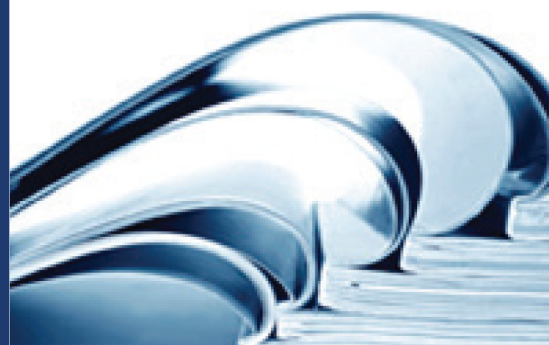


DataFlux® Web Studio Installation and Configuration Guide



DATAFLUX®
data management



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DataFlux® Web Studio

Installation and Configuration Guide

Version 2.4

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Introduction

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Accessibility Features

DataFlux Web Studio (Web Studio) includes features that improve usability of the product for users with disabilities. These features are related to accessibility standards for electronic information technology that were adopted by the United States (U.S.) Government under Section 508 of the U.S. Rehabilitation Act of 1973, as amended.

If you have questions or concerns about the accessibility of DataFlux products, send an e-mail to techsupport@dataflux.com.

Audience for this Guide

This guide is intended for those who are responsible for installing and configuring DataFlux Web Studio Server and the DataFlux Web Studio client. The Web Studio client supports the following modules: Dashboard Viewer, Monitor Viewer, Business Data Network, or Reference Data Manager.

Conventions Used In This Document

This document uses several conventions for special terms and actions.

Typographical Conventions

The following typographical conventions may be used in this document:

Bold	Text in bold signifies a button or action
<i>italic</i>	Identifies document and topic titles
monospace	Typeface used to indicate examples of code

Syntax Conventions

The following syntax conventions may be used in this document:

- [] Brackets [] are used to indicate variable text, such as version numbers
- # The pound # sign at the beginning of example code indicates a comment that is not part of the code

DataFlux Reference Publications

This document might reference other DataFlux® publications including:

- *DataFlux Web Studio User's Guide*
- *DataFlux Data Management Studio User's Guide*
- *DataFlux Data Management Studio Installation and Configuration Guide*
- *DataFlux Authentication Server Administrator's Guide*
- *DataFlux Authentication Server User's Guide*
- *DataFlux Data Management Server Administrator's Guide*
- *DataFlux Data Management Server User's Guide*
- *DataFlux Expression Language Reference Guide for Data Management Studio*
- *DataFlux Federation Server Administrator's Guide*
- *DataFlux Federation Server User's Guide*
- *DataFlux Migration Guide*
- DataFlux Quality Knowledge Base Online Help

Introduction to Web Studio

[Overview of Web Studio](#)

[Prerequisites for Web Studio](#)

Overview of Web Studio

DataFlux Data Management Studio can work with DataFlux Web Studio (Web Studio) and DataFlux Web Studio Server (Web Studio Server). The Web Studio Server runs the jobs that support all of the modules in the Web Studio client. The Web Studio client can include all of the following modules or a combination of them:

DataFlux Dashboard Viewer - Executives and other key decision-makers can use Dashboard Viewer to get a high-level summary of data stewardship efforts. Exceptions to monitored business rules are generated by data monitoring jobs that are created in Data Management Studio. The output of these jobs can be monitored in Web Studio, using Monitor Viewer and Dashboard Viewer.

DataFlux Monitor Viewer - Data stewards can use Monitor Viewer to get a detailed view of the exceptions to monitored business rules. They can drill deeper into the exceptions that are displayed in the Dashboard Viewer. Data stewards can also evaluate exceptions and assign related work to the appropriate technical personnel. Technical personnel will typically have access to Data Management Studio, and they can see and respond to the assignments made from Monitor Viewer in Web Studio.

DataFlux Business Data Network - Business Data Network enables you to discover, document, and manage a glossary of business terms. The record for a term can include a definition of the term; the relationship of the term to other terms; and the relationship of the term to other content such as documents, web pages, tables, and business rules. After the glossary is complete, you can use the discovery capabilities of the Data Management Platform to diagnose problems that are related to these terms. Depending on the nature of the problems detected, other Data Management Platform capabilities such as standardization, matching, and enrichment can be used to solve data problems on an ongoing basis. The monitoring and reporting capabilities of the Platform offer a way to verify the results of your effort to manage the terms and their related assets.

DataFlux Reference Data Manager - Reference Data Manager enables you to manage a central repository of reference information that can be used by technical, business, and IT users. Examples of reference information include a list of NASDAQ stock symbols with their associated company names, or a list of valid zip codes with their associated cities and states. The Reference Data Manager repository can be centrally managed and versioned; it can be based on business terms defined in Business Data Network; it can be exported to external systems; and it can be used to manage hierarchies in the DataFlux Quality Master Data Management Solution (qMDM) and other DataFlux software.



Note: In order to use the Web Studio modules that are described above, Web Studio and the separate modules must be licensed on the relevant server. For more information about licensing, contact your DataFlux representative.

Prerequisites for DataFlux Web Studio

DataFlux Web Studio Software

The following software is included with DataFlux Web Studio:

DataFlux Web Studio Server 2.4. This is a server that is configured to support the Web Studio client. The Web Studio Server runs the jobs that support all of the modules in the Web Studio client.

DataFlux Web Studio 2.4. This is the web client that enables users to interface with Business Data Network, Reference Data Management, and the Dashboard and Monitor viewers.

Note that you must use the same versions of Web Studio and Web Studio Server.

System Requirements

You can review system requirements for SAS 9.3 products at the following location:

<http://support.sas.com/documentation/installcenter/93/>

A search window for SAS 9.3 Install Center Documentation appears. Search for your product name. A results page will appear with links to the system requirements for your software.

Software Required by Web Studio

The following software is required by Web Studio. If you do not already have this software, you will need to install and configure this software as described in this guide.

DataFlux Authentication Server 3.1. You cannot log in to Web Studio unless you are registered on the Authentication Server. The Authentication Server administrator must create a number of users and groups to support the Web Studio modules. For more information, see [Defining Users and Groups on the Authentication Server](#).

DataFlux Data Management Studio 2.4. All Web Studio modules require a Data Management Platform repository. Only Data Management Studio can create the repository definition file (.RCF file) and create a new repository in the location that is specified in the definition file. Also, Dashboard Viewer, Monitor Viewer, and Business Data Network depend on components in Data Management Studio.

Database Management System Software (for repository storage). The Data Management Platform repository for Web Studio must use an ODBC DSN connection, and it must be in one of the following database formats:

- Oracle 11g R1, R2 (11.1, 11.2)
- Oracle 10g R1, R2 (10.1, 10.2)
- Microsoft SQL Server 2008 R1, R2
- Microsoft SQL Server 2005
- DB2 V9.1, V9.5, V9.7 for Linux, UNIX, Windows

Java 1.6 or higher. Must be specified in the PATH environment variable on the computer where the web server and the Web Studio client are running.

Web browser (for Web Studio users). Microsoft Internet Explorer versions 7 or 8, Mozilla Firefox, or Google Chrome.

Adobe Flash 10.1 (for Web Studio users). If Adobe Flash is not already installed, you will be prompted to install it onto any web browser that attempts to run Web Studio.

Web Studio Licensing

Web Studio and the separate modules (Business Data Network, etc.) must be licensed on the relevant Web Studio Server. For more information about the products that you have licensed, review your SAS Software Order Email (SOE).

Working with Users and Groups

[Web Studio Permissions](#)

[Planning Web Studio Users and Groups](#)

[Adding Web Studio Users and Groups](#)

Web Studio Permissions

This table describes five types of permissions that can be enforced for Web Studio users and groups.

Access	Permissions Types
IT administrative access	Controls access to Web Studio
Business Data administrative access	Controls who can edit within Business Data Network
Edit access	Business Data Network – Edit and read Monitor Viewer – Read ¹ Dashboard Viewer - Read ¹ Reference Data Manager – Edit and read
Read-only access	Business Data Network – Read ² Monitor Viewer – Read Dashboard Viewer - Read Reference Data Manager – Read ³
No access	No permissions within Web Studio
¹ - There is no concept of an edit function in Monitor Viewer or Dashboard Viewer. Users can only view data, drill into it, or modify their view of the data presented in the Viewers.	
² - Business Data Network users with read-only access do not have any edit permissions and cannot add or edit Notes or Interested Parties for a term. If edit permissions for just Notes and Interested Parties is desired, the user must be enabled with Edit access, which enables all editing	
³ - By default, Reference Data Manager does not have a concept of a read-only user; all Web Studio users can edit information within Reference Data Manager if it is licensed for use. If you need to support read-only users, you must add them to the RDM_READONLY group in the Authentication Server.	

Planning Web Studio Users and Groups

Overview of Web Studio Users and Groups

The Authentication Server is used to define Web Studio users and groups. Then the Web Studio interfaces in Data Management Studio are used to select these users and groups and grant them appropriate permissions for Web Studio modules. After these permissions have been granted, users can login to the Web Studio client and perform the tasks for which they have permission.

Before you install Web Studio, you might want to identify all of the Web Studio users and groups that you will need on the Authentication Server. Otherwise, you will get to a point in the installation of Web Studio software where you will have to stop and define a user or group before you can proceed.

Web Studio Users

In a production environment, Web Studio users would be people with logins on your network. The following generic user names represent different kinds of Web Studio users, such as **itadmin**, **bdnadmin**, etc. None of these user names is required; they are simply examples. You will define users only for the Web Studio modules that you have licensed.

- **itadmin** - an administrator who controls who can login to the Web Studio client.
- **bdnadmin** - an administrator who controls who can edit within Business Data Network.
- **editbdn** - a user who can edit within Business Data Network.
- **editrdm** - a user who can edit within Reference Data Manager.
- **readrdm** - a user with read-only access to Reference Data Manager.
- **datamonitor** - a user who can read the Dashboard Viewer and Monitor Viewer.

Web Studio Groups

The steps to add permissions to access and run the necessary jobs that drive the interface for Web Studio are not trivial. It is much easier to do this once for a group, and then make any users or groups that need access to Web Studio a member of that group so that those permissions are inherited. In addition, if permissions ever need to be revoked, it is much easier to remove a user from a group in the Authentication Server than it is to revoke the permissions to Web Studio Server and the individual jobs.

All Web Studio modules require at least one group to be defined on the Authentication Server:

- **WSAdmin** - Members of the WSAdmin group control access to Web Studio. This group is required for all Web Studio modules, but the name does not have to be "WSAdmin." WSAdmin is the default name for this group unless you change it during the Web Studio Server installation process. You can also change the default name for this group by editing the `dmserver/secure/grp_admin` property in the `dmserver.cfg` file

for Web Studio Server. This group must have at least one member in order to install and configure Web Studio software. The example user itadmin would be a member of this group.

In addition to the required group, the following group is recommended for all Web Studio modules:

- **DFWEB** - Members of the **DFWEB** group can login to Web Studio. This group is not required, but it is recommended for convenience. "DFWEB" is just an example group name. Any user who needs to log in to the Web Studio client could be made a member of this group. All of the example users that are described in [Web Studio Users](#) could be members of this group. However, there is no reason to add the example user itadmin to this group. Members of the WSAdmin group (such as itadmin) do not have to login to Web Studio themselves.

You will add additional groups for the Web Studio modules that you have licensed. If you have licensed the Business Data Network module, the following group is required on the Authentication Server

- **Business Data Administrators** - Members of the Business Data Administrators group control who can edit within Business Data Network. This group is required if you have licensed Business Data Network. The name of this group must be "Business Data Administrators." The example user bdnadmin could be a member of this group.

In addition to the required group, the following group is recommended for Business Data Network:

- **Business Data Users** - Members of the **Business Data Users** group can add and update terms and otherwise edit within Business Data Network. This group is not required, but it is recommended for convenience. "Business Data Users" is just an example group name. The example user editbdn could be a member of this group.

If you have licensed the Reference Data Manager module, the following group is recommended:

- **Reference Data Users** - Members of the **Reference Data Users** group can add and update items within the Reference Data Manager module. This group is not required, but it is recommended for convenience. "Reference Data Users" is just an example group name. The example user editrdm could be a member of this group.
- **RDM_READONLY** - Members of **RDM_READONLY** have read-only access to the Reference Data Manager module. This group is not required, but it is recommended for convenience. The name of this group must be "RDM_READONLY." The example user readrdm could be a member of this group.

If you have licensed the Monitor Viewer and Dashboard Viewer, the following group is recommended:

- **Data Monitor Users** - Members of the **Data Monitor Users** group can view the Monitor Viewer and Dashboard Viewer. This group is not required, but it is recommended for convenience. "Data Monitor Users" is just an example group name. The example user datamonitor could be a member of this group.

Example Permissions for Web Studio Groups

The following table describes one possible permission scheme for Web Studio groups. It is assumed that appropriate users or groups have been added to these groups on the Authentication Server. The **Access** and **Permissions Types** columns list the kinds of permissions that can be enforced for Web Studio users and groups. The **Web Studio Groups...** column lists the groups for Web Studio. Some of these groups are required, and some are recommended, as described in [Web Studio Groups](#). The example users in this column are described in [Web Studio Users](#).

Access	Permissions Types	Web Studio Groups Defined on the Authentication Server
IT administrative access	Controls access to Web Studio	WSAdmin (member users could include example user itadmin)
Business Data administrative access	Controls who can edit within Business Data Network	Business Data Administrators (member users could include example user bdnadmin)
Edit access	Business Data Network – Edit and read Monitor Viewer – Read Dashboard Viewer - Read Reference Data Manager – Edit and read	Business Data Users (member users could include example user editbdn)
Read-only access	Members of this group can log in to Web Studio. They also have the following permissions: Business Data Network – Read Monitor Viewer – Read Dashboard Viewer - Read Reference Data Manager – Read	DFWEB (member groups could include Business Data Administrators, Business Data Users, Data Monitor Users) Note that read-only Reference Data Users are enrolled in the separate RDM_READONLY group (example users could include example user readrdm)
No access	No permissions within Web Studio	No Web Studio group



Note: If you want a user to have access to multiple modules, add that user to the group for each module.

Additional Permissions for Business Data Network

The Business Data Network module has an additional set of access controls. In order for a user to be able to edit terms in Business Data Network, the user's Authentication Server account must be added to the Users panel of the Business Data Network Administration window. This window is one of the Web Studio interfaces in Data Management Studio. This task can be done after Web Studio Server and Web Studio client are installed. For more information about this task, see [Configuring Business Data Network](#).

Next Task

After you have identified all of the Web Studio users and groups that you will need, you can add them on the Authentication Server. See [Adding Web Studio Users and Groups](#).

Adding Web Studio Users and Groups

Overview of Authentication Server Users, Groups, and Domains

The Authentication Server is used to define Web Studio users and groups. Then the Web Studio interfaces in Data Management Studio are used to select these users and groups and grant them appropriate permissions for Web Studio modules. After these permissions have been granted, users can login to Web Studio and perform the tasks for which they have permission.

On the Authentication Server:

- A user is a person who has a login on your network or who has an internal account on a specific computer. In a production system, users typically have a network login.
- A group is a named set of users. Groups are a convenient way to grant permissions to sets of users.
- A domain is a label that is used to group similar user credentials, such as a group of users who need to log in to Web Studio, or a group of users who need to login to a database management system (DBMS). You might create a domain for the users who are logging in from a particular network, for example.

If an Authentication Server is installed on your site, and you have administrative privilege, you can use the **Administration** riser in Data Management Studio to add Authentication Server domains, users, and groups for Web Studio. This topic describes the basic steps for adding domains, users, and groups. Even if you are not responsible for this task, the topic will help you understand how the Authentication Server interacts with Web Studio and the Web Studio Server. For complete information about maintaining users and related information, see the *DataFlux Authentication Server User's Guide* and the *DataFlux Authentication Server Administrator's Guide*.

Prerequisites for Adding Authentication Server Users and Groups

Server administrators will use the **Administration** riser in Data Management Studio to add users, groups, and other information on the Authentication Server. Assume that a connection to an Authentication Server has already been added to the **Administration** riser, as described in "Connecting to Authentication Servers" in the *DataFlux Data Management Studio User's Guide*.

Identify a set of domains, users, and groups that must be registered on the Authentication Server in order to support Web Studio at your site. For example, you might want to define the entire set of Authentication Server users and groups that are described in [Planning Web Studio Users and Groups](#). In order to support all of these users and groups, you could define the following domain, users, and groups:

- **Domain** - PUBDIS, a local domain for users on the test computer (pubdis) where a Web Studio test environment is installed. (For production systems, you could create an Authentication Server domain that corresponds to network domain that is used for production work.)
- **Users** - itadmn, bdnadmin, editbdn, editrdm, readrdm, and datamonitor. See [Planning Web Studio Users and Groups](#) for a description of these users. In the current example, all of these users have local accounts on the test computer, pubdis. For production systems, these would typically be network accounts. Passwords for users are not typically saved as part of the user definitions on the Authentication Server. These users will enter their passwords for the relevant domain as they normally would, when the Authentication Server prompts them to log in.
- **Groups** - WSadmin, DFWEB, Business Data Administrators, Business Data Users, Reference Data Users, RDM_READONLY, and Data Monitor Users. See [Planning Web Studio Users and Groups](#) for a description of these groups.

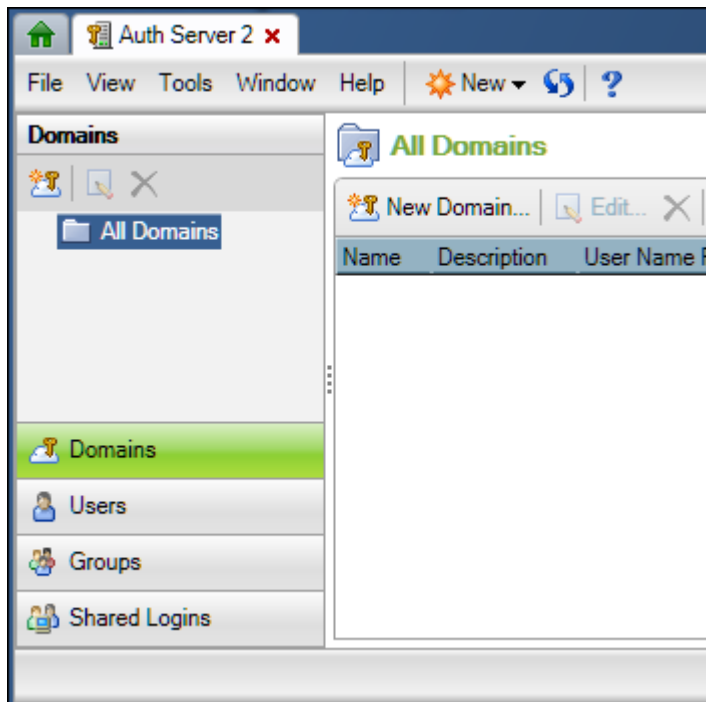


Note: Some Web Studio groups have specific names that must be used. For more information about these groups, see [Planning Web Studio Users and Groups](#).

Open the Authentication Server as an Administrator

1. Run Data Management Studio.
2. Click the **Administration** riser, and then expand the **Authentications Servers** folder.
3. Right-click an Authentication Server and select **Open**.

4. Enter any required credentials. After you login, the administrative dialogs for the Authentication Server will display, as shown in the next display.



Add Domains

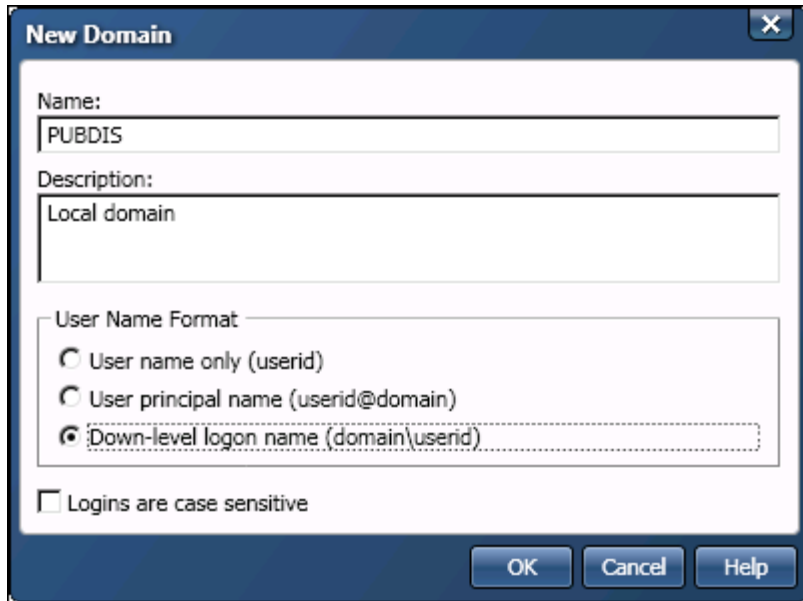
Add domains on the Authentication Server as required to meet your goals. For the example that is described in the [Prerequisites](#) section, you would create the following domain:

- PUBDIS, a local domain on a test computer (pubdis) where a test environment for Web Studio is installed.

It is assumed that you have opened the Authentication Server as an administrator. Perform the following steps to add a domain.

1. Click the **Domains** riser.
2. Click the **New Domain** control in the **All Domains** panel on the right. The **New Domain** dialog displays. Typically, you will identify the information that is required by this dialog when you research the prerequisites.

3. Enter a name, a description, and other attributes, as shown in the next display.

A screenshot of the 'New Domain' dialog box. It has a title bar with 'New Domain' and a close button. The dialog contains three text input fields: 'Name:' with 'PUBDIS', 'Description:' with 'Local domain', and 'User Name Format'. Under 'User Name Format', there are three radio button options: 'User name only (userid)', 'User principal name (userid@domain)', and 'Down-level logon name (domain\userid)'. The third option is selected. Below these is a checkbox labeled 'Logins are case sensitive' which is unchecked. At the bottom are three buttons: 'OK', 'Cancel', and 'Help'.

In the previous display, the **Name** specifies the domain name that could be combined with a login ID for authentication. The **Description** defines the purpose and scope of the domain. The **User Name Format** area specifies if and how the domain name is to be combined with a login ID for authentication. Given that the **Down-level logon name** option is selected in the previous display, the domain will be combined with the login ID for authentication (PUBDIS\editbdn). The case-sensitive option is unchecked for this domain.

4. Click **OK** when finished to save the domain.
5. Repeat for all required domains.

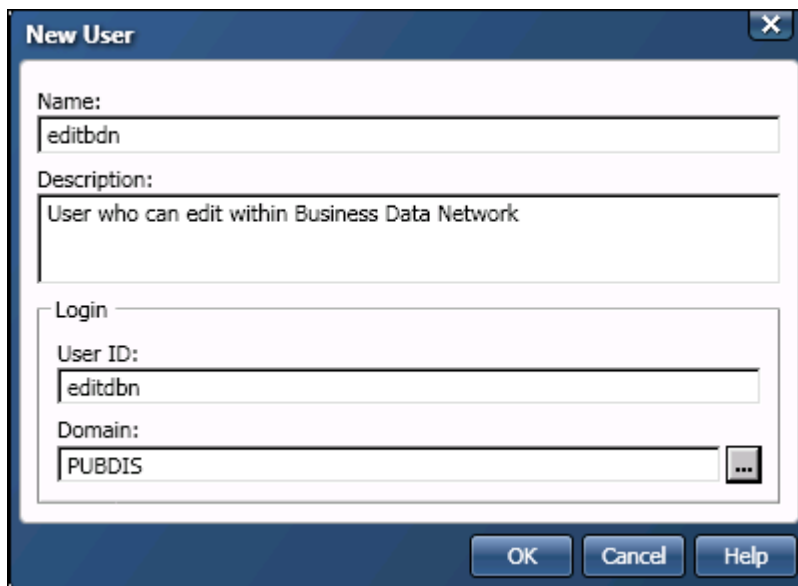
Add Users

Add users on the Authentication Server as required to meet your goals. For the example that is described in the [Prerequisites](#) section, you could start by creating the user editbdn.

It is assumed that you have opened the Authentication Server as an administrator. Perform the following steps to add a user.

1. Click the **Users** riser.
2. Click the **New User** control in the **All Users** panel on the right. The **New User** dialog displays. Typically, you will identify the information that is required by this dialog when you research the prerequisites.

3. Enter a name, a description, and other attributes, as shown in the next display.



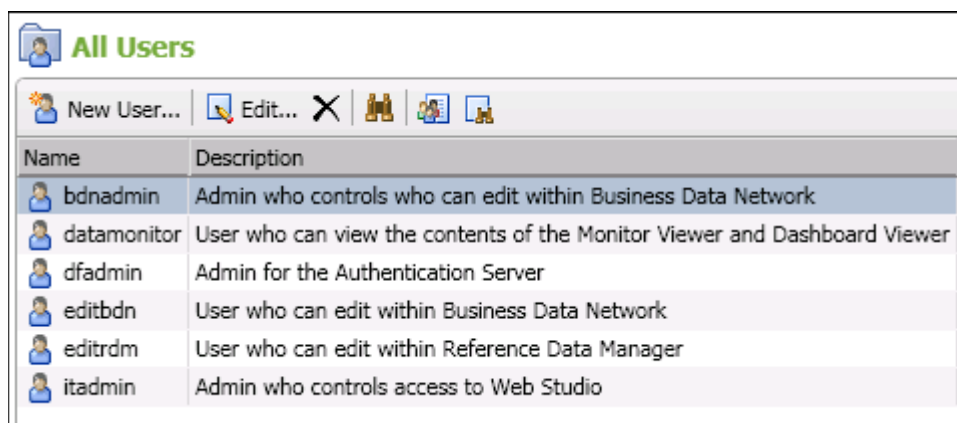
The 'New User' dialog box is shown with the following fields and values:

- Name:** editbdbn
- Description:** User who can edit within Business Data Network
- Login:**
 - User ID:** editbdbn
 - Domain:** PUBDIS

Buttons at the bottom: OK, Cancel, Help.

In the previous display, the **Name** specifies an Authentication Server user for Web Studio. The **Description** identifies the user. The **User ID** specifies a login ID for this user in the selected domain. The **Domain** specifies an Authentication Server domain.

4. Click **OK** when finished to save the user.
5. Repeat for all required users. For the current example, the **All Users** panel would look like the next display.




The 'All Users' panel displays a list of users with the following columns: Name and Description.

Name	Description
bdnadmin	Admin who controls who can edit within Business Data Network
datamonitor	User who can view the contents of the Monitor Viewer and Dashboard Viewer
dfadmin	Admin for the Authentication Server
editbdbn	User who can edit within Business Data Network
editrdm	User who can edit within Reference Data Manager
itadmin	Admin who controls access to Web Studio

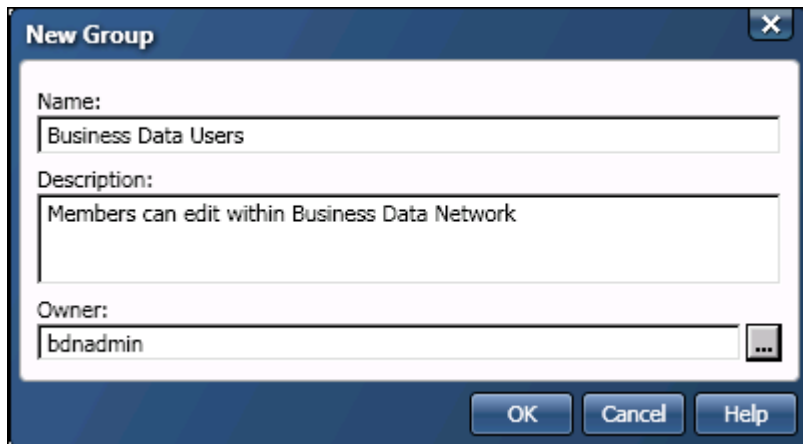
Add Groups

Add the groups that are required to support Web Studio, as you plan to install it.

 **Note:** Web Studio requires groups with specific names to be defined on the Authentication Server. For more information about these groups, see [Planning Web Studio Users and Groups](#).

For the example that is described in the [Prerequisites](#) section, you could start by creating the group Business Data Users. It is assumed that you have opened the Authentication Server as an administrator. Perform the following steps to add a group.

1. Click the **Group** riser.
2. Click the **New Group** control in the **All Groups** panel on the right. The **New Group** dialog displays. Typically, you will identify the information that is required by this dialog when you research the prerequisites.
3. Enter a name, a description, and other attributes, as shown in the next display.



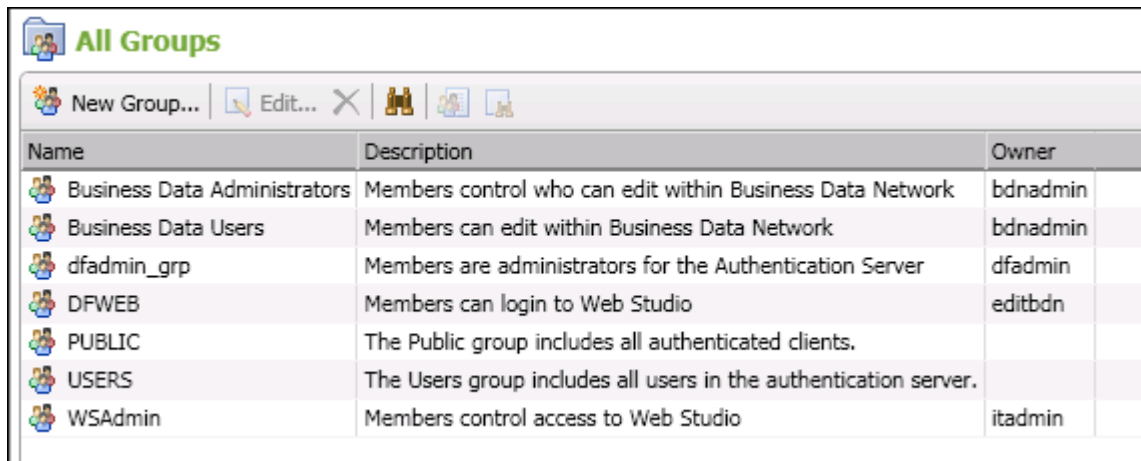
The 'New Group' dialog box is shown with the following fields:

- Name:** Business Data Users
- Description:** Members can edit within Business Data Network
- Owner:** bdnadmin

Buttons at the bottom: OK, Cancel, Help.

In the previous display, the **Name** specifies an Authentication Server group for Web Studio. The **Description** identifies the user. The **Owner** specifies an Authentication Server user who is the contact for this group.

4. Click **OK** when finished to save the group.
5. Repeat for all required group. For the current example, the **All Groups** panel might look similar to the next display.



The 'All Groups' panel displays a list of groups with the following columns: Name, Description, and Owner.

Name	Description	Owner
Business Data Administrators	Members control who can edit within Business Data Network	bdnadmin
Business Data Users	Members can edit within Business Data Network	bdnadmin
dfadmin_grp	Members are administrators for the Authentication Server	dfadmin
DFWEB	Members can login to Web Studio	editbdn
PUBLIC	The Public group includes all authenticated clients.	
USERS	The Users group includes all users in the authentication server.	
WSAdmin	Members control access to Web Studio	itadmin

The display above includes some other groups, such as PUBLIC and USERS. For more information about these groups, see the documentation for the Authentication Server.

Add Users to Groups

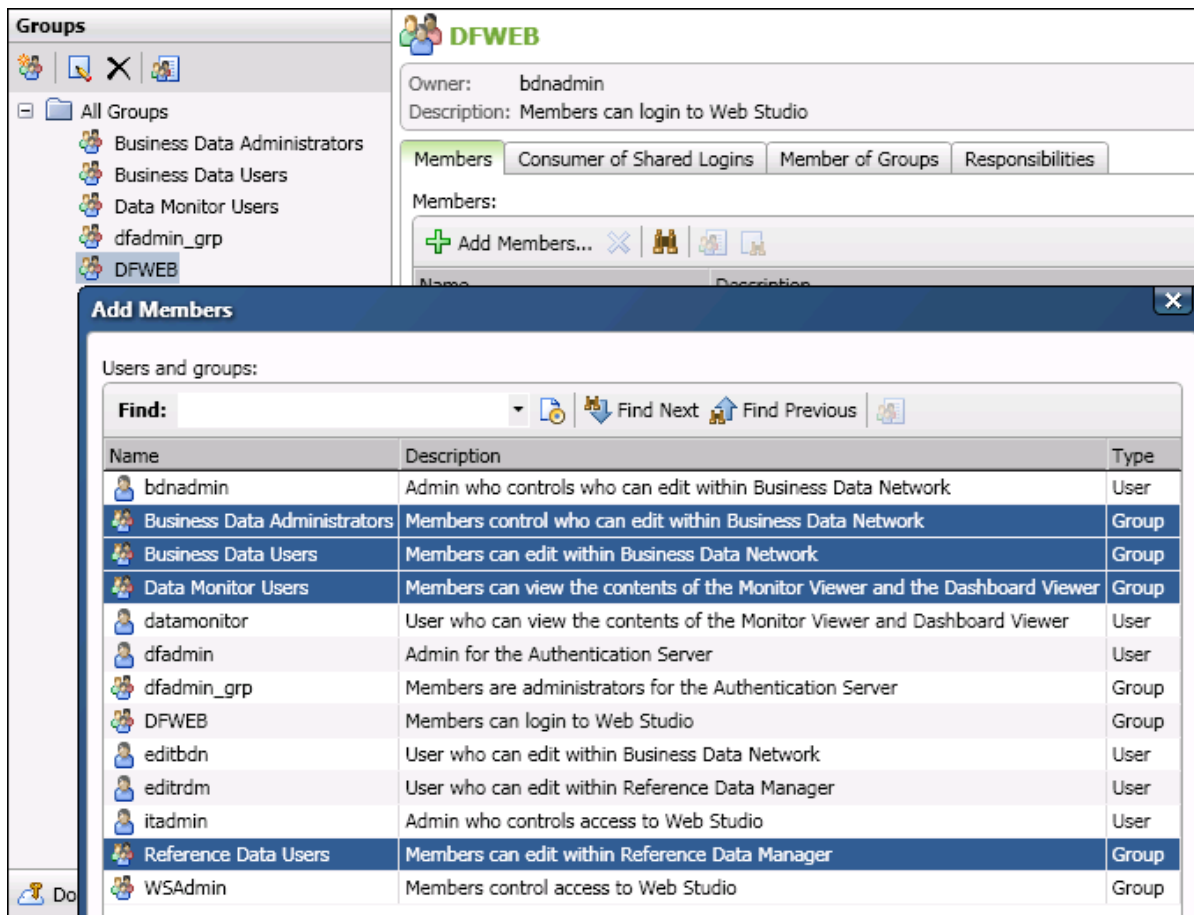
Based on your plan for the Web Studio installation, add users to the appropriate groups. You can also add a group as a member of another group. For the example plan that is described in the [Prerequisites](#) section, you would specify the following users and groups:

- **WSadmin** - itadmin, an administrative user who controls who can login to the Web Studio client.
- **Business Data Administrators** - bdnadmin, an administrative user who controls who can edit within Business Data Network.
- **Business Data Users** - editbdn, a user who can edit within Business Data Network.
- **Reference Data Users** - editrdm, a user who can edit within Reference Data Manager.
- **RDM_READONLY** - readrdm, a user who has r.
- **Data Monitor Users** - datamonitor, a user who can read the Dashboard Viewer and Monitor Viewer.
- **DFWEB** - Business Data Administrators group; Business Data Users group; Reference Data Users group; Data Monitor Users group; RDM_READONLY (if you support read-only access to Reference Data Manager).

It is assumed that you have opened the Authentication Server as an administrator. Perform the following steps to add users or groups to the appropriate group.

1. Click the **Groups** riser.
2. Expand the **Groups** folder on the left.
3. Under the **Groups** folder, select a group to which you will add a user or group.
4. Click the **Add Members** control in the **All Groups** panel on the right. The **Add Members** dialog displays. Typically, you will identify the information that is required by this dialog when you research the prerequisites.

5. Select one or more users or groups to be added as members of the current group. You can use Shift-Click or Control-Click to select multiple items, as shown in the next display.



6. Click Add to add the selected users and groups as members of the current group.
7. Repeat for all groups.

Next Task

After you have added the required Web Studio users and groups on the Authentication Server, you can install Web Studio. See [Installing and Configuring Web Studio](#).

Configuring Web Studio Server

[Installing Web Studio Server for Windows or UNIX](#)

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Installing Web Studio Server

DataFlux Web Studio Server is available through SAS delivery channels. See your SAS Software Order Email (SOE) for information about installing Web Studio Server. For more information, see [Directory Layout for Web Studio Server Installation](#).

The repository for a Web Studio Server must use an ODBC DSN connection to a database management system. Accordingly, your next task is to replace the server's default repository with a repository that uses an ODBC DSN connection.

Creating the Web Studio Server Repository

- [Overview](#)
- [Create DSNs for the Web Studio Server Repository](#)
- [Create the Web Studio Server Repository](#)
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Overview

A repository is a collection of metadata about DataFlux objects and related resources. The repository for a Web Studio Server must use an ODBC DSN connection to a database management system. Accordingly, you must replace the server's default, file-based repository with a repository that uses an ODBC DSN connection.

In general, you will do the following:

- Review the database management systems that are supported for Web Studio repositories. See "Database Management System Software" in [Prerequisites for DataFlux Web Studio](#).
- Identify the appropriate database and schema for your Web Studio Server repository.

- Use Data Management Studio to create a system DSN connection for the repository. Be sure to save credentials with the connection. Note also that the DSN used to connect to the Oracle DB should have Connection Pooling disabled.
- Use Data Management Studio to create a new repository in the database management system that is specified in the DSN. By doing this, you also create a repository definition file (.RCF file). the .RCF file specifies the DSN and other information for the repository.
- Copy the repository definition file from the Data Management Studio folder to the appropriate folder on the Web Studio Server.
- Start the Web Studio Server. It will now use the repository that is specified in the repository definition file.

Create DSNs for the Web Studio Server Repository

The repository for Web Studio must use an ODBC DSN connection, and it must be in one of the database formats cited in [Prerequisites for DataFlux Web Studio](#). Use Data Management Studio to create a system DSN connection for the repository. Be sure to save credentials with the connection. For more information about these tasks, see the Data Riser Bar section in the "Maintaining Data Connections" chapter in the *Data Management Studio User's Guide*. If you will be using the Business Data Network module, then there are some additional considerations.

Note that Business Data Network requires a case-insensitive Web Studio repository. You must take steps to ensure that the repository is case-insensitive. Below are some recommended steps for various databases. It is assumed that you are generally familiar with database management and ODBC DSNs.

Oracle Repository for Business Data Network

Perform the following steps to create a case-insensitive Web Studio repository in Oracle format:

1. Run the ODBC Data Source Administrator.
2. Open the properties window for an ODBC Oracle Wire Protocol Driver DSN.
3. Click the Advanced tab.
4. Add the following string in the Initialization String text box: `ALTER SESSION SET NLS_SORT=BINARY_CI NLS_COMP=LINGUISTIC`
5. Save your changes.
6. Restart any servers that consume this DSN.

In general, you will add an initialization string to the ODBC Oracle Wire Protocol Driver DSN that is used for the Web Studio repository. This can be done to an existing DSN or to a new one.

SQL Server Repository for Business Data Network

Perform these steps to create a case-insensitive Web Studio repository in SQL Server format. Typically, you will create a new database and specify it as case-insensitive. For English, the database collation must include *CI_AS* in its name, such as *SQL_Latin1_General_CP1_CI_AS*. Relevant database collations include Latin1-General, case-insensitive, accent-sensitive, kanatype-insensitive, width-insensitive for Unicode Data, or SQL Server Sort Order 52 on Code Page 1252 for non-Unicode Data.

Here is an example SQL command:

```
Create new Database with COLLATE SQL_Latin1_General_CP1_CI_AS
CREATE DATABASE [<DB Name>]
COLLATE SQL_Latin1_General_CP1_CI_AS;
GO
```

DB2 Repository for Business Data Network

Perform these steps to create a case-insensitive Web Studio repository in DB2 format. Typically, you will create a new database and specify it as case-insensitive.

Here is an example DB2 statement that creates an English collation that is case-insensitive:

```
CREATE DATABASE <Database name>
USING CODESET UTF-8 TERRITORY US
COLLATE USING UCA500R1_LEN_S2
```

Create the Web Studio Server Repository

After you create a DSN connection for the repository, the steps for creating the repository and copying the repository definition file to the appropriate folder on the Web Studio Server are as follows:

1. Start Data Management Studio.
2. Click on the **Administration** riser bar.
3. Click on the **Repository Definitions** folder.
4. In the **Repository Definitions** pane on the right, click on the **New** button.
5. The **New Repository Definition** dialog appears. Enter the name of your repository in the **Name** field.
6. In the **Data storage** section of the dialog, specify a database connection (DSN connection) for your new repository. The DSN connection must have been created earlier. It should be a system DSN, and you should have saved credentials with the connection. For more information, see the "Data Connections" chapter in the DataFlux Data Management Studio User's Guide.
7. If you want to have multiple repositories defined in the same database, consider adding a unique prefix in the **Table prefix** field. A unique table prefix would enable you to identify the tables that are associated with a particular repository.



Note: If the DBMS for your repository is in Oracle format, then you must use an upper case prefix. In general, use only a-z, A-Z, 0-9, and the underscore as characters for a table prefix. A period is also acceptable if it is used as a separator between a schema name and the table prefix.

8. Skip the **File storage** location.
9. Uncheck the **Connect to repository at startup** checkbox and the **Private** checkbox.
10. Click on the **OK** button. A new repository definition file (.RCF file) will be created in a subfolder called *DataFlux\DataManagement\[instance]\repositories*. This folder is in the program files area, such as *C:\PROGRAM FILES\SASHome\Web Studio Server instance\etc\repositories* under Windows 7. A new repository will be created in the location that is specified in the **Data storage** field of the definition file.
11. To make sure everything is correct, connect to the repository. If everything is correct, the status should change to connected.

Next Task

After you have created a repository for the Web Studio Server, the next task is to configure the server to use this repository.

Configuring Web Studio Server to Use the Repository

Overview

After you have created a repository for the Web Studio Server, you must enable the server to access this repository. In general, you will copy two resource files from the Data Management Studio home folder to the Web Studio Server home folder. Then you will create a DSN on the Web Studio Server that has the same name and specifies the same database connection as the DSN that you created in Data Management Studio. After you do these tasks, the Web Studio Server can access the repository.

Copy the Repository Definition File and the Saved Credentials File

You must copy the repository definition file (.RCF file) and the saved credentials file for the repository DSN from the Data Management Studio home folder to the Web Studio Server home folder. A Web Studio Server stores .RCF files in the program files area:

```
SERVER_HOME\etc\repositories\Repository_Name.RCF
```



Note: A Web Studio Server should have only one repository definition file (.RCF file) in its repository folder. Accordingly, before copying the repository definition file from Data Management Studio to the server, you should rename

any existing repository definition files on the server so that they do not have an .RCF extension.

Go to this folder on the Web Studio Server and rename any existing repository definition files so that they do not have an .RCF extension. Then perform the following steps.

1. Copy the repository configuration file (.RCF file) from Data Management Studio. The .RCF file is in the *etc/repositories* folder in the home directory.
2. Upload the repository configuration file to the Web Studio Server:
`SERVER_HOME\etc\repositories\Repository_Name.RCF`
3. Copy the saved credential file from Data Management Studio. The saved credential file will be in the folder "APPDATA\DataFlux\dac\savedconn" and will have the same name as the DSN. The APPDATA directory in this path refers to the user settings area for the person who installed the application (in this case, Data Management Studio). For example, the path on a Windows 2008 Release 2 Server could be the following:
"C:\Users\user_1\AppData\Roaming\DataFlux\dac\savedconn "
4. Upload the credential file to
`SERVER_HOME\etc\dsn\`

The next task is to enable the Web Studio Server to access the DSN that is specified in the .RCF file.

Create a DSN on the Web Studio Server

ODBC connections for jobs that run within Data Management Studio are created in Data Management Studio. However, ODBC connections for Web Studio Server must be created on the server. Until you do this, the Web Studio Server will not be able to access the DSN that is referenced in the repository definition file (.RCF file) that you copied from Data Management Studio.

You must create a DSN on the Web Studio Server that has the same name and specifies the same database connection as the DSN that you created in Data Management Studio. Then the Web Studio Server can access the DSN that is referenced in the repository definition file. Use the **Windows ODBC Data Source Administrator** for Windows servers or the **dfdbconf** tool for UNIX servers.

Windows ODBC Data Source Administrator

The Microsoft® ODBC Data Source Administrator manages database drivers and data sources. This application is located in the Windows Control Panel under Administrative Tools. Beginning in Windows 8, the icon is named **ODBC Data Sources**, and on 64-bit operating systems, there is a 32-bit and 64-bit version.

Perform these steps to create a DSN on the Web Studio Server under Windows:

1. On the Web Studio Server, select the **Start** menu, then type "odbc" in the search window and press the Enter key. The default ODBC Data Source Administrator will be displayed.
2. Select the **System DSN** tab and click **Add...**
3. Select the appropriate driver from the list and click **Finish**.

4. Enter your information in the **Driver Setup** dialog. The DSN must have the same name and specify the same database connection as the DSN that you created in Data Management Studio.
5. Click **OK** when finished.

UNIX ODBC Configuration Tool

The interactive ODBC Configuration Tool, **dfdbconf**, can be used to add an ODBC DSN. From the root directory of the Data Management Server installation, run:

```
./bin/dfdbconf
```

Select a driver from the list of available drivers and set the appropriate parameters for that driver. The DSN must have the same name and specify the same database connection as the DSN that you created in Data Management Studio. The new DSN is added to the **ODBC INI** file.

Next Task

After you have enabled the Web Studio Server to access the correct repository, the next task is to start the server.

Starting the Web Studio Server Service

Overview

Web Studio Server runs as a Microsoft Windows service called **DataFlux Web Studio Server** (*[instance_name]*). You can start and stop the service using the Microsoft Management Console (MMC) or through Administrative Tools in the Control Panel. In UNIX, Web Studio Server runs as a daemon administered from a command line using **wssadmin** (two s's) to start and stop the daemon.

Web Studio Server Service in Windows

Start and stop the service using the MMC or the Control Panel > Administrative Tools.

1. Click **Start > Control Panel**.
2. Double-click **Administrative Tools > Computer Management**.
3. Expand the **Services and Applications** folder.
4. Click **Services**.
5. Click **DataFlux Web Studio Server** (*[instance_name]*), such as **DataFlux Web Studio Server (websvr1)**.
6. Click either **Start the service**. To troubleshoot problems, see [Using Web Studio Server Logs](#).



Note: You can also access the DataFlux Web Studio Server service using Start > All Programs > DataFlux.

Modifying the Windows Service Log On

When Web Studio Server is installed, the DataFlux Web Studio Server service is started using the local system account. Because this account may have some restrictions (such as accessing network drives) it is suggested that you modify the service properties to have the service log on using a user account with the appropriate privileges, such as access to required network drives and files. For security reasons, you should assign administrative privileges only if necessary.

To modify the Web Studio Server log on:

1. Select **Control Panel > Administrative Tools**.
2. Double-click **Services**, and select the **DataFlux Web Studio Server** (*[instance_name]*) service.

Select the **Log On** tab, select **This account**, and enter **Account** and **Password** credentials for a user with administrative privileges. These passwords will be stored in the service.cfg file, which is in the etc folder in the Web Studio Server installation directory.

Web Studio Server Daemon in UNIX

Start and stop the daemon using the wssadmin application included in the installation. This application can be run using the command-line command: **./bin/wssadmin***your_command* from the installation root directory, where *your_command* should be one of the following:

Command	Description
start	Allows you to start the Web Studio Server. For example: ./bin/wssadmin start
stop	Allows you to stop the Web Studio Server. For example: ./bin/wssadmin stop
status	Allows you to check whether the Web Studio Server is running.
help	Allows you to display help information.
version	Allows you to display the version information.

At this point, the Web Studio Server service or the UNIX daemon should be started. To troubleshoot problems, see [Using Web Studio Server Logs](#).

Next Tasks

After you have started the Web Studio Server, you can register the server in Data Management Studio.

Using Web Studio Server Logs

Web Studio Server logs can be used to troubleshoot problems. For example, log entries such as the following indicate that the current user does not have permission to access the jobs that support Business Data Network


```
605_17:46:20.407 INFO successfully authenticated user 'bdnadmin'
605_17:46:20.408 INFO user id: '6E9EC4BCE75B27E4EA85E71C83FB7C6D'
605_17:46:20.408 INFO rid:1106; request: Run Data Svc (1031 bytes)
605_17:46:20.408 INFO rid:1106; service name: BusinessData/BDG_GetUserForAuthId.ddf
605_17:46:20.417 INFO calculated permission position: 0
605_17:46:20.449 INFO access denied (ACL)
```

In Windows, an example of the default path to the server logs is:

drive:\Program Files\DataFlux\WSServer\instance\var\server_logs\log subdirectory

In the UNIX and Linux operating environments, an example of the default path to the server logs is:

opt/DataFlux/WSServer/var/server_logs/log subdirectory

You should consider creating a shortcut to your web server log. This step can help you to avoid the need to search for the log when a problem arises.

For more information about the messages in Web Studio Server logs, see "Data Services Logging" in the *DataFlux Data Management Server Administration Guide*.

Registering the Web Studio Server in Data Management Studio

Overview

The administrative interfaces for the Web Studio Server are in Data Management Studio. One of these interfaces is the Data Management Server riser. You will add a connection to the Web Studio Server on the Data Management Server riser. This connection will enable you to:

- set permissions for users on the Web Studio Server, such as the general permission to execute a data service
- grant appropriate users or groups access to the jobs for the Web Studio modules that you have licensed, such as the jobs for Business Data Network.

Add the Web Studio Server to the Data Management Servers Riser

Perform the following steps:

1. In Data Management Studio, click the **Data Management Servers** riser. The Data Management Server panel displays.
2. In the server information pane on the right, click the **New Data Management Server** icon in the tool bar. The Data Management Server dialog displays.
3. Specify a **Name** (display name), **Server** (server name or IP address), and **Port** for the Web Studio Server. The default port is 21038.
4. Click **Test Connection** to verify your connection. Enter the credentials for a user who is a member of the group that controls access to Web Studio. For example, given the

users and groups described in [Planning Web Studio Users and Groups](#), the group would be **WSAdmin**, and the user would be **itadmin**.

5. If the connection is successful, click **OK** to save your changes.

Next Tasks

After you have added a connection to the Web Studio Server to the Data Management Servers riser, you can set permissions for users on the Web Studio Server, such as the general permission to execute a data service.

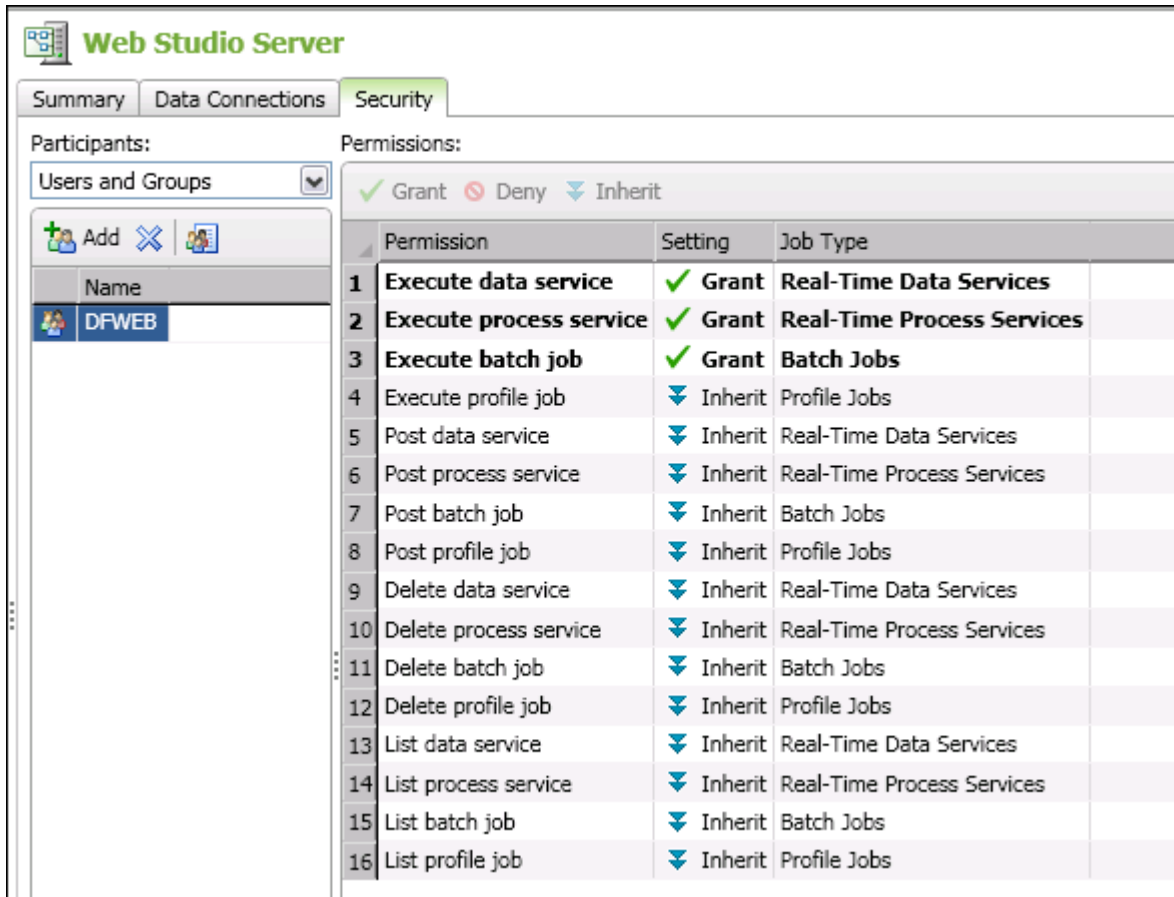
Setting Permissions for Users on the Web Studio Server

Overview

Before Web Studio users can work in any Web Studio module, they must be granted these permissions on the Web Studio Server:

- Execute data service
- Execute process service
- Execute batch service

For example, in next display, these permissions have been granted to a group, DFWEB.



For convenience, you will typically grant these permissions to a group rather than to individual users. All Web Studio users must be granted these permissions.

Prerequisites

A connection to the Web Studio Server must be available on the Data Management Servers riser. For more information, see [Registering the Web Studio Server in Data Management Studio](#).

The person who performs this task must be a user who is a member of the group that controls access to Web Studio. For example, given the users and groups described in [Planning Web Studio Users and Groups](#), the group would be **WSAdmin**, and the user would be **itadmin**.

The appropriate Web Studio users or groups must be defined on the Authentication Server. In this topic, permissions are granted to the group DFWEB. This group is described in [Planning Web Studio Users and Groups](#).

Set Permissions for Users on the Web Studio Server

1. Run Data Management Studio.
2. Click on the **Data Management Servers** riser.

3. Click on the Web Studio Server. A log-on dialog is displayed.
4. Enter the credentials for a user who is a member of the group that controls access to Web Studio. A connection to the server is made. Information about the current server displays on the right.
5. Click the **Security** tab in the right pane.
6. Click the **Add** button to select a user or group. A window displays a list of the users or groups that are defined on the Authentication Server.
7. You can click on a user or group to select one user or group. You can Shift-click, or Control-click to select multiple users or groups.
8. Click **Add** to add the selected users or groups to the **Security** tab.
9. Select one user or group in the **Name** column.
10. Review the permissions that display in the **Permissions** pane.
11. Right-click the **execute data service** permission and select **Grant**.
12. Repeat for **execute process service** and **execute batch service**. The **Permissions** pane should look similar to the display in the **Overview** section above.
13. Repeat for others users or groups, as needed.

The selected users now have the permissions they need on the Web Studio Server.

Next Tasks

After Web Studio users have the permissions they need on the Web Studio Server, you can now install the Web Studio client.

Configuring Web Studio

[Installing Web Studio](#)

[Starting the Web Studio Service](#)

[Configuring Business Data Network](#)

[Configuring Reference Data Manager](#)

[Running the Web Studio Configuration Wizard](#)

[Configuring Monitor Viewer and Dashboard Viewer](#)

[Verifying Your Web Studio Installation](#)

[Updating Your Web Studio Configuration](#)

Installing Web Studio

DataFlux Web Studio is available through SAS delivery channels. See your SAS Software Order Email (SOE) for information about installing Web Studio. For more information, see [Directory Layout for Web Studio Installation](#).

After you have installed Web Studio, you can start the Web Studio service.

Starting the Web Studio Service

Overview


Web Studio runs as a Microsoft Windows service called **DataFlux Web Studio** (*[instance_name]*). You can start and stop the service using the Microsoft Management Console (MMC) or through Administrative Tools in the Control Panel. In UNIX, Web Studio runs as a daemon administered from a command line using **wssadmin** to start and stop the daemon.

Web Studio Service in Windows

Start and stop the service using the MMC or the Control Panel > Administrative Tools.

1. Click **Start > Control Panel**.
2. Double-click **Administrative Tools > Computer Management**.
3. Expand the **Services and Applications** folder.
4. Click **Services**.
5. Click **DataFlux Web Studio** (*[instance_name]*), such as **DataFlux Web Studio (webstd1)**.

6. Click either **Stop the service** or **Restart the service**.

 **Note:** You can also access the DataFlux Web Studio service using Start > All Programs > DataFlux.

Modifying the Windows Service Log On

When Web Studio is installed, the DataFlux Web Studio service is started using the local system account. Because this account may have some restrictions (such as accessing network drives) it is suggested that you modify the service properties to have the service log on using a user account with the appropriate privileges, such as access to required network drives and files. For security reasons, you should assign administrative privileges only if necessary.

To modify the Web Studio service log on:

1. Select **Control Panel > Administrative Tools**.
2. Double-click **Services**.
3. Select the **DataFlux Web Studio** (*[instance_name]*) service.

Select the **Log On** tab, select **This account**, and enter **Account** and **Password** credentials for a user with administrative privileges. These passwords will be stored in the service.cfg file, which is in the etc folder in the Web Studio installation directory.

Web Studio Daemon in UNIX

Start and stop the daemon using the wsadmin application included in the installation. This application can be run using the command-line command: **./bin/wssadmin***your_command* from the installation root directory, where *your_command* should be one of the following:

Command	Description
start	Allows you to start the Web Studio service. For example: ./bin/wssadmin start
stop	Allows you to stop the Web Studio service. For example: ./bin/wssadmin stop
status	Allows you to check whether the Web Studio service is running.
help	Allows you to display help information.
version	Allows you to display the version information.

Next Task

After the Web Studio client service has been started, you can configure Web Studio modules, such as Business Data Network.

Configuring Business Data Network

Overview

After you have installed Web Studio, then you are ready to configure the Web Studio modules that you selected to install. This topic describes how to configure Business Data Network.

You must perform the following tasks:

- [Grant Access to Business Data Network Jobs](#)
- [Register the Web Studio Server for Business Data Network](#)
- [Add Users on the Web Studio Server for Business Data Network](#)

If you encounter permission problems as you perform these tasks, see [Using Web Studio Logs](#).

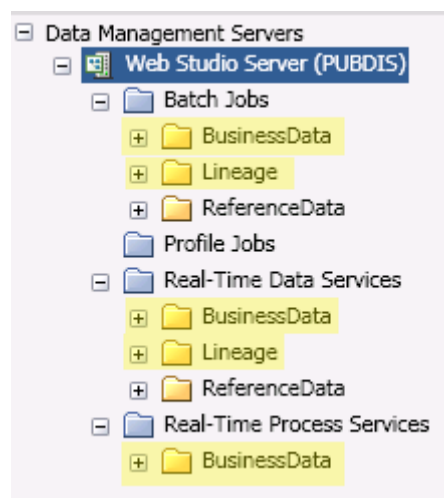
Grant Access to Business Data Network Jobs

When you use a feature in Business Data Network, a Business Data Network job is executed on the Web Studio Server. Accordingly, both users and administrators for Business Data Network must be given access to the jobs specific to Business Data Network. For example, given the users and groups that are described in [Planning Web Studio Users and Groups](#), both the Business Data Administrators group and the Business Data Users group must be given access to these jobs.

The jobs for Business Data Network are in the following folders on the Web Studio Server:

- **Batch Jobs** > **BusinessData** and **Lineage** folders
- **Real-Time Data Services** > **BusinessData** and **Lineage** folders
- **Real-Time Process Services** > **Business Data** folder

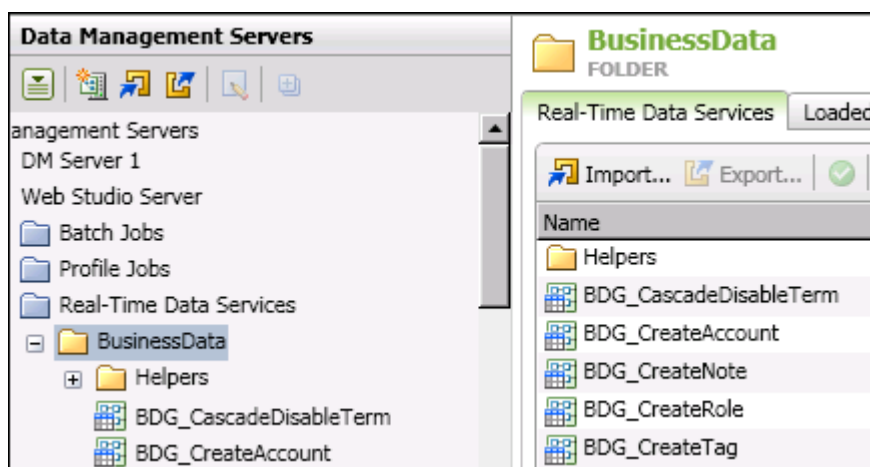
These folders are shown in the next display.



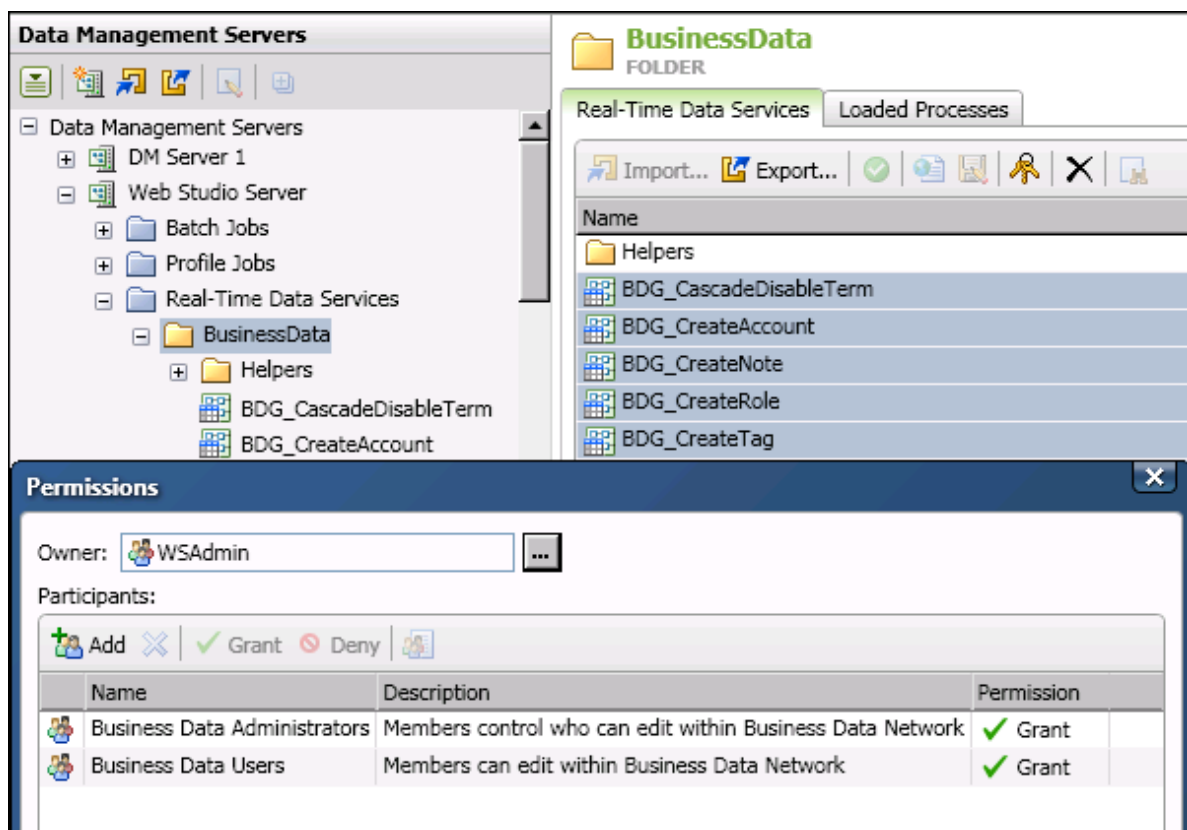
In order to give the appropriate groups authorization to run these jobs, you will access the Web Studio Server from the **Data Management Servers** riser in Data Management Studio. Then you will expand the folders above, select the jobs in the folder, and grant privileges to the appropriate groups.

The following steps assume that the Web Studio Server is available from the **Data Management Servers** riser in Data Management Studio.

1. Click the **Data Management Servers** riser in Data Management Studio.
2. In the server tree on the left, select the Web Studio Server.
3. Enter the credentials for a user who is a member of the group that controls access to Web Studio. For example, given the users and groups that are described in [Planning Web Studio Users and Groups](#), the group would be **WSAdmin**, and the user would be **itadmin**.
4. Expand a folder where you expect to find Business Data Network jobs, based on the display above. For example, you could display the **Real-Time Data Services > BusinessData** folder.
5. Click the folder that contains the relevant jobs, such as the **BusinessData** folder. The jobs in that folder will display in the right pane, as shown in the next display.



6. Use Shift-Click to select all of the jobs in the right pane.
7. Right-click the selected jobs, then select **Permissions**. A Permissions dialog displays.
8. Click **Add** in the Permissions dialog. A list of users and groups that have been defined on the Authentication Server is displayed.
9. Select the appropriate users or groups for Business Data Network. For example, you could select the Business Data Users group and the Business Data Administrators group.
10. Click **Add** in the selection window. The selected users and groups will be granted permission to access the selected jobs, as shown in the next display.

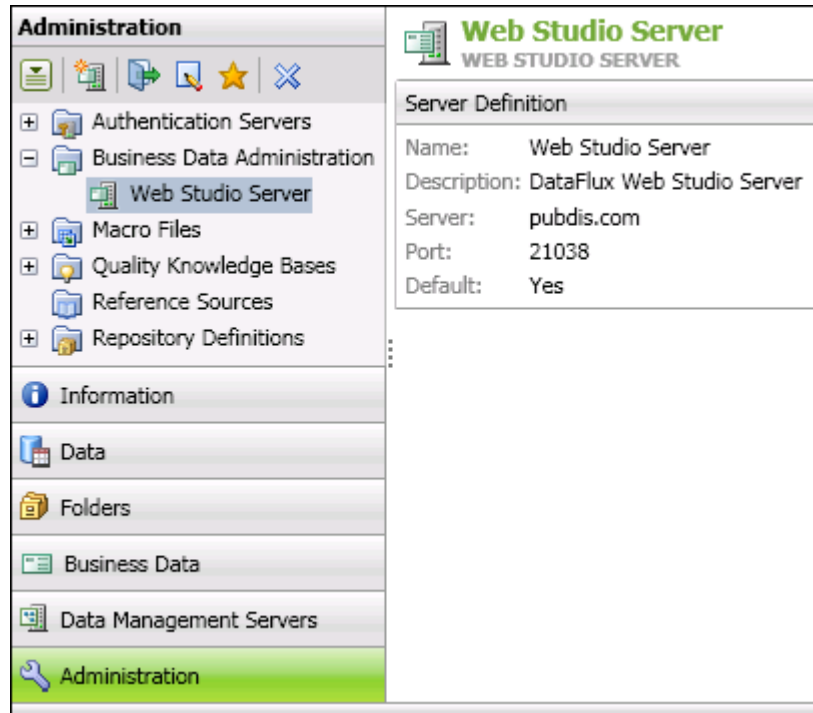


11. To apply the permissions, click **OK** in the **Permissions** window. The group is added to the **Permissions** tab for the selected jobs.
12. (optional) To verify that you have applied the correct permissions for a job, click the job in the server tree on the left. The permissions for that job will display on the right.
13. Repeat for all Business Data Network jobs.

The next task is to register the Web Studio Server for Business Data Network.

Register the Web Studio Server for Business Data Network

Members of the Business Data Administrators group use Data Management Studio to maintain roles, users, and term attributes for Business Data Network. These tasks cannot be done from the Web Studio Server connection on the **Data Management Servers** riser. These tasks must be done from a separate Web Studio Server connection on the **Administration** riser. The next display illustrates such a connection.



You must go to the **Administration** riser in Data Management Studio, open the **Business Data Administration** folder, and add a connection to the Web Studio Server for Business Data Network. Perform the following steps:

1. In Data Management Studio, click the **Administration** riser.
2. Select the **Business Data Administration** folder.
3. In the server information pane on the right, click the **New Web Studio Server Connection** icon in the tool bar. The New Web Studio Server Definition dialog displays.
4. Specify a **Name** (display name), **Server** (server name or IP address), and **Port** for the Web Studio Server for Business Data Network. You might want to use the same attributes that are specified for this server on the **Data Management Servers** riser.
5. If the current server will be your default Web Studio Server, select **Set as default**. Otherwise, when you click the **Business Data** riser, you will get an error about a default server not being defined.
6. Click **Test Connection** to verify your connection. Enter any required credentials. Since you are simply testing the connection, you could enter any credentials that will enable you to connect to the Web Studio Server. For example, given the users and groups that are described in [Planning Web Studio Users and Groups](#), you could enter credentials for itadmin or bdnadmin.
7. If the connection is successful, click **OK** to save your changes.

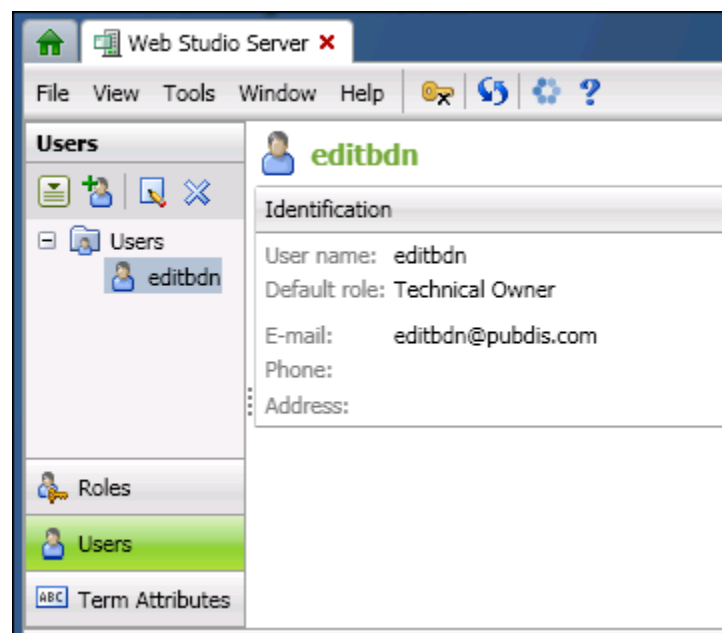
The next task is to add users on the Web Studio Server for Business Data Network.

Add Users on the Web Studio Server for Business Data Network

In order to add or update terms in Business Data Network:

- You must be registered with the Authentication Server that is associated with the Web Studio Server for Business Data Network. This task is performed by the Authentication Server administrator, as described in [Adding Web Studio Users and Groups](#).
- You (or a group of which you are a member) must have permission to run Business Data Network jobs on the Web Studio Server. This permission is granted by a member of the group that controls access to Web Studio, as described in [Grant Access to Business Data Network Jobs](#).
- You must be listed in the **Users** panel of the **Business Data Administration** window. This task is performed by a member of the Business Data Administrators group, as described in this section.

The next display shows one user (editbdn) who has been added to **Users** panel of the **Business Data Administration** window.



In order to perform the tasks that are described in this section, you must be able to log in to the Web Studio Server as a member of the Business Data Administrators group. For the initial configuration of Business Data Network, you will add one or more users who should be given the ability to add and update terms. For example, given the users and groups that are described in [Planning Web Studio Users and Groups](#), the group would be the **Business Data Users** group, and the user would be **editbdn**. It is assumed that you have a Web Studio Server connection on the **Administration** riser.

Perform the following steps:

1. In Data Management Studio, click the **Administration** riser.

2. Expand the **Business Data Administration** folder.
3. Right-click the Web Studio Server, and then select **Open**.
4. Log into Web Studio Server as a member of the Business Data Administrators group.
5. Click the **Users** riser. The **Users** tree and panel will display. The next figure shows two example user definitions.
6. Click the **Add User** icon in the right panel. The **Add Users** dialog displays a list of users who are registered with the Authentication Server.
7. Select one or more users who should be given the ability to add and update terms. Then click **Add**. The selected users will be added to the **Users** tree and panel.

To edit or delete a user, right-click the user in the Users tree on the left, then select **Edit** or **Delete**.

Next Task

You have now completed the Business Data Network configuration tasks. If you have licensed Reference Data Manager, see [Configuring Reference Data Manager](#). Otherwise, see [Running the Web Studio Configuration Wizard](#). When you run the configuration wizard, you will be given the opportunity to start the configuration of Monitor Viewer and Dashboard Viewer, if you have licensed those modules.

Configuring Reference Data Manager

Overview

After you have installed Web Studio, then you are ready to configure the Web Studio modules that you selected to install. This topic describes how to configure Reference Data Manager.

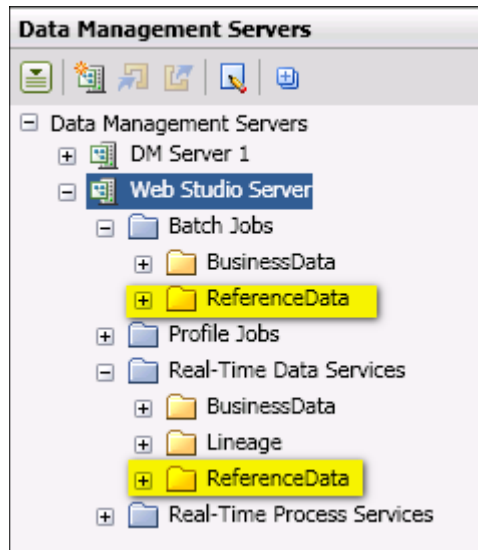
Grant Access to Reference Data Manager Jobs

When you use a feature in Reference Data Manager, a Reference Data Manager job is executed on the Web Studio Server. Accordingly, users must be given access to the jobs specific to Reference Data Manager. For example, given the users and groups that are described in [Planning Web Studio Users and Groups](#), the Reference Data Users group could be given access to these jobs. If the RDM_READONLY group is implemented, it could also be given access to the jobs.

The jobs for Reference Data Manager are in the following folders on the Web Studio Server:

- **Batch Jobs > ReferenceData** folder
- **Real-Time Data Services > ReferenceData** folder

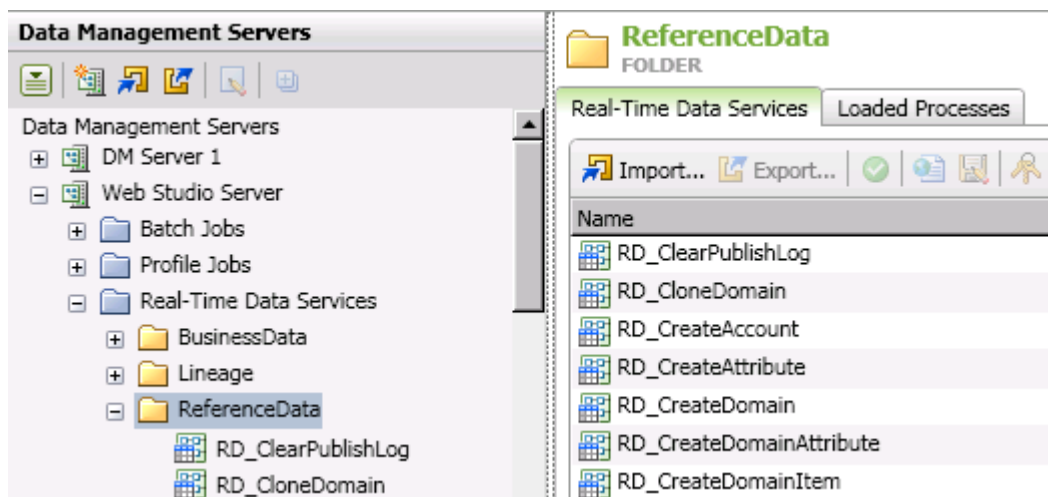
These folders are shown in the next display.



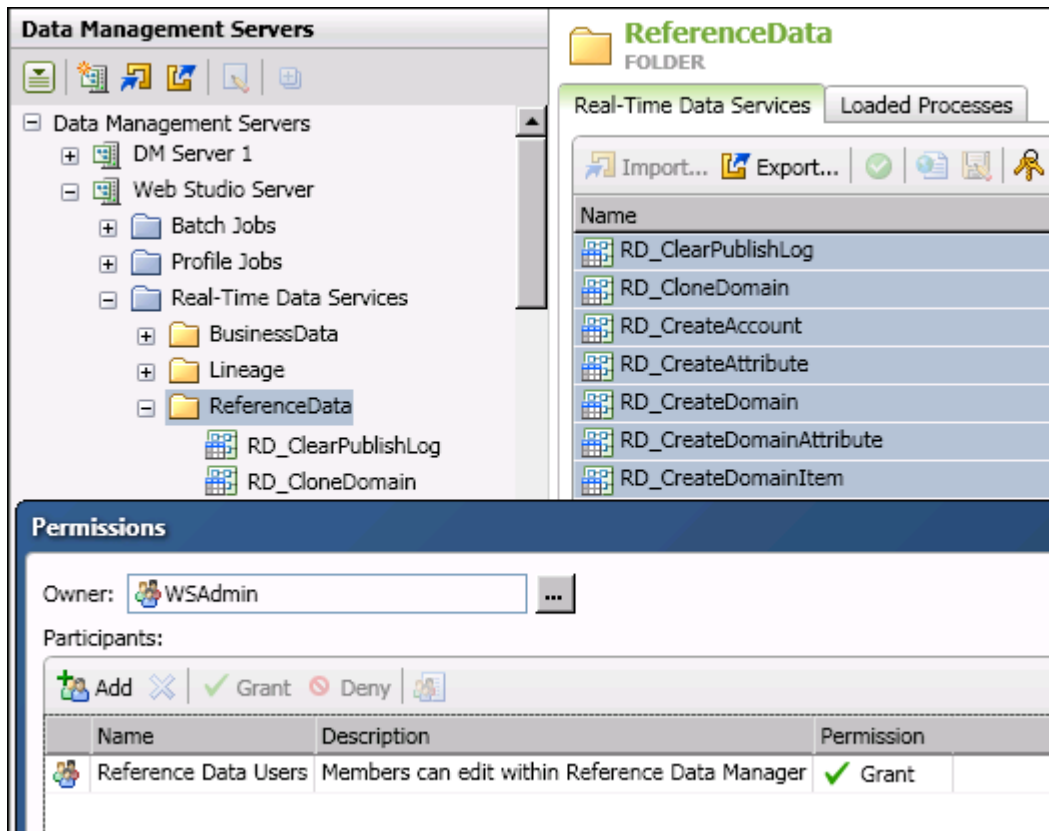
In order to give the appropriate group authorization to run these jobs, you will access the Web Studio Server from the **Data Management Servers** riser in Data Management Studio. Then you will expand the folders above, select the jobs in the folder, and grant privileges to the appropriate group.

The following steps assume that the Web Studio Server is available from the **Data Management Servers** riser in Data Management Studio.

1. Click the **Data Management Servers** riser in Data Management Studio.
2. In the server tree on the left, select the Web Studio Server.
3. Enter the credentials for a user who is a member of the group that controls access to Web Studio. For example, given the users and groups that are described in [Planning Web Studio Users and Groups](#), the group would be **WSAdmin**, and the user would be **itadmin**.
4. Expand a folder where you expect to find Reference Data Manager jobs, based on the display above. For example, you could display the **Real-Time Data Services > ReferenceData** folder.
5. Click the folder that contains the relevant jobs, such as the **ReferenceData** folder. The jobs in that folder will display in the right pane, as shown in the next display.



6. Use Shift-Click to select all of the jobs in the right pane.
7. Right-click the selected jobs, then select **Permissions**. A Permissions dialog displays.
8. Click **Add** in the Permissions dialog. A list of users and groups that have been defined on the Authentication Server is displayed.
9. Select the appropriate users or groups for Reference Data Manager. For example, you could select the Reference Data Users group.
10. Click **Add** in the selection window. The selected users and groups will be granted permission to access the selected jobs, as shown in the next display.



11. To apply the permissions, click **OK** in the **Permissions** window. The group is added to the **Permissions** tab for the selected jobs.
12. (optional) To verify that you have applied the correct permissions for a job, click the job in the server tree on the left. The permissions for that job will display on the right.
13. Repeat for all Reference Data Manager jobs.

Next Task

You have now completed the Reference Data Manager configuration tasks. If you have licensed Business Data Network, see [Configuring Business Data Network](#). Otherwise, see [Running the Web Studio Configuration Wizard](#). When you run the configuration wizard, you will be given the opportunity to start the configuration of Monitor Viewer and Dashboard Viewer, if you have licensed those modules.

Running the Web Studio Configuration Wizard

Overview

When you installed the Web Studio client, you also installed Jetty, an open source web server. You are now ready to connect to that web server and configure the Web Studio client. Before you begin, make the following preparations:

- Verify that the DataFlux Web Studio service (open source web server) is running. The service name has the pattern: DataFlux Web Studio (*instance_name*).

- Identify the hostname and port number for the Authentication Server.
- Identify the hostname and port number for the Web Studio Server.
- If you have licensed Monitor Viewer and Dashboard Viewer, identify the hostname and port number for the Data Management Server where data monitoring jobs will run.
- Identify the administrative user name and password that were specified during the installation of the Web Studio client. The default credentials are: user=admin, password=wsAdmin1.

The URL for the Web Studio client has the following pattern:

- Pattern: `http://web_server_hostname:port_number/webstudio/`
- Example: `http://pubdis.com:21079/webstudio/`

The first time that you use the URL above, a set of Web Studio configuration pages becomes available. After configuration, this URL will display the Web Studio client. To update the configuration after installation, see [Updating Your Web Studio Configuration](#).

Run the Web Studio Configuration Wizard

1. Open the following URL in a web browser:
`http://web_server_hostname:port_number/webstudio/`

The first time this URL is accessed, it will take you to the Web Studio Configuration page shown in the next display.



2. Log in with the administrative user name and password that were specified during the installation of the Web Studio client. The default credentials are: user=admin, password=wsApp1. The Initial Setup window displays. The next display shows the top half of that window.

Initial Setup

Specify the authentication server to use for Web Studio privileges.

Host:

Port:

Select the user interface components to display.

☐ Business Data Network

☒ Reference Data Manager

☐ Monitor

☐ Dashboard

3. Specify the hostname and port of the Authentication Server for Web Studio.
4. Use the check boxes to select the display order of the modules in Web Studio. You will be able to use only those modules that you have licensed. The next display shows the bottom half of the Initial Setup window.

Specify the Web Studio server for Business Data Network.

Host:

Port:

Specify the Web Studio server for Reference Data Manager.

Host:

Port:

Click 'Save' to save the settings.

5. Specify the hostname and port of the Web Studio Server for Business Data Network and Reference Data Manager.
6. Click **Save** to save your changes. A window displays your current settings. Use the **Edit** buttons to make any necessary changes.
7. If you have licensed Monitor Viewer and Dashboard Viewer, click the **Add Server** button, then specify the hostname and port number for the Data Management Server where data monitoring jobs will run.

8. When finished, click the **Logoff** button at top right to save your changes and log off. The standard login window for Web Studio displays.

Next Task

If you have licensed Dashboard Viewer and Monitor Viewer, you have some additional configuration to do. See [Configuring Monitor Viewer and Dashboard Viewer](#). Otherwise, see [Verifying Your Web Studio Installation](#).

Configuring Monitor Viewer and Dashboard Viewer

Overview

Exceptions to monitored business rules are generated by data monitoring jobs that are created in Data Management Studio and are then deployed to a Data Management Server. The output of these jobs can be monitored in Web Studio, using Monitor Viewer and Dashboard Viewer. Dashboard Viewer and Monitor Viewer can monitor any DataFlux Data Management Server version 2.3 or later on which data monitoring jobs are running.

Verify that the Data Management Server is a Secure Server

The Data Management Server that is monitored by Monitor Viewer and Dashboard Viewer must be a secure server. That is, access to this server must be controlled by an Authentication Server. See the documentation for the Data Management Server for a full explanation of this task.

In general, you must do the following to secure a Data Management Server:

1. Access the `dmserver.cfg` file in `dmserver_home\etc\`.
2. Update the following options in this file with values appropriate for your site:

```
dmserver/secure = yes
dmserver/secure/grp_admin = dfadmin_grp
base/auth_server_loc = iom://pubdis.com:21030
```

3. Restart the Data Management Server.
4. Define the `dmserver/secure/grp_admin` on the Authentication Server.
5. Add one user to this group. Make note of these credentials.

Copy the Jobs for Dashboard Viewer and Monitor Viewer

When Data Management Server is installed, the jobs that support Dashboard Viewer and Monitor Viewer are installed in backup folders. In order to use the Dashboard and Monitor Viewers, you must copy the jobs that support these viewers from their back up folders to folders where Web Studio expects them.

- Copy FROM `dmserver_home\share\web\data_services` TO `dmserver_home\var\data_services`

- Copy FROM *dmserver_home\share\web \process_services* TO *dmserver_home\var\process_services*

A script is provided to move these jobs to the correct location. Under Windows, click the shortcut *dmserver_home\Update Web Studio Jobs*. Under UNIX, run *dmserver_home/bin/update_jobs*. Note that the only supported configuration, for performance reasons, is to deploy data monitoring jobs to a secured Data Management Server. Then, you need to register that server so that it shows up in the Monitor Viewer and Dashboard viewer.

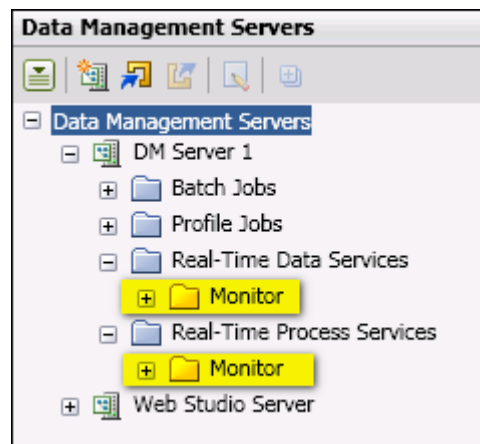
Grant Access to the Jobs for Dashboard Viewer and Monitor Viewer

When you use a feature in the Dashboard Viewer and Monitor Viewer, a job is executed on the Web Studio Server. Accordingly, users must be given access to the jobs that support the Dashboard Viewer and Monitor Viewer. For example, given the users and groups that are described in [Planning Web Studio Users and Groups](#), the Data Monitor Users group could be given access to these jobs.

The jobs for Reference Data Manager are in the following folders on the Data Management Server data monitoring jobs are running:

- **Real-Time Data Services > Monitor** folder
- **Real-Time Process Services > Monitor** folder

These folders are shown in the next display.

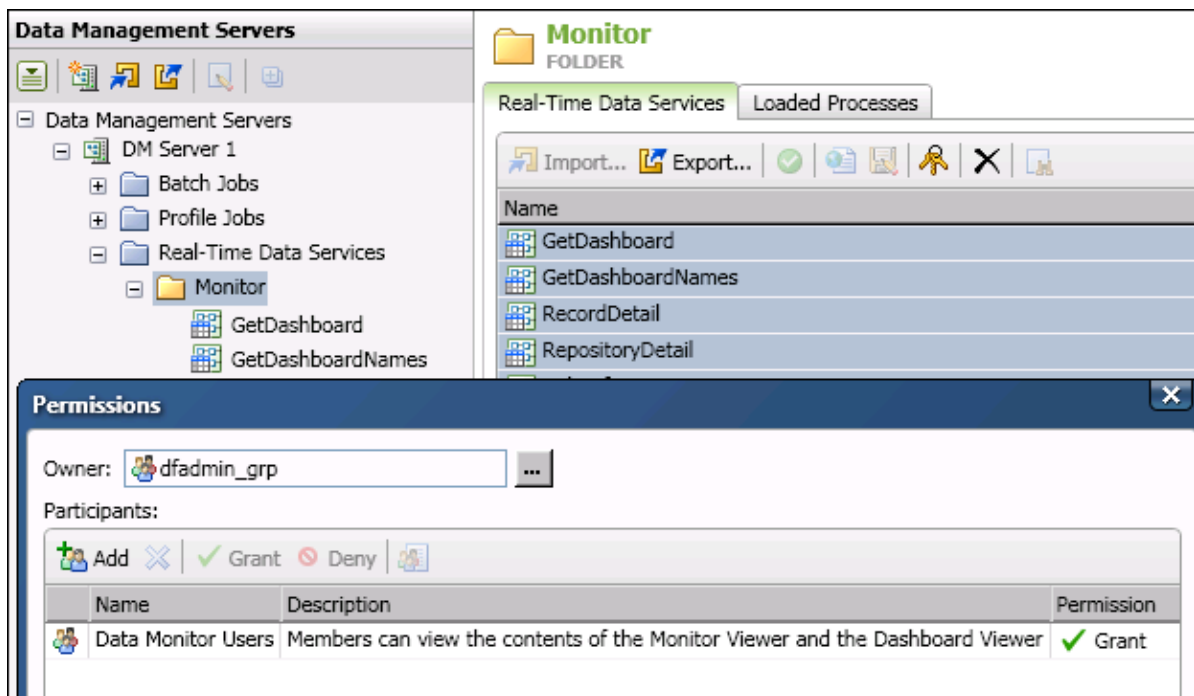


In order to give the appropriate group authorization to run these jobs, you will access the Data Management Server from the **Data Management Servers** riser in Data Management Studio. You must log in to the Data Management Server as a member of the administrative group that is described in [Verify that the Data Management Server is a Secure Server](#). Then you will be able to expand the folders above, select the jobs in the folder, and grant privileges to the appropriate group.

The following steps assume that the Data Management Server is available from the **Data Management Servers** riser in Data Management Studio.

1. Click the **Data Management Servers** riser in Data Management Studio.

2. In the server tree on the left, select the Data Management Server.
3. Enter the credentials for a user who is a member of the administrative group that is described in [Verify that the Data Management Server is a Secure Server](#).
4. Expand a folder where you expect to find jobs for Monitor Viewer and Dashboard Viewer, based on the display above. For example, you could display the **Real-Time Data Services > Monitor** folder.
5. Click the folder that contains the relevant jobs, such as the **Monitor** folder. The jobs in that folder will display in the right pane.
6. Use Shift-Click to select all of the jobs in the right pane.
7. Right-click the selected jobs, then select **Permissions**. A Permissions dialog displays.
8. Click **Add** in the Permissions dialog. A list of users and groups that have been defined on the Authentication Server is displayed.
9. Select the appropriate users or groups for Monitor Viewer and Dashboard Viewer. For example, you could select the Data Monitor Users group.
10. Click **Add** in the selection window. The selected users and groups will be granted permission to access the selected jobs, as shown in the next display.



11. To apply the permissions, click **OK** in the **Permissions** window. The group is added to the **Permissions** tab for the selected jobs.
12. (optional) To verify that you have applied the correct permissions for a job, click the job in the server tree on the left. The permissions for that job will display on the right.
13. Repeat for all jobs for Monitor Viewer and Dashboard Viewer.

Next Task

You have now completed the configuration for Monitor Viewer and Dashboard Viewer. See [Verifying Your Web Studio Installation](#).


Verifying Your Web Studio Installation

Overview

To verify your Web Studio installation, you could log in to Web Studio as one of the users who are authorized for a module. The URL for the Web Studio client has the following pattern:

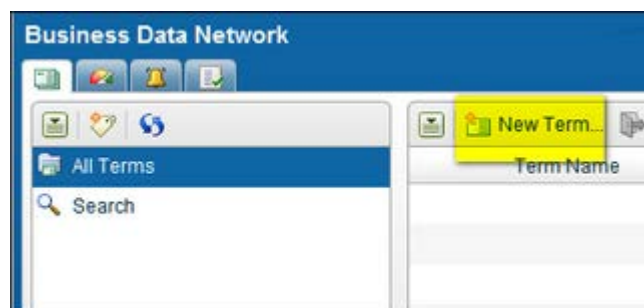
- Pattern: `http://web_server_hostname:port_number/webstudio/`
- Example: `http://pubdis.com:21079/webstudio/`

You could then see if you use the features in the module. To display task documentation for all modules, log in to Web Studio. Then select **Help** from the control at upper right. If you run into problems, see [Using Web Studio Server Logs](#).

 **Note:** If you log in to Web Studio and you see a Transport error (403 error), then you might not have permission to access one or more modules. Check the Web Studio Server Logs for details.

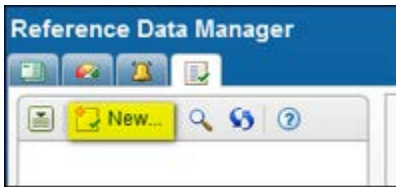
Verifying Business Data Network

Log in to Web Studio as user who is authorized to add and update terms within Business Data Network. If you have appropriate permissions, you should see the **Add Term** button as shown in the next display.



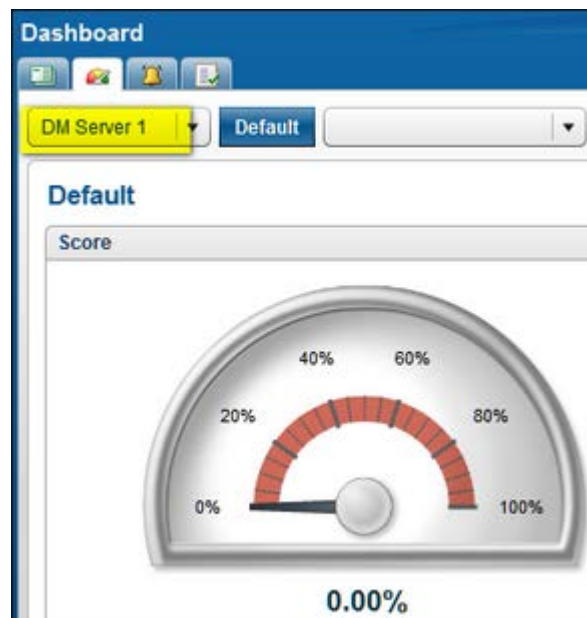
Verifying Reference Data Manager

Log in to Web Studio as user who is authorized to add and update domains within Reference Data Manager. If you have appropriate permissions, you should see the **New** (domain) button as shown in the next display.



Verifying Dashboard Viewer and Monitor Viewer

Log in to Web Studio as user who is authorized to monitor the output of data monitoring jobs on a Data Management Server. After you log in to Web Studio, you will be prompted to login to the Data Management Server that you are monitoring. You will need appropriate credentials for that server. If you have appropriate permissions, you should see the monitored server at upper left of the Dashboard tab. You will not see any statistics until Web Studio gets output from the monitored server.



Updating Your Web Studio Configuration

Updating the Web Studio Options

After the initial configuration of Web Studio, you might want to make updates such as the following:

- update server locations
- change the order of the module tabs in the main Web Studio window
- change which module has focus when you first log in to Web Studio
- update the list of Data Management Servers to be monitored by Dashboard Viewer and Monitor Viewer

In order to make changes like this, use this URL to display the Web Studio configuration wizard:

- Pattern: `http://web_server_hostname:port_number/webstudio/web/config`
- Example: `http://pubdis.com:21079/webstudio/web/config`

For more information about the options in the configuration wizard, see [Running the Web Studio Configuration Wizard](#).

Updating JVM Settings for the Jetty Web Server

When you installed the Web Studio client, you also installed Jetty, an open source web server. You might need to update Java Virtual Machine (JVM) settings for Jetty, such as the following:

- Xms (initial heap size)
- Xmx (max heap size)
- XX MaxPermSize
- Xss (stack size)

To update JVM settings for the Jetty Web Server, perform the following steps:

1. Open the `webstudio.cfg` file in the installation root for Web Studio.
2. Use the `java_args` option to specify JVM settings. Example: `java_args = -Xms512m -Xmx1024m`
3. Run the **Refresh Service Options** script in the installation root for Web Studio. The JVM settings that are specified in the `webstudio.cfg` file will be applied to Jetty.

Technical Support

This section addresses questions and issues related to DataFlux Web Studio.

[Frequently Asked Questions](#)

Frequently Asked Questions (FAQ)

The following questions and answers are designed to assist you when working with DataFlux Web Studio.

- [Security Issues](#)

Security Issues

The Web Studio administrator at your site is responsible for setting up login access and other permissions in Web Studio. Contact your Web Studio administrator if there are any problems with logins or other permissions.

Why can't I log into Web Studio?

In order to log in to Web Studio, you must be a registered user on the Authentication Server, and you must be a member of the group that is permitted to login to Web Studio. Contact your Web Studio administrator if there are any problems with logins.

I can log in to Web Studio, but I cannot add or edit terms in Business Data Network. Why not?

Probably because you have not been added to the Web Studio Server for Business Data Network. In order to add or update terms in Business Data Network, you must be listed in the **Users** panel of the Business Data Administration window in DataFlux Data Management Studio.

How is it possible that my read-only users can see the "Add Term" button in Business Data Network?

Probably because these read-only users were mistakenly added to the Web Studio Server for Business Data Network. If a user is listed in the **Users** panel of the Business Data Administration window in DataFlux Data Management Studio, then he or she will be able to edit terms.

How can I set or unset edit permissions in Reference Data Manager?

Edit permissions are enabled by default for all valid users of Reference Data Manager. There is no way to revoke these permissions and have technical enforcement of a "read only" user in Reference Data Manager.

Can I configure Business Data Network so that there is a group of users who only have permissions to add notes and interested parties, but not to add or edit terms?

No, this is not possible.

Why should I use groups to manage my users in the Authentication Server?

The steps to add permissions to access and run the necessary jobs that drive the interface for Web Studio are not trivial. It is much easier to do this once for a group, and then make any users or groups that need access to Web Studio a member of that group so that those permissions are inherited. In addition, if permissions ever need to be revoked, it is much easier to remove a user from a group in the Authentication Server than it is to revoke the permissions to Web Studio Server and the individual jobs.

Do I really have to add permissions to all of the Web Studio jobs for all my valid users?

Yes. This task will be easier if you add Web Studio users to the appropriate groups.

Appendixes

- [Directory Layout for Web Studio Server Installation](#)
- [Directory Layout for Web Studio Installation](#)
- [Legal Notices](#)

Directory Layout for Web Studio Server Installation

Windows

The following table lists the directories that are created during the Web Studio Server installation for Windows:

Directory	Description
<i>drive:\Program Files\SASHome\Web Studio Server instance</i>	Specifies the top-level installation directory.
\bin	Contains the executable files for this platform.
\data	Contains files that include data information that is specific to this installation.
\data\install	Contains a collection of files pertinent to installation such as templates and scripts.
\doc	Contains the documentation that is installed with the server.
\etc	Contains the configuration and license files.
\etc	Contains the library files for this platform.
\etc\dftkdsn	Contains the non-ODBC data connection configurations.
\etc\dsn	Contains the saved credential files for each data source name (DSN).
\etc\license	By default, the location where the license files reside. The path to the license file is located in the etc\app.cfg file.
\etc\macros	Contains the .cfg files, which specify the macro key and value pairs. All files in this directory are loaded in alphabetical order.
\etc\repositories	Contains the sample repository configuration file, server.rcf . The repository configuration file defines the location of the repository file that is used by the server and the ProfileExec.djf process job that is used to run the jobs on the server. If this job is missing, you will not be able to run profile jobs.
\etc\security	Contains files that specify server commands and permissions for specific users and groups.
\share	Contains message files that are needed by the software. If the files are removed, the software will fail to run. The directory also contains a sample copy of the WSDL file, which is used by the Web Studio Server.
\var	Contains the log files from the running of Web Studio as well as job specific logs.
\var\repositories	Contains the sample repository file, server.rps .

UNIX

The default installation home directory UNIX is: *SASHome/Web Studio instance*. The directory structure under the installation home directory is the same as it is under Windows.

Directory Layout for Web Studio Installation

Windows

The following table lists the directories that are created during the Web Studio installation for Windows:

Directory	Description
<i>drive:\Program Files\SASHome\Web Studio instance</i>	Specifies the top-level installation directory.
\bin	Contains the executable files for this platform.
\data	Contains files that include data information that is specific to this installation.
\data\install	Contains a collection of files pertinent to installation such as templates and scripts.
\etc	Contains the configuration and license files.
\lib	Contains the library files for this platform.
\var	Contains the log files from the running of Web Studio Server as well as job specific logs.
\var\databases	
\var\logs	

Unix

The default installation home directory UNIX is: *SASHome/Web Studio Server instance*. The directory structure under the installation home directory is the same as it is under Windows.

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