DataFlux® Migration Guide 2.7

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Recommended Reading

See the latest versions of the following:

- *Base SAS Procedures Guide.*

- *DataFlux Authentication Server: Administrator's Guide,*

- *DataFlux Data Management Server: Administrator's Guide*

- *DataFlux Data Management Server User's Guide*

- *DataFlux Data Management Studio: Installation and Configuration Guide.*

- DataFlux Data Management Studio Online Help

- *DataFlux Data Management Studio: User's Guide*

- *DataFlux Federation Server: Administrator's Guide*

- *DataFlux Secure: Administrator's Guide*

- *DataFlux Web Studio: Installation and Configuration Guide*

- *DataFlux Web Studio Server: User's Guide*

- *SAS 9.4 Intelligence Platform: System Administration Guide*

- *SAS Data Integration Studio: User's Guide.*

- *SAS Federation Server: Administrator's Guide*

- *SAS Federation Server Manager: User's Guide*

- *SAS Visual Process Orchestration Server: Administrator's Guide*

- *SAS Visual Process Orchestration: User's Guide*

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Chapter 1: Overview of the Migration Guide

This document includes two primary sections:

- [General Information About Migration](#)

- [Specific Migration Scenarios](#)

The section called [General Information about Migration](#) provides overall information that you need to consider when migrating from one DataFlux product to another. You should read and review this section if you are considering migrating from DataFlux dfPower Studio and DataFlux Data Integration Server to the DataFlux Data Management Studio and DataFlux Data Management Server.

The section called [Specific Migration Scenarios](#) provides step-by-step guidance when migrating from DataFlux dfPower Studio and DataFlux Data Integration Server v. 8.x to DataFlux Data Management Studio or Server.

The [Specific Migration Scenarios](#) section is intended for users who have read the General Information section or for those who have a good understanding of what is needed and simply need some guidance on stepping through the migration steps. In the Specific Migration Scenario section, each sub-section builds on the previous section. Therefore, if you start the migrating Architect jobs section without completing the Repository migration section, you will have problems with the migration steps.

- [Migrating from DataFlux dfPower Studio 8.1/8.2 to DataFlux Data Management Studio](#)

- [Migrating from DataFlux Integration Server 8.1/8.2 to DataFlux Data Management Server](#)

- [Migrating from DataFlux Data Management Studio 2.1 to DataFlux Data Management Studio 2.2 or Later](#)

- [Migrating from DataFlux Data Management Server 2.1 to DataFlux Data Management Server 2.2 or Later](#)

DataFlux Data Management Studio 2.3 and later versions:

This document was originally written for migration to DataFlux Data Management 2.2 release. If you are starting from a later release, use the "2.1 to 2.2 or Later" sections. Although all examples and screenshots show version 2.2, the same ideas apply to version 2.3 and later as well. Special considerations for versions 2.3 and later are called out in boxes like this.

Starting with the 2.3 version, later releases can be installed in the same location as the previous version. If DataFlux Data Management Studio 2.3 was installed into C:\DataFlux\DMStudio\studio1, then any later release can be installed into the same location. It is highly recommended to do this as it minimizes the migration process greatly. If your installation uses the SAS Deployment Wizard, this happens automatically. Configurations from the previous install are kept.

SAS 9.3 customers can upgrade to DataFlux Data Management 2.4. Since SAS 9.4 included DataFlux Data Management Studio 2.4 and DataFlux Data Management Server 2.4, those customers can upgrade to version 2.5 and later.

Chapter 2: General Information about Migration

Overview of the DataFlux Software

This guide describes how to migrate your content from DataFlux dfPower Studio to DataFlux Data Management Studio. The following diagram illustrates the components of the software when used with DataFlux Federation Server. Note that if you are using the SAS Federation Server, that portion of the diagram would be different.

DataFlux Data Management Platform Architecture
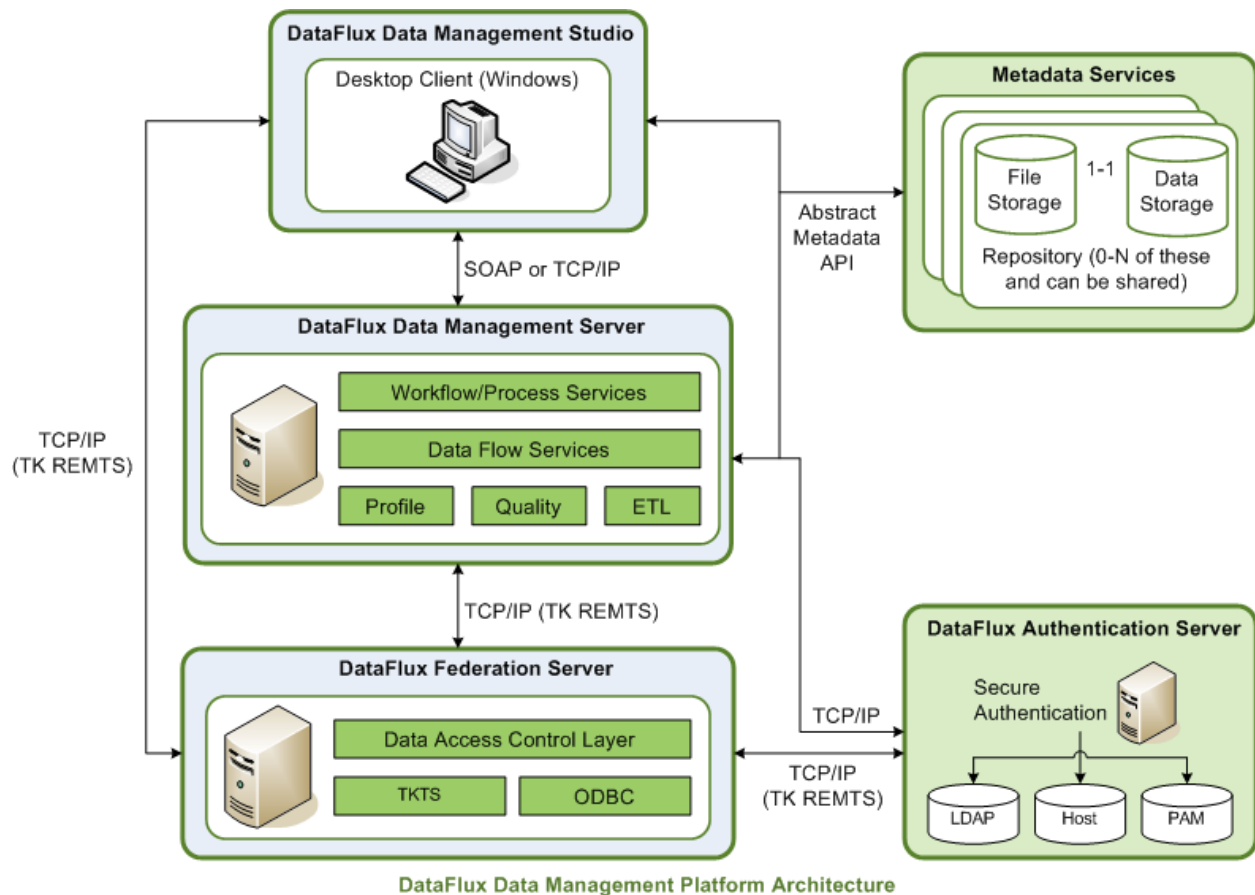
DataFlux Data Management Studio

DataFlux Data Management Studio is part of a data management suite that combines data quality, data integration, and master data management. Compared to DataFlux dfPower Studio, DataFlux Data Management Studio has a more integrated interface, better management of data flows and process flows, enhanced data access through the DataFlux Federation Server or the SAS Federation Server, and many other new features. The section that discusses migrating from DataFlux dfPower Studio describes how to migrate your content and manage the impact of differences between DataFlux Data Management Studio and DataFlux dfPower Studio.

Repositories

When you create jobs and other objects in DataFlux Data Management Studio, they are stored in repositories that are similar to DataFlux dfPower Studio repositories. Profiles, rules, tasks, and some other objects in a repository are stored in database format. You can specify a separate storage location for objects that are stored as files, such as data jobs, process jobs, and queries. You can create a private repository for your own use, or you can create a shared repository that a number of people can use. The Migrating Repositories section describes how to migrate a DataFlux dfPower Studio repository to a DataFlux Data Management Studio repository.

Servers

DataFlux Data Management Studio can be used by itself or in combination with one or more of the following DataFlux servers:

- The DataFlux Data Management Server, formerly known as the DataFlux Data Integration Server, provides a scalable server environment for large DataFlux Data Management Studio jobs. Jobs can be uploaded from DataFlux Data Management Studio to a DataFlux Data Management Server, where the jobs are executed.

- The DataFlux Federation Server provides central management of the data connections using ODBC or native drivers as well as access privileges for these connections.

- The DataFlux Authentication Server centralizes the management of users, groups, and database credentials.

The DataFlux Federation Server and DataFlux Authentication Server typically have little impact on migration from DataFlux dfPower Studio because both were new to the DataFlux Data Management Studio. They could have an impact after migration if you decide to use the features these servers provide.

> **DataFlux Data Management 2.7 and later versions:**
>
> In the DataFlux Data Management 2.7 release, DataFlux Data Management Studio, DataFlux Data Management Server, and SAS Federation Server now use the SAS Metadata Server for user authentication. This means that DataFlux Authentication users need to be ported to the SAS Metadata Server and user information in the DataFlux Data Management Server and SAS Federation Server needs to be updated to use the new SAS Metadata Server user IDs. This is all covered in the Update Security Files after Exporting Users and Groups section.

What is Migration?

For DataFlux dfPower customers, migration is the process in which DataFlux dfPower Studio content is upgraded to run in DataFlux Data Management Studio, or DataFlux Data Integration Server content is upgraded to run on a DataFlux Data Management Server.

For those users already on DataFlux Data Management Studio or Server, migration is the process by which the latest release of software can be installed in a new environment sourced from an older environment running that is running with compatible software versions.

What Versions Can Be Migrated?

These versions can be migrated:

Migrate From	Migrate To
DataFlux dfPower Studio 8.x	DataFlux Data Management Studio 2.2 and later
DataFlux Data Integration Server 8.x	DataFlux Data Management Server 2.2 and later
DataFlux Data Management Studio/Server 2.1	DataFlux Data Management Studio/Server 2.1 and later
DataFlux Data Management Studio/Server 2.2	DataFlux Data Management Studio/Server 2.2 and later
DataFlux Data Management Studio/Server 2.3	DataFlux Data Management Studio/Server 2.3 and later
DataFlux Data Management Studio/Server 2.4	DataFlux Data Management Studio/Server 2.4 and later
DataFlux Data Management Studio/Server 2.5	DataFlux Data Management Studio/Server 2.5 and later
DataFlux Data Management Studio/Server 2.6	DataFlux Data Management Studio/Server 2.6 and later
DataFlux Data Management Studio/Server 2.7	DataFlux Data Management Studio/Server 2.7 and later

Migration Versions Available

Note: Migrations from version 8.1 to version 2.1 are supported regardless of fix patch level.

Summary of the Migration Process

A typical approach includes:

- Migrate DataFlux dfPower Studio repository

- Migrate Architect jobs

- Migrate Profile jobs

- Make required post-migration adjustments

For additional information, refer to one of these sections:

- [Migrating from DataFlux dfPower Studio 8.1/8.2 to DataFlux Data Management Studio](#)

- [Migrating from DataFlux Integration Server 8.1/8.2 to DataFlux Data Management Server](#)

- [Migrating from DataFlux Data Management Studio 2.1 to DataFlux Data Management Studio 2.2 or Later](#)

- [Migrating from DataFlux Data Management Server 2.1 to DataFlux Data Management Server 2.2 or Later](#)

Chapter 3: Planning the Content Migration

Before migrating, it is important to know what types of jobs, rules, macros, and content can be migrated and if it can be done automatically or if it must be modified and re-created.

Content That Can Be Automatically Migrated

The following content can be automatically migrated from DataFlux dfPower Studio to DataFlux Data Management Studio. Some migrated items require manual updates before you can use them in DataFlux Data Management Studio.

Repositories

The Add Repository dialog box in DataFlux Data Management Studio can do an in-place migration of a DataFlux dfPower Studio repository. For more information, see Repositories and Management Resources.

Architect Jobs

You use the upgrade job utilities in DataFlux Data Management Studio to convert DataFlux dfPower Studio Architect jobs to process jobs or data jobs. For more information, see Architect Jobs.

Profile Jobs

You can use the Import Profile Jobs and Link Reports wizard in DataFlux Data Management Studio to convert DataFlux dfPower Studio profile jobs. For more information, see Profile Jobs.

Profile Reports That Are Stored in a Repository

You can use the Import Profile Jobs and Link Reports wizard in DataFlux Data Management Studio to link a DataFlux dfPower Studio profile job with a related report and combine the two in a DataFlux Data Management Studio profile. For more information, see Profile Jobs.

Business Rules, Custom Metrics, and Other Items in the Business Rules Manager

These items are migrated only when their repository is migrated. You cannot migrate individual rules, custom metrics, and other items in the Business Rules Manager. For more information, see Business Rules, Tasks, and Related Items.

Queries

Saved queries that were created with the Query Builder are migrated only when their repository is migrated. You cannot migrate individual queries.

Content That Must Be Modified or Re-created

The following content cannot be automatically migrated from DataFlux dfPower Studio to DataFlux Data Management Studio. You must modify or re-create the content.

Repositories and Management Resources (some configurations)

Differences in metadata architecture and other changes might require you to make manual adjustments before or after you migrate DataFlux dfPower Studio repositories and Management Resources to DataFlux Data Management Studio. For more information, see Changes to Repositories and Management Resources.

Architect Jobs That Include Certain Nodes

Architect jobs that include certain nodes require special handling. See Post-Migration Tasks for Architect Jobs.

Profile Reports That Are Stored in a File (.pfo file)

You cannot convert DataFlux dfPower Studio profile reports that are stored as files (.pfo files). For more information, see Changes to Profile Jobs.

Redundant Data Analysis Reports

The way that Redundant Data Analysis is calculated has changed. Accordingly, after a Redundant Data Analysis profile job is converted, you must re-run the profile in DataFlux Data Management Studio to re-create the report. For more information, see Changes to Profile Jobs.

Batch Scripts

The DataFlux software has a new command line interface, so you must modify any batch scripts that execute profexec.exe (Profile command line interface for DataFlux dfPower Studio); archbatch.exe (Architect command line interface for DataFlux dfPower Studio), or dfexec.exe (command line interface for DataFlux Data Integration Server). For more information, see **Running Jobs from the Command Line** in the **Data Jobs** section of the DataFlux Data Management Studio online Help.

Configuration Files and Global Options

You cannot convert configuration files or global options that were created in DataFlux dfPower Studio. To review the global options for DataFlux Data Management Studio from the main menu, select **Tools** > **Data Management Studio Options**. Some options can be set with check boxes and similar controls. Other options must be set in configuration files. To review or change the settings in DataFlux Data Management Studio configuration files, see the **Using Configuration Files** topic in the **Global Options** section of the DataFlux Data Management Studio online Help.

Data Explorations

You cannot convert Explorations that were created in DataFlux dfPower Studio. You must re-create them in DataFlux Data Management Studio. See the **Data Explorations** section in the latest version of DataFlux Data Management Studio online Help. Currently, the migration software moves DataFlux dfPower Studio Data Explorations into the Folders tree in DataFlux Data Management Studio. You cannot use these items in DataFlux Data Management Studio, however, so you can select and delete them from the Folders tree.

DataFlux Data Management Server

The DataFlux Data Management Studio is a new version of the DataFlux Data Integration Server. The move to the new server impacts migration. For more information, see Changes Related to the DataFlux Data Management Server.

Macro Variables

You might have to make some updates in order for DataFlux dfPower Studio macro variables to work in DataFlux Data Management Studio. For more information, see Macro Variables.

SAS Connections

You cannot convert SAS connections that were created in DataFlux dfPower Studio. You must re-create them in DataFlux Data Management Studio. See the **Adding SAS Data Set Connections** section in the latest version of the DataFlux Data Management Studio online Help.

Repositories and Management Resources

This section discusses migration scenarios and how to make changes to your repository and management resources. Follow the migration instructions for your scenario and then go to Changes to Repositories and Management Resources.

Plan the Migration of Each Repository and Management Resource

Review the following links to anticipate the main issues that might affect the conversion:

- General Planning for Repositories

- Migration Scenario: One dfPower Repository, One Management Resource

- Migration Scenario: One dfPower Repository, Multiple Management Resources

- Migration Scenario: Multiple dfPower Repositories, One Management Resource

- Migration Scenario: No dfPower Repository, One or More Management Resources

General Planning for Repositories

Review the introduction to Specific Migration Scenarios so that you can anticipate the main items that you need to update, replace, move, or delete in DataFlux Data Management Studio.

> *Note:* DataFlux Data Management Studio does an in-place migration of a DataFlux dfPower Studio repository. DataFlux dfPower Studio cannot access a repository that has been converted to DataFlux Data Management Studio format.

Accordingly, make a copy of the dfPower repository to be migrated, and then migrate the copy rather than the original. Migrating a copy of your repository enables you to preserve your original dfPower content.

If the dfPower repository is stored on a database server, use DBMS tools to copy the repository. Then, create a new ODBC connection that points to the copy. Later, you use that new connection to specify the dfPower repository to be migrated.

If the dfPower repository is stored as a database file (RPS file) on the file system, create a new, empty folder structure, such as the one shown in the next display.
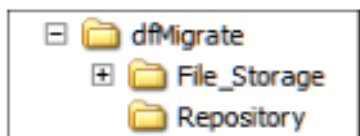
In the previous display, dfMigrate is a top-level folder. The Repository subfolder is where the dfPower repository file is copied and later converted to a DataFlux Data Management Studio repository. The names of these folders are simply examples.

The File_Storage subfolder corresponds to the file storage area in a DataFlux Data Management Studio repository. Under the folder for the file storage area, you should at least create the standard folders for deployable jobs, as described in [Changes Related to the DataFlux Data Management Server](#). These standard folder names are not examples. They must literally be batch_jobs, data_services, and process_services, as shown in the next display.
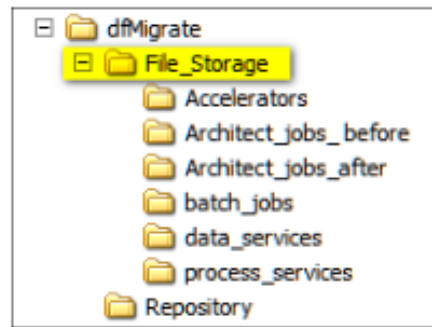
> **Note:** The standard folders for deployable jobs are not added automatically when you migrate a dfPower repository. Accordingly, you must manually create the standard job folders in the migrated repository, if you ever deploy DataFlux Data Management Studio jobs to a DataFlux Data Management Server.

In this migration guide, the folders in the previous display are used as follows:

- Unconverted Architect jobs are copied to the Architect_jobs_before folder

- Architect jobs that have been converted to DataFlux Data Management Studio format are saved to a number of different folders. The Architect_jobs_after folder is one example.

- The standard folders for deployable jobs (batch_jobs, data_services, and process_services) are mainly intended for DataFlux Data Management Studio jobs that are deployed to a DataFlux Data Management Server.

The Accelerators folder is used for jobs that are associated with DataFlux Accelerators. This guide does not cover the migration of accelerators.

Migration Scenario: One dfPower Repository, One Management Resource

The next figure illustrates the easiest metadata configuration to migrate one dfPower repository and one Management Resource. Assume that Management Resource 1 contains Architect jobs and profiles that refer to rules and tasks in Repository A only.
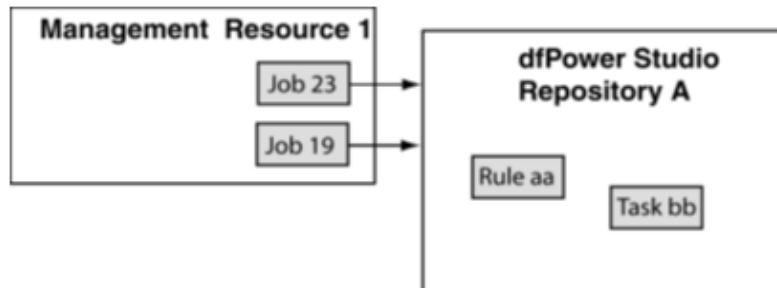
To migrate this configuration, perform the following steps:

1. Run the New Repository Definition wizard in DataFlux Data Management Studio.

2. Specify a data location. This would be the physical path to a copy of Repository A.

3. Specify an empty file storage area, such as the File_Storage folder that is described in General Planning for Repositories.

4. Copy the Architect jobs from Management Resource 1 to that file storage area.

   The end result would be a repository where the rules and tasks that are required by the jobs are in the same repository, as shown in the following figure:
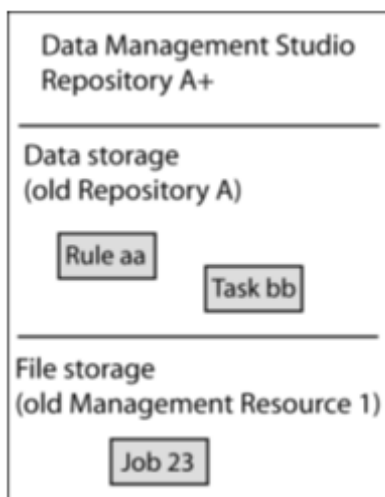
Migration Scenario: One dfPower Repository, Multiple Management Resources

In DataFlux dfPower Studio, it is possible for multiple management resources to contain Architect jobs and profiles that refer to rules and tasks in a single repository, as shown in the next figure. Assume that both Management Resource 1 and Management Resource 2 contain Architect jobs and profiles that refer to rules and tasks in Repository A only.

In DataFlux Data Management Studio, however, each repository can have at most one data storage area and one file storage area. You cannot create a DataFlux Data Management Studio repository that has two file storage areas that correspond to Management Resources 1 and 2. Given a DataFlux dfPower Studio configuration similar to the one shown above, you must perform additional tasks so that all related items can be stored in the same DataFlux Data Management Studio repository.

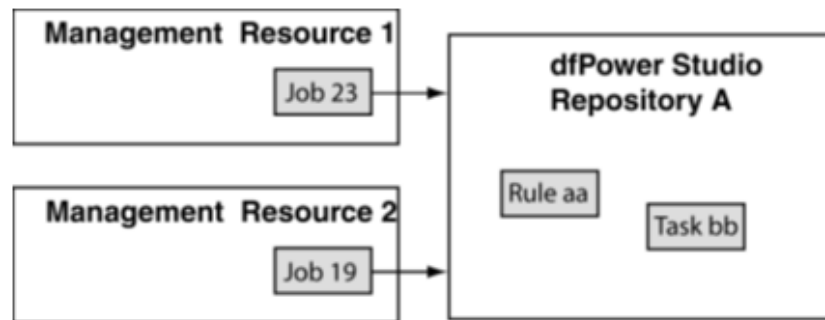To migrate this configuration, perform the following steps:

1. Run the New Repository Definition wizard in DataFlux Data Management Studio.

2. Specify a data location. This would be the physical path to a copy of Repository A.

3. Specify an empty file storage area, such as the File_Storage folder that is described in General Planning for Repositories.

4. Copy the Architect jobs from Management Resource 1 and Management Resource 2 to that file storage area.

   The end result would be a repository where the rules and tasks that are required by the jobs are in the same repository.

Migration Scenario: Multiple dfPower Repositories, One Management Resource

In DataFlux dfPower Studio, it is possible for Architect jobs and profiles in one Management Resource to refer to rules and tasks in multiple repositories, as shown here.

In DataFlux Data Management Studio, however, each repository can have at most one data storage area and one file storage area. You cannot create a DataFlux Data Management Studio repository that has two data storage areas that correspond to Repositories A and B. Given a dfPower configuration similar to the one shown above, you must perform additional tasks so that all related items can be stored in the same DataFlux Data Management Studio repository. For example, you could perform the following steps.
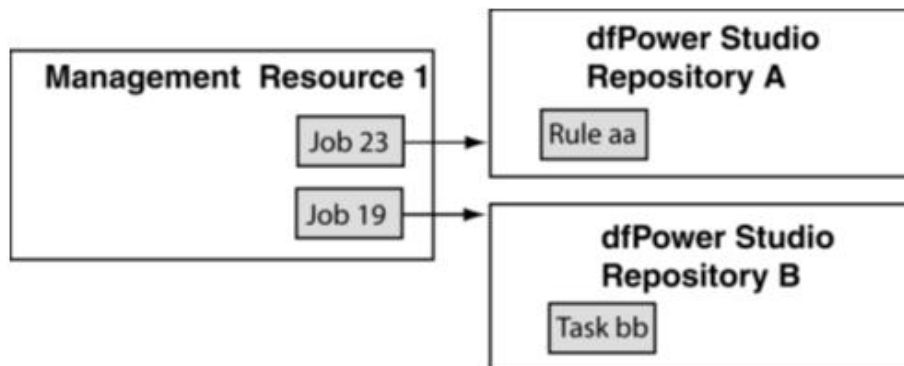
1. Migrate one dfPower repository as described in Migration Scenario: One dfPower Repository, One Management Resource. In the current example, you could migrate Repository A. You would specify an empty file storage area for this repository, as described in General Planning for Repositories.

2. Copy the relevant Architect jobs from Management Resource 1 to the file storage area for Repository A.

3. Migrate the other repository or repositories that have rules or tasks that are consumed by the jobs in the repository that you migrated in Step 1. In the current example, you would migrate Repository B.

4. In DataFlux Data Management Studio, open the repository that you migrated in Step 3, such as Repository B.

5. Use the Business Rule Manager to export the relevant rules or tasks from the repository. For the current example, you would export Task bb from Repository B. For more information about this step, see the **Exporting and Importing Business Rules** topic in the most current User's Guide for DataFlux Data Management Studio.

6. Open the repository that you migrated in Step 1, such as Repository A.

7. Use the Business Rule Manager to import the rules or tasks that you exported in Step 5, such as Task bb. For more information about this step, see the **Exporting and Importing Business Rules** topic in the most current User's Guide for DataFlux Data Management Studio.

Migration Scenario: No dfPower Repository, One or More Management Resources

In DataFlux dfPower Studio, it is possible for one or more Management Resources to contain Architect jobs and profiles that do not refer to rules or tasks in any dfPower repository, as shown in the next figure.
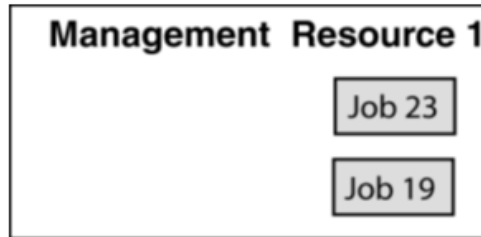
In DataFlux Data Management Studio, however, each repository must have one data storage area. You cannot create a DataFlux Data Management Studio repository that has a file storage area only.

To migrate this configuration, you would create a new DataFlux Data Management Studio repository with a new (empty) data storage area, such as the Repository folder that is described in General Planning for Repositories. You would specify an empty file storage area as well, such as the File_Storage folder that is described in General Planning for Repositories. Then you would copy the relevant Architect jobs to that file storage area. The end result would be a repository where the jobs from one or more Management Resources were stored in the same repository. For detailed steps, see Migrate a Management Resource with No dfPower Repository.

Changes to Repositories and Management Resources

This section outlines the changes to the repository including the meaning, interface, and storage, as well as the changes related to the DataFlux Data Management Server.

The Meaning of "Repository" Has Changed

In DataFlux dfPower Studio, you can have two independent storage areas for metadata: a database storage area called a repository, and a file-based storage area called a Management Resource. Some of the main items that are associated with each area are shown here.
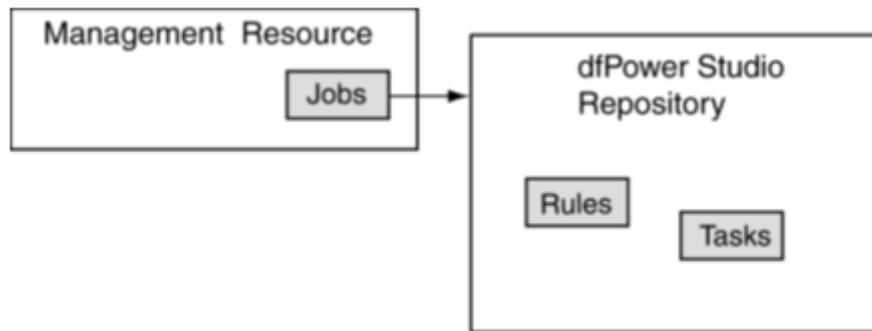
In DataFlux Data Management Studio, you can have a database storage area and a file storage area, but these two areas are not independent. The database storage area (called data storage) and the file storage area are bound together under a single ID, in a single entity called a repository. Some of the main items that are associated with each area are shown here.

Storing metadata in a single entity enables DataFlux Data Management Studio to present metadata in a single user interface. For example, business rules and tasks are displayed in the same interface that displays jobs and reports. However, the revised architecture puts new constraints on where items can be stored. Those constraints include the following:

- Each DataFlux repository must have a data storage area. The file storage area is optional.

- Each DataFlux repository can have at most one data storage area and one file storage area.

All related items must be stored in the same DataFlux repository. This means, for example, that a job or profile that is stored in a repository can reference only those business rules, tasks, or similar items that are stored in the same repository.

Differences in metadata architecture might require you to make some manual adjustments when you migrate DataFlux dfPower Studio repositories and Management Resources to DataFlux Data Management Studio. For more information, see Plan the Migration of Each Repository and Management Resource.

New Repository Interfaces

In DataFlux Data Management Studio, the **Add New Repository Definition** dialog box is used to add repositories.

The Data storage area of the dialog box is similar to the location of a dfPower repository. The File storage area of the dialog box is similar to the location of a dfPower Management Resource.

In DataFlux Data Management Studio, the Data storage area and the File storage area are bound together under a single ID, in a single entity called a repository. With this change, it is possible to have a repository that specifies:

- a Data storage area only

- a Data storage area and a File storage area

It is not possible for a DataFlux repository to specify only a File storage area.

The Repository Definitions folder in the Administration riser is used to manage the list of available repositories.
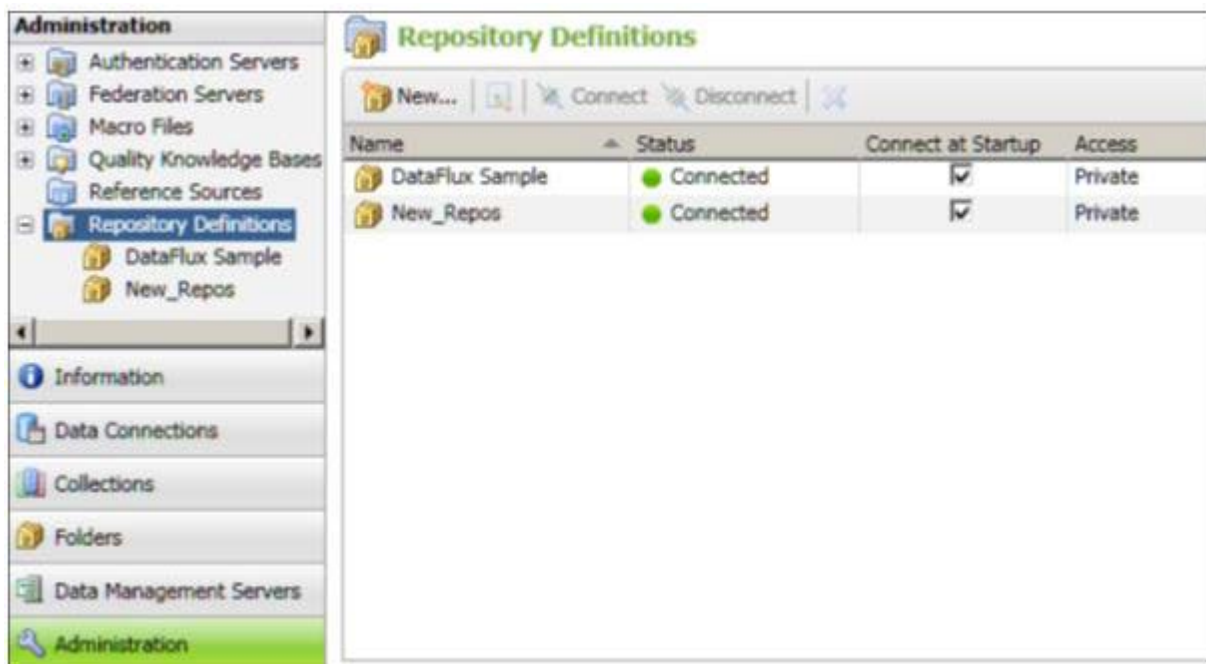
In the previous display, there are two repository definitions: DataFlux Sample and New_Repos.

The Folders riser is where you manage the items in a repository. In the Folders tree shown in the next display, the **Group Items by Type** control at the top of the tree is selected.
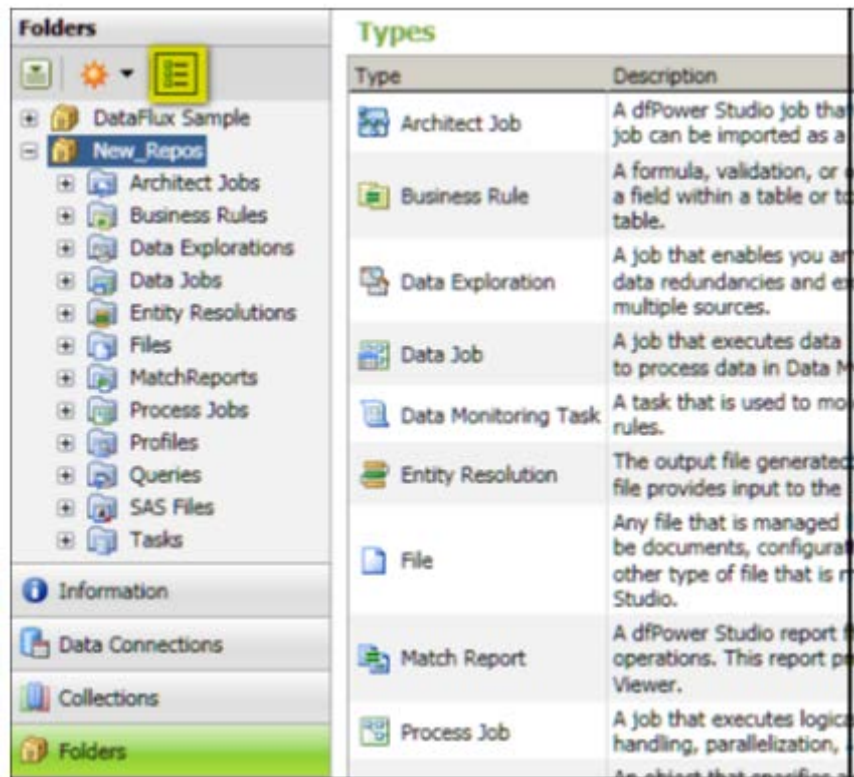
The **Group Items by Type** controller groups items into system-defined folders that are named after general types, such as Architect Jobs, Business Rules, and so on. A description of all of the standard object types is displayed on the right.

If you deselect the **Group Items by Type** control, items are grouped into user-defined folders, as shown in the next display.
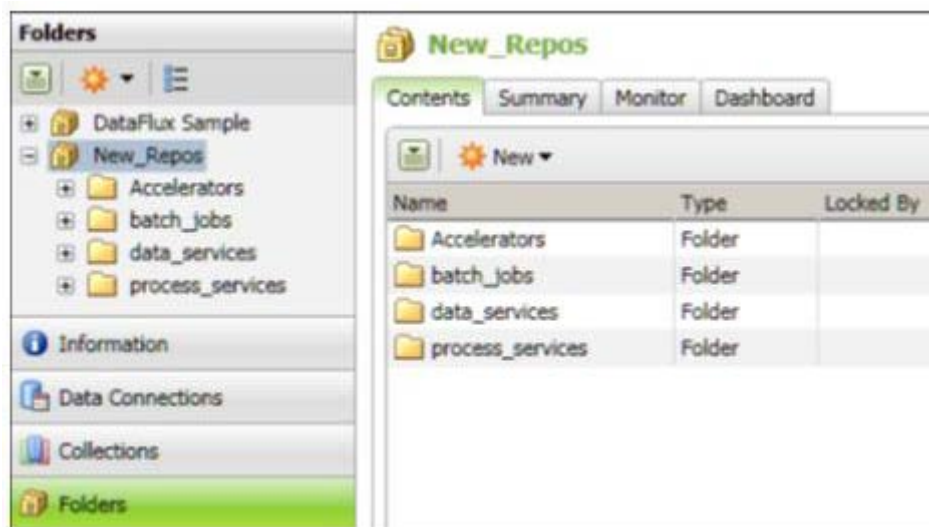
In the previous display, the standard folders for deployable jobs are shown: batch_jobs, data_services, and process_services. For more information about these folders, see Changes Related to the DataFlux Data Management Server. For more information about the Administration riser and the Folders riser, see the **Overview of the Interface** and the **Repositories** sections of the latest version of DataFlux Data Management Studio online Help.

Changes in Repository Storage

Some changes in the databases and operating systems can be used for DataFlux Data Management Studio repository storage. For more information, see **Repository Storage** in the latest version of *DataFlux Data Management Studio: Installation and Configuration Guide*.

Changes Related to the DataFlux Data Management Server

The DataFlux Data Management Server is a new version of the DataFlux Data Integration Server. Jobs can be uploaded from DataFlux Data Management Studio to a DataFlux Data Management Server, where the jobs are executed.
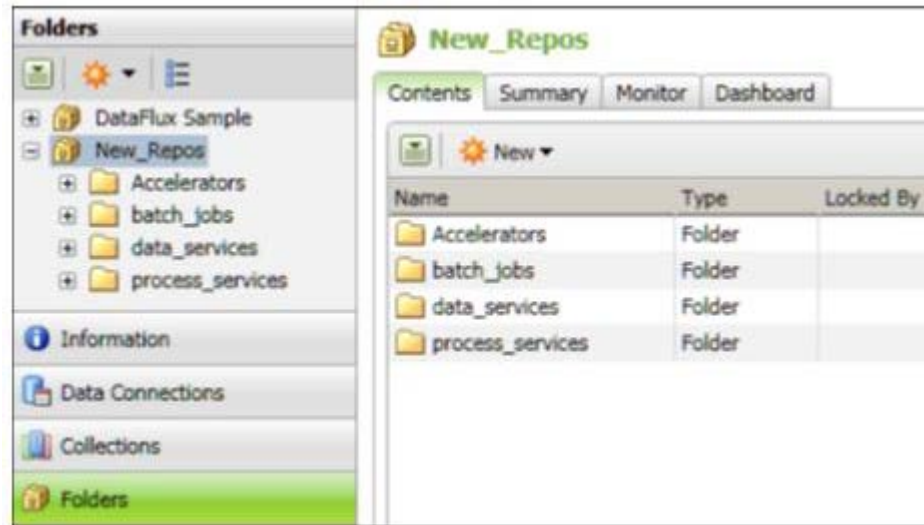
The DataFlux Data Management Server can execute both DataFlux Data Management Studio jobs and dfPower jobs. You can upload jobs from dfPower to the DataFlux Data Management Server for execution.

If you used a DataFlux Data Integration Server with security enabled, and you plan to continue to do so when moving to DataFlux Data Management Studio, then you must regenerate and reconfigure all security ACL files. Enhancements made to DataFlux Data Management Server preclude the use of existing ACL files. For more information, see the *DataFlux Data Management Server: Administrator's Guide*.

Multiple repositories can be active on a DataFlux Data Integration Server, but only one repository can be active on a DataFlux Data Management Server. If your site requires multiple repositories, then you must install multiple data management servers.

The standard folders for deployable jobs (batch_jobs, data_services, and process_services) should always exist in a DataFlux Data Management Studio repository and in a DataFlux Data Management Server repository. Mirroring these folders help preserve any references where one DataFlux Data Management Studio job references another.

A set of standard folders for deployable jobs are usually added automatically when you add a new repository in DataFlux Data Management Studio and you specify a File storage location. To display the standard folders in the Folders tree, put the tree in user-defined folders mode by de-selecting the **Group Items by Type** control at the top of the tree. Then select and expand the new repository, as shown in the next display.

In the previous display, the standard folders for deployable jobs are shown: batch_jobs, data_services, and process_services. If you were to create a data service job in DataFlux Data Management Studio, you would save it to the data_services folder. When you deploy the job on a DataFlux Data Management Server, you would deploy it to the data_services folder on the server.
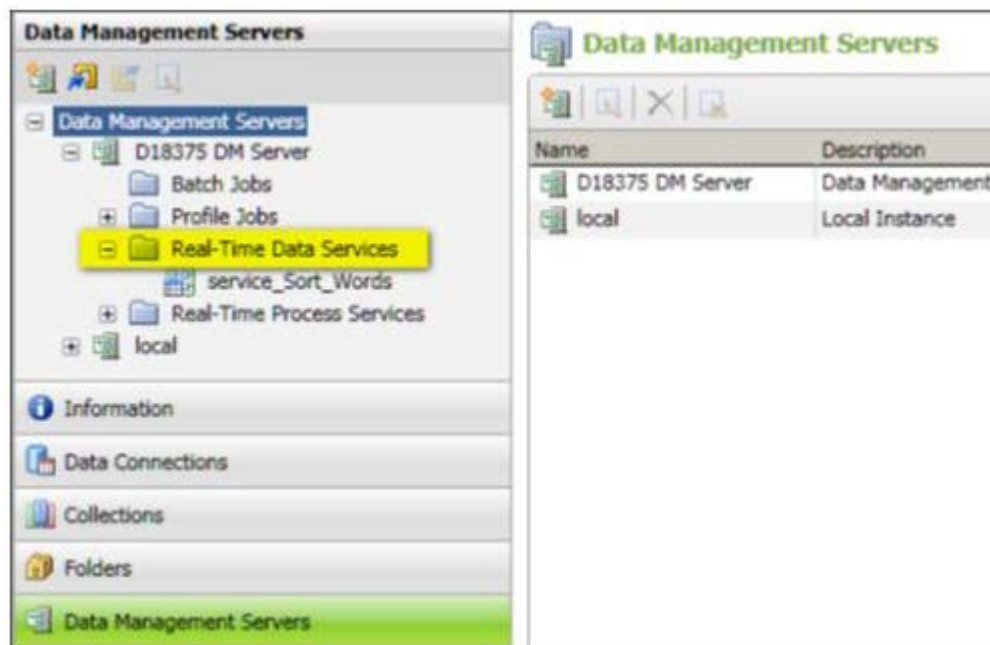
In the previous display, a data service job called service_Sort_Words has been deployed in a folder named Real-Time Data Services. The default name of this folder on the server does not happen to be data_services, but the physical path for this folder is the path to the data_services folder on the server's file system (<server home>\var\data_services).

> *Note***:** The standard folders for deployable jobs are not added automatically when you migrate a dfPower repository. Accordingly, you must manually create the standard job folders in the migrated repository, if you ever deploy DataFlux Data Management Studio jobs to a DataFlux Data Management Server.

One way to add the standard folders for deployable jobs is to use operating system tools, as described in General Planning for Repositories. Another way is to add the folders in the user-defined folders view of the Folders tree. Perform the following steps.

1. In DataFlux Data Management Studio, click the **Folders** riser bar.

2. If the Folders tree is not in user-defined folders mode, clear the **Group Items by Type** option at the top of the tree.

3. Select and expand the migrated repository in the Folders tree.

4. Right-click the repository icon.

5. Select **New** > **Folder**. A new folder is added to the tree.

6. Name the new folder after one of the standard folders for deployable jobs, such as batch_jobs. Make sure that the name is an exact match for the standard folder.

7. Use the same method to add the other standard folders.

Architect Jobs

Plan the Migration of Architect Jobs

When migrating from DataFlux dfPower Studio, review the [Migrating from DataFlux dfPower Studio v. 8.1/8.2 to DataFlux Data Management Studio v. 2.2](#) to try to anticipate the main issues that might affect the conversion of your Architect jobs. It is always best to know as much as possible about the Architect jobs that you are migrating. That way, you can identify changes and possible problems after migration. Also, it is easier to test the migrated jobs if you have a basic understanding of DataFlux Data Management Studio data jobs and process jobs, as described in the **Data Jobs** and **Process Jobs** sections of the DataFlux Data Management Studio online Help.

Changes to Architect Jobs

Several differences exist between DataFlux dfPower Studio and DataFlux Data Management Studio. Those differences are described in the following sections:

- [New Job Architecture](#)

- [New Job Interfaces](#)

- [New Storage Constraints](#)

- [Other Changes](#)

New Job Architecture

DataFlux Data Management Studio has two types of jobs that are used for data integration: data jobs and process jobs. Data jobs are the main way to process data in DataFlux Data Management Studio. Each data job specifies a set of data-processing operations that flow from source to target, illustrated here.
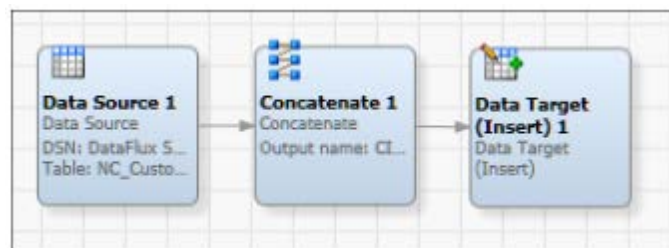
Data Job Specifies Set of Data-processing Operations

Process Jobs Combine Data Processing with Conditional Processing.

The process flow in the job supports logical decisions, looping, events, and other features that are not available in a data job flow. Data Job nodes can be added to a process flow to encapsulate all of the data processing power of a data job into a node in the process flow.
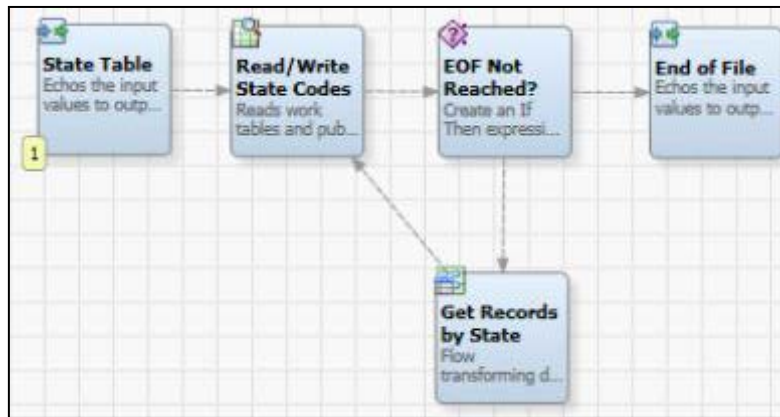

Data Job Nodes Can Be Added to a Process Flow

Some Architect Jobs Can Be Converted to Either a Data Job or a Process Job.

Other Architect jobs must be converted to one of these job types. In either case, the upgrade job wizards enable you to perform a correct conversion, as described later.

New Job Interfaces

Data jobs and process jobs have a similar editor. The next display shows the data job editor.
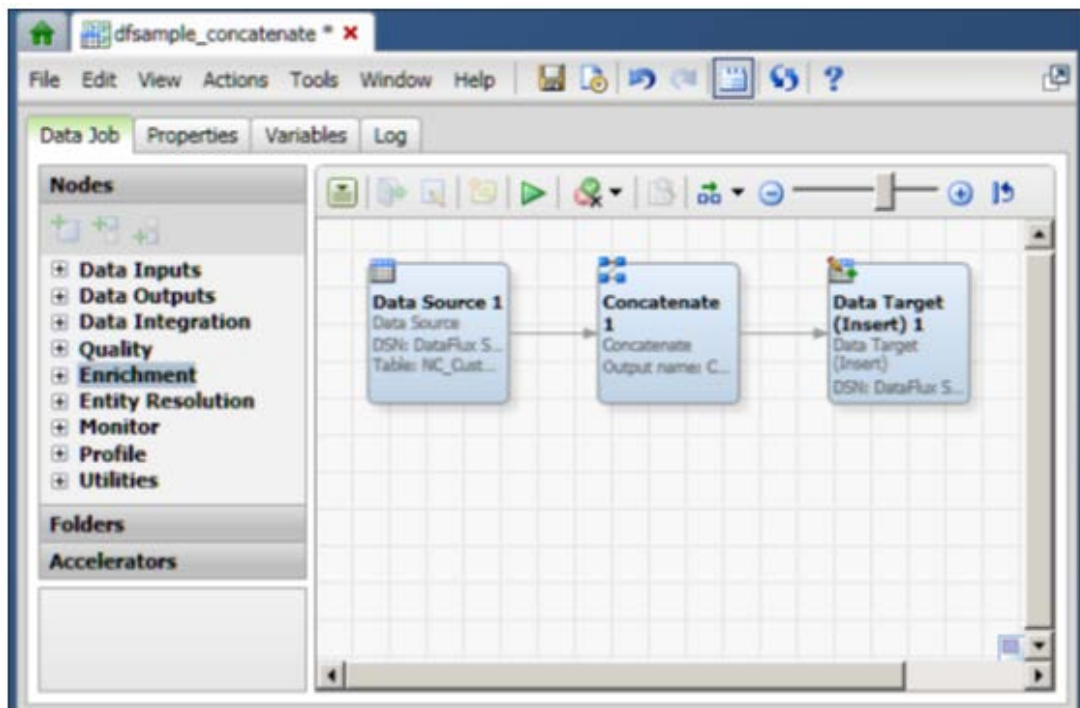
Data Job Editor

For more information about using the Data Job Editor and the Process Job Editor, see the **Data Jobs** and **Process Jobs** sections of the DataFlux Data Management Studio online Help.

The Folders riser is where you manage Architect jobs before and after they have been converted to DataFlux Data Management Studio jobs. In the Folders tree shown here, the **Group Items by Type** control is selected.
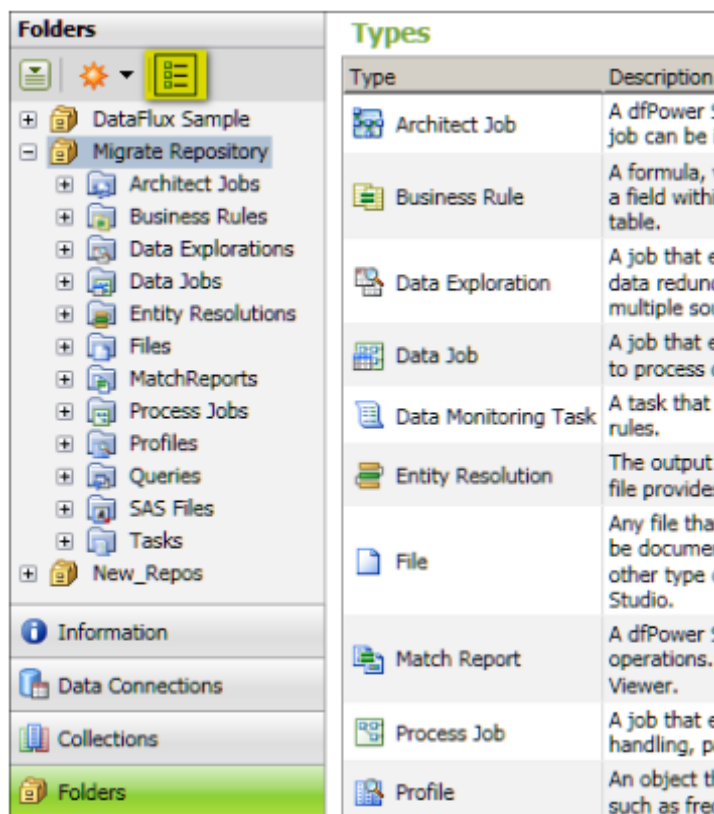
Group Items by Type Selected

The **Group Items by Type** controller groups items into system-defined folders that are named after general types, such as Architect Jobs, Business Rules, and so on. The Architect Jobs folder contains Architect jobs in their original, dfPower format, after you have copied them to the File storage area of the migrated repository. You cannot open Architect jobs that have not been converted to DataFlux Data Management Studio format.

If you deselect the **Group Items by Type** control, items are grouped into user-defined folders, as shown here.
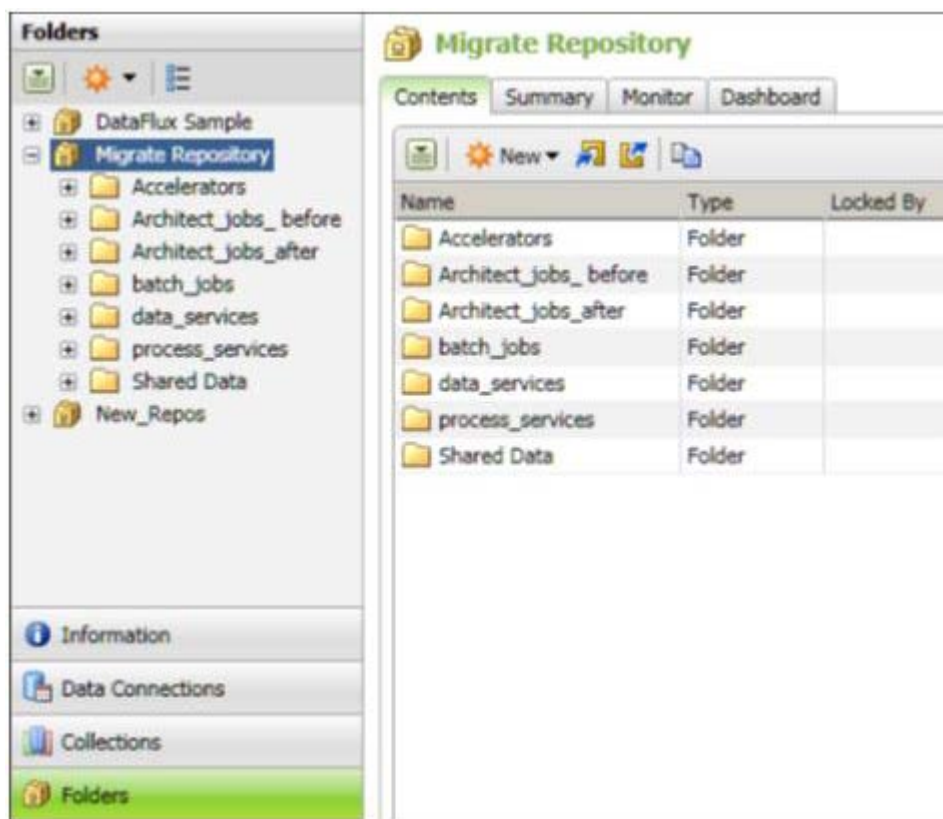
Group Items by Type Not Selected

New Storage Constraints

As explained in [New Repository Architecture](#), DataFlux Data Management Studio has new constraints on where jobs can be stored. Those constraints include the following:

- Each DataFlux repository can have at most one data storage area and one file storage area.

- All related items must be stored in the same DataFlux repository. This means, for example, that a job that is stored in a repository can reference only those business rules, tasks, or similar items that are stored in the same repository.

Differences in metadata architecture might require you to make some manual adjustments when you migrate dfPower repositories and Management Resources to DataFlux Data Management Studio. For more information, see [Plan the Migration of Each Repository and Management Resource](#).

Other Changes

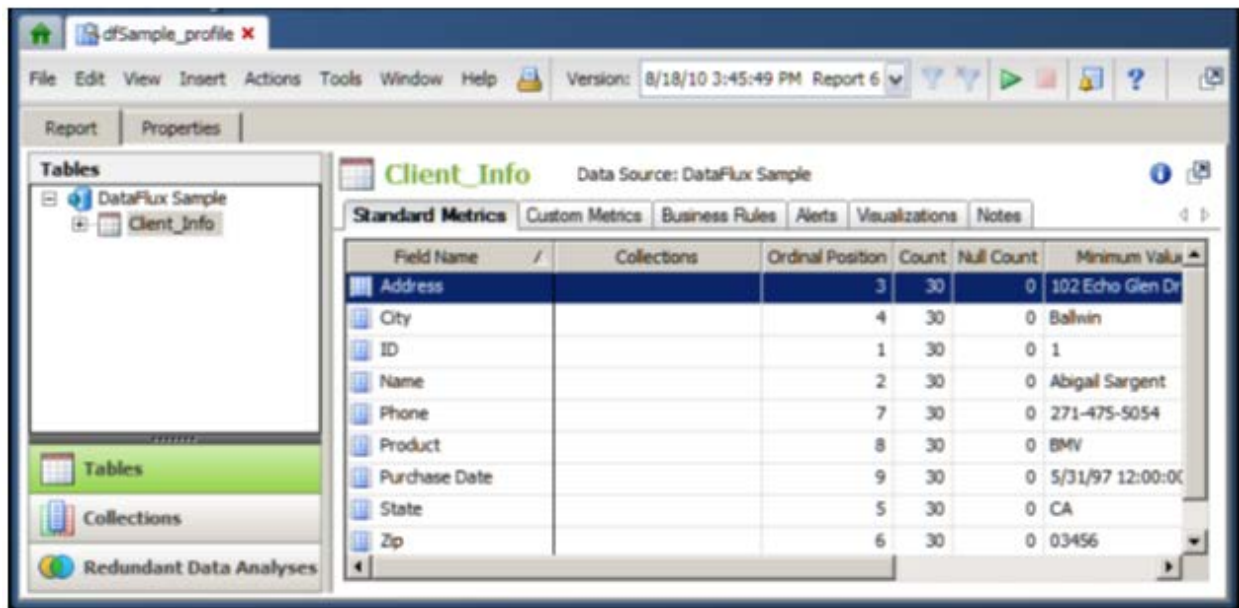See [Post-Migration Tasks for Architect Jobs](#).

Profile Jobs

The meaning of "profile" has changed from DataFlux dfPower Studio and new constraints exist on where those profiles can be stored.

Changes to Profile Jobs:

In DataFlux dfPower Studio, a profile job and its report are separate objects. In DataFlux Data Management Studio, a profile job and its report have been merged into a single object, and this object is simply called a profile. The profile dialog box in DataFlux Data Management Studio has separate tabs for the base properties of the profile and the properties of its report, as shown in the next display.
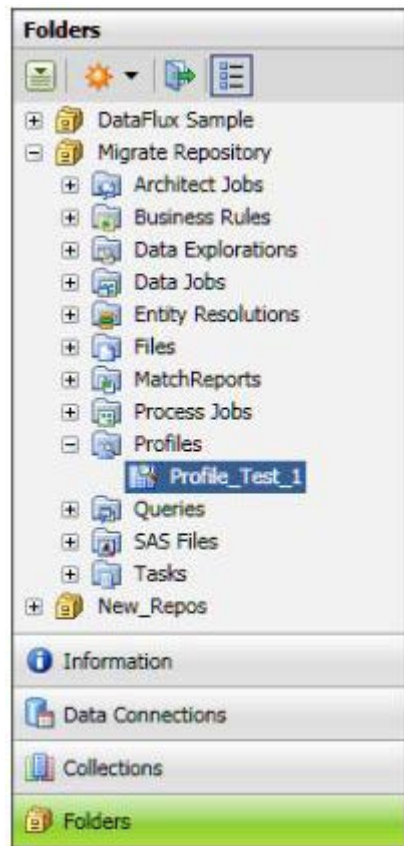
Profiles can be viewed from the Profiles folder in the Folders tree, when the **Group Items by Type** control is selected at the top of the tree, as shown in the next display.

Profiles can also be viewed from user-defined folders in the Folders tree, when the **Group Items by Type** control is de-selected, as shown in the next display.
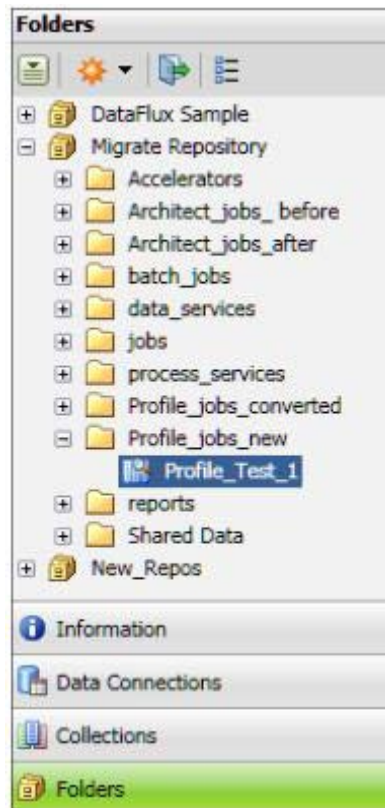
New Storage Constraints

As explained in New Repository Architecture, DataFlux Data Management Studio has new constraints on where profiles can be stored. Those constraints include the following:

- Each DataFlux repository can have at most one data storage area and one file storage area.

- All related items must be stored in the same DataFlux repository. This means, for example, that a profile that is stored in a repository can reference only those business rules, tasks, or similar items that are stored in the same repository.

Differences in metadata architecture might require you to make some manual adjustments when you migrate DataFlux dfPower Studio repositories and Management Resources to DataFlux Data Management Studio. For more information, see Plan the Migration of Each Repository and Management Resource.

Macros

As part of the migration, you have new macro configuration files and syntax changes.

Plan the Migration of Macros

The files and folders where macro variable definitions can be stored have changed. The new macro configuration files are described in the "Macro Variables" section in the *DataFlux Data Management Studio: User's Guide*. If you move your DataFlux dfPower Studio macro variable definitions into one or more DataFlux Data Management Studio configuration files, and you use these macro variables in the properties of a node, or in expressions using %% notation, or in any instance of the getvar() function, then your DataFlux dfPower Studio macro variables frequently work in DataFlux Data Management Studio without further modification.

The syntax for macro variable definitions has changed. This change could affect any item that uses a macro variable, such as an Architect job, profile, business rule, or task. In DataFlux Data Management Studio, all characters after the equal sign (=) and before the newline character become part of the definition. This means, for example, that you should not use spaces, quotation marks, or other characters after the equal sign unless you want them to be part of the text that is retrieved when the macro variable is called. For more information, see the "Macro Variables" section in the latest version of the *DataFlux Data Management Studio: User's Guide*.

Macros can have other impacts as well. For more information, see the topics related to macros in the following sections of this guide:

- Architect Jobs That Use Macro Variables

- Architect Jobs That Pass Macro Variable Values Dynamically Between Pages in the Job

- Rules and Related Items That Use Macro Variables

- Profile Jobs That Contain Macro Variables

Business Rules, Tasks, and Related Items

Plan to Migrate Business Rules, Tasks, and Related Items

DataFlux dfPower Studio business rules, tasks, custom metrics, and other items in the Business Rules Manager are migrated only when their repository is migrated. You cannot migrate individual rules and related items from DataFlux dfPower Studio.

Post-Migration Tasks for Business Rules, Tasks, and Related Items

Rules and Related Items That Use Macro Variables

When a macro variable was used in a DataFlux dfPower Studio task, the **Data Monitoring** node that is referencing this task probably needs to be updated before it works in DataFlux Data Management Studio. General updates for macros are described in Macro Variables.

Macro Variables, Rules, and Tasks

If an Architect job references a rules or task, and the rule or task dynamically retrieves or sets the value of a macro variable, then the **Data Monitoring** node that references such a task must be updated. Such a job is shown in the next display.
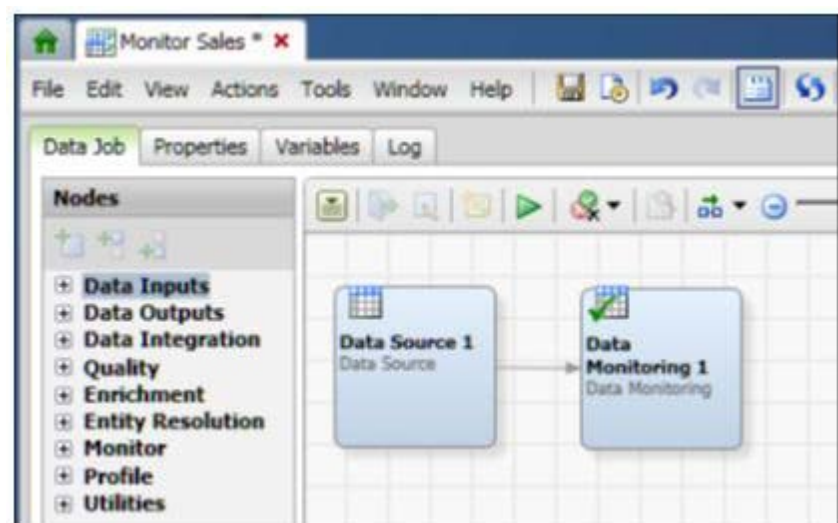
To pass macro variable values to a rule that is included in the **Data Monitoring** node shown in the previous display, you would right-click the **Data Monitoring** node and select **Advanced Properties**. Then you would specify the macro variable in the KEY_VALUES property.

To get macro variable values out of a rule that is included in the **Data Monitoring** node shown in the previous display, you would right-click the **Data Monitoring** node and select **Advanced Properties**. Then you would specify the macro variable in the OUT_KEY_VALUES property.

Chapter 4: Specific Migration Scenarios

IMPORTANT: The Specific Migration Scenarios section is intended for users who have read the General Information section or for those who have a good understanding of what is needed and simply need some guidance on stepping through the migration steps. In the Specific Migration Scenario section, each sub-section builds on the previous section. Therefore, if you jump straight to the migrating Architect jobs section without completing the Repository migration section, you will have problems with the migration steps.

Select the appropriate migration option:

- Migrating from DataFlux dfPower Studio 8.1/8.2 to DataFlux Data Management Studio

- Migrating from DataFlux Integration Server 8.1/8.2 to DataFlux Data Management Server

- Migrating from DataFlux Data Management Studio 2.1 to DataFlux Data Management Studio 2.2 or Later

- Migrating from DataFlux Data Management Server 2.1 to DataFlux Data Management Server 2.2 or Later

DataFlux dfPower Studio 8.1/8.2 to DataFlux Data Management Studio

Each migration scenario requires specific actions. Refer to each of the following sections:

- [Configurations](#)

- [Reference Sources](#)

- [Data Connections](#)

- [Repositories](#)

- [Architect Jobs](#)

- [Profile Jobs](#)

- [Explorer Jobs](#)

- [Accelerators](#)

- [Command Line Execution](#)

- [SAS Data Integration Studio](#)

- [Other](#)

   Note: This section uses DataFlux Data Management Studio or Server 2.2 as the example target system. Anything that is different in version 2.3 or later is explicitly identified.

Configurations

DataFlux dfPower Studio v. 8.1 stored configuration settings in the registry as well as in architect.cfg. You need to take these settings out of those two locations and move them into the appropriate DataFlux Data Management Studio configuration files as well as map to the DataFlux Data Management Studio configuration setting.

Below is a list of dfPower settings and what they map to in DataFlux Data Management Studio. You need to copy the values that are in the dfPower configuration files or Windows registry to the DataFlux Data Management Studio configuration files. In doing so, please note several differences between the configuration files:

- Numeric values in DataFlux Data Management Studio need to be written out. Values in DataFlux dfPower Studio could be 10m, which represents 10 million. In DataFlux Data Management Studio, this must be written as 10000000.

- DataFlux Data Management Studio does not require configuration values to be enclosed in single quotation marks.

- Double quotation marks are not special in DataFlux Data Management Studio configuration files.

- To escape characters (", =, white space, and so on) in DataFlux Data Management Studio configuration files enclose them in single quotation marks.

In the following table, look at the DataFlux dfPower Studio architect.cfg file, find the configuration from the file in the "dfPower Setting" column, look to the left to see the DataFlux Data Management Studio equivalent setting found in the first column, and put the value in the file identified in column two. For example, in the architect.cfg file, we have the following:

To find the equivalent setting in Data Management Studio, look in the "dfPower Setting" column to find "CLUSTER/BYTES".


From here, you can tell that the DataFlux Data Management Studio equivalent setting is CLUSTER/BYTES (column one) and that the value lives in app.cfg (column two). Open up the DataFlux Data Management Studio app.cfg file and locate "CLUSTER/BYTES" (press CTRL+F) and look for the DataFlux Data Management Studio configuration which, in this case, is also CLUSTER/BYTES

By default, there is no value. Modify the app.cfg and insert the dfPower setting.
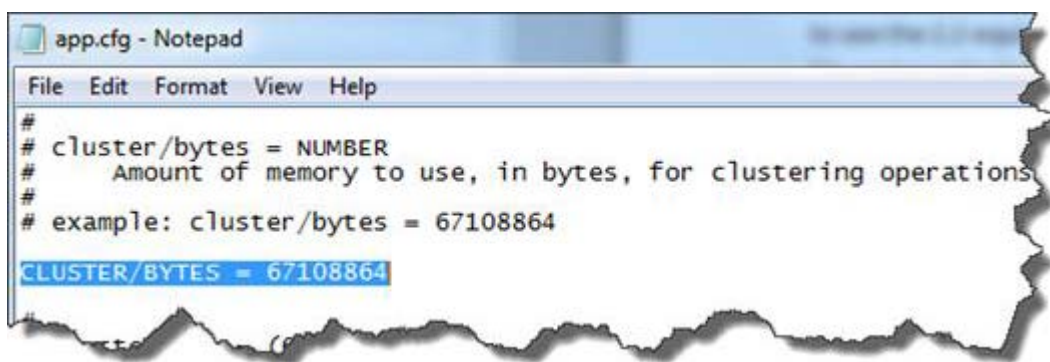
Be sure to check both locations. If you discover that both locations have values in them and the values are different, dfPower is using the value from the architect.cfg. This is the value that you need to copy over to DataFlux Data Management Studio.

DataFlux Data Management Studio Settings	DataFlux Data Management Studio File	dfPower Setting	dfPower File/Registry
BASE/DATE_FORMAT	app.cfg	--	--
BASE/EMAILCMD	app.cfg	EMAILCMD	(architect.cfg)
BASE/FTPGETCMD	app.cfg	FTPGETCMD	(architect.cfg)
BASE/FTPPUTCMD	app.cfg	FTPPUTCMD	(architect.cfg)
BASE/LOGEXCEPTIONS	app.cfg	--	--
BASE/MACROS_PATH	app.cfg	--	--
BASE/PRIMARY_LICENSE	app.cfg	--	--
BASE/PRIMARY_LICENSE_LOC	app.cfg	License	HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\Environment HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\DIS Environment
BASE/SECONDARY_LICENSE	app.cfg	--	--
BASE/SECONDARY_LICENSE_LOC	app.cfg	--	--
BASE/SORTBYTES	app.cfg	SORTBYTES SortBytes Sort chunk (dfexec.cfg)	(architect.cfg) HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\DIS Environment
BASE/SORTMERGES	app.cfg	SORTMERGES	--
BASE/SORTTEMP	app.cfg	SORTTEMP	--
BASE/SORTTHREADS	app.cfg	SORTTHREADS	--
BASE/TEMP	app.cfg	TEMP	(architect.cfg)
BASE/TEXTMINE_LITI_LA	app.cfg	--	--

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DataFlux Data Management Studio Settings	DataFlux Data Management Studio File	dfPower Setting	dfPower File/Registry
NG_LOCATION			
CLUSTER/BYTES	app.cfg	CLUSTER/BYTES ClusterBytes	(architect.cfg) HKEY_LOCAL_MACHINE\SOFTWARE\ Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\ARCHITECT
CLUSTER/LOG	app.cfg	CLUSTER/LOG	(architect.cfg)
CLUSTER/TEMP	app.cfg	--	--
ENVIRONMENT/SASDIS	ui.cfg	SASDIS	HKEY_LOCAL_MACHINE\SOFTWARE\ Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\Environment\
JAVA/VMLIB	app.cfg	JAVA/VMLIB	--
PROF/PER_TABLE_BYTES	app.cfg	fd table memory	(dfexec.cfg)
PROF/LOCK_RETIRES	app.cfg	--	--
PROFCONFIG/METRIC0	ui.cfg	--	--
PROFCONFIG/METRIC1	ui.cfg	--	--
PROFCONFIG/METRIC2	ui.cfg	--	--
PROFCONFIG/METRIC3	ui.cfg	--	--
PROFCONFIG/METRIC4	ui.cfg	--	--
PROFCONFIG/METRIC5	ui.cfg	--	--
PROFCONFIG/METRIC6	ui.cfg	--	--
PROFCONFIG/METRIC7	ui.cfg	--	--
PROFCONFIG/METRIC8	ui.cfg	--	--
PROFCONFIG/METRIC9	ui.cfg	--	--
PROFCONFIG/METRIC10	ui.cfg	--	--
PROFCONFIG/METRIC11	ui.cfg	--	
PROFCONFIG/METRIC12	ui.cfg	--	--
PROFCONFIG/METRIC13	ui.cfg	--	--
PROFCONFIG/METRIC14	ui.cfg	--	--
PROFCONFIG/METRIC15	ui.cfg	--	--
PROFCONFIG/METRIC16	ui.cfg	--	--
PROFCONFIG/METRIC17	ui.cfg	--	--
PROFCONFIG/METRIC18	ui.cfg	--	--
PROFCONFIG/METRIC19	ui.cfg	--	--
PROFCONFIG/METRIC20	ui.cfg	--	--
PROFCONFIG/METRIC21	ui.cfg	--	--
PROFCONFIG/METRIC22	ui.cfg	--	--
PROFCONFIG/METRIC23	ui.cfg	--	--
PROFCONFIG/METRICFRE	ui.cfg	--	--

DataFlux Data Management Studio Settings	DataFlux Data Management Studio File	dfPower Setting	dfPower File/Registry
QDIST			
PROFCONFIG/METRICFRE QPAT	ui.cfg	--	--
PROFCONFIG/METRICOU TLIERS	ui.cfg	--	--
PROFCONFIG/METRICOU TMAX	ui.cfg	--	--
PROFCONFIG/METRICOU TMIN	ui.cfg	--	--
PROFCONFIG/METRICPCT INTERVALS	ui.cfg	--	--
PROFCONFIG/METRICPER CENTILES	ui.cfg	--	--
PROFVIEW/METRIC0	ui.cfg	Metric0	HKEY_LOCAL_MACHINE\SOFTWARE\ Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\PROFVIEW
PROFVIEW/METRIC1	ui.cfg	Metric1	HKEY_LOCAL_MACHINE\SOFTWARE\ Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\PROFVIEW
PROFVIEW/METRIC2	ui.cfg	Metric2	HKEY_LOCAL_MACHINE\SOFTWARE\ Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\PROFVIEW
PROFVIEW/METRIC3	ui.cfg	Metric3	HKEY_LOCAL_MACHINE\SOFTWARE\ Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\PROFVIEW
PROFVIEW/METRIC4	ui.cfg	Metric4	HKEY_LOCAL_MACHINE\SOFTWARE\ Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\PROFVIEW
PROFVIEW/METRIC5	ui.cfg	Metric5	HKEY_LOCAL_MACHINE\SOFTWARE\ Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\PROFVIEW
PROFVIEW/METRIC6	ui.cfg	Metric6	HKEY_LOCAL_MACHINE\SOFTWARE\ Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\PROFVIEW
PROFVIEW/METRIC7	ui.cfg	Metric7	HKEY_LOCAL_MACHINE\SOFTWARE\ Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\PROFVIEW

DataFlux Data Management Studio Settings	DataFlux Data Management Studio File	dfPower Setting	dfPower File/Registry
PROFVIEW/METRIC8	ui.cfg	Metric8	HKEY_LOCAL_MACHINE\SOFTWARE\ Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\PROFVIEW
PROFVIEW/METRIC9	ui.cfg	Metric9	HKEY_LOCAL_MACHINE\SOFTWARE\ Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\PROFVIEW
PROFVIEW/METRIC10	ui.cfg	Metric10	HKEY_LOCAL_MACHINE\SOFTWARE\ Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\PROFVIEW
PROFVIEW/METRIC11	ui.cfg	Metric11	HKEY_LOCAL_MACHINE\SOFTWARE\ Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\PROFVIEW
PROFVIEW/METRIC12	ui.cfg	Metric12	HKEY_LOCAL_MACHINE\SOFTWARE\ Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\PROFVIEW
PROFVIEW/METRIC13	ui.cfg	Metric13	HKEY_LOCAL_MACHINE\SOFTWARE\ Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\PROFVIEW
PROFVIEW/METRIC14	ui.cfg	Metric14	HKEY_LOCAL_MACHINE\SOFTWARE\ Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\PROFVIEW
PROFVIEW/METRIC15	ui.cfg	Metric15	HKEY_LOCAL_MACHINE\SOFTWARE\ Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\PROFVIEW
PROFVIEW/METRIC16	ui.cfg	Metric16	HKEY_LOCAL_MACHINE\SOFTWARE\ Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\PROFVIEW
PROFVIEW/METRIC17	ui.cfg	Metric17	HKEY_LOCAL_MACHINE\SOFTWARE\ Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\PROFVIEW
PROFVIEW/METRIC18	ui.cfg	Metric18	HKEY_LOCAL_MACHINE\SOFTWARE\ Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\PROFVIEW
PROFVIEW/METRIC19	ui.cfg	Metric19	HKEY_LOCAL_MACHINE\SOFTWARE\ Wow6432Node\DataFlux

DataFlux Data Management Studio Settings	DataFlux Data Management Studio File	dfPower Setting	dfPower File/Registry
			Corporation\dfPower Studio\8.1\PROFVIEW
PROFVIEW/METRIC20	ui.cfg	Metric20	HKEY_LOCAL_MACHINE\SOFTWARE\ Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\PROFVIEW
PROFVIEW/METRIC21	ui.cfg	Metric21	HKEY_LOCAL_MACHINE\SOFTWARE\ Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\PROFVIEW
PROFVIEW/METRIC22	ui.cfg	Metric22	HKEY_LOCAL_MACHINE\SOFTWARE\ Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\PROFVIEW
PROFVIEW/METRIC23	ui.cfg	--	--
QKB/ALLOW_INCOMPAT	app.cfg	--	--
QKB/COMPATVER	app.cfg	--	--
QKB/PATH	app.cfg	BLUEFUSION/Q KB QKB root	(architect.cfg) (architect.cfg)
QKB/SURFACEALL	app.cfg	--	--
VERIFY/BF (software does not recognize)	app.cfg	VERIFY/BF	(architect.cfg)
VERIFY/CACHESIZE	app.cfg	VERIFY/CACHE SIZE Verify cache VerifyCache	(architect.cfg) (dfexec.cfg) (HKEY_LOCAL_MACHINE\SOFTWARE\ Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\ARCHITECT)
VERIFY/CANADA	app.cfg	VERIFY/CANAD A	(architect.cfg)
VERIFY/GEO	app.cfg	VERIFY/GEO	(architect.cfg)
VERIFY/PRELOAD	app.cfg	VERIFY/PRELO AD	(architect.cfg)
VERIFY/USEDPV	app.cfg	VERIFY/USEDP V	(architect.cfg)
VERIFY/USEELOT	app.cfg	--	--
VERIFY/USELACS	app.cfg	--	--
VERIFY/USERDI	app.cfg	VERIFY/USERD I	(architect.cfg)
VERIFY/USPS	app.cfg	VERIFY/USPS USPS db USPSDir	(architect.cfg) (dfexec.cfg) HKEY_LOCAL_MACHINE\SOFTWARE\ Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\VERIFY

DataFlux Data Management Studio Settings	DataFlux Data Management Studio File	dfPower Setting	dfPower File/Registry
VERIFY/USPSINST	app.cfg	VERIFY/USPSINST	(architect.cfg)
VERIFYINTL/CFG	app.cfg	VERIFYINTL/CFG	(architect.cfg)
VERIFYWORLD/DB	app.cfg	VERIFYWORLD/DB	(architect.cfg)
VERIFYWORLD/UNLK	app.cfg	VERIFYWORLD/UNLK	(architect.cfg)

Configuration Values from DataFlux dfPower Studio to DataFlux Data Management Studio

If any Accelerators are installed with your dfPower installation, it is not recommended that the associated macros be moved over. You should download the appropriate version of the Accelerator that works with your version of DataFlux software. Therefore, when you are viewing the architect.cfg file, you should not move over macros with the following prefixes:

- MDI_
- MDC_
- SA_
- ACDQ_
- CDC_
- CDA_
- WLC_
- MDM_

Any remaining macros in architect.cfg that are not in the dfPower to DataFlux Data Management Studio table or are Accelerator macros, are most likely user-defined macros. These remaining macros should be moved to a new file in the <DM_STUDIO_INSTALL_ROOT>/etc/macros/ directory. Do not place them in any of the DataFlux Data Management Studio specific configuration files.

> **IMPORTANT!** If you see a macro that is not user-defined and you believe that it is a DataFlux setting, please contact DataFlux technical support.

In this dfPower example, the macro called OUTPUT_PATH needs to be moved over.


```
5 # Location to write the output files from Architect jobs
6 OUTPUT_PATH=C:\DataFlux
7 |
```

Go to Windows Explorer and navigate to the install root for DataFlux Data Management Studio; in this case, it is the default C:\Program Files (x86)\DataFlux\DMStudio\2.2.
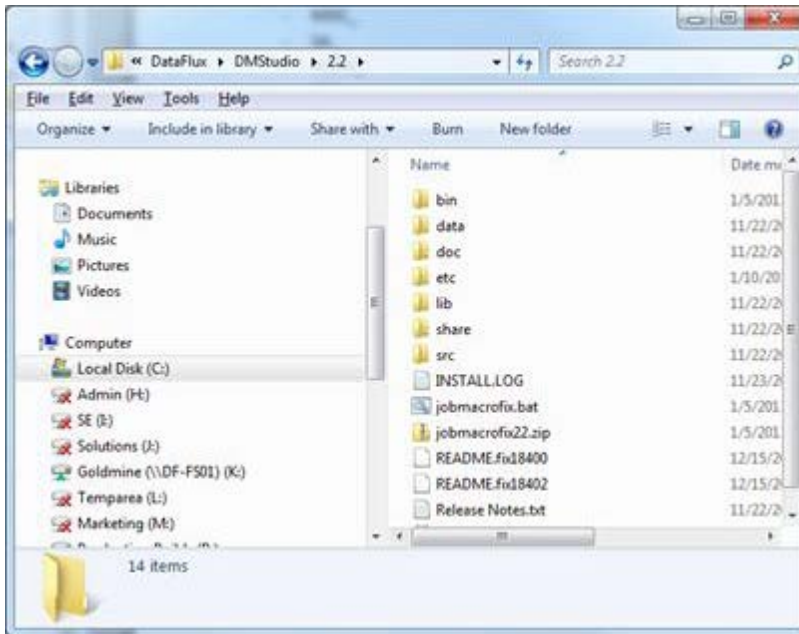
Go into the etc\macros directory and create a new text file called 81macros.cfg. Click **Yes** to confirm the change of the extension from .txt to .cfg.
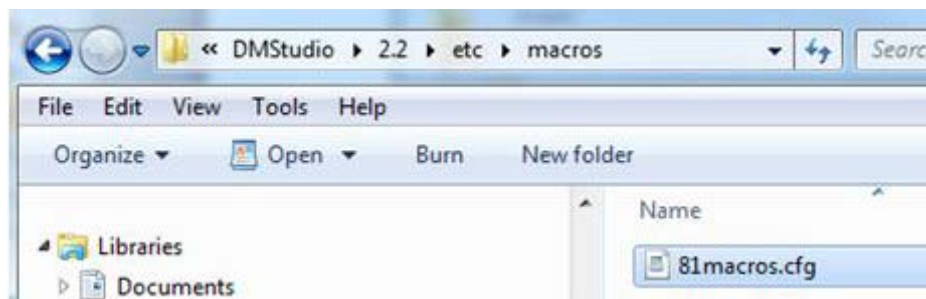
Open the 81macros.cfg file and copy the value from architect.cfg:
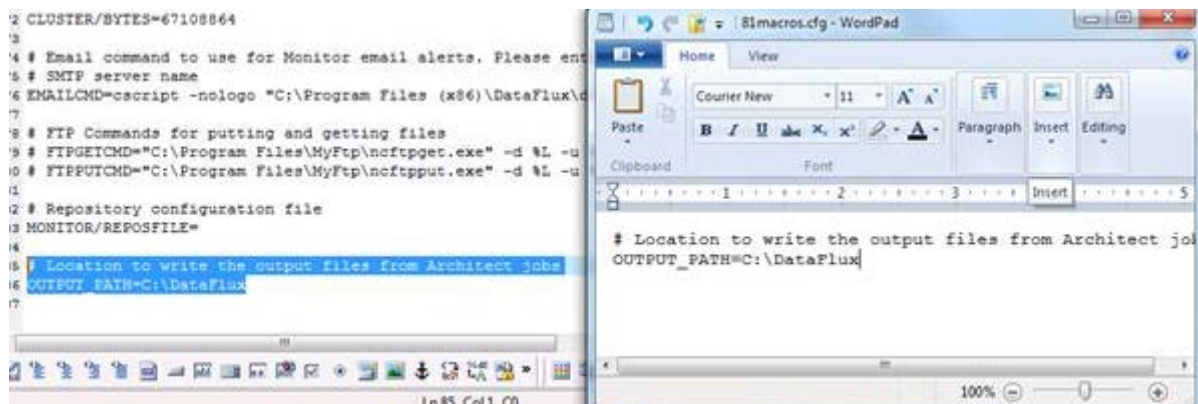
Now, you can view the new macro file and values if you access version 2.2.

Repeat these steps for each user-defined macro. Initially, it is recommended that all dfPower user-defined macros be placed in the same file.

Data Quality Functions

If the migration includes a new Quality Knowledge Base (QKB), it is a best practice to regenerate any static data quality pieces such as match codes. This is because changes in the QKB can result in a slightly different match code being generated.

If you are using dfPower Studio v. 8.2 and you are not changing QKBs as part of your migration, see Migrating from DataFlux dfPower Studio v. 8.1/8.2 to DataFlux Data Management Studio v. 2.2 for more information about how to configure DataFlux software so that it uses data quality functions as they were used in DataFlux dfPower 8.2.

> **IMPORTANT:** It is strongly recommended that you do this only if it is necessary.

Reference Sources

The data packs for USPS, Canada, Geocode, and Phone data as well as World data must be re-registered in DataFlux Data Management Studio. The easiest way to accomplish this is to have both DataFlux dfPower Studio and DataFlux Data Management Studio open.

In DataFlux dfPower Studio, open Reference Sources.
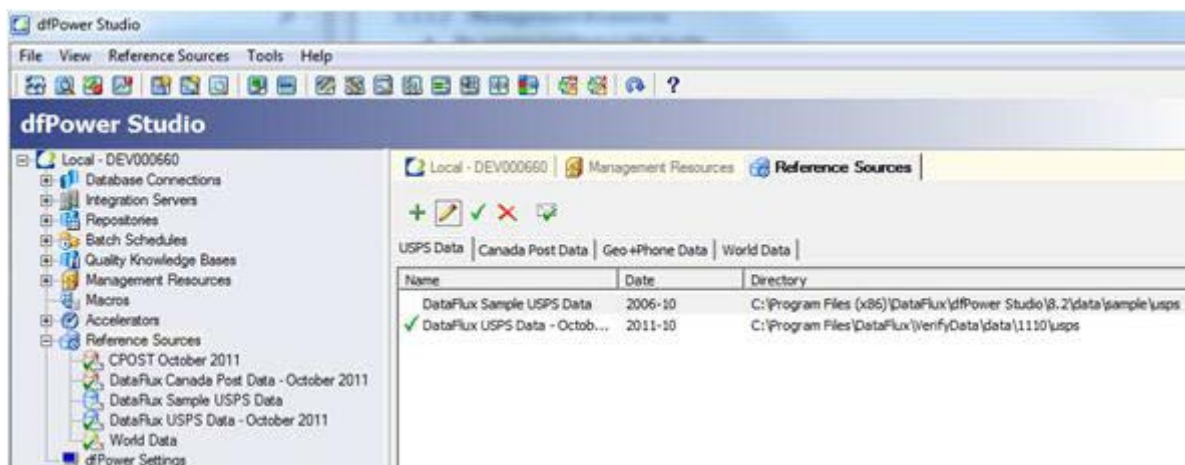
Click on the properties for each line under the USPS Data, Canada Post Data, GEO+Phone Data, and World Data tabs.
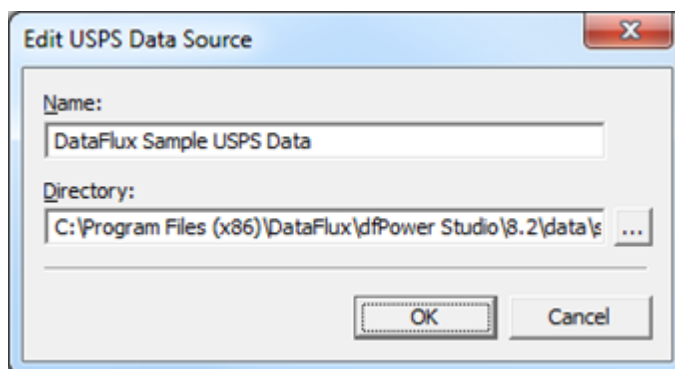
Copy the Name and Directory into the **Add Reference Source** dialog box in DataFlux Data Management Studio, which is found in the Administration riser bar under the Reference Sources folder.
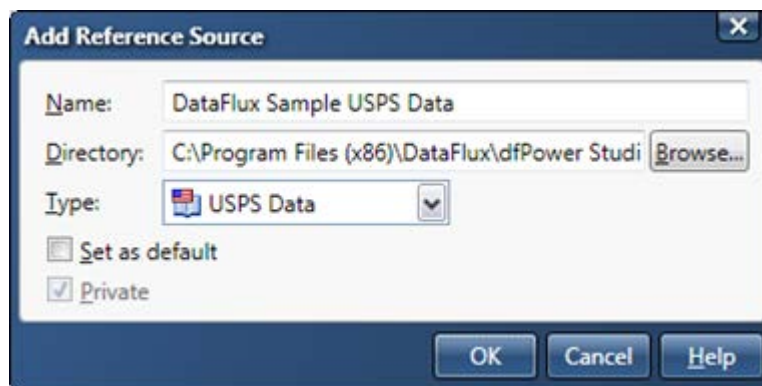
The one difference here is that you need to make sure the type reflects the **dfPower** tab where the information is coming from.

Be sure to check the **Set as default** option if this reference source should be used during job execution. If Private remains selected, this sets the proper values in the app.cfg located in %APPDATA%\DataFlux\DataManagement\2.2 (Note that you can copy and paste that string into Windows Explorer and it takes you to the correct location. If the location does not exist, it is because you have not run DataFlux Data Management Studio yet. These directories are created when the application is run for the first time.) If this installation is being shared with others, it is recommended to also uncheck the Private option. This stores the setting in the system app.cfg file.\
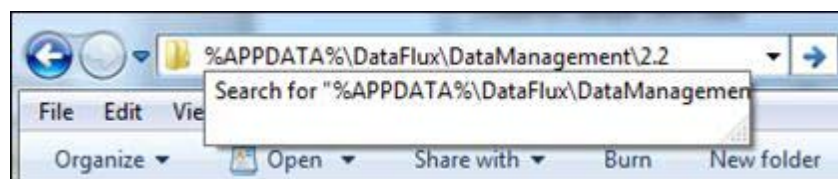
DataFlux Data Management Studio 2.3 and later:

- Personal settings have moved in 2.3 and later. Data Management Studio and Server now support multiple instances on one box. Settings per instance are stored in %APPDATA%\DataFlux\DMStudio\<instance>\etc.

Data Connections

If DataFlux Data Management Studio is being installed on the same machine where the previous version of DataFlux dfPower Studio was installed, no additional steps are required to migrate over any ODBC connections. If DataFlux Data Management Studio is being installed on a new machine, then you much migrate the ODBC connections defined in the ODBC Administrator manually.

ODBC data connections that are defined on the machine are upgraded automatically to the latest version of the DataFlux ODBC drivers. This means that both DataFlux dfPower Studio and DataFlux Data Management Studio are using the same version of ODBC drivers.

The only action required is to move over any saved credential files that are stored. These can be found in %APPDATA%\DataFlux Corporation\dfdac and should be copied to %APPDATA%\DataFlux\dac\9.1.

DataFlux Data Management Studio 2.3 and later:

- Saved credentials are stored in %APPDATA%\DataFlux\dac\savedconn. Data Management Studio still reads saved configurations from %APPDATA%\DataFlux\dac\9.1.

In DataFlux dfPower Studio v. 8.1, there is the following connection with saved credentials
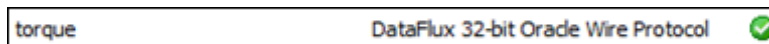
This correlates to a file in %APPDATA%\DataFlux Corporation\dfdac:
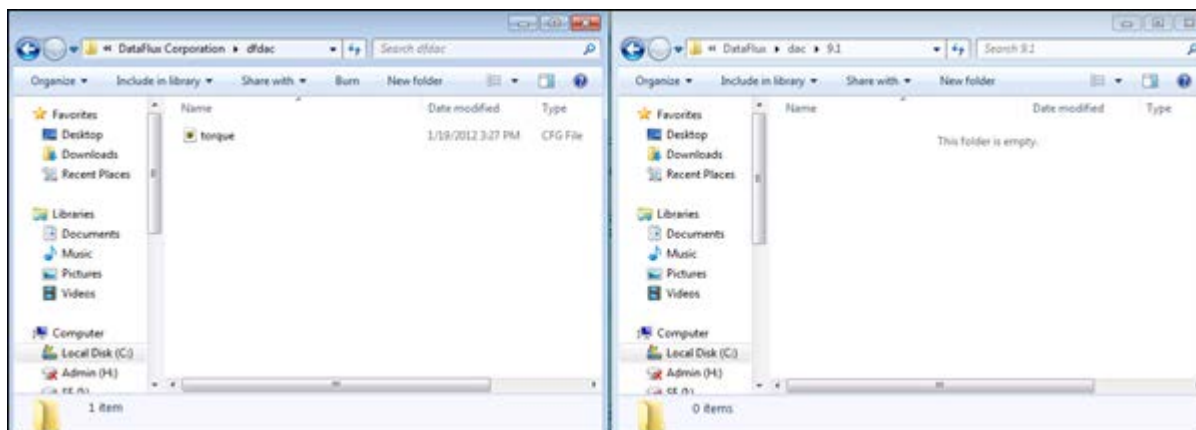
For DataFlux Data Management Studio 2.3 and later versions, copy this file to %APPDATA%\DataFlux\dac\savedconn. For DataFlux Data Management Studio 2.2 copy this file to %APPDATA%\DataFlux\dac\9.1:
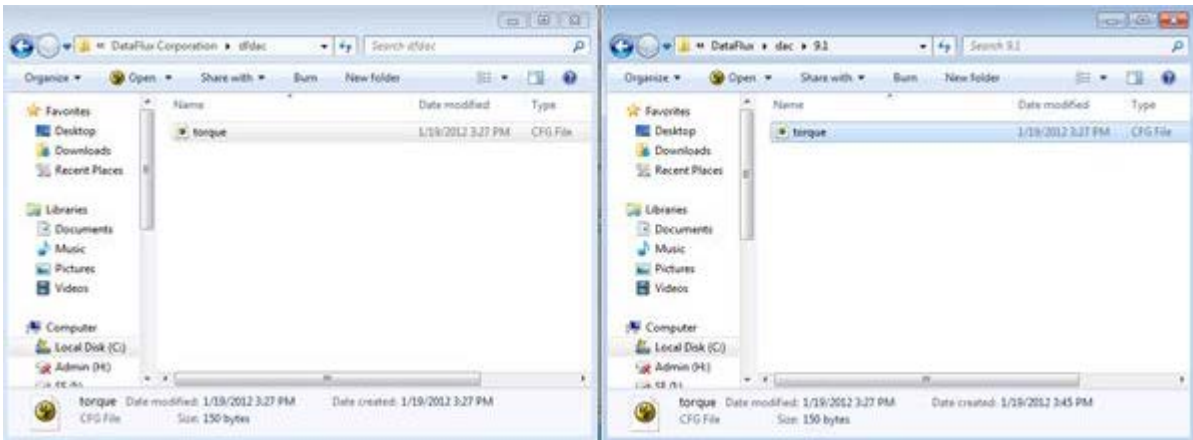

This now appears in DataFlux Data Management Studio as an ODBC connection with saved credentials:

DataFlux Data Management Studio 2.3 and later:

For DataFlux Data Management Studio 2.3 and later versions, make sure that all .cfg files are in %APPDATA%\DataFlux\dac\savedconn. For DataFlux Data Management Studio 2.2 make sure that all .cfg files are in %APPDATA%\DataFlux\dac\9.1.

Use a utility of choice to copy over the saved credentials. First, confirm there is not anything in the dac\9.1 folder.
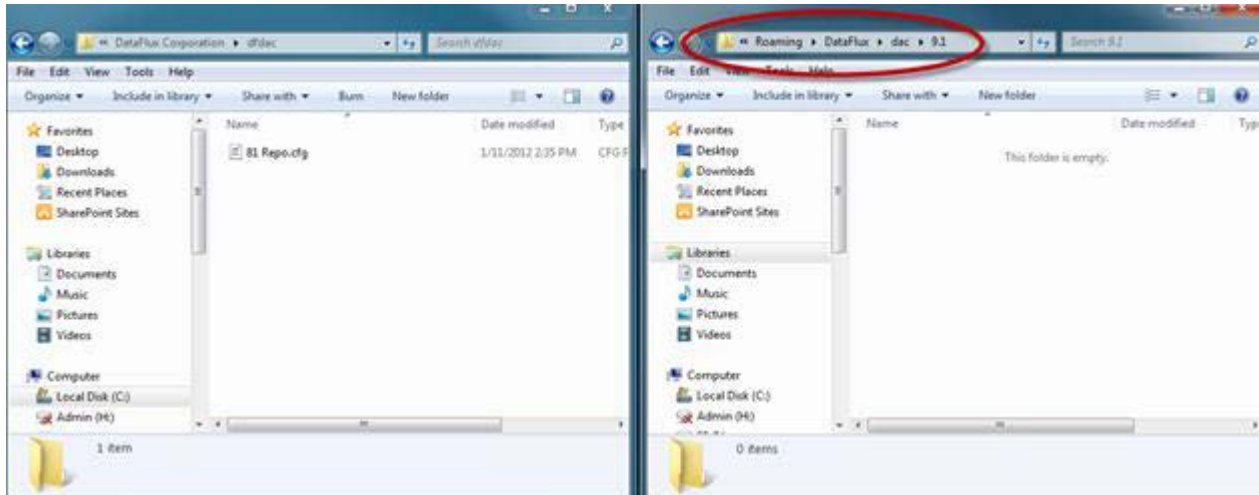
Confirm that the configuration file was moved as shown in the following display:
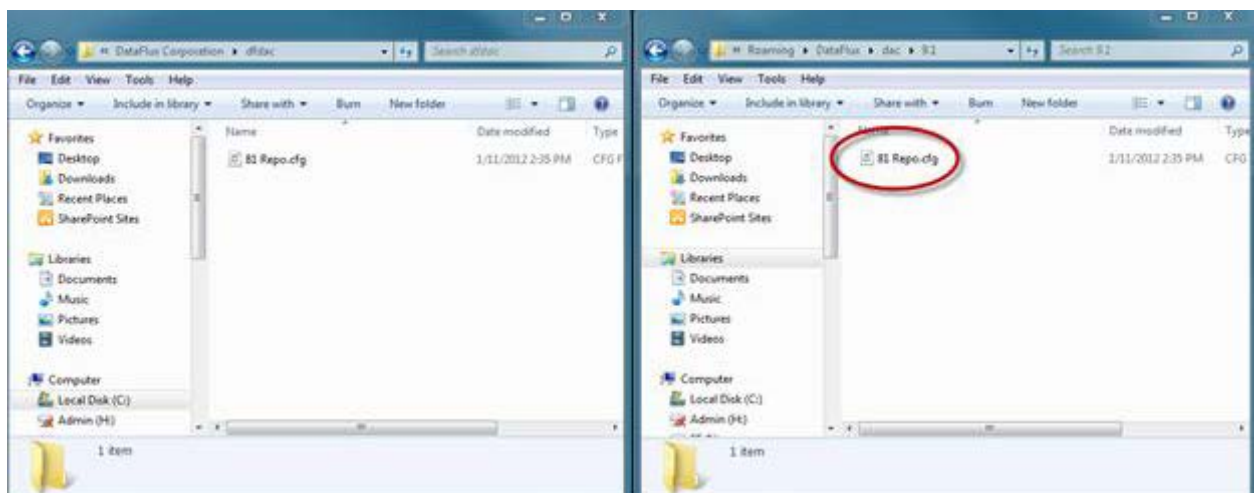
Repositories

This section reviews how to migrate file-based as well as DBMS-based DataFlux dfPower Studio repositories to DataFlux Data Management Studio.

Migrating a file-based Repository is appropriate under the following conditions:

- The dfPower repository is in SQLite format (an RPS file)

- Jobs in a Management Resource refer to rules and tasks in the dfPower repository

- The dfPower repository is not managed by a DataFlux Data Integration Server

- The migrated repository is not managed by a DataFlux Data Management Server

In general, you create an empty folder structure such as the structure described in General Planning for Repositories. Creating such a structure ensures that you have the standard folders for deployable jobs. Copy the dfPower repository to an appropriate folder in that structure. When you run the New Repository Definition wizard, specify the location of the copied dfPower repository and the location of an empty set of folders. Later, copy Architect jobs into these folders.

Migrating a DBMS-based Repository is appropriate under the following conditions:

- The dfPower repository is in DBMS format (not SQLite)

- Jobs in a Management Resource refer to rules and tasks in the dfPower repository

- The dfPower repository is not managed by a DataFlux Data Management Server

- The migrated repository is not managed by a DataFlux Data Management Server

In general, you use DBMS commands to create a copy of the dfPower repository and create a new DBMS connection to the copy. Then you convert the dfPower repository.

The next few sections provide specific steps to follow to create a DataFlux Data Management Studio Repository.

- Copying a File-Based Repository

- Copying a DBMS-Based Repository

- Copying Over Files

- Create the v. 2.2 Repository

Copying a File-Based Repository

This section provides a step-by-step walk-through on how to migrate a dfPower Repository and Management Resource to a DataFlux repository.

First, back up your dfPower Repository. This can be by opening DataFlux dfPower Studio and then opening the Repositories.
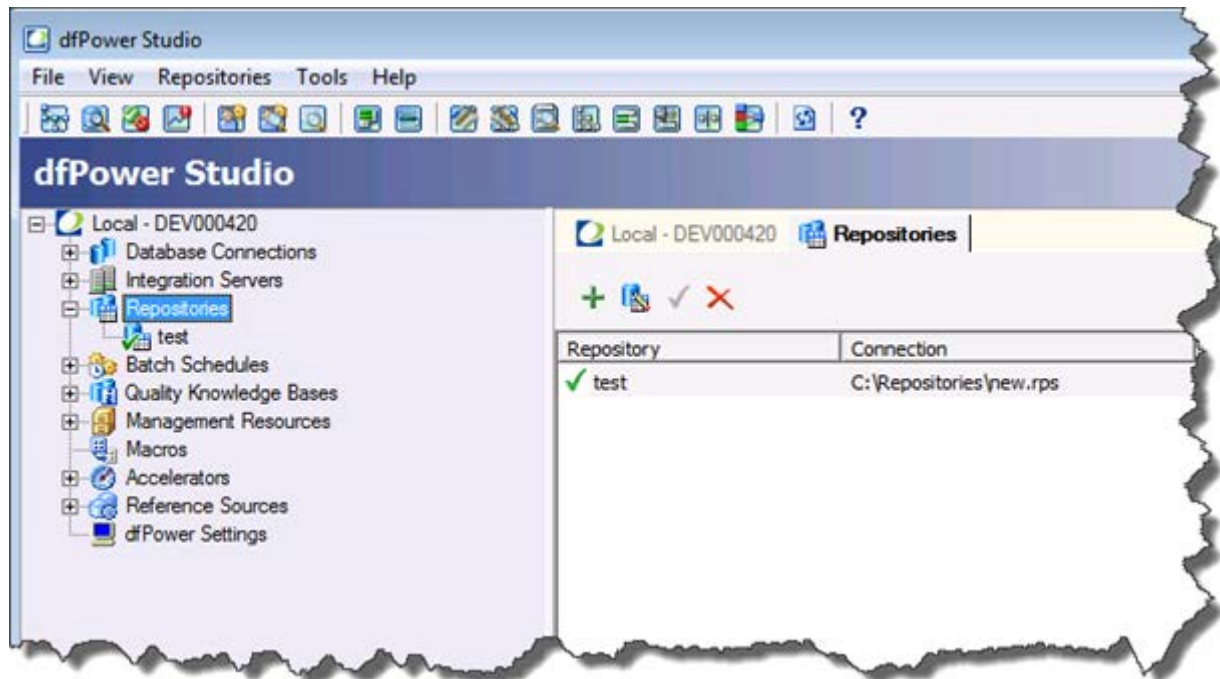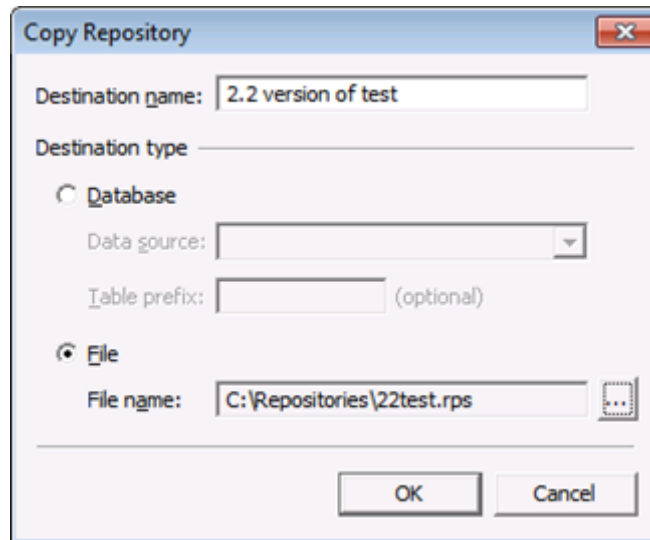

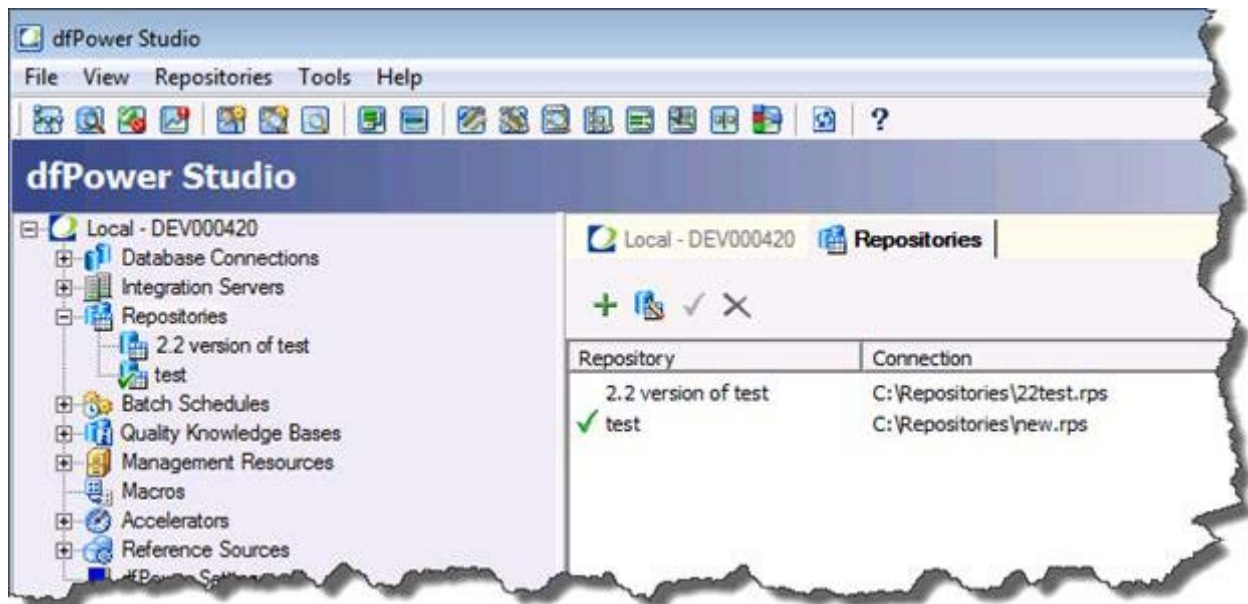Select and right-click on a repository, and then select **Copy Repository**.
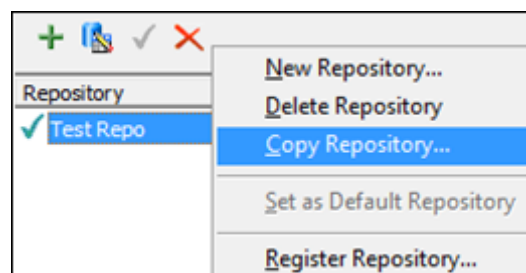
In the Copy Repository dialog box, enter the necessary information in the available fields. This information is specific to your needs.

> *Note:* It is a good idea to make the copy the same type as the original.

When you are finished, you should see a copy in the **Repositories** list:

Copying a DBMS-Based Repository

This is an example for a database-sourced repository. This example uses Oracle as the database with an approach to create a new schema that contains the copy. This means that you need to register a new DSN and then use this DSN to hold the copy. The copy of the repository could be stored in the same schema, but it is recommended to store in a separate schema to keep a clean separation between environments.
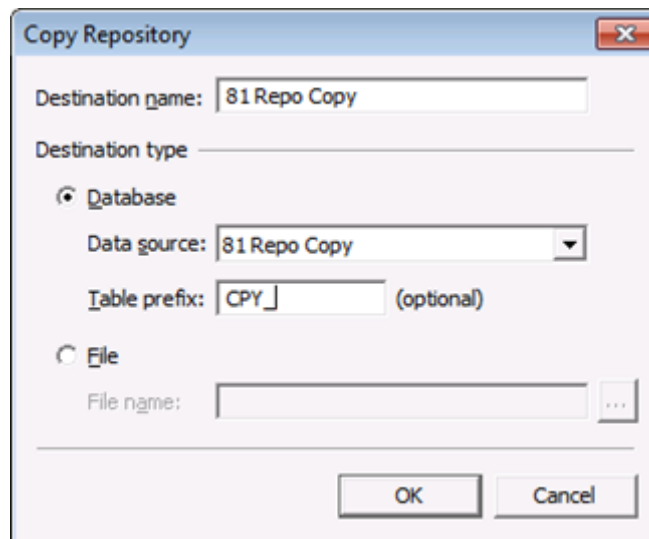
The Database Connections screen looks like this:
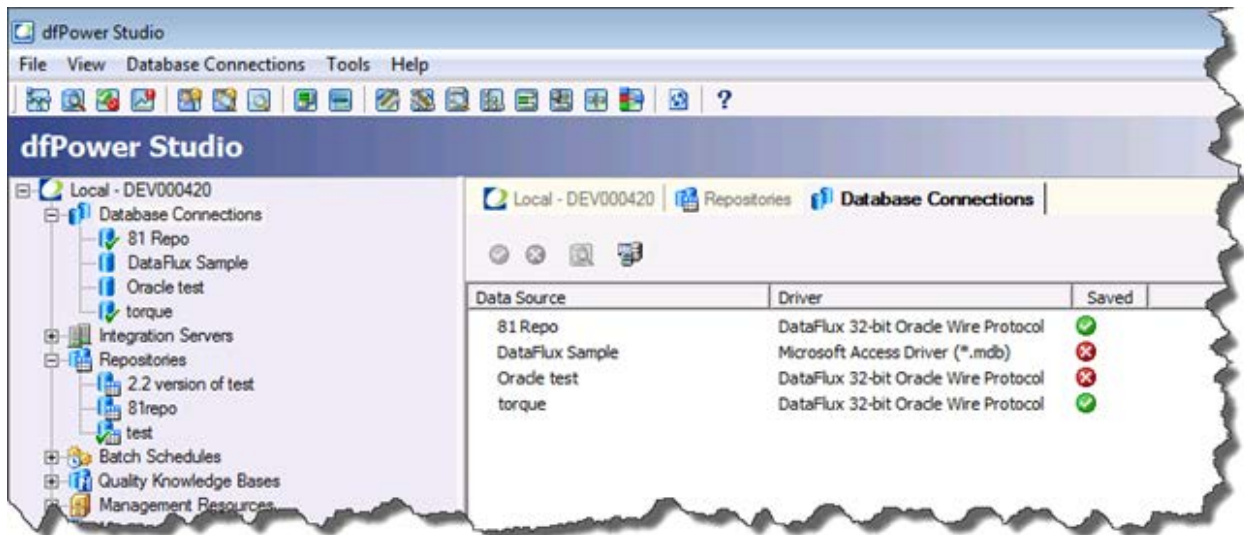
This is the repository screen showing the registered **81 Repo** DSN:
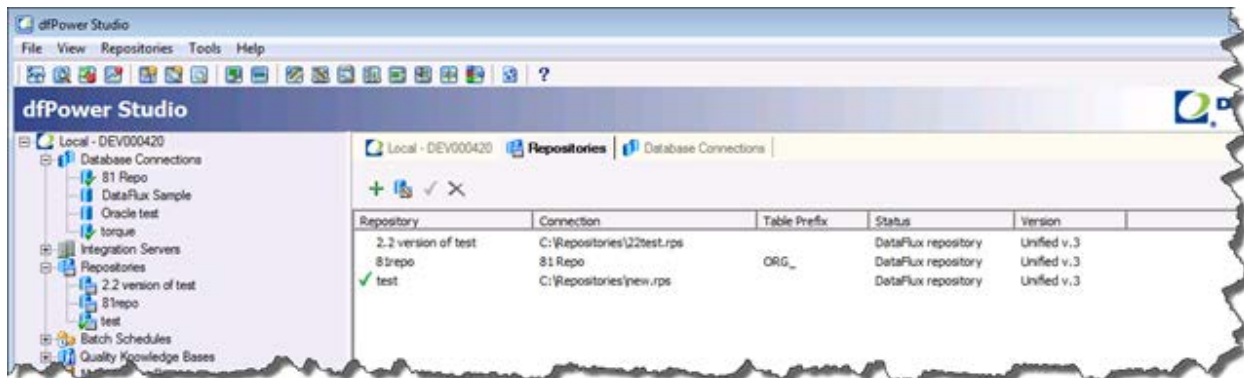
After the second DSN that contains the copy is created, you will have this in the Database Connections screen:
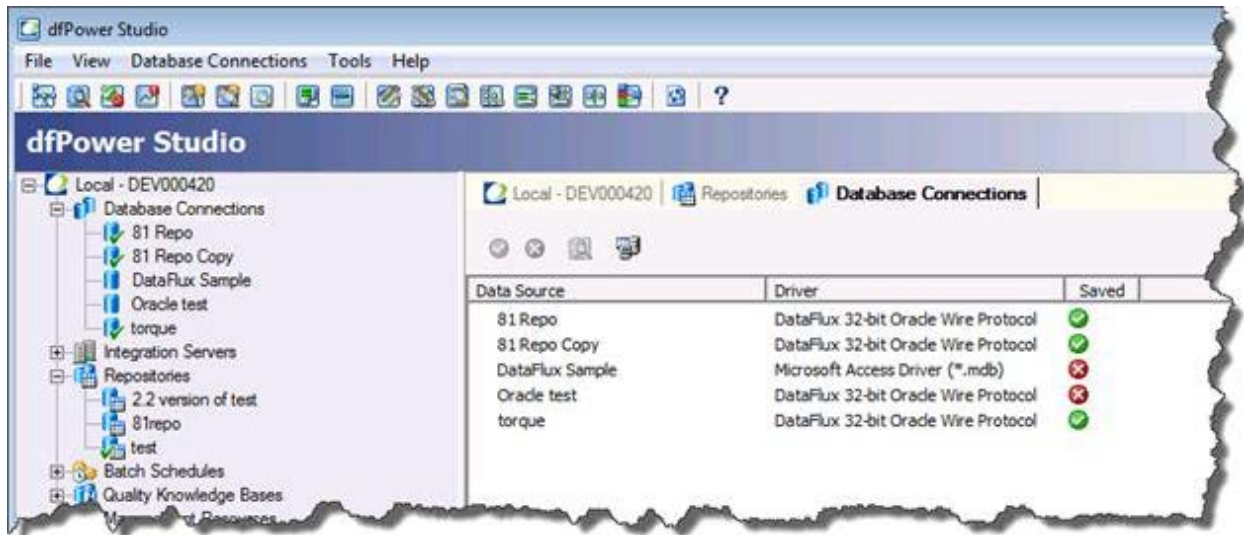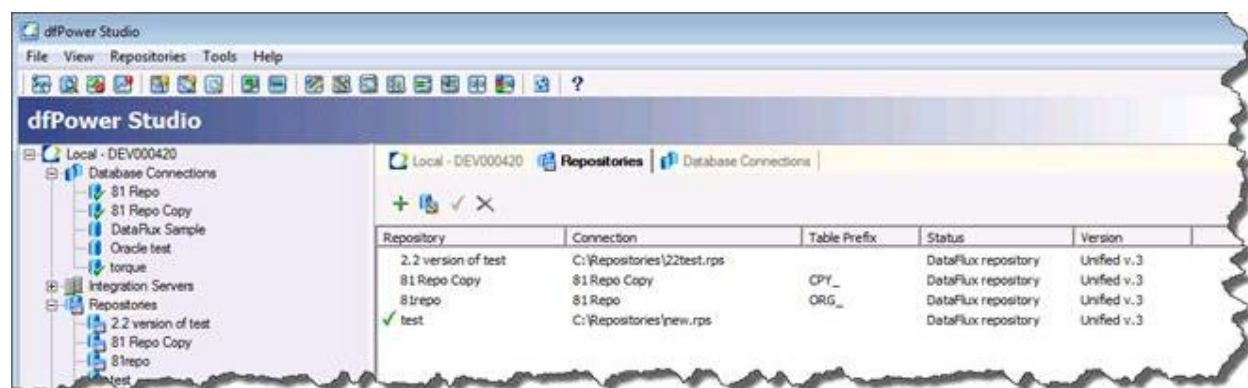

Now, you need to copy the **81 Repo** to the **81 Repo Copy** DSN:

It is highly recommended that the Table prefix option be used to identify this is a copy. Even if the recommendation of putting the copy in a different schema were used, this would be another way to identify quickly that this is not an original repository.

Copying Files

No matter the dfPower repository type, File, or DBMS based, before the dfPower version repository can be used to create a DataFlux repository, you must create the file storage aspect of the DataFlux repository. To do this, copy the jobs from the Management Resources location to the folder structure that you want to use in DataFlux Data Management Studio. Please review the Repositories and Management Resources section for more information.

For this example, assume that you have set up new file storage under the C:\ProgramData\DataFlux\DataManagement\2.2\Repository location, called **81 Repos**.
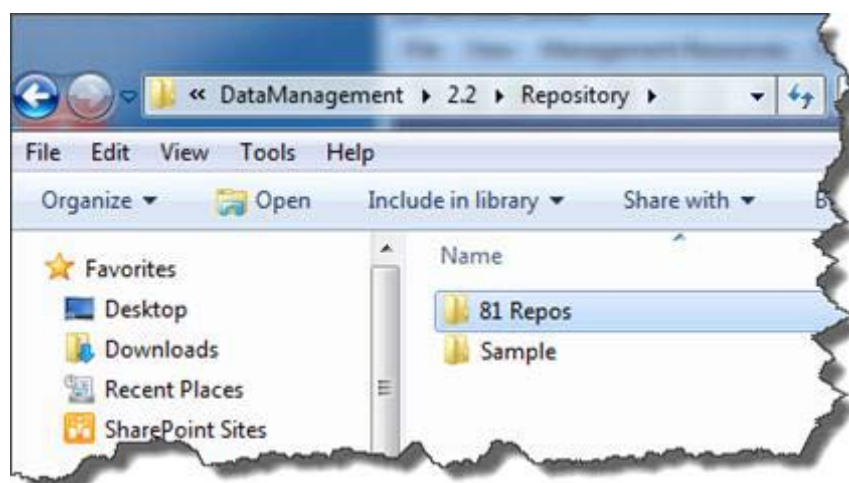
Under this location, create the following hierarchy:

- FileStorage\architecct81

- FileStorage\profile81

- FileStorage\realtimesvcs81

In each location, copy the jobs that need to be converted. Note that this can be from multiple Management Resource locations. DataFlux Data Management Studio can handle multiple repositories but DataFlux Data Management Server can support only one repository connection. This should factor in when trying to organize repositories.

In the dfPower system, there are three Management Resources locations. All three are moved to one location for DataFlux Data Management Studio.
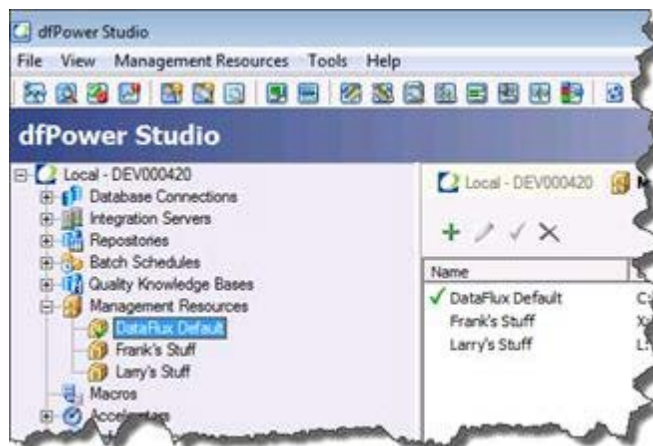
All of the Architect jobs go into the FileStorage\architect81 folder. The same Management Resources structure is used. This makes it easier to remember and even synchronize the folder locations post migration.

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All Profile jobs are moved into the FileStorage\profile81 folder and the real-time service jobs are moved into the FileStorage\realtimesvcs81 folder. Use a utility of choice to copy the *.dmc files over.

This display shows how the files are arranged prior to the move:
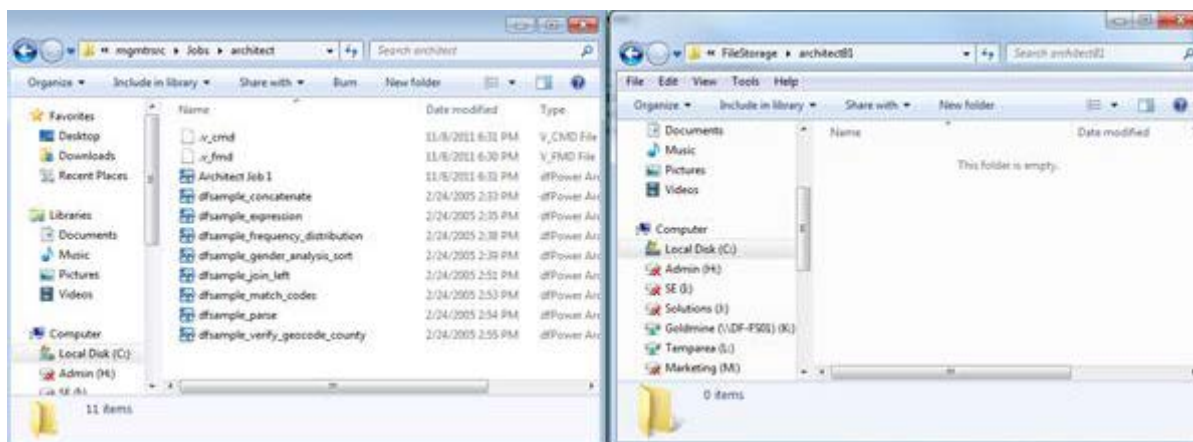
All the Architect jobs are copied to the FileStorage\architect81\81Sample location. There are two things to note from this action. First, you moved everything into the 81Sample folder. This is done to identify that the jobs have been moved from an 8.1 location. This is recommended as a best practice. A second thing to note is that we only copied over the Architect jobs. If everything needs to be moved over, do not restrict by extension.

Repeat this for each of the types to be moved over and for each Management Resources location.
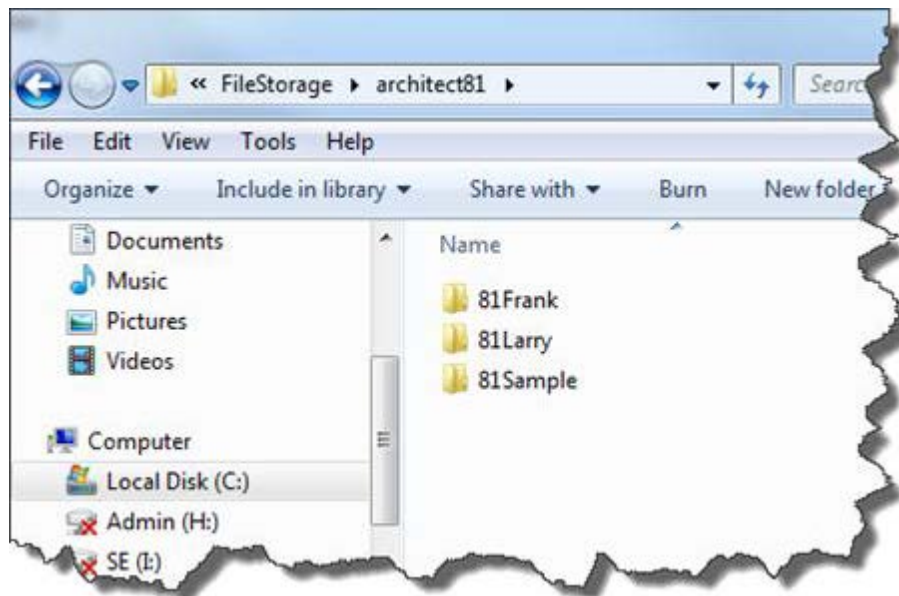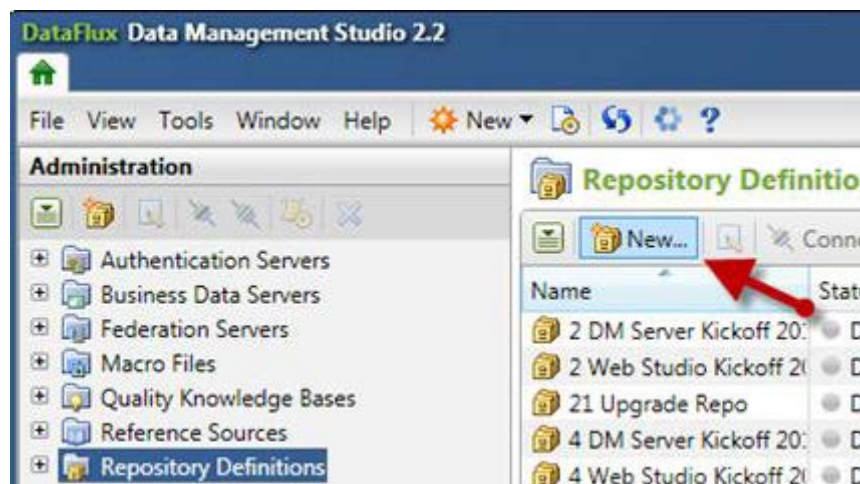

Create the New Repository

DataFlux Data Management Studio 2.3 and later:

- The following details what to do in DataFlux Data Management Studio 2.2. The steps are the same for DataFlux Data Management Studio 2.3 and later.

Once all the jobs are copied into the new locations, you need to register the copy of the dfPower repository in DataFlux Data Management Studio. If DataFlux Data Management Studio is running on a different system from which DataFlux dfPower Studio is running, note that the **81 Repo Copy** DSN needs to be created. In DataFlux Data Management Studio, go to the Administration riser, select **Repository Definitions,** and create a new repository.

Give it a meaningful name, choose the database copy that was created earlier and then select the C:\ProgramData\DataFlux\DataManagement\2.2\Repository\81 Repos\FileStorage folder created earlier.

If using a file-based repository, the Repository Definition should look something like this:

When you save the DataFlux Data Management Studio configuration, DataFlux Data Management Studio notifies you that the repository needs to be upgraded. This is OK and a good sign that the system has recognized that you have an older version and it needs to be updated.
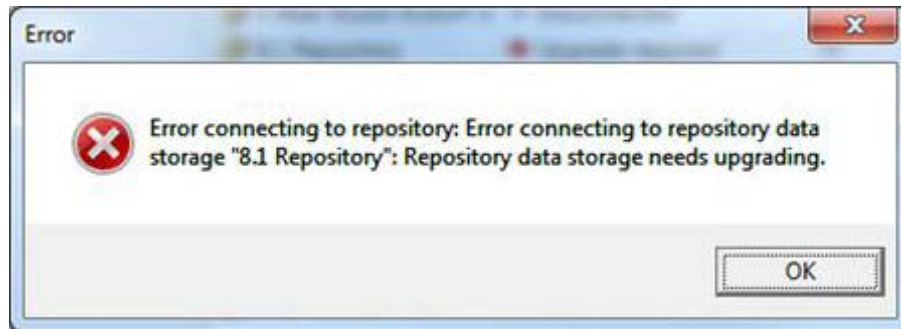
Click **OK**. You should now see something that indicates that the repository needs to be upgraded. Right-click on the repository and choose **Upgrade**.

When prompted to confirm the upgrade, select **Yes**.

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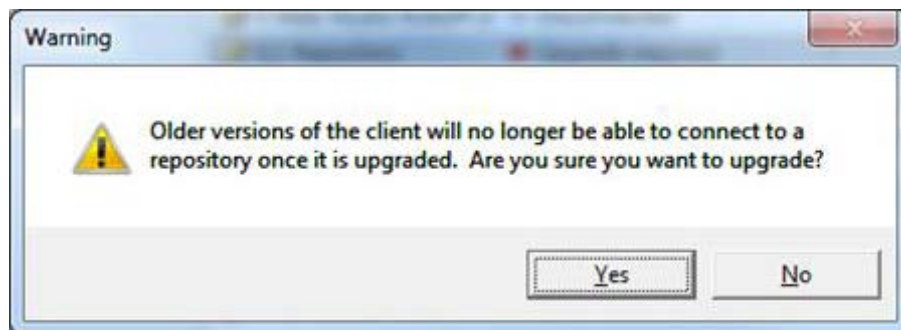
Once the upgrade process finishes running, a confirmation notifies you that the upgrade completed successfully.
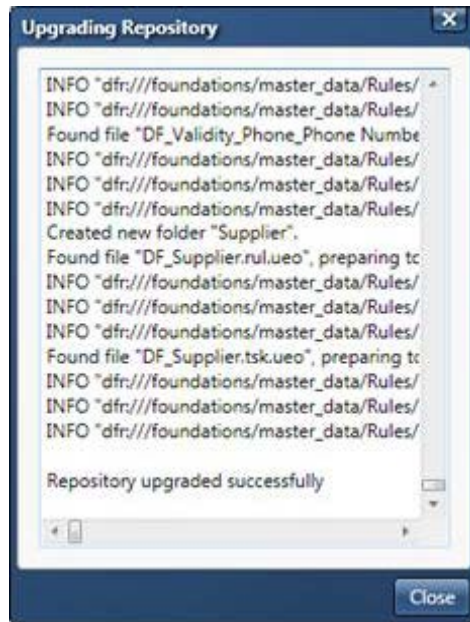
When the upgrade is done, connect to the repository. The Connected label appears when you are connected to the repository.

Also, the Folders riser now displays the contents.
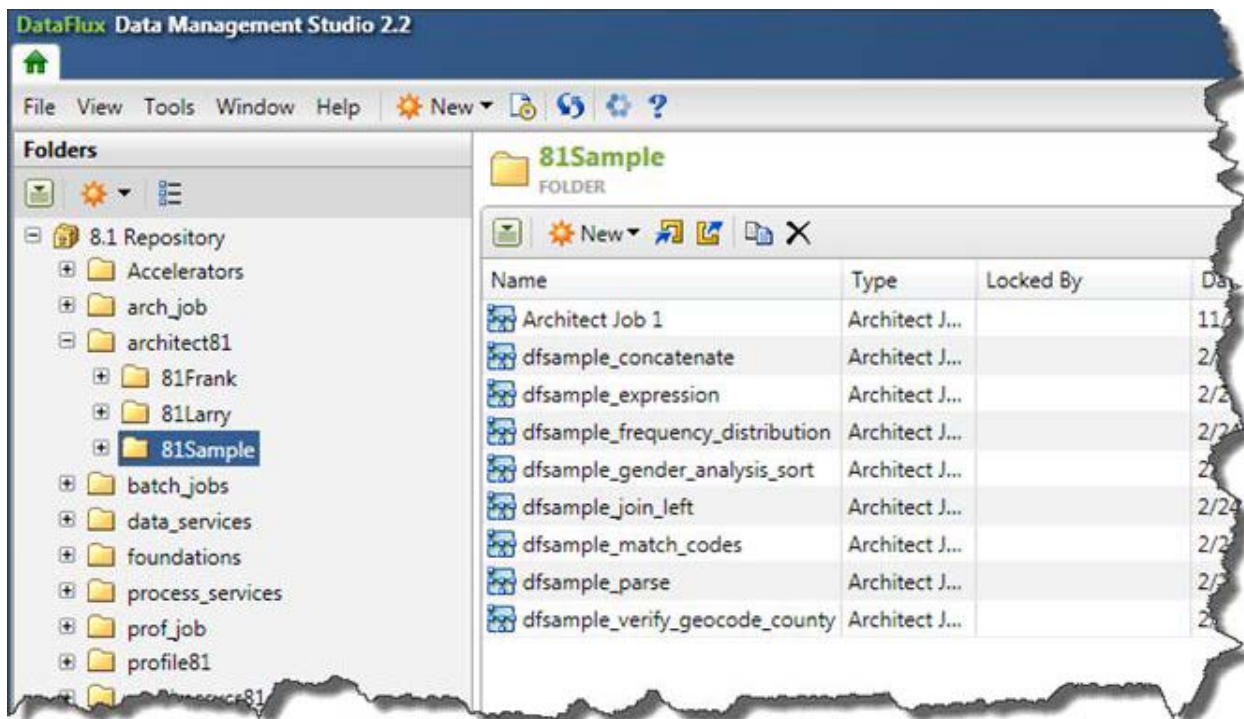
Once the jobs are moved over, you need to upgrade them so that they can be edited or run in DataFlux Data Management Studio.

You should be able to bring up the Business Rule Manager and confirm that all the DataFlux dfPower Studio Tasks, Rules, and other objects are available in the DataFlux repository. It should be noted that you will see many more Rules and Tasks after the upgrade. These Rules and Tasks are associated with the DataFlux Master Data Management Foundations feature in DataFlux Data Management Studio. For more information about this feature, refer to the DataFlux Data Management Studio online Help.

Migrate a Management Resource with No dfPower Repository

This topic is appropriate when you want to migrate a Management Resource that does not refer to rules and tasks in a DataFlux dfPower Studio repository, as described in Migration Scenario: No dfPower Repository, One or More Management Resources.

In general, you create an empty folder structure such as the structure described in General Planning for Repositories. Creating such a structure ensures that you have the standard folders for deployable jobs. When you run the New Repository Definition wizard, specify the location of an empty folder where the new DataFlux Data Management Studio repository should be added. You would also specify the location of an empty set of folders. Later, copy Architect jobs into these folders.

Complete the following steps:

1. Create an empty folder structure to hold the new DataFlux Data Management Studio repository and related assets, as described in General Planning for Repositories.

2. Run DataFlux Data Management Studio.

3. Click the **Administration** riser bar. Then select the Repository Definitions folder in the Administration tree. The Repository Definitions pane is displayed on the right.

4. In the Repository Definitions pane, click **New** to create the new repository. The **New Repository Definition** dialog box appears.

5. Enter the name of your repository in the **Name** field.

6. In the Data storage section of the dialog box, specify a new Database file for the DataFlux Data Management Studio repository that you want to create. For example, you could specify a path such as C:\New_Repos_C\Repository\Repository_New.rps.

   Note: Do not create a repository database file (.RPS) in the file storage location that you specify in the next step. This practice prevents manipulating the file through DataFlux Data Management Studio, and it triggers unneeded update events in the file storage area every time the database file is updated.

7. In the File storage section of the dialog box, specify an appropriate, empty folder from Step 1. For example, you could specify a path such a C:\New_Repos_C\File_Storage. (Later, copy unconverted dfPower Architect jobs to this area and save the converted copies of these jobs to the same area.)

8. Click **OK** to save the new repository. You receive a message that asks whether you want to create a new repository.

9. Click **Yes**. The repository is created.

10. Verify that the new repository is working properly by browsing its contents. See [Browsing the Results After Migration](#).

11. Copy the relevant Architect jobs from one or more Management Resources to an appropriate folder in the file storage area of the new repository.

Post-Migration Tasks for Repositories

Browsing the Results after Migration

The following steps demonstrate one way to browse a migrated repository in DataFlux Data Management Studio. For this section, you are in DataFlux Data Management Studio and are connected to the migrated repository.

1. To explore the contents of the migrated repository, click the **Folders** riser.

2. Select the new repository in the Folders tree.

3. Toggle between the two main views in the Folders tree by selecting and deselecting the **Group Items by Type** control at the top of the tree.

   When the **Group Items by Type** control is not selected, items are grouped into user-defined folders, as shown in the next image.

The migration process creates some user-defined folders automatically, based on any subfolders in the File storage area. Most of the folders in the display were created based on the folder structure that is described in General Planning for Repositories. These folders are empty at this point because only the items that were in the DataFlux dfPower Studio repository (metadata database) have been migrated, not the file-based items, such as Architect jobs, that are stored in any DataFlux dfPower Studio Management Resource.

The Shared Data folder is different. It is automatically created for a migrated dfPower repository. It displays any business rules or tasks that were defined in the dfPower repository. These items are stored in the Data storage area (metadata database area) of the migrated repository, but references to these items are displayed in the Shared Data folder for convenience.

4. When the **Group Items by Type** control is selected, items are grouped into system-defined folders that are named after general types, such as Architect Jobs, Business Rules, as shown here.

5. With **Group Items by Type** control selected, expand the migrated repository and expand the folders for each type of object. Most of these folders are empty because we have migrated only the items that were in the dfPower repository (metadata database), not the file-based items, such as Architect jobs, that are stored in any DataFlux dfPower Studio Management Resource.

The Business Rules folder contains Business Rules that have been converted to DataFlux Data Management Studio format and are often ready to use. Similarly, the Tasks folder contains any Monitor Tasks (tasks created in the Business Rule Manager) that have been converted and are ready to use. For more information, see Business Rules, Tasks, and Related Items.

Miscellaneous Post-Migration Tasks

Delete Any Data Explorations Migrated from DataFlux dfPower Studio

The migration software moves DataFlux dfPower Studio Data Explorations into the Folders tree in DataFlux Data Management Studio. You cannot use these items in DataFlux Data Management Studio, however, so you can delete them. To delete these items after migration, click the Folders riser in DataFlux Data Management Studio. Then click the **Group Items by Type** icon at the top of the Folders tree so that items are grouped in folders with type names, such as Architect Jobs, Business Rules, and so on, Select the folder for Data Explorations. A list of Data Explorations is displayed on the right. Select all of the Data Explorations that you want to delete, and then click the X icon in the toolbar.

Architect Jobs

As part of the migration, you also need to migrate your Architect jobs to either a Data job or a Process job. See the Post-Migration Tasks for Architect Jobs for any additional tasks.

Migrate to a Data Job or a Process Job?

Use the upgrade job wizards to convert an Architect job to a Process job or a Data job, as permitted by the wizards. The wizards evaluate the following conditions:

- Architect job with a single page that does not have an **External Data Provider** node in the job flow - You can select **Upgrade as a Data Job** or **Upgrade as a Process Job**. You might want to select **Upgrade as a Data Job** until you become familiar with Process jobs.

- Architect job with a single page that has an **External Data Provider** node in the job flow - Select **Upgrade as a Data Job**. If you want to use the Data Provider job in multiple jobs, then it is preferable to convert it to a Data job. This enables you to link to it from many Process jobs and maintain only one copy of the Data Provider job that is used in multiple Process jobs.

- Architect job with multiple pages - Select **Upgrade as a Process Job**. If you choose **Upgrade as a Data Job**, you will get an error.

Using the **Folders** riser, you are able to select and upgrade the jobs. You can do this in batch or one at a time. Refer to Architect Jobs for additional. This provides some guidance in the planning and decisions that need to be made when converting Architect jobs.

Select the jobs that need to be converted, right-click, and select **Upgrade As Data Job**.
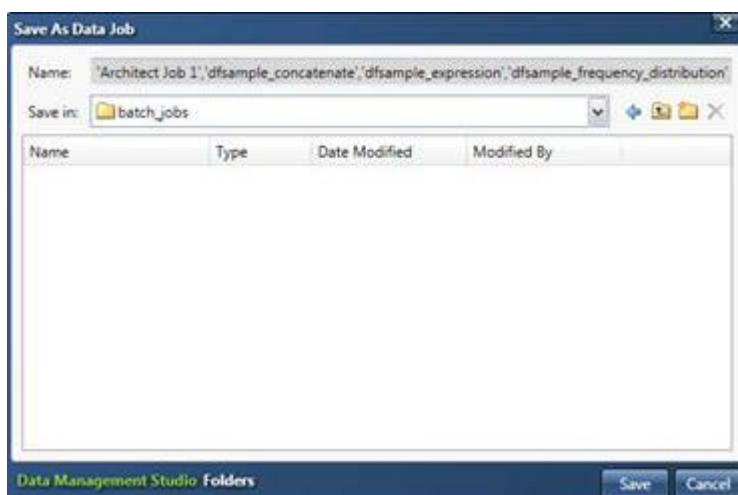
> *Note:* If you have Architect jobs that contain multiple pages, they can be upgraded only as Process jobs.
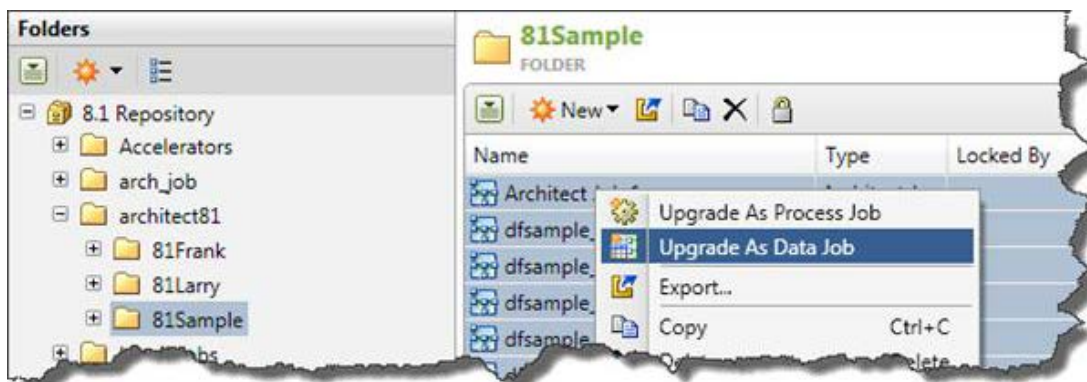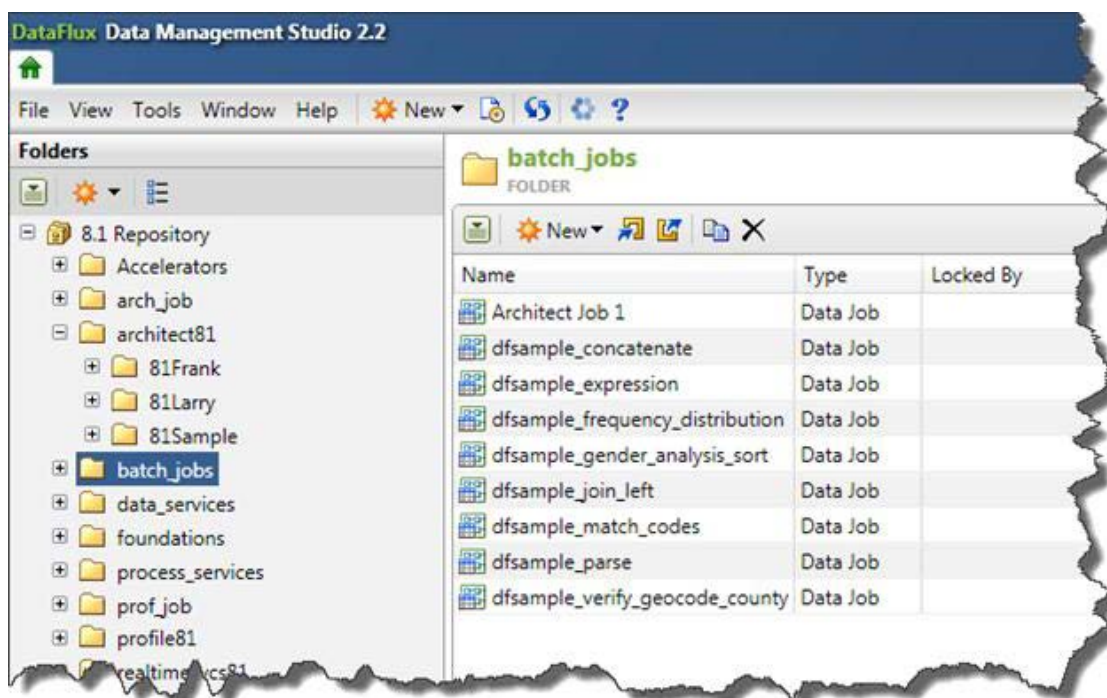

The **Save As Data Job** dialog box appears:
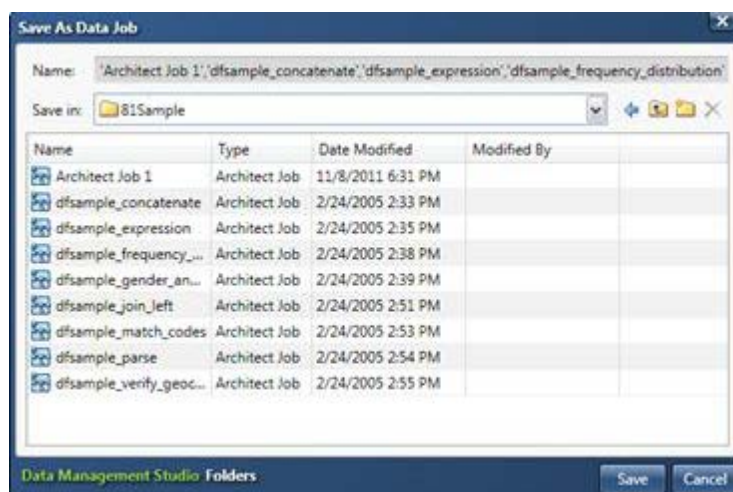
Change the **Save in** directory to the new directory where they need to be saved.

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Click **Save**. Once the upgrade process is complete, you can see the upgraded jobs in the batch_jobs folder.

Repeat this process for all Architect jobs.

Best Practice:

- Move Architect jobs that are run in batch into the batch_jobs folder

- Move Architect jobs that are run as real-time services into the data_services folder

> *Note:* Any folder hierarchy can be put in place under batch_jobs and data_services. If you do not store these types of jobs in folders, you can have issues later.
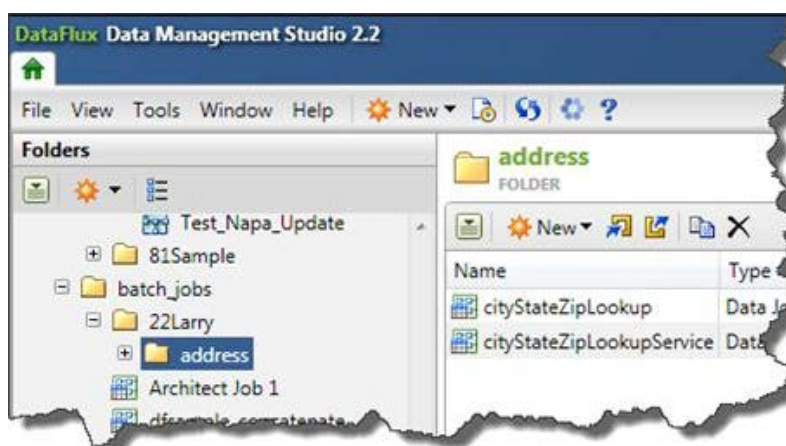
Architect Jobs That Pass Macro Variable Values Dynamically between Pages in the Job

This topic is appropriate under the following conditions:

- You had a multi-page Architect job that used the setvar() and getvar() functions to dynamically pass macro variable values between pages in the job.

- You converted this Architect job to a DataFlux Data Management Studio Process job.

A multi-page Architect job can use the setvar() and getvar() functions to dynamically pass macro variable values between pages in the job. A DataFlux Data Management Studio process job can use input and output variables to do something similar. The two methods are different enough, however, that some manual updates are required when you migrate a multi-page Architect job that dynamically passes values between pages in the job. Without these updates, the new Process job does not produce the correct output.

In order to perform these updates, you must understand how the setvar() and getvar() functions were used in the original Architect job. Then you must re-create the same functionality, using input and output variables. This task is easier if you understand how input and output variables are used in Process jobs, as described in the **Process Jobs** section of the latest version of DataFlux Data Management Studio online Help, under **Create a Process Job**.

Understanding an Architect Job That Passes Macro Variable Values Dynamically

For the current example, assume that the original Architect job is similar to the Add_New_records_macro job shown here:
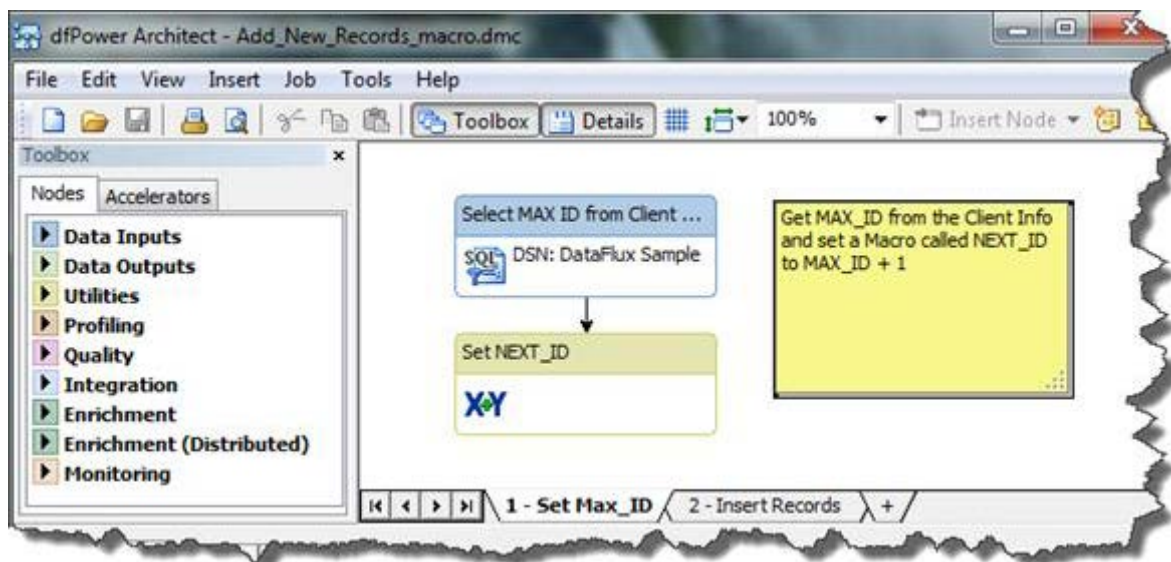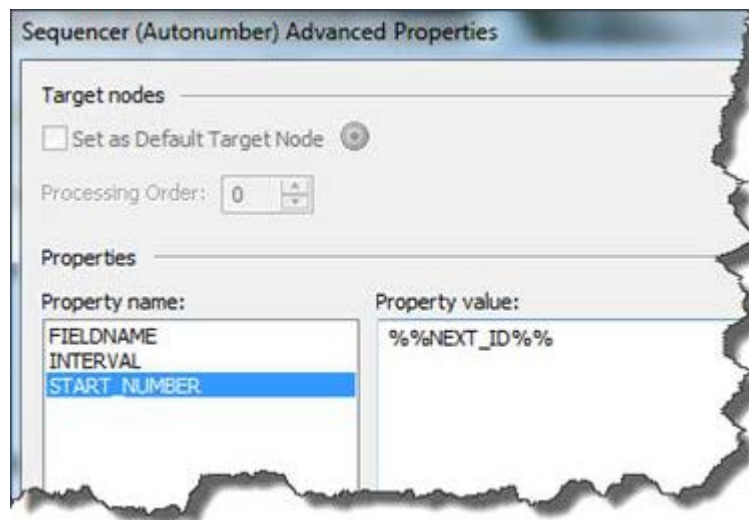

Notice that the job has two pages: Set Max_ID and Insert Records.

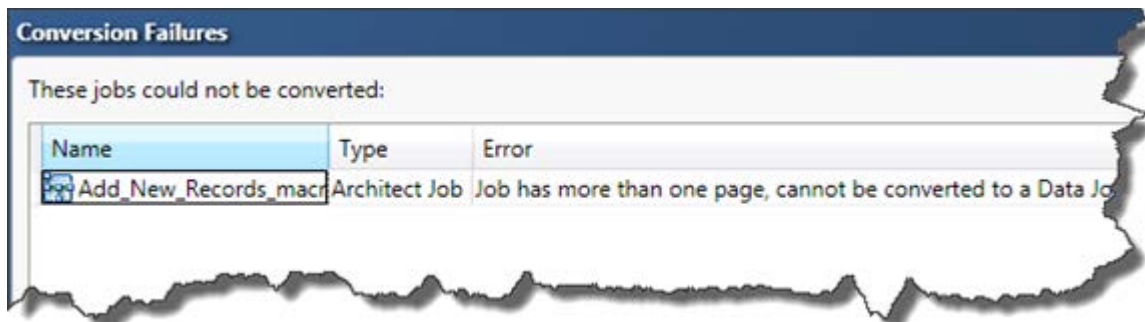On the Set Max_ID page, the flow increments a macro variable NEXT_ID in the **Expression** node:

```
hidden integer x
x = MAX_ID + 1
setvar("NEXT_ID", x)
```

On the Insert Records page, the NEXT_ID macro is used in **Sequencer** node by setting the start number = %%NEXT_ID%%. Here are the **Advanced Properties** of the **Sequencer** node:

When this job is converted, it is converted as a Process job. If an attempt is made to convert the job as a Data job, the following error appears:
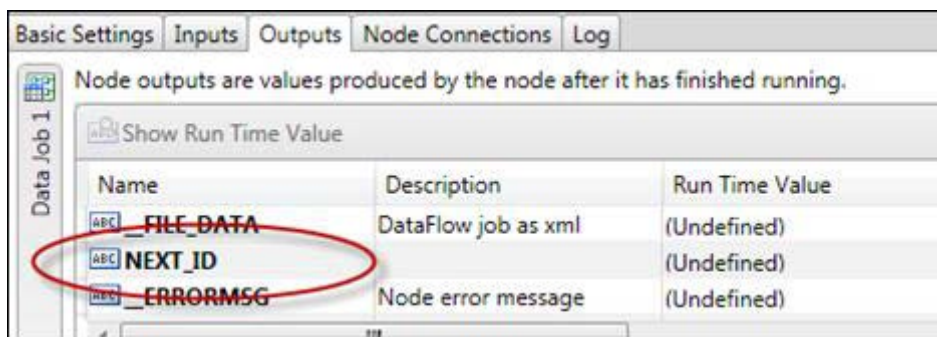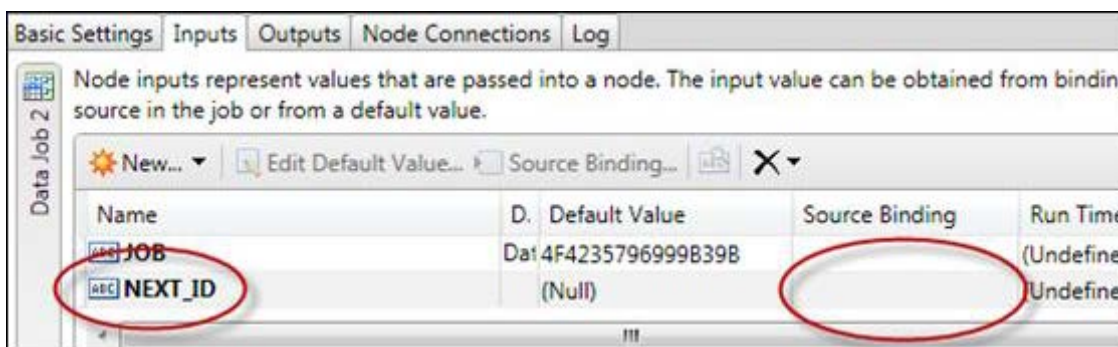
Once the Architect job is converted to a Process job, the jobs need to be updated to handle the macros correctly. In the process job, add the NEXT_ID as both an input and an output variable to the data jobs that are in the process job.

If you look at the job in DataFlux Data Management Studio, the following Output and Input values are defined. First, the Outputs for the Data job now represent the **Set MAX_ID** page:
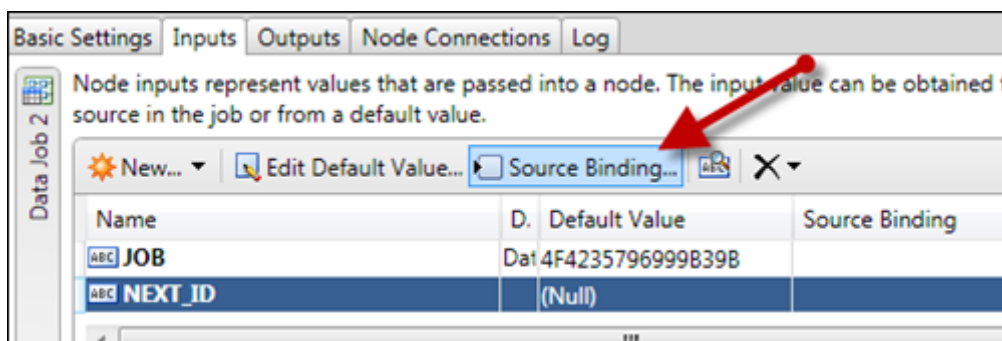
Plus the Inputs of the Data job that represent the **Insert Records** page:

For the inputs, you must also bind this input variable to the output variable of the first node.

1. Select the input variable that you created.

2. Click **Source Binding**, above the Default Value column for the selected variable. The **Source Binding** dialog box appears.

3. In the **Source Binding** dialog box, select the output variable that should populate the input variable that you just defined. For this example, this is the **NEXT_ID** variable for the **Data Job 1** node.

4. Click **OK** to save the selected binding. The binding appears in the Source Binding column for the variable.

5. Save your changes. You can click the disk icon in the toolbar or select **File** > **Save Process Job**.

   At this point, you have created input and output variables that perform the same function as the setvar() and getvar() functions did in the Architect job. Next, run the job and verify the output.

6. Click the first tab in the flow navigation bar in the process editor dialog box to go back to the main flow for the Process job. This is the tab with the name of the job (such as **Add_New_Records_macro**).

7. Run the entire Process job. You can click the **Run Process Job** icon in the toolbar, or select **Actions** > **Run Process Job** from the main menu.

8. Verify that the output is what you expect.

Post-Migration Tasks for Architect Jobs

After migration is complete, perform these additional tasks if necessary:

- [Inspect Architect Jobs After Migration](#)

- [Architect Jobs That Use Macro Variables](#)

- [Architect Jobs That Contain a Merge File Output Node](#)

- [Architect Jobs That Contain a Match Report Node](#)

- [Architect Jobs That Contain Deprecated Nodes](#)

Inspect Architect Jobs after Migration

After you convert an Architect job to a DataFlux Data Management Studio job, perform the following steps to verify that the job is working properly. You need a basic understanding of DataFlux Data Management Studio jobs, as described in the **Data Jobs** and **Process Jobs** sections of the latest version of DataFlux Data Management Studio online Help.

1. Right-click the job in the Folders tree and select **Open**. The job is opened in a job editor.

2. If appropriate, try to run the job to see whether it works as it did before migration. Select **Actions** > **Run Data Job** or **Run Process Job** from the main menu.

3. The output, status messages, log, and other indicators tell you whether the job ran properly and enables you to troubleshoot any errors.

Architect Jobs That Use Macro Variables

You might need to updates some DataFlux dfPower Studio macro variables to make them work in DataFlux Data Management Studio Data jobs or Process jobs. General updates for macros are described in Macro Variables.

Macro Variables and Embedded Jobs

Architect jobs with **Embedded Job** nodes are converted to Data jobs with **Data Job (reference)** nodes, as shown here:
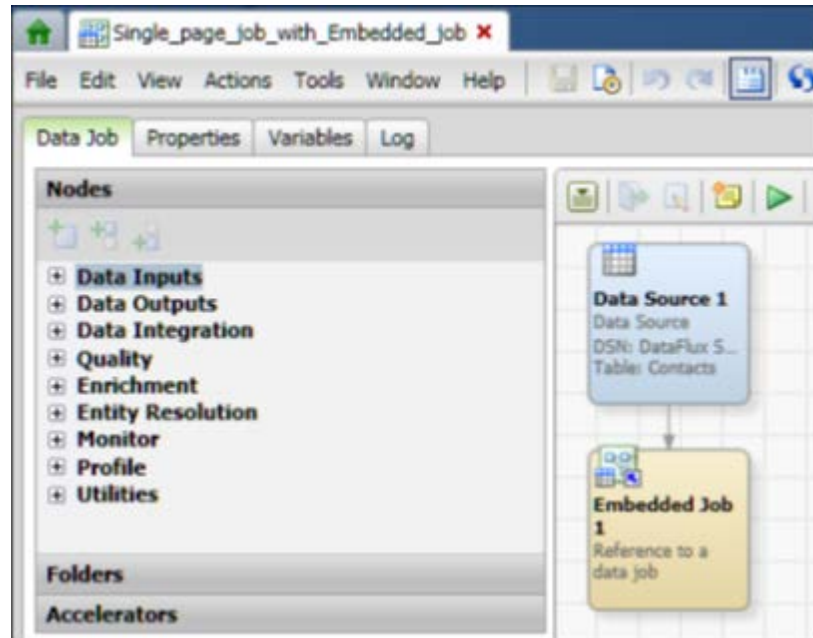
In this image, Embedded Job 1 is a **Data Job (reference)** node. To pass macro variable values down to the embedded job, right-click the **Data Job (reference)** node and select **Advanced Properties**. Then specify the macro variable in the KEY_VALUES property.

To get macro variable values out of the embedded job, right-click the **Data Job (reference)** node and select **Advanced Properties**. Then specify the macro variable in the OUT_KEY_VALUES property.

Architect Jobs That Contain a Merge File Output Node

When you migrate a job that contains the **dfPower Merge File Output** node, the **Merge File** node is upgraded to an **Entity Resolution File Output** node. After migration, perform these steps to ensure that the job works properly:

1. In the Folders tree, right-click the DataFlux Data Management Studio job that contains the **Entity Resolution File Output** node and select **Open**. The job opens in an editing window.

2. In the job flow, right-click the **Entity Resolution File Output** node and select **Edit**. The properties dialog box for the node displays.

3. Inspect the path in the **Output file** field, as shown here:
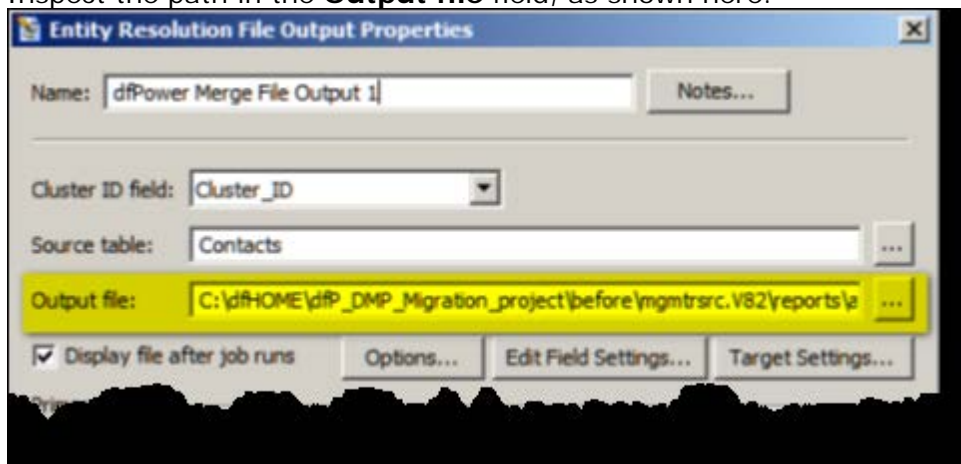
4. Verify that the file that is specified in the **Output File** field has a path within the File storage area of the current repository. Otherwise, you cannot select and view the entity resolution output file in the Folders tree. Use the file selection control to specify a new path within the File storage area, if needed. For example, you might specify a path such as the following:
    C:\dfMigrate\MANAGEMENT_RESOURCE\reports\entity_resolution\dfPower_Merge_File
    _Output_node.sri

5. Verify that the file that is specified in the **Output File** field has a .SRI extension. If the file does not have a .SRI extension, the extension is automatically changed when you click **OK** to save your changes.

    The **Entity Resolution File Output** node has a new output file format and a new file extension, the .SRI file extension. The entity resolution viewer displays only output with the .SRI extension. However, the migration software does not automatically update the old extension to .SRI. Accordingly, you must update the extension as described in this step or otherwise update the extension.

6. Click **OK** to save your changes.

7. Test the job by running it and viewing the entity resolution output file.

Architect Jobs That Contain a Match Report Node

A job that contains a **Match Report** node can be migrated like other Architect jobs. To view Match Report output in DataFlux Data Management Studio, select **Tools** > **Match Report Viewer**, and then navigate to the Match Report output file (MDF file).

Architect Jobs That Contain Deprecated Nodes

The following DataFlux dfPower Studio nodes have been deprecated in DataFlux Data Management Studio. They should be deleted and replaced as described below.

- **COM Plugin**

  Replace this node with the new Java™ Plugin node.

- **SAS Data Set Source**

  To replace this node, define a SAS data set connection in the Data Connections riser, and then use the Data Source node to point to the SAS data sets in that connection.

- **SAS Data Set Target (insert)**

  To replace this node, define a SAS data set connection in the Data Connections riser, and then use the **Data Target (Insert)** node to point to the SAS data sets in that connection.

- **SAS SQL Query**

  To replace this node, define a SAS data set connection in the Data Connections riser, and then use the **SQL Query** node to specify a query against a SAS data set.

Profile Jobs

Use a wizard to copy DataFlux dfPower Studio profile jobs and convert those copies to DataFlux Data Management Studio profiles. If the current repository was migrated from DataFlux dfPower Studio, and profile reports were saved to the DataFlux dfPower Studio repository before migration, then these reports are listed in the Linked report section of the wizard, as shown here:
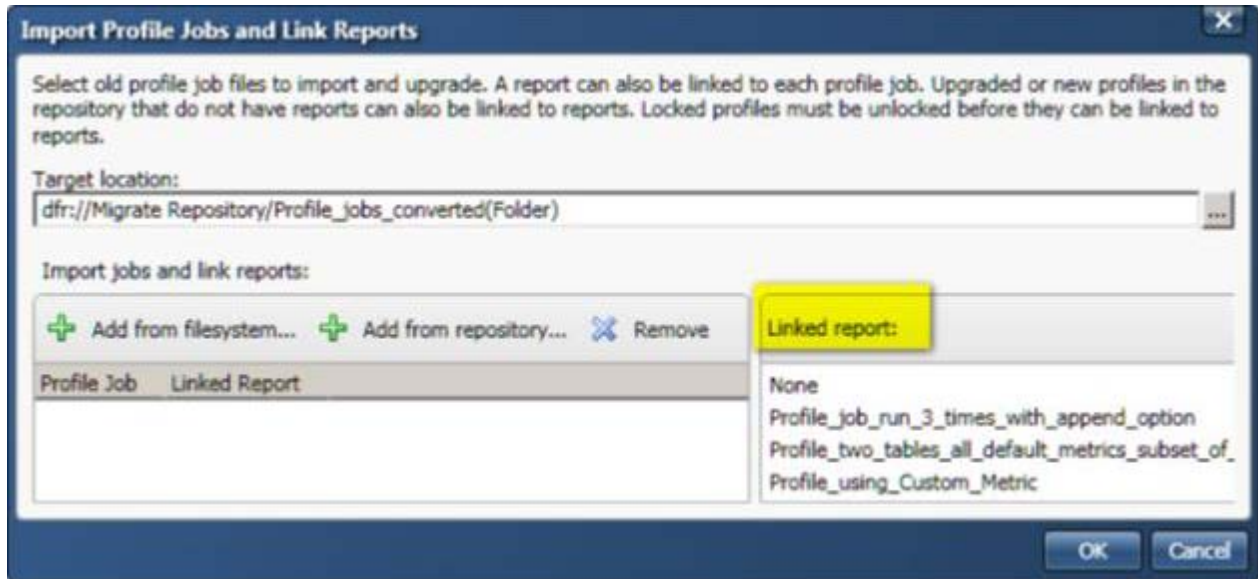
If you do not see any reports in the Linked report section, verify that you are connected to the correct repository. If you are connected to the correct repository, but you still do not see any reports, then you cannot include the dfPower Studio reports in the conversion. You need to re-create the reports as described in the **Profiles** section in the latest version of the DataFlux Data Management Studio online Help.

Perform the following tasks as appropriate:

- Convert DataFlux dfPower Profile Jobs to DataFlux Data Management Studio Profiles

- Associate DataFlux Data Management Studio Profiles with DataFlux dfPower Studio Reports

- Unlink a DataFlux dfPower Studio Report from a DataFlux Data Management Studio Profile

Convert DataFlux dfPower Studio Profile Jobs to DataFlux Data Management Studio Profiles

This topic is appropriate when you want to convert DataFlux dfPower Studio Profile jobs to DataFlux Data Management Studio profiles. Assume that you have identified a user-defined folder where you will save the DataFlux dfPower Studio Profile jobs after they have been converted, as described in the Overview. If you want to combine DataFlux dfPower Studio Profile jobs with their reports during the conversion, the following conditions must be met:

- The current repository must have been migrated from DataFlux dfPower Studio.

- Profile reports must have been saved to the DataFlux dfPower Studio repository before the repository was migrated.

- You must know the physical path to the profile jobs that correspond to the reports.

This task is easier if you start by locating the user-defined folder where you will save the DataFlux dfPower Studio Profile jobs after they have been converted.
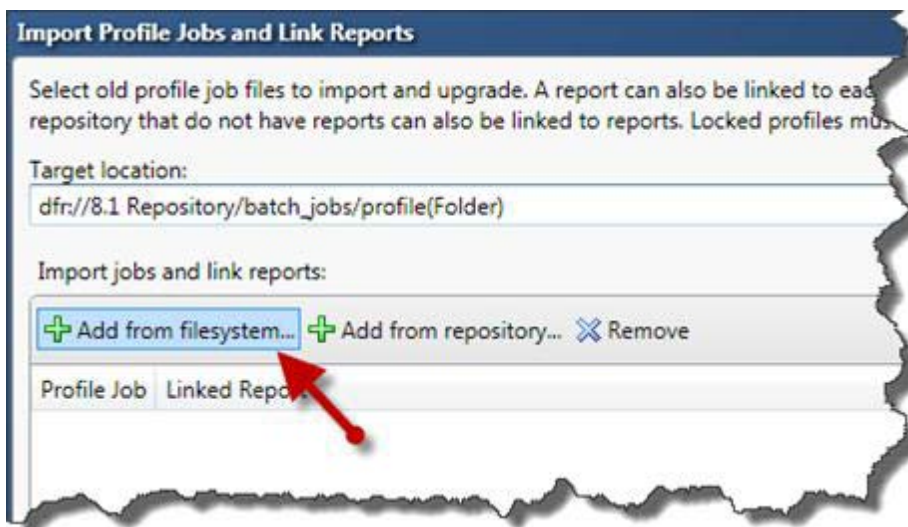
Complete the following steps:

1. Determine where you want to store the file and select the folder in the Folders directory.
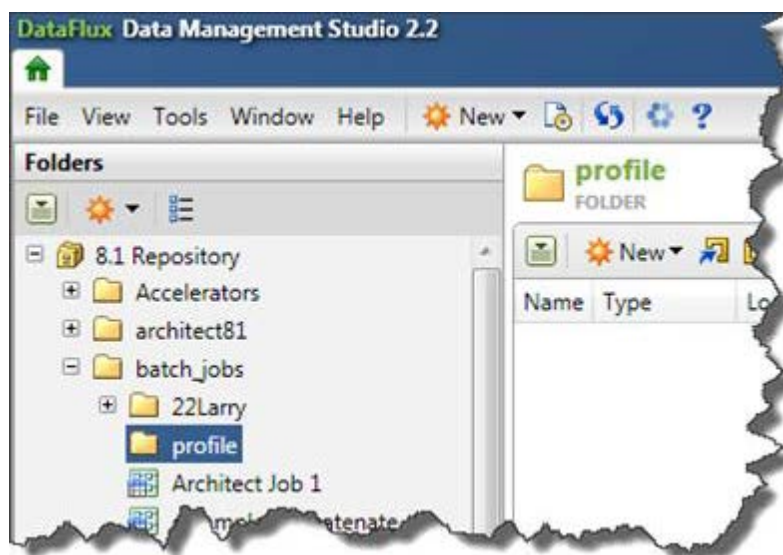
2. Select **Tools** > **Migrate Profile Jobs** > **Import Profile Jobs and Link Reports**.
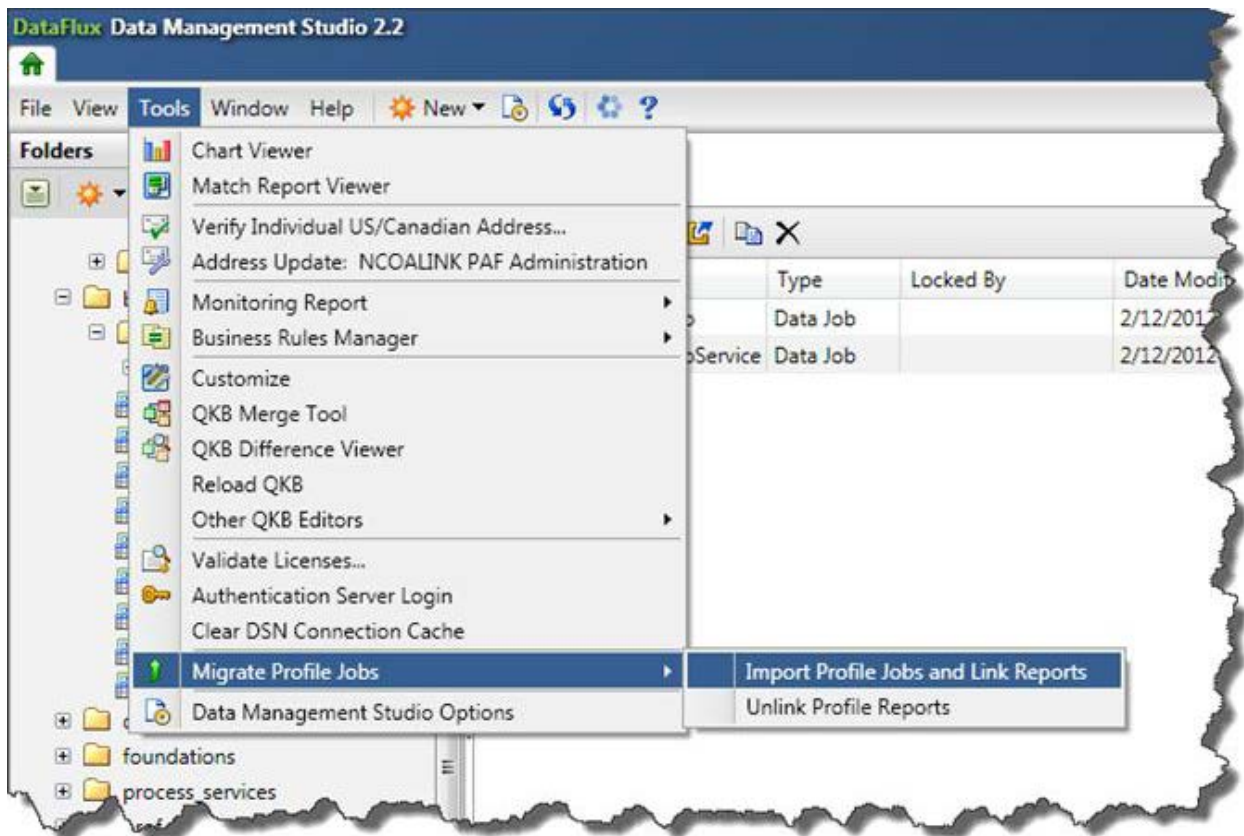
3. In the resulting dialog box, double-check the Target location value. If this is not what is expected, be sure to change it, then click **Add from filesystem**.

4. Navigate to the folder where the Profile jobs that you want to convert are stored. Select one or more of these jobs, and then click **Open**. The jobs populate the Profile Job section of the wizard.
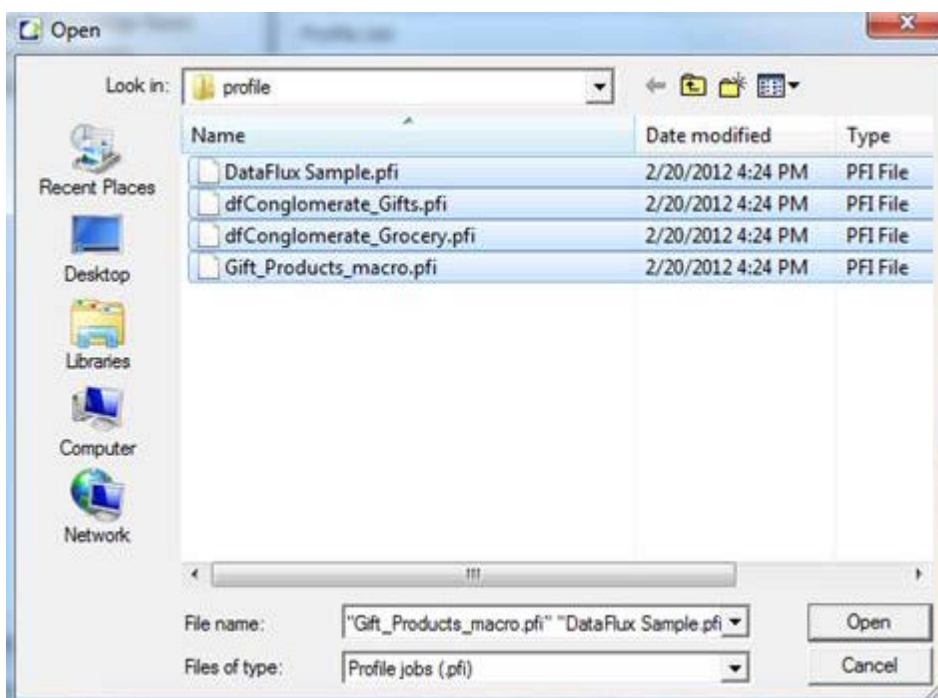

If the current repository was migrated from DataFlux dfPower Studio, and profile reports were saved to that repository, then these reports are listed in the Linked report section of the wizard. The wizard does not display reports that have already been linked to migrated Profile jobs using the wizard. If you have made a mistake while linking the reports and only realized after saving the modifications, then you can select **Tools** > **Migrate Profile Jobs** > **Unlink Profile Reports** to undo these mistakes.

5. When upgrading a dfPower Profile job, you can also link it to any reports that exist in the repository. To link a report to a Profile job, select the Profile job on the left, and then select the corresponding report on the right. The linked report should appear in the Linked Report column for the Profile job, as shown here.
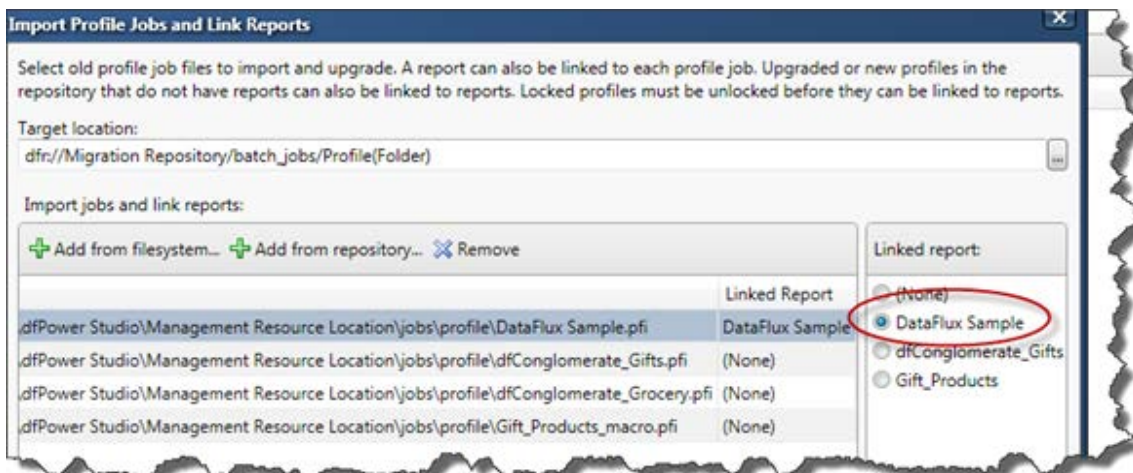
6. Repeat as needed.
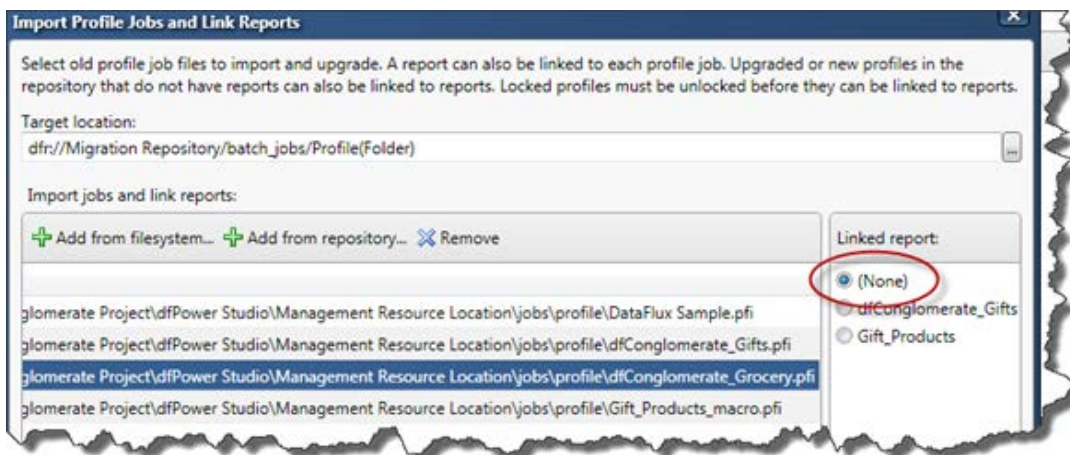
7. When finished, click **OK** to convert the profile jobs that are listed in the wizard. The jobs are saved to the folder defined in the Target location.
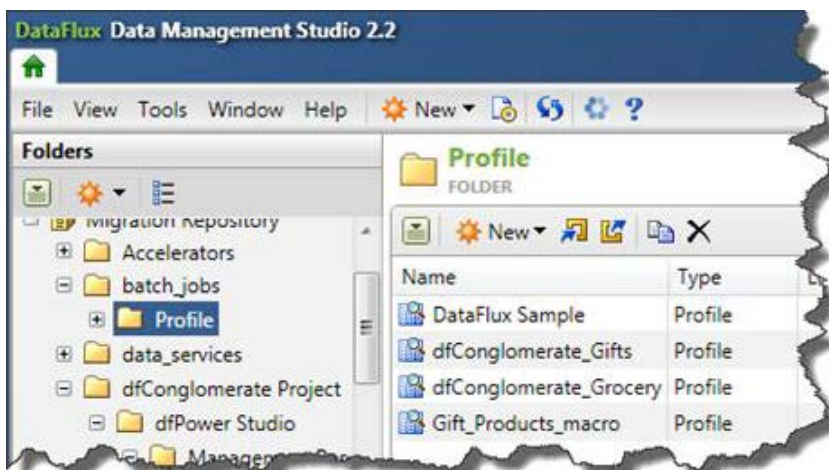
Since the report is linked to the DataFlux Sample Profile job, you can open that job to view the report.

Associate DataFlux Data Management Studio Profiles with DataFlux dfPower Studio Reports
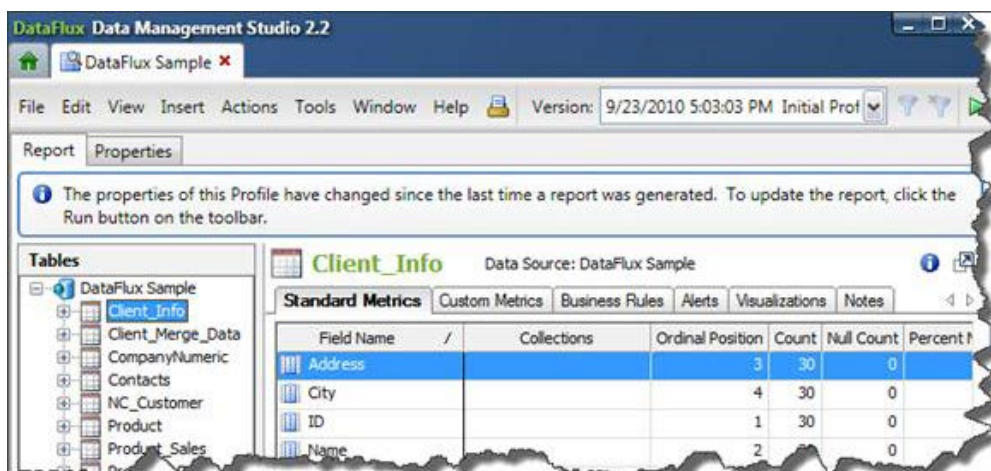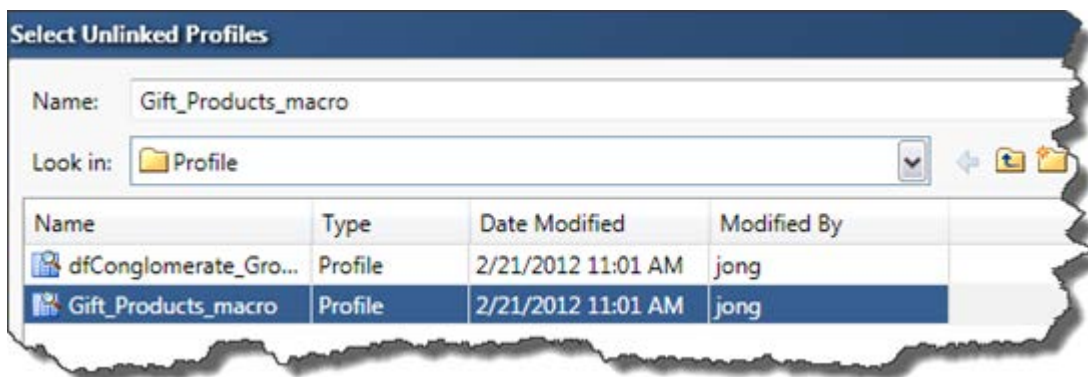
This topic is appropriate when you have already converted DataFlux dfPower Studio Profile jobs to DataFlux Data Management Studio profiles, but when the profile jobs were converted, the appropriate reports were not associated with the Profile jobs. The next step is to associate the reports. Assume that the following DataFlux Data Management Studio conditions have been met:

- The current repository was migrated from DataFlux dfPower Studio.

- Profile reports must have been saved to the DataFlux dfPower Studio repository before the repository was migrated.

- You know which DataFlux Data Management Studio profiles correspond to the DataFlux dfPower Studio reports.

Perform the following steps:

1. While in the Folders riser bar in DataFlux Data Management Studio, navigate to the folder that contains the Profile jobs.

2. Select **Tools** > **Migrate Profile Jobs** > **Import Profile Jobs** and **Link Reports** from the main menu. A wizard opens.

3. Click the **Add from repository** option. The Select Unlinked Profiles dialog box appears.

4. Select one or more of these profiles, and then click **Open**. The selected jobs populate the Profile job section of the wizard.

5. To link a report to a profile, select the profile on the left, and then select the corresponding report on the right. The linked report should appear in the Linked Report column for the profile, as shown here.
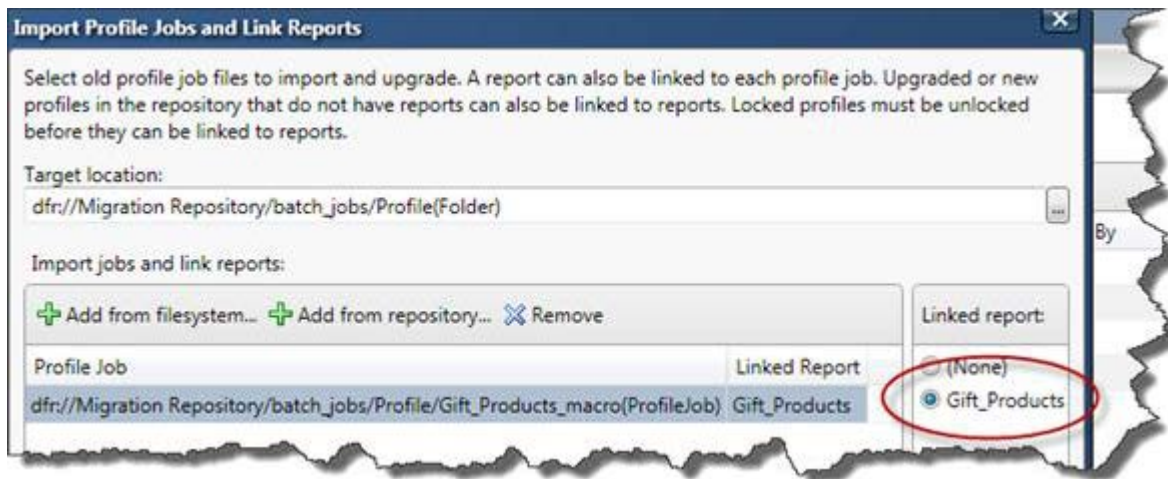
6. Repeat as needed.

7. When finished, click **OK** to link the profile reports and save the profile definitions. The profiles are saved to the user-defined folder selected earlier in this process.

Unlink a DataFlux dfPower Studio Report from a DataFlux Data Management Studio Profile

This topic is appropriate when you have already converted DataFlux dfPower Studio Profile jobs to DataFlux Data Management Studio profiles, and you linked a report to the Profile job in the process, but the link is incorrect. You want to remove the DataFlux dfPower Studio report that is incorrectly associated with a DataFlux Data Management Studio profile.

1. Select **Tools** > **Migrate Profile Jobs** > **Unlink Link Reports** from the main menu. The **Unlink Profile Reports** dialog box appears.
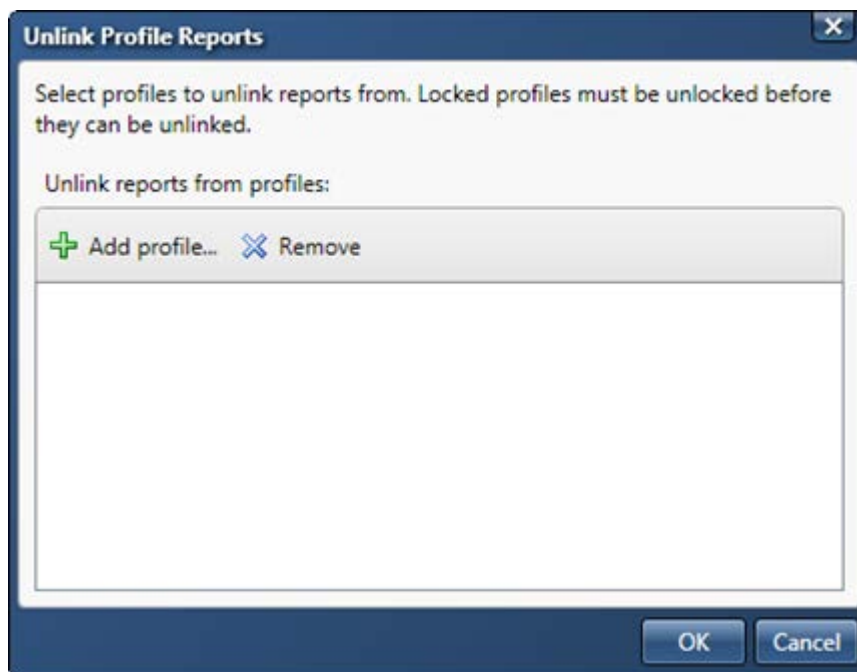
2. Click **Add Profile**. The **Select Profile** dialog box appears.
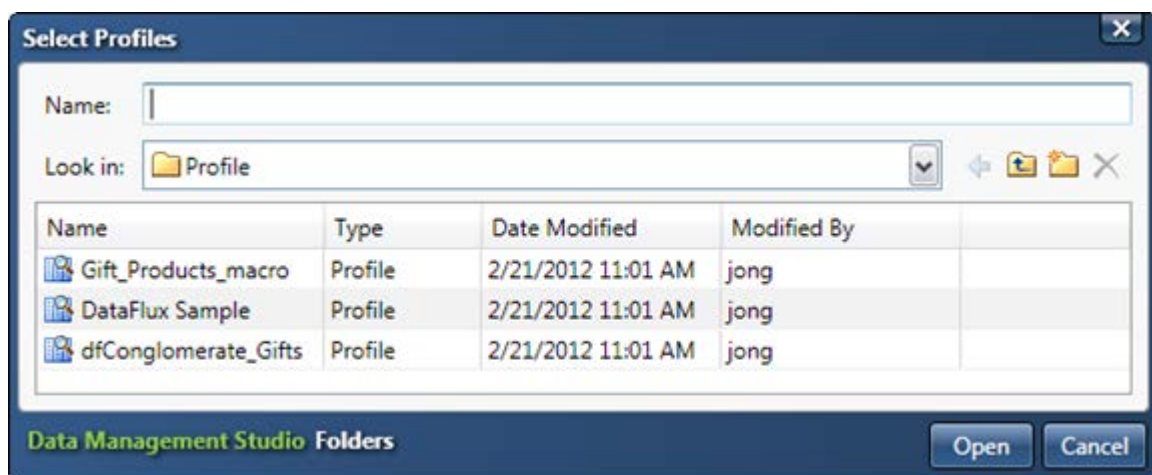
3. Select one or more profiles and click **Open**. The selected profiles are listed in the **Unlink Profile Reports** dialog box.
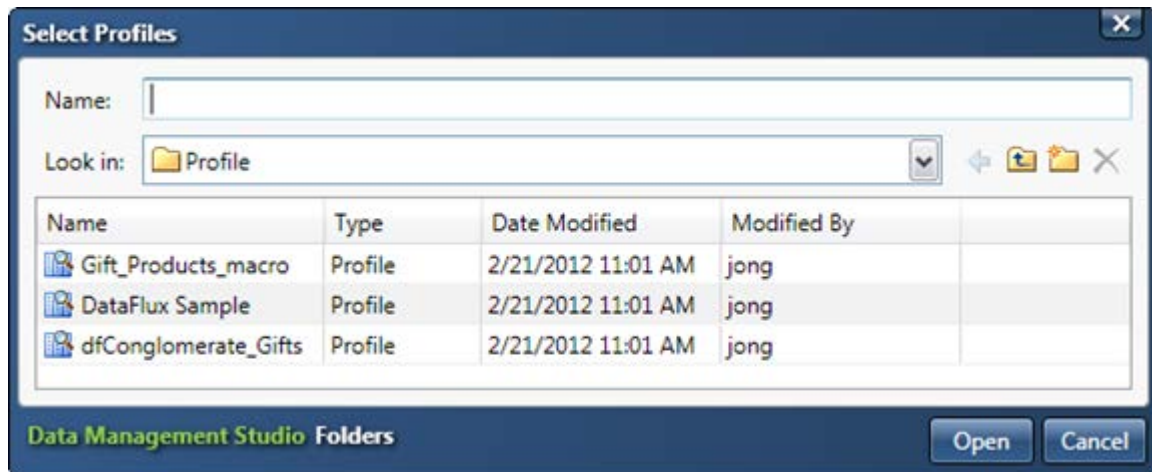
4. Select one or more profiles from which to remove the linked report and click **OK**.

5. The reports are unlinked from the profiles.

Post-Migration Tasks for Profile Jobs

Profile jobs require additional post-migration tasks and might have restrictions based on the file type. For more information, see Other Changes

Profile Jobs That Contain Macro Variables

If DataFlux dfPower Studio Profile jobs were passing macros at time of execution, then several steps are necessary to make these Profile jobs work in the same manner when the jobs are upgraded. For this example, we assume that the Profile job has been upgraded and exists in the DataFlux repository.

Perform the following steps:

1. In DataFlux Data Management Studio, create a Process job and add a **Profile (reference)** node.
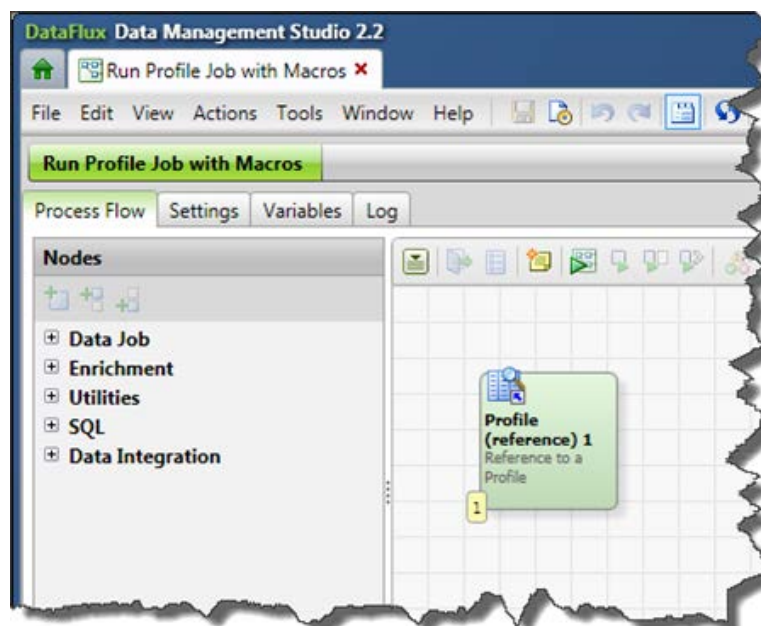
2. Configure the node to point to the Profile job. Use the user interface to navigate to the location. The result should look similar to this:
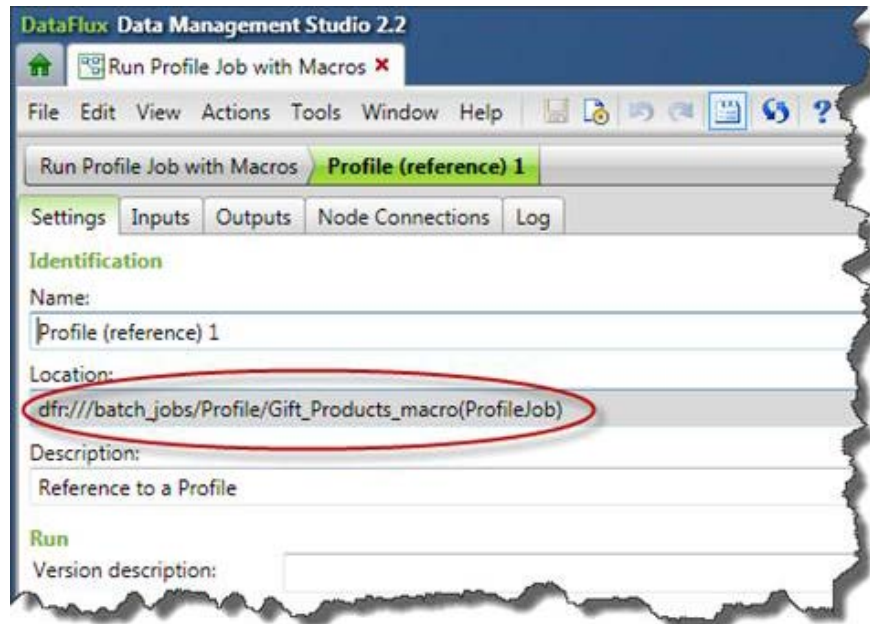
3. Set two input variables called INPUT_PATH and INPUT_FILE. These are needed to accept the macros used by the Profile job.
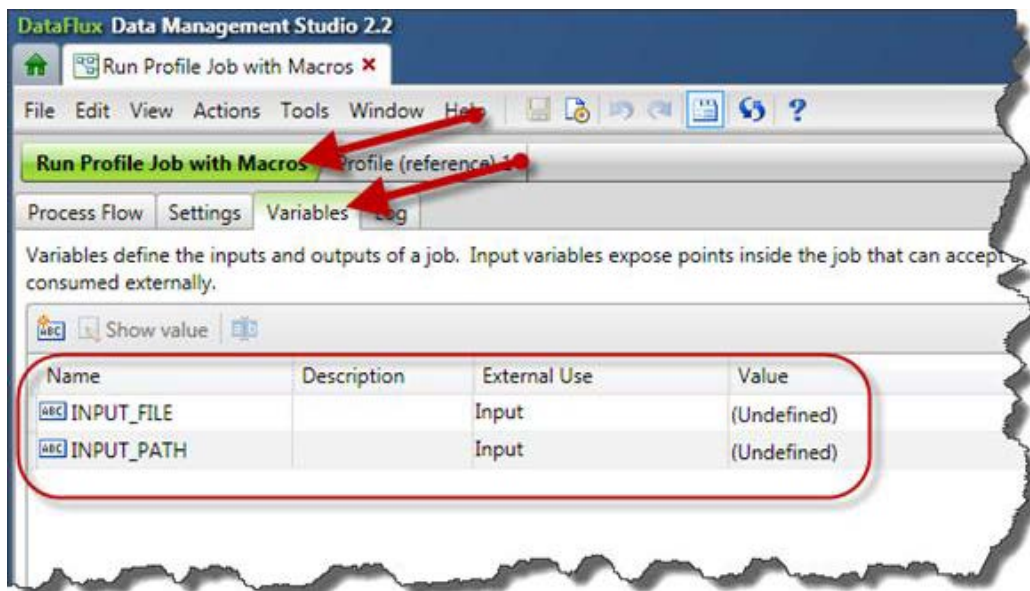
4. Add two input variables to the **Profile Job Reference** node, click on the node and select the **Inputs** tab. Then add the two inputs and bind them to the input variables of the job.
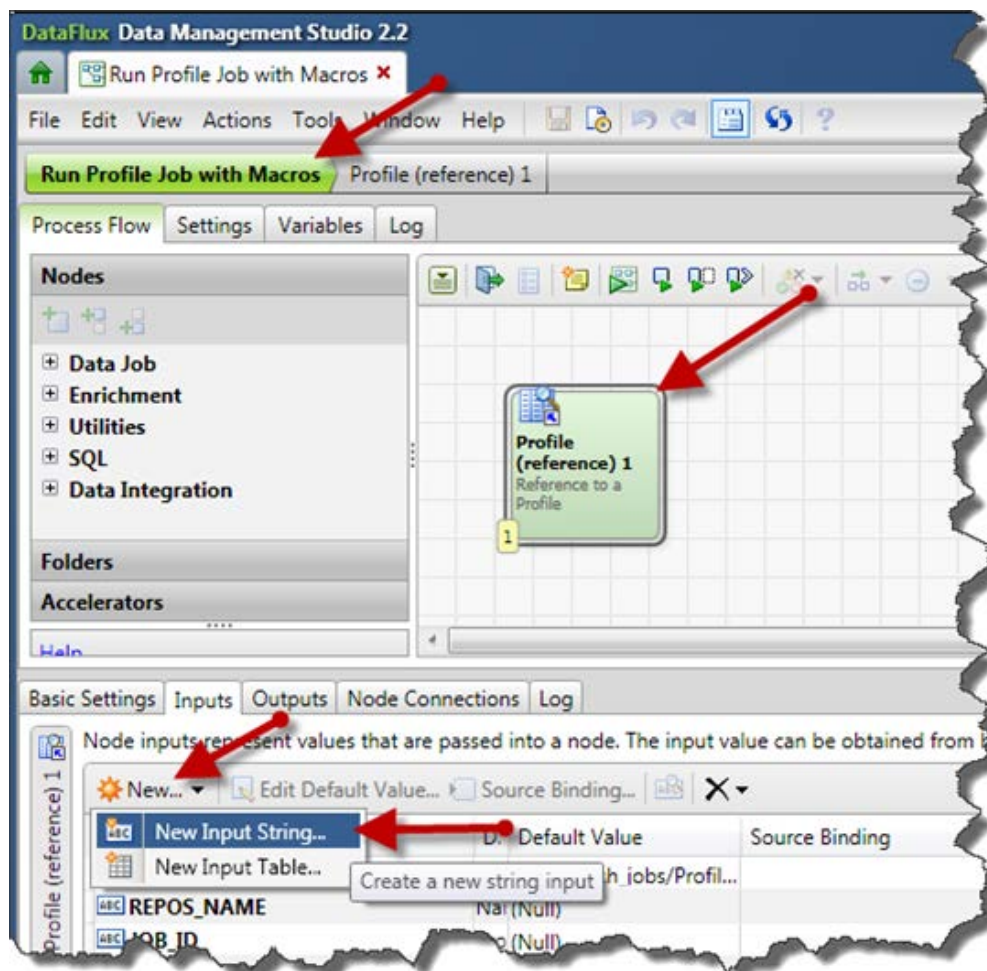
5. Enter in the name of the input.

6. Click **OK**. Now bind the value of the job variable to the input of the **Process** node. Highlight the INPUT_PATH and click **Source Binding**.
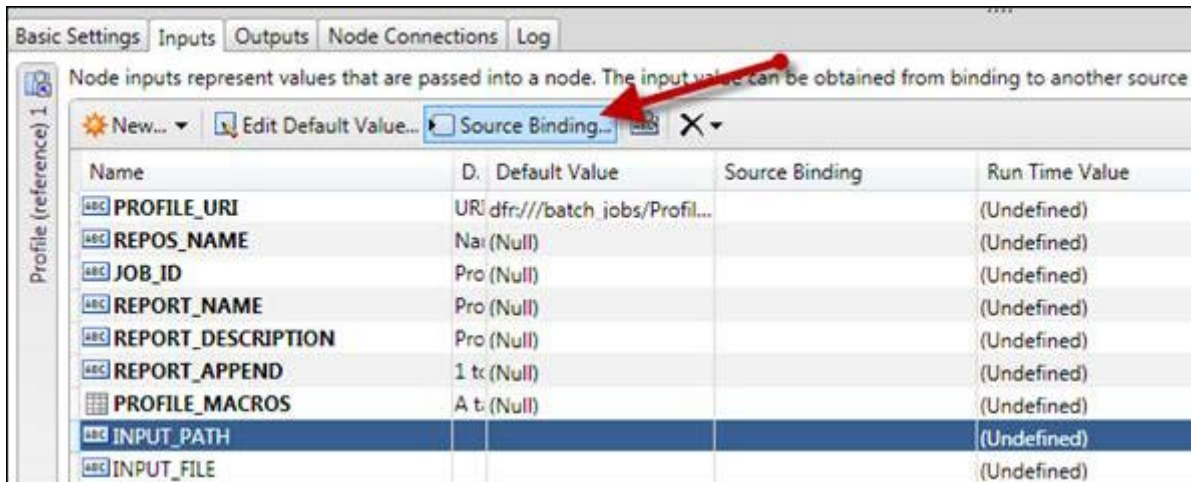
7. Select the job variable INPUT_PATH:
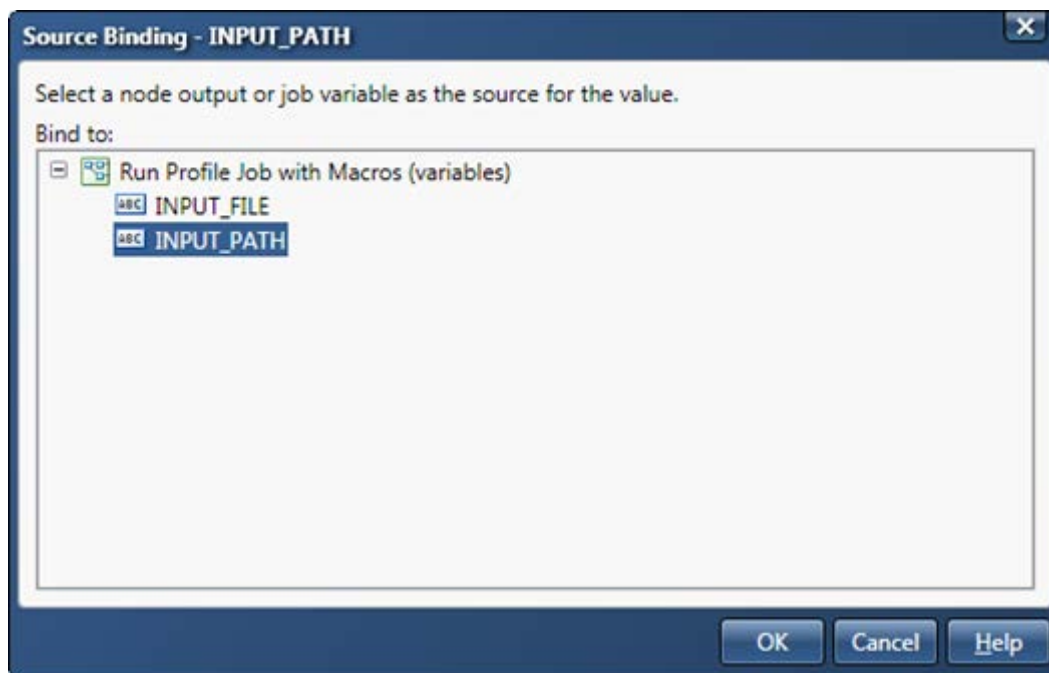
8. Click **OK**.

9. Repeat the steps for INPUT_FILE.

10. Test the migration by copying the Profile job and the Process job to the server. To copy the Profile job, the Server's repository must be registered in DataFlux Data Management Studio, select the Profile job and copy:
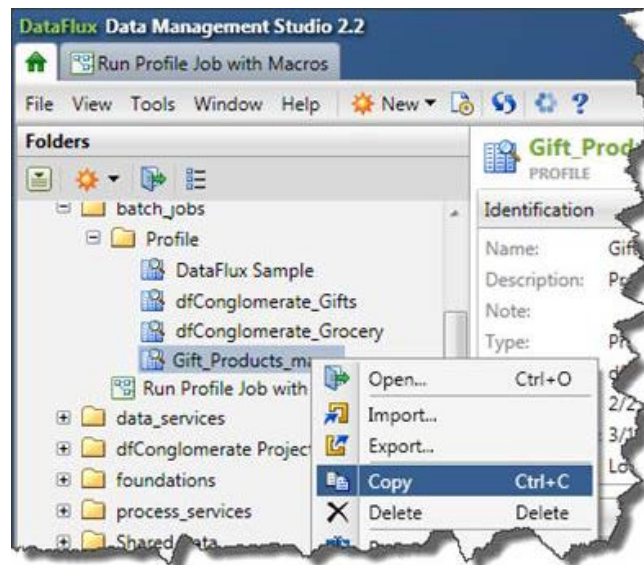
11. Paste the job into the batch_jobs location on the server. Make sure that the job hierarchy is the same as where it was copied. In this case, there is one other folder under the DataFlux Data Management Studio repository batch_jobs called **Profile**. This folder must exist under the server's repository batch_jobs location as well.
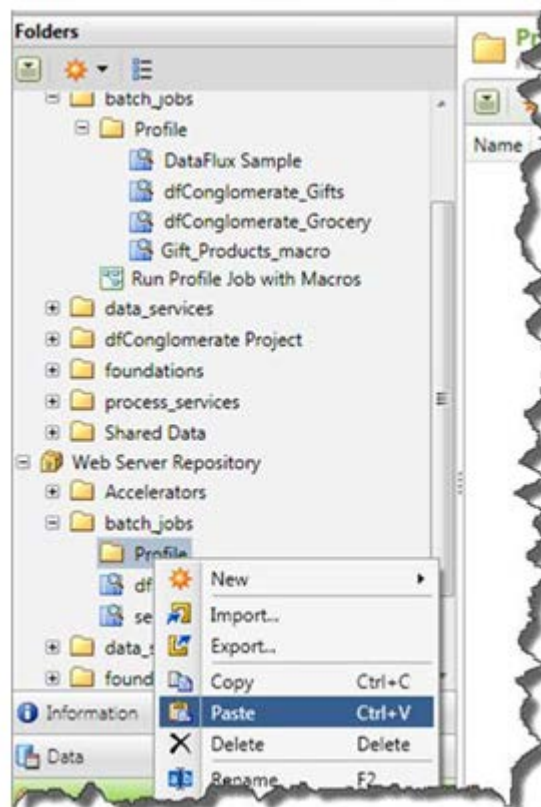
12. Next, move the Process job over. From the Data Management riser bar, select the server to Import the job to.
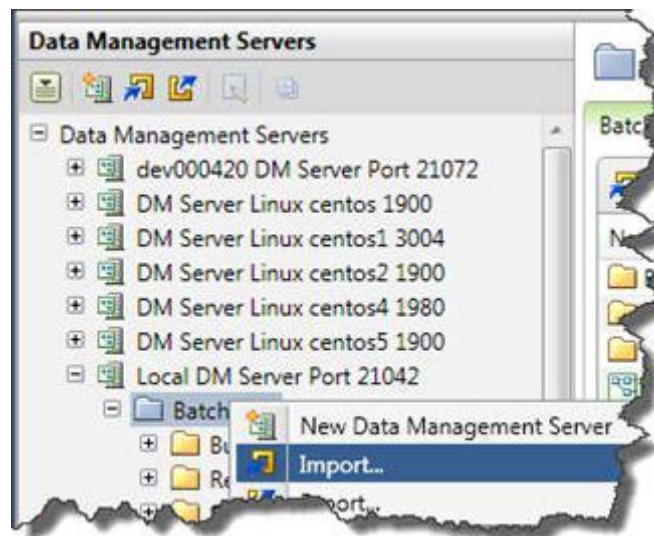
13. Select the job and click **Next**.
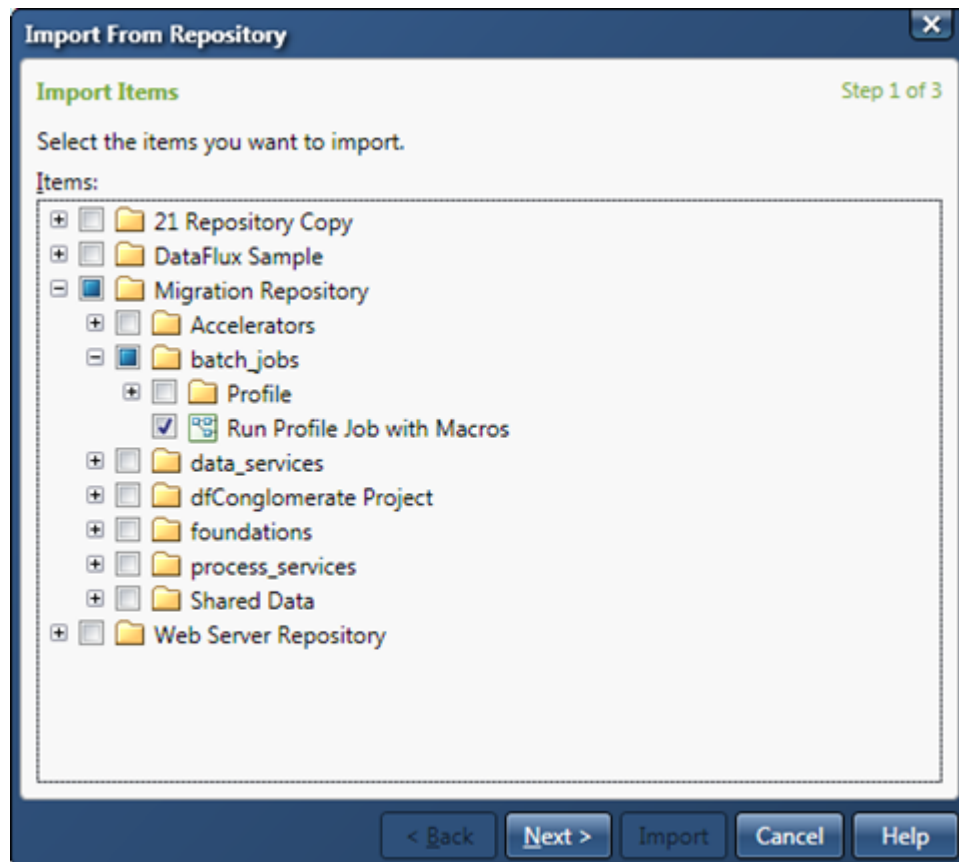
14. Select the location and click **Import**.
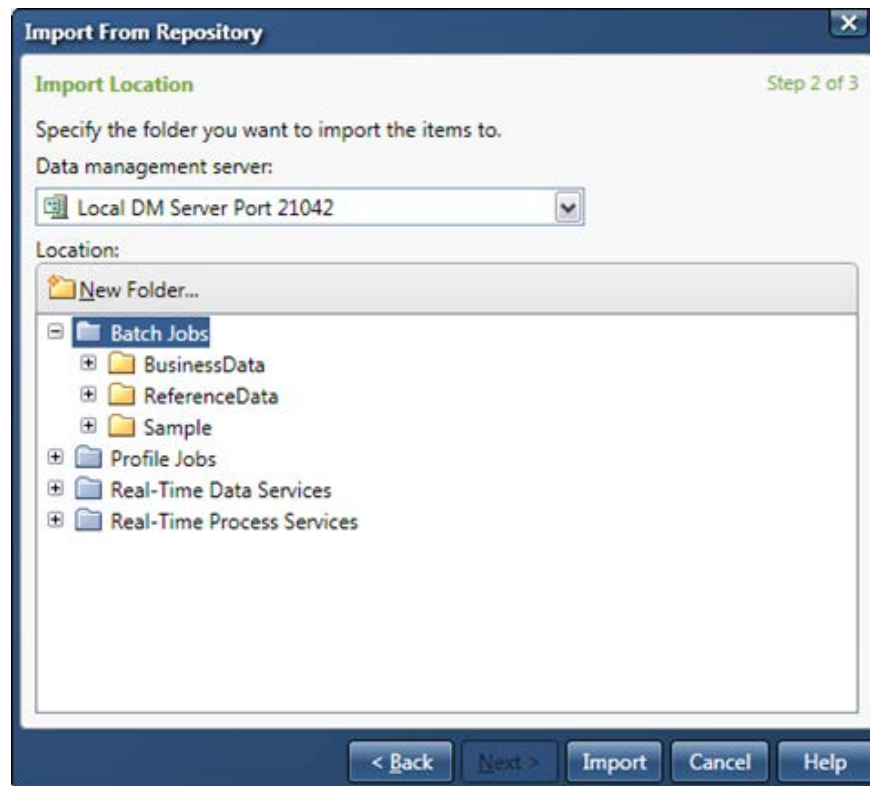
15. If this is successful, select **Close**.
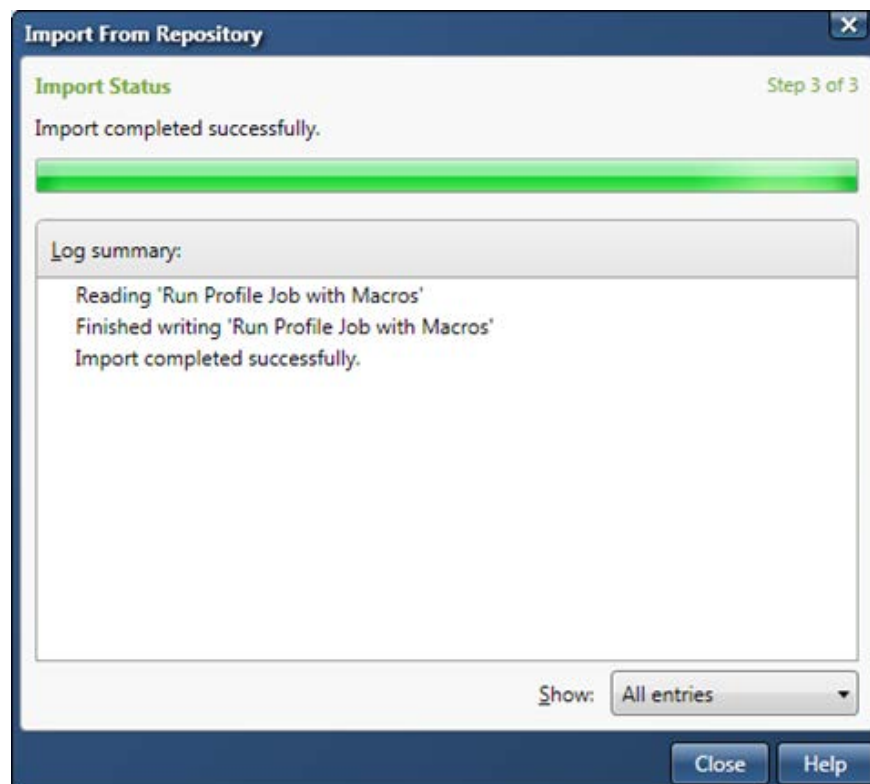
16. Run the job to make sure everything works as expected.
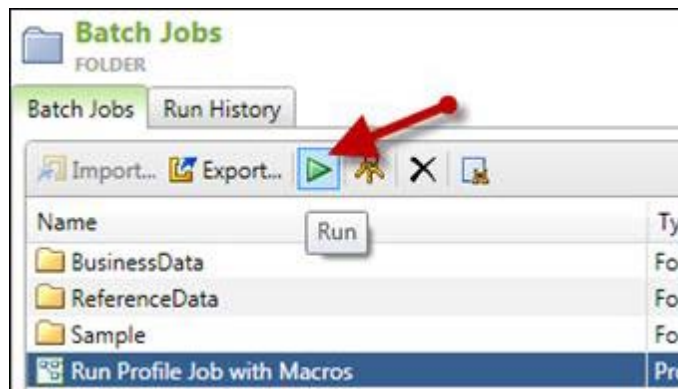
17. A Run Job dialog box appears. Provide the values and click **Run**.

18. When the job is finished, you see something like this in the Run History tab.

Note that if the Profile job is open in DataFlux Data Management Studio, the report is from the server job run.

Other Changes to Profile Jobs

You cannot convert DataFlux dfPower Studio profile reports that are stored as files (.pfo files). You must either re-create the report for the relevant profile in DataFlux Data Management Studio or re-run the Profile job in DataFlux dfPower Studio and store the report in a DataFlux dfPower Studio repository. Then you can use the Import Profile Jobs and Link Reports wizard in DataFlux Data Management Studio to link a DataFlux dfPower Studio Profile job with the related report and combine the two in a DataFlux Data Management Studio profile. For more information, see the next section, Explorer Jobs.

The way that Redundant Data Analysis is calculated has changed. In DataFlux dfPower Studio, you set up a Redundant Data Analysis profile for a primary field and add secondary fields that you want to compare to the primary field. The secondary fields were not compared to each other. In DataFlux Data Management Studio, you set up a Redundant Data Analysis profile and all fields that are added to the profile are compared to each other. Accordingly, after a Redundant Data Analysis profile job is converted, you must re-run the profile in DataFlux Data Management Studio to re-create the report. For more information, see the redundant analysis topic in the **Profiles** section of the latest version of DataFlux Data Management Studio online Help.

Explorer Jobs

You cannot convert Explorations that were created in DataFlux dfPower Studio. You must re-create the Explorer jobs in DataFlux Data Management Studio. Refer to the **Data Explorations** section in the latest version of *DataFlux Data Management Studio: User's Guide*. Currently, the migration software moves DataFlux dfPower Studio Data Explorations into the Folders tree in DataFlux Data Management Studio but you c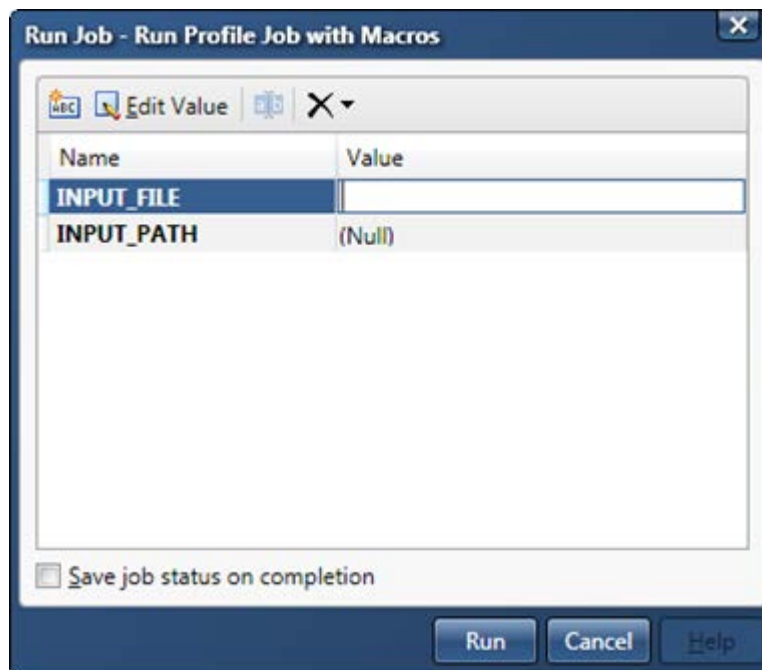annot use these items in DataFlux Data Management Studio, however, so you can select and delete them from the Folders tree.

Accelerators

If any Accelerators are installed with DataFlux dfPower Studio, contact your DataFlux account representative to obtain a version compatible with the DataFlux software.

Command Line Execution

If you prefer running jobs from the command line with DataFlux dfPower Studio, then this has changed in DataFlux Data Management Studio. The archbatch.exe and ProfExec.exe are no longer used and jobs now run using dmpexec:

```
usage: dmpexec [options]
options:
    -c <file>           read configuration from <file>
    -j <file>           execute job in <file>
    -l <file>           write log to <file>
    -i <key>=<value>    set input <key> to <value>
    -o <key>=<value>    set option <key> to <value>
    -b <key>=<value>    set job option <key> to <value>
    -a                  authenticate using Authentication Server
```

Here is an example of the command to run a Profile job in DataFlux Data Management Studio:

```
> bin/dmpexec -l profileJob.log -j "<DM Studio install
root>/etc/repositories/ProfileExec.djf" -i "REPORT_NAME=scriptedRun" -i
"REPORT_DESCRIPTION=Server_Run" -i "JOB_ID=2"
```

The JOB_ID is required to run profile jobs. Once the profile job is created, and then go to the Folders riser and select the profile job.
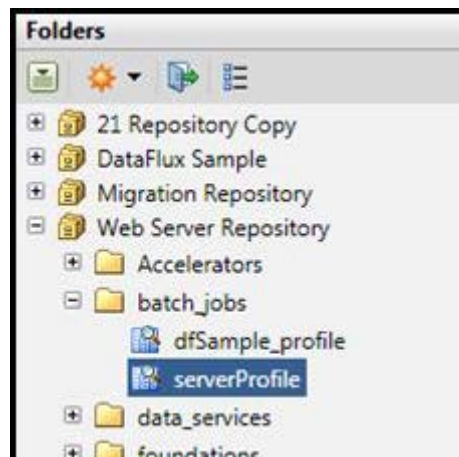
In the Details pane, on the right, the Batch Run ID displays the value for the JOB_ID key.
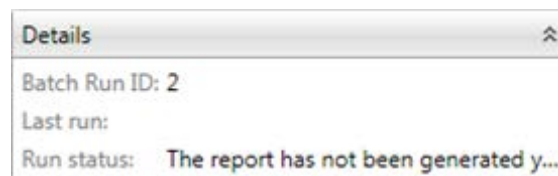
To run an upgraded Architect job in DataFlux Data Management Studio where the job can be a Process (with the extension .djf) or Data job (.ddf), type:

```
> bin/dmpexec -c "cmdLine.cfg" -l "dmpJob.log" -j "path/to/architect.ddf"
```

If the job needs to run with a user's credentials, the credentials are stored in a configuration file, which would look something like this:

```
base/auth_server_loc
=iom://servername.domain.com:21030;protocol=bridge;user=userid,pass=password
```

Then passed in on the command line with the following options:

```
> bin/dmpexec -a -c "dmpexec_auth.cfg" -l "dmpJob.log" -j
"path/to/architect.ddf"
```

Note: DataFlux Batch Schedules from DataFlux dfPower Studio do not migrate to DataFlux Data Management Studio. The DataFlux Batch Scheduler application does not exist in DataFlux Data Management Studio. To schedule jobs in DataFlux Data Management Studio, you need to write your own scripts.

SAS Data Integration Studio

Customers with SAS 9.2 that have the SAS Enterprise Data Integration Server and SAS Data Integration Server bundles must migrate to SAS 9.3* or SAS 9.4* first. In that process, the system is upgraded to DataFlux software. You should understand the following before migrating to the latest release of the platform.

- The DataFlux IS Job transformation is now called the DataFlux Batch Job Transformation. The DataFlux IS Service transformation is now called the DataFlux Data Service transformation. For other changes related to these transformations, see Working with Data Quality Transformations in the *SAS Data Integration Studio: User's Guide*.

User Action Required for Migrated Jobs with the Create Match Code Transformation

If jobs that include the Create Match Code transformation do not run successfully after migration, verify that the appropriate Quality Knowledge Base (QKB) location value (DQSETUPLOC value) is specified on the global options window for SAS Data Integration Studio. To verify the DQSETUPLOC value, select **Tools** > **Options** from the menu bar, click the **Data Quality** tab, and then verify that the appropriate value is specified in the **DQ Setup Location** field.

User Action Required for Migrated Jobs with the Apply Lookup Standardization Transformation

Migration to SAS v. 9.3 When the QKB Is Different on the Target System

If you are migrating from SAS v. 9.1.3 or SAS v. 9.2 to SAS v. 9.3, and the target system has a different QKB than you had on the source system, then user action is required in order for a job with the Apply Lookup Standardization transformation to work. You must open each affected job and replace the migrated Apply Lookup Standardization transformation with a new (4.3) Apply Lookup Standardization transformation. Then you must restore the mappings in each job.

Migration to SAS v. 9.3 When the QKB Is the Same on the Target System

If you are migrating from SAS v. 9.2 to SAS v. 9.3, and the target system has the same QKB that you had on the source system, then no user action is required in order for a job with the Apply Lookup Standardization transformation to work.

If you are migrating from SAS v. 9.1.3 to SAS v. 9.3, and the target system has the same QKB that you had on the source system, then user action is required in order for a job with the Apply Lookup Standardization transformation to work.

You can take one of the following actions:

- Open each affected job and replace the migrated Apply Lookup Standardization transformation with a new (4.3) Apply Lookup Standardization transformation. You must restore the mappings in each job. After replacing the transformation, the Control Flow of the transformation in the job is out of order. Use the Details panel to restore Control Flow.

- Alternatively, you could return to your old SAS Data Integration Studio environment, export the original Apply Lookup Standardization jobs to the SAS v. 9.1.3 package format, and then use the Import SAS Package wizard in SAS Data Integration Studio v. 4.3 to convert and register these jobs on your metadata server.

The following additional steps are required in order for the export SAS Package method to work:

1. (Optional) In SAS Data Integration Studio v. 4.3, if you are not using the migrated jobs that include the Apply Lookup Standardization transformation, delete them. Otherwise, you must manage multiple copies of the same metadata objects when you import the same jobs as a SAS Package.

2. In the previous release of SAS Data Integration Studio, create a package of jobs that uses the same scheme repository type in the Apply Lookup Standardization. Create one package for the BFD scheme type and a separate package for the NOBFD scheme type.

3. In SAS Data Integration Studio v. 4.3, verify that the default DQ Setup Location is correct, and that the default Scheme Repository Type matches the type (BFD or NOBFD) for the package of jobs that you are importing.

Since dfPower jobs change extensions for DataFlux Data Management Studio based jobs, users must edit the SAS Data Integration Studio jobs. To do this, in Data Integration Studio open up a job that uses a DataFlux service or a Profile job.
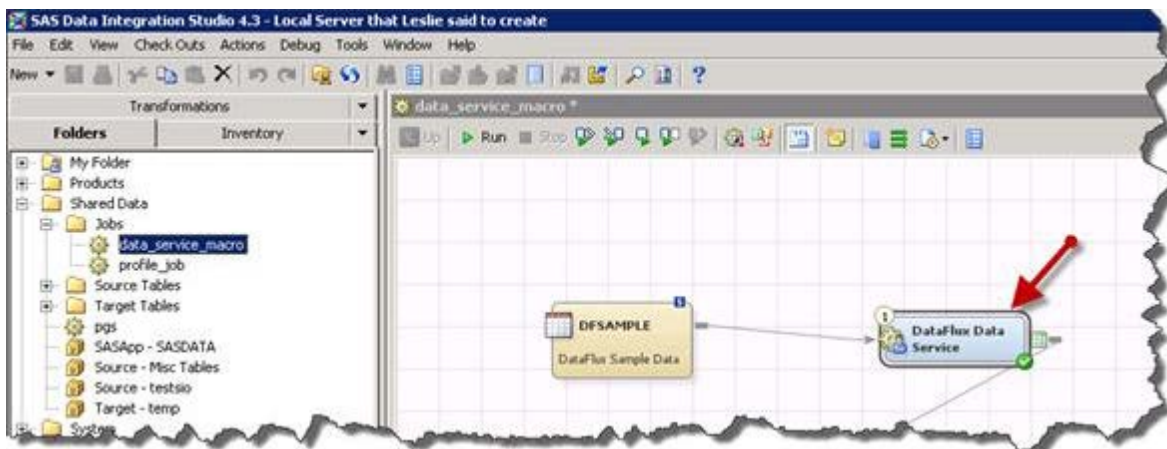
Open the properties of the node.
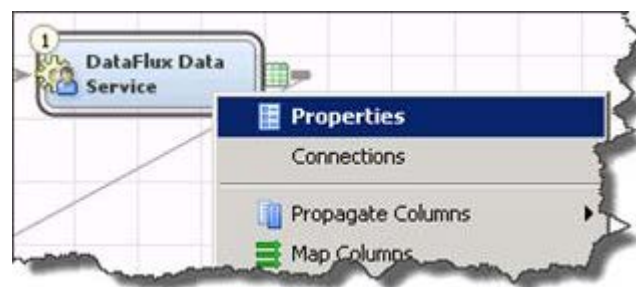
For Data Services click the **Data Service** tab. In the Servers and services grouping, click the drop-down list and select the new service to run.
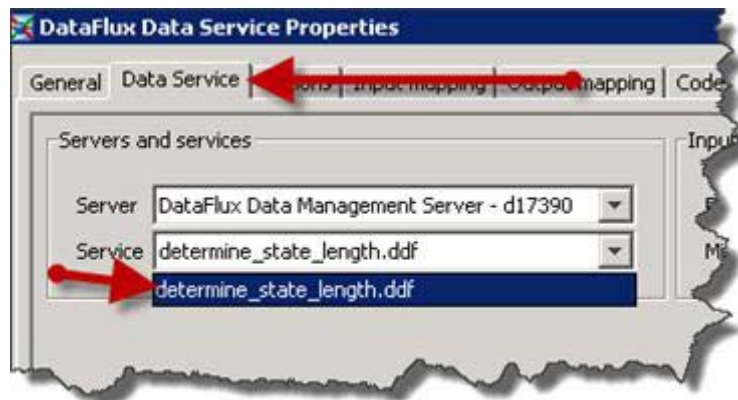
The steps are the same for a Profile job except that the tab is called Job and the drop-down list is also called Job.
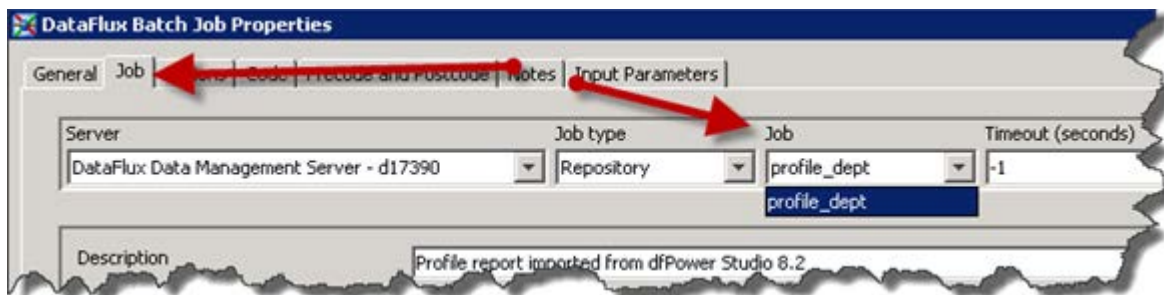
For a final change, in SAS Data Integration Studio, you need to register the path of where DataFlux Data Management Studio is located. Open SAS Data Integration Studio and go to **Tools** > **Options** > **Data Quality**.
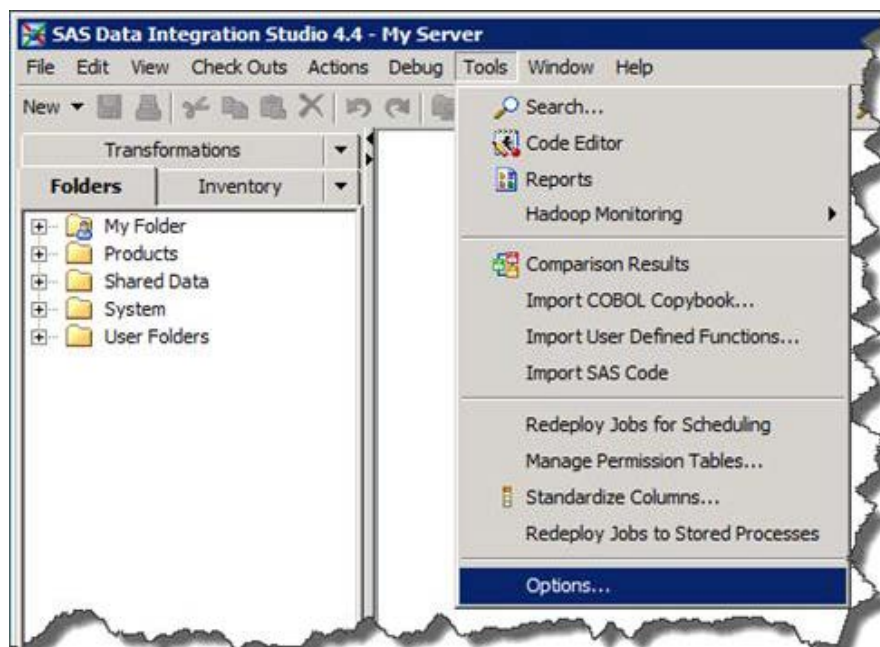
For the **DataFlux Installation Folder** field value, navigate to the installation root (for example, C:\Program Files\DataFlux\DMStudio\2.2) and save the location.
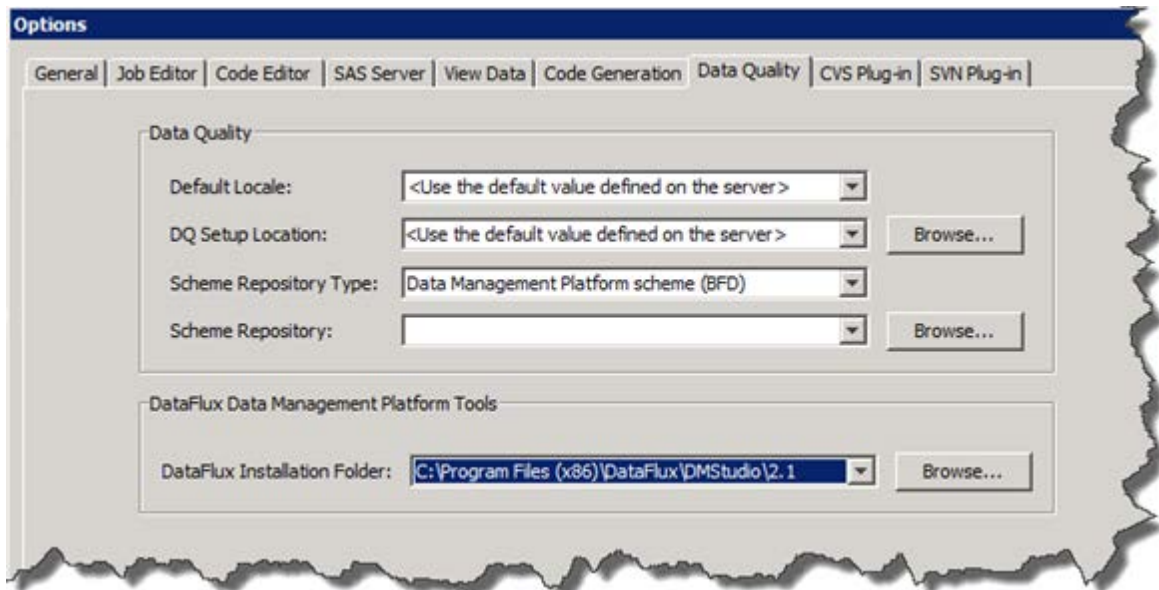
Click **OK** and then re-start SAS Data Integration Studio.

Other

Note that Match jobs (.mdf) are not migrated. You can still view the output files (.mre) from DataFlux Data Management Studio but the .mdf files can no longer be generated.

Items found in the Business Rule Manager interface come over when the repository is migrated. By default, all migrated Rules and Tasks show up in the DataFlux Data Management Studio Folders riser under the Shared Data folder. You cannot migrate a single rule from a dfPower Repository to a DataFlux repository. If a Task, Rule, Custom Metric, and so on, is re-created, then you should check the original location to make sure it is referencing the correct item.

> **Best Practice:** You should migrate the repository and make sure things are working correctly with existing data before doing anything new in the DataFlux Data Management Studio.

DataFlux Integration Server 8.1/8.2 to DataFlux Data Management Server

This section is for those users currently running a DataFlux Data Integration Server v. 8.* stand-alone or as part of a SAS v. 9.2 deployment. For SAS 9.2 customers, the DataFlux Data Management Server is automatically installed and a server definition is created in the SAS Metadata Repository. Users then need to take manual steps to migrate jobs and other repository content in order to get them to work with DataFlux Data Management Server. If you are installing SAS 9.3 as well as DataFlux software, use this section to move directly from DataFlux Data Integration Server v. 8.* to DataFlux Data Management Server.

- [Configurations](#)
- [Data Quality Functions](#)
- [Reference Sources](#)
- [Data Connections - Windows](#)
- [Data Connections - UNIX](#)
- [Repositories](#)
- [Architect Jobs](#)
- [Profile Jobs](#)
- [Accelerators](#)
- [Security](#)
- [Secure Socket Layer](#)
- [Command Line Execution](#)
- [SAS Management Console](#)
- [SAS Data Quality Server](#)

Configurations

You need to copy the values that are in the DataFlux Data Integration Server configuration files to the DataFlux Data Management Server configuration files. The table below maps the settings between them.

The best way to use the table is to look at the DataFlux Data Integration Server dfexec.cfg file, find the configuration from the file in the "Data Integration Server Setting" column, look to the left to see the DataFlux Data Management Server equivalent setting found in the first column and put the value in the file identified in column two. For example, in the dfexec.cfg file, we have the following:
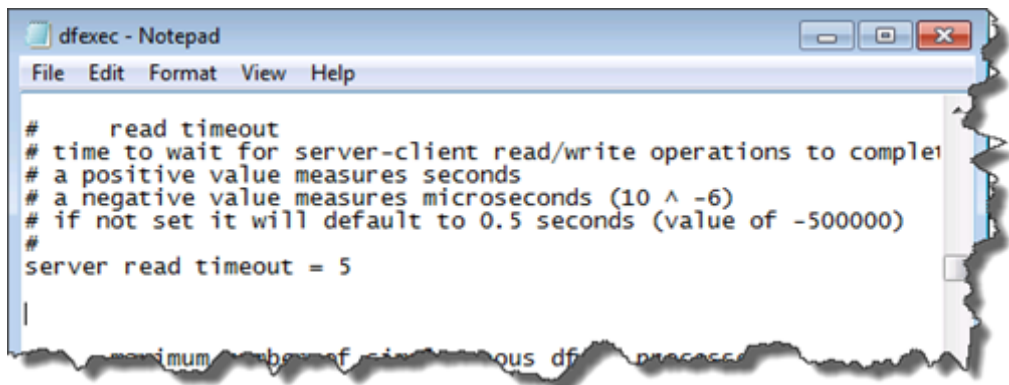
To find the equivalent setting in DataFlux Data Management Server, look in the "Data Integration Server Setting" column to find "server read timeout".

From there we can tell that the DataFlux Data Management Server equivalent setting is "DMSERVER/SOAP/RDWR_TIMEOUT" (column one) and that the value lives in dmserver.cfg (column two). Open the dmserver.cfg file and locate "DMSERVER/SOAP/RDWR_TIMEOUT" by doing a find (CTRL+F) and looking for the configuration, which is DMSERVER/SOAP/LISTEN_PORT. In this case, the setting is not in the default configuration file, so we need to add it.
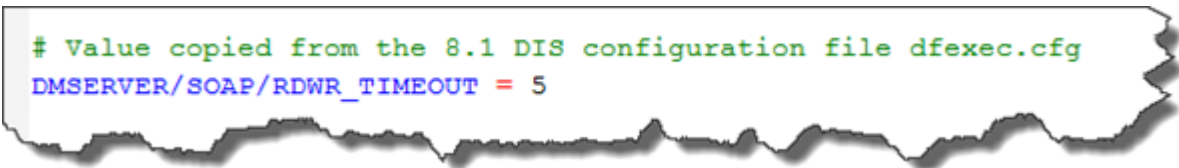
Several specific differences between the configuration files include the following:

- Numeric values in DataFlux Data Management Server need to be written out. Values in DataFlux Data Integration Server could be 10m, which represents 10 million. In DataFlux Data Management Server, this would need to be written as 10000000.

- DataFlux Data Management Server does not require configuration values to be enclosed in single quotation marks

- Double quotation marks are not special in DataFlux Data Management Server configuration files.

- To escape characters (", =, white space, and so on) in DataFlux Data Management Server configuration files enclose them in single quotation marks.

DataFlux Data Management Server Setting	DataFlux Data Management Server File	DataFlux Data Integration Server Setting	DIS File/Registry
DATASVC/IGNORE_DECLARED_VARS	service.cfg	--	--
DATASVC/THREAD_STACK_SIZE	service.cfg	--	--
DMSERVER/CHILD/LISTEN_HOST	dmserver.cfg	server child listen	(dfexec.cfg)
DMSERVER/CHILD/LISTEN_PORT	dmserver.cfg	server child listen	(dfexec.cfg)
DMSERVER/IPACC/ALL_REQUESTS	dmserver.cfg	restrict general access	(dfexec.cfg)
DMSERVER/IPACC/POST_DELETE	dmserver.cfg	restrict post/delete access	(dfexec.cfg)
DMSERVER/JOBS_MAX_NUM	dmserver.cfg	dfexec max num	(dfexec.cfg)
DMSERVER/JOBS_NO_STATE	dmserver.cfg		
DMSERVER/JOBS_ROOT_PATH	dmserver.cfg	arch svc path arch job path prof job path	(dfexec.cfg)
DMSERVER/LOG_CHUNK_SIZE	dmserver.cfg	server send log chunk size	(dfexec.cfg)
DMSERVER/NO_WORK_SUBDIRS	dmserver.cfg		
DMSERVER/SECURE	dmserver.cfg	enable security	(dfexec.cfg)
DMSERVER/SECURE/DEFAULT_ACE_PUBLIC	dmserver.cfg		
DMSERVER/SECURE/DEFAULT_ACE_USERS	dmserver.cfg		
DMSERVER/SECURE/GRP_ADMIN	dmserver.cfg		
DMSERVER/SECURE/GRP_ALLOW	dmserver.cfg		
DMSERVER/SECURE/GRP_DENY	dmserver.cfg		
DMSERVER/SOAP/CONNS_BACKLOG	dmserver.cfg	PRIV connections backlog	(dfexec.cfg)
DMSERVER/SOAP/DATA_SVC/JOB_COUNT_MAX	dmserver.cfg	--	--
DMSERVER/SOAP/DATA_SVC/JO	dmserver.cfg	--	--

DataFlux Data Management Server Setting	DataFlux Data Management Server File	DataFlux Data Integration Server Setting	DIS File/Registry
B_COUNT_MIN			
DMSERVER/SOAP/DATA_SVC/MAX_ERRS	dmserver.cfg	dfsvc max errs	(dfexec.cfg)
DMSERVER/SOAP/DATA_SVC/MAX_NUM	dmserver.cfg	dfsvc max num	(dfexec.cfg)
DMSERVER/SOAP/DATA_SVC/MAX_REQUESTS	dmserver.cfg	dfsvc max requests	(dfexec.cfg)
DMSERVER/SOAP/DATA_SVC/MAX_RUNTIME	dmserver.cfg	--	--
DMSERVER/SOAP/DATA_SVC/PRELOAD	dmserver.cfg	dfsvc preload	(dfexec.cfg)
DMSERVER/SOAP/DATA_SVC/PRELOAD_ALL	dmserver.cfg	dfsvc preload all	(dfexec.cfg)
DMSERVER/SOAP/DATA_SVC/QUEUE	dmserver.cfg	--	--
DMSERVER/SOAP/IGNORE_NS	dmserver.cfg	--	--
DMSERVER/SOAP/LOG_PACKETS	dmserver.cfg	PRIV log packets	(dfexec.cfg)
DMSERVER/SOAP/LISTEN_HOST	dmserver.cfg	--	--
DMSERVER/SOAP/LISTEN_PORT	dmserver.cfg	server listen port	(dfexec.cfg)
DMSERVER/SOAP/PROC_SVC/MAX_NUM	dmserver.cfg	--	--
DMSERVER/SOAP/RDWR_TIMEOUT	dmserver.cfg	server read timeout Read timeout	(dfexec.cfg) (dfexec.cfg)
DMSERVER/SOAP/RETURN_NULLS	dmserver.cfg		
DMSERVER/SOAP/SSL	dmserver.cfg	soap over ssl	(dfexec.cfg)
DMSERVER/SOAP/SSL/CA_CERT_FILE	dmserver.cfg	soap ssl CA cert file	(dfexec.cfg)
DMSERVER/SOAP/SSL/CA_CERT_PATH	dmserver.cfg	soap ssl CA cert path	(dfexec.cfg)
DMSERVER/SOAP/SSL/KEY_FILE	dmserver.cfg	soap ssl key file	(dfexec.cfg)
DMSERVER/SOAP/SSL/KEY_PASSWD	dmserver.cfg	soap ssl key password	(dfexec.cfg)
DMSERVER/THREADS/COUNT_MAX	dmserver.cfg	svr max threads	(dfexec.cfg)
DMSERVER/THREADS/IDLE_MAX	dmserver.cfg	svr max idle threads	(dfexec.cfg)
DMSERVER/THREADS/IDLE_TIMEOUT	dmserver.cfg	svr idle thread timeout	(dfexec.cfg)
DMSERVER/WLP/DATA_SVC/MAX_NUM	dmserver.cfg	dfwsvc max num	(dfexec.cfg)
DMSERVER/WLP/LISTEN_HOST	dmserver.cfg	server wlp listen	(dfexec.cfg)
DMSERVER/WLP/LISTEN_PORT	dmserver.cfg	server wlp listen	(dfexec.cfg)
DMSERVER/WORK_ROOT_PATH	dmserver.cfg	Job io path	(dfexec.cfg)

DataFlux Data Management Server Setting	DataFlux Data Management Server File	DataFlux Data Integration Server Setting	DIS File/Registry
		Working path WorkingPath	(dfexec.cfg) HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\DIS Environment

Configuration Values from DataFlux Data Integration Server to DataFlux Data Management Server

The following table represents a list of configurations that were in the dfexec.cfg file, which are now in the app.cfg file.

DataFlux Data Management Server v. 2.2 Setting	DataFlux Data Management Server File	DataFlux Data Integration Server Setting	DIS File/Registry
BASE/PRIMARY_LICENSE_LOC	app.cfg	License	HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\DataFlux Corporation\dfPower Studio\8.1\DIS Environment
DAC/SAVEDCONNSYSTEM	app.cfg	savedconnectiondir	HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\DataFlux Corporation\dac
DFCLIENT/CFG	app.cfg	dfclient config	(dfexec.cfg)
BASE/EMAILCMD	app.cfg	mail command	(dfexec.cfg)
		Cluster memory	(dfexec.cfg)
VERIFY/USEDPV	app.cfg	Enable dpv	(dfexec.cfg)
VERIFY/USERDI	app.cfg	Enable rdi	(dfexec.cfg)
PROF/PER_TABLE_BYTES	app.cfg	Fd table memory	(dfexec.cfg)
QKB/PATH	app.cfg	Qkb root	(dfexec.cfg)
VERIFY/USPS	app.cfg	Usps db	(dfexec.cfg)
VERIFY/CACHESIZE	app.cfg	Verify cache	(dfexec.cfg)

Configuration Values Previously in the dfexec.cfg File That Are Now in the app.cfg File
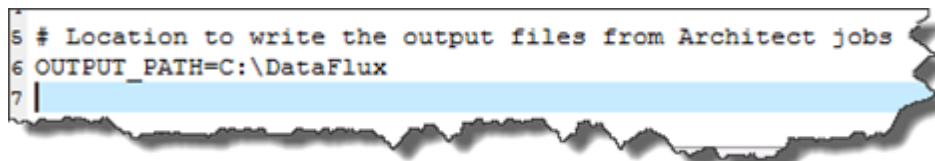
If any Accelerators are installed with your Integration Server installation, it is not recommended that the macros associated with them be moved over. You should obtain the proper version of the Accelerator that works with the DataFlux software. This means that no macros should be moved over when looking in architect.cfg or dfexec.cfg, if they contain the following prefixes:

- MDI_

- MDC_

- SA_

- ACDQ_

- CDC_

- CDA_

- WLC_

- MDM_

Any remaining macros in architect.cfg or dfexec.cfg that are not in the DataFlux Data Integration Server to the DataFlux Data Management Server table or are not Accelerator macros are probably user-defined macros. Move these remaining macros to a new file in the <DM Server install root>/etc/macros/ directory. Do not place them in any of the DataFlux Data Management Server specific configuration files.

> *Note:* If you see a macro that is not a user defined and believe it to be a DataFlux setting, please contact SAS technical support.

Here is an example. In the DataFlux Data Integration Server there is a macro called OUTPUT_PATH that we need to move over.

```
5 # Location to write the output files from Architect jobs
6 OUTPUT_PATH=C:\DataFlux
7 
```

Go to Windows Explorer and navigate to the install root for DataFlux Data Management Server, in this case it is the default "C:\Program Files\DataFlux\DMSserver\2.2".
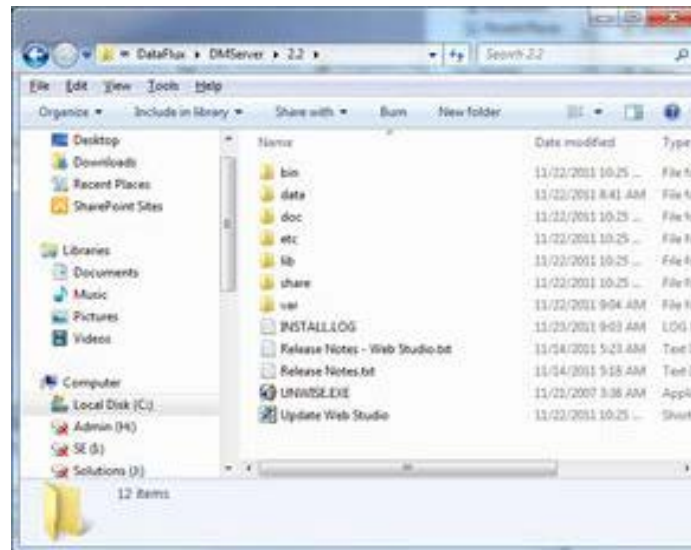
Go into the etc\macros directory.
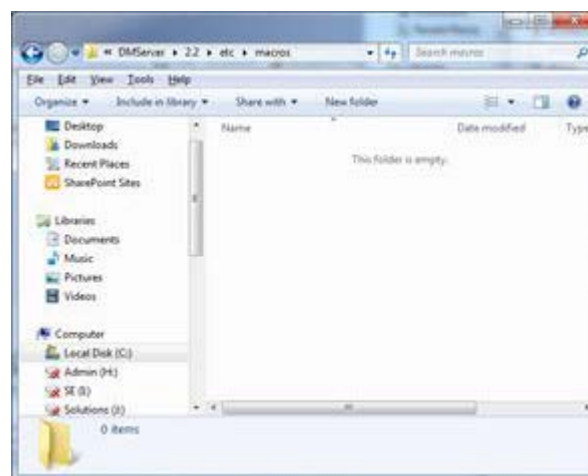
Create a new text file called 81macros.cfg. More than likely you need to confirm the changing of the extension from .txt to .cfg. If so, please say yes.

Open up 81macros.cfg and copy the value from architect.cfg or dfexec.cfg
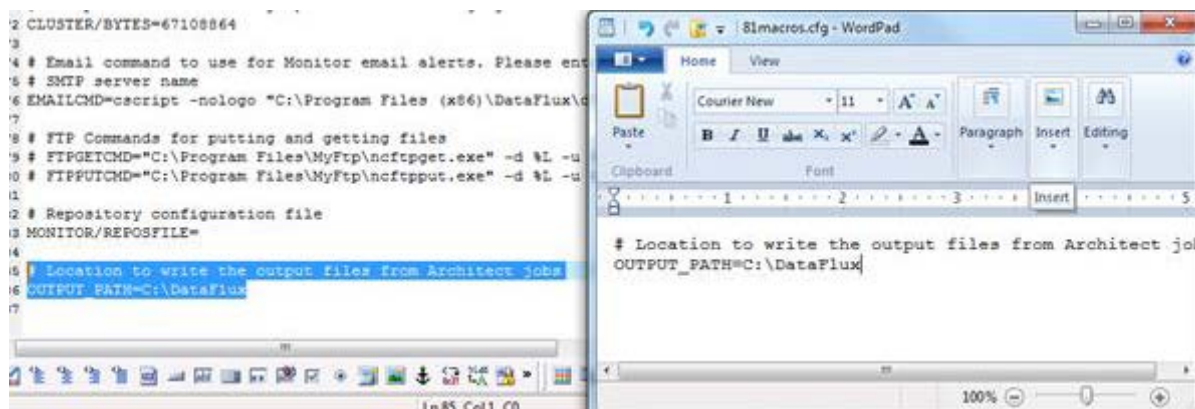
Repeat these for each user-defined macro. It is recommended that all DataFlux Data Integration Server macros be put in the same file initially.

It is a best practice to make sure that the following two configurations in dmserver.cfg are set with valid ports:

- DMSERVER/SOAP/LISTEN_PORT

- DMSERVER/WLP/LISTEN_PORT

   Note: If these are not set, it could lead to issues if there is an Integration Server or multiple data management servers installed on the same host.
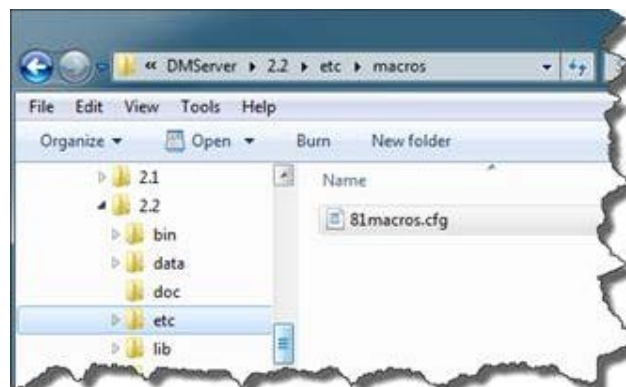

DataFlux Data Management Studio 2.3 and later:

- DMSERVER/WLP/LISTEN_PORT no longer needs to be set by default.

If users want to use single page dfPower real-time services as part of their data management deployment, then the following needs to be added to the <DM Server install root>/etc/service.cfg file.

```
DATASVC/IGNORE_DECLARED_VARS = yes
```

Data Quality Functions

If as part of the migration a new Quality Knowledge Base (QKB) is being used, it is a best practice to regenerate any static data quality pieces such as match codes. The reason for this is that changes in the QKB could result in a slightly different match code being generated.

For users that are on dfPower 8.2 that are not changing QKBs as part of the migration, see [Migrating from DataFlux dfPower Studio v. 8.1/8.2 to DataFlux Data Management Studio v. 2.2](#) for more information about how to configure DataFlux software so that it uses data quality functions as they were in dfPower 8.2. It is strongly recommended to do this only if it is really needed.

Reference Sources

When the configurations for the Integration Server are brought over, this should take care of the registration of the data packs for US address data, Canadian address data, US geocode and phone data as well as the world data. No extra steps should be needed other than to verify that the locations have been configured correctly.

Data Connections - Windows

Assuming that DataFlux Data Management Studio is being installed on the same box that the previous version of Integration Server was, no extra work is required to migrate over any ODBC connections. If DataFlux Data Management Server is being installed on a new box, then manually migrate the ODBC connections that are defined in the ODBC Administrator.

ODBC data connections that are defined on the box are automatically upgraded to the latest version of the DataFlux ODBC drivers. This means that both DataFlux dfPower and DataFlux Data Management Studio use the same version of ODBC drivers.

If a 32-bit version of Integration Server was installed on a 64-bit box, and if the 64-bit version of DataFlux Data Management Server is installed on the same box, then the ODBC DSNs must be re-created through the 64-bit version of the ODBC Data Source. The best way to do this copying is to open the 32-bit ODBC Administrator through DataFlux dfPower Studio (assuming that this was installed on the box in order to create the connections originally) or the dfConnection Manager.
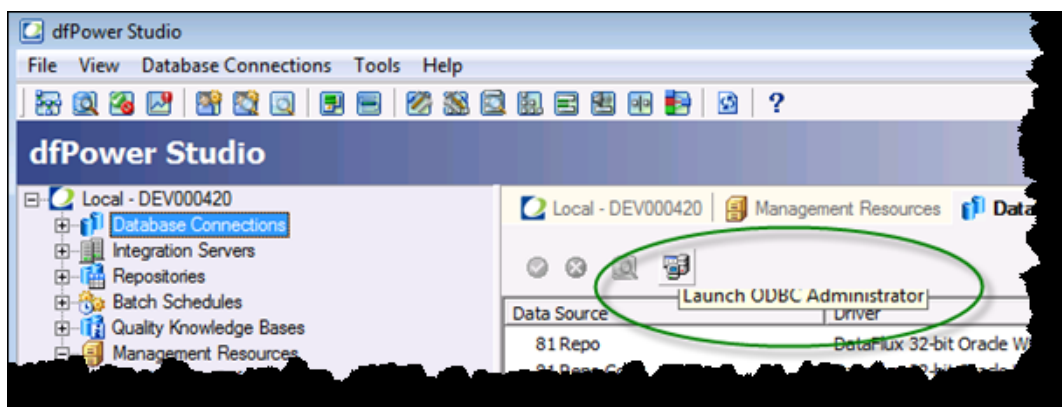
Then open the 64-bit ODBC Administrator using the Control Panel.
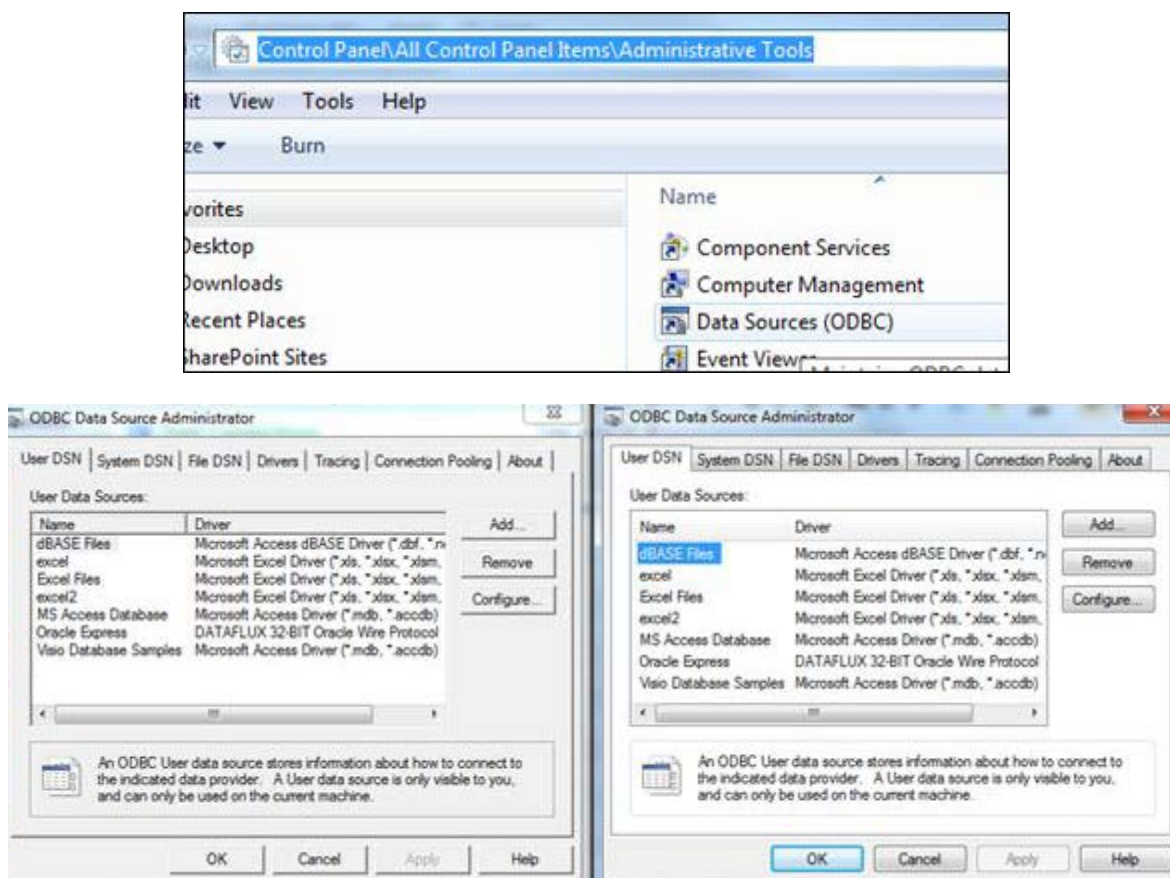
There is no way to distinguish which version is 32-bit or 64-bit, so you need to keep it organized. In the above picture, the 32-bit is on the left and the 64-bit is on the right. From this point forward, create the DSNs in the 64-bit ODBC Administrator by creating new and then copying the values and settings of the 32-bit configurations.

Move over any saved credential files that have been stored. These can be found in <DIS install root>\etc\dfdac\ and should be copied to <DM Server install root>\etc\dsn\.

The user needs to move over any saved credential files that they have stored. The dfPower saved connection path can be found in the registry under "HKEY_LOCAL_MACHINE\SOFTWARE\\DataFlux Corporation\dac\savedconnectiondir" or "HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\DataFlux Corporation\dac\savedconnectiondir" key. If it is not there, then the saved connections should be in %APPDATA%\dfdac\mydatasources. These saved credential files should be copied to <DM Server install root>/etc/dsn/.
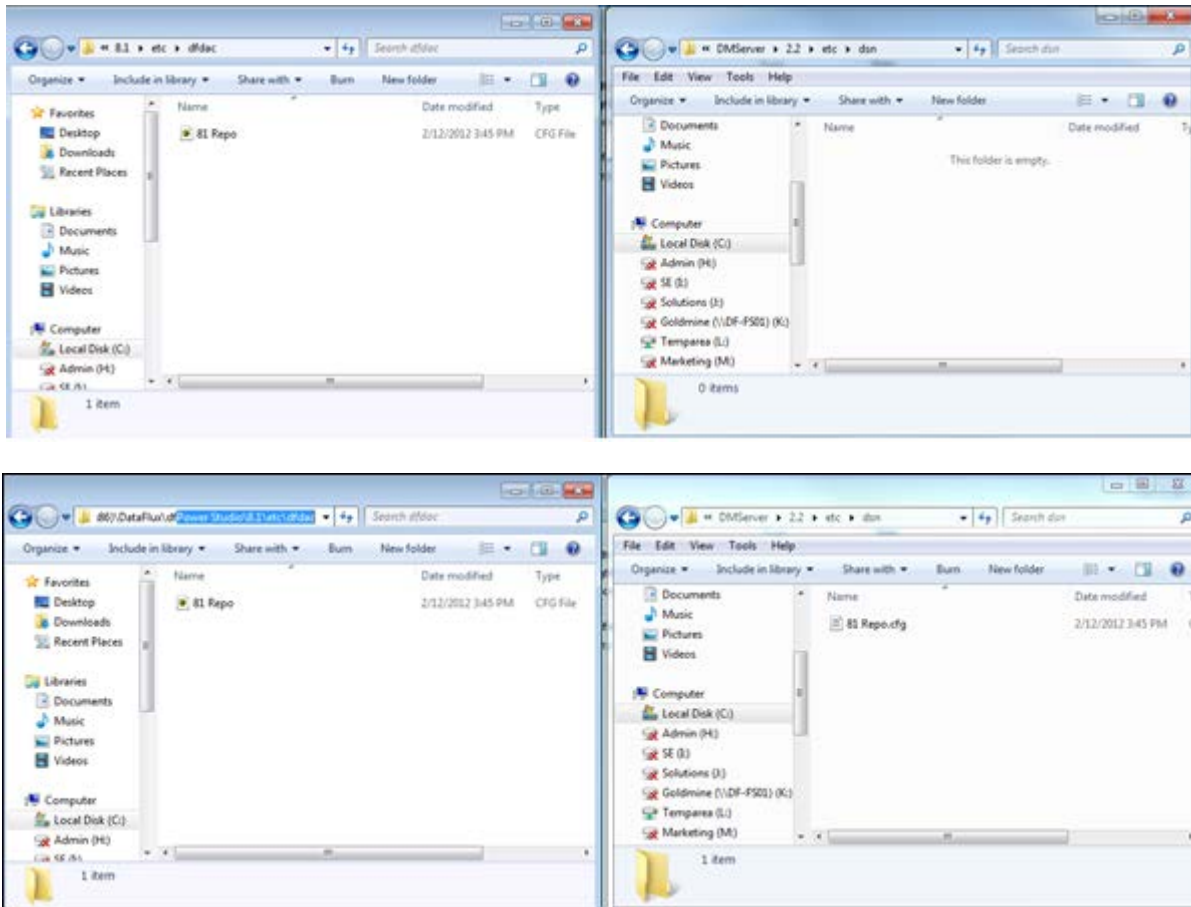
Data Connections - UNIX

If DataFlux Data Management Server is being installed on the same box as a previous Integration Server installation, then it is recommended that the ODBC connections already defined in the ODBC.ini file for the Integration Server installation be re-created in the DataFlux Data Management Server's ODBC.ini file. The reason for doing this is so that the supported ODBC drivers are used. ODBC settings are per application and are not set system wide. The dfdbconf utility located in <DM Server install root>/bin should be used to re-create the DSNs.

Once the connections are re-created, the next step is to bring over any saved credentials. On UNIX servers, if dfdbview was used to save the credentials, these are found in the user's home directory under the .dfpower directory. If a DataFlux Data Management Server is being installed under the same user ID as the Integration Server, then the DataFlux Data Management Server uses those credentials in the .dfpower directory. If a different user is doing the installation or the server is being installed on a different box, then these settings should be copied over.

Repositories

With the Integration Server, you could connect to multiple dfPower repositories (called data storages in DataFlux Data Management Studio or Server) at a time. This is no longer the case with DataFlux Data Management Server. It supports connecting to only one data storage portion of a repository at a time. If separate versions of the dfPower repository are required, then multiple versions of the DataFlux Data Management Server are required. This type of configuration is supported on UNIX, but not on Windows.

From the "etc/profrepos.cfg" file, identify the DSN that is the data storage part for the DataFlux Data Management Server. If dfPower repositories need to be merged, this should be completed before upgrading.

In order to set up the repository, you must perform the following tasks

- [Create a Copy of the Repository](#)

- [Repository Post-Creation Tasks](#)

Create a Copy of the Repository

You need to create a copy of a repository that the Integration Server is using, and then upgrade it so that it can be used by the DataFlux Data Management Server. The assumption is that all Business Rules and other repository objects have been moved into the one repository that you are upgrading.

For this example, start with the Database Connections screen:
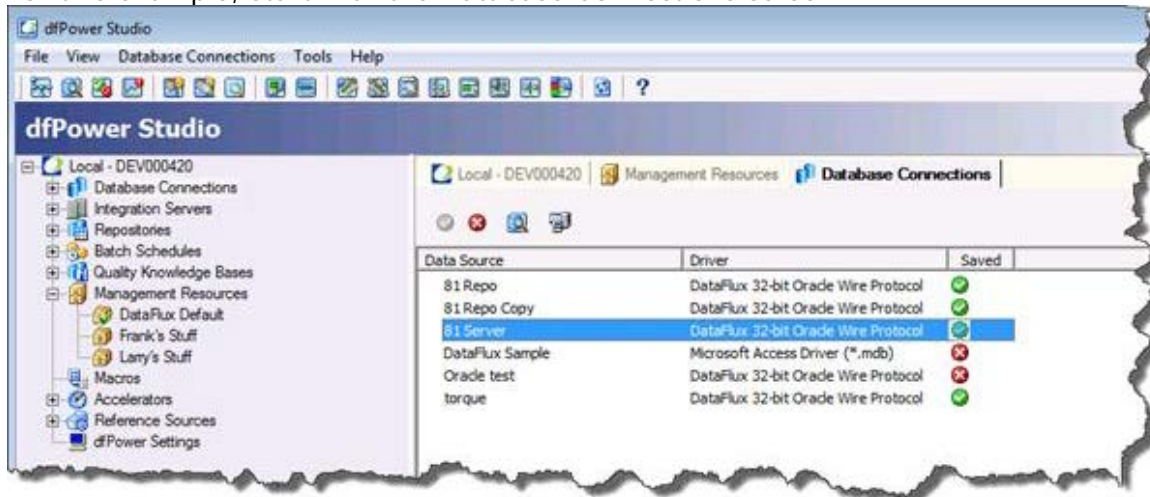
Note that the repository screen shows the registered "81 Server" repository:
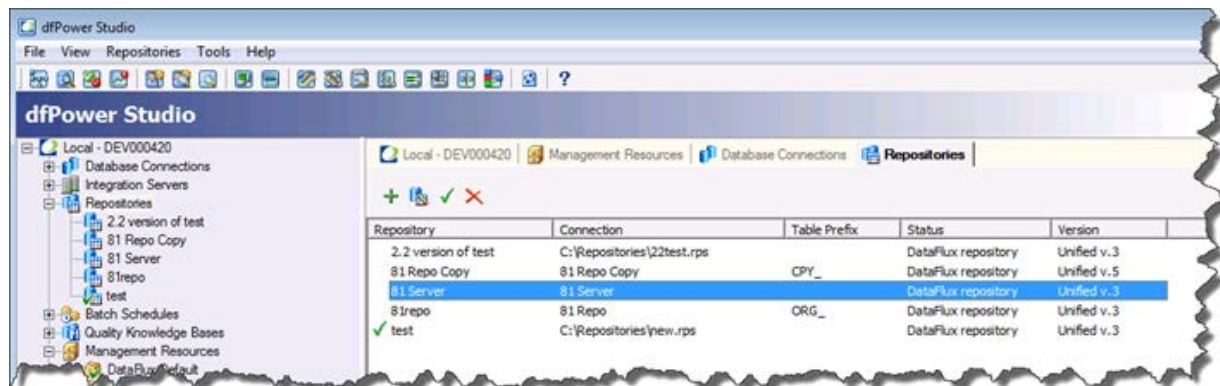
Perform the following steps:

1. Create a second DSN that holds the copy. In this example, this is the "81 Server Copy".

2. Copy the "81 Server" repository to the "81 Server Copy" repository as shown below.
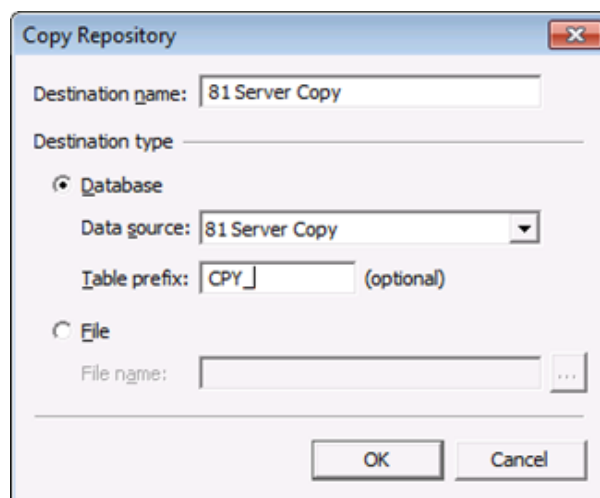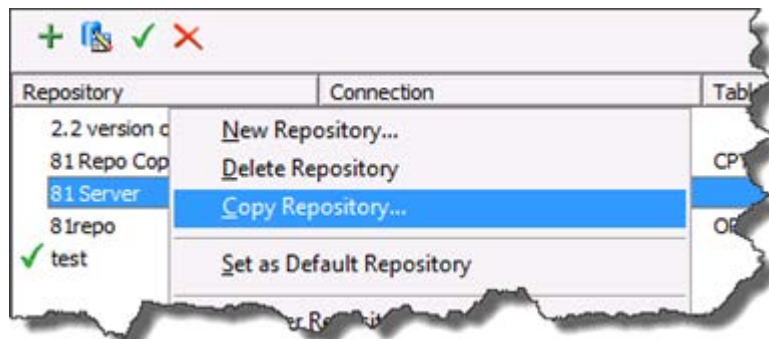
If this were a file-based repository, the same action would be used, but the **File** option would be selected instead of the **Database** option.

Note: It is highly recommended to use the **Table prefix** option to identify that this is a copy. Even if the recommendation of putting the copy in a different schema were used, this would be another way to identify that this is not an original repository.
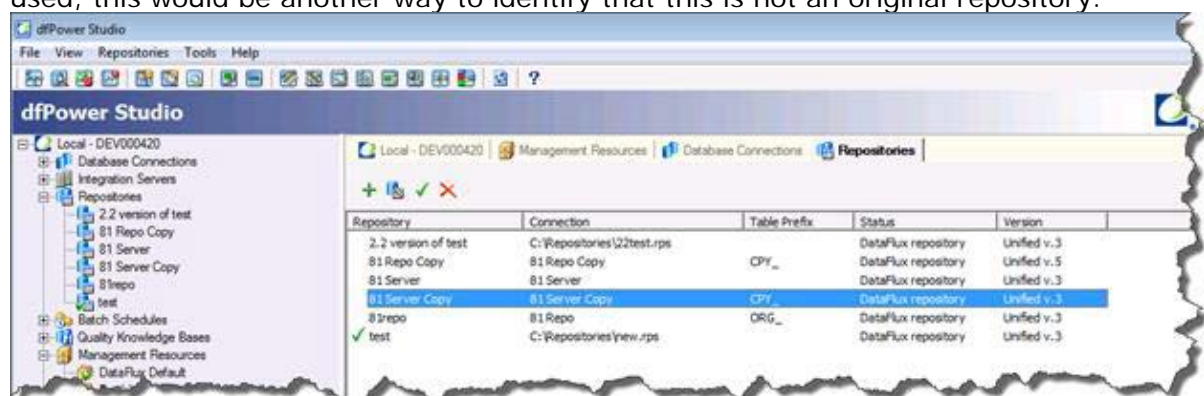
3. Upgrade the copy in DataFlux Data Management Studio. If the DSN does not exist on the machine that has DataFlux Data Management Studio, go ahead and create it.
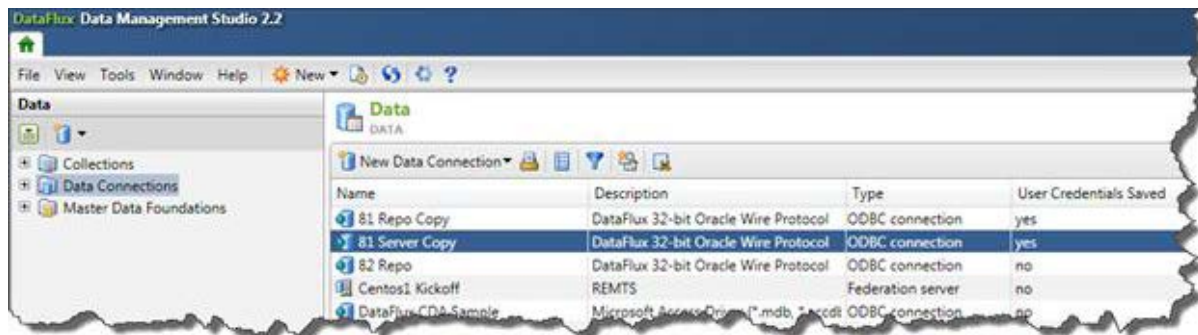
4. Create the repository definition in DataFlux Data Management Studio. Notice that we are using the same values that we used when we created the copy in dfPower:
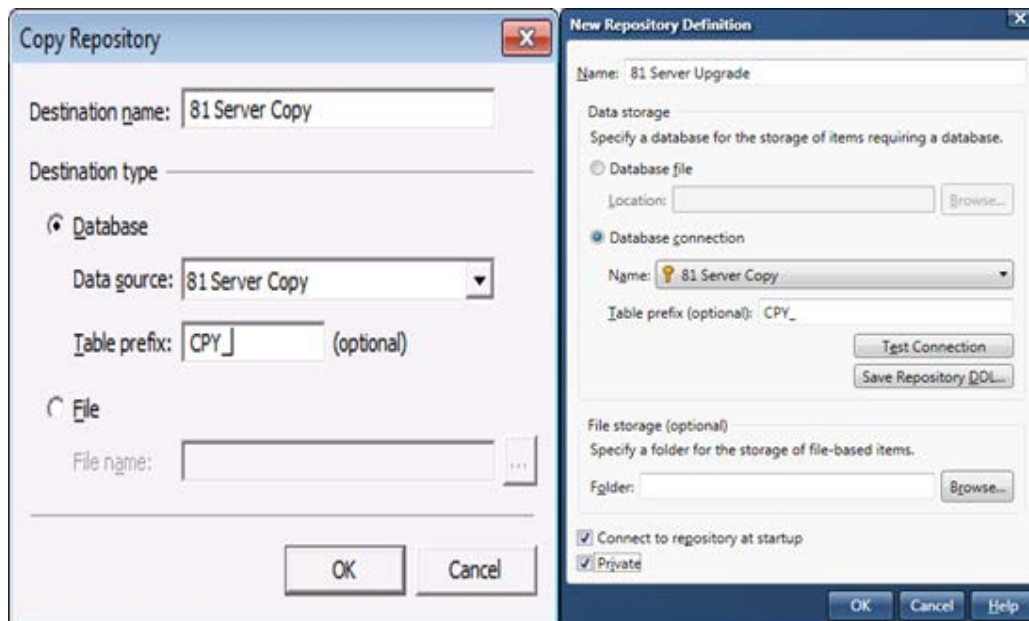
Note that the "Folder" configuration is left blank in the DataFlux Data Management Studio configuration. This is done on purpose. When we save the configuration, DataFlux Data Management Studio informs us that the repository needs to be upgraded. This indicates that the system has recognized that we have an older version and it needs to be updated so that DataFlux Data Management Studio can use it.

5. Select **OK**.

6. As expected, an error message indicates that the repository needs to be upgraded. Select **OK**.
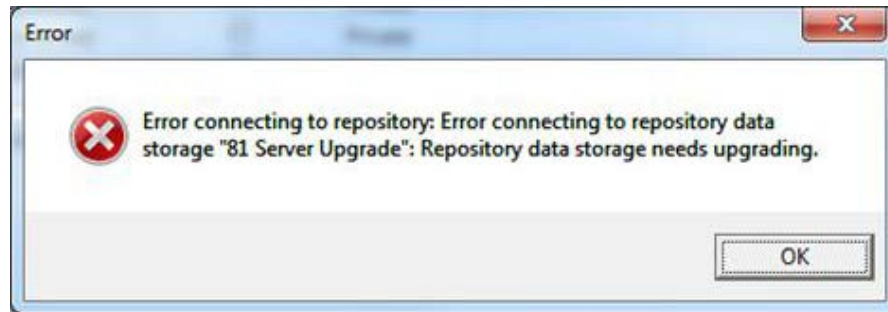
7. Right-click on the repository and choose **Upgrade**.

8. When prompted to confirm the upgrade, select **Yes**.
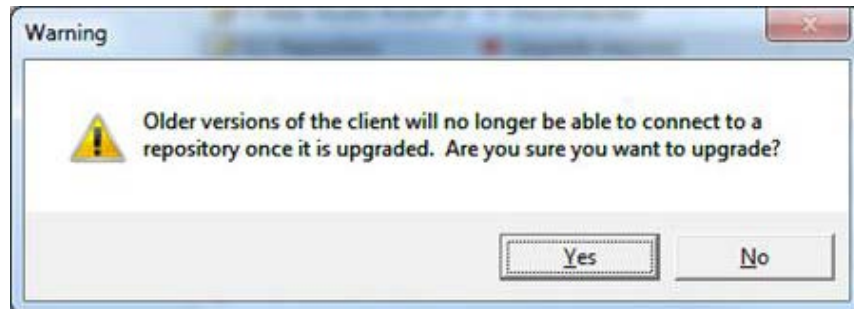
9. The upgrade process kicks off. At the end of it, there should be a confirmation that the upgrade completed successfully. Select **Close**.
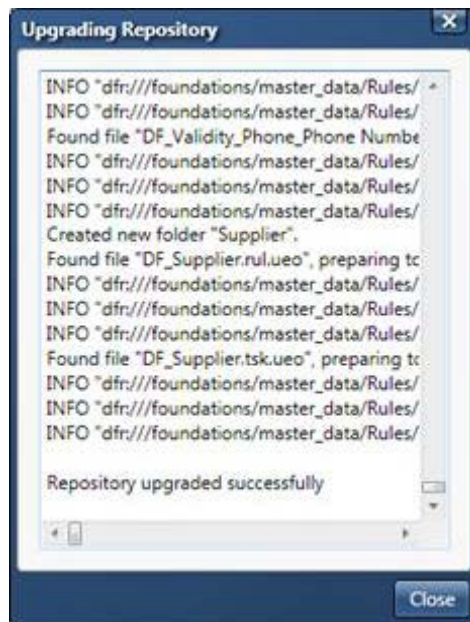
10. When the upgrade is done, connect to the repository. Wait for the indication in the repository screen that it connected.

Repository Post-Creation Tasks

Once the repository is created, you need to do two things:

- Copy the repository configuration file to the server

- Copy or save credential files to the server.

Regardless whether the server is UNIX or Windows based, the repository configuration file (.rcf) is saved in the <DM Server root>/etc/repositories directory. The DataFlux Data Management Studio RCF file needs to be copied to this location.

Perform the following steps:

1. Rename the default RCF file that came with DataFlux Data Management Server.
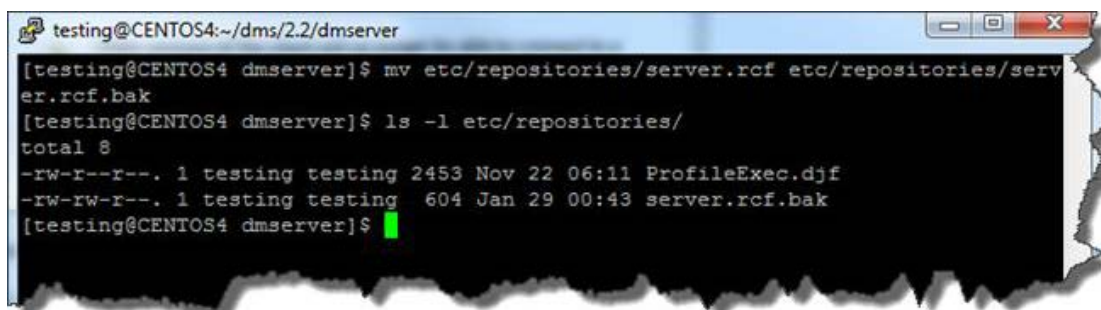
2. Find the Studio RCF file and copy this to the Server. If you followed the screenshots, the repository was configured as being private. This means that the RCF file can be found by going to %APPDATA%\DataFlux\DataManagement\2.2\repositories.
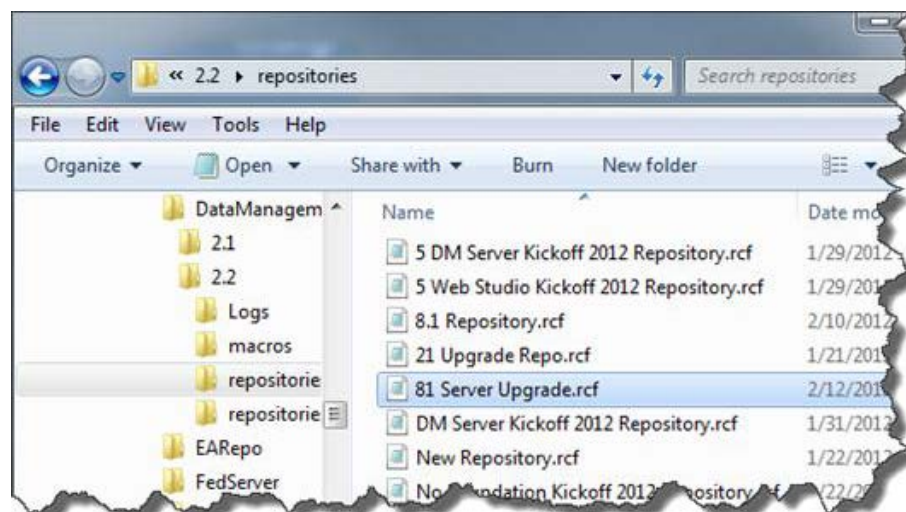
If it is not in this location, then look in <DM Studio root>\etc\repositories and copy the "81 Server Upgrade.rcf" file to the server.
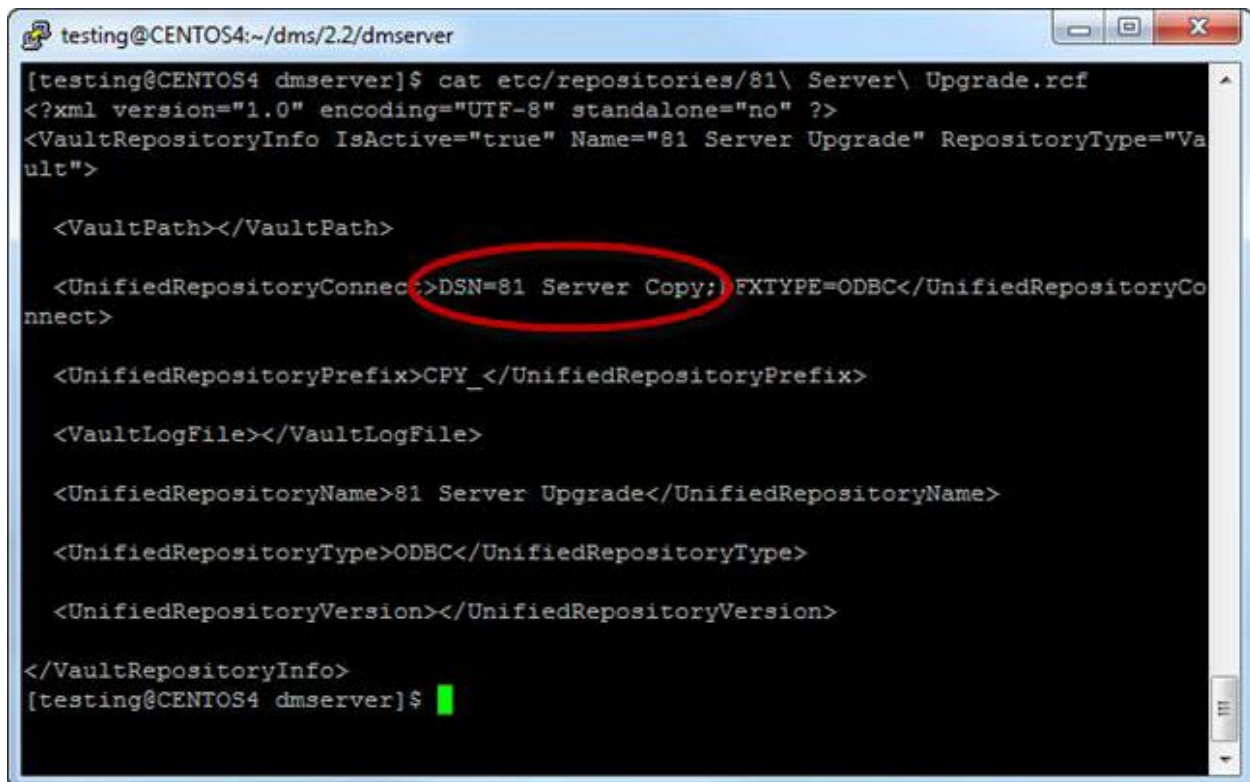
In the following display, FileZilla is used to SFTP the file over to the Server.
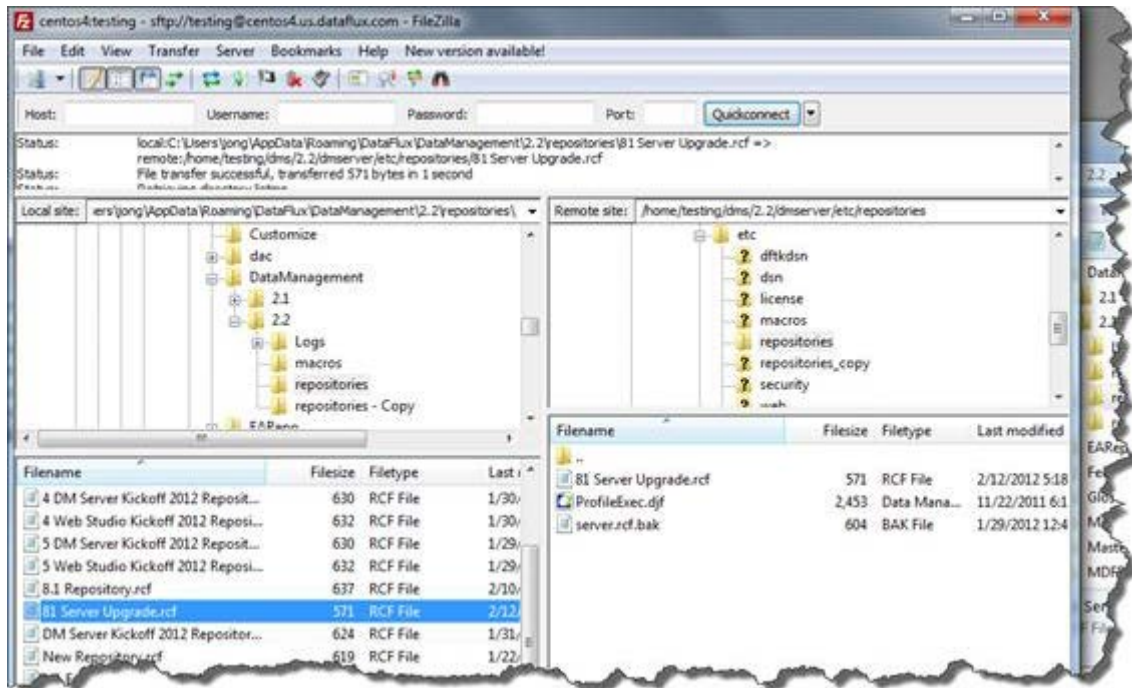
3. Copy the saved credentials on your DataFlux Data Management Studio box to the DataFlux Data Management Server machine. The saved credentials are in the %APPDATA%\DataFlux\dac\9.1 directory; copy them to the <DM Server root>/etc/dsn directory. For DataFlux Data Management Studio 2.3 and later versions, the saved credentials are in the %APPDATA%\DataFlux\DMStudio\<instance> directory.
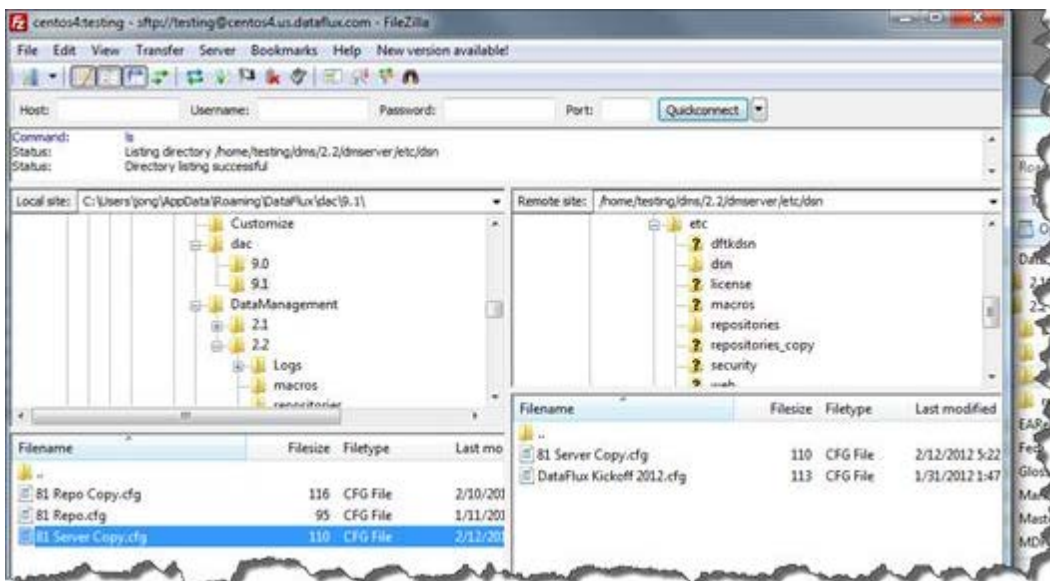
4. In the RCF file, locate the DSN name that you need to create on the server.
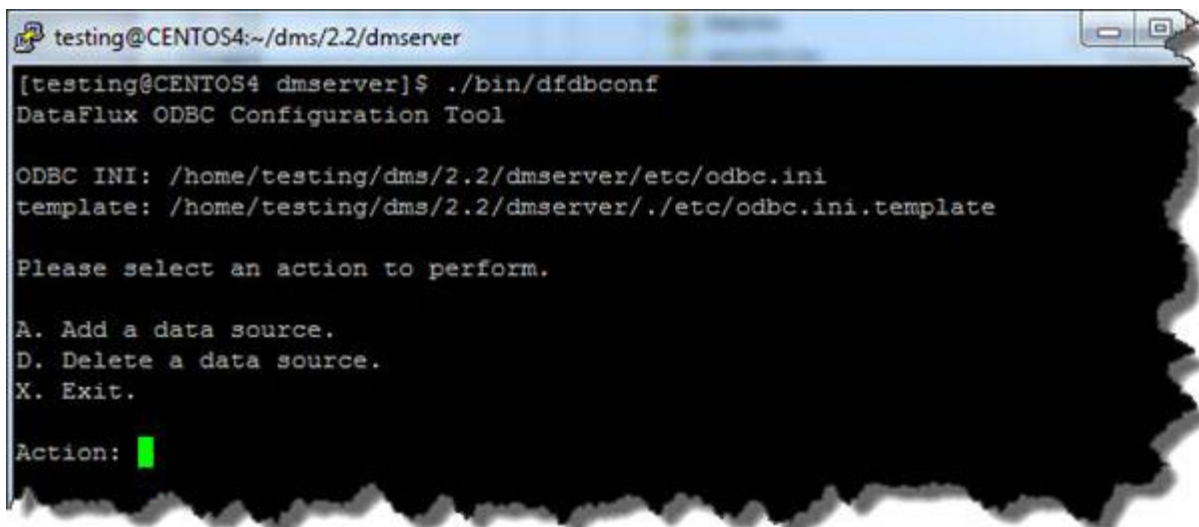
5. Create the DSN on the server (assuming that you know what data source this should be connecting to).

6. View the contents of the 8.1 Server. The file storage location of the DataFlux Data Management Server is always <DM Server Install root>\var\. In this example, only two directories need to be moved over.

7. Copy the contents of <DIS root>/var/dis_arch_job into the <DM Server root>/var/batch_jobs directory.

8. Copy the contents of the <DIS_root>/var/dis_arch_svc into the <DM Server root>/var/data_services directory.

   CAUTION! Do NOT copy anything from the dis_prof_job directory.

Profile jobs need to be migrated through DataFlux Data Management Studio.

If the repository that the server uses is a file-based repository, then the *.rps file needs to be moved over to the server. This should be copied to <DM Server install root>/var/repositories. Be sure to double check the <DM Server install root>/etc/repositories/*.rcf file to make sure it is using the file-based repository.

Architect jobs continue to run on a DataFlux Data Management Server with no conversion needed, but it is highly recommended that jobs be converted using DataFlux Data Management Studio, tested and then uploaded to the Server. This enables you to take advantage of new features and functionality that the DataFlux software offers. The one caveat to this is if there are multi-page jobs that pass macro values between them. These jobs need to be upgraded and deployed to the server for them to run correctly.

If users want to use single page dfPower real-time services as part of their data management deployment, add the following to the <DM Server install root>/etc/service.cfg file.

```
DATASVC/IGNORE_DECLARED_VARS = yes
```

Architect Jobs

Architect jobs can be moved over from the Integration Server work area and run with no changes in DataFlux Data Management Server.

It is highly recommended that jobs be converted using DataFlux Data Management Studio, tested and then uploaded to the Server. This enables you to take advantage of new features and functionality that the DataFlux software offers.

Profile Jobs

Profile jobs need to be imported through DataFlux Data Management Studio before they can be run on DataFlux Data Management Server.

If the job is imported into a repository that the Server is not connected to, the profile must be copied to the Server's repository. Once again, this is done through DataFlux Data Management Studio. It must have a connection to the data storage that the server is using. Once the connection is made, Profile jobs can be copied using the Folders riser.

In DataFlux Data Management Studio, the Lin64 Repo is a DataFlux Data Management Server repository on a Linux 64 box. Notice that it does not have the Profile job, dfSample_profile on it.
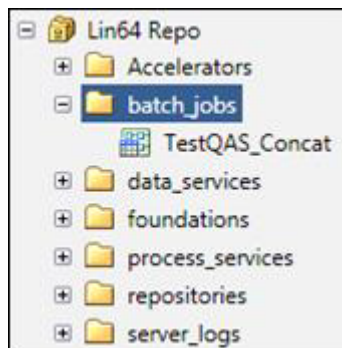
We want to copy this Profile job from local repository to this one. To do this we select the job, right-click and select **Copy**.
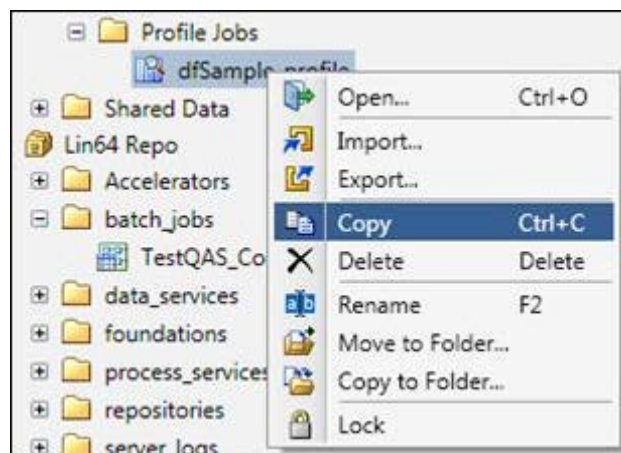
Select the batch_jobs folder in the Lin64 repository, right-click, and select **Paste**. This adds the Profile job and make it available to run via the Data Management Server Manager interface in DataFlux Data Management Studio.
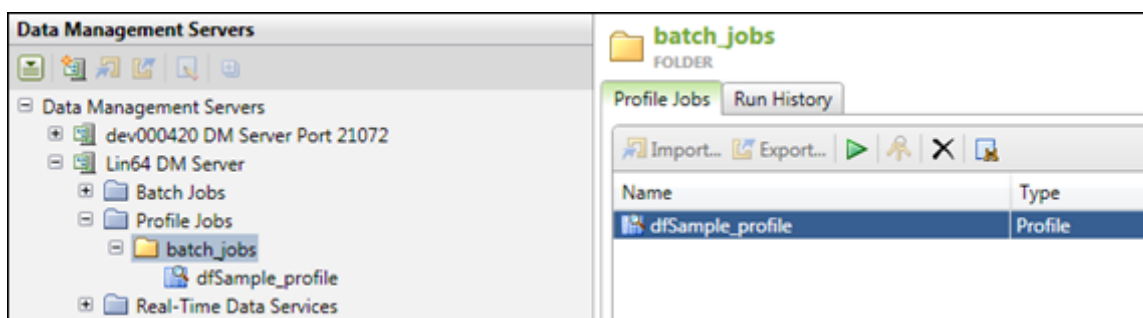
Accelerators

If any Accelerators have been installed with the Integration Server, contact your account representative to get the correct version that is compatible with the DataFlux software.

Security

Before setting up security, refer to the *DataFlux Secure: Administrator's Guide*.

DataFlux Data Management Studio 2.7 and later:

The DataFlux Data Management Server is automatically configured to use the SAS Metadata Repository. The BASE/AUTH_SERVER_LOC would have the location of the SAS Metadata Repository and the DMSERVER/SECURE/GRP_ADMIN is set to SASAdministrators.

If a user was using Authentication Server before and starts using the SAS Metadata Repository, any authorizations that they created before need to be re-created. See the Update Security Files after Exporting Users and Groups section for more information.

If security was being used before with DataFlux Integration Server, all security settings that you used on that server need to be re-created from scratch in DataFlux Data Management Server. The model used in the DataFlux software has changed and requires you to reset all user permissions and re-create any Access Control List settings that you might have had for individual jobs.

Security for DataFlux Data Management Server 2.5 or Earlier

Install and configure the DataFlux Authentication Server first. Users and groups need to be defined in the DataFlux Authentication Server in order for them to be given privileges on the DataFlux Data Management Server. The DataFlux Authentication Server supports integration with Active Directory, LDAP, and PAM.

Once the DataFlux Authentication Server is installed, configured and users are added, the DataFlux Data Management Server needs to be configured as well. The following settings should exist in the dmserver.cfg file:

```
DMSERVER/SECURE = yes
DMSERVER/SECURE/GRP_ADMIN = <name of group defined in
Authentication Server>
BASE/AUTH_SERVER_LOC = <Location of where the
Authentication Server is installed>
```

The GRP_ADMIN setting can be any group that is in the DataFlux Authentication Server. It is recommended that a group called DMS_ADMINS be used.

Security for DataFlux Data Manager Server 2.7 or Later

The SAS Metadata Repository should be installed and configured first. Users and groups need to be defined in the SAS Metadata Repository in order for them to be given privileges on the DataFlux Data Management Server.

DataFlux Data Management Server should already be configured to connect to the SAS Metadata Repository. The following settings should exist in the dmserver.cfg:

```
DMSERVER/SECURE = yes
DMSERVER/SECURE/GRP_ADMIN = SASAdministrators
BASE/AUTH_SERVER_LOC = <Location of where the SAS Metadata Repository is
installed>
```

Common Security Steps

Once the dmserver.cfg file is configured correctly, restart the DataFlux Data Management Server if any edits were made and connect to the server via the Data Management Server Manager interface in DataFlux Data Management Studio. Log on using any user in the group defined by DMSERVER/SECURE/GRP_ADMIN. Once logged in, the user needs to assign server level access and then job level access. The default is to deny everyone any privilege except for those in the admin group.

First, provide Server level authorization. After logging in, select the server and then select the **Security** tab.
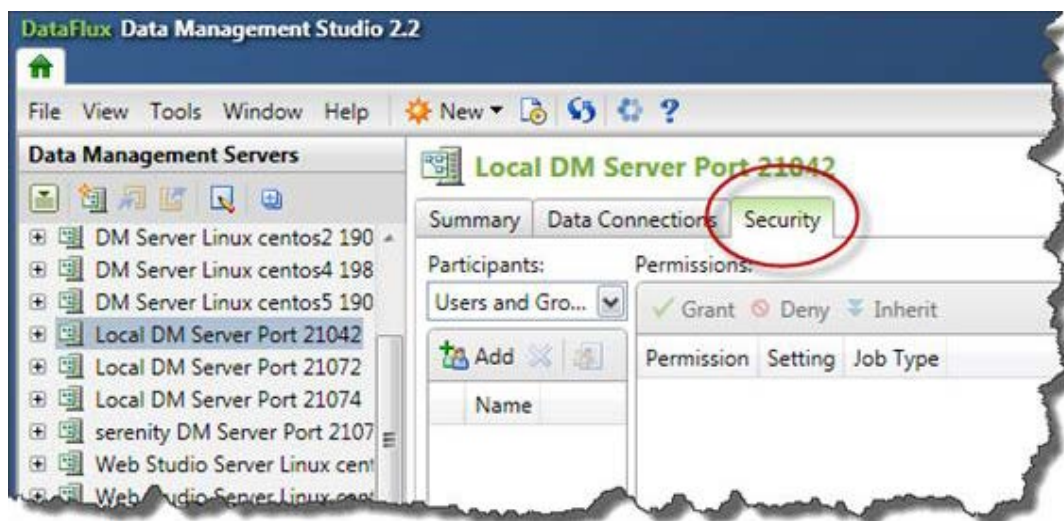
Select **Add** to add users and groups and give them the needed permissions
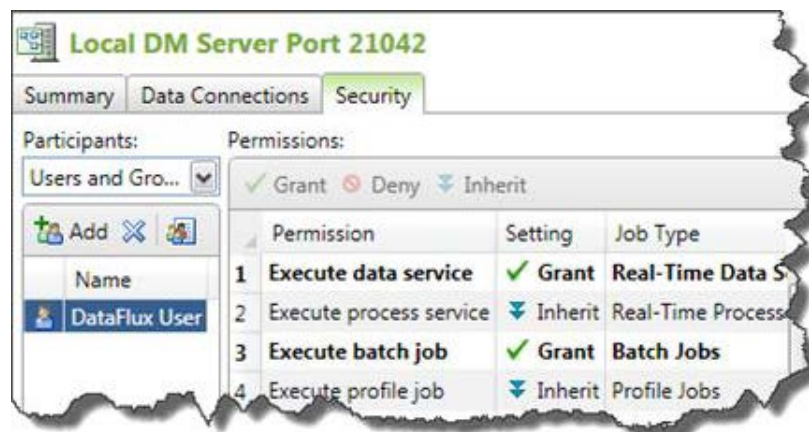
Next, assign job rights by selecting one or multiple jobs, right clicking, and selecting Permissions.
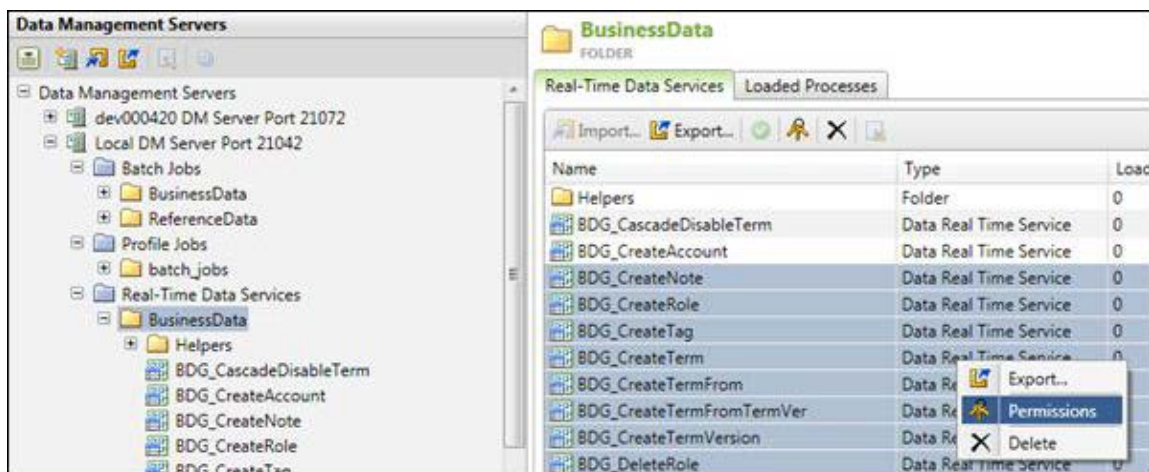
This brings up a dialog box that enable you to set the owner if it needs to be different as well as set permissions for users or groups.

If both steps are not followed, then users are unable to run jobs as they would expect to.

> *Note:* This is different behavior than you experienced previously with Integration Server security. In Integration Server, once the Execute privilege was provided at the server level, the default was to grant all users the right to run the job and only explicitly deny users. For DataFlux Data Management Server, once the Execute privilege is provided, users must explicitly be allowed to run specific jobs.

Secure Socket Layer

Secure Socket Layer (SSL) configuration still exists in the DataFlux Data Management Server. This setup and configuration should be handled when moving migrations. Support for LDAP or Active Directory has moved to the DataFlux Authentication Server. For both configurations, please refer to the *DataFlux Data Management Server: Administrator's Guide* and the *DataFlux Authentication Server: Administrator's Guide* for detailed configuration steps.

Command Line Execution

The Integration Server Command line used these arguments:

```
usage: dfexec [OPTIONS] jobfile [jobfile...]
general options:
    -i                     interactive mode
    -q                     quiet (no status messages)
    -cfg FILE              use alternate configuration file
    -log FILE              use FILE for logging output
    --version              display version information
    --help                 display this message
additional options for Architect jobs:
    -w                     write default target's output to terminal
    -fs SEP                use SEP as field separator for terminal output
    -m MODE                execution mode: d(efault), s(erial), p(arallel)
additional options for Profile jobs:
    -o OUTPUT              output file or repository name; file names must
                           end with .pfo (defaults to profile.pfo)
    -n NAME                 report name (defaults to current date and time)
    -a                     append to existing report
    -desc DESCRIPTION       optional job description
```

The batch jobs execution utility has the following command line arguments:

```
usage: dmpexec [options]
options:
    -c <file>              read configuration from <file>
    -j <file>              execute job in <file>
    -l <file>              write log to <file>
    -i <key>=<value>       set input <key> to <value>
    -o <key>=<value>       set option <key> to <value>
    -b <key>=<value>       set job option <key> to <value>
    -a                     authenticate using Authentication Server
```

If we had scripts setup on the Integration Server host to run a profile and architect job, it might look like the following:

```
> bin/dfexec –log profileJob.log –o Script_Run.pfo –n scriptedRun profile.pfi

> bin/dfexec –log disJob.log –cfg cmdLine.cfg architect.dmc
```

To run the upgraded jobs on DataFlux Data Management Server, the commands would look like this:

```
> bin/dmpexec -l profileJob.log -j "<DM Server install
root>/etc/repositories/ProfileExec.djf" -i "REPORT_NAME=scriptedRun" –i
"REPORT_DESCRIPTION=Server_Run" -i "JOB_ID=2"
```

JOB_ID is required to run profile jobs. Once the profile has been copied to the repository that the server reads from, go to the Folders riser and select the profile job.
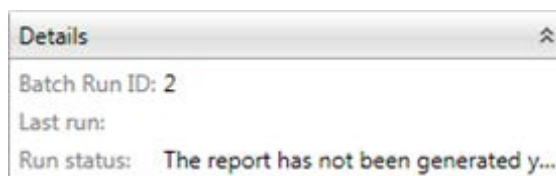
If the Profile job is inside a Process job, and assuming that the Profile job is using macros that need to be passed in at run time, use the following:

```
> bin/dmpexec -c "cmdLine.cfg" –l "dmpJob.log" -j "path/to/process.djf" –i
"INPUT_PATH=path/to/input" -i "INPUT_FILE=file.txt"
```

To run the upgraded Architect job in the DataFlux Data Management Server, use the following command:

```
> bin/dmpexec -c "cmdLine.cfg" –l "dmpJob.log" –j "path/to/architect.ddf"
```

If the job needs to run with a user's credentials, the credentials would be stored in a configuration file, which would contain something like the following:

```
base/auth_server_loc
=iom://servername.domain.com:21030;protocol=bridge;user=userid,pass=password
```

Then passed in on the command line with the following options:

```
> bin/dmpexec -a -c "dmpexec_auth.cfg" -l "dmpJob.log" –j "path/to/architect.ddf"
```

SAS Management Console

When moving from SAS 9.2 to SAS 9.3, a DataFlux Data Management Server entry is created in metadata. This entry might need to be renamed and a new DataFlux Data Management Server entry created with the same name. This allows Data Integration Studio jobs to continue to run without having to be updated to handle the change in servers. Before following the next set of steps, look at the properties of the defined DataFlux Data Management Server and validate that the TCP/IP connection is pointing to the correct host and port. If so, no changes are needed. If they are not, please follow the next set of steps to define a DataFlux Data Management Server that is pointing to the correct host and port.

1. Open SAS Management Console and rename the existing DataFlux Data Management Server entry.
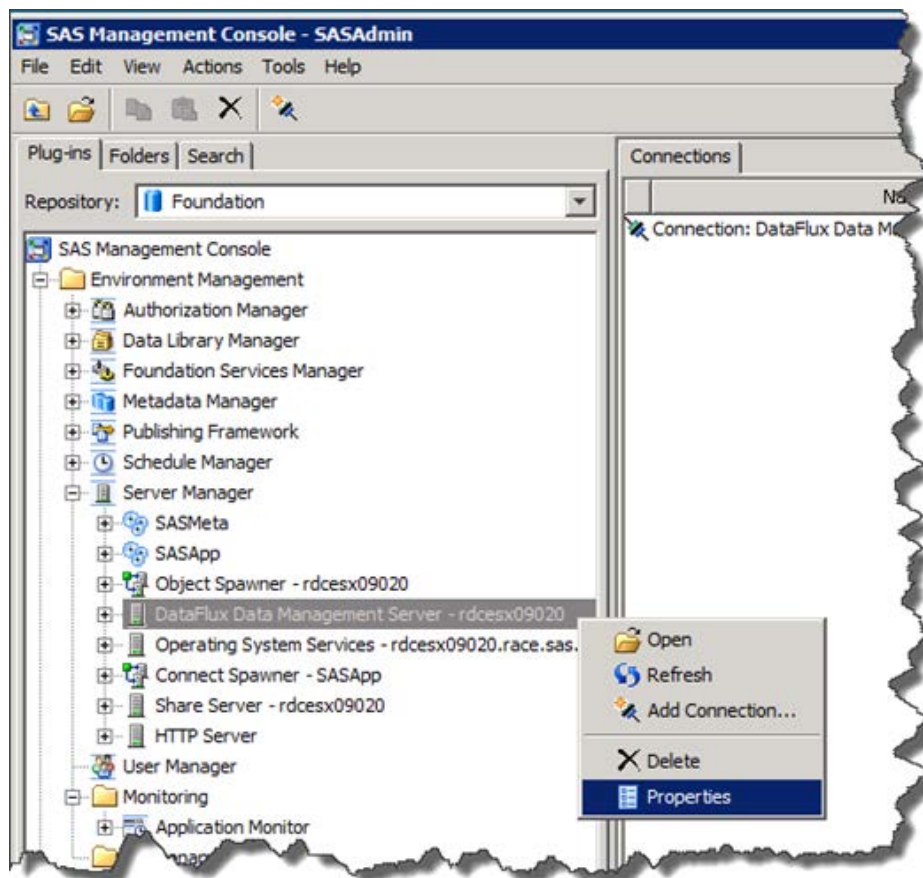
For the example, append " – original" to the end of the name.
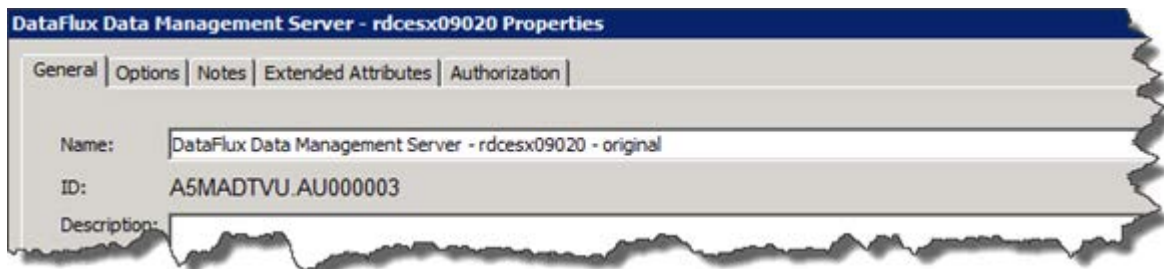
2. Create a new server entry using the same name from the original server entry.
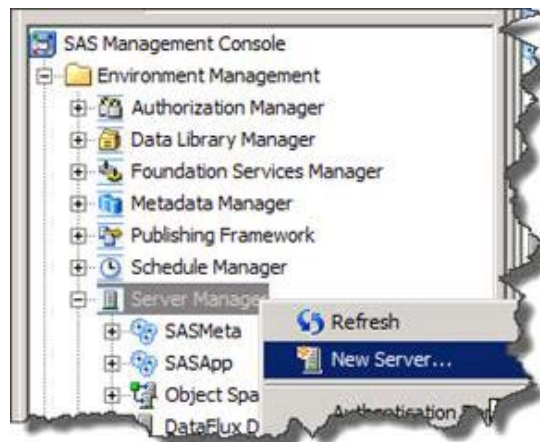
3. The New Server Wizard opens. Select **Http Server** and then select **Next**.
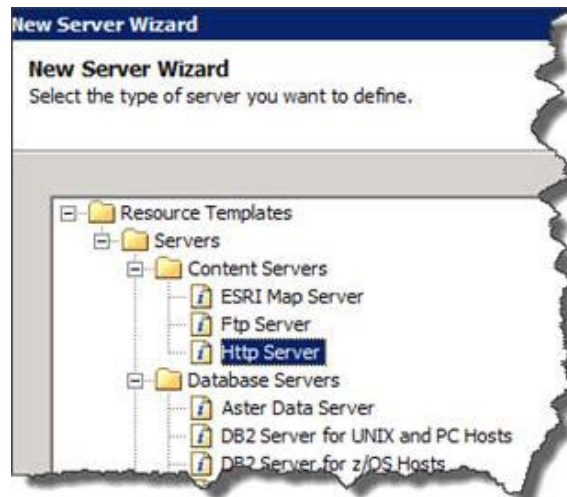
4. Give it the same name that was used for the original entry. In this example, name = "DataFlux Data Management Server - rdcesx09020".

5. In the next dialog box, enter or verify that the following information is entered:

- For DataFlux Data Management Server 2.2: Software Version = 2.2

  For DataFlux Data Management Server 2.3: Software Version = 2.3

  For DataFlux Data Management Server 2.4: Software Version = 2.4

  For DataFlux Data Management Server 2.5: Software Version = 2.5

  For DataFlux Data Management Server 2.6: Software Version = 2.6

  For DataFlux Data Management Server 2.7: Software Version = 2.7

- Vendor = DataFlux Corporation

- Base Path(s) = /

- Application Server Type = DataFlux Data Management Server

6. Select the **New** button. In the resulting dialog box, select **OK**.

7. Select **Next.**

8. In the next dialog box, select the following options:

- Authentication domain: DefaultAuth

- Authentication type: User/Password

- Application protocol: http

- Host name: [enter in the name of the host where the DataFlux Data Management Server is residing]

- Port Number: [This is the dmserver/soap/port from the dmserver.cfg file]

- Proxy URL: Leave blank

9. Click **Next** to see the review dialog box.

10. Verify the following:

- The name is the same as the original one.

- The host reflects the location of the DataFlux Data Management Server.

- The port number matches what is in the dmserver.cfg file.

11. Click **Finish** to complete the SAS Management Console changes.

SAS Data Quality Server

In SAS 9.3, all functions and procedures that contain the DQSRV prefix are deprecated. SAS 9.3 continues to support the DQSRV functions and procedures. However, when you use these language elements, you receive a warning message that these language elements are being deprecated.

The DQSRV language elements are being replaced by the DMSRV language elements. Some functions and procedures are simply renamed. Other functions and procedures are being replaced by a new function or procedure. All of the changes are documented in the following tables.

> *Note:* The DQSVR functions were used with the DataFlux Integration Server. The DMSVR functions support the DataFlux Data Management Server.

Description of Function	Deprecated DQSRV Name	New DMSRV Name
Runs a file-type DataFlux dfProfile job on a server and returns a job identifier	DQSRVPROFJOBFILE	Not Applicable
Runs a repository-type DataFlux dfProfile job on a server and returns a job identifier	DQSRVPROFJOBREP	Not Applicable
Generates a profile	Not Applicable	DMSRVPROFILEJOB
Runs a DataFlux dfPower Architect job on a server and returns a job identifier	DQSRVARCHJOB	DMSRVBATCHJOB
Runs a process job	Not Applicable	DMSRVBATCHJOB
Returns the status of a job that was submitted to the server	DQSRVJOBSTATUS	DMSRVJOBSTATUS
Copies a job's log file from a server	DQSRVCOPYLOG	DMSRVCOPYLOG
Runs a data job	Not Applicable	DMSVRBATCHJOB
Deletes a job's log file from the server	DQSRVDELETELOG	DMSRVDELETELOG
Terminates a job that is running on a server	DQSRVKILLJOB	DMSRVKILLJOB
Authenticates a user on a server	DQSRVUSER	DMSRVUSER
Returns the version of the server	DQSRVVER	DMSRVVERSION

Replacing the DQSRV Functions with DMSRV Functions

Deprecated Procedures

Description of Procedure	Deprecated Name	New Name
Runs a DataFlux dfPower Architect real-time service on a server	PROC DQSRVSVC	PROC DMSRVDATASVC
Creates a data set that provides the name, type, and description of all DataFlux Architect and DataFlux dfPower Profile jobs that have been run on the server	PROC DQSRVADM	PROC DMSRVADM
Runs a process service	Not Applicable	PROC DMSRVPROCESSSVC

Deprecated Procedures

If the SAS Data Quality Server is being used via SAS code only (meaning used by calling the PROCS in SAS code and not with EDI), customers need to change the PROC names and update their SAS code to do the following:

- Point to the new data or process jobs.

    Note: The architect jobs were upgraded. Even though the names are the same, the extensions change from Architect (.dmc) to Process (.djf) or Data (.ddf).

- Point to the new profile jobs

If the SAS Data Quality Server is a part of an Enterprise Data Integration deployment, the job updates are covered with the 9.2 to 9.3 migration

Note that data quality functions might produce different results than DataFlux Data Management Studio or Server version 2.2 because the SAS Data Quality Server engine is based on version 2.1. For the correlating version of the Data Quality Server engine and the version of the DataFlux software it is based on, please see the following table:

Version of the Data Quality Server Engine	Version of the DataFlux software on which it is based
9.3	2.1
9.3M1	2.1
9.3M2	2.3
9.4	2.4
9.4M1	2.5
9.4M2	2.5
9.4M3	2.7

Please be aware of these versions and compare results if you are doing actions in Data Quality Server and DataFlux Data Management Studio or Server.

If you are trying to call a single page dfPower real-time service as part of a DataFlux Data Management Studio or Server deployment, then add the following to the <DM Server install root>/etc/service.cfg file:

```
DATASVC/IGNORE_DECLARED_VARS = yes
```

DataFlux Data Management Studio 2.1 to DataFlux Data Management Studio 2.2 or Later

Each migration scenario requires specific actions. Refer to each of the following sections:

- [Configurations](#)

- [Reference Sources](#)

- [Data Connections](#)

- [Repositories](#)

- [Data and Process Jobs](#)

- [Profile Jobs](#)

- [Explorer Jobs](#)

- [Accelerators](#)

- [SAS Data Integration Studio](#)

- [Other](#)

Configurations

There are no changes in configuration settings between these two releases. All settings that were honored in 2.1 are honored in later releases. Some changes that need post-installation tasks include:

- Backup app.cfg and dfwfproc.cfg in <DM Studio 2.2 install root>\etc

- Copy app.cfg and dfwfproc.cfg from <DM Studio 2.1install root>\etc to <DM Studio 2.2 install root>\etc

- Open <DM Studio 2.2 install root>\etc\app.cfg and verify that the paths are correct for these items:

    - Licenses

    - QKB

    - USPS data

    - Canada data

    - World data

    Note: Do not migrate settings in any other files.

It is a good practice to ensure that the license is configured correctly. The best way to do this is with the License Manager, which is found in Windows Programs menu.
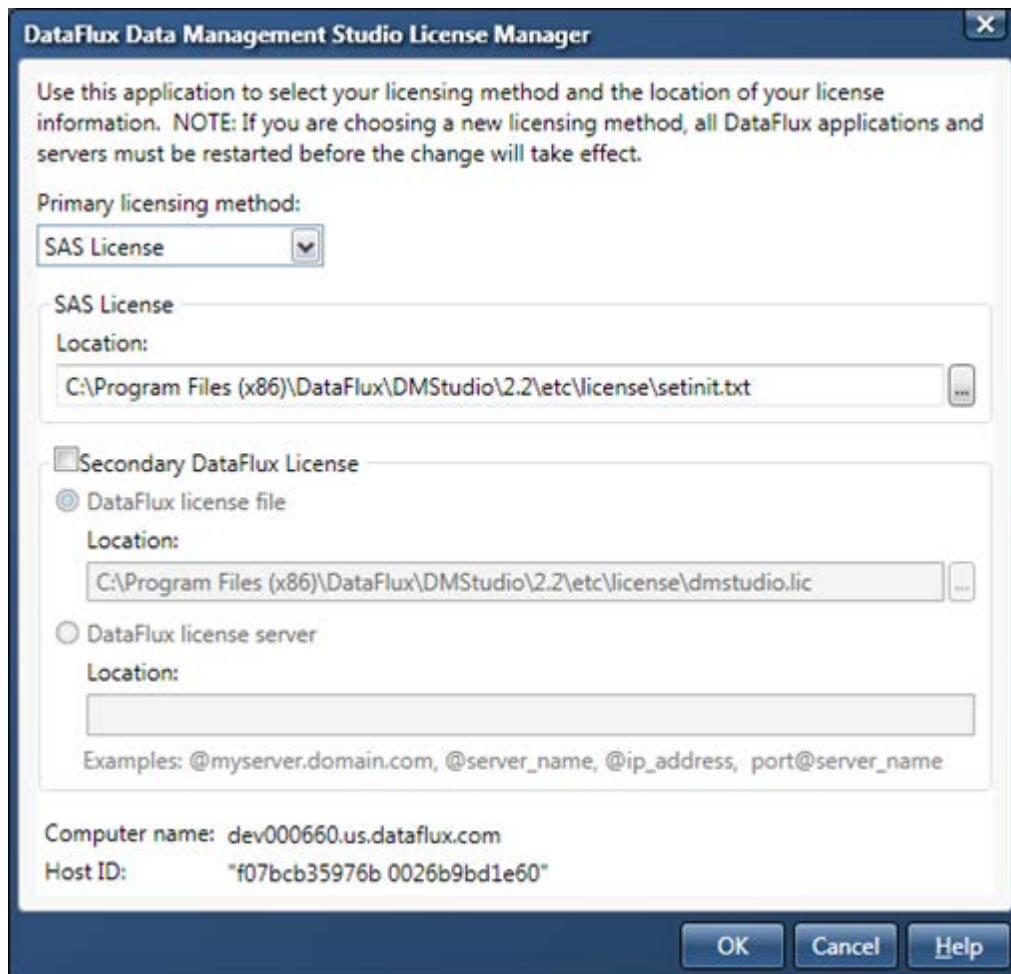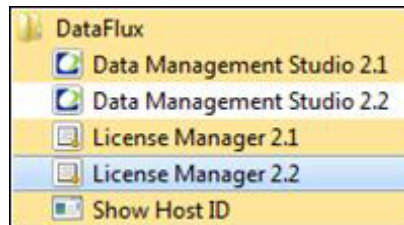
When you copy the user's settings, it is copying CFG files from these locations:

- %APPDATA%\DataFlux\DataManagement\2.1 to %APPDATA%\DataFlux\DataManagement\2.2

- %APPDATA%\DataFlux\DataManagement\2.1\macros to %APPDATA%\DataFlux\DataManagement\2.2\macros

---

DataFlux Data Management Studio 2.3 and later versions:

For 2.3 and later versions, the following mapping exists:

- %APPDATA%\DataFlux\DataManagement\2.1 to %APPDATA%\DataFlux\DMStudio\<instance>\

    %APPDATA%\DataFlux\DataManagement\2.1\macros to %APPDATA%\DataFlux\ DMStudio\<instance>\macros

---

- It does not copy anything from the "Logs" and "Repositories" directories.

    Note: Do not copy anything from Logs or Repositories.

Once these post-installation tasks are complete, all configurations have been moved over.

Reference Sources

Once DataFlux Data Management Studio is installed, these need to be re-registered. Open DataFlux Data Management Studio 2.1 and navigate to Administration> Reference Sources. Open up DataFlux Data Management Studio 2.2 and navigate to the same location.
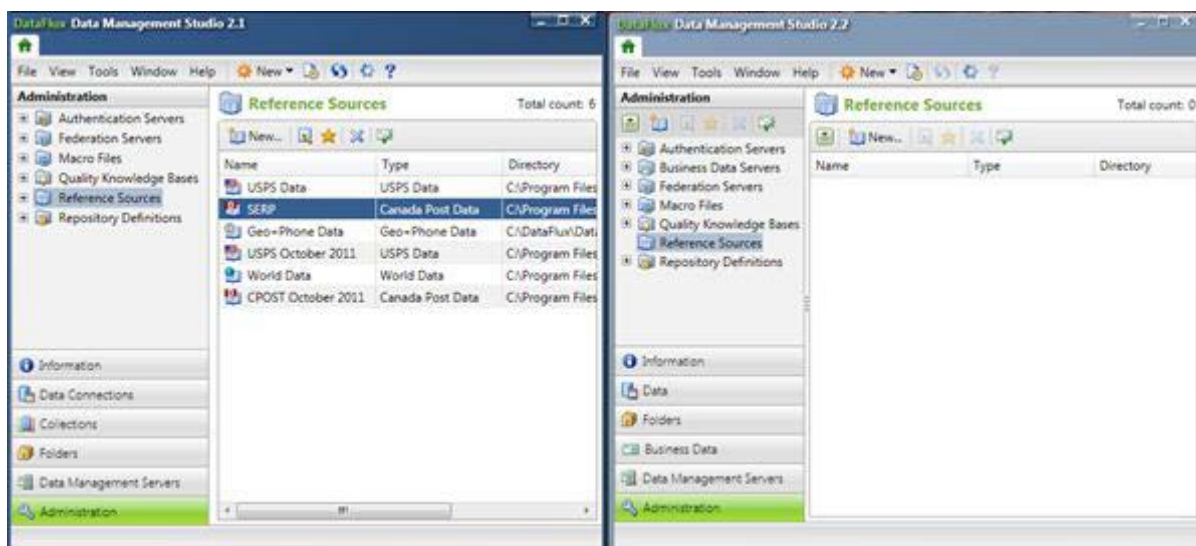
For each reference source that you want to copy, open up the properties in 2.1 and create a new Reference Source in 2.2.
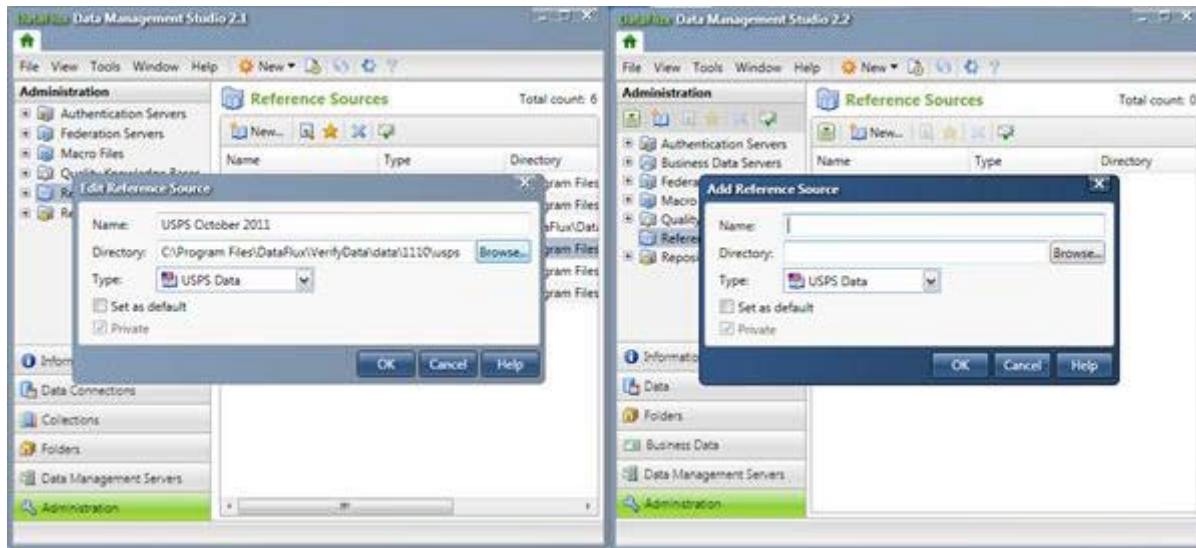
Copy the contents from 2.1 to 2.2.
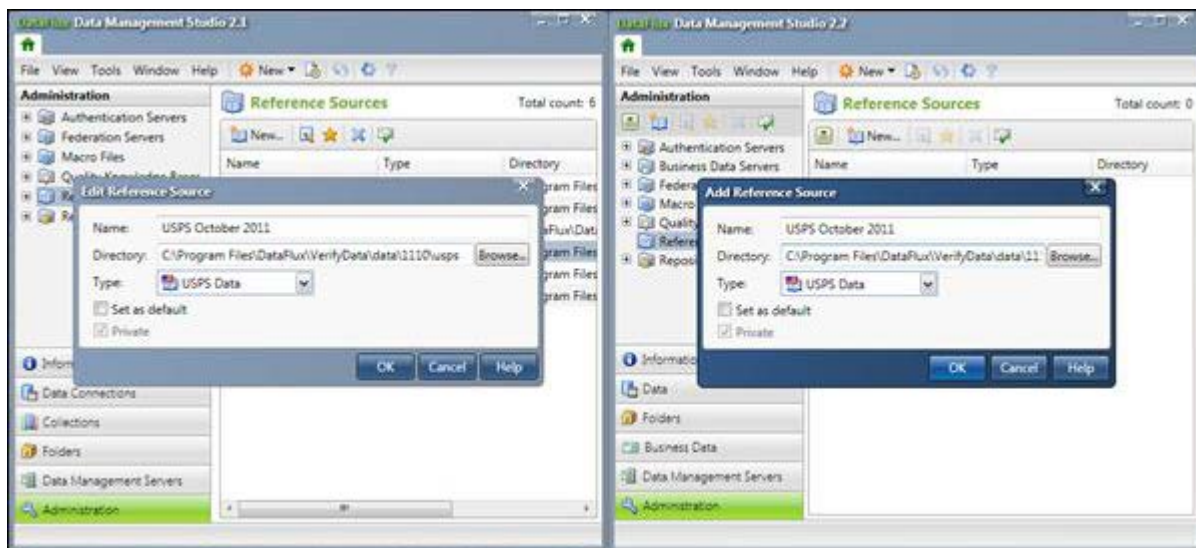
The end result is that all desired resources are copied across.
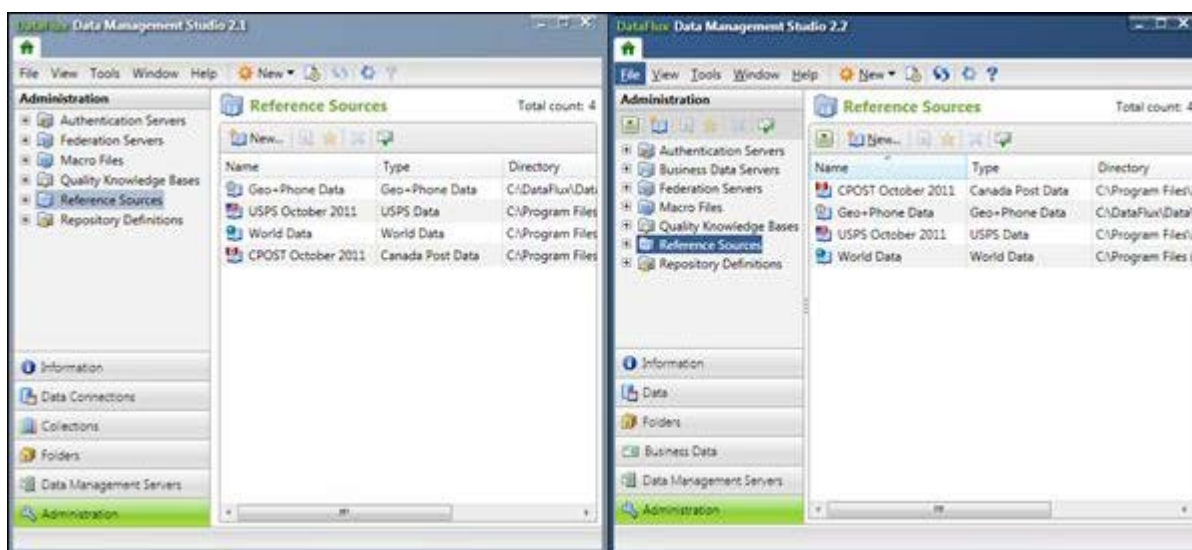
Data Connections

Assuming that DataFlux Data Management Studio is being installed on the same box as the previous version of DataFlux Data Management Studio, no extra work is required to migrate any ODBC connections. If DataFlux Data Management Studio is being installed on a new box, then you need to manually migrate the ODBC connections that are defined in the ODBC Administrator.

ODBC data connections defined on the box are automatically upgraded to the latest version of the DataFlux ODBC drivers. This means that both DataFlux dfPower and DataFlux Data Management Studio are using the same version of ODBC drivers.

You need to move over any custom, DataFlux Federation Server, or localized Federation Server definitions that have been created as well. Use a utility of choice to copy definitions from <DM STUDIO 2.1 INSTALL ROOT>\etc\dftkdsn to <DM STUDIO 2.2 INSTALL ROOT>\etc\dftkdsn and credentials from %APPDATA%\DataFlux\dac\9.0 to %APPDATA%\DataFlux\dac\9.1.

DataFlux Data Management Studio 2.3 and later versions:

For Data Management Studio 2.3 and later versions, this copies content from
<DM STUDIO 2.1/2.2 INSTALL ROOT>\etc\dftkdsn
to
<DM STUDIO 2.3/LATER INSTALL ROOT>\etc\dftkdsn

and copies credentials from
%APPDATA%\DataFlux\dac\9.0 or 9.1
to
%APPDATA%\DataFlux\dac\savedconn.

This is how the folders look prior to migration:
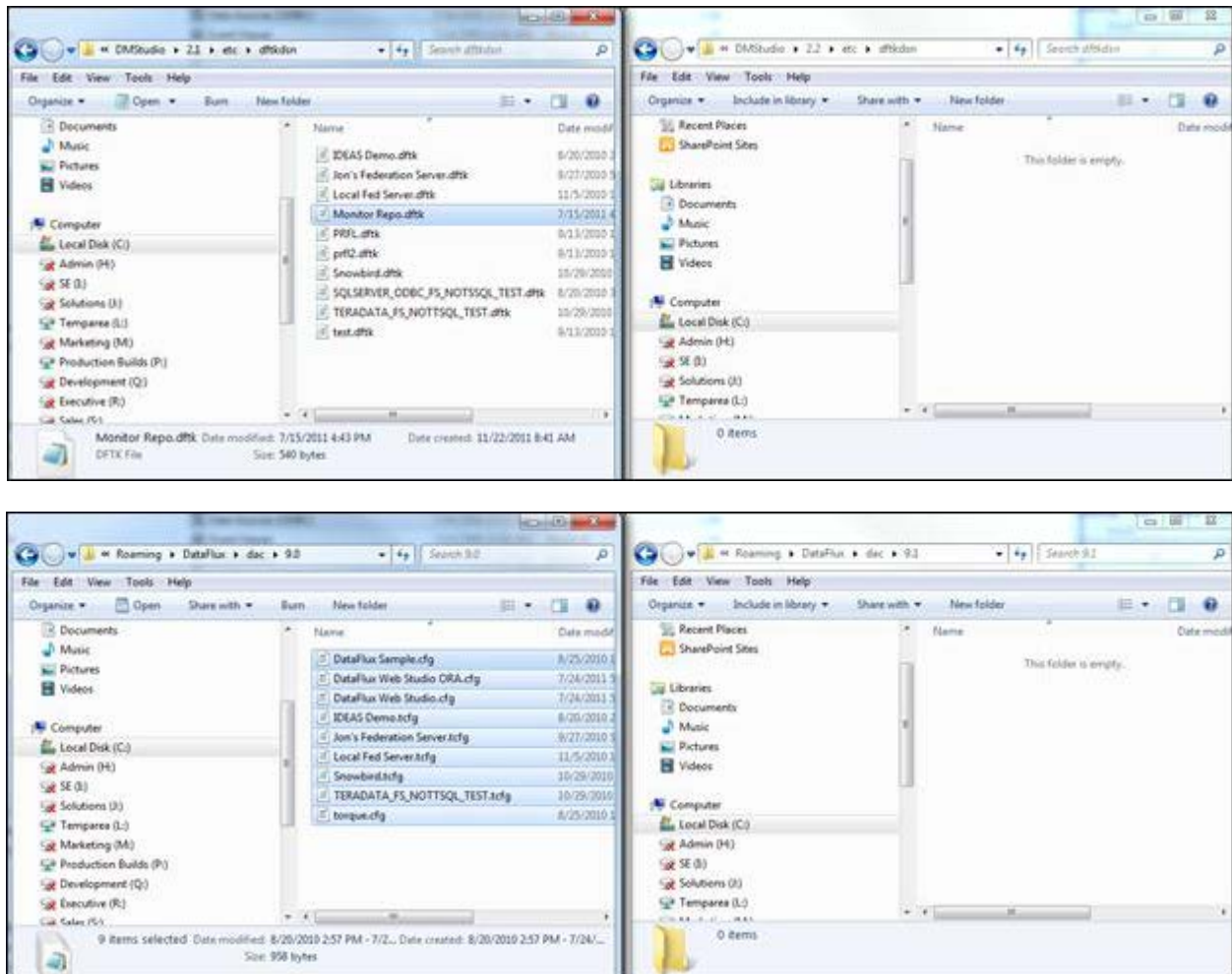
This is how the folders look after migration:
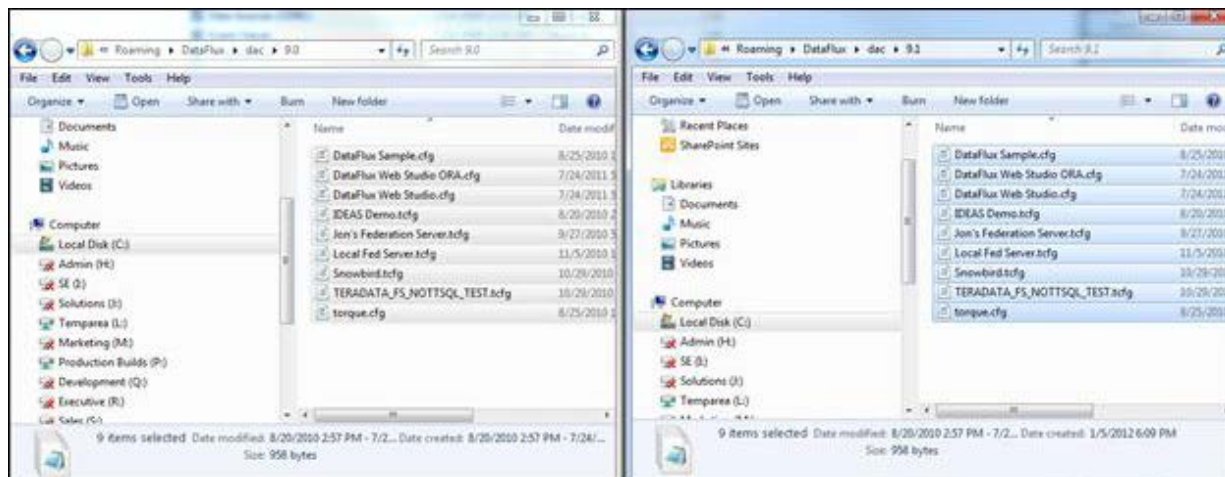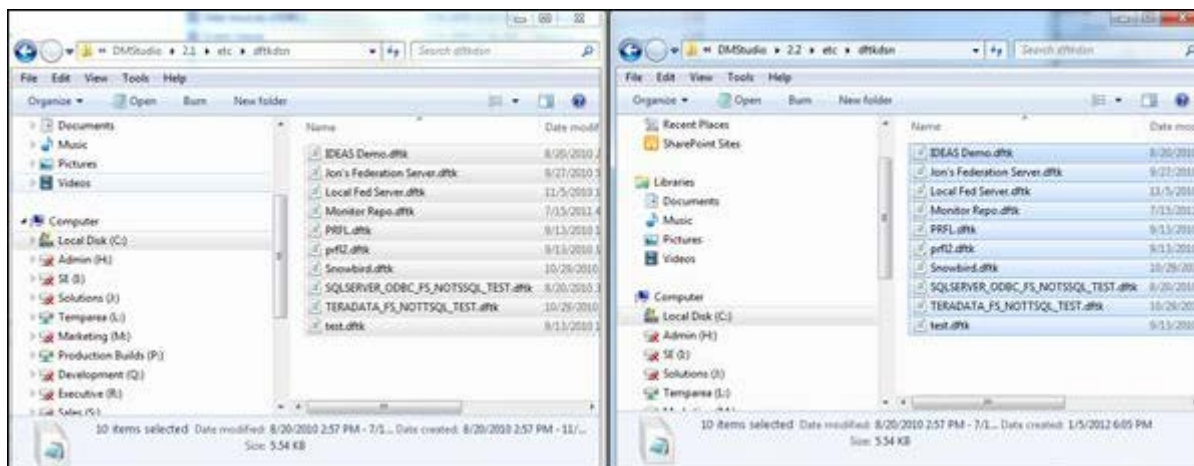
Once this is done, 2.2 should have the same data connections as 2.1. This can be verified by comparing the 2.1 Data Connections riser against the 2.2 Data riser.
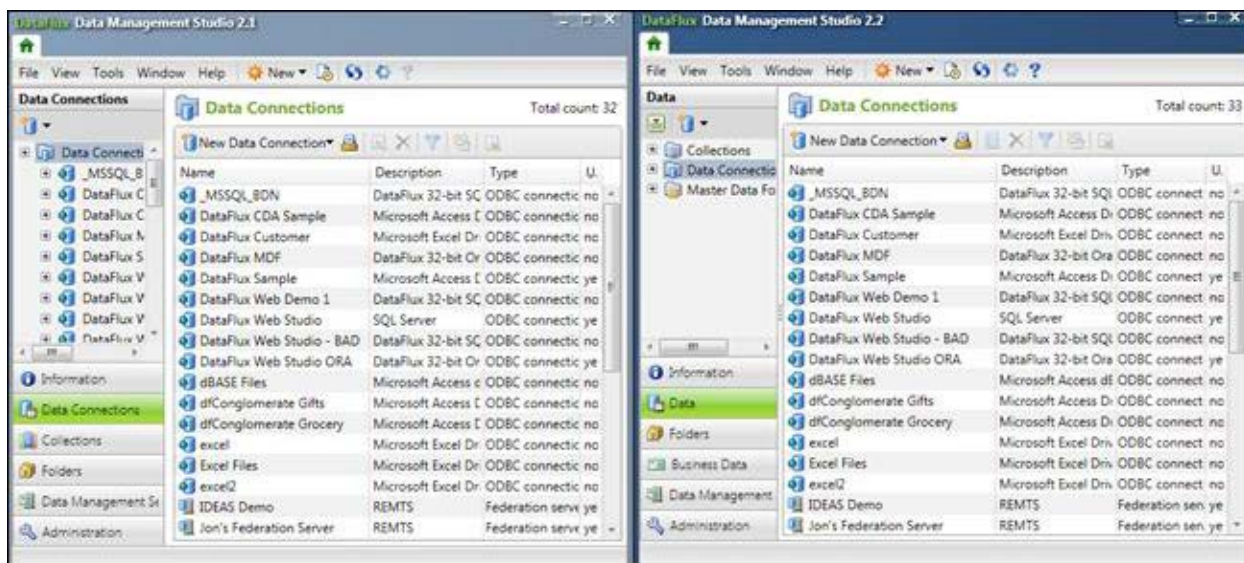
Repositories

Depending on the type of repository, you might need to re-create the repository for [File-Based Data Storage](#), or you might need to create new repositories like for [RDBMS-Based Data Storage.](#)

File-Based Data Storage

Each repository that exists in 2.1, needs to be re-created in 2.2. It is highly recommended that you not upgrade the 2.1 repository because then 2.1 could not use the repository.

Perform the following steps:

1. Open 2.1 and go to the Administration > Repository Definitions.
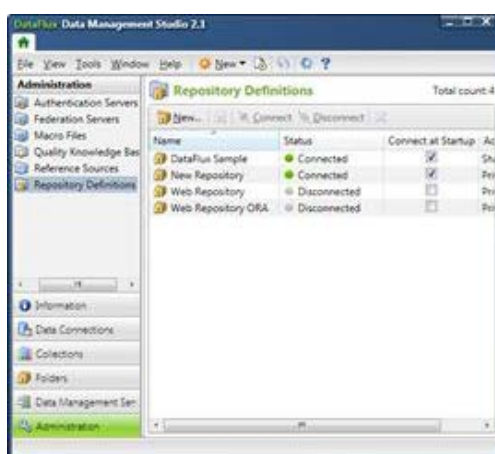
   Except for the DataFlux Sample repository, each listed repository that needs to be available in 2.2 should be migrated.

2. Open the repository definition. If the repository is connected, go ahead and disconnect. This enables you to copy and paste.
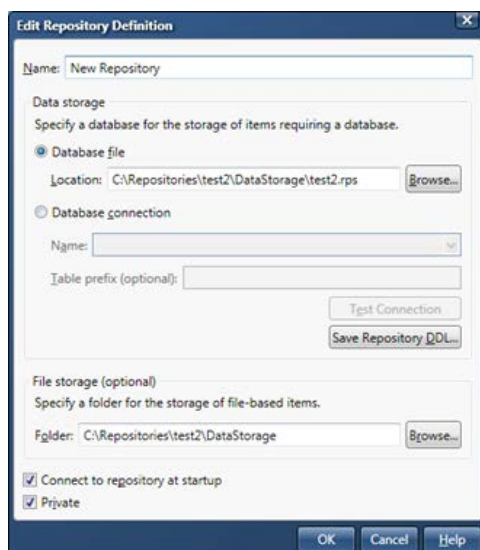
3. Open Windows Explorer and navigate to where you want to make the 2.2 repository folders. You need to create the physical locations on disk where the folders should reside before creating the new repository.

   Notice in the following example that a new folder is created and it is called DMP22.
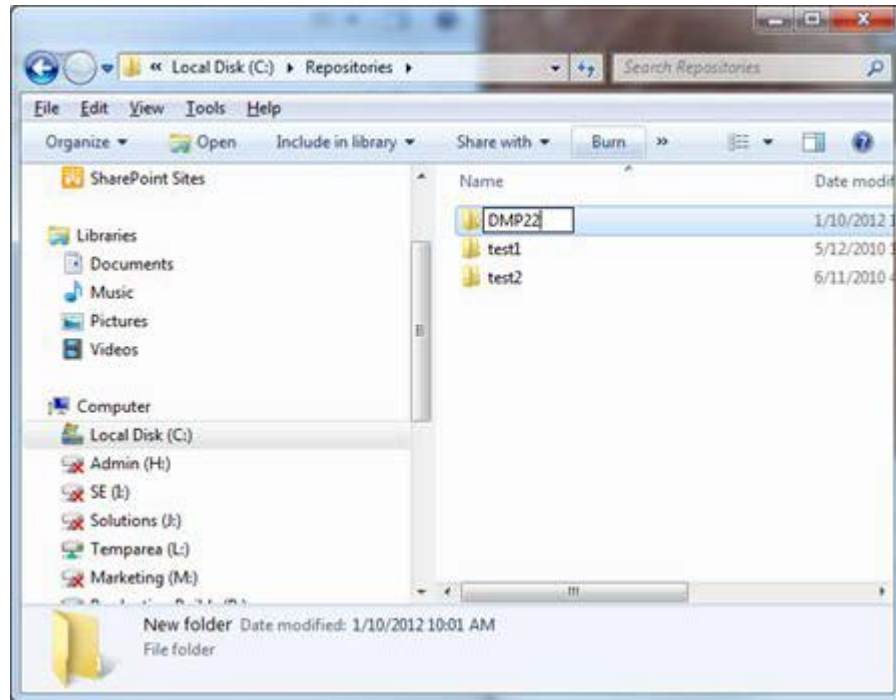
4. Open the new folder. Since the repository creation does not create folders, you need to create a couple more folders under DMP22 to create the new repository structure. The structure can be whatever is desired. In this example, we are going to create the same structure that exists for 2.1 but only under the DMP22 folder.
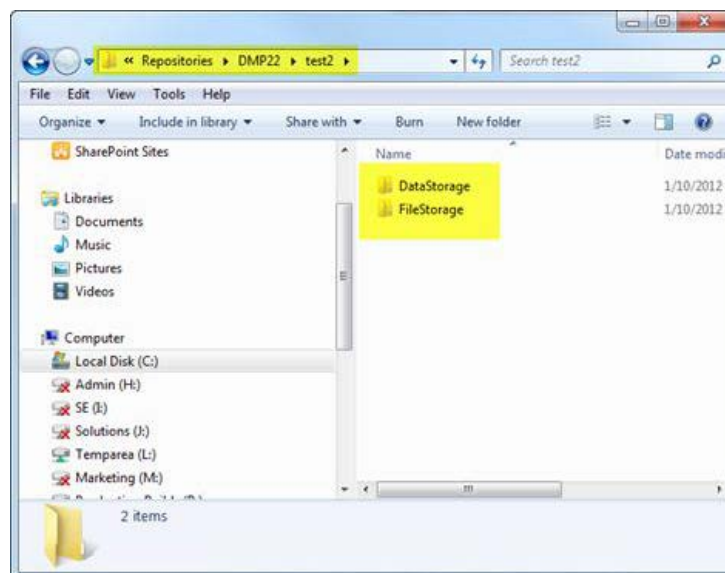
5. After creating the folders, and since this repository has a file-based data storage, you need to copy one file over to the new DataStorage location. Go back to the 2.1 DataStorage location and copy the *.rps file to the 2.2 DataStorage location. In this example, we are copying C:\Repositories\test2\DataStorage\test2.rps to C:\Repositories\DMP22\test2\DataStorage\test2.rps.
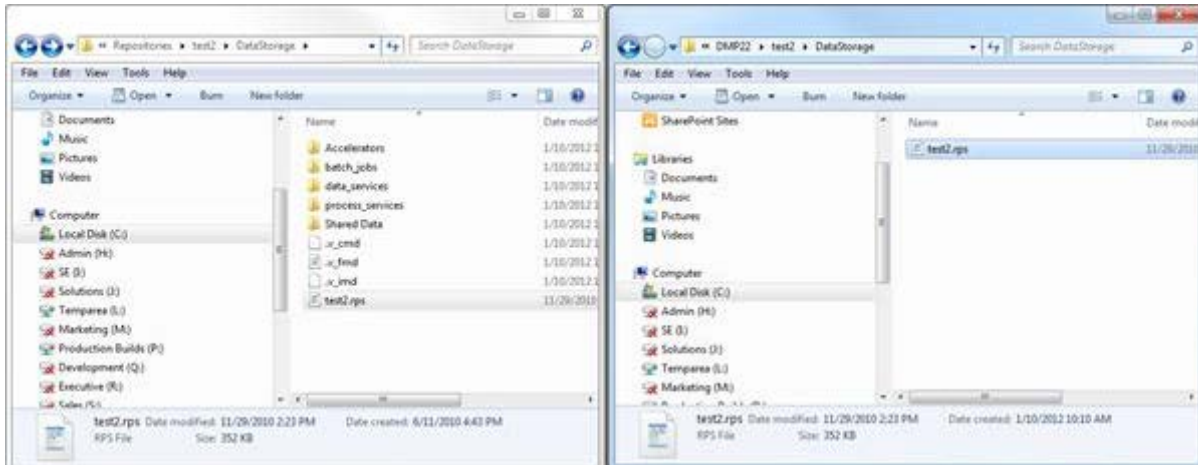
6. Now having created the folders and copied over the RPS file that we need, go back into DataFlux Data Management Studio and create the DMP 2.2 repository definition. In DataFlux Data Management Studio 2.2, navigate to Administration > Repository Definitions and create a new repository. If you feel confident, copy, paste, and edit from the 2.1 settings or use the **Browse** buttons to navigate to the specific folders.
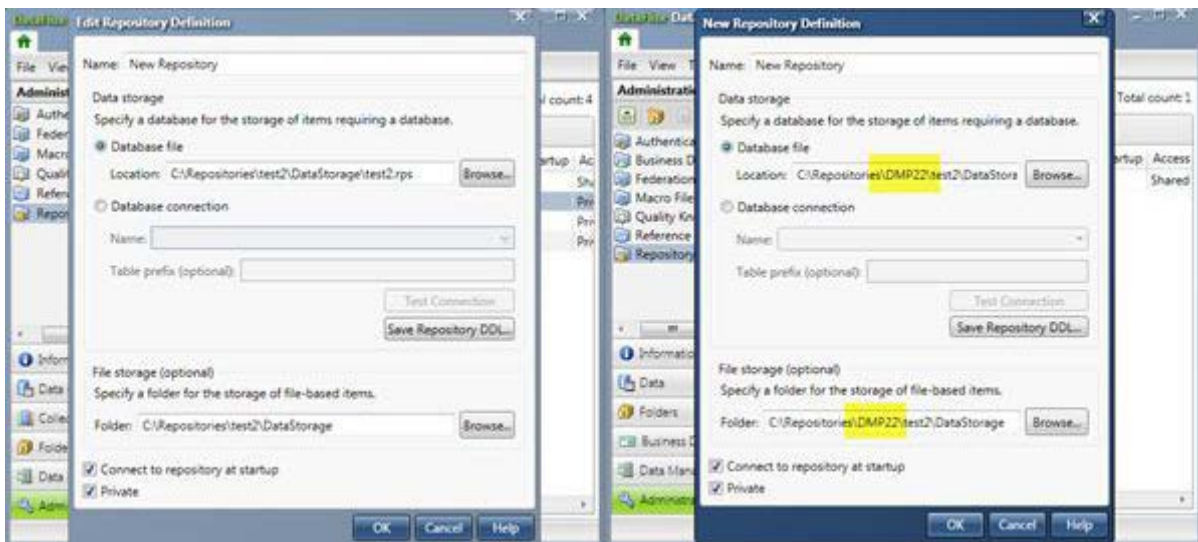
The highlighted differences between the 2.1 definition on the left and the 2.2 definition on the right is that the two pieces of the repository live under the DMP22 folder that was created.

7. Cancel out of the 2.1 repository property window. Make sure that the settings for the 2.2 repository are pointing to the new locations that were just created.

8. Select **OK** to save the changes. This results in the following dialog box
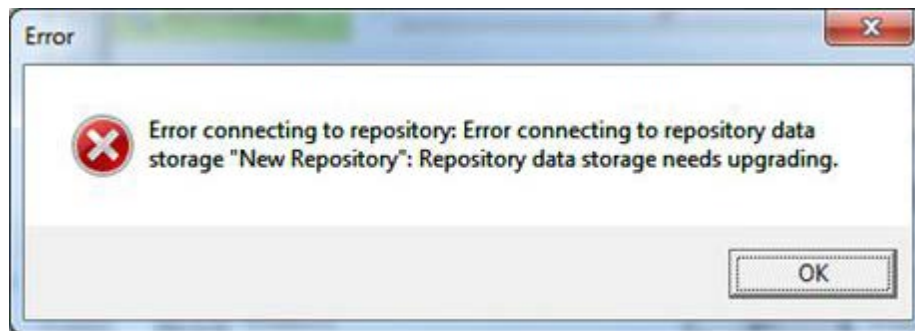
9. Select **OK**. This shows the following in the 2.2 Repository Definitions screen:

10. Right-click on the repository and select **Upgrade**.

Or from the **Tools** menu, select the repository and choose **Upgrade**.
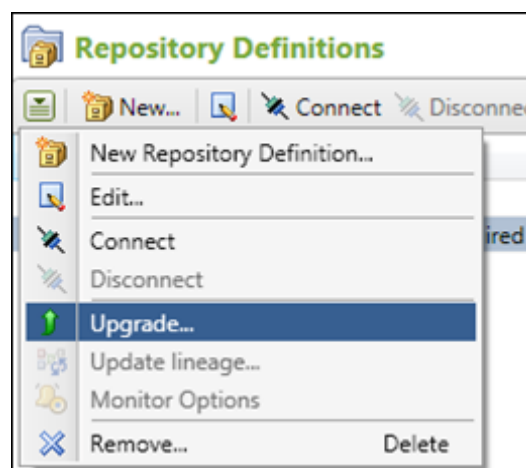
11. Once you select **Upgrade**, the following dialog box appears:
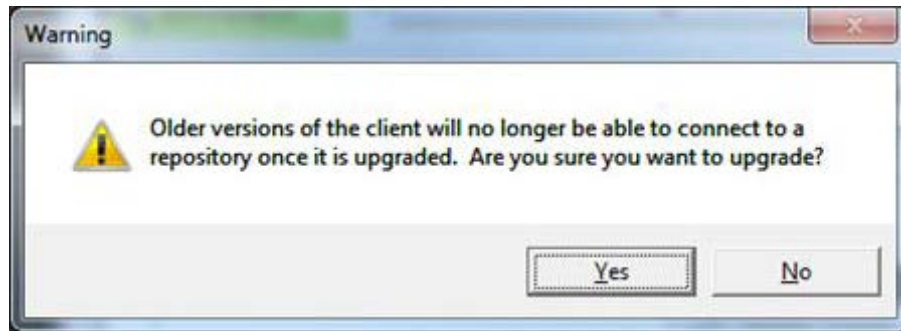
12. Select **Yes**, as this repository is only for DMP 2.2. This starts the upgrade process. The end result should be a dialog box like the following
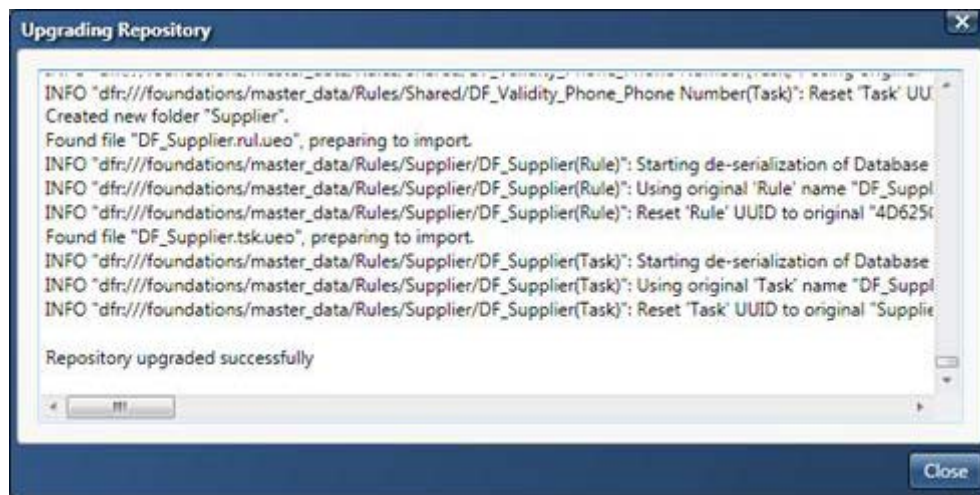
13. Select **Close**. This takes you back to the Repository Definitions view. The new repository definition should look like the following:

14. Select the new repository and select **Connect** either via right-click, toolbar, or **Tools** menu.
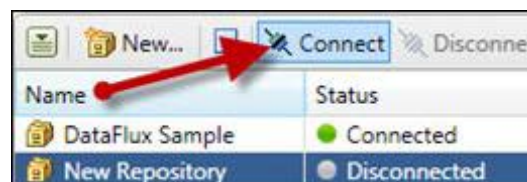
The definition now looks like this:

RDBMS-Based Data Storage

For RDBMS systems like Oracle, SQL Server, and so on, the process is a little different. It is not recommended to reuse the 2.1 repository, because the upgrade process means it can no longer be used with DataFlux Data Management Studio 2.1.

To upgrade an RDBMS system, perform the following steps:

1. Identify where the repository should be copied to. In this example, the copy is put into a new Oracle schema.

   In this example, we have a 2.1 repository that was created called 21 Repository. We are going to copy this repository.

2. In DataFlux Data Management Studio 2.1, open up the ODBC administrator and create a new connection.
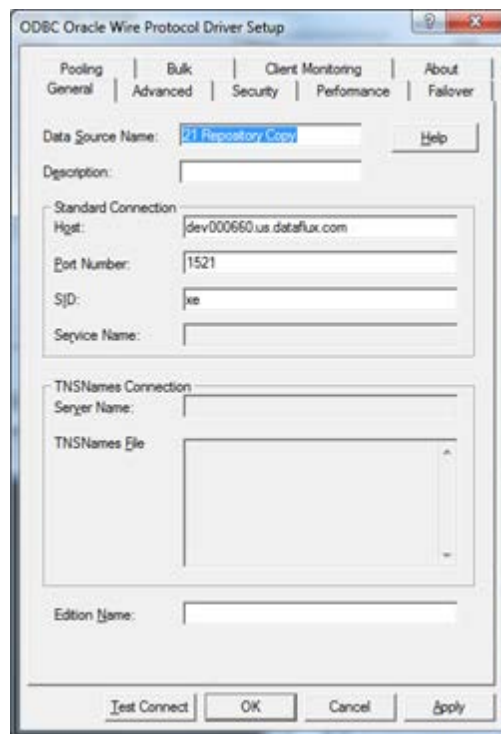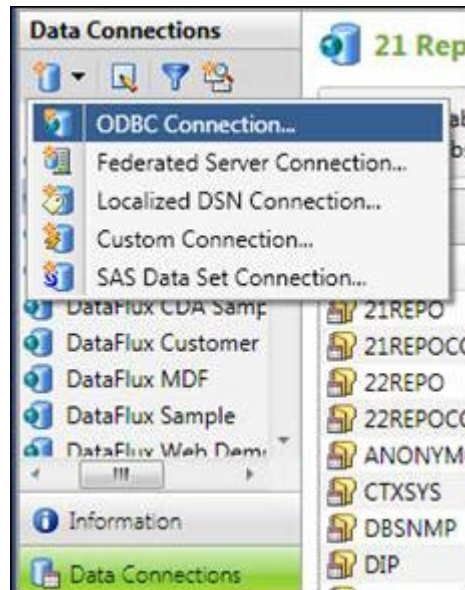
3. After creating the new ODBC DSN, go back into DataFlux Data Management Studio and under the Data Connections riser, select **Save User Credentials** to save the connection credentials.
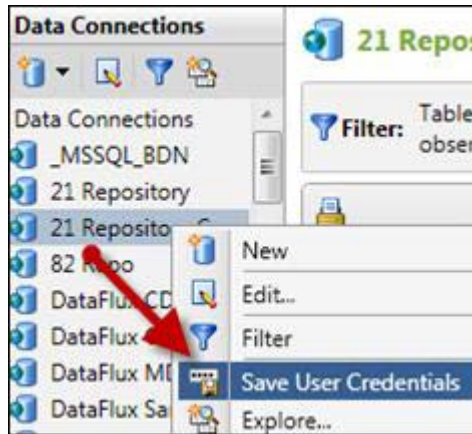
The following display shows what an Oracle DSN provides:
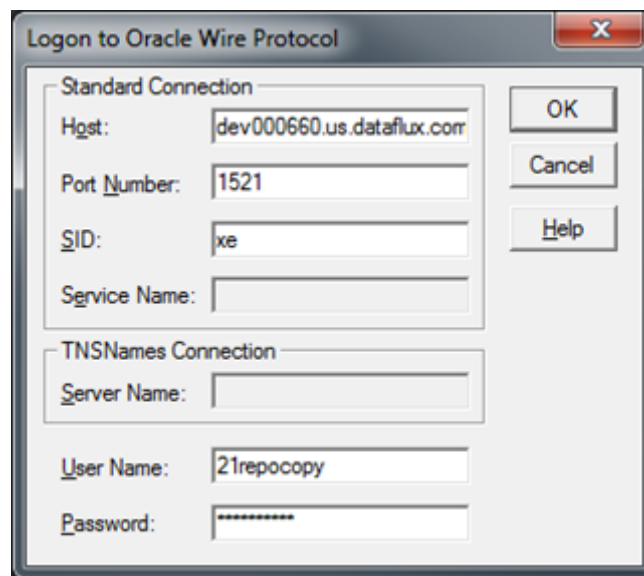
4. To copy the repository, contact your database administrator and ask them to create a copy of the current DataFlux repository. Once that is done, you need to configure the new Data Management version to work with this repository. Note that for the examples in this document, it assumes that the repository tables are prefixed with "cpy_".

5. Copy the 2.1 file storage location to be used with a 2.2 file storage configuration

6. Copy over the saved credentials for the copy of the repository DSN

7. Create a 2.2 repository using the file storage copy and the 2.1 repository copy

8. Copy everything that is in the file storage location from the original repository to the new one.
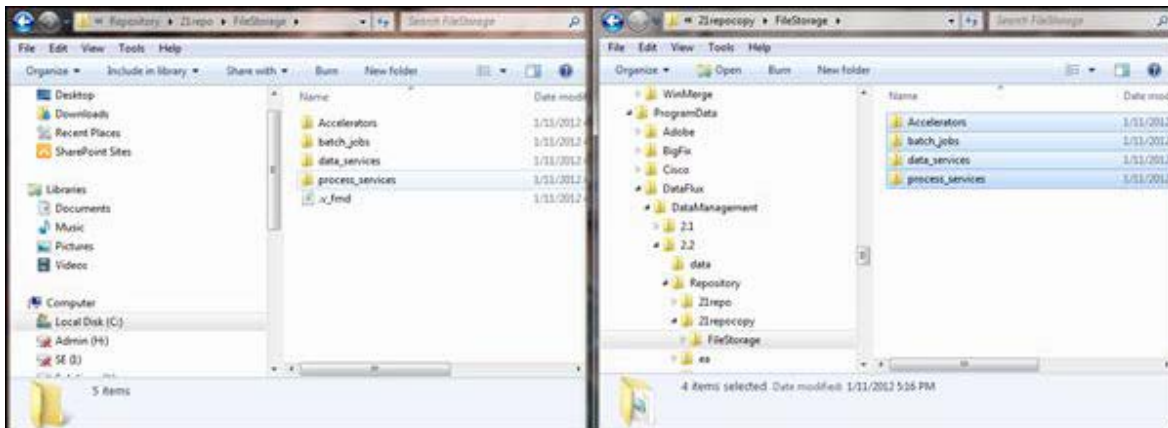
9. Copy over any saved credential files that are stored. These can be found in %APPDATA%\DataFlux\dac\9.1 and should be copied to %APPDATA%\DataFlux\dac\9.1.

DataFlux Data Management Studio 2.3 and later:

- Saved credentials are stored in %APPDATA%\DataFlux\dac\savedconn. Data Management Studio still reads saved configurations from %APPDATA%\DataFlux\dac\9.1.

10. Open DataFlux Data Management Studio 2.2 and go to Administration > Repository Definitions and create a new repository

11. Create the new repository configuration in 2.2 via the Administration > Repository Definition screen. Below, see the 2.1 configuration on the left and the 2.2 version on the right. Notice that except for the name, the rest of the configuration is the same.
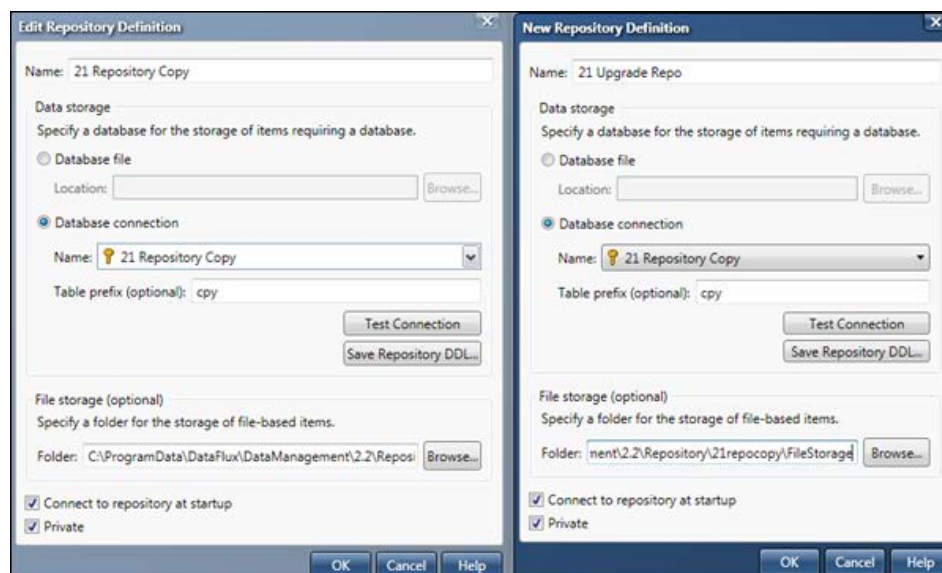
12. Cancel out of the 2.1 repository definition. Save the 2.2 repository definition. An error notification about needing to upgrade is displayed.
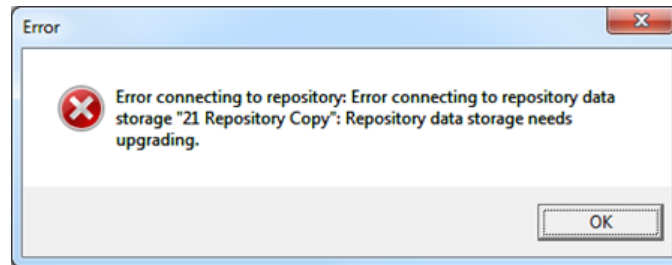
13. Click **OK** and then select the repository definition that was just created, right-click, and from the resulting menu select **Upgrade**.
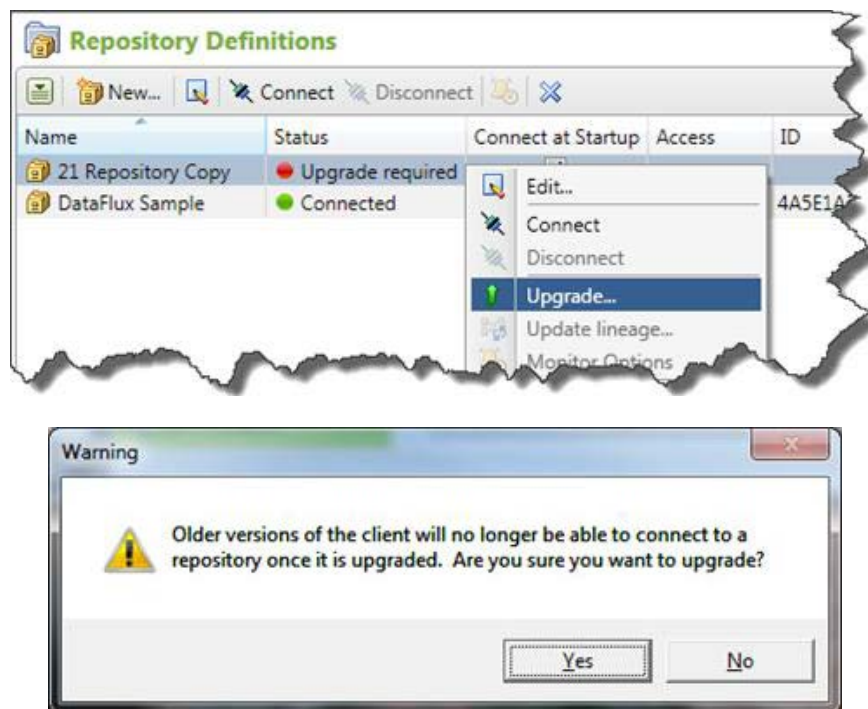
14. Select **Yes** to start the upgrade process.

When it is complete, you should see something like the following:
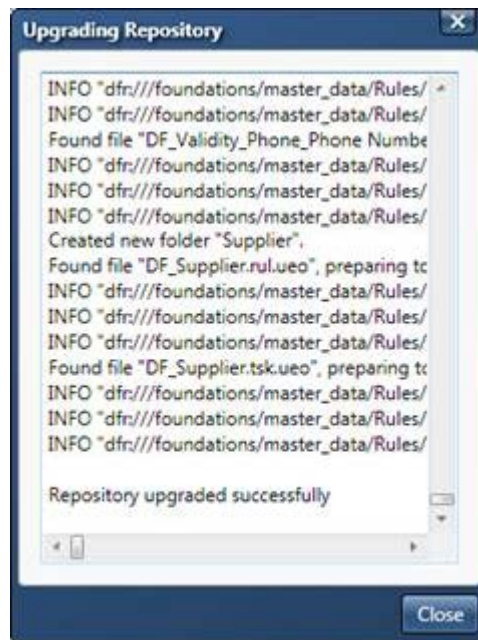
15. Select **Close**. Select the definition again and choose **Connect**.
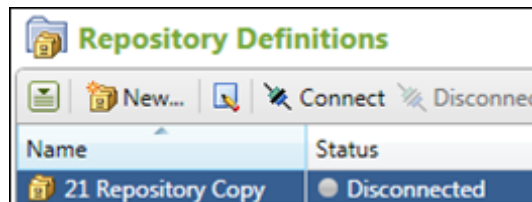
The repository is now connected.
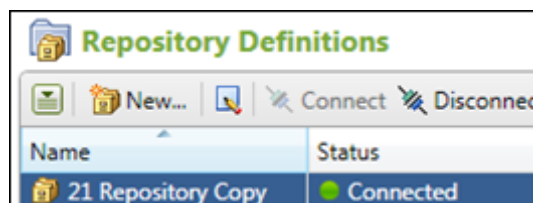
16. Verify the contents. If you go look at the Folders riser for both DataFlux Data Management Studio 2.1 and 2.2, the original repository and the 2.2 upgraded repository should be relatively the same with 2.2 containing more items.
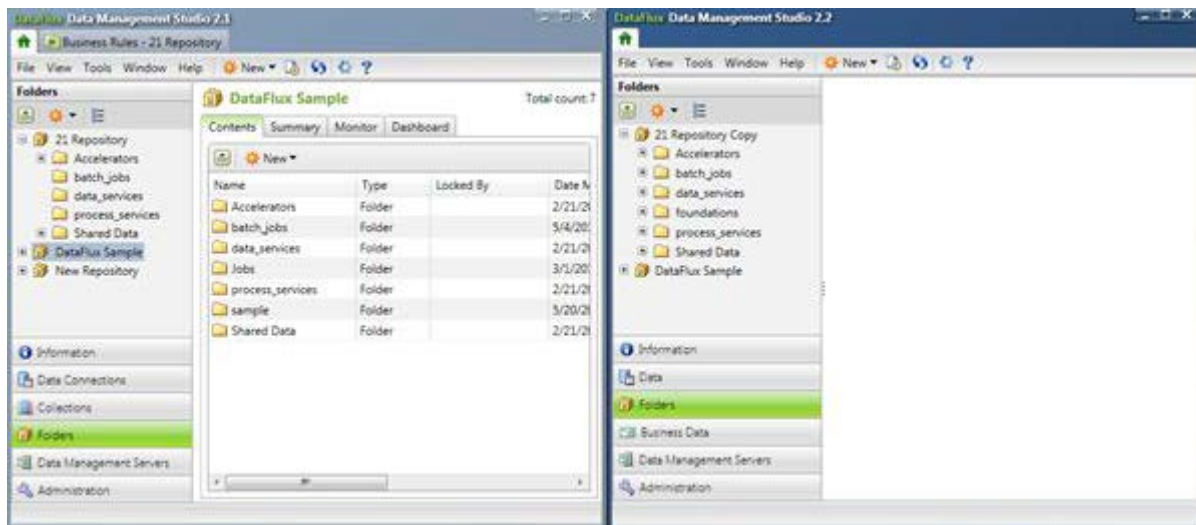
The extra 2.2 folders are foundations and potentially Shared Data.

Repeat this section for every 2.1 repository that you want to migrate. It is recommended that you run 2.1 and 2.2 side by side for a period of time to make sure that you are getting the same results. Once you determine that the cutover to 2.2 can be made, it is recommended to remove the 2.2 repositories and repeat the steps one more time to ensure that everything that was at 2.1 makes it to 2.2.

Data and Process Jobs

When the file storage location of an existing repository is copied to a new location, this covers the migration of the process and data jobs. No further work is needed.

Profile Jobs

When the data storage location of an existing repository is copied over, this covers the migration of the profile jobs and reports. No further work is needed.

Explorer Jobs

When the data storage location of an existing repository is copied over, this covers the migration of the explorer jobs. No further work is needed.

Accelerators

This was handled when the file storage part of the repository was copied over. It is not recommended that you use any copied Accelerators. Contact your sales rep to make sure that you have the correct supported version.

SAS Data Integration Studio

Note: This section assumes that a user has already migrated from dfPower 8.* to DataFlux Data Management Studio 2.1.

We also need Open SAS Data Integration Studio and go to **Tools** > **Options** > **Data Quality** to register the path where DataFlux Data Management Studio 2.2 lives.
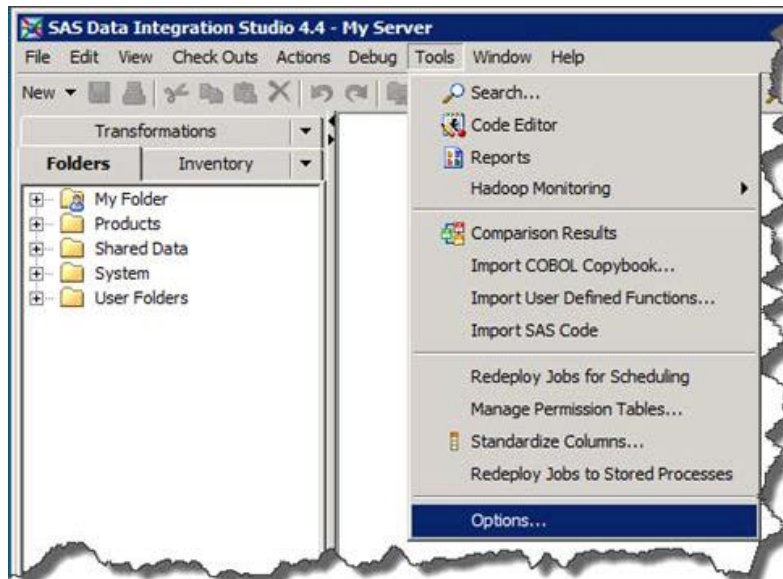
For the "DataFlux Installation Folder:" value, navigate to the 2.2 installation root (for example, "C:\Program Files\DataFlux\DMStudio\2.2"), and save the location.
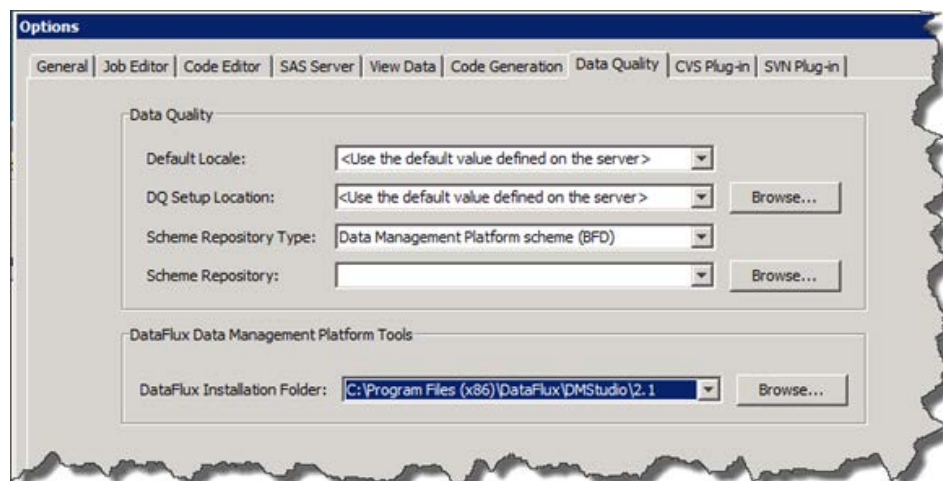
Click **OK** and then re-start SAS Data Integration Studio.

Other

Items that are found in the Business Rule Manager interface come over when the repository is migrated. By default, all migrated Rules and Tasks show up Data Management Studio in the Folders riser under the Shared Data folder.

DataFlux Data Management Server 2.1 to DataFlux Data Management Server 2.2 or Later

Each migration scenario requires specific actions. Refer to each of the following sections:

- [Configurations](#)

- [Reference Sources](#)

- [Data Connections - Windows](#)

- [Data Connections - UNIX](#)

- [Repositories](#)

- [Data and Process Jobs](#)

- [Profile Jobs](#)

- [Accelerators](#)

- [Security](#)

- [Command Line Execution](#)

- [SAS Management Console](#)

- [SAS Data Quality Server](#)

Configurations

Configuration settings need to be copied from the following places:

- <DM_SERVER_2.1_INSTALL_ROOT>

  - etc/dftkdsn to <DM_SERVER_2.2_INSTALL_ROOT>/etc/dftkdsn > copy all *.dftk files

  - etc/dsn to <DM_SERVER_2.2_INSTALL_ROOT>/etc/dsn > copy all *.cfg files

  - etc/macros to <DM_SERVER_2.2_INSTALL_ROOT>/etc/macros > copy all *.cfg files

  - etc/security to <DM_SERVER_2.2_INSTALL_ROOT>/etc/security > copy *

  - etc/

    - dfwfproc.cfg

    - dfwsvc.cfg

    - dmserver.cfg

- o macros.cfg

- o Specific app.cfg settings as needed. These could be any user-modified settings that do not include a path or system command.

This table displays the DataFlux Data Management Server settings for v. 2.2 and later and their v. 2.1 equivalents:

2.2 and Later Setting	2.2 File	2.1 Setting (equivalent unless otherwise noted)	2.1 File
DATASVC/IGNORE_DECLARED_VARS	service.cfg	--	--
DATASVC/THREAD_STACK_SIZE	service.cfg	Same	dfwsvc.cfg
DMSERVER/CHILD/LISTEN_HOST	dmserver.cfg	DMSERVER/WLP/CHILD/LISTEN (one part of this multi-part setting string)	--
DMSERVER/CHILD/LISTEN_PORT	dmserver.cfg	DMSERVER/WLP/CHILD/LISTEN (another part of this multi-part setting string) DMSERVER/WLP/CHILD/TCP_PORT	--
--	--	DMSERVER/DATA_SVC/DEBUG	dmserver.cfg
--	--	DMSERVER/DATA_SVC/LOG	dmserver.cfg
DMSERVER/IPACC/ALL_REQUESTS	dmserver.cfg	Same	--
DMSERVER/IPACC/POST_DELETE	dmserver.cfg	Same	--
DMSERVER/JOBS_MAX_NUM	dmserver.cfg	DMSERVER/PROC_JOB/MAX_NUM	dmserver.cfg
DMSERVER/JOBS_NO_STATE	dmserver.cfg	--	--
DMSERVER/JOBS_ROOT_PATH	dmserver.cfg	Same	--
DMSERVER/LOG_CHUNK_SIZE	dmserver.cfg	Same	--
DMSERVER/NO_WORK_SUBDIRS	dmserver.cfg	--	--
DMSERVER/SECURE	dmserver.cfg	Same	--
DMSERVER/SECURE/DEFAULT_ACE_PUBLIC	dmserver.cfg	--	--
DMSERVER/SECURE/DEFAULT_ACE_USERS	dmserver.cfg	--	--
DMSERVER/SECURE/GRP_ADMIN	dmserver.cfg	Same	--
DMSERVER/SECURE/GRP_ALLOW	dmserver.cfg	Same	--
DMSERVER/SECURE/GRP_DENY	dmserver.cfg	Same	--
DMSERVER/SOAP/CONNS_BACKLOG	dmserver.cfg	Same	--
DMSERVER/SOAP/DATA_SVC/JOB_COUNT_MAX	dmserver.cfg	Same	--
DMSERVER/SOAP/DATA_SVC/JOB_COUNT_MIN	dmserver.cfg	Same	--
DMSERVER/SOAP/DATA_SVC/MAX_E	dmserver.cfg	Same	--

2.2 and Later Setting	2.2 File	2.1 Setting (equivalent unless otherwise noted)	2.1 File
RRS			
DMSERVER/SOAP/DATA_SVC/MAX_NUM	dmserver.cfg	Same	--
DMSERVER/SOAP/DATA_SVC/MAX_REQUESTS	dmserver.cfg	Same	--
DMSERVER/SOAP/DATA_SVC/MAX_RUNTIME	dmserver.cfg	--	--
DMSERVER/SOAP/DATA_SVC/PRELOAD	dmserver.cfg	Same	--
DMSERVER/SOAP/DATA_SVC/PRELOAD_ALL	dmserver.cfg	Same	--
DMSERVER/SOAP/DATA_SVC/QUEUE	dmserver.cfg	Same	--
DMSERVER/SOAP/IGNORE_NS	dmserver.cfg	Same	--
DMSERVER/SOAP/LOG_PACKETS	dmserver.cfg	Same	--
DMSERVER/SOAP/LISTEN_HOST	dmserver.cfg	--	--
DMSERVER/SOAP/LISTEN_PORT	dmserver.cfg	Same	--
DMSERVER/SOAP/PROC_SVC/MAX_NUM	dmserver.cfg	Same	--
DMSERVER/SOAP/RDWR_TIMEOUT	dmserver.cfg	Same	--
DMSERVER/SOAP/RETURN_NULLS	dmserver.cfg	Same	--
DMSERVER/SOAP/SSL	dmserver.cfg	Same	--
DMSERVER/SOAP/SSL/CA_CERT_FILE	dmserver.cfg	Same	--
DMSERVER/SOAP/SSL/CA_CERT_PATH	dmserver.cfg	Same	--
DMSERVER/SOAP/SSL/KEY_FILE	dmserver.cfg	Same	--
DMSERVER/SOAP/SSL/KEY_PASSWD	dmserver.cfg	Same	--
DMSERVER/THREADS/COUNT_MAX	dmserver.cfg	Same	--
DMSERVER/THREADS/IDLE_MAX	dmserver.cfg	Same	--
DMSERVER/THREADS/IDLE_TIMEOUT	dmserver.cfg	Same	--
--	--	DMSERVER/WLP/CHILD/SHM_DIR	dmserver.cfg
DMSERVER/WLP/DATA_SVC/MAX_NUM	dmserver.cfg	Same	--
DMSERVER/WLP/LISTEN_HOST	dmserver.cfg	DMSERVER/WLP/SVR/LISTEN (one part of this multi-part setting string)	--
DMSERVER/WLP/LISTEN_PORT	dmserver.cfg	DMSERVER/WLP/SVR/LISTEN (another part of this multi-part setting string)	dmserver.cfg
--	--	DMSERVER/WLP/SVR/LISTEN_PORT	--
DMSERVER/WORK_ROOT_PATH	dmserver.cfg	Same	--

DataFlux Data Management Server v. 2.2 Settings and the v. 2.1 Equivalents

It is a best practice to ensure that these configurations in dmserver.cfg have valid ports:

- DMSERVER/SOAP/LISTEN_PORT

- DMSERVER/WLP/LISTEN_PORT

    Note: If these are not set, it could lead to issues if there is an Integration Server or multiple data management servers installed on the same host.

> **DataFlux Data Management Studio 2.3 and later versions:**
>
> - DMSERVER/WLP/LISTEN_PORT no longer needs to be set by default.

If dfPower real-time services are still being used in a DataFlux software deployment, then add the following to the <DM Server install root>/etc/service.cfg file.

```
DATASVC/IGNORE_DECLARED_VARS = yes
```

Reference Sources

If the configurations for DataFlux Data Management Server 2.1 are brought over, then this should take care of the registration of the data packs for US address data, Canadian address data, US geocode and phone data as well as the world data. No extra steps should be needed other than to verify that the locations have been configured correctly.

Data Connections - Windows

If the DataFlux Data Management Server is being installed on the same box as the previous version of the DataFlux Data Management Server, then no extra work is required to migrate any ODBC connections. If the DataFlux Data Management Server is being installed on a new box, then manually migrate the ODBC connections are defined in the ODBC Administrator.

ODBC data connections defined on the box are automatically upgraded to the latest version of the DataFlux ODBC drivers. This means that both DataFlux dfPower and DataFlux Data Management Studio use the same version of ODBC drivers.

If a 32-bit version of the 2.1 DataFlux Data Management Server was installed on a 64-bit box, and if the 64-bit version of 2.2 DataFlux Data Management Server is installed on the same box, then the ODBC DSNs must be re-created through the 64-bit version of the ODBC Data Source.

Perform the following steps:

1. Open the 32-bit ODBC Administrator via DataFlux Data Management Studio 2.2 Data Connections Riser.

2. Open the 64-bit ODBC Administrator via the Control Panel.
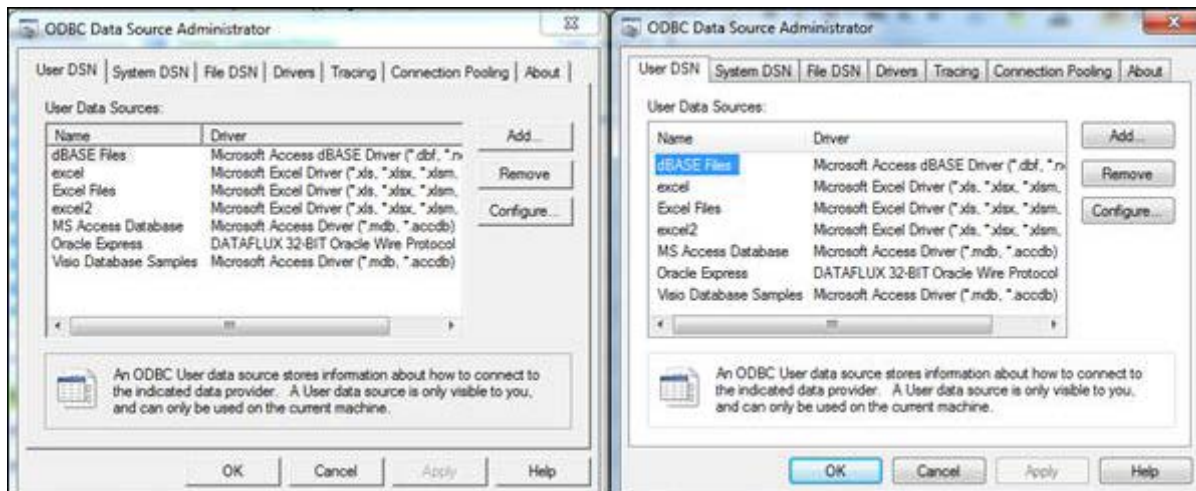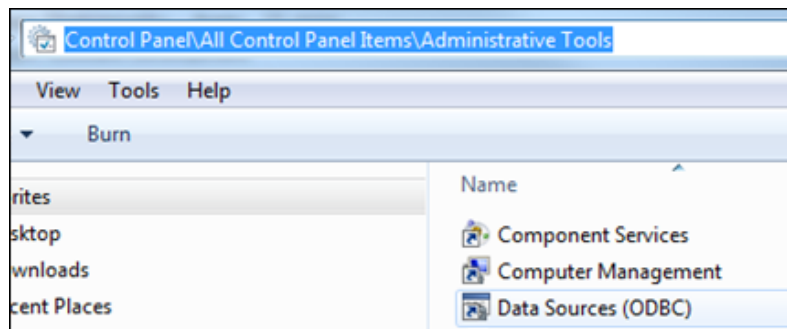
There is no way to distinguish which version is 32-bit or 64-bit. In the above picture, the 32-bit is on the left and the 64-bit is on the right.

3. Move any custom, DataFlux Federation Server, or localized Federation Server definitions that have been created as well. Use a utility of choice to copy definitions from <DM Server 2.1 install root>\etc\dftkdsn to <DM Server 2.2 install root>\etc\dftkdsn and credentials from <DM Server 2.1 install root>\etc\dsn to <DM Server 2.2 install root>\etc\dsn.

The 2.1 definitions should look like the following:
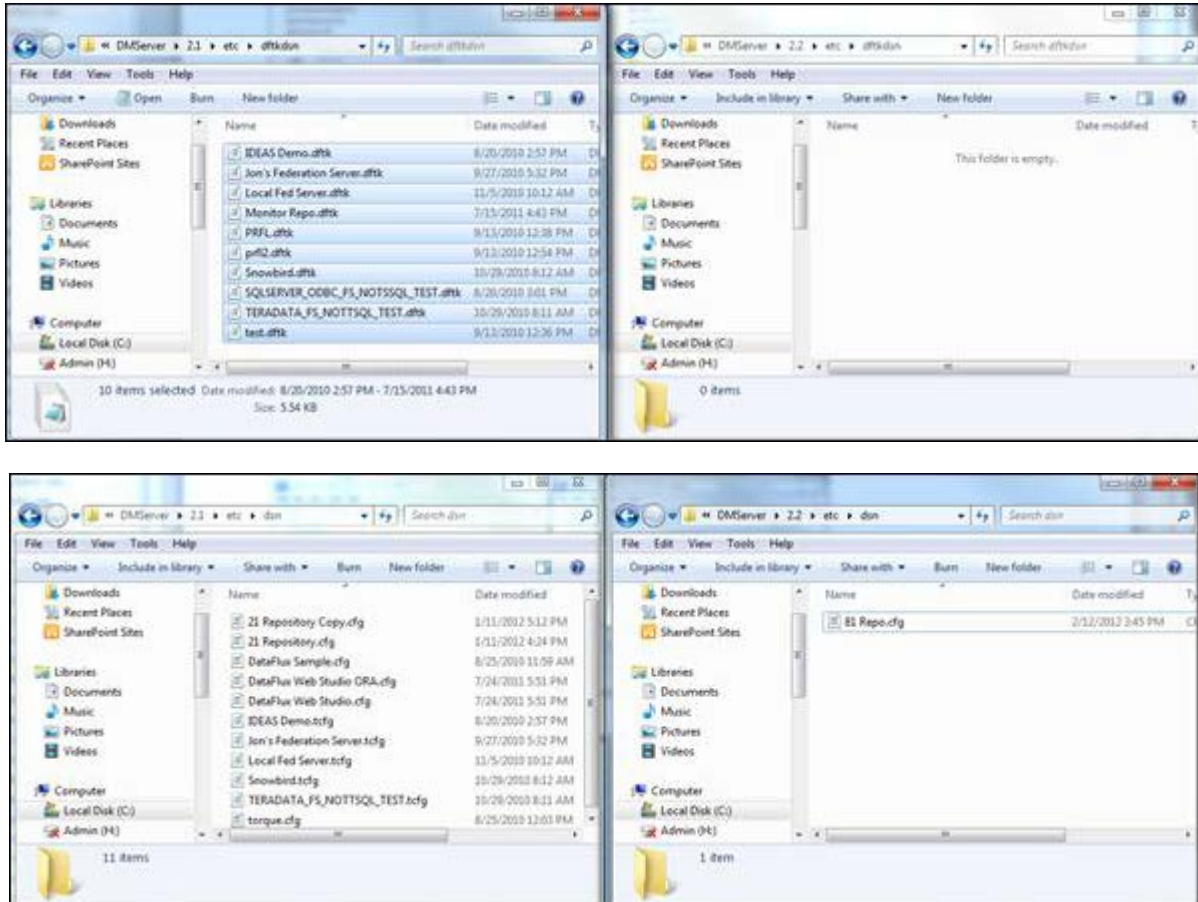
After copying the files, the 2.2 definitions should look like the following:
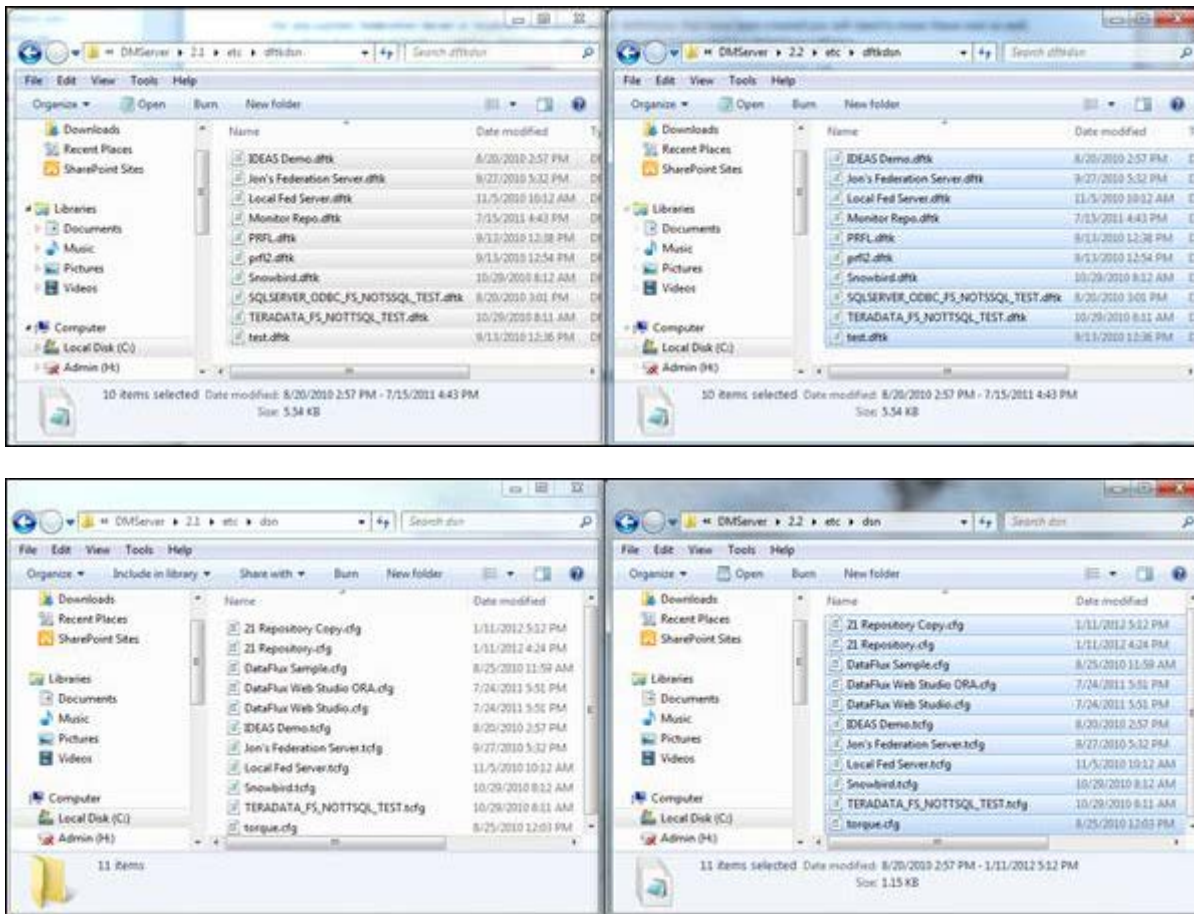
4. Verify that 2.2 has the same data connections as 2.1 by comparing the 2.1 Data Connections riser against the 2.2 Data riser.
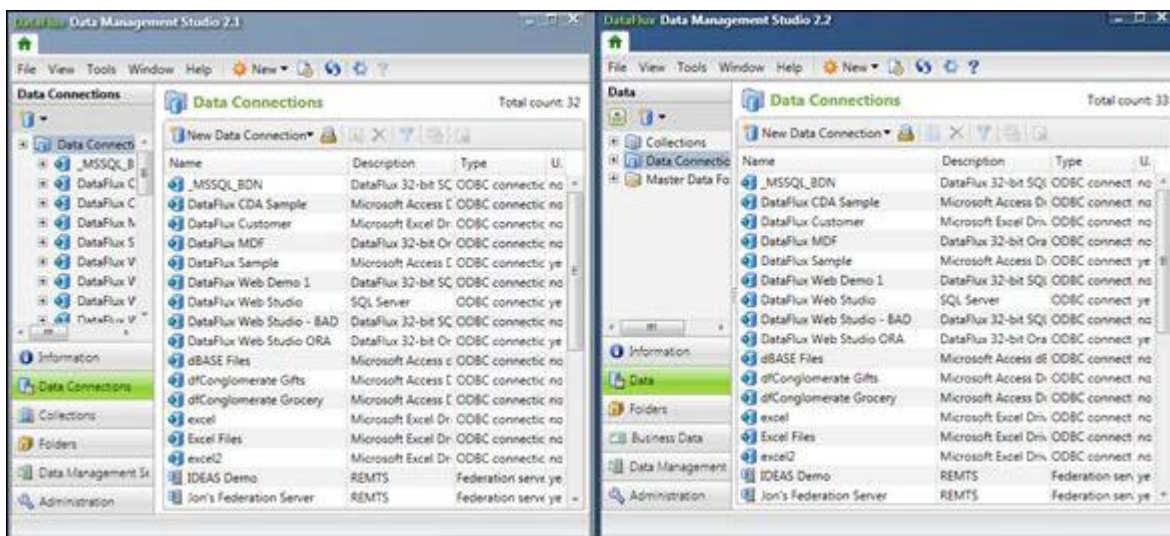
Data Connections - UNIX

If DataFlux Data Management Server 2.2 is being installed on the same box as DataFlux Data Management Server 2.1, then it is recommended that the ODBC connections already defined in the ODBC.ini file for DataFlux Data Management Server 2.1 be re-created in the 2.2 ODBC.ini file. This ensures that the supported ODBC drivers are used. ODBC settings are per application and are not set system-wide. The dfdbconf utility located in <DM Server install root>/bin should be used to re-create the DSNs.

Once the connections are re-created, the next step is to bring over any saved credentials. On UNIX servers, if dfdbview was used to save the credentials, these can be found in the user's home directory under the .dfpower directory. If DataFlux Data Management Server 2.2 is being installed under the same user ID as the 2.1 version, then the 2.2 version uses those credentials in the .dfpower directory. If a different user is doing the installation or if the server is being installed on a different box, then these settings should be copied over.

One other location to look for saved credentials is in <DM Server 21 root>/etc/dsn. Anything in this directory should be copied over to <DM Server 22 root>/etc/dsn.

Last but not least, any SAS, DataFlux Federation Server, or custom connections in <DM Server 21 root>/etc/dftkdsn need to be copied to <DM Server 22 root>/etc/dftkdsn.

Repositories

This topic tells you how to upgrade the data storage portion of a DataFlux Data Management Server repository. Existing repositories are displayed in the Data Connections folder. If no repositories exist, then only the default DataFlux Sample is visible.

If DataFlux Data Management Server 2.1 is using a database for its data storage, the DSN must be configured, and you need to know whether any prefix is used. If the DSN and or prefix are not known, look in the *.rcf file that is located in the <DM Server 22 root>/etc/repositories directory. Perform the following steps:

1. Confirm that you have two connections in DataFlux Data Management Studio 2.1. The first connection is the current DataFlux Data Management Server 2.1 repository. The second hosts the copy of the repository to be upgraded.
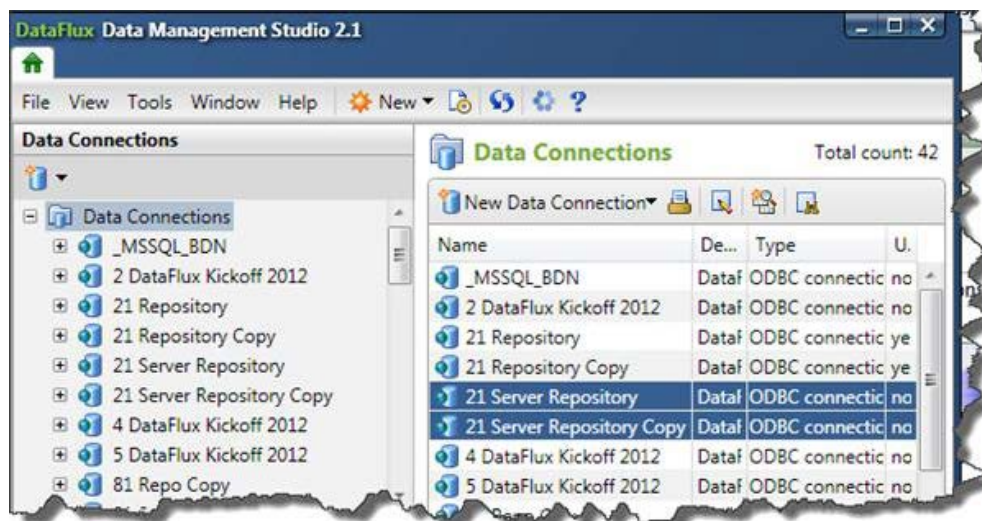
2. In DataFlux Data Management Studio 2.1, save the credentials for both.

3. To copy the repository, contact your database administrator and ask them to create a copy of the current DataFlux repository.

4. Once that is done, configure the new Data Management version to work with this repository. Note that for the examples in this document, it assumes that the repository tables are prefixed with "cpy_".

   Note: It is highly recommended that the "Table prefix" option be used to identify that this is a copy. Even if the recommendation of putting the copy in a different schema were used, this would be another way to identify that this is not an original repository.

5. Upgrade the copy so that DataFlux Data Management Server 2.2 can use it. If the DSN does not exist on the machine that has latest version of DataFlux Data Management Studio, go ahead and create it. Once the DSN is created, be sure to save the user credentials.

6. Create the new repository configuration in 2.2 via the Administration > Repository Definition screen. Notice that the "Folder" configuration is left blank in the DataFlux Data Management Studio configuration. This is done on purpose.

7. Save the 2.2 repository definition. An error notification about needing to upgrade is displayed.
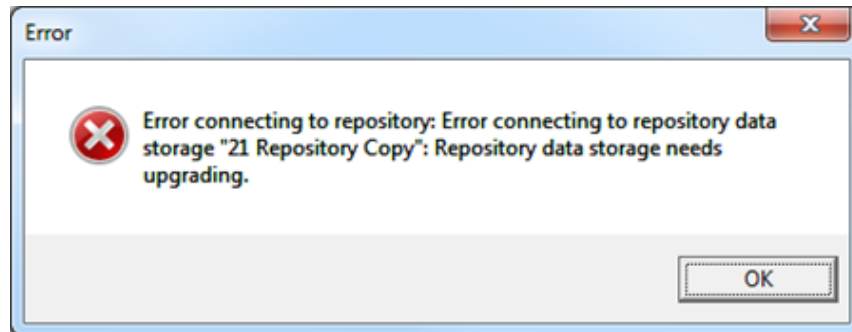
8. Click **OK** and then select the repository definition that was just created, right-click, and from the resulting menu select **Upgrade**.
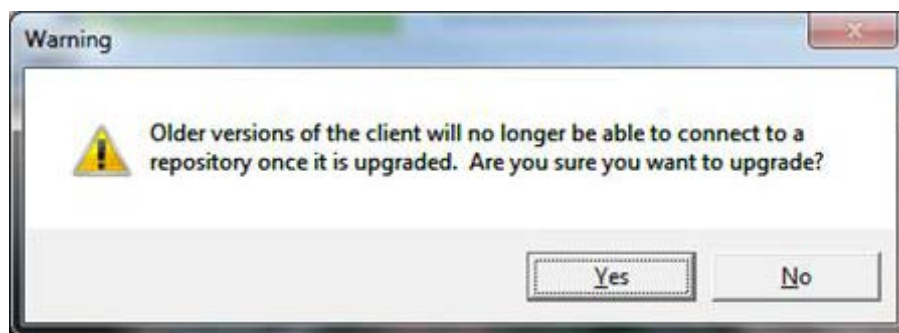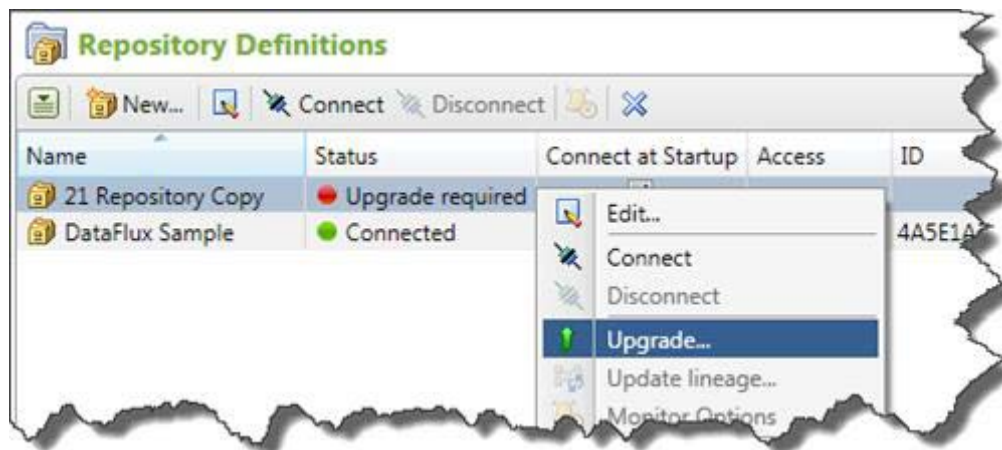
9. Select **Yes** to start the upgrade process.

At the end, you should see something like the following:
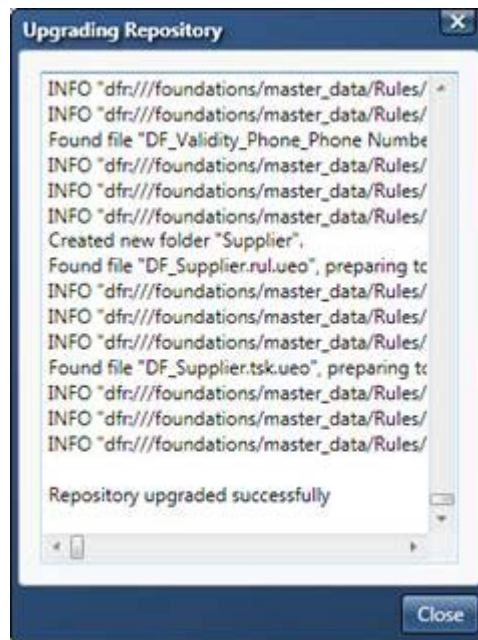
10. Select Close. Select the definition again and choose **Connect.**
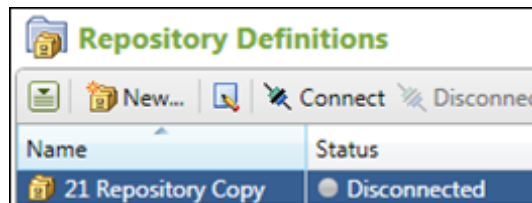
This connects the repository.

Now that we have created the repository, do these two things:

- Copy the repository configuration file to the server
- Copy or save credential files to the server.

Regardless whether the server is UNIX or Windows based, the repository configuration file (.rcf) is saved in the <DM Server root>/etc/repositories directory. The Studio RCF file needs to be copied to this location.

Perform the following steps:

1. Rename the default RCF file that came with DataFlux Data Management Server.

2. Locate the Studio RCF file and copy it to the Server. If you followed the screenshots, the repository was configured as being private. This means that the RCF file can be found by going to %APPDATA%\DataFlux\DataManagement\2.2\repositories or %APPDATA%\DataFlux\DMStudio\<instance>\etc\repositories.
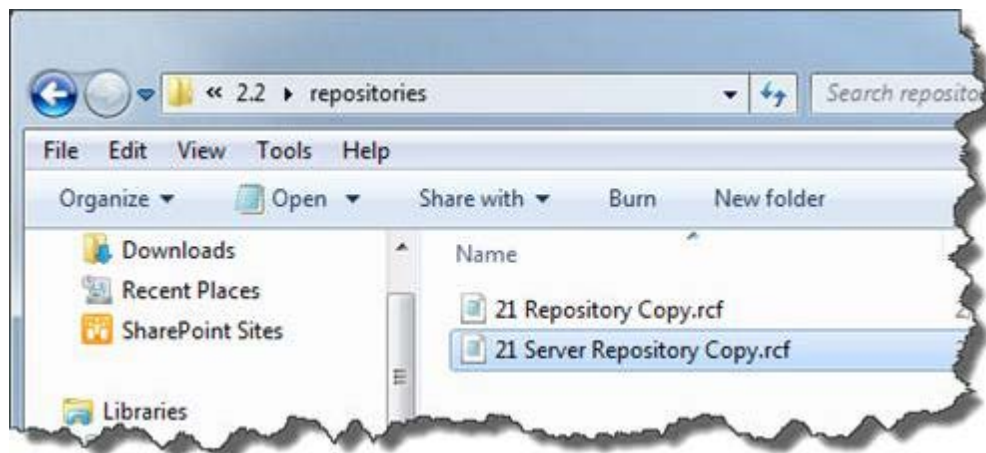
> If it is not in this location, then look in <DM Studio root>\etc\repositories.
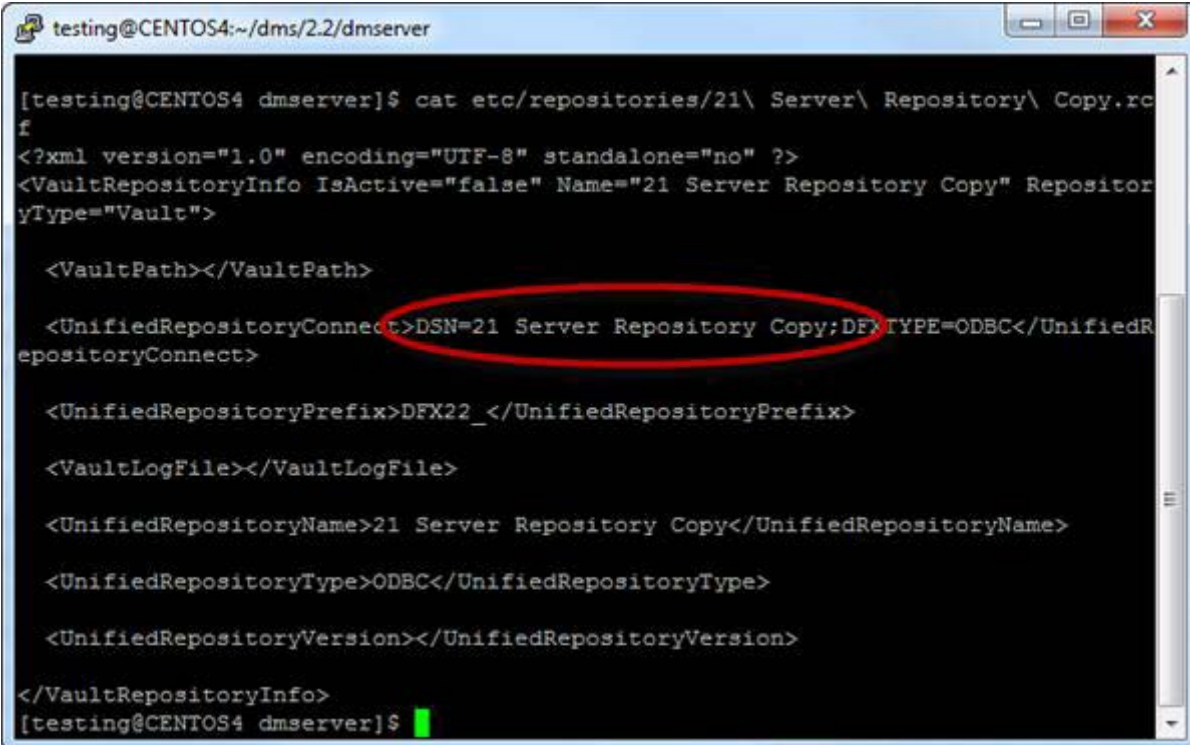
3. Copy the "21 Server Repository Copy.rcf" file to the server. In the following display, FileZilla is used to SFTP the file to the server.
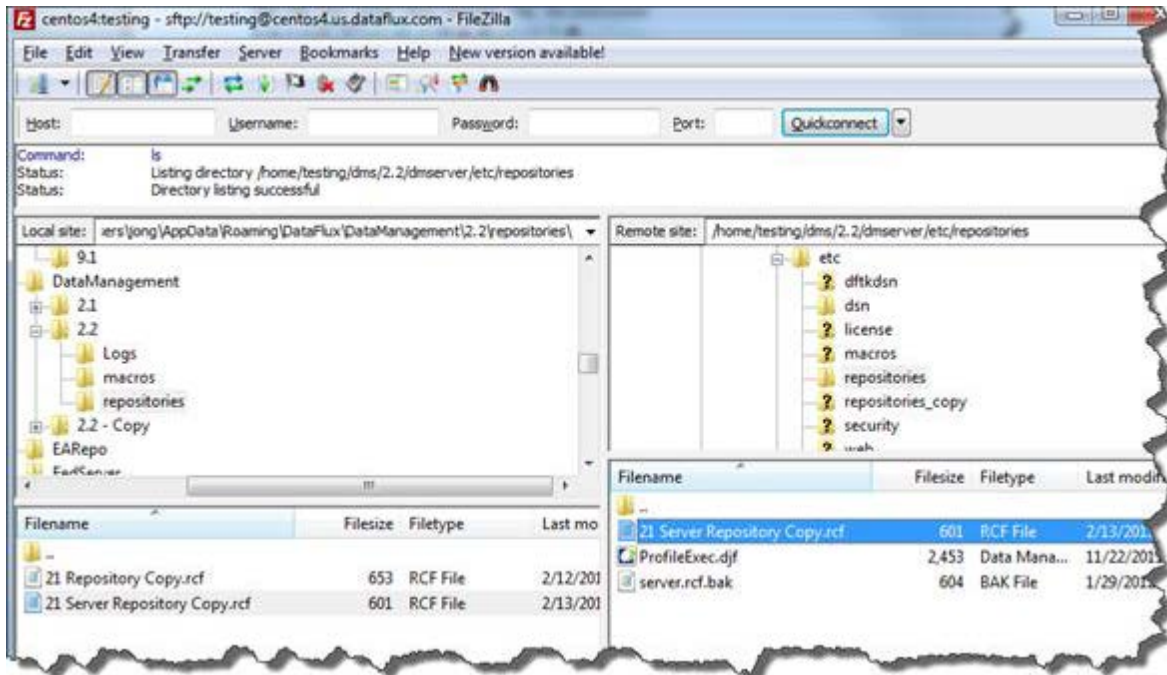
4. Copy the saved credentials on your DataFlux Data Management Studio box to the DataFlux Data Management Server machine. The saved credentials are in the %APPDATA%\DataFlux\dac\9.1 or in %APPDATA%\DataFlux\dac\savedconn directory; copy them to the <DM Server root>/etc/dsn directory.
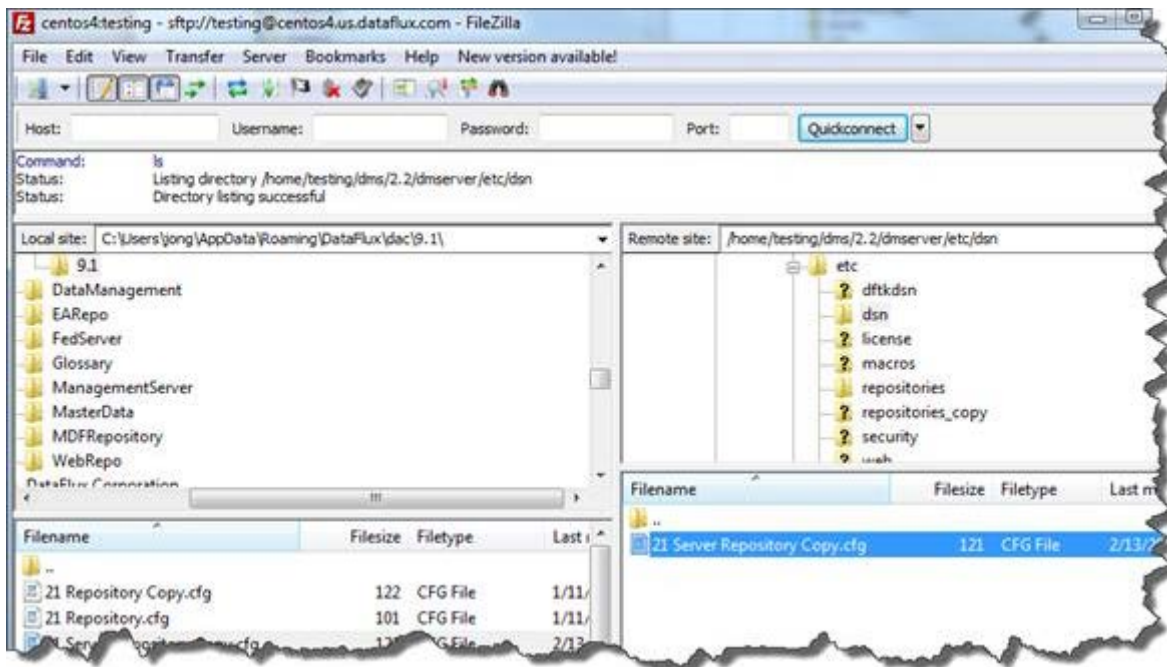
5. Create the DSN on the server. The DSN name that you need to create is defined in the RCF file. From the Server host, you can view the file to ensure that you create the correct DSN name.

6. Create the DSN (assuming that you know what data source this should be connecting to).

DataFlux Migration Guide
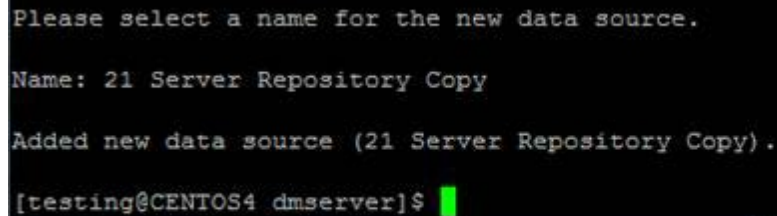
```
Please select a name for the new data source.

Name: 21 Server Repository Copy

Added new data source (21 Server Repository Copy).

[testing@CENTOS4 dmserver]$
```

7. View the contents of the 2.1 Server. The file storage location of the DataFlux Data Management Server is always <DM Server 22 install root>/var.

8. Copy the contents of the following folders from 2.1 to 2.2:

   - batch_jobs

   - data_services

   - process_services

9. If you want the ability to declare inputs and outputs on data services as introduced in DataFlux Data Management Server 2.2, then set the following in the service.cfg file found in <DM Server install root>/etc/:

   DATASVC/IGNORE_DECLARED_VARS = YES

   Setting this value enables data services to run as they did in DataFlux Data Management Server 2.1. Note that this was not needed with the Integration Server.

Data and Process Jobs

This is handled with the copying of jobs from the 2.1 var directory to the 2.2 var directory.

Profile Jobs

Handled with the copying and upgrading of the data storage portion of the repository.

Accelerators

If any Accelerators have been installed with DataFlux Data Management Server 2.1, contact your account representative to obtain the correct accelerator that is compatible with version 2.2.

Security

This is handled with the copying of jobs from the 2.1 var directory to the 2.2 var directory.

> **DataFlux Data Management 2.7 and later versions:**
>
> In the DataFlux Data Management 2.7 release, Data Management Studio, Data Management Server, and SAS Federation Server now use the SAS Metadata Repository for user authentication. This means that DataFlux Authentication users need to be ported to SAS Metadata Repository and user information in the Data Management Server and SAS Federation Server needs to be updated to use the new SAS Metadata Repository user IDs. This is all covered in the Update Security Files after Exporting Users and Groups section.

Command Line Execution

The batch jobs execution utility used in the 2.1 release has the following command line arguments:

```
usage: dmpexec [options]
options:
    -c <file>            read configuration from <file>
    -j <file>            execute job in <file>
    -l <file>            write log to <file>
    -i <key>=<value>     set input <key> to <value>
    -o <key>=<value>     set option <key> to <value>
    -b <key>=<value>     set job option <key> to <value>
```

The batch jobs execution utility used in release 2.2 and beyond has the following command line arguments:

```
usage: dmpexec [options]
options:
    -c <file>            read configuration from <file>
    -j <file>            execute job in <file>
    -l <file>            write log to <file>
    -i <key>=<value>     set input <key> to <value>
    -o <key>=<value>     set option <key> to <value>
    -b <key>=<value>     set job option <key> to <value>
    -a                   authenticate using Authentication Server
```

The only added option in 2.2 is the ability to run a script that enables you to Authenticate. If the job needs to run with a user's credentials, the credentials would be stored in a configuration file that would contain something like the following:

```
base/auth_server_loc
=iom://servername.domain.com:21030;protocol=bridge;user=userid,pass=password
```

Then it is passed in on the command line with the following options:

```
> bin/dmpexec -a -c "dmpexec_auth.cfg" -l "dmpJob.log" -j
"path/to/architect.ddf"
```

SAS Management Console

When moving from SAS 9.2 to SAS 9.3, a DataFlux Data Management Server entry is created in metadata. This entry might need to be renamed and a new DataFlux Data Management Server entry created with the same name. This allow Data Integration Studio jobs to continue to run without having to be updated to handle the change in servers.

Before following the next set of steps, look at the properties of the defined DataFlux Data Management Server and validate that the TCP/IP connection is pointing to the correct host and port. If so, no changes are needed. If they are not, please follow the next set of steps to define a DataFlux Data Management Server that points to the correct host and port.

1. Open SAS Management Console and rename the existing DataFlux Data Management Server entry.
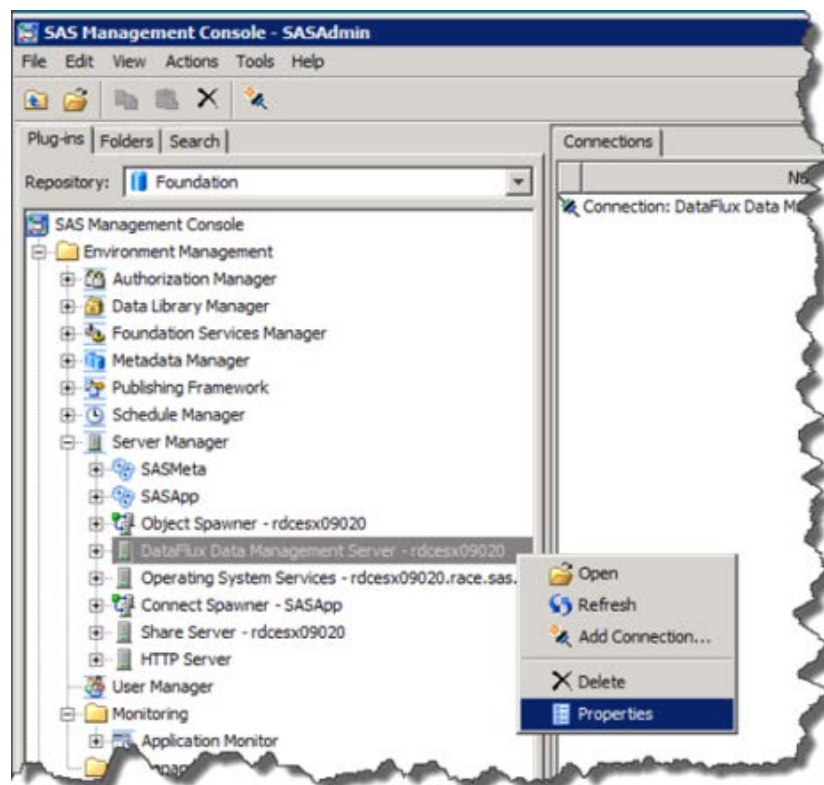
For the example, append " – original" to the end of the name.
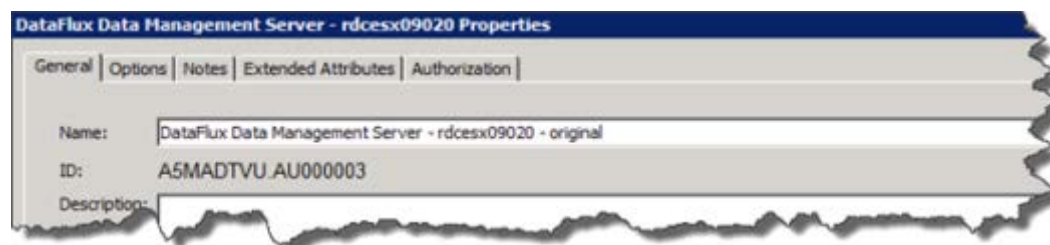
2. Create a new server entry using the same name as the original Server entry.
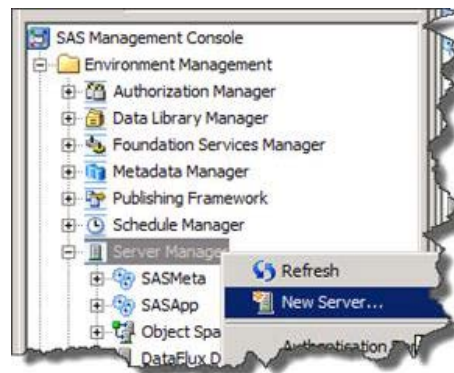
3. In the New Server Wizard dialog box, select **Http Server** and then select **Next**.
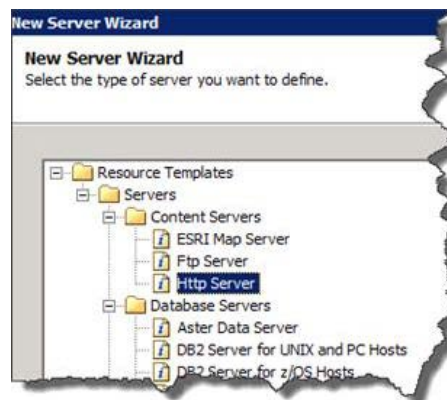
4. Rename the Http Server to the original entry name. In this example, name = "DataFlux Data Management Server - rdcesx09020".
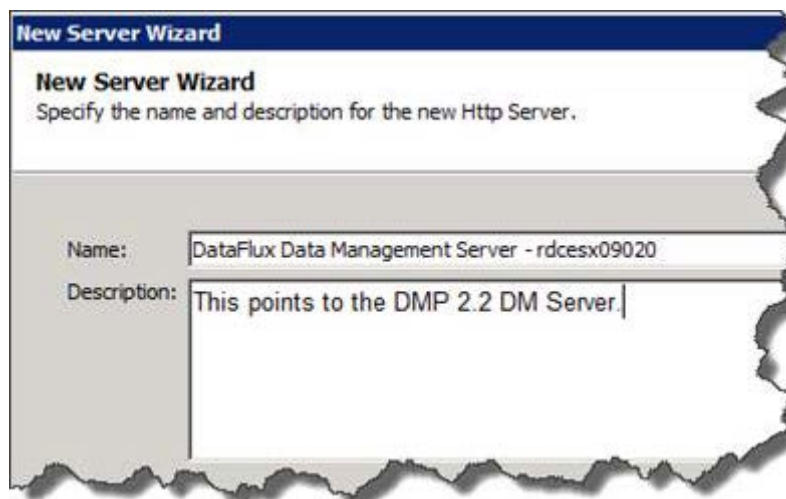
5. In the next dialog box, make sure the following information is entered:

- For DataFlux Data Management Server 2.2: Software Version = 2.2

  For DataFlux Data Management Server 2.3: Software Version = 2.3

  For DataFlux Data Management Server 2.4: Software Version = 2.4

  For DataFlux Data Management Server 2.5: Software Version = 2.5

  For DataFlux Data Management Server 2.6: Software Version = 2.6

  For DataFlux Data Management Server 2.7: Software Version = 2.7

- Vendor = DataFlux Corporation

- Base Path(s) = /

- Application Server Type = DataFlux Data Management Server

6. Select the **New** button. In the resulting dialog box, select **OK**.

7. Select **Next.**

8. In the next dialog box, select the following options:

- Authentication domain: DefaultAuth

- Authentication type: User/Password

- Application protocol: http

- Host name: [enter in the name of the host where the DataFlux Data Management Server is residing]

- Port Number: [This is the dmserver/soap/port from the dmserver.cfg file]

- Proxy URL: Leave blank

9. Click **Next** to see the review dialog box.

10. Before selecting **Finish**, verify the following:

    - The name is the same as the original one.

    - The host reflects the location of the DataFlux Data Management Server.

    - The port number matches what is in the dmserver.cfg file.

11. Click **Finish** to complete the SAS Management Console changes.

SAS Data Quality Server

This section assumes that a user has already migrated jobs and content from DataFlux dfPower Studio to DataFlux Data Management Studio 2.1. There are no changes needed in going from version 2.1 to 2.2.

Chapter 5: Update Security Files After Exporting Users and Groups

Introduction

Use the dftool utility to update local security files after you export users and groups from a DataFlux Authentication Server to a SAS Metadata Server. In the security files, the dftool utility replaces DataFlux Authentication Server IDs with SAS Metadata Server IDs. The update process ensures that the security files are synchronized with the SAS Metadata Server.

The dftool utility shows and logs all IDs that were replaced, and also displays and logs any DataFlux Authentication Server IDs that remain. IDs are replaced only if matching users or groups are found on the SAS Metadata Server.

Replacing or removing all DataFlux Authentication Server IDs ensures appropriate access to server resources. After running dftool, restart the DataFlux Data Management Server.

Prerequisites

The prerequisites for running the dftool utility are as follows:

- As needed, install, update, configure, and start your SAS Metadata Server.

- On the DataFlux Authentication Server, make sure that all users and groups were successfully exported to the SAS Metadata Server, as described in the *DataFlux Authentication Server: Administrator's Guide*, at

  http://support.sas.com/documentation/onlinedoc/dfauthserver/index.html.

- Obtain login credentials that are recognized by the SAS Metadata Server. The credentials must meet the following requirements:

  o On the SAS Metadata Server, the credentials must be granted the Read Metadata permission.
  o On the DataFlux Data Management Server, the credentials must have Read, Write, and Delete permissions for the following directories:

    ```
    dmserver-install-path\etc\security
    dmserver-install-path\var
    ```

  o You can enter credentials on the command line when you run dftool, or you can enter default credentials into a configuration file, as described in Specify Default Credentials for dftool.

- If the DataFlux Data Management Server runs in the UNIX operating environment, then set the environment variable TKERSA2_LIB_PATH as follows:

  ```
  TKERSA2_LIB_PATH=/dmserver-install-
  path/SASHome/DataManagementServer/2.7/dmserver/lib/tkts
  export TKERSA2_LIB_PATH
  ```

- Configure the DataFlux Data Management Server to authenticate using the SAS Metadata Server. Specifically, in the file dmserver-install-path\etc\app.cfg, the value of configuration option BASE/AUTH_SERVER_LOC needs to be the fully qualified network name of the SAS Metadata Server. If you have a clustered SAS Metadata Server, then the network name needs to identify the cluster configuration file.

- To generate a log file for dftool, the following configuration file must be present on the server host: dmserver-install-path\etc\dftool.log.xml. If the DataFlux Data Management Server was recently upgraded, then the configuration file is installed with the name dftool.log.xml.new. This filename has to be changed before a log file can be generated by the dftool utility. The .new extension must be removed from the filename.

Run the dftool Utility

Follow these steps to run the dftool utility:

1. Meet the prerequisites in the preceding topic.

2. Open a shell window on the host of the DataFlux Data Management Server. Change to the following directory and enter the following command:

   ```
   dmserver-install-path\bin> dftool dismigrtsec
   ```

   Note: In certain Windows operating environments, you are required to open an Administrator: Command Prompt window. One way to open this window is to enter the following text in Search programs and files:

   ```
   command prompt - Administrator
   ```

3. The dftool utility displays a prompt to enter alternate credentials for connecting to the SAS Metadata Server. Select Enter to bypass the entry of alternative credentials.

4. The dftool utility displays its activities and exits. For further information about dftool processing, including the copying and renaming of security files, see the next topic, Summary of Execution.

5. Examine the shell text or the log files to ensure that all IDs from the DataFlux Authentication Server were replaced. Two log files are generated each time you run dftool: dftool.log and dftool_security.log. The log files are located in the directory <dmserver-install-path>\var. Dftool.log is the platform debug log file. Dftool_security.log is a summary log file that lists only the DataFlux Authentication Server IDs that were not matched and replaced by SAS Metadata Server IDs.

If no unmatched IDs from the DataFlux Authentication Server remain, then the summary log file is empty. If unmatched IDs are found, then the summary log file contains an entry in the following format for each affected security file:

```
unknown old ID:   'FF4ADD49C7599BA479FB9C13C742E8C0'
unknown old ID:   'FF4ADD49C7599BA479FB9C13C742E8C1'
Processed file:   'C:\Program Files\DataFlux\DMServer\2.7
\bin\..\etc\security\users'
```

If the log files indicate that unmatched IDs remain, then consider running PROC ASExport again on your DataFlux Authentication Server(s) as described in the *DataFlux Authentication Server: Administrator's Guide*. After the export, run dftool again on the DataFlux Data Management Server.

If no DataFlux Authentication Server IDs are found (summary log file empty), then the cause might be one or more following:

- o   All IDs were previously replaced.
- o   Your credentials for running dftool do not have appropriate permission to read or display users and groups from the SAS Metadata Server.
- o   PROC ASExport did not run or did not run correctly. Examine the log file to see the users and groups that were exported to the SAS Metadata Server.

If PROC ASExport indicates that all users and groups have been exported, unmatched IDs can still exist on the DataFlux Data Management Server. To resolve this condition, verify that the unmatched users and groups are not present on your SAS Metadata Server or DataFlux Authentication Server(s). Next, delete those users or groups from the security settings on your DataFlux Data Management Server, using the administrative interface in DataFlux Data Management Studio.

6.   Restart the DataFlux Data Management Server so that the server can read the new security files into memory.

Summary of Execution

The dftool utility runs as follows:

1.   Open app.cfg to determine the network name of the SAS Metadata Server, as specified by the option BASE/AUTH_SERVER_LOC. Also look for alternative credentials in the options BASE/AUTH_SERVER_USER and BASE/AUTH_SERVER_PASS.

2.   Request from the SAS Metadata Server the users and groups that were migrated from the DataFlux Authentication Server. If no users or groups are returned, dftool exits.

3.   Search the DataFlux Data Management Server security files for user and group IDs that were generated by the DataFlux Authentication Server. If one is found, and if the associated user or group has a match on the SAS Metadata Server, then copy and rename the security file. In the original security file, replace the old ID with the ID from the SAS Metadata Server. Rename the file with a numeric suffix such as `.001` or

`.012`. The suffix indicates the number of times that the original security file has been replaced by previous runs of the dftool utility.

4.   If an ID from the DataFlux Authentication Server is found, and if a matching user and group is not found, then log the unmatched ID for that security file.

Specify Default Credentials for dftool

Follow these steps to define default credentials that are used by the dftool utility to connect to the SAS Metadata Server. Default credentials are helpful if you are not running dftool with credentials that provide read metadata access on the SAS Metadata Server.

1. Edit the file `dmserver_install_path\etc\app.cfg`.

2. Add or update the following configuration options:

   ```
   BASE/AUTH_SERVER_USER=UserName
   BASE/AUTH_SERVER_PASS=SASencodedPassword
   ```

   Note: To encrypt the password, use PROC PWENCODE, as described in the *Base SAS Procedures Guide*.

3. Save and close the configuration file.

4. Run dftool again to pick up the changes in the configuration file.

Chapter 6: Updating Servers during Migration

If you are upgrading from a release prior to 15w12 (March 2015), you might need to take additional manual steps to update your servers.

> *Note:* To determine your product's release, refer to the [SAS 9.4 Revision Numbers and Associated Documentation](#) page on the SAS Support site.

DataFlux Web Studio Server

If you have DataFlux Web Studio Server during migration, you should update the repository associated with DataFlux Web Studio Server and re-create the lineage content.

Upgrading the DataFlux Web Studio Server repository follows the same steps as updating the DataFlux Data Management Server's repository.

Perform the following steps to move from DataFlux Web Studio 2.3 to 2.4:

1. Confirm that you have connections in DataFlux Data Management Studio 2.3 to the current repository and to the copy of the repository to be upgraded.

   DataFlux Web Studio Server is using a database for its data storage, so the DSN needs to be configured. If the DSN and or prefix are not known, look in the *.rcf file that is located in the <Web Studio Server root>/etc/repositories directory.

2. In DataFlux Data Management Studio 2.3, save the credentials for both.

3. To copy the repository, contact your database administrator and ask them to create a copy of the current Web Studio Server repository. It is highly recommended that the "Table prefix" option be used to identify that this is a copy. Even if the recommendation of putting the copy in a different schema were used, this would be another way to identify that this is not an original repository.

4. Upgrade the copy so that DataFlux Web Studio 2.4 Server can use it. If the DSN does not exist on the machine that has DataFlux Data Management Studio, go ahead and create it. Once it is created, be sure to save the user credentials.

5. Run DataFlux Data Management Studio.

6. From the Administration riser, register the repository in DataFlux Data Management Studio.

7. Name the repository "Web Studio Server 24 Repository". The "Folder" configuration is left blank. This is done on purpose. When we save the configuration, the DataFlux Data Management Studio should register the repository with no further prompts or it might ask whether you would like to upgrade the repository. If prompted for this upgrade, accept it.

8. Once the upgrade is complete, connect to the repository. A green circle in the repository screen confirms it is connected.

Now that we have created the repository, do these two things:

- Copy the repository configuration file to the server

- Copy or save credential files to the server.

Regardless whether the server is UNIX or Windows based, the repository configuration file (.rcf) is saved in the <Web Studio Server root>/etc/repositories directory. The Studio RCF file needs to be copied to this location.

Perform the following steps:

1. Rename the default RCF file that came with Web Studio Server.

2. Locate the Studio RCF file and copy it to the Server.

   If you followed the steps so far, the repository was configured as being private. This means that the RCF file can be found by going to %APPDATA%\DataFlux\DMStudio\<instance>\etc\repositories. If it is not in this location, then look in <DM Studio root>\etc\repositories.

3. Copy the "Web Studio Server 24 Repository.rcf" file to the server.

4. Copy the saved credentials on our DataFlux Data Management Studio box to the Server. The saved credentials are in %APPDATA%\DataFlux\dac\savedconn directory and should be copied to the <Web Studio Server root>/etc/dsn directory.

5. Create the DSN on the server. The DSN name is defined in the RCF file. From the server host, you can view the file to make sure we create the correct DSN name (assuming that you know what data source this should be connecting to)

6. Once the DSN is created, start the DataFlux Web Studio Server.

7. Update Lineage Metadata in repository by remotely submitting the jobs on the DataFlux Web Studio Server.

   a. DataFlux Data Management Studio → Data Management Servers riser bar → Select your DataFlux Web Studio Server and login.
   b. Run job: WSServer\Batch Jobs\Lineage\L_ClearAllLineageData
   c. Run job: WSServer\Batch Jobs\Business Data\BDG_UpdateAllLineage

   Note: If you do not complete the second run, you could get errors in the Relationship diagram in DataFlux Web Studio, like "The Relationship service was unable to load the subject item identified by the attributes below…"

Your DataFlux Web Studio Server is now migrated.

For customers upgrading to 2.4 there is an issue in that several columns in existing repository tables are not automatically updated. Customers need to contact customer support to obtain the Hotfix to resolve this. Here is the link to the SAS note: http://support.sas.com/kb/50/160.html.

> **DataFlux Data Management Studio or Server 2.7 and later versions:**
>
> DataFlux Data Management Studio 2.7 is integrated only with SAS Metadata Server and pulls its list of available servers from those defined in SAS Management Console. Register the Web Studio Server in SAS Management Console. For more information, see the **Defining a New Server** topic in the Server Manager section in the product Help for SAS Management Console.
>
> You need to define a new HTTP content server with a base path of '/' and an application server Type of DataFlux Data Management Server. This step must be performed for both new installations and for existing installations. Once the Web Studio Server has been registered in SAS Management Console, it can be displayed in the Data Management Servers riser in DataFlux Data Management Studio.

Related Servers

If your configuration includes the following servers, see the migration instructions in their respective administration guides:

DataFlux Authentication Server. See the migration instructions in the *DataFlux Authentication Server: Administrator's Guide*, which is available from this URL: http://support.sas.com/documentation/onlinedoc/dfauthserver/

SAS Federation Server 3.2 and later. See the migration instructions in the *SAS Federation Server: Administrator's Guide*, which is available from this URL: http://support.sas.com/documentation/onlinedoc/fedserver

DataFlux Federation Server 3.1 and earlier. See the migration instructions in the *DataFlux Federation Server: Administrator's Guide*, which is available from this URL: http://support.sas.com/documentation/onlinedoc/dffedserver/

Visual Process Orchestration Server

Saving Directory Content Prior to Migration:

1. Start the SAS Management Console (sasadm)

2. Locate your Process Orchestration jobs in the SAS Folders tree in the SAS Management Console.

3. Follow the steps in the SAS 9.4 Intelligence Platform: System Administration Guide to export ALL to a SAS package file (SPK).

    Note: Be sure to check the check box to include dependent objects.

4. Proceed with the migration steps below.

Removing the Product from SAS Metadata Server:

1. Start the SAS Management Console (sasadm)

2. Connect to the system that you want to recover.

3. Select the **Search** tab.

4. In the search field type: Process Orchestration

5. In the result pane, select all items.

6. Now delete these items. Click the **Yes to all** button to continue. The remaining items in the list do not affect the configuration of the product.

    Note: This product displays a dialog box stating that not all items can be deleted.

7. When the deletion is complete, you have removed all information about the product from the SAS Metadata Server.

8. Stop the SAS Management Console

Configuring the Product:

1. Start the SAS Deployment Wizard.

2. In the Select Deployment task window, in the 'End-User Tasks' section, select 'Install SAS software'. Then click **Next**.

3. In the Specify SAS Home window, select 'Select a previously created SAS Home' and choose the correct location for that installation. Then click **Next**.

4. In the Select Deployment Type window, select 'Perform a Planned Deployment'.

5. In the Perform a Planned Deployment section select only the 'Configure SAS Software' selection. Then click **Next**.

6. In the Specify Deployment Plan window, select 'Specify the full path to a customized deployment plan.

7. In the Specify the full path to a customized deployment plan section navigate to and select your plan. Then click **Next**.

8. In the Select Deployment Step window, select your 'Deployment Step'. Then click **Next**.

9. Click **Next i**n the Checking System window.

10. In the Select Configuration Prompting Level, select the level that is most appropriate to the amount of configuration that you would like to perform for this deployment. Then click **Next**.

11. In the Specify Configuration Information window, change the 'Configuration Directory' to the location of the currently configured system.

12. In the 'Configuration Level' section, select the level of the currently configured system. Then click **Next**.

13. The SAS Deployment Wizard (on <hostname>) window appears and states that the configuration directory and level specified contain existing files. Click the **Yes** button to continue.

14. In the Select Products to Configure window, select the following Products (12bytes are listed in the parenthesis):

    o   SAS Visual Process Orchestration Server Configuration (posvrc)
    o   SAS Visual Process Orchestration Design Server Configuration (posvrdsgnc)
    o   SAS Visual Process Orchestration Mid-Tier (dmpomid)
    o   SAS Web Application Server Configuration (vfabrictcsvr)

15. In the Migration Information window, click **Next**. Do not select the **Perform Migration** option.

16. Complete the options needed for this product based on the customer's configuration and follow the steps through the end of the SAS Deployment Wizard configuration process.

Load Content Adjustment:
These steps can take place only during the configuration of the Visual Process Orchestration product configuration phase of the SAS Deployment Wizard. The SAS Web Application Server must be running to adjust the entries in the content server to continue.

1. An error dialog box appears when loading content for the Visual Process Orchestration Mid-Tier. DO NOT close this dialog box. Continue to the next step.

2. Type in the following URL in a web browser that has access to the SAS Web Application Server:
   http://<hostname>:<port>/SASContentServer/dircontents.jsp

   Note: Replace <hostname> and <port> with the system information of the machine that you are configuring. Log on with your sasadm account credentials.

3. Select the 'Item name' : sascontent and click on that item.

4. Select the 'Item name' : System and click on that item.

5. Select the 'Item name' : Applications and click on that item.

6. Look for the 'Item name' : SASVisualProcessOrchestration DO NOT click on that item.

7. Select the check box under the button labeled: Delete for SASVisualProcessOrchestration

8. Click the **Delete** button. This removes that content from the SAS Content Server.

9. Go back to the dialog box that you left open in Step #1.

10. Click the **Retry** button in the SAS Deployment Wizard Configuration window.

11. Follow the steps through the end of the SAS Deployment Wizard configuration process.

Fixing Users Credentials for the Visual Process Orchestration Design Server

These steps are needed to fix the user credentials on your target machine.

1. Log on to the SAS Management Console as the unrestricted user (sasadm@saspw)

2. Expand the server manager/SASApp/SASApp - Logical Visual Process Orchestration Design Server. See whether it validates.

3. If it does not validate, select **SASApp - Visual Process Orchestration Design Server** with your mouse.

4. Use the right mouse button to bring up the pop-up menu and select **Properties**.

5. In the SASApp - Visual Process Orchestration Design Server Properties window, choose the **Option'** tab.

6. If Multiuser credential is set to (None), select the drop-down list and choose **More logins.**

7. In the Select Login window, search for *sassrv* and select that as the user value.

8. See whether it validates. If it does not validate, might need to restart the object spawner on the server.

Data Management Console Mid-Tier

Removing the product from SAS METADATA REPOSITORY:

1. Start the SAS Management Console (sasadm)

2. Connect to the system that you want to recover.

3. Select the **Search** tab.

4. In the search field type: Data Management Console

5. In the result pane, select all items.

6. Now delete these items.

7. When the deletion is complete, you have removed all information about the product from the SAS Metadata Server.

8. Stop the SAS Management Console

Configuring the Product:

1. Start the SAS Deployment Wizard.

2. In the Select Deployment task window, in the 'End-User Tasks' section, select **Install SAS software**. Then click **Next**.

3. In the Specify SAS Home window, select **Select a previously created SAS Home** and choose the correct location for that installation. Then click **Next**.

4. In the Select Deployment Type window, select **Perform a Planned Deployment**.

5. In the Perform a Planned Deployment section select only the 'Configure SAS Software' selection. Then click **Next**.

6. In the Specify Deployment Plan window, select 'Specify the full path to a customized deployment plan.

7. In the 'Specify the full path to a customized deployment plan' section navigate to and select your plan. Then click **Next**.

8. In the Select Deployment Step window, select your **Deployment Step**. Then click **Next**.

9. Click **Next i**n the Checking System window.

10. In the Select Configuration Prompting Level window, select the level that is most appropriate to the amount of configuration that you would like to perform for this deployment. Then click **Next**.

11. In the Specify Configuration Information window, change the Configuration Directory to the location of the currently configured system.

12. In the Configuration Level section, select the level of the currently configured system. Then click **Next**.

13. The SAS Deployment Wizard (on <hostname>) window appears and states that the configuration directory and level specified contain existing files. Click the **Yes** button to continue.

14. In the Select Products to Configure window, select the following Products (12bytes are listed in the parenthesis):

   o   SAS Data Management Console Mid-Tier (dmcoremid)
   o   SAS Web Application Server Configuration (vfabrictcsvr)

15. In the Migration Information window, click **Next**. Do NOT select the **Perform Migration** option.

16. Complete the options needed for this product based on the customer's configuration and follow the steps through the end of the SAS Deployment Wizard configuration process.

Data Remediation

Removing the Product from SAS Metadata Repository:

1. Start the SAS Management Console (sasadm)

2. Connect to the system that you want to recover.

3. Select the **Search** tab.

4. In the search field type: Remediation

5. In the result pane, select ALL items.

6. Now delete these items.

7. When the deletion is complete, you have removed all information about the product from SAS Metadata Repository.

8. Stop the SAS Management Console

Backing Up Database:
The database admin should back up the Postgres data for Data Remediation on the source machine if the data is needed on the target machine.

1. On the Database Server go to this directory:
   SASHome/SASWebInfrastructurePlatformDataServer/9.4/bin
   Note: On a Linux or Unix-based system, you need to set your LD_LIBRARY_PATH to include: SASHome/SASWebInfrastructurePlatformDataServer/9.4/lib

2. Run this command:
    ./pg_dump -c -h <remedation data server host> -p <remediation data server port> -
    U rmdbadmin -f dmdsvrc.db.backup DataRemediationDataServer
    Note: Provide the database user password on the command line.

Removing the 'Data Server' Database Storage:

   Delete the contents under the config/lev<n>/DataRemediationDataServer directory.

Configuring the Product:

1. Start the SAS Deployment Wizard.

2. In the Select Deployment task window, in the 'End-User Tasks' section, select 'Install SAS software'. Then click **Next**.

3. In the Specify SAS Home window, select 'Select a previously created SAS Home' and choose the correct location for that installation. Then click **Next**.

4. In the Select Deployment Type window, select 'Perform a Planned Deployment'.

5. In the 'Perform a Planned Deployment' section select ONLY the 'Configure SAS Software' selection. Then click **Next**.

6. In the Specify Deployment Plan window, select 'Specify the full path to a customized deployment plan.

7. In the 'Specify the full path to a customized deployment plan' section navigate to and select your plan. Then click **Next**.

8. In the Select Deployment Step window, select your 'Deployment Step'. Then click **Next**.

9. Click **Next** in the Checking System window.

10. In the 'Select Configuration Prompting Level', select the level that is most appropriate to the amount of configuration that you would like to perform for this deployment. Then click **Next**.

11. In the Specify Configuration Information window, change the 'Configuration Directory' to the location of the currently configured system.

12. In the 'Configuration Level' section, select the level of the currently configured system. Then click **Next**.

13. The SAS Deployment Wizard (on <hostname>) appears and states that the configuration directory and level specified contain existing files. Click the **Yes** button to continue.

14. In the Select Products to Configure window, select the following Products (12bytes are listed in the parenthesis):

    o   SAS Data Remediation Mid-Tier (dmrmdtmid)
    o   SAS Data Remediation Data Server (dmrmdtdsvrc)
    o   SAS Web Application Server Configuration (vfabrictcsvr)

15. In the Migration Information window, click **Next**. Do NOT select the **Perform Migration** option.

16. Complete the options needed for this product based on the customer's configuration and follow the steps through the end of the SAS Deployment Wizard configuration process.

Restoring the Database to the Target Host:

1. On the Database Server go to this directory: SASHome/SASWebInfrastructurePlatformDataServer/9.4/bin

   Note: On a Linux or Unix-based system, set your LD_LIBRARY_PATH to include: SASHome/SASWebInfrastructurePlatformDataServer/9.4/lib

2. Run this command:

   ```
   ./psql –d DataRemediationDataServer –f dmdsvrc.db.backup –h
   <remediation data server host> –p <remediation data server port> –
   U rmdbadmin
   ```

   Note: This replaces the previous DataRemediationDataServer database. You also need to provide the database user password on the command line.

Job Monitor

Removing the Product from SAS Metadata Repository:

1. Start the SAS Management Console (sasadm)

2. Connect to the system that you want to recover.

3. Select the **Search** tab.

4. In the search field type: Job Monitor

5. In the result pane, select ALL items.

6. Now delete these items.

7. When the deletion is complete, you have removed all information about the product from the SAS Metadata Server.

8. Stop the SAS Management Console

Removing the 'Data Server' Database Storage:
   Delete the contents under the config/lev<n>/JobMonitorDataServer directory.

Configuring the Product:

1. Start the SAS Deployment Wizard.

2. In the Select Deployment task window, in the 'End-User Tasks' section, select 'Install SAS software'. Then click **Next**.

3. In the Specify SAS Home window, select 'Select a previously created SAS Home' and choose the correct location for that installation. Then click **Next**.

4. In the Select Deployment Type window, select 'Perform a Planned Deployment'.

5. In the 'Perform a Planned Deployment' section select ONLY the 'Configure SAS Software' selection. Then click **Next**.

6. In the 'Specify Deployment Plan window, select 'Specify the full path to a customized deployment plan.

7. In the 'Specify the full path to a customized deployment plan' section navigate to and select your plan. Then click **Next**.

8. In the Select Deployment Step window, select your 'Deployment Step'. Then click **Next**.

9. Click **Next** in the Checking System window.

10. In the 'Select Configuration Prompting Level', select the level that is most appropriate to the amount of configuration that you would like to perform for this deployment. Then click **Next**.

11. In the Specify Configuration Information window, change the 'Configuration Directory' to the location of the currently configured system.

12. In the 'Configuration Level' section, select the level of the currently configured system. Then click **Next**.

13. The SAS Deployment Wizard (on <hostname>) window appears and states that the configuration directory and level specified contain existing files. Click the **Yes** button to continue.

14. In the Select Products to Configure window, select the following Products (12bytes are listed in the parenthesis):

    o   SAS Job Monitor Mid-Tier Services (jobmntrsvc)
    o   SAS Job Monitor Data Server Configuration (jobmntrdsvrc)
    o   SAS Job Monitor Administration (jobmntrhyp)
    o   SAS Web Application Server Configuration (vfabrictcsvr)

15. In the Migration Information window, click **Next**. Do not select the **Perform Migration** option.

16. Complete the options needed for this product based on the customer's configuration and follow the steps through the end of the SAS Deployment Wizard configuration process.

Task Manager

Removing the Product from SAS Metadata Repository:

1. Start the SAS Management Console (sasadm)

2. Connect to the system that you want to recover.

3. Select the **Search** tab.

4. In the search field type: Task Manager

5. In the result pane, select ALL items.

6. Now delete these items.

7. When the deletion is complete, you have removed all information about the product from SAS Metadata Repository.

8. Stop the SAS Management Console

Configuring the Product:

1. Start the SAS Deployment Wizard.

2. In the Select Deployment task window, in the 'End-User Tasks' section, select 'Install SAS software'. Then click **Next**.

3. In the Specify SAS Home window, select 'Select a previously created SAS Home' and choose the correct location for that installation. Then click **Next**.

4. In the Select Deployment Type window, select 'Perform a Planned Deployment'.

5. In the 'Perform a Planned Deployment' section select ONLY the 'Configure SAS Software' selection. Then click **Next**.

6. In the Specify Deployment Plan window, select 'Specify the full path to a customized deployment plan.'

7. In the 'Specify the full path to a customized deployment plan' section navigate to and select your plan. Then click **Next**.

8. In the 'Select Deployment Step' window, select your 'Deployment Step'. Then click **Next**.

9. Click **Next** in the Checking System window.

10. In the 'Select Configuration Prompting Level', select the level that is most appropriate to the amount of configuration that you would like to perform for this deployment. Then click **Next**.

11. In the Specify Configuration Information window, change the 'Configuration Directory' to the location of the currently configured system.

12. In the 'Configuration Level' section, select the level of the currently configured system. Then click **Next**.

13. The SAS Deployment Wizard (on <hostname>) appears and states that the configuration directory and level specified contain existing files. Click the **Yes** button to continue.

14. In the Select Products to Configure window, select the following Products (12bytes are listed in the parenthesis):

    o   SAS Task Manager Mid-Tier (dmtskbxmid)
    o   SAS Web Application Server Configuration (vfabrictcsvr)

15. In the Migration Information window, click **Next**. Do NOT select the **Perform Migration** option.

16. Complete the options needed for this product based on the customer's configuration and follow the steps through the end of the SAS Deployment Wizard configuration process.

Chapter 7: Quality Knowledge Base Migration

There is no way to use an equivalent DataFlux dfPower Studio version 8.1 QKB engine in DataFlux Data Management Studio v. 2.2. The closest offered is the dfPower v. 8.2 engine. dfPower v. 8.1 and v. 8.2 QKB engines were deemed compatible as well as v. 8.2 and 2.2. However, this does not mean that for one set of specific data that a match code generated in v. 8.2 matches what was generated in v. 2.2. It is recommended that you use the default setting of v. 2.2 for the QKB engine. However, if this is not acceptable, you can set DataFlux Data Management Studio to use the v. 8.2 QKB engine by adding the following to the app.cfg file:

```
QKB/COMPATVER = dfpower82
```
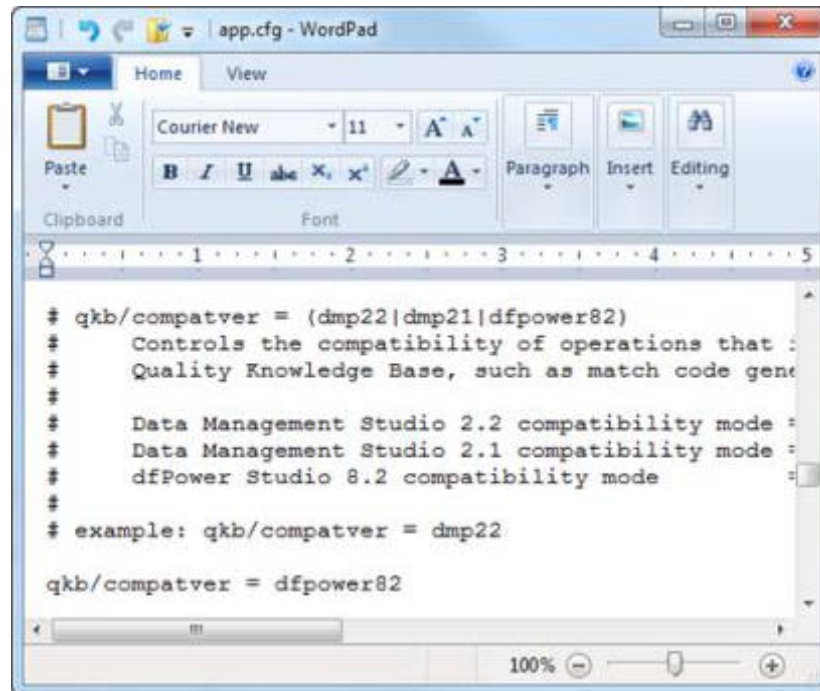
Appendix 1: Technical Support

This section addresses questions and issues related to migrating DataFlux products.

Troubleshooting

DataFlux dfPower Real-time Service Issues

Issue: You see this Run Job error message:

> **The server was unable to run the job; the error message was "Failed To Set Job Input".**

Cause: You are trying to run an Architect Job that contains macros.

Resolution: Add this configuration setting to the service.cfg file:

```
DATASVC/IGNORE_DECLARED_VARS = yes
```


Issue: The DataFlux Data Management Server v. 2.2 log shows this message:

> **Failed to set input key '<macro variable>'; err: Process Flow - Variable '<macro variable>' was not declared, or is of the wrong type.**

> Where <macro variable> is the name of the macro that you tried to pass values into.

Cause: You upgraded a job with macros, but the job is missing input/output variables required for DataFlux Data Management style jobs.

Resolution: Add this configuration setting to the service.cfg file:

```
DATASVC/IGNORE_DECLARED_VARS = yes
```

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