

# **Oracle Utilities Live Energy Connect**

Asset ID Manager User Guide

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# Introduction

The Oracle Utilities Live Energy Connect Asset ID Manager (LEC AIM) is designed to automate and maintain the alignment of an organization's SCADA (or EMS) system configurations, LEC server configurations, and Oracle Utilities NMS (or CGI's PragmaLINE OMS) system configurations. Some of the tasks that the Oracle Utilities LEC AIM can automate include:

- Generating Oracle Utilities Live Energy Connect Server (LEC Server) batch files from points configured on a SCADA (Supervisory Control and Data Acquisition) system or Energy Management System (EMS).
- Loading these Oracle Utilities LEC Server batch files into the LEC Server remotely.
- Mapping the points in these batch files to Oracle Utilities Network Management System (NMS) devices and device attributes or CGI Outage Management System (OMS) devices and device attributes.
- Loading the resolve mappings into an Oracle Utilities (NMS) configuration or a CGI OMS configuration.

After the Oracle Utilities LEC AIM application synchronizes the Oracle Utilities NMS (or CGI OMS) and Oracle Utilities LEC Server configurations, the updated LEC Server will connect to Oracle Utilities NMS (or CGI OMS) and to the SCADA (or EMS). Once both of these connections are made, the system communicates data in real-time without any further interaction from Oracle Utilities LEC AIM application until one of the systems needs to be updated with new point information.

# About Oracle Utilities LEC Asset ID Manager

Oracle Utilities LEC AIM interacts with a SCADA (or EMS) system, an Oracle Utilities LEC Server, and an Oracle Utilities NMS (or CGI OMS system). The following sections explain how these different systems typically communicate and the steps that the Oracle Utilities LEC AIM application takes to keep their configurations aligned.

## **LEC Asset ID Manager and LEC Server**

The Oracle Utilities LEC AIM application creates Oracle Utilities LEC Server batch files based on available points configured on a SCADA (or EMS) system. Oracle Utilities LEC Server batch files are text files in CSV format that describes the points on the remote system and their dataflow through the Oracle Utilities LEC Server. Oracle Utilities LEC AIM can also load batch files into the Oracle Utilities LEC Server remotely. A user can start, stop, and debug the generated Oracle Utilities LEC Server configuration using the Oracle Utilities LEC Configuration Manager (LCM) GUI application.

## **LEC Asset ID Manager and NMS or CGI OMS**

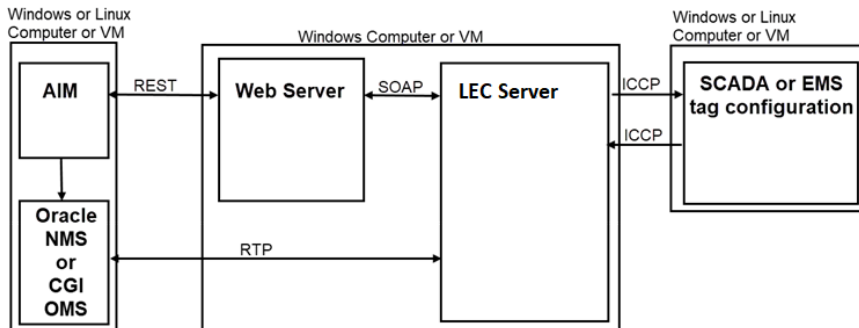
The Oracle Utilities LEC AIM application maps the available points on SCADA (or EMS) to Oracle Utilities LEC Server to Oracle Utilities NMS (or CGI OMS) devices and device attributes.

## **LEC Asset ID Manager's Interaction with Other Systems**

Oracle Utilities LEC AIM application typically interacts with software systems on three different machines and utilizes various communications protocols:

- Oracle Utilities LEC AIM runs on the same machine on which the Oracle Utilities NMS (or CGI OMS) is installed.
- Oracle Utilities LEC Server runs on a separate Windows Server 2016 or 2019 machine.
- The SCADA (or EMS) runs on any number of additional separate machines depending on an organization's OT architecture.

Each customer's use of Oracle Utilities LEC AIM may vary depending on the architecture of their OT system and the configuration of their Oracle Utilities LEC Server. The figure below shows a typical relationship between these systems and the communication protocols used between them and the Oracle Utilities LEC AIM application.



### Outline of LEC Asset ID Manager Processes and Functionality

As mentioned before, each customer's use of Oracle Utilities LEC AIM will vary depending on how their LEC servers are configured and their organization's OT infrastructure. For example, some customers may be using Oracle Utilities NMS and some may be using CGI OMS. Furthermore, some customers may not choose to use all of the available features of the Oracle Utilities LEC AIM application. The following steps outline the typical steps involved in the LEC Aim process:

1. Oracle Utilities LEC AIM makes a request via REST for the point names and types available on the SCADA or EMS system. This request is processed by a web server (typically a Windows IIS web server running on the same machine as an Oracle Utilities LEC Server instance). The request is then sent to the Oracle Utilities LEC Server as a SOAP message.
2. Oracle Utilities LEC Server makes a request for all of the point names available from the associated SCADA (or EMS) system.
3. The SCADA (or EMS) system responds to the Oracle Utilities LEC Server with the names and types of the available points.
4. The LEC Server performs the following:
  - a. Generates a text file in CSV format from the point names and types.
  - b. Sends a SOAP message to the web server that contains this text file.
5. The web server then transmits this file to the Oracle Utilities LEC AIM application running on the Oracle Utilities NMS (or CGI OMS) machine.
6. The Oracle Utilities LEC AIM application then processes this message with the report of available points on the SCADA (or EMS) system and gathers information about the Oracle NMS (or CGI OMS) configuration by querying the system's database directly or reading from a dump of the relevant tables in CSV format.
7. The Oracle Utilities LEC AIM application then processes all of this gathered information to map each point from SCADA (or EMS) to a known device and device attribute in Oracle Utilities NMS (or CGI OMS).

8. After processing this information, the Oracle Utilities LEC AIM application will:
  - a. Generate reports with information about changes on the SCADA (or EMS) system and information about any exceptions encountered during processing.
  - b. Assign a unique RTP address to each mapped point and device attribute.

**Note:** The Oracle Utilities Live Energy Connect Server's Real Time Protocol (RTP) is a protocol developed by Oracle Utilities engineers that provides a simple TCP/IP interface for transmitting real time values. It is not related to the "Real-time transport protocol" used to stream real time audio and video data described in the IETF's RFC 3550.
  - c. Generate an Oracle Utilities LEC Server batch file with the point names and RTP addresses.
  - d. Generate a SQL file that uses these RTP addresses, the device names, and the device attributes to update the staging configuration tables in Oracle Utilities NMS (or CGI OMS).
9. Then, if configured to do so, the Oracle Utilities LEC AIM application can do the following:
  - a. Load the Oracle Utilities LEC Server batch file into the "remote" LEC server (i.e. the LEC server running on the Windows machine).
  - b. Load the mapping information into the Oracle Utilities NMS (or CGI OMS) staging configuration tables by executing the previously generated SQL.
  - c. Load the Oracle Utilities NMS (or CGI OMS) staging configuration tables into the production configuration tables.
  - d. Direct Oracle Utilities NMS (or CGI OMS) to invoke the ICCP Adapter to update their measurements and controls tables while preserving any existing quality codes and/or stored data values.
  - e. Switch the Oracle Utilities LEC Server instance with the updated batch file loaded into an Active state so that it can establish an RTP association with the Oracle Utilities NMS (or CGI OMS) and an ICCP association with the SCADA (or EMS) system.

## **Purpose of Oracle Utilities LEC Asset ID Manager**

The purpose of Oracle Utilities LEC AIM is to:

- Automate the creation of Oracle Utilities LEC Server batch files from points configured on a SCADA (or EMS) system.
- Load the prepared batch files into an Oracle Utilities LEC Server instance.
- Map Oracle Utilities NMS (or CGI OMS) devices and device attributes to points configured on a SCADA (or EMS) system.
- Update the Oracle Utilities NMS (or CGI OMS) configurations.

Doing this allows the Oracle Utilities NMS (or CGI OMS) system to receive real-time data from points on the SCADA (or EMS) system by way of the LEC Server.

Once all of the mapping between the SCADA (or EMS) system and the Oracle Utilities NMS (or CGI OMS) system is configured, the Oracle Utilities LEC Server transmits the real-time data to the Oracle Utilities NMS (or CGI's OMS) system using (typically) LEC's RTP protocol. In some customer configurations real-time data may be sent to and from the Oracle Utilities LEC server using other protocols and methods.

After an initial mapping, the Oracle Utilities LEC AIM application only needs to be run when either the SCADA (or EMS) or the Oracle Utilities NMS (or CGI OMS) configurations are updated or changed. Customers have a choice to run the AIM application's processes manually through a command-line user interface or to automate the processes.



# Setting Up Oracle Utilities LEC Asset ID Manager

**Note:** Before setting up an installation of LEC Asset ID Manager customers should install and configure Oracle Utilities Live Energy Connect and Oracle Utilities Network Management System.

For more information about installing Oracle Utilities LEC, refer to the [Oracle Utilities Live Energy Connect Installation Guide](#). For more information about installing Oracle Utilities NMS, refer to the [Oracle Utilities Network Management System Installation Guide](#).

The Oracle Utilities LEC AIM application files are included with the Oracle Utilities Live Energy Connect installation materials that are available on Oracle eDelivery and the My Oracle Support portal (via the Patches and Updates tab). Although it is packaged with the Oracle Utilities LEC installer, the Oracle Utilities LEC AIM application is intended to be installed on the machine running Oracle Utilities NMS (or CGI OMS) not the machine running Oracle Utilities LEC.

## Install Oracle Utilities LEC AIM Application:

1. Enable and configure Internet Information Services (IIS) for Windows and ASP .NET 4.5 or higher on the machine running Oracle Utilities LEC Server. Refer to [Appendix A: Enabling and Configuring IIS and ASP .NET Framework 4.5 or Higher](#) for more details.
2. On the machine running Oracle Utilities NMS or CGI (OMS), extract the files in the *LiveEnergyConnectAIM7.1.x.x.x.zip* directory included with your download of the Oracle Utilities Live Energy Connect product.
3. Move the Oracle Utilities LEC AIM application files to the directory from which you would like to run AIM.
4. Install the Python packages required for Oracle Utilities LEC AIM using Pip.

The machine running Oracle Utilities LEC AIM should already have a version of Python 3 installed because Oracle Utilities NMS requires a Python 3 installation.

To use the Oracle Utilities LEC AIM application, you only need to install the additional Python packages that just the Oracle Utilities LEC AIM application uses.

These packages have been provided as Pip wheel files in your download of the Oracle Utilities Live Energy Connect product. They are located in the *LiveEnergyConnectAIM7.1.x.x.x/aim/packages/3x/* where “3x” is the version of Python currently installed on your machine.

The required packages are listed below. For information about the open source licensing of these packages, refer to the [Oracle Utilities Live Energy Connect Licensing Information User Manual](#).

- six-1.15.0
- urllib3-1.25.10
- certifi-2020.6.20
- chardet-3.0.4
- idna-2.10
- numpy-1.19.2
- pandas-1.1.2
- python\_dateutil-2.8.1

- pytz-2020.1
- requests-2.24.0

To install each package, use the following command where *<pathToWheelFile>* is the path to the *.whl* file included in the Oracle Utilities LEC AIM directory for the appropriate version of Python installed on your machine.

```
pip install <pathToWheelFile>
```

For example, to install the *numpy* package on a machine with Python 3.8 installed, you would use the following command:

```
pip install "C:\aim\packages\38\numpy-1.19.2-cp36-cp36m-manylinux1_x86_64.whl"
```

### Launch the Oracle Utilities LEC AIM User Interface

1. After the Oracle Utilities LEC AIM application files are deployed, you can launch the command-line user interface for the Oracle Utilities LEC AIM application by running the *menu.py* program with the Python interpreter (e.g. *"python.exe bin/menu.py --conf menu.conf"*). This will start the console app's user interface with the default user menu. Most Oracle Utilities customers will have a site-specific *menu.conf* file prepared for them by Oracle Utilities engineers.
2. After configuring and testing their Oracle Utilities AIM application, most customers create a shell script (or a batch script if running on Windows) that can be used to start Oracle Utilities LEC AIM manually or automatically. If you set up a shell script to run Oracle Utilities LEC AIM automatically, you can schedule the execution of this script as a cron job (if running on a Linux machine) or as a scheduled task (if running on Windows). An example of such a script called *runaim.sh* is provided with your download of Oracle Utilities LEC AIM.

For example, if you'd like to run Oracle Utilities LEC AIM interactively and you are running Oracle Utilities LEC AIM with Oracle Utilities NMS on a Linux machine, the contents of this shell script would contain something like the following (depending on where you placed your Oracle Utilities LEC AIM files):

```
#!/bin/bash
python aim/bin/menu.py --conf /home/nmsadmin/aim/organization/menu.conf
```

If you'd like to run Oracle Utilities LEC AIM interactively and you are running Utilities LEC AIM with CGI PragmaLINE OMS on a Windows machine, the contents of your batch script would look something like the following:

```
@echo off
REM interactive mode
python.exe pathToAIM\aim\menu.py --conf
pathToAIM\aim\organization\menu.conf
```

If you'd like the shell script (Linux) or batch script (Windows) to run the LEC Asset ID Manager application automatically, use the *"--auto"* parameter. For example:

```
python.exe bin/menu.py --conf menu.conf --auto
```

In the above example, the parameter `--conf` specifies your organization's customized Oracle Utilities LEC AIM application's menu configuration file.

The parameter `--auto` indicates that you want to have the commands in the menu executed automatically.

**Note:** The interval at which Oracle Utilities LEC AIM can be run automatically is specified in the cron job table (Linux) or by the Task Scheduler (Windows). For more information, refer to Microsoft's [Task Scheduler Help](#).

## Using the LEC Asset ID Manager

This section focuses on starting the Oracle Utilities LEC AIM application's user interface, using the menu options, and executing AIM commands. The AIM User Interface is a console application that accepts user input from the command prompt.

### Starting the Oracle Utilities LEC Asset ID Manager Application

To start the Oracle Utilities LEC AIM user interface:

1. Open a command prompt.
2. Navigate to the location of the *runaim.sh* or *runaim.bat* file.
3. Execute one of the following commands:

**Linux:** At the command prompt, enter:

```
./runaim.sh
```

**Windows:** At the command prompt, enter:

```
runaim.bat
```

### Using the Oracle Utilities LEC Asset ID Manager User Interface

Once you launch the *menu.py* user interface, the program will display information about:

- The configuration file being used.
- The configured Oracle Utilities NMS instances (or CGI OMS instances).
- The configured Oracle Utilities Live Energy Connect machines.

**Note:** Any errors in connecting to these systems will be displayed as error messages written to the console.

The console will then display the available command options that you can use to execute specific AIM commands. And finally, it will prompt you to enter a command.

The figure below is an example of how the Oracle Utilities LEC AIM user interface looks from a terminal in Linux.

```
[user@AimDemo]$ python aim/bin/menu.py --conf aim/organization/menu.conf
No Site Handler configured. Continuing with defaults.
-----> LiveData Asset ID Manager
-----
LiveData RTI Tag Manager (using /pathToAim/aim/organization/menu.conf)
-----
1 RTI Servers Configured:
  10.0.0.23:80:
    RTP: Waiting, Processor: Ready, SCADA: 1 Active of 1 Configured:
    AssocInControl = Active
-----
Enter 1 for Fetch the point names from RTI Server, then generate a batch file.
Enter 2 for Load the new batch file into active RTI Servers.
Enter 3 for Load the generated SQL file into the NMS measurements staging table.
Enter 4 for Execute the Recache utility to load the measurements from the staging table into
the NMS production table
Enter 5 for Stop the ICCP adapter.
Enter 6 for Restart the ICCP adapter.
Press "N" for next command
Enter "help" for additional commands
Enter "x" to Exit
** Next command is: N/A <--
>>
```

**Note:** Different customers may have different command options available in the Oracle Utilities LEC AIM user interface depending on what is specified in their *menu.conf* file.

## Command Options Available in Oracle Utilities LEC Asset ID Manager Menu

After starting the Oracle Utilities LEC AIM application in manual mode, the command line user interface that provides the user with their specific Oracle Utilities LEC AIM menu will run in a console window.

Users navigate the menu by entering numbers to select commands.

The table below contains some of the typical commands used with a typical installation of Oracle Utilities LEC AIM and their corresponding command number.

**Note:** Different customers will have different command options available to them in the Oracle Utilities LEC AIM application's user interface menu depending on what processes of Oracle Utilities LEC AIM their organization uses. The command numbers used to select the commands from the menu can be different for each customer as well. The figure below shows the commands and command numbers for a typical installation of Oracle Utilities LEC AIM.

Command Number	Command Description
1	Fetch the point names from the LEC Server and generate a batch file.
2	Load new batch files into LEC Server (or LEC Servers).
3	Load the generated SQL files into the measurements table of the Oracle Utilities NMS or CGI OMS
4	Load the mappings from the staging table into the NMS production table
5	Stop the ICCP adapter.
6	Restart the ICCP adapter.

**Note:** After entering a command, it is recommended to wait until a message indicating that the command has completed successfully appears in the command prompt before entering another command.

### Executing Oracle Utilities LEC Asset ID Manager Commands

After Oracle Utilities LEC AIM successfully executes the first command, enter **N** (for "Next") and press **Enter** to execute the next command. It is recommended to wait until each command returns a message that indicates the success of that operation before pressing **N** again.

### Exiting from the Oracle Utilities LEC Asset ID Manager User Interface

To exit out of the LEC Asset ID Manager menu, enter **X** and press **Enter**.

### Committing Working Batch Files to a Repository for Future Use

After the configuration is up and running, you should save a copy of the working batch. If there is an error later, you can revert to these batch files.

## Using the Help Command to Review Available Parameters:

Entering commands in the Oracle Utilities LEC AIM user interface tells the Oracle Utilities LEC AIM application to execute certain Python programs with the parameters that are specified in a customer's *menu.conf* file. The figure below shows a section of an example *menu.conf* file in which the process of generating a batch file is set as the first menu item and the process of loading the batch files is mapped to the second menu item:

```
[Commands]
label01=Fetch the point names from RTI Server, then generate a batch file.
command01=python "/aim/bin/batch_creation/BatchCreation.py" --c
"/aim/organization/menu.conf"
success01=0
next01=Load the new batch file into active RTI Servers.

label02=Load the new batch file into active RTI Servers.
command02=python /aim/bin/LiveDataServerConfigLoader.py AIM_CONF update --forceall
success02=0
reload02=yes
next02=Load the generated SQL file into the NMS measurements staging table.
```

**Note:** Different customers will have different command options available to them in the Oracle Utilities LEC AIM application's user interface menu depending on which processes of Oracle Utilities LEC AIM their organization uses.

Some of the programs that can be executed take parameters. You can learn more about these parameters by running that specific program with the *--help* parameter from the command line.

For example, if a customer wanted to learn more about the parameters that the *LiveDataServerConfigLoader.py* can use (see "command02" in the config file above), then from the command line they could run:

```
LiveDataServerConfigLoader.py --help
```

Doing so would return the following information:

```
[user@AimDemo]$ python3 aim/bin/LiveDataServerConfigLoader.py --help
usage: LiveDataServerConfigLoader.py [-h] [--hosts HOSTS] [--soap-port SOAP_PORT] [--config-alias CONFIG_ALIAS] [--host HOST] [--dsn DSN] [--conf menu.conf]
{getpointslist, status, activate, deactivate, unload_all, list, failover, query, update, trigger_getvars, revert} ...
positional arguments:
{getpointslist, status, activate, deactivate, unload_all, list, failover, query, update, trigger_getvars, revert}

Sub-commands for bin/LiveDataServerConfigLoader.py
getpointslist  Gets a point list file from RTI if available
status        Print out the RTP association status for a LiveData server and exit
activate      Marks all configured LiveData servers as active
deactivate    Marks all configured LiveData servers as offline
unload_all    Marks all TM managed batches from configured LiveData servers.
list          Marks all TM managed batches from configured LiveData servers.
failover      Forces a failover from the Active RTI to a Standby RTI.
query         Query a VMD! Variable.
update        Updates the LiveData server with the new changes
trigger_getvars  Trigger the ICCP get name list service
revert        Overwrite with the previous values and overwrite the "new" batch
files with what is in "current"
optional arguments:
-h, --help    show this help message and exit
```

```

--hosts HOSTS          list of hostnames or IP and TCP ports for the LiveData machine, if
different from the default
--soap-port SOAP_PORT  The SOAP port to use for the corresponding RTI Instance.
--config-alias CONFIG_ALIAS
                       The Configuration Alias loaded into the corresponding RTI Instance.
--host HOST            hostname or IP and TCP port for the LiveData machine to connect to,
if different from the default
--dsn DSN              DSN/TSN for the Oracle Connection.
--conf menu.conf, -c menu.conf
                       Set a commands config to read from

```

Furthermore, the customer could then learn more about a specific parameter by using the `--help` parameter after the parameter of interest.

For example, if a customer wanted to learn more about the `update` parameter of the `LiveDataServerConfigLoader.py` program, then from the command line they could run:

```
LiveDataServerConfigLoader.py update --help
```

Doing so would return more information about the `update` parameter specifically:

```

[user@AimDemo]$ python3 aim/bin/LiveDataServerConfigLoader.py update --help
usage: LiveDataServerConfigLoader.py update [-h] [-f] [-r RTPVMD] [--standby] [--migrate] [-
-forceall] [--active] [--file FILE]
optional arguments:
  -h, --help            show this help message and exit
  -f, --force           If the LiveData config DB had its batch files removed manually, try
to load all batches, not just locally changed ones.
  -r RTPVMD, --rtpvmd RTPVMD
                       The RTP/VMD to query
  --standby             Update the 'standby' server(s) and do not commit the batch files to
'current'.
  --migrate             Migrate the active server to a 'standby' server and update the
former primary server and commit 'new' batches to 'current'
  --forceall           Push to all servers, restarting all
  --active             Update the primary (active) server.
  --file FILE          Use the specified file as source.

```



# Appendix A: Enabling and Configuring IIS and ASP .NET Framework 4.5 or Higher

Make sure to enable and configure Internet Information Services (IIS) and the ASP .NET Framework 4.5 or higher on Windows server.

IIS comes with Windows Server but is not installed or turned on by default. Installing and enabling IIS allows you to use your Windows machine as a web server. Clients (like the Oracle Utilities LEC AIM application) can then communicate with the Windows machine using HTTP or HTTPS.

After IIS is enabled, it needs to be configured. The following instructions enable IIS for .NET Framework 4.7. If the .NET Framework on your system is different version, the menu text might be slightly different.

## Enabling Windows Internet Information Services (IIS)

If IIS is not already enabled on your Windows machine you need to enable IIS:

1. On Windows Server, open the **Server Manager**. Select **Local Server**.
2. At the upper right of the screen, select **Manage** and then select **Add Roles and Features**.
3. In the **Server Roles** tab of the **Add Roles and Features** wizard, check the **Web Server (IIS)** box. The default values provide all the functionality that the Oracle Utilities LEC AIM application needs.
4. On the **Features** tab of the **Add Roles and Features** wizard, check the **.NET Framework 4.x Features** box. The default values provide all the functionality that that the Oracle Utilities LEC AIM application needs.
5. Select **Next** and then select **Install**.
6. The status “Windows completed the requested changes” will be displayed when IIS is successfully enabled.
7. At the upper right of the screen, select **Manage** and then select **Add or Remove Features** again.
8. Click **Next** until the **Server Roles** menu item is selected.
9. In the **Roles** list, navigate to the **Web Server (IIS)** item and expand the submenu items.
10. Expand the **Application Development** submenu item under **Web Server**.
11. Select the latest version of **ASP.NET** available. This will also automatically select any necessary dependencies.
12. Click **Next**, then click **Next** again, and then click **Install**.
13. After a successful installation message is displayed, restart the Windows machine.
14. Open a browser in Internet Explorer and navigate to <http://localhost/> . The default Windows Internet Information Services page should be displayed.

## Configuring IIS

1. Open **Internet Information Services (IIS) Manager** from the Windows Start menu.
2. Select the local machine in the **Connections** panel of the IIS manager.
3. At the bottom of the IIS manager select **Content View**.
4. From the center panel, click **Sites**. The **Default Web Site** icon will be displayed in the center

panel.

5. Right-click the **Default Web Site** node to start it if it has not started already.
6. If a secure connection is required, set up Secure Sockets Layer (SSL). For more information, see Microsoft's [How to: Set Up Secure Sockets Layer \(SSL\)](#).

## Running SetupAIMIIS.bat

To give the Oracle Utilities LEC AIM application user the necessary permissions to access all of the necessary Oracle Utilities LEC files (i.e. Python files and DLL files) through IIS, you must run the supplied Windows script called SetupAIM.bat.

To do this:

1. Open a Command Prompt as an Administrator.
2. Navigate to the directory: `\Program Files\LiveEnergyConnect\AimIIS`.
3. Run *SetupAimIIS.bat* on Windows.  
**Note:** If you use the *"Set-ExecutionPolicy RemoteSigned"* option when running this batch file, then the web server will only run scripts that have been signed by a trusted publisher. For more information on Execution Policy, read Microsoft's [About Execution Policy](#).
4. Examine the output of the batch file to ensure that all files are processed without error.

## Configuring DCOM Permissions

**Note:** The Oracle Utilities Live Energy Connect product was formerly known as LiveData Utilities RTI Server. Certain files in the IIS configuration process contains references to LiveData.

To configure DCOM permissions for the *LiveData.config* file:

1. From the Windows **Start** menu, open **Component Services**.
2. In the **Component Services** dialog box, navigate to **Component Services > Computers > My Computer > DCOM Config**.
3. Right-click *LiveData.Config* and select **Properties** from the popup menu to display the **Properties** dialog box.
4. Click the **Security** tab.
5. In the **Launch and Activation Permissions** section, click **Customize**.
6. Click **Edit** to display the **Launch and Activation Permission** dialog box.
7. Click **Add** to display the **Select Users or Groups** dialog box.
8. With the current machine selected in the **From this location** field, enter *"IIS AppPool\AimIIS"* in the **Enter the object names to select** textbox.
9. Select the **Check Names** button and click **OK**. Confirm that the user AimIIS was added to the list of users.
10. Provide the AimIIS user all permissions listed under **Permissions for AimIIS**.
11. To do this, select all check boxes under the **Allow** column and click **OK**.
12. Provide the AimIIS user full control over **Access Permission**.
13. Under **Access Permissions**, select **Customize** and click **Edit**.
14. In the **Access Permission** dialog box, repeat Steps 5 through 9 for **Access Permissions**.
15. Under **Configuration Permissions**, select **Customize** and click **Edit**.

16. In the **Configuration Permissions** dialog box, repeat steps 5 through 9 for **Configuration Permissions**.

**Note:** You will not be able to select **Special permissions** under **Permissions for AimIIS** when you repeat step 8. However, the AimIIS user does not need special permissions.

17. Click **Apply**.

18. Click **OK**.