

GETTING STARTED WITH DMS

Before You Begin

Before importing data into the DMS, note the following system conventions:

- The DMS database is compatible with SQL Server 2005 and above. The DMS graphical user interface (GUI) requires Windows XP, Windows Vista, Windows 7, or Windows 2003 Server and higher.
- Each applicable data point stored within the DMS SQL Server database is linked to a unique instrument, which has a unique identifier. The unique instrument identifier can be used as an instrument tracking/inventory system for the data collection agency.
- The DMS requires unique site-parameter combinations. This requirement means that collocated parameters must be named differently in the DMS (e.g., O3 and O3a).
- The DMS requires a quality control (QC) definition system that is consistent across parameters (e.g., valid, suspect, insufficient data (for aggregates), and invalid). The DMS QC codes fall under two categories: valid and invalid. The number of QC codes and the associated definitions in the DMS system are user-configurable. Further information on the DMS QC codes is provided in the Setup – QC and Op Codes help documentation.
- The DMS requires field operation (Op) codes that are consistent across instruments. The numbers and specific definitions of the Op Codes are userconfigurable. Further information on the DMS Op codes is provided in the Setup–QC and Op Codes section of this user's guide.
- The DMS is equipped with powerful QC options. Users must have appropriate resources, and instrument and air quality expertise to set up logical and useful DMS QC checks.
- The DMS database must be populated with the appropriate site, instrument, and parameter combinations before the DMS will import data for any given parameter using the basic ingest data formats.
- Many DMS calculations are performed upon data import. The particular calculations to be performed on a given site and parameter must be configured in the database prior to importing data for that site and parameter.
- The DMS can automatically create new sites if data for the new sites are imported in AQCSV format. See the System Screen section of this user's guide for more information.
- Data can be imported into the DMS via a manual process through the user interface or via automated import. Data import is described in detail in the Data–Export and Data–Import help documentation.
- The sites, instruments, and parameters tables under the Administration tab are able to handle multiple users concurrently. If multiple users make changes to a particular data point, only the last change will be represented in the DMS.
- The DMS is configured to report aerometric data to the U.S. Environmental Protection Agency's AQS database in the pipe-delimited real data (RD) format and the XML-based AQS format.
- DMS features a cascade delete effect: deletion of a data value associated with other values deletes all dependent data values. For example, deleting an item in the Site or Parameter fields also deletes all the data values associated with that site or parameter. The DMS is set up so that only the database administrator (DBA) can delete DMS data; graphs are the lone exception to this rule.

- The DMS DBA must set the file paths, sites, parameters, instruments, and default Op and QC codes before data are imported. These settings are made on the System screen under the Setup tab, as discussed in the System Configuration help documentation.

Required Files

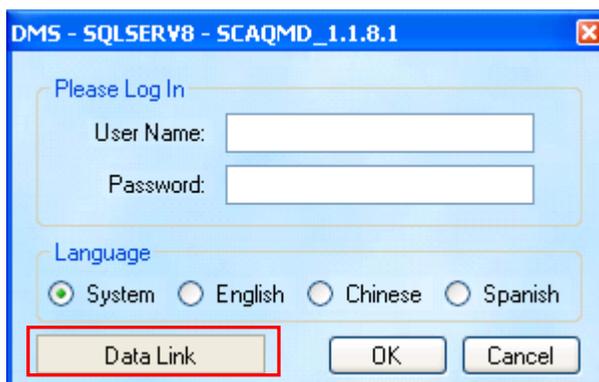
The user interface requires the following files and folders, all of which must be located in the same folder on the user's local machine.

- *DMS.exe* is the executable file for the DMS user interface.
- *DMS_DAL.dll* and *Extreme.Numerics.dll* are the .dll files that handle data transactions between the DMS user interface and the database. They may be updated as the DMS is enhanced or modified.
- *Logo.png* contains the image used in the DMS title bar.
- *No Data.png* contains the image used in the DMS when data are unavailable for a scatter plot or rose diagram.
- The "Docs" folder is under the DMS program directory and contains all of the help documents that may be accessed from the Help menu in the DMS user interface.
- *DMS.resources.dll* in the "zh-CHS" folder under the DMS program directory contains the phrase translations and other information necessary to generate a Chinese version of the DMS user interface.
- *AqsRawXML.exe* and *AqsPrecisionXML.exe* are the two programs that convert DMS exports to XML files.

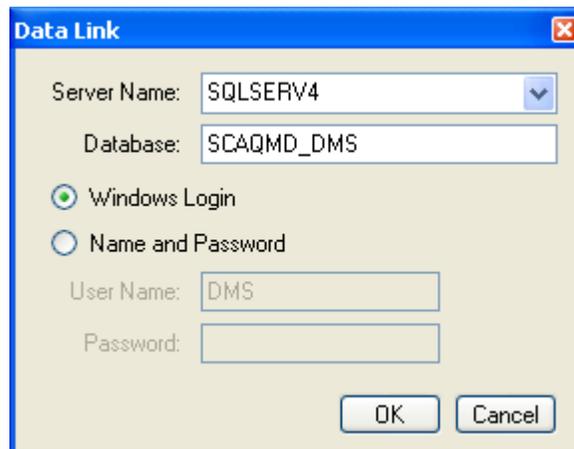
Database Login

Double-click the *DMS.exe* file to launch the database login window. The server and database connections for the DMS GUI are indicated at the top of the window. If the connection is correct, enter a user name and a password in the respective boxes and click **OK** to open the DMS session.

Current
server – database
connection



To change the database connections, click the **Data Link** button to open the Data Link properties window. For users who connect to a single DMS database, the **Data Link** properties need to be set up only once. However, the database connection can be changed at any time before starting the DMS.



The screenshot shows a 'Data Link' dialog box with the following fields and options:

- Server Name: SQLSERV4 (dropdown menu)
- Database: SCAQMD_DMS (text box)
- Authentication options:
 - Windows Login
 - Name and Password
- User Name: DMS (text box)
- Password: (empty text box)
- Buttons: OK, Cancel

- To change the server on which the database is located, select an option from the **Server Name** drop-down list or manually enter the correct name.
- Enter the correct SQL Server database into the **Database** box.
- Two authentication options are available: **Windows Login** or a set **Name and Password**. If the **Windows Login** option is selected, DMS will use the same name and password that is used to log in to the computer on which it's being run. The **Name and Password** option allows users to create database logins.
- Click **OK** to return to the DMS user interface login window.

Language Selection

The DMS user interface is currently supported in **English**, simplified **Chinese**, and **Spanish**. To select the display language, click on the preferred language on the login window. If the **System** option is selected, DMS will use the language of the system on which it's being run.