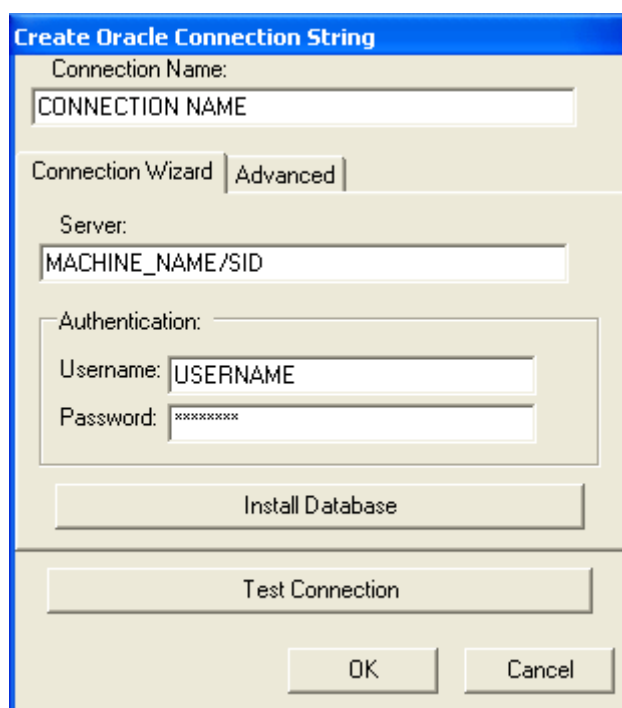
If you cannot find your SQL Server in the server drop down box, you can simply type in the name of the machine that it is on, followed by a “\” character, followed by the instance name. e.g. MACHINE_NAME\INSTANCE_NAME.

Once you have filled out the name, server and authentication, use the “Database on Server” drop down box to select the database where the Transgrid data is stored.

Go to [Configuring the SPAusNet Database Connection](#) on page 27.

Oracle Specific

Fill the next screen in with information about how to connect to the Oracle database where you want to read the Transgrid data from.



Once you have filled out the name, server and authentication, click on the “Test Connection” button. It should display a message saying everything is okay.

If you instead get an error saying that a set of required tables are missing, that’s bad. Make sure that the username you entered has direct access to the tables listed (i.e. if the tables need to be accessed by typing the name as [Namespace].[TableName] ez2view Australia will not be able to access the tables, they need to be accessed purely by the [TableName]. See your Oracle administrator about setting up synonyms for the necessary tables).

Go to [Configuring the SPAusNet Database Connection](#) on page 27.

Configuring the SPAusNet Database Connection

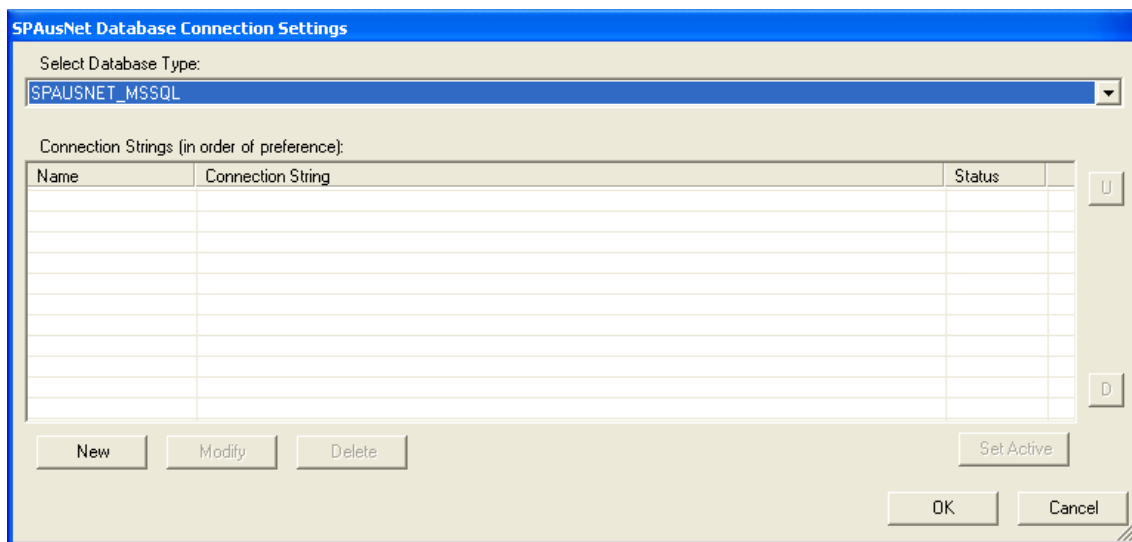
This connection is the location where ez2view Australia loads all of the SPAusNet data that it displays.

If you do not have access to SPAusNet data, use the Ignore Selected button to ignore this connection, and skip this section.

To configure the SPAusNet Data Database Connection, from the database settings screen

- Select the SPAusNet Data Database Connection
- Click the Configure Selected button.

On the next screen, select either SPAusNet_MSSQL, or SPAusNet_ORACLE in the drop-down box at the top, and click the New button.



The dialog box titled "SPAusNet Database Connection Settings" features a "Select Database Type:" dropdown menu with "SPAUSNET_MSSQL" selected. Below this is a table for "Connection Strings (in order of preference):" with columns for Name, Connection String, and Status. The table is currently empty. To the right of the table are "U" and "D" buttons. At the bottom, there are "New", "Modify", and "Delete" buttons on the left, and a "Set Active" button on the right. "OK" and "Cancel" buttons are located at the bottom right of the dialog.

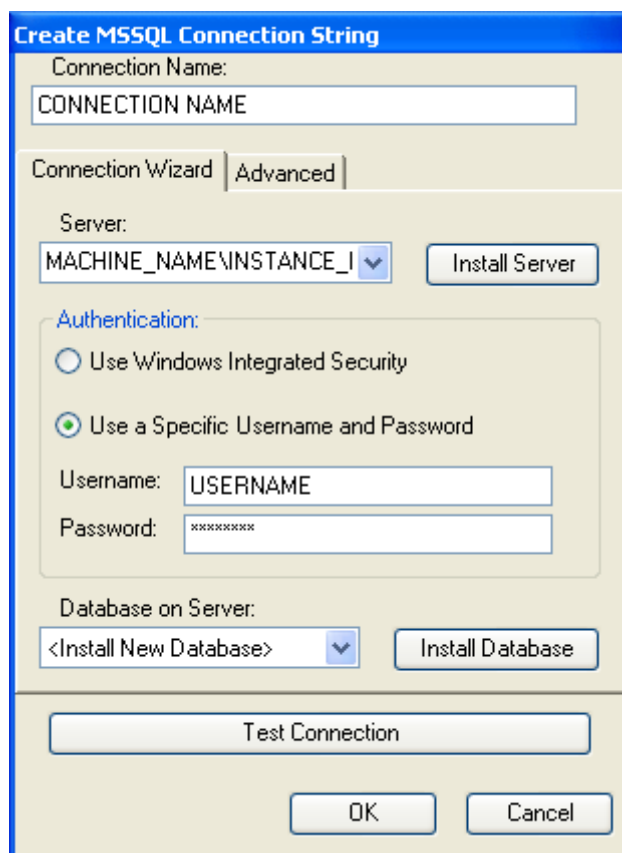
Name	Connection String	Status

If you are using SQL Server, go to [SQL Server Specific](#), on page 28.

If you are using Oracle, go to [Oracle Specific](#), on page 29.

SQL Server Specific

Fill the next screen in with information about how to connect to the database where you want to read the SPAusNet data from.



The screenshot shows the 'Create MSSQL Connection String' dialog box with the 'Advanced' tab selected. The 'Connection Name' field contains 'CONNECTION NAME'. The 'Server' dropdown menu shows 'MACHINE_NAME\INSTANCE_1'. The 'Authentication' section has 'Use a Specific Username and Password' selected. The 'Username' field contains 'USERNAME' and the 'Password' field contains 'XXXXXXXX'. The 'Database on Server' dropdown menu shows '<Install New Database>'. There are buttons for 'Install Server', 'Install Database', 'Test Connection', 'OK', and 'Cancel'.

Note:

If you cannot find your SQL Server in the server drop down box, you can simply type in the name of the machine that it is on, followed by a “\” character, followed by the instance name. e.g. MACHINE_NAME\INSTANCE_NAME.

Once you have filled out the name, server and authentication, use the “Database on Server” drop down box to select the database where the SPAusNet data is stored.

Go to [Configuring the Electranet Database Connection](#), on page 30.

Oracle Specific

Fill the next screen in with information about how to connect to the Oracle database where you want to read the SPAusNet data from.

The screenshot shows a Windows-style dialog box titled "Create Oracle Connection String". It has a "Connection Name" text box at the top containing "CONNECTION NAME". Below this are two tabs: "Connection Wizard" and "Advanced", with "Advanced" being the active tab. Under the "Advanced" tab, there is a "Server" text box containing "MACHINE_NAME/SID". Below the server field is an "Authentication" section containing a "Username" text box with "USERNAME" and a "Password" text box with "xxxxxxx". At the bottom of the dialog are four buttons: "Install Database", "Test Connection", "OK", and "Cancel".

Once you have filled out the name, server and authentication, click on the “Test Connection” button. It should display a message saying everything is okay.

If you instead get an error saying that a set of required tables are missing, that’s bad. Make sure that the username you entered has direct access to the tables listed (i.e. if the tables need to be accessed by typing the name as [Namespace].[TableName] ez2view Australia will not be able to access the tables, they need to be accessed purely by the [TableName]. See your Oracle administrator about setting up synonyms for the necessary tables).

Go to [Configuring the Electranet Database Connection](#), on page 30.

Configuring the Electranet Database Connection

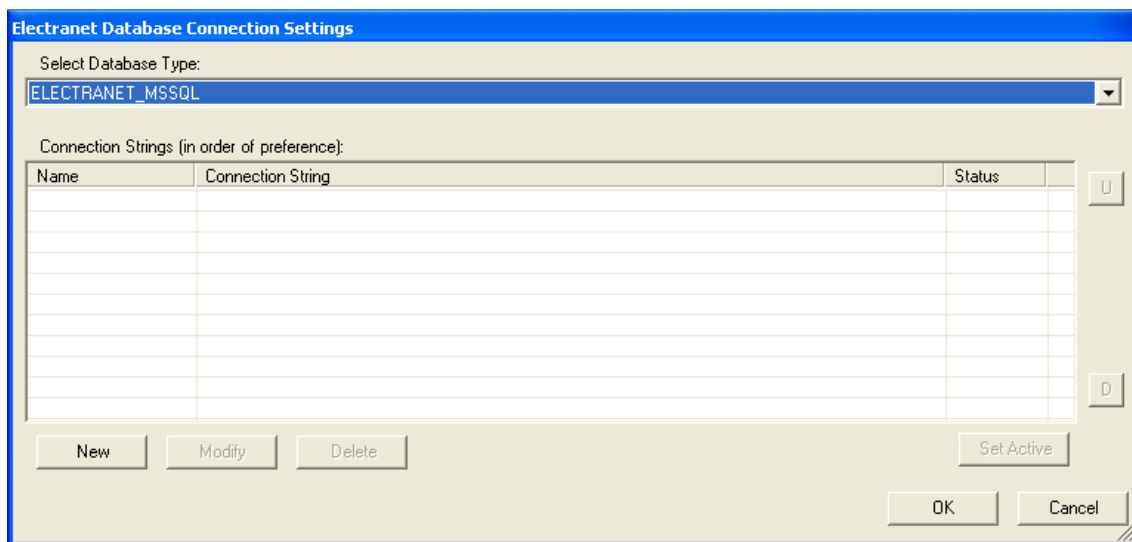
This connection is the location where ez2view Australia loads all of the Electranet data that it displays.

If you do not have access to Electranet data, use the Ignore Selected button to ignore this connection, and skip this section.

To configure the Electranet Data Database Connection, from the database settings screen

- Select the Electranet Data Database Connection
- Click the Configure Selected button.

On the next screen, select either Electranet_MSSQL, or Electranet_ORACLE in the drop-down box at the top, and click the New button.



The dialog box titled "Electranet Database Connection Settings" features a "Select Database Type:" dropdown menu with "ELECTRANET_MSSQL" selected. Below this is a table for "Connection Strings (in order of preference):" with columns for "Name", "Connection String", and "Status". The table is currently empty. To the right of the table are "U" and "D" buttons. At the bottom, there are "New", "Modify", and "Delete" buttons on the left, and a "Set Active" button on the right. "OK" and "Cancel" buttons are at the bottom right.

Name	Connection String	Status

If you are using SQL Server, go to [SQL Server Specific](#), on page 31.

If you are using Oracle, go to [Oracle Specific](#), on page 32.

SQL Server Specific

Fill the next screen in with information about how to connect to the database where you want to read the Electranet data from.

The screenshot shows the 'Create MSSQL Connection String' dialog box with the 'Advanced' tab selected. The 'Connection Name' field contains 'CONNECTION NAME'. The 'Server' dropdown menu shows 'MACHINE_NAME\INSTANCE_I'. The 'Authentication' section has 'Use a Specific Username and Password' selected. The 'Username' field contains 'USERNAME' and the 'Password' field contains 'XXXXXXXX'. The 'Database on Server' dropdown menu shows '<Install New Database>'. There are buttons for 'Install Server', 'Install Database', 'Test Connection', 'OK', and 'Cancel'.

Note:

If you cannot find your SQL Server in the server drop down box, you can simply type in the name of the machine that it is on, followed by a “\” character, followed by the instance name. e.g. MACHINE_NAME\INSTANCE_NAME.

Once you have filled out the name, server and authentication, use the “Database on Server” drop down box to select the database where the Electranet data is stored.

Go to [Configuring the Powerlink Database Connection](#), on page 33.

Oracle Specific

Fill the next screen in with information about how to connect to the Oracle database where you want to read the Electranet data from.

Once you have filled out the name, server and authentication, click on the “Test Connection” button. It should display a message saying everything is okay.

If you instead get an error saying that a set of required tables are missing, that’s bad. Make sure that the username you entered has direct access to the tables listed (i.e. if the tables need to be accessed by typing the name as [Namespace].[TableName] ez2view Australia will not be able to access the tables, they need to be accessed purely by the [TableName]. See your Oracle administrator about setting up synonyms for the necessary tables).

Go to [Configuring the Powerlink Database Connection](#), on page 33.

Configuring the Powerlink Database Connection

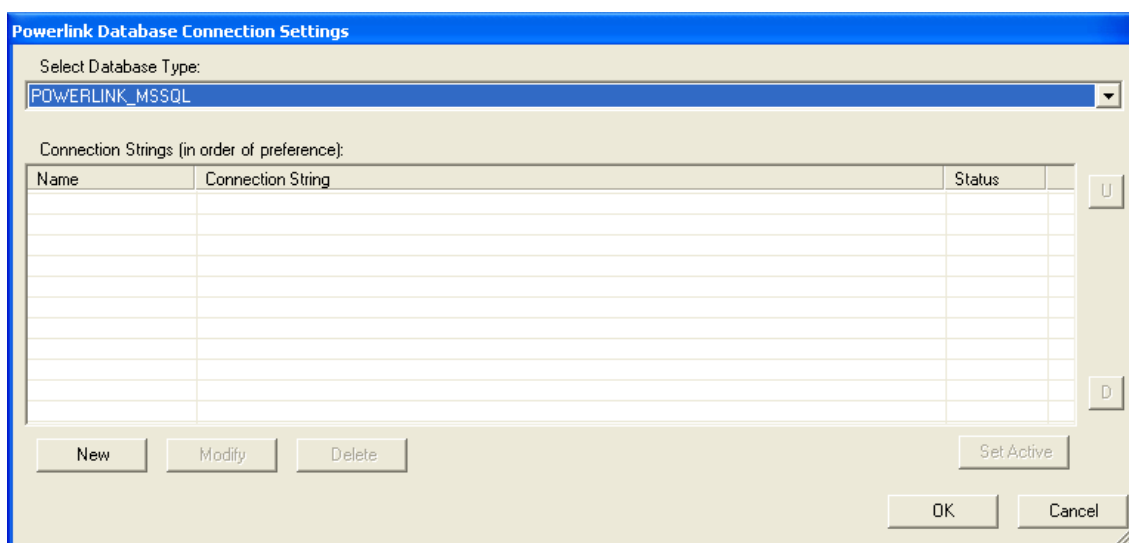
This connection is the location where ez2view Australia loads all of the Powerlink data that it displays.

If you do not have access to Powerlink data, use the Ignore Selected button to ignore this connection, and skip this section.

To configure the Powerlink Data Database Connection, from the database settings screen

- Select the Powerlink Data Database Connection
- Click the Configure Selected button.

On the next screen, select either Powerlink_MSSQL, or Powerlink_ORACLE in the drop-down box at the top, and click the New button.



The dialog box titled "Powerlink Database Connection Settings" features a "Select Database Type:" dropdown menu with "POWERLINK_MSSQL" selected. Below this is a section labeled "Connection Strings (in order of preference):" containing a table with columns "Name", "Connection String", and "Status". The table is currently empty. To the right of the table are "U" and "D" buttons. At the bottom of the dialog are buttons for "New", "Modify", "Delete", "Set Active", "OK", and "Cancel".

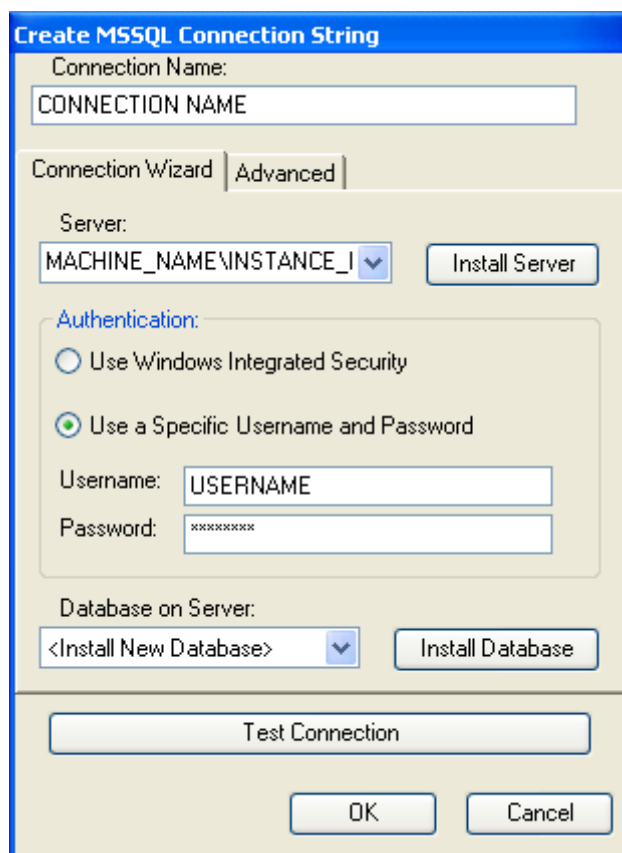
Name	Connection String	Status

If you are using SQL Server, go to [SQL Server Specific](#), on page 34.

If you are using Oracle, go to [Oracle Specific](#), on page 35.

SQL Server Specific

Fill the next screen in with information about how to connect to the database where you want to read the Powerlink data from.



The screenshot shows the 'Create MSSQL Connection String' dialog box with the 'Advanced' tab selected. The 'Connection Name' field contains 'CONNECTION NAME'. The 'Server' dropdown menu shows 'MACHINE_NAME\INSTANCE_I'. The 'Authentication' section has 'Use a Specific Username and Password' selected. The 'Username' field contains 'USERNAME' and the 'Password' field contains 'XXXXXXXX'. The 'Database on Server' dropdown menu shows '<Install New Database>'. There are buttons for 'Install Server', 'Install Database', 'Test Connection', 'OK', and 'Cancel'.

Note:

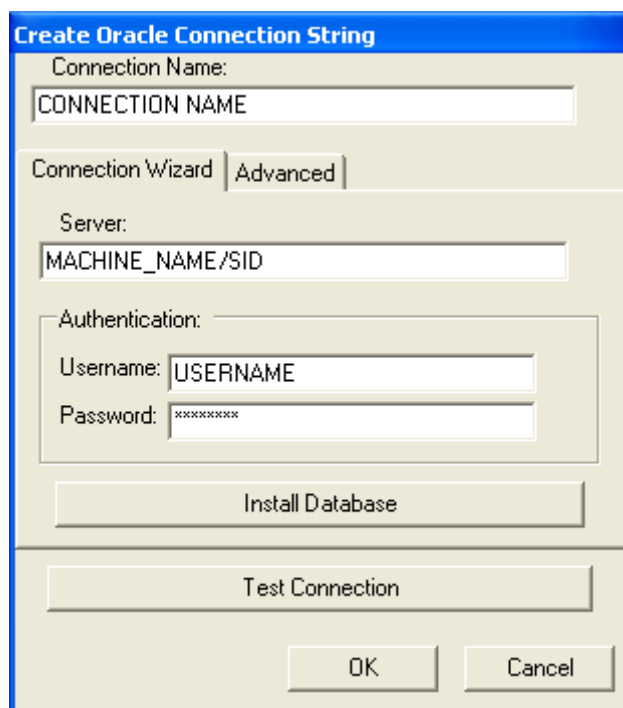
If you cannot find your SQL Server in the server drop down box, you can simply type in the name of the machine that it is on, followed by a “\” character, followed by the instance name. e.g. MACHINE_NAME\INSTANCE_NAME.

Once you have filled out the name, server and authentication, use the “Database on Server” drop down box to select the database where the Powerlink data is stored.

Go to [Configuring the ez2 Database Connection](#), on page 36.

Oracle Specific

Fill the next screen in with information about how to connect to the Oracle database where you want to install the Powerlink Tables.



Once you have filled out the name, server and authentication, click on the “Test Connection” button. It should display a message saying everything is okay.

If you instead get an error saying that a set of required tables are missing, that’s bad. Make sure that the username you entered has direct access to the tables listed (i.e. if the tables need to be accessed by typing the name as [Namespace].[TableName] ez2view Australia will not be able to access the tables, they need to be accessed purely by the [TableName]. See your Oracle administrator about setting up synonyms for the necessary tables).

Go to [Configuring the ez2 Database Connection](#), on page 36.

Configuring the ez2 Database Connection

This connection is the location where ez2view Australia saves data that it creates. MITC records created using the MITC Analysis widget will be stored here and/or shared user settings, such as filters, notification rules and bid stack price buckets.

If you do not plan on using the MITC Analysis widget or shared user settings, then configure this connection anyway, as we will be storing important ez2view Australia settings here in the future.

To configure the ez2 Database Connection, from the database settings screen

- Select the ez2 Database Connection
- Click the Configure Selected button.

On the next screen, select either ez2_MSSQL, or ez2_ORACLE in the drop-down box at the top, and click the New button.

Ez2 Database Connection Settings

Select Database Type:
EZ2_MSSQL

Connection Strings (in order of preference):

Name	Connection String	Status

U D

New Modify Delete Set Active OK Cancel

If you are using SQL Server, go to [SQL Server Specific](#) SQL Server Specific, on page 37.

If you are using Oracle, go to [Oracle Specific](#), on page 39.

SQL Server Specific

Fill the next screen in with information about how to connect to the database where you want to read the ez2 data from.

Connection Name: CONNECTION NAME

Connection Wizard | Advanced |

Server: MACHINE_NAME\INSTANCE_I [v] [Install Server]

Authentication:

☐ Use Windows Integrated Security

☒ Use a Specific Username and Password

Username: USERNAME

Password: XXXXXXXX

Database on Server: <Install New Database> [v] [Install Database]

[Test Connection]

[OK] [Cancel]

Note:

If you cannot find your SQL Server in the server drop down box, you can simply type in the name of the machine that it is on, followed by a “\” character, followed by the instance name. e.g. MACHINE_NAME\INSTANCE_NAME.

Once you have filled out the name, server and authentication, it’s time to install the tables necessary for the data set you are configuring.

If you want to create a new database to hold the ez2 tables, go to [Creating a new SQL Server Database](#), on page 38. If you have an existing database that you are happy to install the ez2 tables into, go to

Installing the tables into an existing SQL Server Database [Installing the tables into an existing SQL Server Database](#), on page 38.

Creating a new SQL Server Database

Use the "Database on Server" drop down box to select the "<Install New Database>" option and then click on the "Install Database" button.

Enter the name for the database where you want to tables for the data set installed. If the default name is fine, simply click OK.

After the script has finished executing, you will be returned to the Create MSSQL Connection String screen. Click on the "Test Connection" button to verify that all is well, then click OK.

Go to the section [Done with Database Setup](#), on page 40.

Installing the tables into an existing SQL Server Database

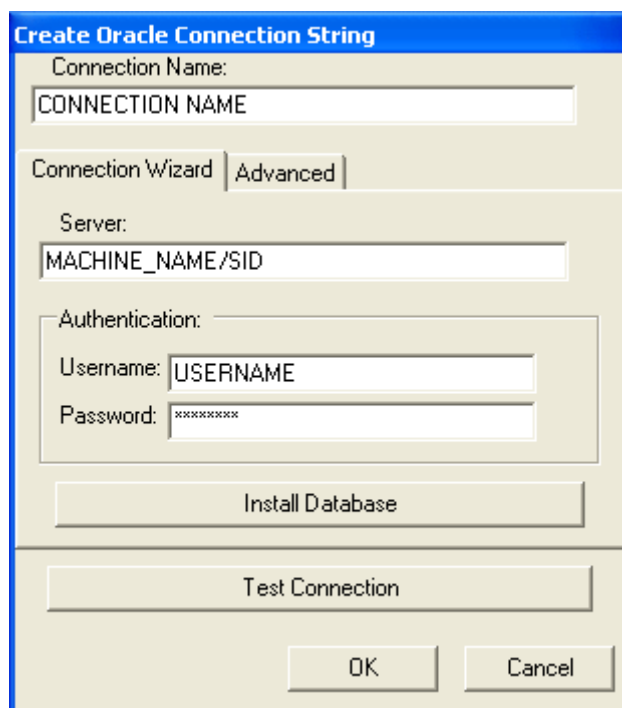
Use the "Database on Server" drop down box to select the name of the database that you want to install the ez2 tables into and click on the "Install Tables" button.

After the script has finished executing, you will be returned to the Create MSSQL Connection String screen. Click on the "Test Connection" button to verify that all is well, then click OK.

Go to the section [Done with Database Setup](#), on page 40.

Oracle Specific

Fill the next screen in with information about how to connect to the Oracle database where you want to install the ez2 Tables.



Once you have filled out the name, server and authentication, click on the “Test Connection” button. It should display a message saying everything is okay.

If you instead get an error saying that a set of required tables are missing, that’s bad. Make sure that the username you entered has direct access to the tables listed (i.e. if the tables need to be accessed by typing the name as [Namespace].[TableName] ez2view Australia will not be able to access the tables, they need to be accessed purely by the [TableName]. See your Oracle administrator about setting up synonyms for the necessary tables).

Go to [Done with Database Setup](#), on page 40.


Done with Database Setup

You should be back at the main database settings screen. It should now look something like this:

Options

Database Licence User Settings Advanced

☐ Use Global-Roam Web Database ☒ Use Your Own Database

 ... delivering Clarity, Convenience and Cost Effectiveness through information systems that make the electricity market understandable.

DataAccessManager Settings

Welcome to the database setup for ez2view Australia. You can use this form to show ez2view Australia how to locate the sources of data that it will need to run successfully.

If this is the first time you have seen this screen, you will need to setup each of the data sources below with valid settings. You can do this by clicking on the data source, and then clicking on the Configure button. You can use the form that pops up to setup the settings for the data source you selected.

You can also choose to mark a data source as IGNORED. Keep in mind, that this will prevent that data source from working at all.

Once all sources of data have been either setup, or ignored, you may continue.

Electranet Database Connection	Valid
Powerlink Database Connection	Valid
SPAusNet Database Connection	Valid
TransGrid Database Connection	Valid
AEMO Database Connection	Valid
Ez2 Database Connection	Valid

Configure Selected Ignore Selected

Export Settings to File Import Settings from File

OK Cancel Apply

Note that all the Database Connections say “Valid” next to them (this means it’s all set up and ready to go). If you do not have access to particular datasets, they should be marked as Ignored.

Click “Done”.

Done with Installing ez2view Australia

At this point, your copy of ez2view is all configured and ready to go. In fact, after you dismissed the last configuration dialog, it should have already started doing things. Your copy of ez2view Australia should be displaying the ez2view Explorer ready for you to start exploring the NEM.

If ez2view is not displaying data, or if you had some other problem, please contact us for help (see [Contacting Global-Roam](#) on page 14).

Upgrading an Existing Installation

This section describes the steps for upgrading an existing installation of ez2view Australia.

Upgrading ez2view Australia

Installation of .NET Framework 4.7.1 Full Profile

ez2view version 7.4.0 and above requires .NET Framework 4.7.1. If the correct .NET Framework version is not installed the ez2view install will not proceed and an error message will be displayed. For more details go to [Installation of .NET Framework 4.7.1 Full Profile](#).

Installation

Download the install file for ez2view Australia from the download section of the ez2view Australia web site go to <http://install.ez2viewaustralia.info/ez2view-downloads/>.

Right-click the install file and choose the “Run As Administrator” option, then follow the prompts until the installation has completed.

Configuration

Because you upgraded from a previous version of ez2view Australia, no additional configuration should be necessary.

Please Note: If you are upgrading from an earlier version of ez2view Australia to 6.0.362 or later, you will need to configure the ez2 Database Connection. For more information on how to do this, go to the section [Configuring the ez2 Database Connection](#) on page 36. You should not need to do any additional configuration.

Use the shortcut on the desktop (or in the Start Menu) to open ez2view Australia.

Done Upgrading an Existing Installation

At this point your copy of ez2view Australia should be displaying the ez2view Explorer ready for you to start exploring the NEM.

If you got to this point, then everything probably went well, and you’re all set up with the latest version of ez2view Australia. Awesome!

If you have any problems at all, please contact us for help (see [Contacting Global-Roam](#) on page 14).

Special Instructions

Providing User Access Control for the MITC Component

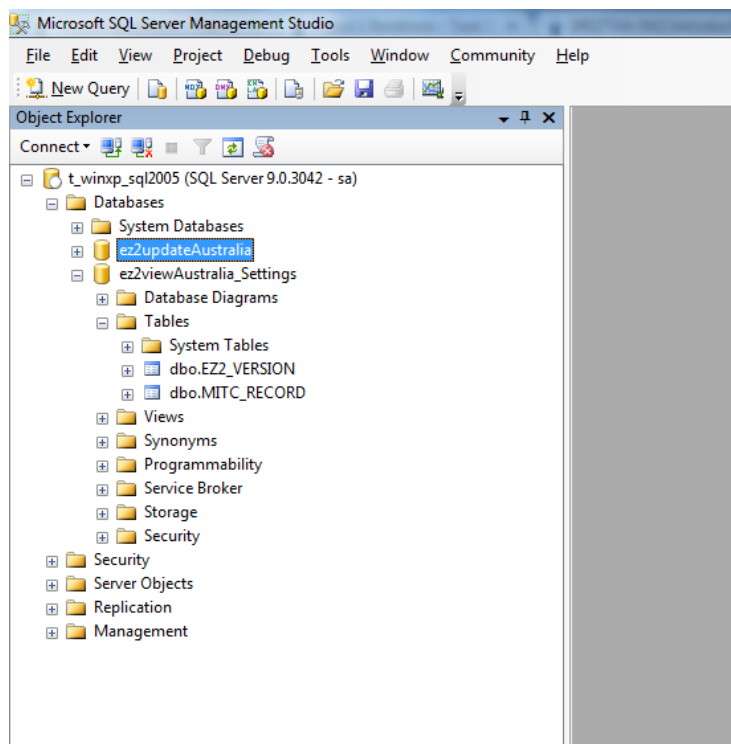
ez2view Australia does not currently feature user access control for the usage of the MITC component. As a workaround, we recommend you use the user access control functionality built in to SQL Server.

The MITC_RECORD table in the ez2 database is where the MITC records created by the MITC component are stored by ez2view Australia.

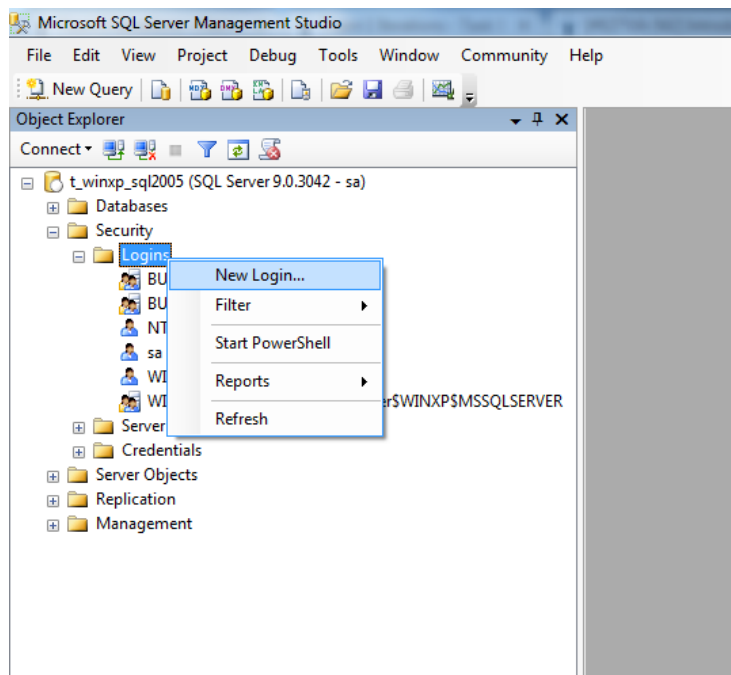
For access control to the MITC component you will be creating two users in SQL Server, one that has full read/write privileges to the table where the MITC data is stored (the MITC_RECORD table), and another who only has read privileges.

These instructions use SQL Server Management Studio to interface with the SQL Server instance. This piece of software is freely available from Microsoft, and comes with most installations of SQL Server. If you want to use some other piece of management software to create and configure the necessary user accounts, feel free.

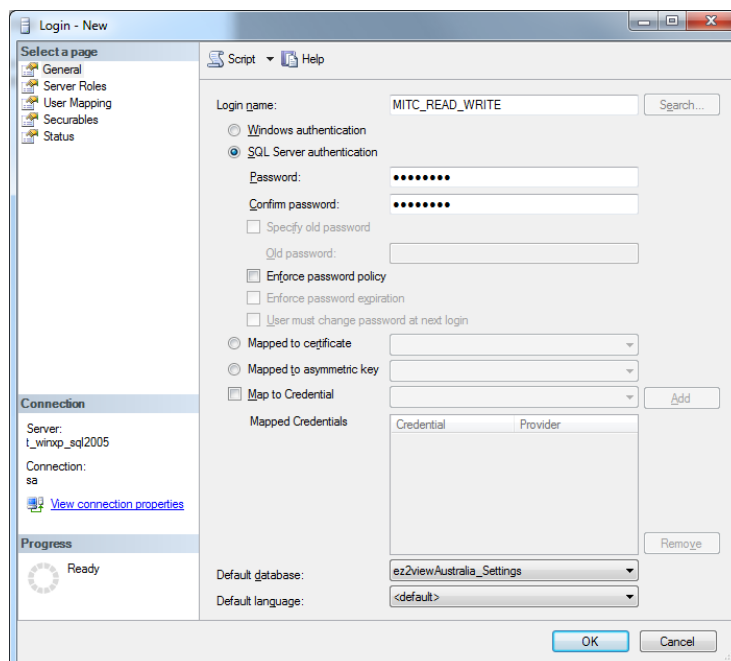
- 1.) Open SQL Server Management Studio.
- 2.) Connect to the database where your MITC_RECORD table is stored (in the attached image, my MITC_RECORD table is stored in the ez2viewAustralia_Settings database in the t_winxp_sql2005 SQL Server instance).



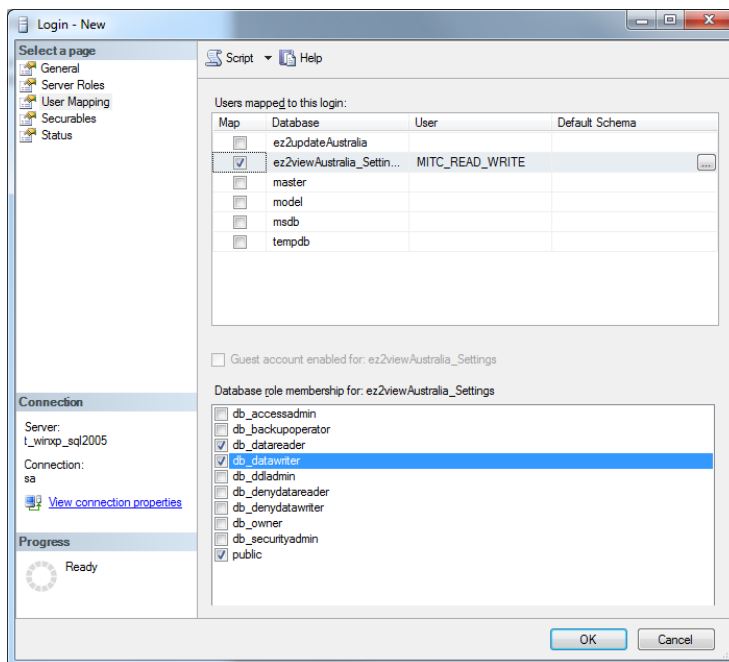
- 3.) Expand the top level Security tab, right click on Logins and click New Login.



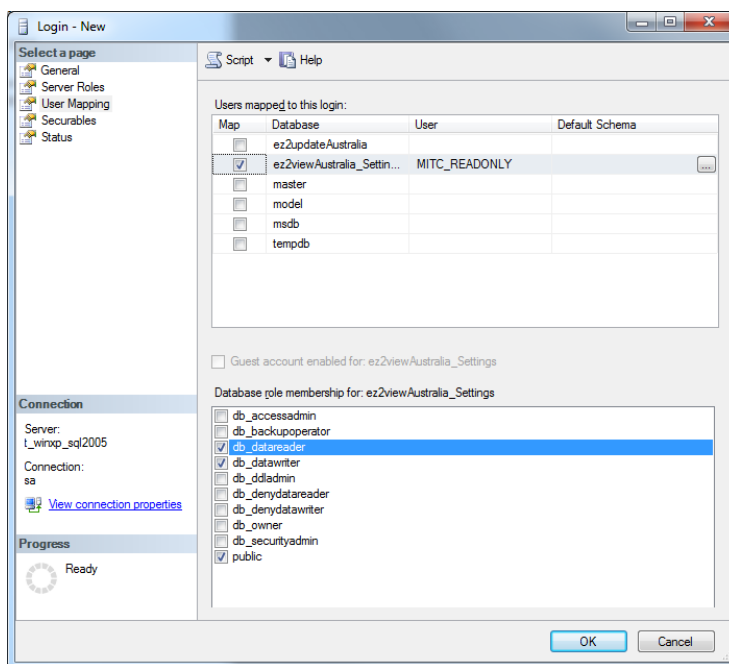
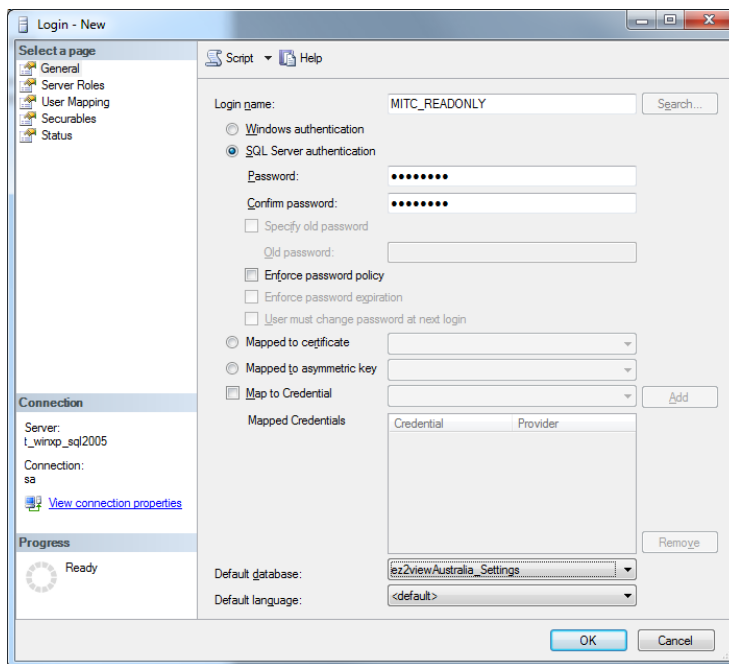
- 4.) Create a login to represent the user who can both read and write into the MITC_RECORD table.



- 5.) Ensure that the login is mapped to the database where the MITC_RECORD table is stored, with the db_datareader and db_datawriter role memberships assigned.

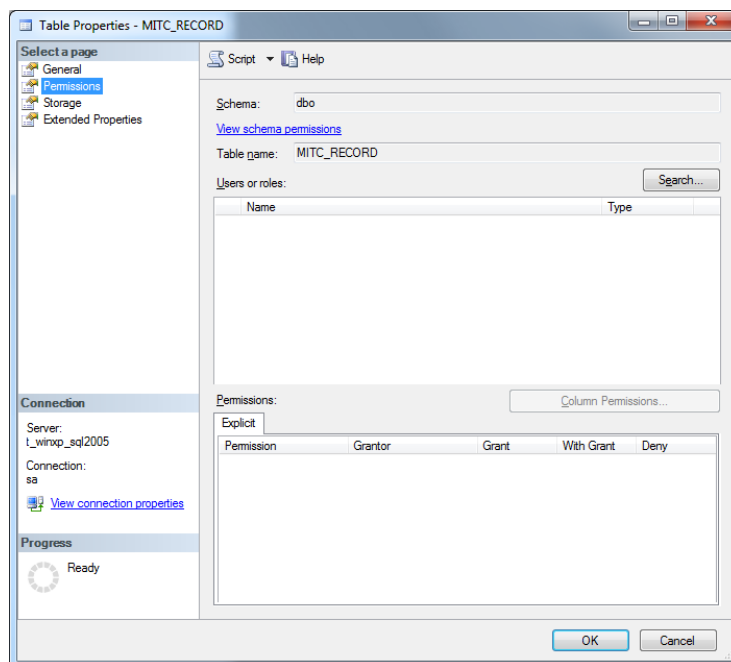
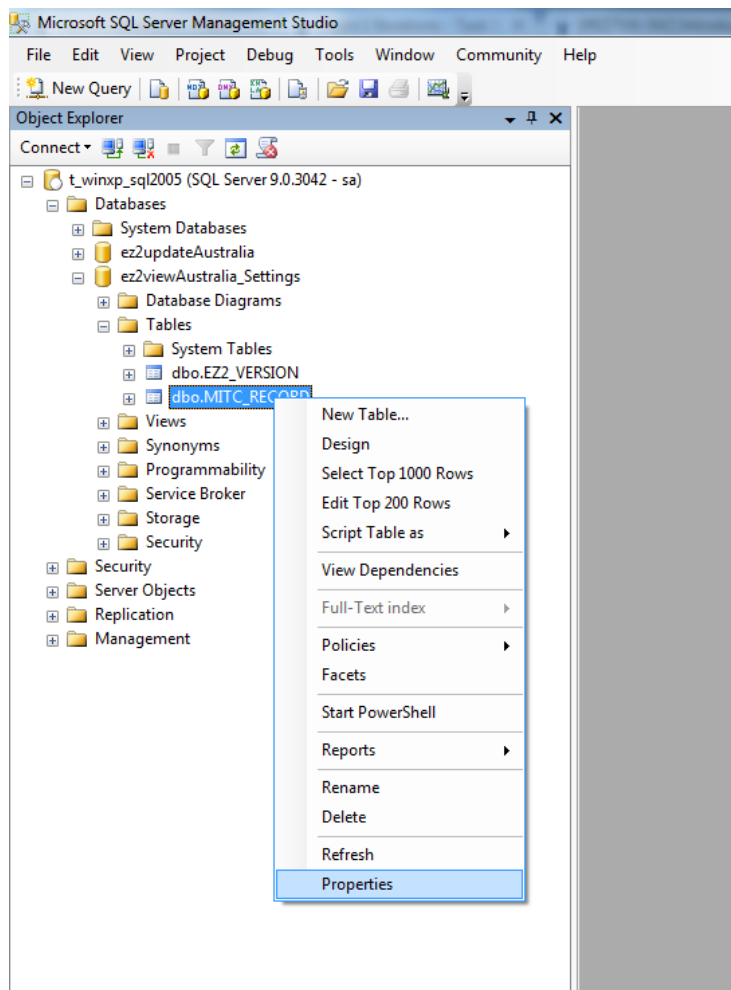


- 6.) Create a login to represent the user who can only read the MITC_RECORD table. This is slightly more complicated, as we want to ensure that they are only denied write access to the MITC_RECORD table and not to any other table in the database.

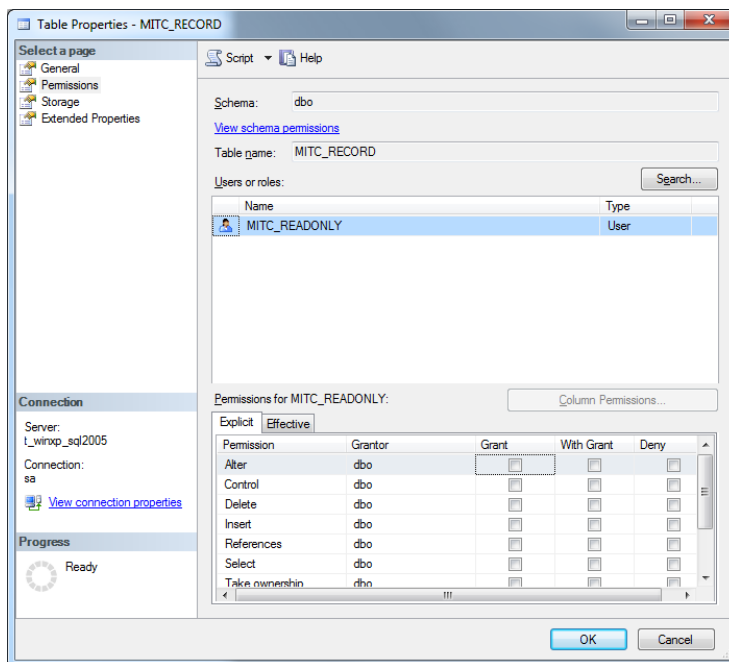


As you can see, at this point (except for name) the user is exactly the same.

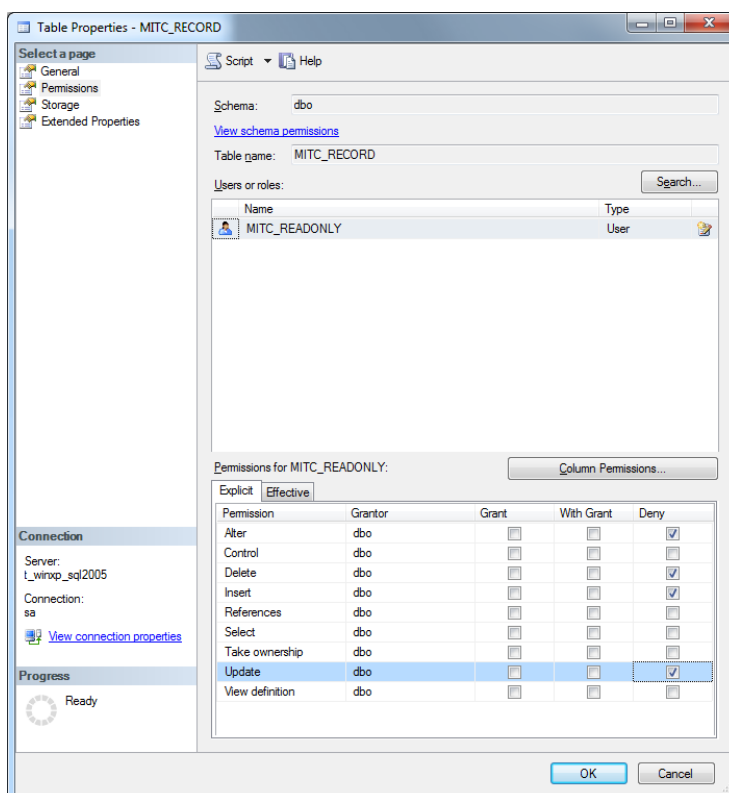
7.) Open the properties of the MITC_RECORD table, and go to Permissions.



- 8.) Find the read only user you created earlier (Click Search, and type in the username, it should find it automatically for you. In my case, it was MITC_READONLY).



- 9.) Deny that user Alter, Delete, Insert and Update permissions.



10.) Now you can use either of these two users as appropriate when configuring the ez2 Database Connection. For detailed instructions on how to do this, please refer to the section [Configuring the ez2 Database Connection](#) on page 36.



Configuring Shared Settings

ez2view Australia enables users to share settings between applications running on the same network.

The following settings are available for sharing in ez2view Australia 6.3.14198 and above:

- Notification Rules
- Constraint Set Filters
- Constraint Equation Filters
- DUID Filters
- Bid Stack Price Buckets
- Application Layouts
- Widget Bookmarks

All other application settings such as default filter selection, column order and tab selection are local to an application installation and cannot be shared between users.

Configuration

By default ez2view Australia is not configured to share settings. The application will be configured to save all data and settings to the local file system.

To enable the shared settings database from within the application select Tools-> Options from the main menu and then select the User Settings tab.

To share settings, ez2view will need read /write access to a shared ez2 database on the same network. For detailed instructions on [Configuring the ez2 Database Connection](#) go to page 36.

Once the shared database is configured correctly users can elect to share new settings using the Sharing Editor. Please the editor help files for more information.

When shared settings is first enabled in ez2view, application settings, related to filters, notification rules and bid stack price buckets, previously stored on the local file system will no longer be available to the user.

To make the file system settings available again the user will need to migrate the file system settings to the shared settings database.

Settings Migration

ez2view provides a tool to help move your existing user settings from the local file system where the ez2view application is installed into the shared settings database. The tool also provides the ability to migrate setting from the shared database to your local file system.

Specifically the tool will migrate users settings related to:

- Notification Rules
- Constraint Set Filters
- Constraint Equation Filters
- DUID Filters
- Bid Stack Price Buckets
- Application Layouts
- Widget Bookmarks

All other application settings such as default filter selection, column order and tab selection are local to an application installation and will not be migrated to the shared settings database.

By default any settings migrated to the shared settings database by the migration tool are marked as Private to me and will not be available to other users. Once the settings have been migrated the permissions on each setting can be updated to allow sharing with other users on the network.

For more information on sharing setting in ez2view please see the help files for the filter, notification rule or price bucket you wish to share.

To migrate your settings into the shared settings database select Tools-> Options from the main menu and then select the User Settings tab. Under the Settings Migration section:

- 1.) Select the direction you want to migrate your settings e.g. File System to Database or Database to File System,
- 2.) Click the "Migrate..." button,
- 3.) Review the output to verify the correct shared database has been detected.
- 4.) Verify that the list of settings to migrate is correct.
- 5.) Click *Migrate All Settings*
- 6.) A message will be displayed indicating that the migration has been completed successfully. Click *Ok*.
- 7.) Click *Finish* to close the migration tool.

Trouble Shooting

Message	Possible Cause	Action
Setting Already Exists	Re-running the migration tool on the same machine would cause the migration tool to detect a duplicate setting.	Ignore
Setting Already Exists	Prior to shared settings in ez2view an organization may have imitated shared settings by coping setting configuration files between machines. Once copied to another machine a user was free to modify the setting.	The safest option is to Insert the setting and then review the setting in ez2view. If the copy is a genuine duplicate then it can be deleted from within the ez2view application.
The setting appears to be corrupt as it could not be read correctly	The setting configuration file format is corrupt.	Setting cannot be migrated.

Adding Audible Alert Sound Files

In ez2view Australia you can create Notification Rules that cause messages to be displayed in the Notification Stream and/or audible alerts to be played. Audible alerts can be either a spoken message or a sound played when the rule is triggered.

ez2view provides a set of default sound files for your use as audible alerts. The sound files are installed in the following location:

- ProgramData/global-roam/ez2view Australia/Sounds

To include additional sound file for use as audible alerts copy the files into the *Sounds* directory. ez2view will automatically make the files available for selection when creating Notification Rules. Please note when selecting new audible alert sound files that the selected sound file will be played in its entirety each time the rule is triggered or until the alert is acknowledged.

Sound File Terms of Use

The following sound files distributed with ez2view Australia are licensed under [Creative Commons Attribution 3.0 Unported](#) or [Public Domain](#). The original versions of the file can be found [here](#).

Filename	Licence	Recorded By
AirHorn.wav	Attribution 3.0	Mike Koenig
Alarm.wav	Attribution 3.0	Mike Koenig
Alarm2.wav	Attribution 3.0	Mike Koenig
BuzzSound.wav	Attribution 3.0	Mike Koenig
CensorBeep.wav	Attribution 3.0	Mastercard
ComputerErrorAlert.wav	Attribution 3.0	Mike Koenig
DoorBell.wav	Attribution 3.0	Mike Koenig
DefaultNotificationSound.wav	Attribution 3.0	Mike Koenig
DoorBuzzer.wav	Attribution 3.0	Mike Koenig
ElectricalSweep.wav	Public Domain	Sweeper
StoreDoorChime.wav	Attribution 3.0	Mike Koenig
Error.wav	Attribution 3.0	Mike Koenig
Error2.wav	Attribution 3.0	Mike Koenig
Error3.wav	Attribution 3.0	Mike Koenig
PhoneOffHook.wav	Attribution 3.0	Mike Koenig
PlaneAlert.wav	Attribution 3.0	Mike Koenig
StoreDoorChime.wav	Attribution 3.0	Mike Koenig

Exporting Database Connection Setting to File

For security reasons ez2view Australia stores your database connection details as encrypted strings. You will not be able to export the database connection details unless you can verify the password associated with each database connection string.

Warning: The exported settings will NOT be encrypted. The database connection details (including password) will be in plain text and will need to be managed securely.

Click the “Export Settings to File” button and enter the required database password to verify your permission to export.

Export Database Connection Settings To File

Exported settings will NOT be encrypted. This means database connection strings (including passwords) will be in plain text.

To verify your permission to access this encrypted data, please enter the passwords for the following connection strings:

Database Name: [DATABASE].[ELECTRANET]
Connection String: Persist Security Info=True;Data Source=DATABASE;User Id=user;Password=****;Initial Catalog=ELECTRANET;
Password: X

Database Name: [DATABASE].[POWERLINK]
Connection String: Persist Security Info=True;Data Source=DATABASE;User Id=user;Password=****;Initial Catalog=POWERLINK;
Password: X

Database Name: [DATABASE].[SPAUSNET]
Connection String: Persist Security Info=True;Data Source=DATABASE;User Id=user;Password=****;Initial Catalog=SPAUSNET;
Password: X

Database Name: [DATABASE].[TRANSGRID]
Connection String: Persist Security Info=True;Data Source=DATABASE;User Id=user;Password=****;Initial Catalog=TRANSGRID;
Password: X

Database Name: [DATABASE].[NEMMCO]
Connection String: Persist Security Info=True;Data Source=DATABASE;User Id=user;Password=****;Initial Catalog=NEMMCO;
Password: X

Database Name: [DATABASE].[EZ2_DEV]
Connection String: Persist Security Info=True;Data Source=DATABASE;User Id=sa;Password=****;Initial Catalog=EZ2_DEV;
Password: X

Database Name: [t_winxp_oracleXE]
Connection String: Persist Security Info=True;Data Source=t_winxp_oracleXE;User Id=EZ2_SETTINGS;Password=****;
Password: X

OK Cancel