MessageWay Reporting Installation and Configuration Guide for MySQL

Progress®

MessageWay®

Document History

Part Number	Product Name	Date
MWIR610-100	MessageWay Reporting User's Guide	08/2015
MWIR610-101	MessageWay Reporting User's Guide	01/2016
MWIR610-102	MessageWay Reporting User's Guide	06/28/19
MWIR610-103	MessageWay Reporting User's Guide	04/30/21

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Introduction

MessageWay Reporting™ is a web-based application that lets you view historic and current MessageWay activity using a web browser from any location. MessageWay Reporting comes with six reports that display historical data and three monitors that update every 60 seconds to give you an up-to-the-minute view of system activity. Each report contains a filter that lets you control what the report displays. You can view any number of reports and print or save reports in multiple file formats if desired.

Audience

This guide is intended for administrators who want to install, configure, or manage MessageWay on their host servers. This person should be familiar with the host's operating system and database server and have administrator credentials for both.

Whoever configures MessageWay Reporting must also have credentials to log on to and administer users and locations in MessageWay.

Purpose and Scope

This guide provides step-by-step instruction for how to:

Install MessageWay Reporting (on page 8)

Start and stop MessageWay Reporting (on page 18)

Configure MessageWay Reporting (on page 19)

Troubleshoot Logon Failure (on page 34)

View Log Files (on page 36)

Uninstall MessageWay Reporting (on page 37)

System Requirements

Software Requirements	
Operating Systems	Red Hat Enterprise Linux (RHEL) v6.x and 7.x SUSE Linux Enterprise Server (SLES) v11 and 12
Database Platforms (MessageWay)	MySQL 5.5.x and 5.7.x
Database Platforms (Datamart)	MySQL 5.5.x and 5.7.x
MessageWay	Version 6.1
Supported Browsers	Internet Explorer v11, latest versions of Chrome and Firefox

Hardware Requirements	
CPU	2 core/cpu minimum
RAM	Minimum of 8 GB is recommended.
Hard Disk	The application footprint is under 350MB; additional 1GB would suffice for its log files.
Networking	The traffic to and from MessageWay Reporting falls into two categories: User activity from client browser to the application. Database activity for both report generation and the periodic ETL activity. The ETL does not fetch the actual message content, only the associated database records. We recommend a low latency and a high throughput connection from the MessageWay Reporting server to the related database servers to minimize the ETL execution time.

MessageWay Requirements
The MessageWay Reporting host server must have network access to the MessageWay server.
The MessageWay Service Interface must be running on the MessageWay server.

Technical Support

The MessageWay Technical Support hub is an information and diagnostic center available for customers to:

- Obtain advice on proper product installation, configuration, and operation
- Report any product problems and receive timely resolutions
- Request a software enhancement
- Request software updates
- Inquire about software release contents and status
- View publications
- See how to contact Technical Support
- See hours of availability for Technical Support

To visit the MessageWay Technical Support hub, please follow the below link:

https://www.progress.com/support/messageway

The Technical Support Web site is available 24/7, portions of which require a valid Progress ID. If you have not already done so, you can follow the instructions in the following URL to obtain a valid Progress ID:

https://knowledgebase.progress.com/articles/Article/how-to-create-a-progress-id

Install MessageWay Reporting

Before beginning installation, ensure that your system meets all *system requirements* (on page 6).
The install is comprised of two parts, which must be installed in the following order:

1. The database install, which includes:
   - Prepare MessageWay database to capture data for Reporting
   - Prepare the Reporting database (also referred to as datamart)
2. The perimeter server install, which includes:
   - Installing MessageWay Reporting Application

➢ *Extract the database install files:*

1 In the MessageWay Reporting install package that you received, there should be a file named *MWIR_SQL_release.tgz*. Copy this file to the **mwayinstall** directory on the database server (create if does not exist).

2 Go to the **mwayinstall** directory on the database server and untar the *MWIR_SQL_release.tgz* file:

- **tar –xzvf** *MWIR_SQL_release.tgz*

This creates a subdirectory of the name of the install file with version info added.

3 Go to the subdirectory you just created and proceed to the next section. For the purpose of this document, this directory is referred to as *mwir_sql_root*.

➢ *Prepare MessageWay database to capture data for Reporting:*

1 Execute one of the following script files against the pre-existing MessageWay database (referred to as *mway_database* in this document). Two script variations are provided. The script with the "-nohistory" suffix will not capture pre-existing Message and Audit Log information (reports will only show messages and audit logs after the reporting-related database changes have been applied via the script).

Note: The script files noted below are batch scripts; they will call out other sql scripts located in the same folder. If the script files need to be placed on a different machine/path for execution, be sure to include all .sql files while maintaining the directory structure below the "sql" directory.

TO CAPTURE HISTORICAL DATA:

*mwir_sql_root***/sql/MessageWay/MySQL/mysql-mway-batch-load.sql**

mysql syntax: **mysql -u***mway_user* **-p***mway_passwd* **-D***mway_database* **< mysql-mway-batch-load.sql**

TO NOT CAPTURE HISTORICAL DATA:

*mwir_sql_root***/sql/MessageWay/MySQL/mysql-mway-batch-load-nohistory.sql**

mysql syntax: **mysql -u***mway_user* **-p***mway_passwd* **-D***mway_database* **< mysql-mway-batch-load-nohistory.sql**

➢ *Prepare the Reporting database:*

1 The MySQL install for versions 5 or higher does not create the my.cnf configuration file. If you are creating the reporting database on the same server as the MessageWay database, then the my.cnf configuration file has already been created as part of the MessageWay install, and you can skip this step. Otherwise you must create the my.cnf configuration file as follows:

a) In /etc, create a file named **my.cnf** (owned by root).

b) In the my.cnf file, create the section, **[mysqld]**, and add the following lines:

lower_case_table_names=1	**wait_timeout=2592000**
interactive_timeout=2592000	**innodb_buffer_pool_size=128M**
max_allowed_packet=64M	**innodb_log_buffer_size=8M**
max_connections=5000	**innodb_log_file_size=64M**
query_cache_size=20M	**innodb_flush_log_at_trx_commit = 0**
thread_cache_size=40	**innodb_additional_mem_pool_size = 1M**

c) Restart the mysqld daemon process.

2 Before reporting-related objects are loaded into the database, you must create a dedicated database for reporting. See the *mwir_sql_root***/sql/DataMart/MySQL/mysql-datamart-create-schema-template.sql** file as a template for generating this database.

3 Once the reporting database is created, execute the following script file in the context of this database (referred to as *mwir_database* in this document).

Note: The script file noted below is a batch script; it will call out other sql scripts located in the same folder. If the script file needs to be placed on a different machine/path for execution, be sure to include all .sql files while maintaining the directory structure below the "sql" directory.

*mwir_sql_root***/sql/DataMart/MySQL/mysql-datamart-batch-load.sql**

mysql syntax: **mysql -u***mwir_user* **-p***mwir_passwd* **-D***mwir_database* **< mysql-datamart-batch-load.sql**

➢ *Extract the perimeter server install file:*

1 Log on as user **root**.

Note: The installer requires root access in order to create the initial install directories and install the necessary files.

2 In the MessageWay Reporting install package that you received, there should be a file named *MessageWayReporting.bin*. Copy this file to the **mwayinstall** directory on the perimeter server (create if does not exist).

3 Go to the **mwayinstall** directory on the perimeter server, run the install script, and proceed to the next section:

./MessageWayReporting.bin

➢ *Install MessageWay Reporting Application:*

   Note: The Datamart database must be the same type as the MessageWay database.

1   At this point, either the graphical user interface appears, or you continue with the console. The primary difference is for Linux users, who must specify the type of distribution. The following instructions show the console install.

2   Read the introductory information and press **Enter** to continue.

   Note: To cancel the installation at any time during the process, type **quit**.

3   Type a *destination folder* in which to install the MWReporting application, or nothing to select the default.

```
===============================================================================
Choose Install Folder
---------------------

Where would you like to install?

  Default Install Folder: /opt/messageway/mwir

ENTER AN ABSOLUTE PATH, OR PRESS <ENTER> TO ACCEPT THE DEFAULT
      : ▮
```

4   Press **Enter**, and accept or change the *port number* used to connect to MWReporting application.

```
===============================================================================
MessageWay Interactive Reporting Port Number
--------------------------------------------

Enter Port Number for MessageWay Interactive Reporting
Port 8778 reserved for TomCat; DO NOT USE !!

Port Number (DEFAULT: 80):
```

5   Press **Enter**, and accept or change the *Host Name* or *IP Address* of where the MessageWay Service Interface is located.   The MWSI is used to authenticate users when logging on to MWReporting application.

```
===============================================================================
MessageWay Connection Information
--------------------------------

Enter the information for the MessageWay Service Interface Connection

Server Name (or IP Address) (DEFAULT: localhost): 172.16.101.10
```

6   Press **Enter**, and accept or change the *unsecure port number* used by the MessageWay Service Interface.

```
================================================================================
MessageWay Connection Information
--------------------------------

Enter the information for the MessageWay Service Interface Connection

Port Number (Unsecure) (DEFAULT: 6280):
```

7   Press **Enter**, and accept or change the *secure port number* used by the MessageWay Service Interface.

```
================================================================================
MessageWay Connection Information
--------------------------------

Enter the information for the MessageWay Service Interface Connection

Port Number (Secure) (DEFAULT: 6243):
```

8   Press **Enter**, and accept or change the *SSL Fingerprint* which matches the certificate used by the MessageWay Service Interface.   The default shown matches the test certificate shipped with the Service Interface.   This is the MD5 version of the fingerprint.

```
================================================================================
MessageWay Connection Information
--------------------------------

Enter the information for the MessageWay Service Interface Connection

SSL Fingerprint (DEFAULT:
   59:57:1B:C2:D6:FA:B1:55:35:DC:DA:2B:BF:FE:25:36:1A:EB:DC:D6):
```

9   Press **Enter**, and enter the number which corresponds to the *database type* used by MessageWay.

```
================================================================================
MessageWay Connection Information
--------------------------------

Select the MessageWay Database Type

  ->1- Microsoft SQLServer
    2- MySQL
    3- Oracle

ENTER THE NUMBER FOR YOUR CHOICE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT:: 2
```

10 Press **Enter**, and enter the *Host Name* or *IP Address* of where the MessageWay database is located.

```
============================================================================
MessageWay Connection Information
--------------------------------

Enter the MessageWay Database Server Name (or IP Address)

Database Server Name (or IP Address) (DEFAULT: ): 172.16.101.43
```

11 Press **Enter**, and accept or change the *name* of the MessageWay database.

```
============================================================================
MessageWay Connection Information
--------------------------------

Enter the MessageWay Database Name

Database Name (DEFAULT: MessageWay):
```

12 Press **Enter**, and accept or change the *port number* used by the MessageWay database.

```
============================================================================
MessageWay Connection Information
--------------------------------

Enter the MessageWay Database Port Number

Port Number (DEFAULT: 3306):
```

13 Press **Enter**, and enter the *username* used to access the MessageWay database.

```
============================================================================
MessageWay Connection Information
--------------------------------

Enter the MessageWay Database Username

Username (DEFAULT: ): mway
```

14 Press **Enter**, and enter the *password* used to access the MessageWay database.

```
===============================================================================
MessageWay Connection Information
--------------------------------

Enter the MessageWay Database Password (input not echoed to screen)

Password:
```

Note: At this point, the install will attempt to connect to the MessageWay database using the credentials provided above.   If the connection fails, you will be prompted again to enter the MessageWay database credentials.

15 Press **Enter**, and enter the number which corresponds to the *database type* used by the MWReporting datamart.

```
===============================================================================
DataMart Connection Information
--------------------------------

Select the DataMart Database Type

  ->1- Microsoft SQLServer
    2- MySQL
    3- Oracle

ENTER THE NUMBER FOR YOUR CHOICE, OR PRESS <ENTER> TO ACCEPT THE DEFAULT:: 2
```

16 Press **Enter**, and enter the *Host Name* or *IP Address* of where the MWReporting datamart database is located.

```
===============================================================================
DataMart Connection Information
--------------------------------

Enter the DataMart Database Server Name (or IP Address)

Database Server Name (or IP Address) (DEFAULT: ): 172.16.101.43
```

17 Press **Enter**, and accept or change the *name* of the MWReporting datamart database.

```
===============================================================================
DataMart Connection Information
--------------------------------

Enter the DataMart Database Name

Database Name (DEFAULT: Datamart):
```

18 Press **Enter**, and accept or change the *port number* used by the MWReporting datamart database.

```
================================================================================
DataMart Connection Information
-------------------------------

Enter the DataMart Database Port Number

Port Number (DEFAULT: 3306):
```

19 Press **Enter**, and enter the *username* used to access the MWReporting datamart database.

```
================================================================================
DataMart Connection Information
-------------------------------

Enter the DataMart Database Username

Username (DEFAULT: ): mwreporting
```

20 Press **Enter**, and enter the *password* used to access the MWReporting datamart database.

```
================================================================================
DataMart Connection Information
-------------------------------

Enter the DataMart Database Password (input not echoed to screen)

Password:
```

Note: At this point, the install will attempt to connect to the MWReporting datamart database using the credentials provided above.   If the connection fails, you will be prompted again to enter the MWReporting datamart database credentials.

21 Press **Enter**, and review the summary.

```
================================================================================
Pre-Installation Summary
------------------------

Please Review the Following Before Continuing:

Install Folder:
    /opt/messageway/mwir

Link Folder:
    /root

Product Features:
    Typical

Disk Space Information (for Installation Target):
    Required:  549,237,680 Bytes
    Available: 1,037,717,504 Bytes

PRESS <ENTER> TO CONTINUE:
```

22 Press **Enter**, and wait for the install to complete.

23 When the install completes, press **Enter**.

Modify the port number (optional):

The application is configured to accept HTTP connection on the port specified during the install.   If for some reason you need to change the value specified during the install, open the following file:

   mwir_root/**conf/server.xml**

and modify the following section accordingly:

```
<Connector port="8080" protocol="HTTP/1.1"
    connectionTimeout="20000"
    redirectPort="8443" />
```

Set port="8080" to the desired value.

Modify the memory allocation (optional):

The application server is configured to use up to 2GB of memory by default. This is sufficient typically, but if the corresponding Java process appears to reach close to this limit, you can increase this value. To do so, open the following file:

   mwir_root/**bin/setenv.sh**

and modify the following section accordingly:

```
export CATALINA_OPTS="$CATALINA_OPTS -XX:MetaspaceSize=128m
-XX:MaxMetaspaceSize=256M -Xms256M -Xmx2048m"
```

Change the `-Xmx2048m` to the desired value. Be sure to use the "m" suffix to indicate that the value is in megabytes.

Modify data trimming value (optional):

Data trimming is the number of days that historical data will be kept in the datamart. The default value is 396. To change this value, open the following file:

> *mwir_root***/webapps/shell/WEB-INF/config/ETLJob.conf**

and modify the following section accordingly:

```
<void property="trimDays">
  <int>396</int>
</void>
```

Enable Access Class (optional):

Enabling Access Class restricts access to MessageWay via the MWReporting listener to only those users whose configuration does not include an access class list in MessageWay, or includes this value in their access class list in MessageWay. This value should be alphanumeric and is case-sensitive. It must match exactly what is specified for the user, and only one access class value is allowed per MWReporting. The default value is blank (`<param-value></param-value>`). To specify this value, edit the following file:

> *mwir_root***/webapps/shell/WEB-INF/web.xml**

and modify the following section accordingly:

```
<description>MessageWay Service Interface Access Class</description>
<param-name>reporting.engine.accessclass</param-name>
<param-value>accessclass</param-value>
```

and restart MessageWay Reporting. To enable Access Classes in MessageWay, see section *Controlling User Access with Access Classes* (on page 21).

Enable secure connection to MessageWay (optional):

If you want to enable secure connection from MessageWay Reporting to the MessageWay Service Interface, edit the following file:

*mwir_root***/webapps/shell/WEB-INF/web.xml**

and modify the following section by changing off to on:

```
<description>SSL authentication switch (values are on or off)...
<param-name>reporting.engine.secureAuthentication</param-name>
<param-value>off</param-value>
```

and restart MessageWay Reporting.

Note: The default secure port for Service Interface is 6243, and the default fingerprint used is the MessageWay test certificate fingerprint.

Enable SSL (optional):

If you want to enable SSL during browser access for enhanced security, follow the instructions in *mwir_root***/enablingSSL.txt**.

Start and Stop MessageWay Reporting

Start and Stop the Application Server

You must start the Apache Tomcat-based application server before starting MessageWay Reporting interface. You may also need to stop the application server at times.

Use the following commands in the *mwir_root*/**bin** directory to start or stop the application server (log on as user **root**):

./startup.sh

./shutdown.sh

Start the Application Interface

After you've started the application server, you can now start the MessageWay Reporting application interface:

1   Start the application interface by entering the following in a web browser:

   http://<*server_name*>**:**<*port_number*>**/**

> **Note**: The <*port_number*> will be 80 unless you chose a different port number during installation.
>
> **Note:** If you cannot reach the site, ensure that the MessageWay Reporting service is running on the host system.

2   Log on as a user who:

- Is a member of the Administrators group
- Has a default location in MessageWay
- Has the **Generate Reports** and **Download Messages** rights

> **IMPORTANT:** If you cannot log on to MessageWay Reporting, ensure that all MessageWay servers are running.

Configure MessageWay Reporting

After installation is complete you must perform the following configuration tasks in MessageWay Manager and in MessageWay Reporting.

In MessageWay Manager you must configure users to allow access to MessageWay Reporting.

In MessageWay Reporting you will configure time zones, database synchronization and access to individual reports.

Configure MessageWay Manager

Log on as a user who is a member of the Administrators group and then perform the configuration tasks in the following sections.

Permit Access to MessageWay Reporting

To log on to MessageWay Reporting, a user must have:

- A MessageWay username and password
- A Default Location in MessageWay
- Proper user rights in MessageWay

This section describes how to assign the proper user rights in MessageWay.

The easiest way to ensure that a user has the necessary rights in MessageWay to log on to MessageWay Reporting is to add a user to either the Administrators group or the Report Users group in MessageWay. Those groups are pre-configured to allow different levels of access in MessageWay Reporting. You can also customize permissions for individual users and groups on an as-needed basis. Both options are described in the sections below.

Note: If a user experiences logon failure, see *Troubleshoot Logon Failures* (on page 34).

➢ *Add users to existing pre-configured MessageWay groups:*

1 Log on to MessageWay Manager as an administrator who has permission to modify user and group access rights.

2 Assign the user to one of the following groups (whichever is appropriate):

- **Report Users**: A user who is added to the Report Users group will be able to:

- Log on to MessageWay Reporting
- View the following three reports: **File Details**, **File Summary**, **File Transfer Summary**
  - **Administrators**: A user who is added to the Administrators group will be able to:
    - Log on to MessageWay Reporting
    - View all reports and monitors
    - View the **System** tab and be able to manage report permissions, database connections, database synchronization, system-wide record limits and view the MessageWay Reporting product version.

Caution: Assign users to the Administrators group with caution. Members of the Administrators group have rights to perform all actions in MessageWay by default.

The MessageWay Reporting database must synchronize with the MessageWay database before changes will take effect in MessageWay Reporting. You can synchronize on demand to see the changes take effect right now, or wait for the next scheduled synchronization. See *Synchronize the Databases* (on page 29) for more information.

➢ *Customize rights for a specific user or group in MessageWay:*

1 Log on to MessageWay Manager as an administrator who has permission to modify user and group access rights.

2 Locate the user or group for whom you want to modify rights.

3 Assign the following rights to the user or group, depending on the level of access you want to allow:

- **Generate Reports** and **Download Messages:** Both rights are required to log on to MessageWay Reporting. Without these rights, a user will not be able to log on to MessageWay Reporting.
- **Modify Global Properties**: This right is required to see the **System** tab in MessageWay Reporting. The System tab includes management of database connections, database synchronization, system-wide record limits and access to the MessageWay Reporting product version. Note that the Modify Global Properties right on its own does not include the ability to change report permissions; **Modify Access Rights** is also required if a user or group wants to change report permissions.
- **Modify Access Rights**: This right is required to view and change report permissions under the System tab. Users must also have the **Modify Global Properties** right to view the System tab or report permissions will not be accessible.

Follow your organizations accepted security practices when granting access rights and when adding users to groups. See the *MessageWay User's Guide and Reference > Configuring User Security* to view information about managing users and groups in MessageWay.
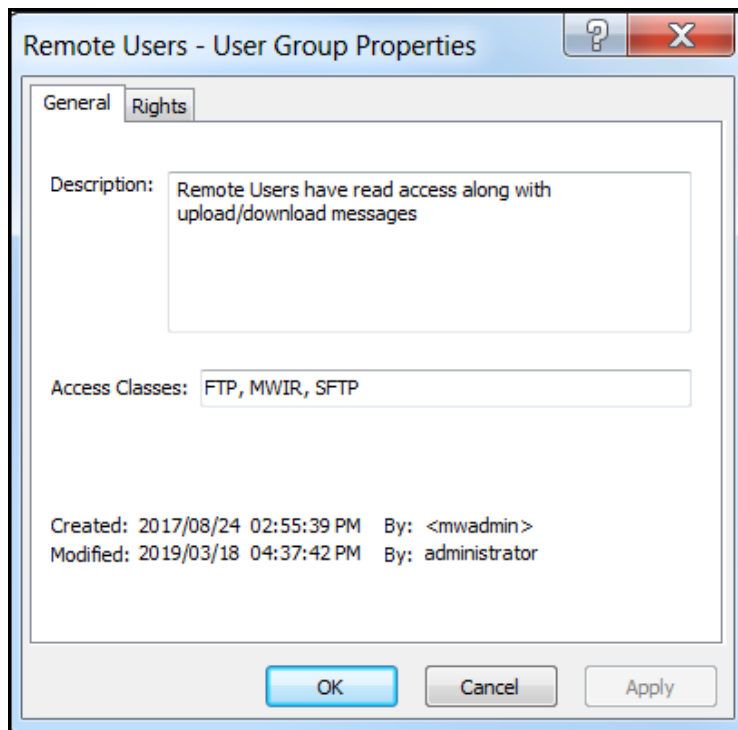
The MessageWay Reporting database must synchronize with the MessageWay database before changes will take effect in MessageWay Reporting. You can synchronize on demand to see the changes take effect right now, or wait for the next scheduled synchronization. See *Synchronize the Databases* (on page 29) for more information.
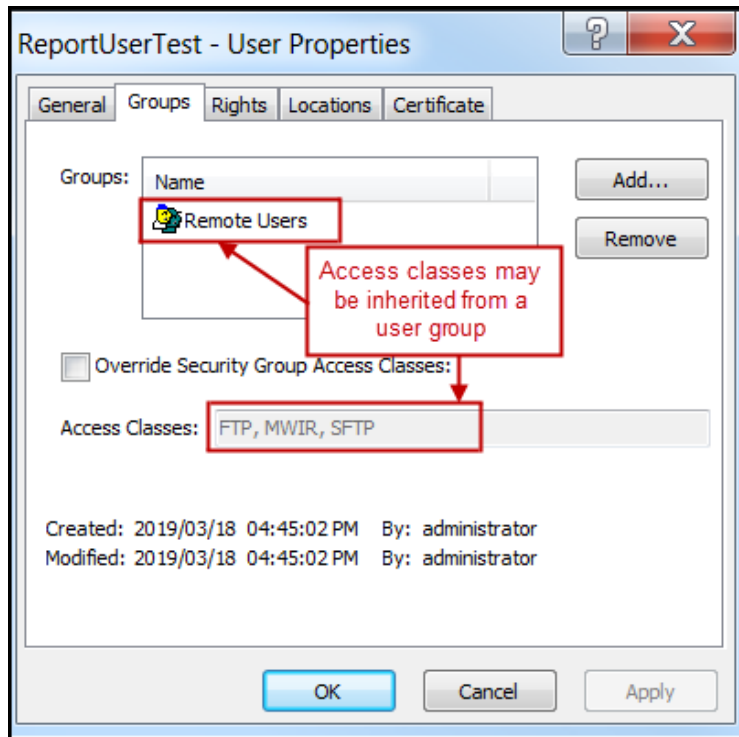
Controlling User Access with Access Classes

To limit the access paths to MessageWay for a user or group of users, you assign an access class. When an access class is set for a user, they will not be able to log on to MessageWay unless the MWReporting configuration file web.xml also has that access class listed.

IMPORTANT: Access class names are case-sensitive. They must match the access class name configured in the configuration file for MWReporting (web.xml). See section *Enable Access Class* (on page 16) for details about enabling access class in web.xml.
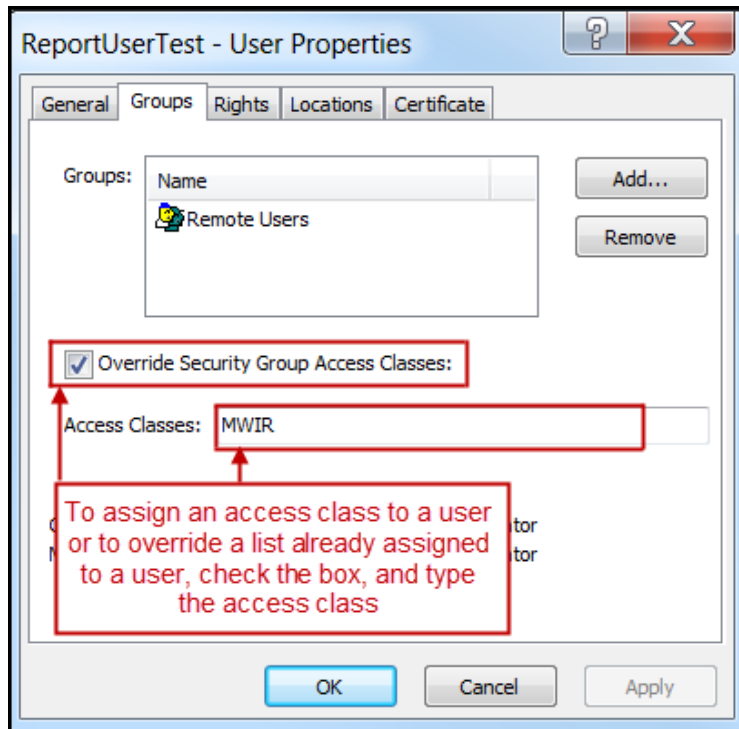
Access classes may be assigned to a user group. You do this on the **General** page of the User Group Properties window. In the following examples, access class is MWIR for MWReporting.

This access class is then assigned to users that belong to that group.

To assign one or more access classes to a single user or override access classes already assigned to a user, you specify them on the **Groups** page of the User Properties window, separated by commas.

This access class must be listed in the MWReporting configuration file, web.xml. If the access class in the configuration file is blank, then the access class for the user must also be blank. If the access class in the configuration file is not blank, then the access class for the user must either match the access class in the configuration file or be blank.

```
<description>MessageWay Service Interface Access Class</description>

<param-name>reporting.engine.accessclass</param-name>

<param-value>mwir</param-value>
```

IMPORTANT: Access class names are case-sensitive. See section *Enable Access Class* (on page 16) for details about enabling access class in web.xml.

Set Location Security

The following reports include location security:

- File Details
- File Summary
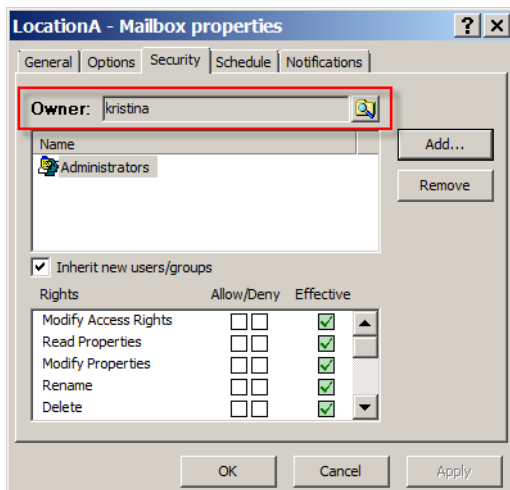- File Transfer Summary
- Message Details
- Message Summary

In these reports, users will see a location and its data only if they have the **Read Message Properties** right to that location in MessageWay.

Note: The remaining reports do not look at locations; therefore location security is irrelevant in those reports.
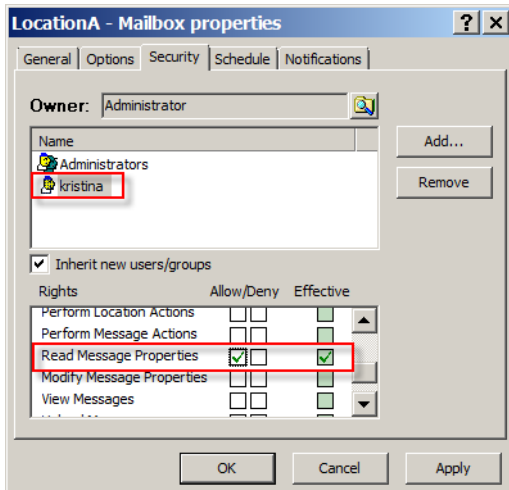
Note: Members of Administrators group are exempt from location security; they will always see all locations and location data.

To view a location or its data in MessageWay Reporting, a user must have one of the following location **Security** rights in MessageWay:

- The user is owner of the location, and therefore has implicit rights to view data:
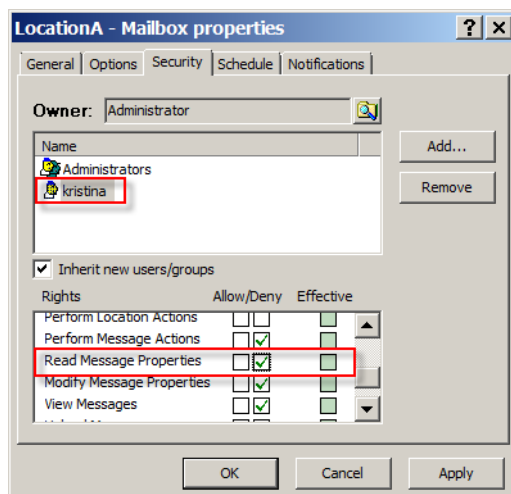
- The user or a group of which the user is a member has **Read Message Properties** explicitly allowed under **Effective** rights:

Note: Allowing any other access right automatically allows the **Read Message Properties** right.

You can explicitly remove access rights for a user who is member of a group that has access to the location by selecting **Deny** for the **Read Message Properties** right:

Warning: Explicitly denying the Read Message Properties right for a user at a location trumps any allows inherited implicitly via group membership. However, if a user is a member of a group that has Read Message Properties and a member of another group that denies Read Message Properties, the user will still be able to see messages at that location.

See the *MessageWay User's Guide and Reference > Specifying Security for Locations* for more information.

Configure MessageWay Reporting

1 Start the application server by using the following command in the *mwir_root*/**bin** directory:

./startup.sh

2 Start the application interface by entering the following in a web browser:

http://<*server_name*>**:**<*port_number*>**/**

> **Note**: The <*port_number*> will be 80 unless you chose a different port number during installation.
>
> **Note:** If you cannot reach the site, ensure that the MessageWay Reporting service is running on the host system.

3 Log on as a user who:

- Is a member of the Administrators group
- Has a default location in MessageWay
- Has the **Generate Reports** and **Download Messages** rights

> **IMPORTANT:** If you cannot log on to MessageWay Reporting, ensure that all MessageWay servers are running.

4 Perform the configuration tasks in the following sections:
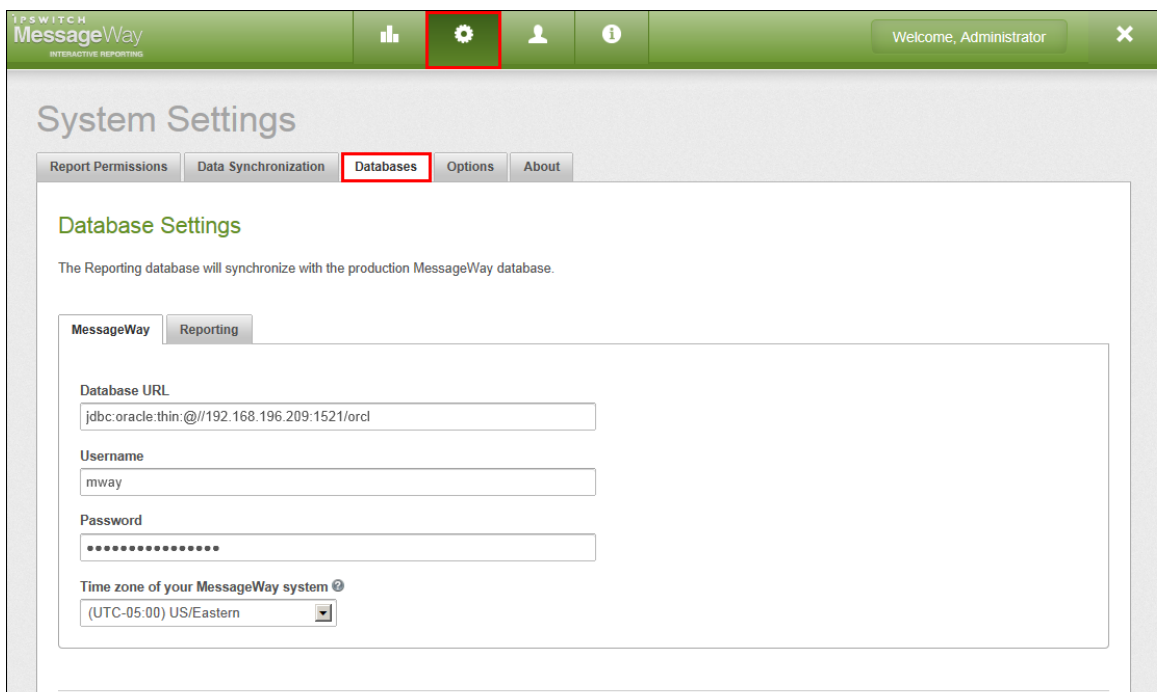
Set Database Time Zones (on page 27)

Synchronize the Databases (on page 29)

Permit Access to Reports (on page 30)

Set Database Time Zones

You must set the MessageWay time zone and the MessageWay Reporting time zone within the MessageWay Reporting application.

1   In MessageWay Reporting, select **System** > **Databases**:

Tabs display **MessageWay** and **Reporting**. These settings are populated automatically during installation.

2   Under the **MessageWay** tab, select the **Time zone of your MessageWay system**. This is the local time of the MessageWay server's host machine. MessageWay stores all dates and times in its database using the date and time of its server's host machine.

3   Under the **Reporting** tab, select the **Time zone of your Reporting system**. Reports will display dates and times in this time zone. When MessageWay Reporting synchronizes its database with the MessageWay database, the dates and times in reports will be offset by the time zone value you set here. For example, if you select US/Pacific Time for your MessageWay database time zone and US/Eastern for your Reporting database time zone, a file that transferred at 8:00 am on the MessageWay server will show in a report as transferring at 11:00 am.

In most cases your Reporting time zone will match your MessageWay time zone. Select a different Reporting time zone only if you want MessageWay Reporting users to view reports that use dates and times in a particular time zone.

> **Note**: MessageWay Reporting is a browser-based application that can be accessed from anywhere in the world with an internet connection. MessageWay Reporting users may be located in many different time zones. It will not be possible to adjust report times for all users. In this case we recommend that you either select the time zone where most of your users will be located, or select the same time zone for the two databases and let users know that dates and times in reports are local to the MessageWay server (whatever that time zone is).

4 Let MessageWay Reporting users know that all report times are local to the time zone you set for the MessageWay Reporting database, which may not necessarily match their local time zone.

If you selected different time zones for your two databases, let users know that report times are offset by the difference between those two time zones. If users of MessageWay Reporting also use MessageWay, make sure they know the time zone of the MessageWay system since dates and time will appear differently in reports.

> **Note:** Time zones adjust automatically during Daylight Savings Time.
>
> **Warning:** Changing the server time zone after the two databases have already *synchronized* (on page 29) should be an extremely rare occurrence that is treated with extreme caution. For more information, see the *MessageWay Reporting User's Guide > Change MessageWay Database Settings* in the online help.
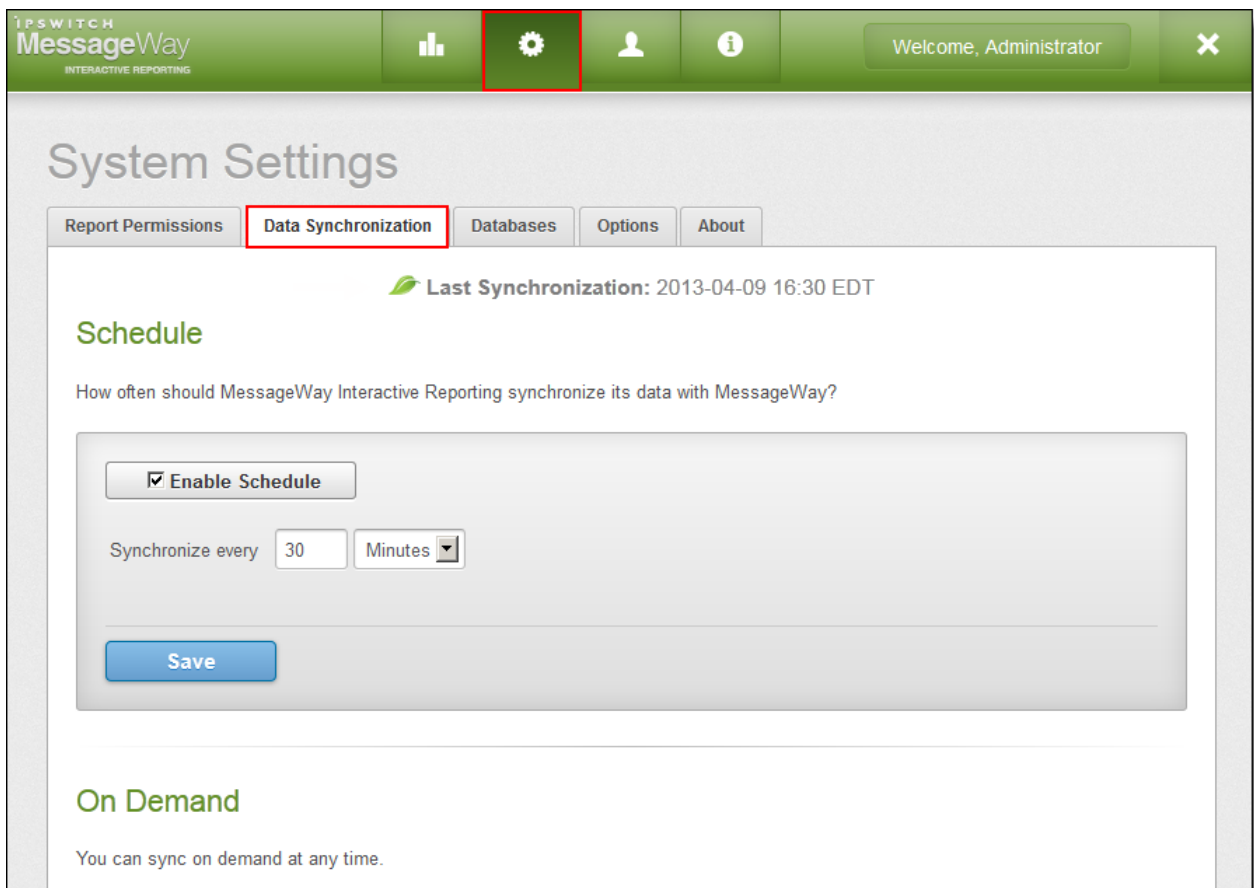
Synchronize the Databases

You must synchronize the MessageWay Reporting and MessageWay databases to provide the MessageWay Reporting database with user information and data for running reports. If you grant MessageWay users access to MessageWay Reporting before you synchronize the databases, users will not be able to run reports.

When you synchronize MessageWay Reporting and MessageWay, you can either start a synchronization immediately using the ON DEMAND option, or you can schedule a synchronization in the future (the scheduled synchronization begins the next time that the interval you selected occurs).

➢ *To synchronize MessageWay Reporting and MessageWay data:*

1   In MessageWay Reporting, select **System** > **Data Synchronization**:

2   You have two options to synchronize data:

- **Schedule.** Select **Enable Schedule**, then set the interval for the next time, and each successive time, you want data to synchronize. Click **Save** when finished.

- ▪ **On Demand.** If you do not want to set a schedule, you can start synchronizing data immediately. Click **Sync Now**. This will not disrupt the synchronization schedule that you may have set previously.

Caution: Depending on the size of your MessageWay system, the initial synchronization could take a long time and place additional strain on MessageWay. You might want to initiate synchronization at an off-peak time if you captured historical data during installation.

3 Log off MessageWay Reporting, then log on again.

Permit Access to Reports

The **Report Permissions** tab is where you set permission to view individual reports.

Note: The **Report Permissions** tab will display only for MessageWay users who have the **Modify Access Rights** right in MessageWay. Members of the MessageWay Administrators group will have this right by default.

MessageWay users and groups can view and run only those reports for which they have permission. If a user or group does not have permission to run a report, that report will not appear in the list of reports in the left pane.

Note: The Administrator user cannot immediately run reports. You must either add the Administrator user to a group that has permissions to run reports (such as the Administrators group) or grant the Administrator user permission to view reports in MessageWay Reporting. See *Permit Access to MessageWay Reporting* (on page 19).

The following table lists the default group permissions for each report.

Report or Monitor	Default MessageWay Group Permissions
File Details	Administrators and Report Users
File Summary	Administrators and Report Users
File Transfer Monitor	Administrators
File Transfer Summary	Administrators and Report Users
Message Count Monitor	Administrators
Message Details	Administrators
Message Summary	Administrators
System Access	Administrators
System Monitor	Administrators

You can remove these groups or add other users and groups to each report at any time.

Assign Report Permissions

MessageWay users and groups can view and run only those reports for which they have permission.

➢ *To assign user and group permissions for a report:*

1   Go to **System** > **Report Permissions**.

In the left pane, place a check next to the report for which you want to add permission. The right pane shows the MessageWay users and groups that have permission to run that report currently.

To add user or group permissions to multiple reports at the same time, do any of the following:
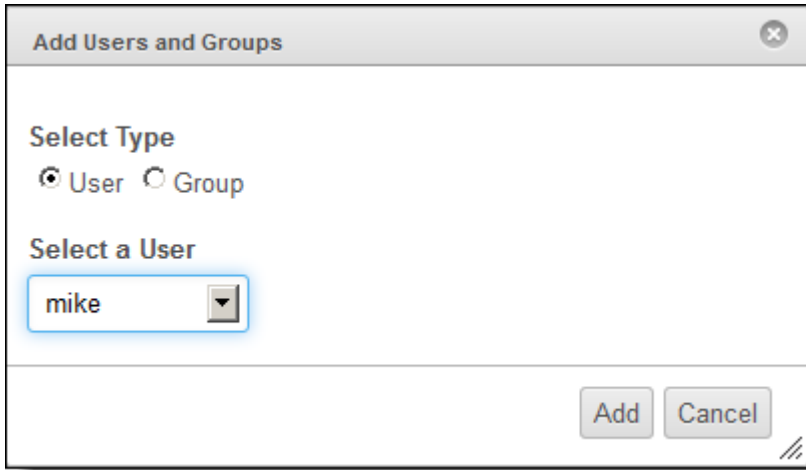
▪ Select a reporting category (such as File) to select all reports under that category

- Check **Select All** reports
- Place a check next to multiple reports of your choosing

If you selected more than one report, users or groups who do not have permission to run all reports selected display in gray in the right panel.

Selecting multiple reports is useful for when you want to add a user or group to multiple reports at the same time.

2   In the right pane, click **Add**. The **Add Users and Groups** dialog opens.

3   Select **User** or **Group** to display a list of current MessageWay users or groups. The drop-down list updates accordingly based on your selection.

Tip: If a user or group does not appear in the list, you might need to synchronize MessageWay Reporting with MessageWay. See *Synchronize the Databases* (on page 29).

4   From the drop-down list, select the user or group that you want to give permission to run the selected report(s) and click **Add**.

Note: You can select only one user or group to add at a time.

A yellow message indicates that permission changes will take effect the next time the user logs on. Click **Don't Show This Message Again** if want to hide this message in the future, or close the window.

Note: If you add a user to a group or remove a user from a group in MessageWay, you must synchronize the MessageWay Reporting database with the MessageWay database before you will see changes in MessageWay Reporting. See *Synchronize the Databases* (on page 29).

5   Repeat the above steps for each user or group to whom you want to grant permission to run the selected report(s), or select other reports to configure.

Remove Report Permissions

MessageWay users and groups can view and run only those reports for which they have permission.

➢ *To remove user and group permissions from a report:*

1   Go to **System** > **Report Permissions**.

In the left pane, place a check next to the report for which you want to remove permission. The right pane shows the MessageWay users and groups that have permission to run that report currently.

To remove user or group permissions from multiple reports at the same time, do any of the following:

- Select a reporting category (such as File) to select all reports under that category
- Check **Select All** reports
- Place a check next to multiple reports of your choosing

If you selected more than one report, users or groups who do not have permission to run all reports selected display in gray in the right panel.

Selecting multiple reports is useful when you want to remove multiple report permissions for a single user or group. If you want to remove multiple report permissions for permission for multiple users or groups, we recommend that you remove users or groups from one report at a time.

2   In the right pane, select a user or group to remove permission to run the selected report(s). A message asks you to confirm the removal of that user or group.

3   Click **OK**. The user or group disappears from the list. That user or group no longer has access to the report, and will not be able to view it in the Reports List on the left side of the workspace.

Important: If you remove a user's permission to run a report, that user may still belong to a MessageWay group that has access to run the report. To completely remove permission to run the report for that user, you must remove that user from any groups that have permission to run that report.

Troubleshoot Logon Failure

If a user experiences connection failure when attempting to log on, investigate and remedy the following possible causes.

Tip: Look in the current *mwir_root*/**logs/catalina.log** for clues to what might be happening.

- **Improper user credentials or user rights**:
  - The user entered an incorrect username and/or password at logon, or the user does not have the **Download Messages** right in MessageWay. Catalina.log will show:
    ```xml
    <?xml version="1.0" ?>
    <LogonRsp>
      <Status>Fail</Status>
      <Error ErrorId="203">Invalid User Id/Password</Error>
      <ServerTime>20130509140723136</ServerTime>
      <ServerTimeGMT>20130509180723136</ServerTimeGMT>
    </LogonRsp>

    14:07:16.912 [http-bio-8080-exec-10]
    INFO  c.i.MWReporting.ws.SecurityServices - Authentication for
    username <username> failed.
    ```
  - The user does not have the **Generate Reports** right in MessageWay. Catalina.log will show:
    ```xml
    <?xml version="1.0" ?>
    <LogonRsp Version="4">
      <Status>Success</Status>
      <DefaultMailbox>adminMailbox</DefaultMailbox>
      <DefaultRecipient>adminMailbox</DefaultRecipient>
      <UserRights>000000100000010010000000000000000000000000000000000
    000000000000</UserRights>
      <SessionId>NLDoRMHQTW6hxtDWIPKOOmJ4cYciPIUd</SessionId>
      <IdleLifetime>1800</IdleLifetime>
      <ServerTime>20130509141319050</ServerTime>
      <ServerTimeGMT>20130509181319050</ServerTimeGMT>
    </LogonRsp>
    ```

```
14:13:12.750 [http-bio-8080-exec-6]
INFO  c.i.MWReporting.ws.SecurityServices - Authentication for
username <username> failed due to insufficient rights.
```

Note that there was a successful XML exchange between MMWR> and MessageWay Service Interface in the log above, but the secondary check for the Generate Report right failed.

- **MessageWay issues**:
  - The MessageWay database may be shut down or be in the process of restarting.
  - The MessageWay Service Interface is not running or is otherwise unreachable. This could be due to an unexpected application crash or a planned stoppage of the service. Catalina.log will show:

```
14:08:15.336 [http-bio-8080-exec-7]
INFO  c.i.MWReporting.ws.SecurityServices - Authentication for
username <username> failed.
```

Note that the XML authentication exchange that you saw in the previous logs above is not shown here, which means the actual exchange with the Service Interface never took place.

- **Network connectivity issues**:
  - The user's computer may not have network connectivity in general.
  - The user's computer may not have network access to the MessageWay Reporting host server.
  - The MessageWay Reporting host server may not have network access to the MessageWay server.

View Log Files

To get better visibility into your MessageWay Reporting system, the following types of log files are available.

Application Log Files

Application log files contain the ongoing activity of MessageWay Reporting.

The following application log files are stored in the *mwir_root*/**logs** directory:

Log File Name	Description
catalina.*date*.log	Log files with this prefix contain the standard output generated during the operation of the underlying Apache Tomcat operation. This file includes outputs from the MessageWay Reporting application. The current log file name will not include *date*. To monitor application activity it is recommended to tail the catalina.log file without the date indicator (current). **Tip**: Use this log to ***troubleshoot logon failures*** (on page 34).
localhost_access_log.*date*.log	Log files with this prefix contain resource access activity over the HTTP/S connections. This includes images, .css, javascript and .jsp pages. The current log file name will not include *date*.
mwreporting/mwreporting.*date*.log	Log files in this subdirectory contain the logs pertaining to the MessageWay Reporting application. The output in these files is also present in the catalina.*date*.log files. The current log file name will not include *date*.

Verbose SQL Log Files

A verbose output of SQL statements being executed against the MessageWay database can be switched on by modifying the *mwir_root*/**webapps/shell/WEB-INF/config/logbackmw.xml** file.

1   Find this section in the file:

```
<logger name="com.ipswitch.MWReporting.web" level="ERROR"/>
<logger name="com.ipswitch.MWReporting.business" level="ERROR"/>
<logger name="com.ipswitch.MWReporting.dao" level="ERROR"/>
<logger name="org.springframework.jdbc" level="ERROR"/>
<logger name="org.springframework.jdbc.core.StatementCreatorUtils"
level="ERROR"/>
```

And replace the logging levels shown below in **bold**:

```
<logger name="com.ipswitch.MWReporting.web" level="ERROR"/>
<logger name="com.ipswitch.MWReporting.business" level="ERROR"/>
<logger name="com.ipswitch.MWReporting.dao" level="ERROR"/>
<logger name="org.springframework.jdbc" level="DEBUG"/>
<logger name="org.springframework.jdbc.core.StatementCreatorUtils"
level="TRACE"/>
```

2 If you modify the **logbackmw.xml** file, you must *restart MessageWay Reporting* (on page 18). In the *mwir_root*/**bin** directory, use the following commands:

./shutdown.sh

./startup.sh

Below is a sample of a Verbose SQL Log File:

```
13:52:35.134 [http-bio-8080-exec-241] INFO  c.i.MWReporting.ws.SecurityServices - Authentication for username administrator succeeded.
13:52:37.741 [http-bio-8080-exec-243] DEBUG o.s.jdbc.core.JdbcTemplate - Executing SQL query [SELECT GATEWAY_NAME FROM GATEWAYS]
13:52:37.752 [http-bio-8080-exec-243] DEBUG o.s.jdbc.datasource.DataSourceUtils - Fetching JDBC Connection from DataSource
13:52:38.019 [http-bio-8080-exec-238] DEBUG o.s.jdbc.core.JdbcTemplate - Executing prepared SQL query
13:52:38.020 [http-bio-8080-exec-238] DEBUG o.s.jdbc.core.JdbcTemplate - Executing prepared SQL statement [SELECT COUNT(*) AS TOTALCOUNT
13:52:38.020 [http-bio-8080-exec-238] DEBUG o.s.jdbc.datasource.DataSourceUtils - Fetching JDBC Connection from DataSource
13:52:38.031 [http-bio-8080-exec-238] TRACE o.s.jdbc.core.StatementCreatorUtils - Setting SQL statement parameter value: column index 1,
13:52:38.032 [http-bio-8080-exec-238] TRACE o.s.jdbc.core.StatementCreatorUtils - Setting SQL statement parameter value: column index 2,
13:52:38.170 [http-bio-8080-exec-244] DEBUG o.s.jdbc.core.JdbcTemplate - Executing prepared SQL query
13:52:38.170 [http-bio-8080-exec-244] DEBUG o.s.jdbc.core.JdbcTemplate - Executing prepared SQL statement [SELECT * FROM (  SELECT  MH.DM
13:52:38.179 [http-bio-8080-exec-244] DEBUG o.s.jdbc.datasource.DataSourceUtils - Fetching JDBC Connection from DataSource
```

Uninstall MessageWay Reporting

There are two main reasons to uninstall MessageWay Reporting, and the uninstall instructions are different for each.   The first reason is to install a maintenance release, and the second reason is to completely uninstall MWIR as it is no longer needed.   Following are uninstall instructions for both.

1   In order to install a maintenance release, only the MWIR binaries need to be removed.   The reporting-related database (both MessageWay and Datamart) must NOT be removed.   Follow these instructions to remove the MWIR binaries in preparation for installing a maintenance release:

- Log on as user **root**.
- Shut down tomcat in *mwir_root/bin* using the following command:

  ./shutdown.sh

  > **NOTE**: As of MessageWay Reporting version 1.3, the name of the unistall folder and binary have changed, so follow the appropriate section if you are uninstalling version 1.3 or higher, or uninstalling versions prior to 1.3.

- To uninstall version 1.3 or higher:

  Go to *mwir_root/_MessageWay Reporting_installation* directory and type the following command:

  ./Uninstall MessageWay Reporting Installation

  and respond to the prompts accordingly.   After the uninstall is complete, you may need to delete *…/mwir* directory.

- To uninstall versions prior to 1.3:

  Go to *mwir_root/_MessageWay Interactive Reporting_installation* directory and type the following command:

  ./Uninstall MessageWay Interactive Reporting Installation

  and respond to the prompts accordingly.   After the uninstall is complete, you may need to delete *…/mwir* directory.

- Proceed to section ***Extract the perimeter server install file*** (on page 9) and install the maintenance release.

2   In order to uninstall MWIR as it is no longer needed, the MWIR binaries need to be removed, as well as the reporting-related database (Datamart) and all reporting-related database artifacts from the MessageWay database.   Follow these instructions to remove MWIR as it is no longer needed:

- Log on as user **root**.
- Shut down tomcat in *mwir_root/bin* using the following command:

  ./shutdown.sh

- Drop the reporting-related database (*mwir_database*) using the following command from a mysql prompt:

  DROP DATABASE *mwir_database*;

  > **IMPORTANT**: Make sure you drop *mwir_database* and not *mway_database*. Be sure you have sufficient privileges to execute the drop command.

- Uninstall reporting-related database artifacts from the MessageWay database (*mway_database*).

IMPORTANT: At the time this document was written, there is no automated way to remove the reporting-related database artifacts from the MessageWay database.   Please contact MessageWay Technical Support for further instructions.

NOTE: As of MessageWay Reporting version 1.3, the name of the unistall folder and binary have changed, so follow the appropriate section if you are uninstalling version 1.3 or higher, or uninstalling versions prior to 1.3.

- To uninstall version 1.3 or higher:

  Go to *mwir_root/_MessageWay Reporting_installation* directory and type the following command:

  ./Uninstall MessageWay Reporting Installation

  and respond to the prompts accordingly.   After the uninstall is complete, you may need to delete *…/mwir* directory.

- To uninstall versions prior to 1.3:

  Go to *mwir_root/_MessageWay Interactive Reporting_installation* directory and type the following command:

  ./Uninstall MessageWay Interactive Reporting Installation

  and respond to the prompts accordingly.   After the uninstall is complete, you may need to delete *…/mwir* directory.

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